

Stage 2 Detailed Site Investigation

Lot 1 in DP1034565 and Lot 3 in
DP1008818, Corner of Dossie St and
Sloane St, Goulburn, NSW

5046200019

Prepared for Goulburn Mulwaree Council
30/03/2020

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Executive Summary

Construction Sciences Pty Ltd (CS) was engaged by Goulburn Mulwaree Council (the client), to undertake a stage 2 detailed site investigation (DSI) for land located at the corner of Dossie Street and Sloane Street, Goulburn, NSW (the site).

This report must be read in conjunction with the explanatory notes, limitations and general notes, as set out in Appendix A.

At the commencement of this work, CS understood the following:

- > The site is defined as Lot 1 in DP1034565 and Lot 3 in DP1008818.
- > The site is being considered for rezoning, comprising five rural residential lots, one environmental living lot, one general industrial lot, and a road corridor.
- > A stage 1 preliminary site investigation (PSI) undertaken for the site by CS in November 2019¹, identified a number of areas of environmental concern (AEC) and contaminants of potential concern (COPC) at the site.
- > This project is being undertaken to inform land rezoning decision making (as set out in State Environmental Planning Policy (SEPP) No. 55).
- > It is the Client's intent to undertake subdivision works for the site, following rezoning, including undertaking remediation, relevant civil works, and registering the subdivision, so that resulting land parcels can be divested.

The objectives of this project were to:

- > assess the potential for, and nature of, contamination to be present on the site, in the identified areas of environmental concern;
- > provide advice on the suitability of the site (in the context of land contamination) for the proposed land use scenario; and
- > provide recommendations for management and/or remediation of the site (if warranted), based on the information obtained from the investigation.

The scope of work undertaken to address the project objectives included the following:

- > A review of CS (2019).
- > Intrusive sampling and laboratory analysis.
- > Data assessment and reporting.

The scope of works was undertaken with reference to the relevant sections of NEPC (2013a), NEPC (2013b), NSW OEH (2011), and WA DOH (2009).

A number of areas of environmental concern (AEC) on the site, and contaminants of potential concern (COPC) associated with those AEC, were identified for the site.

The identified AEC are presented in Figure 3, and the COPC associated with those AEC are presented in a table below.

ID	AEC	Land Use Activity	COPC
AEC01	North west dam curtilage	Stockpiling of wastes	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC02	Dam waters and sediments	Storage of saleyard related effluent and sludge	Hydrocarbons, metals, nutrients, pathogens

¹ CS (2019), 'Stage 1 Preliminary Site Investigation, Lot 1 in DP1034565 and Lot 3 in DP1008818, Corner Dossie St and Sloane St, Goulburn', ref: 5046200019-R01, dated 19/11/2019

ID	AEC	Land Use Activity	COPC
AEC03	Dam wall	Uncontrolled filling, effluent overflows	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC04	Mound	Uncontrolled filling, sludge disposal	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC05	Area between mounds	Sludge storage and effluent dispersal	Hydrocarbons, metals, nutrients, pathogens
AEC06	Mound	Uncontrolled filling, sludge disposal	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC07	Area between mounds	Sludge storage and effluent dispersal	Hydrocarbons, metals, nutrients, pathogens
AEC08	Mound	Uncontrolled filling, sludge disposal	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC09	Mound	Uncontrolled filling, sludge disposal	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC10	Dam waters and sediments	Storage of saleyard related effluent and sludge	Hydrocarbons, metals, nutrients, pathogens
AEC11	Dam wall	Uncontrolled filling, effluent overflows	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC12	Down gradient of truck wash effluent dam	Effluent overflow or dispersal	Hydrocarbons, metals, nutrients, pathogens
AEC13	Potential former road	Uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC14	Material bays	Storage of fill and fertilisers	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC15	Shed	Toxic and flammable substance storage	Hydrocarbons, pesticides, metals,
AEC16	Driveway, tracks and building pad	Uncontrolled filling, fuel and chemical spills	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC17	Former greenhouse	Pesticide use	Pesticides and metals
AEC18	Remnant greenhouse	Pesticide use	Pesticides and metals
AEC19	South of greenhouses	Waste dumping (fibrous cement pipe)	Asbestos

ID	AEC	Land Use Activity	COPC
AEC20	First flush catchment dam	Storage of saleyard related effluent and sludge	Hydrocarbons, metals, nutrients, pathogens
AEC21	First flush catchment dam wall	Uncontrolled filling, effluent overflows	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC22	Potential pit	Handling of effluent and sludge	Hydrocarbons, metals, nutrients, pathogens
AEC23	Pit	Handling of effluent and sludge	Hydrocarbons, metals, nutrients, pathogens
AEC24	Fenced storage yard	Uncontrolled filling and stockpiling of wastes	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC25	Creek	Overland flow of effluent and sludge to creek	Hydrocarbons, metals, nutrients, pathogens
AEC26	Saleyard effluent and sludge dams	Sludge / effluent storage and dispersal	Hydrocarbons, metals, nutrients, pathogens

Based on CS's review of CS (2019), fieldwork observations and laboratory analytical data, in the context of the proposed land use scenario, CS makes the following conclusions.

- > The concentrations of benzo(a)pyrene TEQ detected at soil sample locations SS11, SS15, SS16 and TP01 could present an unacceptable direct contact exposure risk to human health.
- > The reported concentration of pathogens in soil sample locations TP01, TP21, TP23, TP28, TP32, TP38, TP45, TP46, TP51, TP53, TP71 and TP74 could present an unacceptable direct contact exposure risk to human health.
- > The reported concentration of pathogens in dam sediment samples collected from all dams onsite could present an unacceptable direct contact exposure risk to human health.
- > The observed presence of asbestos on the surface of the site at sample locations ACM01 and ABC01 could present an unacceptable exposure and aesthetic risk to human health.
- > The concentrations of TRH C16-C34 detected at soil sample locations SS11 and TP01 could present an unacceptable ecological risk.
- > The concentrations of TRH C16-C34 and zinc detected at dam sediment samples collected from Dam 1 and Dam 2 (AEC2 and AEC10) could present an unacceptable ecological risk.
- > The sludge material present in all dams across the site could present an unacceptable aesthetic impact.
- > The concentrations of ammonia detected in Dam 1 and Dam 2 (AEC2 and AEC10) could present an unacceptable ecological risk.
- > The site could be made suitable for the proposed land use scenario, subject to:
 - Appropriate management and/or remediation of the identified contamination risk in site soils, dam sediments and dam water; and
 - Appropriate management and/or dewatering of the dam.

Based on these conclusions, CS makes the following recommendations:

- > A remedial action plan (RAP) should be prepared to address the identified contamination risks on site.

- > The RAP should include a methodology for supplementary assessment of the identified contamination risks, which could include quantitative human health and ecological risk assessment, delineation of known unacceptable contamination risks, and conceptual remedial strategies to address known and likely unacceptable contamination risks.
- > A site validation report (SVR) should be prepared at the completion of all management / remedial works, confirming that the site has been made suitable for the proposed land use scenario.
- > Preparation of the RAP, undertaking of the supplementary assessment works, and preparation of the SVR, should be undertaken by a suitably experienced environmental consultant.

This report must be read in conjunction with the explanatory notes, limitations and general notes, as set out in Appendix A.

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1 Introduction

Construction Sciences Pty Ltd (CS) was engaged by Goulburn Mulwaree Council (the client), to undertake a stage 2 detailed site investigation (DSI) for land located at the corner of Dossie Street and Sloane Street, Goulburn, NSW (the site).

This report must be read in conjunction with the explanatory notes, limitations and general notes, as set out in Appendix A.

At the commencement of this work, CS understood the following:

- > The site is defined as Lot 1 in DP1034565 and Lot 3 in DP1008818.
- > The site is being considered for rezoning, comprising five rural residential lots, one environmental living lot, one general industrial lot, and a road corridor.
- > A stage 1 preliminary site investigation (PSI) undertaken for the site by CS in November 2019², identified a number of areas of environmental concern (AEC) and contaminants of potential concern (COPC) at the site.
- > This project is being undertaken to inform land rezoning decision making (as set out in State Environmental Planning Policy (SEPP) No. 55).
- > It is the Client's intent to undertake subdivision works for the site, following rezoning, including undertaking remediation, relevant civil works, and registering the subdivision, so that resulting land parcels can be divested.

CS notes that Lot 1 in DP157664 was specifically excluded from this assessment by the client. This Lot is located immediately to the north of Lot 1 in DP1034565, but is not the subject of the rezoning proposal.

1.1 Objectives

The objectives of this project were to:

- > assess the potential for, and nature of, contamination to be present on the site, in the identified areas of environmental concern;
- > provide advice on the suitability of the site (in the context of land contamination) for the proposed land use scenario; and
- > provide recommendations for management and/or remediation of the site (if warranted), based on the information obtained from the investigation.

1.2 Scope of Work

The scope of work undertaken to address the project objectives included the following:

- > A review of CS (2019).
- > Intrusive sampling and laboratory analysis.
- > Data assessment and reporting.

The scope of works was undertaken with reference to the relevant sections of NEPC (2013a), NEPC (2013b), NSW OEH (2011), and WA DOH (2009).

² CS (2019), 'Stage 1 Preliminary Site Investigation, Lot 1 in DP1034565 and Lot 3 in DP1008818, Corner Dossie St and Sloane St, Goulburn', ref: 5046200019-R01, dated 19/11/2019

2 Site Identification

2.1 Site Locality

The locality of the site is presented in Figure 1.

2.2 Site Layout

The general layout of the site is present in Figure 2.

The site covers an area of approximately 11.2 hectares.

2.3 Lot Number and Deposited Plan

The site is identified as Lot 1 in DP1034565 and Lot 3 in DP1008818.

2.4 Zoning

The site is currently zoned RU2 Rural Landscape.

2.5 Geographic Coordinates

The geographic coordinates of the general centre of the site obtained from Google Earth were 34°46'30" S and 149°42'24" E.

2.6 Detail and Level Survey

A copy of a detail and level survey of the site was not provided to CS. A copy of a site contour plan was provided by the client. A copy of this contour plan is presented in Appendix B.

3 Topography Geology, Hydrogeology, and Acid Sulfate Soils

3.1 Topography and Elevation

The topography of the site is undulating with south and south east facing slopes towards Sloane Street located to the east of the site, and towards a creek line located in the southern portion of the site.

Google Earth data indicated that the surface of the site was located at an elevation of approximately 675m Australian Height Datum (AHD) in the north-west and 643m AHD in the south east.

3.2 Geology

The NSW Department of Primary Industries Provisional Geological Survey of Goulburn Provisional Geology 1:100,000 Sheet 8828 (First Edition) 2008, indicated that the site is likely to be underlain by Quaternary residual deposits.

3.3 Hydrogeology and Hydrology

A search of <https://realtime.data.watersnsw.com.au/water.stm> indicated that there were no registered groundwater features located within a 500m radius of the site.

A review of readily available maps held on file by CS, indicated that surface water bodies near the site included:

- > a potentially intermittent or ephemeral creek located in the southern portion of the site; and
- > Mulwaree River, located approximately 600m to the south and 870m to the east of the site.

Based on the location of the identified surface water courses and site topography, the inferred groundwater flow direction at the site is considered likely to be towards the south.

Based on site surface topography and elevation, the inferred general surface water flow direction on the site is considered likely to be towards the south east and south.

3.4 Acid Sulfate Soils

A review of the NSW Department of Land and Water Conservation's Acid Sulfate Soil Risk Map series indicated that the site is not addressed in that series.

Acid sulfate soils typically occur at elevations less than 10m AHD, in coastal areas, and in proximity to estuarine waterways and swamps. The site is located at an elevation of between 643m and 675m.

The planning certificates for the site (refer CS (2019)) indicate that the site is not affected by a policy that restricts development because of acid sulfate soils.

Further assessment of acid sulfate soils, in the context of this project is considered not warranted.

4 Previous Contamination Assessments

A copy of:

- > CS (2019), 'Stage 1 Preliminary Site Investigation, Lot 1 in DP1034565 and Lot 3 in DP1008818, Corner of Dossie St and Sloane St, Goulburn, NSW' dated 22 January 2020, ref: 5046200019-R01R1.

was reviewed during this project.

A summary of that report is presented in Section 4.1.

4.1 CS (2019)

The objectives of this project were to:

- > assess the potential for contamination to be present on the site, as a result of past and present land use activities;
- > provide advice on the suitability of the site (in the context of land contamination) for the proposed rezoning; and
- > provide recommendations for further investigation, management and/or remediation of the site (if warranted).

The scope of work undertaken to address the project objectives included the following:

- > A desktop review of site history.
- > A walkover of the site.
- > Data assessment and reporting.

The scope of works was undertaken with reference to the relevant sections of NEPC (2013a), NEPC (2013b), NSW OEH (2011), and WA DOH (2009).

A number of AECs, and COPCs associated with those AECs, were identified for the site.

Based on CS's assessment of desktop review information and site walkover, in the context of the proposed land use scenario, CS made the following conclusions:

- > There is a potential for contamination to be present at the site, arising from past and present land use activities.
- > 26 areas of environmental concern have been identified for the site.
- > There is insufficient information available to determine whether the site is suitable for the proposed rural residential and industrial subdivision.

Based on these conclusions, CS made the following recommendations:

- > A stage 2 detailed site investigation (DSI) should be undertaken at the site to further assess potential contamination risks associated with the identified AECs and to assess the suitability of the site, from a contamination perspective, for the proposed land use.
- > The stage 2 DSI should be undertaken by a suitably experienced environmental consultant.

5 Conceptual Site Model

5.1 Areas of Environmental Concern and Contaminants of Potential Concern

CS (2019) identified a number of areas of environmental concern (AEC) on the site, and contaminants of potential concern (COPC) associated with those AEC, were identified for the site.

The identified AEC are presented in Figure 3, and the COPC associated with those AEC are presented in Table 5.1.

Table 5.1 AEC and COPC

ID	AEC	Land Use Activity	COPC
AEC01	North west dam curtilage	Stockpiling of wastes	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC02	Dam waters and sediments	Storage of saleyard related effluent and sludge	Hydrocarbons, metals, nutrients, pathogens
AEC03	Dam wall	Uncontrolled filling, effluent overflows	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC04	Mound	Uncontrolled filling, sludge disposal	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC05	Area between mounds	Sludge storage and effluent dispersal	Hydrocarbons, metals, nutrients, pathogens
AEC06	Mound	Uncontrolled filling, sludge disposal	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC07	Area between mounds	Sludge storage and effluent dispersal	Hydrocarbons, metals, nutrients, pathogens
AEC08	Mound	Uncontrolled filling, sludge disposal	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC09	Mound	Uncontrolled filling, sludge disposal	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC10	Dam waters and sediments	Storage of saleyard related effluent and sludge	Hydrocarbons, metals, nutrients, pathogens
AEC11	Dam wall	Uncontrolled filling, effluent overflows	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC12	Down gradient of truck wash effluent dam	Effluent overflow or dispersal	Hydrocarbons, metals, nutrients, pathogens
AEC13	Potential former road	Uncontrolled filling	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC14	Material bays	Storage of fill and fertilisers	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens

ID	AEC	Land Use Activity	COPC
AEC15	Shed	Toxic and flammable substance storage	Hydrocarbons, pesticides, metals,
AEC16	Driveway, tracks and building pad	Uncontrolled filling, fuel and chemical spills	Hydrocarbons, pesticides, PCB, metals, asbestos
AEC17	Former greenhouse	Pesticide use	Pesticides and metals
AEC18	Remnant greenhouse	Pesticide use	Pesticides and metals
AEC19	South of greenhouses	Waste dumping (fibrous cement pipe)	Asbestos
AEC20	First flush catchment dam	Storage of saleyard related effluent and sludge	Hydrocarbons, metals, nutrients, pathogens
AEC21	First flush catchment dam wall	Uncontrolled filling, effluent overflows	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC22	Potential pit	Handling of effluent and sludge	Hydrocarbons, metals, nutrients, pathogens
AEC23	Pit	Handling of effluent and sludge	Hydrocarbons, metals, nutrients, pathogens
AEC24	Fenced storage yard	Uncontrolled filling and stockpiling of wastes	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens
AEC25	Creek	Overland flow of effluent and sludge to creek	Hydrocarbons, metals, nutrients, pathogens
AEC26	Saleyard effluent and sludge dams	Sludge / effluent storage and dispersal	Hydrocarbons, metals, nutrients, pathogens

5.2 Land Use Scenario and Receptors

CS understands the proposed development of the site includes a rural residential, environmental living and general industrial subdivision. CS considers potential receptors at the site to include the following:

- > Future residents, visitors and ecological ecosystems within the proposed rural residential and environmental living subdivision.
- > Future industrial/commercial land users and visitors within the proposed industrial subdivision.

5.3 Exposure Pathways

5.3.1 Human Health – Direct Contact

A review of CS (2019) indicated a potential for contaminants that may present a direct contact exposure risk, may be present on site. The proposed land use scenario is likely to include unsealed and open space areas, where a direct contact exposure pathway may be complete.

5.3.2 Human Health – Vapour Intrusion / Inhalation

Vapour intrusion / inhalation exposure risks can occur when a primary or secondary vapour source³ is present.

A review of CS (2019) indicated a likelihood for a primary source to be present on the site, specifically the storage shed in the north eastern portion.

A review of CS (2019) also indicated a potential for historical uncontrolled filling and handling of effluent from an offsite truck wash facility. CS considers that:

- > the transport, placement and spreading of uncontrolled filling typically includes significant disturbance of soils, which would typically result in the volatilisation of contaminants that might normally present an intrusion / inhalation risk; and
- > the potential for contaminants to be present in uncontrolled filling and truck wash effluent at concentrations which could present an intrusion / inhalation risk, is low

The proposed land use scenario is likely to include building footprints as well as unsealed and open space areas, where a vapour intrusion / inhalation exposure pathway, associated with identified secondary sources, may be complete.

5.3.3 Human Health – Asbestos

Bonded asbestos containing materials (ACM) comprises asbestos which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin.

Fibrous asbestos (FA) comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material, which can be broken or crumbled by hand pressure.

Asbestos fines (AF) include free fibres, small fibre bundles and small fragments of bonded ACM that can pass through a 7mm x 7mm sieve.

Asbestos poses a risk to human health when asbestos fibres are made airborne and inhaled. The assessment of sites contaminated with asbestos in soil should aim to describe the nature and quantity of asbestos in soil in sufficient detail to enable a risk management plan to be developed for the proposed land use scenario.

A review of CS (2019) indicated a potential for bonded ACM, FA and AF to be present in selected areas of the site.

The proposed land use scenario is likely to include unsealed and open space areas, where an asbestos exposure pathway may be complete.

5.3.4 Human Health – Aesthetics

Section 3.6.3 of NEPC (2013a) indicates that there are no specific numeric aesthetic guidelines, however site assessment requires balanced consideration of the quantity, type and distribution of foreign material or odours in relation to the specific land use and its sensitivity. For example, higher expectations for soil quality would apply to residential properties with gardens compared with industrial settings.

A review of CS (2019) indicated a potential for aesthetically unsuitable material such as building and demolition waste, which may present an aesthetics exposure risk, may be present on site.

The proposed land use scenario is likely to include unsealed and open space areas, where future ground disturbance works may encounter aesthetically unsuitable material.

5.3.5 Groundwater – Drinking

A review of CS (2019) indicated a potential for contaminants, which may present a drinking water risk, may be present on site.

³ Primary sources can include underground storage tanks, while secondary sources can include significantly contaminated soil or groundwater.

While a reticulated drinking water system may be included as part of future site redevelopment, the potential for rural residents to utilise abstracted groundwater for drinking water purposes, cannot be precluded.

A drinking water exposure pathway may be complete.

5.3.6 Groundwater – Recreational

A review of CS (2019) indicated a potential for contaminants, which may present a recreational water risk, may be present on site.

The nearest surface water body is located in an inferred down gradient location in the southern portion of the site. The creek line appears to be intermittent and ephemeral in nature, and is therefore considered not suitable for primary or secondary contact recreational purposes. A recreational water exposure pathway is considered to be incomplete.

5.3.7 Groundwater – Agricultural (Irrigation and Stock Watering)

A review of CS (2019) indicated a potential for contaminants, which may present an agricultural water risk, may be present on site.

While a reticulated drinking water system may be included as part of future site redevelopment, the potential for rural residents to utilise abstracted groundwater for irrigation or watering of livestock cannot be precluded.

An agricultural groundwater exposure pathway may be complete.

5.3.8 Groundwater – Aquatic Ecosystems

A review of CS (2019) indicated a potential for contaminants, which may present an aquatic ecosystems risk, may be present on site.

The nearest surface water body is located in an inferred down gradient location in the southern portion of the site. This surface water body is likely to contain freshwater aquatic species.

An aquatic ecosystems groundwater exposure pathway may be complete.

5.3.9 Ecological – Terrestrial Ecosystems

A review of CS (2019) indicated a potential for contaminants, which may present an ecological risk, may be present on site.

Section 3.4.2 of NEPC (2013a) indicates that:

- > a pragmatic risk-based approach should be taken when assessing ecological risk in residential and commercial / industrial land use settings;
- > in existing residential and urban development sites, there are often practical considerations that enable soil properties to be improved by addition of ameliorants with a persistent modifying effect or by the common practice of backfilling or top dressing with clean soil;
- > in other cases, all of the site soils will be removed during site development works or relocated for the formation of new land forms;
- > sites may also be backfilled with clean soil/fill and the fate of any excavated contaminated soil should be considered in process; and
- > commercial and industrial sites may have large building structures and extensive areas covered with concrete, other pavement or hardstand materials and may have limited environmental values requiring consideration while in operational use.

The proposed commercial/industrial land use scenario is likely to have limited environmental values to be considered while in operational use, and will likely include buildings and pavements where the ecological exposure pathway is not likely to be complete.

The proposed residential land use scenario is likely to include unsealed, open space and landscaped areas, where an ecological exposure pathway may be complete.

5.3.10 Management Limits for Petroleum Hydrocarbons

Section 2.9 of NEPC (2013a) indicates that there are a number of policy considerations which reflect the nature and properties of petroleum hydrocarbons:

- > Formation of observable light non-aqueous phase liquids (LNAPL);
- > Fire and explosive hazards; and
- > Effects on buried infrastructure e.g. penetration of, or damage to, in-ground services by hydrocarbons.

Section 2.9 of NEPC (2013a) notes that CME (2008) includes management limits to avoid or minimise these potential effects. Application of management limits requires consideration of site specific factors such as depth of building basements and services, and depth to groundwater, to determine the maximum depth to which the limits should apply. NEPC (2013a) also states that:

- > Management limits may have less relevance at operating industrial sites (including mine sites) which have no or limited sensitive receptors in the area of potential impact.
- > The presence of site total petroleum hydrocarbon (TPH) contamination at the levels of the management limits does not imply that there is no need for administrative notification or controls in accordance with jurisdiction requirements.

A review of CS (2019) indicated a potential for one or more these policy considerations to be associated with relevant identified AEC at the site, in the context of the proposed future land use scenario.

6 Data Quality Objectives

Appendix B in NEPC (2013b) provides guidance on the data quality objective (DQO) process, which is a seven step iterative planning approach that can be used to define the type, quantity and quality of data needed to inform decisions relating to the environmental condition of a site.

6.1 Step 1: State the problem

The reasons the project is being undertaken, is set out in Section 1 of this report.

The objectives of this project are set out in Section 1.1 of this report.

The project team and technical support experts identified for the project include the CS project director, CS project manager, CS field staff and CS's subcontractors.

The design and undertaking of this project will be constrained by the client's financial and time budgets.

The regulatory authorities associated with this project include NSW EPA and the local Council.

6.2 Step 2: Identify the decision/goal of the study

The decisions that need to be made during this project, to address the project objectives, include:

- > Is the data collected for the project, suitable for assessing land contamination exposure risks?
- > Do the detected concentrations of contaminants of potential concern identified in the CSM, present an unacceptable exposure risk to the receptors identified in the CSM, based on the proposed land use scenario?
- > Is the site suitable, in the context of land contamination, for the proposed land use scenario?

6.3 Step 3: Identify the information inputs

The information inputs required to make the decisions for the project set out in Section 6.2, include:

- > Data obtained during the review of CS (2019);
- > Identification of sample media that needs to be collected, as set out in Section 6.7.2;
- > Parameters that will be measured in each relevant sample, as set out in Section 6.7.7;
- > The analytical methods required for each identified COPC, so that assessment can be made relative to adopted site criteria. These are set out in Section 6.7.8 of this report;
- > The basis for decisions to be made from field screening, including photo-ionisation detector (PID) data, and what action is to be taken if a defined concentration is attained, as set out in Section 6.7.3; and
- > The site criteria for the media of concern. These criteria are set out in Table 6.3 and will be adopted based on the proposed land use scenario⁴ and identified receptors.

Table 6.3 Adopted Site Assessment Criteria

Exposure Pathway	Land Use Setting ⁵	Reference
Human health direct contact	HIL A Residential HIL D Commercial/Industrial	Table 1A(1) in NEPC (2013a) Table B4 in Friebe, E & Nadebaum P (2011) Table 3-5 in NSW EPA (2000) for E.coli and faecal coliforms

⁴ The land use scenarios in Section 2.2 of NEPC (2013a) will be considered when adopting human health assessment criteria. The land use scenarios in Section 2.5 of NEPC (2013a) will be considered when adopting ecological assessment criteria.

⁵ Consideration will be given to soil type, soil texture, soil depth, groundwater depth and appropriate species protection levels.

Exposure Pathway	Land Use Setting ⁵	Reference
Human health inhalation/intrusion	HSL A Residential HSL D Commercial / Industrial	Table 1A(3) in NEPC (2013a)
Human health (asbestos)	HSL Residential A HSL Commercial / Industrial D	Table 7 in NEPC (2013a) ⁶
Human health (aesthetics)	All	Characteristics and processes in Section 3.6.2 and 3.6.3 in NEPC (2013a)
Groundwater	Drinking	Table 1C in NEPC (2013a) Part V in NHMRC, NRMCC (2011) ⁷
Groundwater	Agricultural	Section 4 of ANZECC (2000)
Groundwater	Aquatic	Table 1C in NEPC (2013a) Table 5.2.2 in ANZECC (2000) ⁸ Section 8.3.7 of ANZECC (2000)
Ecological	Urban residential / public open space Commercial / Industrial	Table 1B(1) in NEPC (2013a) Table 1B(2) in NEPC (2013a) Table 1B(3) in NEPC (2013a) Table 1B(4) in NEPC (2013a) Table 1B(5) in NEPC (2013a) Table 1B(6) in NEPC (2013a)
Management Limits (petroleum hydrocarbons)	Residential, parkland and public open space Commercial / industrial	Table 1B(7) in NEPC (2013a)

6.4 Step 4: Define the boundaries of the study

The geographical and spatial extent of the project will be limited to:

- > the site as defined by the boundaries set out in Section 2; and
- > physical constraints or existing infrastructure on site that prevents safe and reasonable access by the project team and/or typical industry equipment used for projects of this nature.

The time and budget constraints of the project will be as per those set out in the contract (and subsequent variations) between CS and the client.

The temporal boundaries of the project will include:

⁶ A depth of up to 10cm below ground level is adopted to define 'surface soil'.

⁷ E. coli and coliforms <LOR in 100mL

⁸ In lieu of freshwater aquatic ecosystem screening values for faecal coliforms, the value for recreational secondary contact is adopted as an initial screening value

- > Weather conditions including rain, wind, heat and cold, which may adversely affect execution of fieldwork tasks and/or data quality;
- > Availability of the site for access to execute fieldwork tasks; and
- > Availability of project team members to execute the project.

The lateral and vertical intervals in which contamination distribution is believed to be uniformly distributed, based on the CSM, will be:

- > the inferred lateral boundaries of each AEC, including groundwater down gradient of primary / secondary sources (where applicable); and
- > the inferred vertical extent of each AEC, likely to be to the base of fill material, to the base of stockpiled material, to ~1m below the base of belowground infrastructure, and to ~2m below inferred standing water level (where applicable).

The scale of the decisions required will be based on the site, as defined by its boundaries.

6.5 Step 5: Develop the analytical approach

6.5.1 Duplicates and Triplicates

Field duplicates and triplicates will be collected at a rate of one set per 20 samples collected (an equivalent of 5%). Sample collection will include splitting of one bulk sample across three separate sample containers. Soil samples will not be homogenised, particularly where the COPC are volatile or semi volatile in nature.

Collection of duplicates and triplicates of groundwater samples (where applicable), will ensure that containers for volatile and semi-volatile analysis, are filled first.

Analysis of the duplicate and triplicates will be based on at least one of the analytes that the parent sample is being analysed for (excluding asbestos).

The relative percent difference (RPD) of the detected concentrations in the parent and duplicate, and the parent and triplicate, will be calculated.

6.5.2 Trip Blanks and Trip Spikes

One trip blank and trip spike will be used for each day of sampling⁹. A minimum of one trip blank and one trip spike will be scheduled for BTEX analysis, during the project.

6.5.3 Rinsate Blanks

One rinsate blank will be used for each day of sampling¹⁰.

Analysis of the rinsate blank will be based on at least one of the analytes that the parent sample is being analysed for (excluding asbestos).

6.5.4 Laboratory Quality Assurance and Quality Control

The quality assurance and quality control (QA/QC) program of the primary analytical laboratory will typically include analysis of method blanks, matrix spikes, surrogate spikes, laboratory control samples and laboratory duplicates. The laboratory will report on whether the QA/QC analysis meets the laboratory's adopted data quality objectives.

6.5.5 Data Quality Indicators

Data quality indicators (DQI) will be adopted to facilitate an assessment of the completeness, comparability, representativeness, precision and accuracy (bias) of the field and laboratory data collected. These DQI are set out in Table 6.5.5.

⁹ Where samples being collected on that day are expected to be analysed for BTEX and/or TRH C6-C10.

¹⁰ Where non-disposable sampling equipment is being used on that day.

Table 6.5.5 Data Quality Indicators

Completeness¹¹			
Field Considerations	Assessment Criteria	Laboratory Considerations	Assessment Criteria
Critical locations sampled	95%	Critical samples analysed	95%
Critical samples collected	95%	Analysis addresses COPC	95%
SOPs appropriate	SOPs used	Methods and LORs	Refer Section 6.7.8
Experienced sampler	Experienced CS staff	Sample documentation	SRA and COA supplied
Documentation complete	Logs, calibration, COC	Holding times	Refer Section 6.7.8

Comparability			
Field Considerations	Assessment Criteria	Laboratory Considerations	Assessment Criteria
Same SOPs used	SOPs used	Comparable methods	Refer Section 6.7.8
Experienced sampler	Experienced CS staff	Comparable LORs	Refer Section 6.7.8
Climatic conditions	Sampling not affected by weather	Same laboratories	Primary samples to one lab
Same sample types	Same collection, preservation and handling	Same units of measure	Refer Section 6.7.5

Representativeness			
Field Considerations	Assessment Criteria	Laboratory Considerations	Assessment Criteria
Appropriate media sample	Refer Section 6.7.2	Samples analysed	Refer Section 6.7.7
Identified media sampled	Refer Section 6.7.2		

¹¹ Percentage criterion adopted is reflective of the significance level adopted for the decision, e.g. significance level of 0.05 indicates a 95% confidence level that the data is adequate for decision making (Ref: Section 18.3 in NEPC (1999b))

Precision ¹²			
Field Considerations	Assessment Criteria	Laboratory Considerations	Assessment Criteria
SOP compliance	SOPs used	Laboratory duplicates	95% pass
Duplicate / triplicate RPD	Minimum 5% duplicates Minimum 5% triplicates No RPD limit <10 times LOR 50% RPD limit 10-20 times LOR 30% RPD limit >20 times LOR		

Accuracy (bias) ¹³			
Field Considerations	Assessment Criteria	Laboratory Considerations	Assessment Criteria
Trip blanks	Analytes less than LOR	Method blanks	95% pass
Trip spikes	Recoveries between 60% and 140%	Matrix spikes	95% pass
Rinsate blanks	Analytes less than LOR	Surrogate spikes	95% pass

6.5.6 If/Then Statements

If field and laboratory analytical dataset is within the DQI assessment parameters, then the data may be considered to be adequately complete, comparable, representative, precise and accurate, for decision making within the objectives of this project.

If field and laboratory analytical dataset is outside the DQI assessment parameters, then additional data may be collected to address identified data gaps.

If field and laboratory analytical results are within adopted contamination assessment criteria, then the site may be considered suitable for the proposed land use scenario.

If field and laboratory analytical results are outside adopted contamination assessment criteria, then the site may be considered unsuitable for the proposed land use scenario, or additional data collected to further inform the decision-making process.

6.6 Step 6: Specify the performance or acceptance criteria

There are two types of decision error:

- > sampling errors occur when the sampling program does not adequately detect the variability of a contaminant from point to point across the site. That is, the samples collected are not representative of

¹² Percentage criterion adopted is reflective of the significance level adopted for the decision, e.g. significance level of 0.05 indicates a 95% confidence level that the data is adequate for decision making (Ref: Section 18.3 and Section 19.5 in NEPC (1999b))

¹³ Percentage criterion adopted is reflective of the significance level adopted for the decision, e.g. significance level of 0.05 indicates a 95% confidence level that the data is adequate for decision making (Ref: Section 18.3 and Section 19.5 in NEPC (1999b))

site conditions (e.g. an appropriate number of representative samples have not been collected from each stratum to account for estimated variability); and

- > measurement errors occur during sample collection, handling, preparation, analysis and data reduction.

In the assessment of land contamination, these errors can result in either:

- > a Type I error, where contamination exposure risks are considered to be acceptable, when they are not; or
- > a Type II error, where contamination exposure risks are considered to be not acceptable, when they are.

In order for decision rules to be sound, they should be designed to minimise decision errors. The risk of decision error will be mitigated by:

- > Ensuring fieldwork tasks are undertaken by suitably experienced field staff and sub-contractors, with reference to the DQO presented in this report;
- > Ensuring laboratory analyses are undertaken by NATA accredited laboratories; and
- > Ensuring interpretation of data is undertaken by suitably experienced environmental consultants and/or outsourcing interpretation to technical experts (if warranted).

6.7 Step 7: Develop the plan for obtaining data

6.7.1 Sampling Point Density and Locations

Table A in NSW EPA (1995) includes guidance on minimum sampling point densities required for characterising a site, based on detecting circular hot spots by using a systematic sampling pattern. Application of this guidance is recommended when

- > There is little knowledge about the probable locations of the contamination;
- > The distribution of the contamination is expected to be random (e.g. landfill sites); or
- > The distribution of the contamination is expected to be fairly homogenous (e.g. agricultural lands).

Section 3.1 of NSW EPA (1995) states that judgemental or stratified sampling methods can be used if there is sufficient information about the probable distribution of the contamination. Additionally, Section 6.2.1 in NEPC (2013b) states that judgemental sampling, the selection of samples (number, location, timing, etc.) is based on knowledge of the site and professional judgement. Sampling would be expected to be localised to known or potentially contaminated areas identified from knowledge of the site either from the site history or an earlier phase of site assessment. Judgemental sampling can be used to investigate sub-surface contamination issues in site assessment.

The scope of this project has included collection of data that provides an understanding of site history and the locations of potentially contaminated areas. On that basis, it is considered reasonable to adopt a judgemental sampling pattern, using the sampling point densities set out in Section 6.7.2.

The locations of the sampling points are presented in Figure 4.

6.7.2 Sampling Methods

The sampling methods set out in Table 6.7.2 will be used on this project. These methods are based on a number of factors that are relevant to this project, based on site history, and include:

- > The identified COPC;
- > The assessed laydown mechanisms for COPC in each AEC;
- > The assessed likely lateral and vertical extent of potential contamination in each AEC; and
- > Constraints on site which may restrict the use of certain sampling techniques.

6.7.2.1 Soils

Table 6.7.2 Soil Sampling Methods

ID	AEC	Sampling Point ID	Method ¹⁴	Target Depth (mbgs)
AEC01	North west dam curtilage	TP01-TP07	Test pit (EX)	1.5m, refusal or 0.3m into natural
AEC02	Dam waters and sediments	TP08-TP11 SW01	Test pit (EX) Grab sample	0.5m, refusal or 0.3m into natural Refer Section 6.7.2.2
AEC03	Dam wall	TP12-TP16	Test pit (EX)	2.5m, refusal or 0.3m into natural
AEC04	Mound	TP17-TP19	Test pit (EX)	1.0m, refusal or 0.3m into natural
AEC05	Area between mounds	TP20-TP25	Test pit (EX)	1.0m, refusal or 0.3m into natural
AEC06	Mound	TP26-TP28	Test pit (EX)	1.0m, refusal or 0.3m into natural
AEC07	Area between mounds	TP29-TP34	Test pit (EX)	1.0m, refusal or 0.3m into natural
AEC08	Mound	TP35-TP37	Test pit (EX)	1.0m, refusal or 0.3m into natural
AEC09	Mound	TP38-TP40	Test pit (EX)	1.0m, refusal or 0.3m into natural
AEC10	Dam waters and sediments	TP41-TP44 SW02	Test pit (EX) Grab sample	0.5m, refusal or 0.3m into natural Refer Section 6.7.2.2
AEC11	Dam wall	TP45-TP51	Test pit (EX)	2.5m, refusal or 0.3m into natural
AEC12	Down gradient of truck wash effluent dam	SS01-SS09	Grab sample (SS)	0.1m, refusal
AEC13	Potential former road	SS10-SS20	Grab sample (SS)	0.1m, refusal
AEC14	Material bays	TP52-TP53	Test pit (EX)	0.3m, refusal or 0.3m into natural
AEC15	Shed	BH01-BH02	Test pit (EX)	0.5m, refusal or 0.3m into natural
AEC16	Driveway, tracks and building pad	TP54-TP61	Test pit (EX)	1.5m, refusal or 0.3m into natural
AEC17	Former greenhouse	SS21-SS23	Grab sample (SS)	0.1m, refusal
AEC18	Remnant greenhouse	SS24-SS26	Test pit (EX)	0.1m, refusal

¹⁴ EX = excavation, PT = push tube auger, SFA = solid flight auger, HA = hand auger, SS = surface sample

ID	AEC	Sampling Point ID	Method ¹⁴	Target Depth (mbgs)
AEC19	South of greenhouses	ACM01	Grab sample	Not applicable
AEC20	First flush catchment dam	TP62-TP67 SW03	Test pit (EX)	0.5m, refusal or 0.3m into natural
AEC21	First flush catchment dam wall	TP68-TP74	Test pit (EX)	2.0m, refusal or 0.3m into natural
AEC22	Potential pit	Not applicable		To be validated post removal
AEC23	Pit	Not applicable		To be validated post removal
AEC24	Fenced storage yard (includes stockpiles present in the yard)	TP75-TP85	Test pit (EX)	2m, refusal or 0.3m into natural
AEC25	Creek	Refer Section 6.7.2.2		
AEC26	Saleyard effluent and sludge dams	Refer Section 6.7.2.3		
Background sampling for EIL derivation		ABC01 – ABC03	Hand Auger (HA)	0.3m into natural or refusal

Three sampling points (ABC01 to ABC03) outside of the known AECs will also be established for collection of natural soil samples, to inform derivation of relevant site specific ecological investigation levels.

Samples requiring asbestos gravimetric screening will be 10L in volume, will be collected and screening with reference to Table 5 in WA DOH (2009).

Samples requiring calculation of asbestos fines (AF) and fibrous asbestos (FA), will be collected from the 10L bulk sample, prior to screening.

6.7.2.2 Surface Water

Surface water samples SW04 to SW07 will be collected as grab samples directly from the relevant surface water bodies

Headspace in sample containers will be avoided. Relevant samples will be field filtered to 0.45µm.

Samples will be submitted to a NATA accredited laboratory for analysis.

6.7.2.3 Groundwater

Groundwater monitoring bores MW01 to MW04 will be drilled to a target depth of 10m below ground surface or 2m below inferred standing water level, using a soil borehole drilling rig fitted with solid flight augers. In the event of refusal on bedrock using solid flight auger prior to encountering the groundwater, other drilling technique such as rotary air hammering method will be used.

Each monitoring well will be constructed using 50mm Class 18 PVC machine slotted screen and casing, gravel pack from the base to approximately 0.5m above the top of the screen, followed by approximately 0.5m of hydrated bentonite, grout to the surface, PVC stick-up and a lockable torque cap.

Monitoring wells will be developed following installation, and allowed to equilibrate before sampling (preferably five days later).

At the start of the groundwater monitoring event (GME), depth to standing water level will be gauged in each well, and then each well purged until field groundwater quality parameters stabilise. Field groundwater quality parameters including dissolved oxygen, conductivity, oxygen reduction potential, pH and temperature, will be measured using a calibrated water quality meter and a flow cell. Observations will also be made of colour, clarity, odour and sheen. Field water quality measurements and observations will be recorded on a GME field sheet.

Groundwater samples will be collected using low flow sampling techniques (either peristaltic pump or micro purge). The sequence of sampling will include collection of samples from up gradient wells before sampling the down gradient wells. Samples for volatile analysis will be collected before semi volatiles. Headspace in sample containers will be avoided. Relevant samples will be field filtered to 0.45µm.

Samples will be submitted to a NATA accredited laboratory for analysis.

6.7.3 Field Screening

When identified COPC include volatiles (e.g. BTEX, TRH or VOC), collected soil samples will be screened for ionisable volatile organic compounds using a photo-ionisation detector (PID). A sub sample from each sample collected at each sampling point will be placed in a zip lock bag, sealed, and shaken. Each zip lock bag will then be pierced with the tip of a PID and the results recorded on the relevant test pit/borehole log.

6.7.4 Decontamination

Non-disposable sampling equipment will be decontaminated between sampling points to mitigate potential for cross contamination of samples. The decontamination method to be used will be:

- > Wash of the non-disposable sampling equipment with a solution of potable water and phosphate free detergent (e.g. Decon 90) ;
- > Rinse the washed equipment with distilled or de-ionised water; and
- > Air dry the rinsed equipment.

6.7.5 Sample Identification, Preservation, Handling and Transport

Soil and sediment samples will be identified using the CS project number, sampling point identification number and sampling depth interval (e.g. TP01/0.0-1.0 or BH04/0.2-0.4), and date the sample was collected.

Groundwater samples will be identified using the CS project number, sampling point identification number (e.g. MW03) and date the sample was collected.

Surface water samples will be identified using the CS project number, sampling point identification number (e.g. SW06) and date the sample was collected.

Samples will be placed in laboratory prepared containers (containing preservatives as appropriate), bulk sample bags and zip lock bags.

Soil and water samples will be stored in insulated containers with ice.

Samples will be transported to the analytical laboratory by CS field staff or a third party courier, using the analytical laboratory's chain of custody (COC) documentation.

6.7.6 Laboratory Selection

Analytical laboratories used for this project will be NATA accredited for the analytical methods used.

6.7.7 Laboratory Analytical Schedule

Samples scheduled for laboratory analysis will be selected based on the following:

- > Asbestos analysis on AEC where asbestos is a COPC - all surface samples (the top 0.1m) and the samples collected between 0.1m and 1.0m, and every meter thereafter, or change in soil type. Consideration will also be given to provide adequate vertical and horizontal distribution across the fill material onsite.
- > TRH/BTEX analysis on AEC where hydrocarbon is a COPC – samples with high PID readings and evidence of odours and staining. Consideration will also be given to provide adequate vertical and horizontal distribution across the fill material onsite.
- > Metals and PAH analysis on AEC where metals and hydrocarbons are COPC – samples with visual indicator of gross contamination. Consideration will also be given to provide adequate vertical and horizontal distribution across the fill material onsite.
- > OCP and PCB analysis where pesticides and PCB are COPC – samples will be selected to provide adequate vertical and horizontal distribution across the fill material onsite. Consideration will also be given to select the samples collected from areas/depths where visual indicator of gross contamination is observed.
- > E.coli and Faecal Coliform on AEC where pathogens are COPC – all surface samples will be selected for analysis.

The proposed laboratory analytical schedule (including upper limiting sample quantities) for the project is set out in Table 6.7.7.1 and Table 6.7.7.2.

Table 6.7.7.1 Laboratory Analytical Schedule - Soils

ID	AEC	Sampling Point ID	TRH / BTEX	PAH	OCP	PCB	Metals (8)	E Coli and Faecal Coliforms	pH and CEC	Asbestos (0.001%)	Asbestos (ID)
AEC01	North west dam curtilage	TP01-TP07	8	10	7	7	10	8	0	21	0
AEC02	Dam waters and sediments	TP08-TP11	4	4	0	0	4	4	0	0	0
AEC03	Dam wall	TP12-TP16	6	7	6	6	7	6	0	15	0
AEC04	Mound	TP17-TP19	3	5	3	3	5	3	0	6	0
AEC05	Area between mounds	TP20-TP25	6	6			6	6	0	0	0
AEC06	Mound	TP26-TP28	3	5	3	3	5	3	0	6	0
AEC07	Area between mounds	TP29-TP34	6	6			6	6	0	0	0
AEC08	Mound	TP35-TP37	3	5	3	3	5	3	0	6	0
AEC09	Mound	TP38-TP40	3	5	3	3	5	3	0	5	0
AEC10	Dam waters and sediments	TP41-TP44	4	4	0	0	4	4	0	0	0
AEC11	Dam wall	TP45-TP51	10	10	7	7	10	10	0	21	0

ID	AEC	Sampling Point ID	TRH / BTEX	PAH	OCP	PCB	Metals (8)	E Coli and Faecal Coliforms	pH and CEC	Asbestos (0.001%)	Asbestos (ID)
AEC12	Down gradient of truck wash effluent dam	SS01-SS09	8	8	0	0	9	8	0	0	0
AEC13	Potential former road	SS10-SS20	8	8	8	8	11	0	0	11	0
AEC14	Material bays	TP52-TP53	2	2	2	2	2	2	0	2	0
AEC15	Shed	BH01-BH02	2	2	2		2	0	0	0	0
AEC16	Driveway, tracks and building pad	TP54-TP61	8	12	8	8	12	8	0	24	0
AEC17	Former greenhouse	SS21-SS23	0	3	2	0	3	0	0	0	0
AEC18	Remnant greenhouse	SS24-SS26	0	3	2	0	3	0	0	0	0
AEC19	South of greenhouses	ACM01	0	0	0	0	0	0	0	0	1
AEC20	First flush catchment dam	TP62-TP67	6	7	0	0	7	6	0	0	0
AEC21	First flush catchment dam wall	TP68-TP74	7	10	7	7	10	7	0	21	0
AEC24	Fenced storage yard	TP75-TP85	16	17	11	11	17	13	0	24	0
Background for EIL Derivation		ABC01-ABC03	0	0	0	0	3	0	3	0	0

Table 6.7.7.2 Laboratory Analytical Schedule – Groundwater and Surface Water

ID	AEC	Sampling Point ID	TRH / BTEX	Metals (8)	E Coli and Faecal Coliforms	Nitrate, ammonia, phosphorus	pH	Hardness
AEC02	Dam waters and sediments	SW01	1	1	1	1	1	1

ID	AEC	Sampling Point ID	TRH / BTEX	Metals (8)	E Coli and Faecal Coliforms	Nitrate, ammonia, phosphorus	pH	Hardness
AEC10	Dam waters and sediments	SW02	1	1	1	1	1	1
AEC20	First flush catchment dam	SW03	1	1	1	1	1	1
AEC25	Creek	SW04-SW07	3	3	3	3	3	3
AEC26	Saleyard effluent and sludge dams	MW01-MW04	4	4	4	4	Field test	4

6.7.8 Laboratory Holding Times, Analytical Methods and Limits of Reporting

Sample holding times, laboratory analytical methods and limits of reporting applicable to this project, are set out in Table 6.7.8.

Table 6.7.8 Laboratory Holding Times, Analytical Methods and Limits of Reporting

Analyte	Holding Time	Method	LOR (mg/kg)	LOR (µg/L)
BTEX and TRH C6-C10	14 days	USEPA 5030, 8260B and 8020	0.2-0.5	1-2 and 50
TRH C10-C40	14 days	USEPA 8015B & C	20-100	50-500
PAH	14 days	USEPA 8270	0.1-0.2	0.5-10
OCP	14 days	USEPA 8081	0.2	-
PCB	14 days	USEPA 8270	0.2	-
Metals	6 months	USEPA 8015B & C	0.05-2	0.1-5
Nitrogens (speciated including Ammonia)	2-28 days	APHA 4500-NH ₃ , APHA 4500-NO ₃ 4500-NO ₂ 4500-NO _x 4500-TKN 4500-Organic N	-	0.01-0.2mg/L
Phosphorus	1 month	APHA 4500-P	-	0.05mg/L
Coliforms	24 hours	AS 4276.5:2007	-	1 cfu/100mL
E. Coli	24 hours	AS 4276.7:2007	-	1 cfu/100mL
pH	On receipt	APHA 4500 pH	-	0.1 pH unit
Hardness	6 months	APHA 2340	5mg/L	5mg/L

Analyte	Holding Time	Method	LOR (mg/kg)	LOR (µg/L)
Asbestos ID	No limit	AS4926	Absence / presence	-
Asbestos (WA DOH)	No limit	In-house	0.001% w/w	-

7 Fieldwork

7.1 Soil Sampling

Soil sampling works were undertaken by CS between 17 February and 21 February 2020. These works included the following:

- > Surveying of buried underground services onsite and positioning of sampling points a minimum 2.0m away from the surveyed location of buried underground services.
- > Excavation of 71 test pits (TP01-TP07, TP12-TP40, TP45-TP61 and TP68-TP85) using a five-tonne tracked hydraulic excavator.
- > Collection of soil samples from two stockpiles (SP01-SP02) observed during the fieldwork. CS notes that the sampling of these stockpile is in addition to the sampling frequency outlined in Table 6.7.1. The stockpiles were sampled by excavating a test pit into the stockpiles using a five-tonne tracked hydraulic excavator.
- > Drilling of five boreholes (BH01- BH02 and ABC01-ABC03) using a hand auger.
- > Collection of twenty-six (26) surface soil samples using hand tools (SS01 to SS26).

Soil samples were collected at each sampling point, at the surface and at regular intervals thereafter, or where visual or olfactory evidence of contamination was observed.

Soil samples were collected either directly from excavated/drilled soils, or from the centre of soils while still in the excavator bucket (to avoid cross contamination), as grab samples, using a fresh pair of nitrile gloves.

A 10L bulk sample was collected at each relevant test pit sampling point, for each metre (or part thereof) of inferred fill material encountered. Sub samples of 500ml volume were taken from the 10L bulk samples.

Samples were placed in suitable laboratory prepared containers and labelled.

The 10L bulk sample weights were recorded, then screened via spreading material on top of contrasting plastic. Samples were then manually sifted through for potential asbestos containing materials >7mm in size.

Test pits were backfilled with excavated soils and track rolled. Boreholes were backfilled with excavated material and the surface packed down by foot.

Duplicate and triplicate samples were collected by splitting the primary sample across three sample containers (without homogenising, to avoid loss of volatiles).

Rinsate samples were collected following decontamination of re-usable sampling equipment, by pouring deionised water across the equipment and collecting the runoff in laboratory prepared sample containers.

Sampling point locations were confirmed on a site plan. The sampling point location plan is presented in Figure 4.

Image 7.1.1 View of drill cuttings at BH01 inside the shed.



Image 7.1.2 View of excavated material at TP03



Image 7.1.3 View of test pit TP06.



Image 7.1.4 View of asbestos field screening in progress at SS20



Image 7.1.5 Soil in the auger at ABC03



7.2 Sediment Sampling

Dam sediment sampling was undertaken concurrently with soil sampling works and included the following:

- > Excavation of 14 test pits (TP08-TP11, TP41-TP44 and TP62-TP67) using a five tonne tracked hydraulic excavator.

The sediment samples were collected directly from the excavator bucket, as grab samples, using a fresh pair of nitrile gloves and placed in suitable laboratory prepared containers and labelled.

Dam sediment sampling point locations were confirmed on a site plan. The sampling point location plan is presented in Figure 4.

7.3 Site Specific Geology

7.3.1 Soil Sampling

The subsurface condition encountered at the intrusive sampling points typically comprised of

- > fill material to depths between 0.8m below ground level (bgl) to 2.5m bgl in the northern portion of the site;
- > fill material up to 2.5m bgl) dam walls and/or on the mounds between the dams.
- > fill material up to 0.9m bgl in the eastern portion of the site.

The fill material typically comprised of gravelly sandy SILT and gravelly SILT (likely to be excavated natural soil as part of the dam construction).

Natural silty SAND and/or SANDSTONE bedrock was encountered at all sample locations at varying depths (i.e. depths between 0.1m bgl to 2.0m bgl).

Observations made of soils encountered during intrusive investigation works were recorded on logs. These logs are presented in Appendix C.

Image 7.3.1.1 View of fill soils encountered at TP80



Image 7.3.1.2 View of natural soils encountered at TP37



7.3.2 Dam Sediment

The dam sediments observed during sampling comprised of silty clayey gravel to silt. It was noticed that the edges of dams in AEC02 and AEC10 (i.e. Dam 1 and Dam 2) comprised of dark grey sludge material. Although the sediment samples recovered from the test pits in these dams appeared to be visually different to the sludge material on the edges due to the moisture content (i.e. the sediment samples were very wet), it is considered likely that the sludge is present in the sediments across each of the dams.

The assessment for the presence of sludge in AEC20 (Dam 3) could not be completed as the dam along with its edges were covered in vegetation. However the observation of sediment samples recovered from this dam (grey coloured silt/gravelly silt), which appeared to be similar in colour to the sludge observed on the edges of Dam 2 and Dam 3 indicated the potential for the sludge to be present in Dam 3.

Image 7.3.2 View of sludge along the edges of Dam 2 (AEC10)



7.3.3 Potential Asbestos Containing Materials

A fragment of potential asbestos containing materials (PACM) was encountered at depth at sampling point TP55. PACM were also observed on the surface in the immediate vicinity of soil sampling points ABC01 and ACM01. The fragments appeared to be in the form of fibrous cement sheeting fragments and a fibrous cement conduit respectively. Samples of these potential ACM fragments were collected for laboratory analysis.

The bulk 10L soil samples were screened for the presence of asbestos containing materials greater than 7mm in size. Fragments of PACM were not observed in the 10L samples during field screening.

Image 7.3.2.1 View of potential ACM fragments at ABC01 location



Image 7.3.2.2 View of potential ACM pipe at ACM01 location



7.3.4 Odours

There were no detectable odours recorded during soil and sediment sampling.

7.3.5 Staining

There was no visual evidence of staining observed in the soil or sediment samples collected.

7.3.6 Headspace Screening

Headspace screening was undertaken, by placing a sub sample from each relevant sample at each relevant sampling point, in a zip lock bag, sealing it, shaking it, then piercing the bag with the tip of the PID and results recorded. Headspace screening was undertaken on all soil samples where hydrocarbon was the COPC with the exception of SS01-S09, SS21-SS26, BH01-BH02 and TP36. The headspace screening results ranged from 0.4ppm to 24.5ppm indicating that the potential for ionisable volatile organic compounds to be present in the samples screened was low.

In relation to the samples where headspace screening was not undertaken, CS notes that there was no hydrocarbon staining or odour observed in the samples collected, indicating a low potential for hydrocarbon contamination to be present. As such, CS considers that the lack of PID readings at these locations is unlikely to significantly impact the outcome of this investigation.

The results of the headspace screening are presented on the logs in Appendix C.

A copy of the PID calibration certificate is presented in Appendix D.

7.4 Dam Water Sampling

Dam water sampling was undertaken concurrently with sediment sampling works and included collection of dam water from an accessible sampling point in each of the dams. Each water sample was collected by submerging an unpreserved plastic bottle using an extendable sampling rod into the water to fill it up, and then using the plastic bottle to fill the remaining sampling bottles. A new unpreserved bottle was used for sampling each dam, respectively.

Dam water sampling point location plan is presented in Figure 4.

7.4.1 Dam Water

The water within Dams 1 and 2 (AEC02 and AEC10) appeared to have been impacted with green algae.

The dam within AEC20 (Dam 3) was covered with dense vegetation. However, the observation of the dam water collected during sampling appeared to be clear, water in the dam was unlikely to be impacted with algae.

No sheen or odours were observed while sampling dam waters.

Image 7.4.1 View of dam water in Dam 1 (AEC02).



7.5 Surface Water Sampling (Creek Water)

Creek water sampling was undertaken concurrently with soil sampling works and included collection of creek water from four accessible sampling points along the creek. The samples were collected by submerging an unpreserved plastic bottle into the water to fill it up, and then using the plastic bottle to fill the remaining sampling bottles. A new unpreserved bottle was used for sampling each dam, respectively.

The creek water typically appeared to be clear, with no sheen or odours observed while sampling.

Creek water sampling point location plan is presented in Figure 4.

Image 7.5 Creek water prior to sampling at SW06



7.6 Groundwater

7.6.1 Monitoring Well Installation

Intrusive works for the installation of groundwater monitoring wells were undertaken by CS on 17 February 2020. These works included the following:

- > Surveying of buried underground services onsite and positioning of proposed monitoring well locations a minimum 2.0m away from the surveyed location of buried underground services.
- > Drilling of four boreholes (MW01 to MW04) using a track mounted Geoprobe 6712DT drill rig fitted with solid flight auger.

Solid flight auger refusal or extremely slow progress conditions were encountered prior to observing groundwater inflow or groundwater in the boreholes.

A second mobilisation to the site was undertaken on 25 February 2020. The work undertaken during the second mobilisation included:

- > Drilling of two boreholes at previously drilled borehole locations MW01 and MW03 using a track mounted Geoprobe 6712DT drill rig fitted with solid flight auger and rotary air hammer.

Drilling at monitoring well location MW01A was advanced to 10m below ground level, which included drilling through rock from 3m to 10m below ground level. With the exception of shallow soils at this location, soil and rock encountered was logged as dry, with no evidence of groundwater inflow. As no evidence of water was encountered, the monitoring well installation at MW01A was abandoned, and the borehole backfilled with drill cuttings.

Drilling at monitoring well location MW03A was advanced to 9m below ground level, which included drilling through rock from 1.3m to 9m below ground level. Soil and rock encountered was logged as dry, with no evidence of groundwater inflow. As no evidence of water was encountered, the monitoring well installation at MW03A was abandoned, and the borehole backfilled with drill cuttings.

Image 7.6.1.1 View of initial round of drilling at MW03.



Image 7.6.1.2 View of initial round of drilling at MW04.



Image 7.6.1.3 View of second round of drilling at MW04 (image shows air hammering being conducted).



8 Laboratory

The samples were transported to the analytical laboratory using chain of custody protocols. A selection of those samples were scheduled for laboratory analysis, taking into consideration the laboratory analytical schedule presented in Table 6.7.7 and observations made in the field.

A copy of the sample receipts and certificates of analysis, is presented in Appendix E.

The relevant laboratory analytical results¹⁵ were tabulated and presented in the attached Table LR01, Table LR02, Table LR03, Table LR04, Table LR05 and Table LR06.

¹⁵ Table showing gravimetric screening result has not been prepared as asbestos was encountered in one test pit only. Refer to Section 10.1.4 for gravimetric field screening result.

9 Assessment of Data Quality Indicators

An assessment of performance against the data quality indicators (DQI) set out in Section 6.5.5, is presented in Table 9.1 to Table 9.5.

Table 9.1 Completeness DQI

Field Considerations	Target	Actual	Comment
Critical locations sampled	95%	97%	The installation of previously planned groundwater monitoring well could not be completed due to groundwater not being encountered during drilling. Performance against DQI considered acceptable.
Critical samples collected	95%	98%	Groundwater samples were not collected as groundwater wells were not installed onsite. Performance against DQI considered acceptable.
SOPs appropriate	SOPs used	SOPs used	Performance against DQI considered acceptable.
Experienced sampler	Experienced CS staff	Samuel Inameti Ammar Dawood	Performance against DQI considered acceptable.
Documentation complete	Logs, calibration, COC	Documentation presented in relevant appendices	Documentation presented in relevant appendices.
Laboratory Considerations	Target	Actual	Comment
Critical samples analysed	95%	98%	Groundwater samples were not analysed as the wells were not installed. Performance against DQI considered acceptable.

Analysis addresses COPC	95%	100%	Performance against DQI considered acceptable.
Methods and LORs	Refer Section 6.7.8	Complied	Performance against DQI considered acceptable.
Sample documentation	SRA and COA supplied	Documentation presented in relevant appendices	Performance against DQI considered acceptable.
Holding times	Refer Section 6.7.8	Holding times complied with the exception of microbial analysis.	Microbial analysis was undertaken outside the recommended holding time of 72 hours. This was due to fieldwork extending over five days, and samples being sent together for analysis after all field works had been completed. However, this outlier is not likely to significantly impact the outcome of this investigation due to following: > Since most of the microbiological analysis were undertaken on surface soil samples which are considered to be 'aged' yet representative of the material in its natural state where the biological contaminants are not likely to materially reduce once the soil is transferred into the sampling containers > The samples were collected in laboratory supplied sterilised containers and placed in insulated containers with ice

			during storage and transport. > A number samples exceeding the adopted assessment criteria was reported in the laboratory result, which indicates that the samples when extracted comprised of microbiological contaminants > The amount of microbial samples that did not exceed the adopted assessment criteria or the samples with concentrations less than LOR were minimal, suggesting that holding times did not result in sample integrity being compromised. > Assuming the samples integrity had been compromised, samples for microbial analysis were taken from surface soils on site. The contamination on the surface of the site (if any) is generally considered to be 'aged' which are likely to last for an extended period of time (i.e. greater than 72 hours). Based on this, performance against DQI considered acceptable.

Table 9.2 Comparability DQI

Field Considerations	Target	Actual	Comment
Same SOPs used	SOPs used	Complied	Performance against DQI considered acceptable.
Experienced sampler	Experienced CS staff	Samuel Inameti Ammar Dawood	Performance against DQI considered acceptable.
Climatic conditions	Sampling not affected by weather	Relevant samples stored in insulated containers with ice	Performance against DQI considered acceptable.
Same sample types	Same collection, preservation and handling methods	Complied	Performance against DQI considered acceptable.
Laboratory Considerations	Target	Actual	Comment
Comparable methods	Refer Section 6.7.8	Complied	Performance against DQI considered acceptable.
Comparable LORs	Refer Section 6.7.8	Complied	Performance against DQI considered acceptable.
Same laboratories	Primary samples to one lab	Samples sent to Eurofins Environmental Testing	Performance against DQI considered acceptable.
Same units of measure	Refer Section 6.7.5	Complied	Performance against DQI considered acceptable.

Table 9.3 Representativeness DQI

Field Considerations	Target	Actual	Comment
Appropriate media sample	Refer Section 6.7.2	Ground water not sampled. See comment.	Groundwater samples were not collected as groundwater wells were not installed onsite. Performance against DQI considered acceptable.
Identified media sampled	Refer Section 6.7.2	Ground water not sampled. See comment.	Groundwater samples were not collected as groundwater wells were not installed onsite.

			Performance against DQI considered acceptable.
Laboratory Considerations	Target	Actual	Comment
Samples analysed	Refer Section 6.7.7	Complied	Performance against DQI considered acceptable.

Table 9.4 Precision DQI

Field Considerations	Target	Actual	Comment
SOP compliance	SOPs used	Complied	Performance against DQI considered acceptable.
Duplicate / triplicate RPD	Minimum 5% duplicates	5.5% duplicates	Performance against DQI considered acceptable.
	Minimum 5% triplicates	5.5% triplicates	Performance against DQI considered acceptable.
	No RPD limit where concentrations are <10 times LOR	Nil	Performance against DQI considered acceptable.
	50% RPD limit where concentrations are 10-20 times LOR	3	Samples were not homogenised prior to splitting, as volatiles were identified as a COPC. Exceedances likely attributable to heterogeneity in each of the discrete soil samples. As a conservative measure, the samples reporting the higher detected concentration of relevant analytes should be used when assessing potential contamination risks on the site. Performance against DQI considered acceptable.

	30% RPD limit where concentrations are >20 times LOR	4	Samples were not homogenised prior to splitting, as volatiles were identified as a COPC. Exceedances likely attributable to heterogeneity in each of the discrete soil samples. As a conservative measure, the samples reporting the higher detected concentration of relevant analytes should be used when assessing potential contamination risks on the site.
Laboratory Considerations	Target	Actual	Comment
Laboratory duplicates	95% pass	95%	Performance against DQI considered acceptable.

Table 9.5 Accuracy (bias) DQI

Field Considerations	Target	Actual	Comment
Trip blanks	Analytes less than LOR	Analytes less than LOR	Performance against DQI considered acceptable.
Trip spikes	Recoveries between 60% and 140%	Recoveries between 60% and 140%	Performance against DQI considered acceptable.
Rinsate blanks	Analytes less than LOR	Analytes less than LOR	Performance against DQI considered acceptable.
Laboratory Considerations	Target	Actual	Comment
Method blanks	95% pass	100%	Performance against DQI considered acceptable.
Matrix spikes	95% pass	100%	Performance against DQI considered acceptable.

Surrogate spikes	95% pass	98%	Performance against DQI considered acceptable.
Laboratory control samples	95% pass	100%	Performance against DQI considered acceptable.

10 Discussion

10.1 Soil

10.1.1 Human Health – Direct Contact (All Areas)

The detected concentrations of the relevant COPC in the soil samples analysed, were less than the adopted human health direct contact assessment criteria with the exception of:

- > Benzo(a)pyrene TEQ in samples SS11 (12mg/kg), SS15 (4.8mg/kg), SS16 (7.2mg/kg) and TP01/0.4-0.6 (4mg/kg), which exceeded adopted assessment criterion of 3 mg/kg.

On that basis, further assessment/management of benzo(a)pyrene direct contact human health exposure risks is considered warranted.

10.1.2 Pathogens (All Areas)

The detected concentrations of the relevant COPC in the soils samples analysed, were less than the adopted E.coli and thermotolerant coliform assessment criteria with the exception of:

- > E.coli in surface soils (i.e. within 0.0-0.1m) of TP01 (110mpn/g), TP21 (540mpn/g), TP28 (190mpn/g), TP32 (110mpn/g), TP38 (4,900mpn/g), TP45 (640mpn/g), TP46 (360mpn/g), and TP53 (1,600mpn/g), which exceeded the adopted assessment criterion of 100 mpn/g;
- > Thermotolerant coliforms in surface soils (i.e. within 0.0-0.1m) of TP21 (>24,000mpn/g), TP23 (2,000mpn/g), TP32 (1,100mpn/g), TP38 (4,900mpn/g), TP45 (17,000mpn/g), TP51 (1,400mpn/g), TP53 (4,900mpn/g), TP71 (1,400mpn/g) and TP74 (1,500mpn/g), which exceeded the adopted assessment criterion of 1,000 mpn/g;

Further assessment/management of pathogen human health exposure risks is considered warranted.

10.1.3 Human Health – Vapour Intrusion / Inhalation (All Areas)

The detected concentrations of the relevant COPC in the soil samples analysed, were less than the adopted human health vapour intrusion / inhalation assessment criteria.

Further assessment of vapour intrusion / inhalation human health exposure risks is considered not warranted.

10.1.4 Human Health – Asbestos (All Areas)

10.1.4.1 Bonded Asbestos Containing Materials

A fragment of bonded ACM greater than 7mm in size was observed during field screening of relevant bulk soil sample collected at depths between 1.0-1.5m bgl at TP55.

The fragment of the ACM observed in TP55 was subjected to laboratory analysis. Asbestos was identified in the sample of suspected ACM. The quantification of asbestos in soil concentrations was then undertaken using guidance presented in Section 4.10 of NEPC (2013a), using 10L bulk samples, with the following assumptions¹⁶:

- > 15% asbestos by weight in cement bonded asbestos;
- > an assumed soil density of 1.65kg/L.

The quantification of ACM in soil was assessed using the following formula:

$$\% \text{ w/w asbestos in soil} = \frac{\% \text{ asbestos content} \times \text{bonded ACM (kg)}}{\text{soil volume (L)} \times \text{soil density (kg/L)}}$$

¹⁶ Considered to be adequately conservative within the objectives of this project.

The result of the ACM quantification assessment is presented in **Table 10.1.4.1**.

Table 10.1.4.1 Quantification of ACM

Sample ID	Bonded ACM Weight (kg)	Asbestos in Soil (% w/w)
TP55/1.0-1.5 (PACM)	0.05	0.048

The concentration of ACM in the soil sample was within the adopted criterion of 0.05% w/w. Further assessment of bonded ACM human health exposure risks is considered not warranted.

10.1.4.2 Fibrous Asbestos / Asbestos Fines

The concentration of FA and AF detected in the samples analysed, were less than the adopted health screening level of 0.001% w/w.

Further assessment of fibrous asbestos / asbestos fines human health exposure risks is considered not warranted.

10.1.4.3 Asbestos (Aesthetics)

A potential ACM pipe was observed on the surface of the site in the vicinity of sampling point ACM01. Two fragments of fibrous cement sheeting were also observed on the surface within a 10m² area surrounding sample location ABC01.

The fragments of the ACM observed at these locations were subjected to laboratory analysis. Asbestos was identified in the samples of suspected ACM.

The sampling points where these asbestos fragments were observed, is presented in Figure 4.

Further assessment of asbestos related aesthetic risks is considered warranted.

10.1.5 Ecological – Terrestrial Ecosystems (Residential/Environmental Living Areas Only)

The detected concentrations of the relevant COPC in the soil samples were compared against the ecological investigation limits (EILs) and ecological screening limits (ESLs) outlined in the NEPC (2013a). For contaminants with no EILs prescribed in the NEPC (2013a), CS calculated a site specific EILs using the guidance provided in the NEPC (2013a). Parameters considered to derive the site specific EILs were the average background concentration of contaminants in residual soils onsite, pH, cation exchange capacity (CEC) and percentage (%) of clay content¹⁷.

Using the guidance provided in the NEPC (2013a), CS derived site specific EILs for a residential land use scenario, presented in Table 10.1.5.

Table 10.1.5 Site Specific EILs

Contaminant in Soil (Aged)	ABC (mg/kg)	ACL (mg/kg)	ABC+ACL	Adopted EIL (mg/kg) ¹⁸
Zinc	23	230	253	250
Copper	14	280 ¹⁹	294	300
Chromium (III)	28	320 ²⁰	348	350
Nickel	12	30	42	50

¹⁷ % of clay content analysis was not undertaken. However, based on the observation that natural soil onsite comprised of clay, it was assumed that an assumption of 5% clay content would be reasonable in the context of this project.

¹⁸ ABC+ACL result rounded for consistency and avoidance of false accuracy (NEPC 2013a)

¹⁹ pH based

²⁰ Assuming 5% clay content

Contaminant in Soil (Aged)	ABC (mg/kg)	ACL (mg/kg)	ABC+ACL	Adopted EIL (mg/kg) ¹⁸
Lead	21	1100	1121	1100

The review of the laboratory results indicated that the detected concentrations of the relevant COPC in the soil samples analysed, were less than the adopted ecological assessment criteria, with the exception of:

- > TRH C16-C34 in samples SS11 (360mg/kg) and TP01/0.9-1.0 (1,300mg/kg), which exceeded the adopted assessment criterion of 300mg/kg; and
- > Benzo(a)pyrene in samples SS11 (7.8mg/kg), SS15 (3.1mg/kg), SS16 (4.7mg/kg) and TP01/0.4-0.5 (2.6mg/kg), which exceeded the adopted assessment criterion of 0.7mg/kg.

10.1.5.1 Discussion Regarding TRH C16-C34 EIL Exceedance

The detected concentrations of TRH C16-C34 in samples SP01, SS11 and TP01/0.9-1.0, which exceeded the relevant assessment criteria, may present an unacceptable ecological health exposure risk to terrestrial ecosystems.

On that basis, further assessment/management of TRH C16-C34 ecological health exposure risks is considered warranted.

10.1.5.2 Discussion Regarding Benzo(a)pyrene EIL Exceedance

CS notes that the benzo(a)pyrene ecological screening level (ESL) value of 0.7mg/kg presented in NEPC (2013a) is of low reliability, is based on fresh benzo(a)pyrene, and doesn't necessarily consider reductions in bioavailability associated with contaminant aging or total organic carbon concentrations in soil. Given the benzo(a)pyrene appears to be mainly present in surficial soil (<0.5m bgl), it is considered reasonable to assume the detected benzo(a)pyrene is likely to be somewhat aged, likely to be less bioavailable, but still assessable against a conservative fresh benzo(a)pyrene ecological health screening value.

An alternative, higher reliability and still highly conservative benzo(a)pyrene ecological guideline value for fresh benzo(a)pyrene in soil is 33mg/kg (derived ecological guideline with a 95% confidence limit)²¹ which provides an 85% protection level, consistent with the protection level offered by the benzo(a)pyrene ecological screening level presented in NEPC (2013a).

The CRC CARE (2017) guideline value of 33mg/kg is based on using a species sensitive distribution (SSD) methodology with a larger database, taking into account more species and a larger number of test results. CRC CARE (2017) advises that this approach provides greater confidence in the derived value, and that value can be considered to have a higher level of reliability for use in Australia than applying lower reliability guidelines that were adopted in NEPC (2013a) for species protection.

The guideline value of 33mg/kg is consistent with the soil quality guideline value for environmental health (20mg/kg) presented in CCME (2010), which also provides an 85% protection level offered by the benzo(a)pyrene ecological screening level presented in NEPC (2013a).

The highest detected concentration of benzo(a)pyrene detected in soils at site (7.8mg/kg) was found to be an order of magnitude less than the alternative higher reliability ecological guidelines for benzo(a)pyrene (33mg/kg and 20mg/kg). On this basis, CS considers the detected concentrations of benzo(a)pyrene in site soils are unlikely to present an unacceptable ecological health exposure risk to terrestrial ecosystems.

Further assessment of benzo(a)pyrene in soil terrestrial ecosystem risks, is considered not warranted.

10.1.6 Aesthetics (All Areas)

10.1.6.1 Stockpiles of Material Onsite

Visual and olfactory observations made of the soils encountered during fieldwork included multiple stockpiles of timber, tree branches, soil, gravel, asphalt, etc.

²¹ Table 11 in CRC CARE (2017)

Section 3.6.3 of NEPC (2013a) advises that:

- > Small quantities of non-hazardous inert material should not be a cause of concern or limit the use of the site in most circumstances;
- > Sites with large quantities of well-covered known inert materials that present no health hazard such as brick fragments and concrete wastes (for example, broken cement blocks) are usually of low concern for both non-sensitive and sensitive land uses.

The observed stockpiled material onsite is considered to be inert and unlikely to present a health hazard.

Furthermore, the proposed subdivision works would likely include removal of these stockpiled non-soil materials from the surface of the site.

As such, further assessment of these aesthetic risks is considered not warranted.

10.1.7 Management Limits for Petroleum Hydrocarbons (All Areas)

The detected concentrations of the relevant COPC in the soil samples analysed, were less than the adopted management limits for petroleum hydrocarbon assessment criteria.

Further assessment of petroleum hydrocarbon related risks, in the context of formation of light non-aqueous phase liquids, fire and explosion hazards, or effects on buried infrastructure, is considered not warranted.

10.2 Sediment

10.2.1 Human Health – Direct Contact (All Areas)

The detected concentrations of the relevant COPC in the sediment samples analysed, were less than the adopted human health direct contact assessment criteria.

Further assessment of direct contact human health exposure risks is considered not warranted.

10.2.2 Pathogens (All Areas)

The detected concentrations of the relevant COPC in the sediment samples analysed, were less than the adopted E.coli and thermotolerant coliform assessment criteria with the exception of:

- > E.coli in TP09/0.9-1.0 (210 mpn/g), TP10/0.1-0.3 (450 mpn/g), TP67/0.1-0.3 (2,4000 mpn/g), which exceeded the adopted assessment criterion of 100mpn/g; and
- > of Thermotolerant coliforms in TP42/0.1-0.3 (10,000 mpn/g), TP43/0.1-0.3 (2,500 mpn/g), TP66/0.0-0.1 (1,300 mpn/g) and TP67/0.1-0.3 (>24,000 mpn/g) which exceeded the adopted assessment criterion of 1,000mpn/g.

Further assessment/management of pathogen human health exposure risks is considered warranted.

10.2.3 Human Health – Vapour Intrusion / Inhalation (All Areas)

The detected concentrations of the relevant COPC in the sediment samples analysed, were less than the adopted human health vapour intrusion / inhalation assessment criteria.

Further assessment of vapour intrusion / inhalation human health exposure risks is considered not warranted.

10.2.4 Ecological – Terrestrial Ecosystems

The detected concentrations of the relevant COPC in the sediment samples²² analysed, were less than the adopted ecological assessment criteria, with the exception of:

- > TRH C16-34 in TP11/0.1-0.3 (340 mg/kg), TP41/0.1-0.3 (2,300 mg/kg) and TP43/0.1-0.3 (1,300 mg/kg) which exceeded the adopted assessment criterion of 300 mg/kg; and
- > Zinc in samples TP41/0.1-0.3 (260mg/kg) and TP43/0.1-0.3 (310mg/kg), which exceeded the adopted assessment criterion of 250mg/kg.

²² Collected from the areas proposed for residential/environmental living

Further assessment/management of identified ecological health exposure risks is considered warranted.

10.2.5 **Aesthetics (All Areas)**

10.2.5.1 ***Sludge Material in Dams Across Site***

Sludge material was observed on the edges of the two dams (Dam 1 and Dam 2) onsite and there is high potential for sludge material to be present in the third dam (Dam 3). The sludge material is related to animal waste effluent being produced from the adjacent animal saleyards. The sludge material is likely to present an unacceptable aesthetic impact.

Further assessment/management of aesthetic risks is considered warranted.

10.2.6 **Management Limits for Petroleum Hydrocarbons**

The detected concentrations of the relevant COPC in the sediment samples analysed, were less than the adopted management limits for petroleum hydrocarbon assessment criteria.

Further assessment of petroleum hydrocarbon related risks, in the context of formation of light non-aqueous phase liquids, fire and explosion hazards, or effects on buried infrastructure, is considered not warranted.

10.3 **Dam Water**

10.3.1 **Dam Water – Aquatic Ecosystems**

The detected concentrations of the relevant COPC in the dam water samples were compared against the trigger values for the protection of 95% freshwater species as outlined in the ANZECC (2000).

Using the guidance provided in the Table 3.4.4 of the ANZECC (2000), CS derived site-specific assessment criteria for cadmium, chromium (III), copper, lead, nickel and zinc using the water hardness multiplier factor, which are presented in Table 10.3.1.

Table 10.3.1.1 Site Specific Dam Water Assessment Criteria (mg/L)

Contaminant	Average Water Hardness (CaCO ₃)	ANZECC 95% Criteria (mg/L)	Multiplication Factor	Adopted Criteria (mg/L)
Cadmium	500 (classed as extremely hard)	0.0002	10	0.002
Chromium (III)		0.001	8.4	0.008
Copper		0.0014	9	0.0126
Lead		0.0034	26.7	0.091
Nickel		0.011	9	0.01
Zinc		0.008	9	0.072

The detected concentrations of the relevant COPC in the dam water samples analysed, were less than the adopted freshwater aquatic ecosystems assessment criteria, with the exception of:

- > Ammonia in SW01 (11mg/L) and SW02 (14mg/L) which exceeded adopted assessment criterion of 0.9 mg/L;
- > Arsenic in SW01 (0.13mg/L), which exceeded the adopted assessment criterion of 0.024mg/L;
- > Copper in all samples (i.e. SW01 to SW03), which exceeded the adopted assessment criterion of 0.0126mg/L; and
- > Zinc in SW01 (0.083mg/L), which exceeded adopted assessment criterion of 0.072 mg/L.

The detected concentrations of arsenic, copper and zinc in the soil samples collected from site and analysed were generally within background ranges presented in Berkman D A (1989) with the exception of arsenic in

surface sample location SS14 and zinc in soil sample collected at TP55 where the concentrations were outside the background ranges. However, both SS14 and TP55 are considered to be located at a down-gradient location from SW01 (Dam 1) where arsenic and zinc concentrations in site soils are unlikely to be a significant contributor to arsenic and zinc in dam water in Dam 1.

The copper and zinc concentrations detected in the dam water samples were within the same order of magnitude as the inherently conservative adopted screening criteria, and also significantly less than the typical value for copper and zinc in stormwater (0.08mg/L and 0.22mg/l respectively) in a 'rural' land use as outlined in Table 2.49 and Table 2.47 in Fletcher T, Duncan H, Poelsman P & Lloyd S (2004) respectively.

As such, further assessment/management of dam water in relation to aquatic ecosystem exposure risks associated with arsenic, copper and zinc is considered not warranted.

However, in relation to the presence of ammonia in SW01 and SW02, CS considers that these contaminants may pose a risk to freshwater aquatic ecosystems

CS also understands that the dams located onsite would be dewatered and decommissioned as part of the redevelopment.

On that basis, further assessment/management of dam water related aquatic ecosystem exposure risks is considered warranted.

10.3.2 Creek Water– Aquatic Ecosystems

The detected concentrations of the relevant COPC in the creek water samples were compared against the trigger values for the protection of 95% freshwater species as outlined in the ANZECC (2000).

Using the guidance provided in the Table 3.4.4 of the ANZECC (2000), CS derived site-specific assessment criteria for cadmium, chromium (III), copper, lead, nickel and zinc using the water hardness multiplier factor, which are presented in Table 10.3.12.1.

Table 10.3.12.1 Site Specific Creek Water Assessment Criteria (mg/L)

Contaminant	Average Water Hardness (CaCO ₃)	ANZECC 95% Criteria (mg/L)	Multiplication Factor	Adopted Criteria (mg/L)
Cadmium	140 (classed as hard)	0.0002	4.2	0.0008
Chromium (III)		0.001	3.7	0.0037
Copper		0.0014	3.9	0.0055
Lead		0.0034	7.6	0.0258
Nickel		0.011	3.9	0.0429
Zinc		0.008	3.9	0.0312

The detected concentrations of the relevant COPC in the creek water samples analysed, were less than the adopted freshwater aquatic ecosystems assessment criteria, with the exception of:

- > Copper and zinc in all samples (i.e. SW04 to SW07), which exceeded the adopted assessment criterion of 0.0055mg/L and 0.0312mg/L respectively.

The copper and zinc concentrations detected in creek water samples were less than the typical value for copper and zinc in stormwater (0.08mg/L and 0.22mg/l respectively) in a 'rural' land use as outlined in Table 2.49 and Table 2.47 in Fletcher T, Duncan H, Poelsman P & Lloyd S (2004) respectively.

Also, the detected concentrations of copper and zinc in the soil samples collected from the site and analysed were within background ranges presented in Berkman D A (1989) with the exception of zinc in soil sample collected at TP55 where the concentration was outside the background range. Given that TP55 is located at cross-gradient location from the creek onsite, and 230m from the creek, it is considered unlikely that the zinc

concentrations in site soils would be contributing to elevated zinc concentrations in site creek water. Further, on the understanding that the creek flow direction is from west to east, it is noted that copper and zinc concentrations in creek water are already elevated above the adopted screening criteria, and generally remain within the same order of magnitude (and within a similar range of values, or even decreasing down gradient in the case of zinc)) across the four sampling points (from west to east. This indicates that elevated copper and zinc concentrations in creek water are likely to be a regional phenomenon, and not likely to be attributable to historical land contaminating activities on site. On that basis, further assessment/management of creek water related aquatic ecosystem exposure risks is considered not warranted.

10.3.3 Pathogens

The detected concentrations of the relevant COPC in creek and dam water samples analysed, were less than the adopted E.coli and thermotolerant coliform assessment criteria.

Further assessment of pathogen exposure risks is considered not warranted.

10.4 Groundwater

As noted in Section 7.6.1, installation of groundwater monitoring wells could not be undertaken as the boreholes were observed dry to depths up to 10m bgl during drilling. CS notes the following:

- > Significantly elevated or widespread soil contamination arising from previous land use activities was not observed as part of this investigation.
- > There was a lack of observable soil moisture within the soil, perched water at the soil/rock interface, at monitoring well drilling locations.
- > Extremely dry conditions were encountered during rock drilling, suggesting that groundwater is unlikely to be present at depths of 9m to 10mbgl.
- > Extremely hard rock was encountered during rock drilling. In the unlikely scenario a significant or widespread contamination source was present on site, the potential for identified COPC in the AEC where groundwater was being investigated, to migrate through that rock to depths to beyond 9-10 metres below ground surface (where groundwater may be present), is considered to be low.

Based on the above, further assessment of identified groundwater exposure risks is considered not warranted.

11 Revised Conceptual Site Model

Based on CS's review of CS (2019), fieldwork observations and laboratory analytical data, in the context of the proposed land use scenarios, a revised conceptual site model for the site is presented in Table 11.

Table 11 Revised Conceptual Site Model

ID	AEC	COPC	Exposure Pathway	Receptor	Validated
AEC01	North west dam curtilage	Hydrocarbons, pathogens	Direct contact, plant uptake	Future low density residential land users Ecological	No – unacceptable direct contact and ecological risks identified at TP01 require further assessment, management or remediation.
AEC02	Dam waters and sediments	Hydrocarbons, pathogens, nutrients	Direct contact, aesthetic and plant uptake	Future low density residential land users Ecological	No – unacceptable direct contact and ecological risks identified in the sediments at TP09, TP10 and TP11 require further assessment, management or remediation. The elevated concentration of ammonia identified in the dam water requires further assessment, management / remediation. The aesthetically unsuitable sludge present in the dam requires further assessment, management / remediation
AEC03	Dam wall	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens	Direct contact, inhalation / intrusion, plant uptake, aesthetics	Future low density residential land users Ecological	Yes – unacceptable contamination risks not detected
AEC04	Mound	Hydrocarbons, pesticides, PCB,	Direct contact, inhalation / intrusion, plant	Future low density residential land users	Yes – unacceptable contamination risks not detected

ID	AEC	COPC	Exposure Pathway	Receptor	Validated
		metals, asbestos, pathogens	uptake, aesthetics	Ecological	
AEC05	Area between mounds	Pathogens	Direct contact	Future low density residential land users	No – unacceptable direct contact risks identified at TP21 and TP23 require further assessment, management / remediation.
AEC06	Mound	Pathogens	Direct contact	Future low density residential land users	No – unacceptable direct contact risks identified at TP28 further assessment, require management / remediation.
AEC07	Area between mounds	Pathogens	Direct contact	Future low density residential land users	No – unacceptable direct contact risks identified at TP32 require further assessment, management / remediation.
AEC08	Mound	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens	Direct contact, inhalation / intrusion, plant uptake, aesthetics	Future low density residential land users Ecological	Yes – unacceptable contamination risks not detected
AEC09	Mound	Pathogens	Direct contact	Future low density residential land users	No – unacceptable direct contact risks identified at TP38 require further assessment, management / remediation.
AEC10	Dam waters and sediments	Hydrocarbons, pathogens, nutrients	Direct contact, aesthetics and plant uptake	Future low density residential land users Ecological	No – unacceptable direct contact risks identified in dam sediment at TP42 and TP43 and ecological risks identified in sediment at TP41 and TP43 require further assessment, management / remediation.

ID	AEC	COPC	Exposure Pathway	Receptor	Validated
					The elevated concentration of ammonia identified in the dam water requires management / remediation. The aesthetically unsuitable sludge present in the dam requires management / remediation
AEC11	Dam wall	Pathogens	Direct contact	Future low density residential land users	No – unacceptable direct contact risks identified at TP45, TP46 and TP51 require further assessment, management / remediation.
AEC12	Down gradient of truck wash effluent dam	Hydrocarbons, metals, nutrients, pathogens	Direct contact, inhalation / intrusion, aesthetics	Future low density residential land users Ecological	Yes – unacceptable contamination risks not detected
AEC13	Potential former road	Hydrocarbons	Direct contact	Future low density residential land users Ecological	No – unacceptable direct contact and ecological risks identified at SS11, SS15 and SS16 require further assessment, management / remediation.
AEC14	Material bays	Pathogens	Direct contact	Future industrial / commercial land users	No – unacceptable direct contact risks identified at TP53 require further assessment, management / remediation.
AEC15	Shed	Hydrocarbons, pesticides, metals	Direct contact, inhalation / intrusion, aesthetics	Future industrial / commercial land users	Yes – unacceptable contamination risks not detected
AEC16	Driveway, tracks and building pad	Hydrocarbons, pesticides, PCB, metals, asbestos	Direct contact, inhalation / intrusion, plant	Future industrial / commercial land users	Yes – unacceptable contamination risks not detected

ID	AEC	COPC	Exposure Pathway	Receptor	Validated
			uptake, aesthetics	Ecological	
AEC17	Former greenhouse	Pesticides and metals	Direct contact, aesthetics	Future industrial / commercial land users	Yes – unacceptable contamination risks not detected
AEC18	Remnant greenhouse	Pesticides and metals	Direct contact, aesthetics	Future industrial / commercial land users	Yes – unacceptable contamination risks not detected
AEC19	South of greenhouses	Asbestos	Inhalation, aesthetics	Future industrial/commercial land users	No – unacceptable asbestos risks identified at ACM01 require further assessment, management / remediation.
AEC20	First flush catchment dam	Pathogens	Direct contact and aesthetics	Future industrial/commercial land users	No – unacceptable direct contact risks identified in sediment at TP66 and TP67 require further assessment, management / remediation. The aesthetically unsuitable sludge present in the dam requires further assessment, management / remediation
AEC21	First flush catchment dam	Pathogens	Direct contact	Future industrial / commercial land users	No – unacceptable direct contact risks identified at TP71 and TP74 require management / remediation.
AEC22	Potential pit	Hydrocarbons, metals, nutrients, pathogens	Direct contact, inhalation / intrusion, aesthetics	Future industrial / commercial land users	No – to be validated post removal

ID	AEC	COPC	Exposure Pathway	Receptor	Validated
AEC23	Pit	Hydrocarbons, metals, nutrients, pathogens	Direct contact, inhalation / intrusion, aesthetics	Future industrial / commercial land users	No – to be validated post removal
AEC24	Fenced storage yard	Hydrocarbons, pesticides, PCB, metals, asbestos, pathogens	Direct contact, inhalation / intrusion, aesthetics	Future industrial / commercial land users	Yes – unacceptable contamination risks not detected
AEC25	Creek	Hydrocarbons, metals, nutrients, pathogens	Aquatic ecosystem uptake	Aquatic ecosystem	Yes – unacceptable contamination risks not detected
AEC26	Saleyard effluent and sludge dams	Hydrocarbons, metals, nutrients, pathogens	Drinking, inhalation / intrusion, plant uptake	Future residential / industrial / commercial land users Aquatic ecosystem	Yes – unacceptable contamination risks not present
AEC27 (new AEC)	Areas surrounding ABC01	Asbestos	Inhalation, aesthetics	Future residential land users	No – unacceptable asbestos risks identified at ABC01 require further assessment, management / remediation.

12 Conclusions and Recommendations

Based on CS's review of CS (2019), fieldwork observations and laboratory analytical data, in the context of the proposed land use scenario, CS makes the following conclusions.

- > The concentrations of benzo(a)pyrene TEQ detected at soil sample locations SS11, SS15, SS16 and TP01 could present an unacceptable direct contact exposure risk to human health.
- > The reported concentration of pathogens in soil sample locations TP01, TP21, TP23, TP28, TP32, TP38, TP45, TP46, TP51, TP53, TP71 and TP74 could present an unacceptable direct contact exposure risk to human health.
- > The reported concentration of pathogens in dam sediment samples collected from all dams onsite could present an unacceptable direct contact exposure risk to human health.
- > The observed presence of asbestos on the surface of the site at sample locations ACM01 and ABC01 could present an unacceptable exposure and aesthetic risk to human health.
- > The concentrations of TRH C16-C34 detected at soil sample locations SS11 and TP01 could present an unacceptable ecological risk.
- > The concentrations of TRH C16-C34 and zinc detected at dam sediment samples collected from Dam 1 and Dam 2 (AEC2 and AEC10) could present an unacceptable ecological risk.
- > The sludge material present in all dams across the site could present an unacceptable aesthetic impact.
- > The concentrations of ammonia detected in Dam 1 and Dam 2 (AEC2 and AEC10) could present an unacceptable ecological risk.
- > The site could be made suitable for the proposed land use scenario, subject to:
 - Appropriate management and/or remediation of the identified contamination risk in site soils, dam sediments and dam water; and
 - Appropriate management and/or dewatering of the dam.

Based on these conclusions, CS makes the following recommendations:

- > A remedial action plan (RAP) should be prepared to address the identified contamination risks on site.
- > The RAP should include a methodology for supplementary assessment of the identified contamination risks, which could include quantitative human health and ecological risk assessment, delineation of known unacceptable contamination risks, and conceptual remedial strategies to address known and likely unacceptable contamination risks.
- > A site validation report (SVR) should be prepared at the completion of all management / remedial works, confirming that the site has been made suitable for the proposed land use scenario.
- > Preparation of the RAP, undertaking of the supplementary assessment works, and preparation of the SVR, should be undertaken by a suitably experienced environmental consultant.

This report must be read in conjunction with the explanatory notes, limitations and general notes, as set out in Appendix A.

13 References

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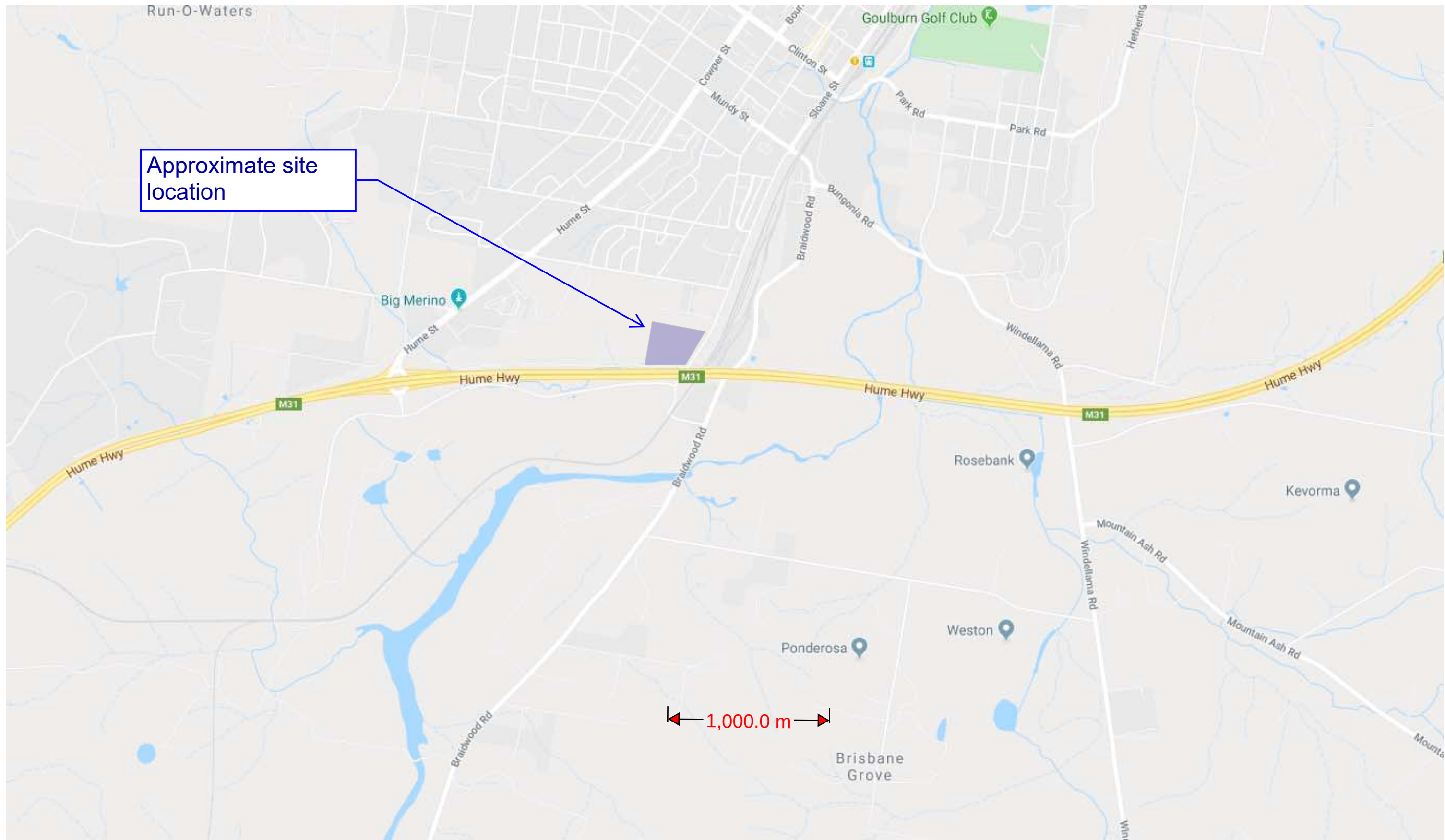
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Lot 1 in DP1034565
and Lot 3 in
DP1008818, Corner of
Dossie St and Sloane
St, Goulburn, NSW

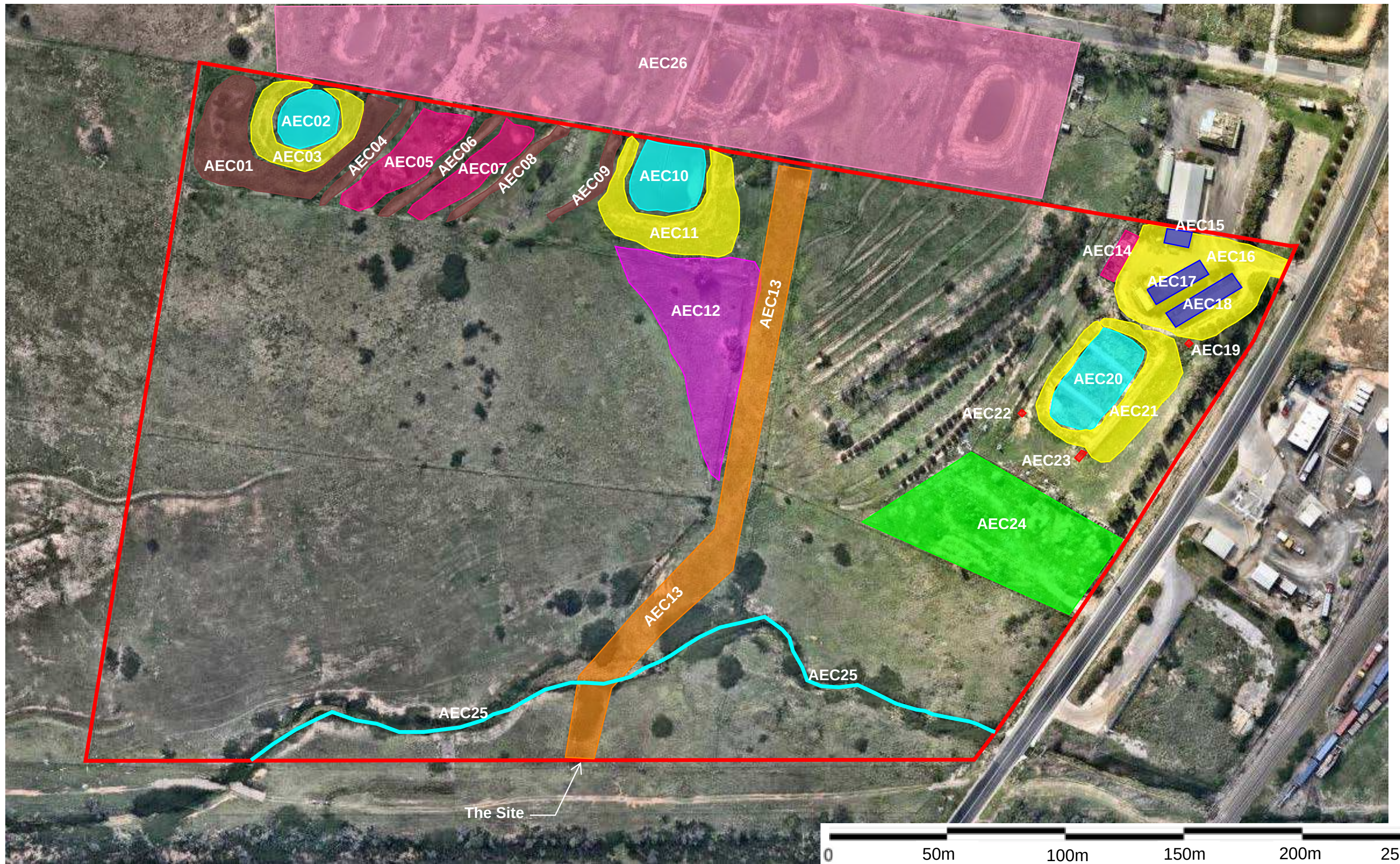
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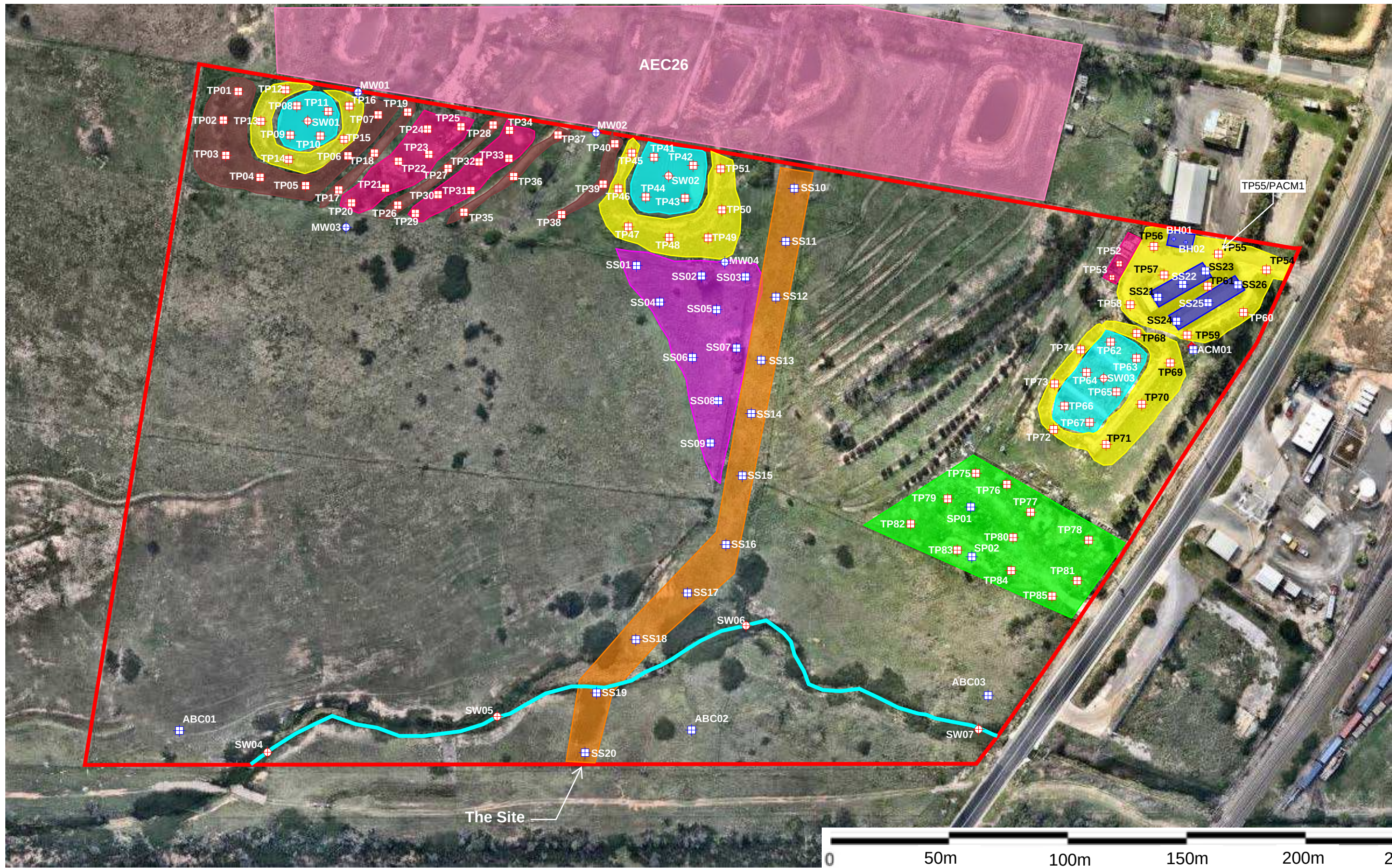
	LEGEND:	 Construction Sciences 31 Anvil Road SEVEN HILLS NSW 2147 Tel: (02) 8646 2000 Fax: (02) 8646 2025 Web: www.constructionsciences.net	Scale: As shown	Client: Goulburn Mulwaree Council	
			Date: 20/03/2020	Project: Stage 2 Detailed Site Investigation	
			Drawn By: AN	Location: Lot 1 in DP1034565 and Lot 3 in DP1008818, Corner of Dossie St and Sloane St, Goulburn, NSW	
			Drawing No: 5046200019-R02 Figure 1	Sheet: 1 of 1	SITE LOCALITY PLAN



	LEGEND:	 Construction Sciences 31 Anvil Road SEVEN HILLS NSW 2147 Tel: (02) 8646 2000 Fax: (02) 8646 2025 Web: www.constructionsciences.net	Scale: See site plan	Client: Goulburn Mulwaree Council	
			Date: 1 November 2019	Project: Stage 2 Detailed Site Investigation	
			Drawn By: CAC	Location: Lot 1 in DP1034565 and Lot 3 in DP1008818, Corner of Dossie St and Sloane St, Goulburn, NSW	
			Drawing No: 5046200019-R02 Figure 2	Sheet: 1 of 1	SITE LAYOUT PLAN



	LEGEND:	 Construction Sciences 31 Anvil Road SEVEN HILLS NSW 2147 Tel: (02) 8646 2000 Fax: (02) 8646 2025 Web: www.constructionsciences.net	Scale: See site plan		Client: Goulburn Mulwaree Council	
			Date: 1 November 2019		Project: Stage 2 Detailed Site Investigation	
			Drawn By: CAC		Location: Lot 1 in DP1034565 and Lot 3 in DP1008818, Corner of Dossie St and Sloane St, Goulburn, NSW	
			Drawing No: 5046200019-R02 Figure 3		Sheet: 1 of 1	AREAS OF ENVIRONMENTAL CONCERN



	LEGEND:	 Construction Sciences 31 Anvil Road SEVEN HILLS NSW 2147 Tel: (02) 8646 2000 Fax: (02) 8646 2025 Web: www.constructionsciences.net	Scale: See site plan	Client: Goulburn Mulwaree Council	
			Date: 30 January 2020	Project: Stage 2 Detailed Site Investigation	
			Drawn By: CAC	Location: Lot 1 in DP1034565 and Lot 3 in DP1008818, Corner of Dossie St and Sloane St, Goulburn, NSW	
			Drawing No: 5046200019-R02 Figure 4	Sheet: 1 of 1	SAMPLING POINT LAYOUT PLAN

Lot 1 in DP1034565
and Lot 3 in
DP1008818, Corner of
Dossie St and Sloane
St, Goulburn, NSW

TABLES

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									Field ID	TP05 0.4-0.5	TP06 0.0-0.1	TP07 0.0-0.1	TP07 0.9-1.0	TP12 0.0-0.1	TP12 1.4-1.5	TP13 0.0-0.1	TP13 0.5-0.6	TP13 1.5-1.6	TP14 0.0-0.1	TP14 0.4-0.5	TP14 1.9-2.0	TP15 0.0-0.1	TP15 1.4-1.5	TP16 0.0-0.1	TP16 0.4-0.5	TP16 1.9-2.0	TP17 0.0-0.1	TP18 0.0-0.1	TP18 0.4-0.5	TP19 0.0-0.1
									Date	18/02/2020	18/02/2020	18/02/2020	18/02/2020	18/02/2020	18/02/2020	18/02/2020	18/02/2020	18/02/2020	18/02/2020	18/02/2020	18/02/2020	18/02/2020	18/02/2020	18/02/2020	18/02/2020	18/02/2020	19/02/2020	19/02/2020	19/02/2020	19/02/2020
	Unit	EOL	NEPM 2013 Table 18(7) Management Limits in Res / Parkland, Coarse Soil	NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand	NEPM 2013 Table 18(6) ESLs for Urban Res, Coarse Soil	NEPM 2013 Table 1A(1) HILs Res A Soil	NSW EPA 2000 Table 3-5 Microbiological Standards	Site Specific EILs																						
BTEX																														
	Benzene	mg/kg	0.1	0.5	50	100			<0.1	<0.1	<0.1			<0.1			<0.1		<0.1			<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Toluene	mg/kg	0.1	160	85	14000			<0.1	<0.1	<0.1			<0.1			<0.1		<0.1			<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Ethylbenzene	mg/kg	0.1	55	70	4500			<0.1	<0.1	<0.1			<0.1			<0.1		<0.1			<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Xylene (m & p)	mg/kg	0.2						<0.2	<0.2	<0.2			<0.2			<0.2		<0.2			<0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
	Xylene (o)	mg/kg	0.1						<0.1	<0.1	<0.1			<0.1			<0.1		<0.1			<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Xylene Total	mg/kg	0.3	40	105	12000				<0.3	<0.3	<0.3			<0.3			<0.3		<0.3			<0.3		<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	
TRH																														
	C6-C10 (F1 minus BTEX)	mg/kg	20	45	180	4400			<20	<20	<20			<20			<20		<20			<20		<20	<20	<20	<20	<20	<20	
	C10-C16 (F2 minus Naphthalene)	mg/kg	50	110	120	3300			<50	<50	<50			<50			<50		<50			<50		<50	<50	<50	<50	<50	<50	
	C16-C34	mg/kg	100		300	4500			<100	140	200			<100			<100		150			<100		<100	<100	<100	<100	140	<100	
C30-C40	mg/kg	100	10,000	2,800	6500				<100	<100	140			<100			<100		<100			<100		<100	<100	<100	<100	<100	<100	
	E. Coll	MPN/G	1				100			10	<10		<10		<10			<10		20			30		<10	<10		<10	<10	
Thermotolerant Coliforms	MPN/G	1					1000			20	<10		52		<10			<10		62			74		300	110		<10	<10	
Metals										20	<10		52		<10			<10		62			74		300	110		<10	<10	
	Arsenic	mg/kg	2			100		100	2.6	12	9.8	10	10		14	10		6.3			7.7		11	13	4.9	8.2	5.8			
	Cadmium	mg/kg	0.4			20			<0.4	<0.4	<0.4	<0.4	<0.4		<0.4	<0.4		<0.4		<0.4		<0.4		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	
	Chromium (III+VI)	mg/kg	5			100		350	<5	23	21	41	31		28	45		26		16		31	33	<5	5.4	8.7				
	Copper	mg/kg	5			6,000		300	5.4	48	66	25	37		29	32		31		40		52	59	<5	<5	6.3				
	Lead	mg/kg	5			300		1,100	5.9	17	21	26	18		26	31		13		16		21	34	11	12	12				
	Mercury	mg/kg	0.1			40			<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1		<0.1		<0.1		<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Nickel	mg/kg	5			400		50	<5	11	12	14	11		12	25		11		8.5		16	12	<5	<5	<5	<5	<5	<5	
	Zinc	mg/kg	5			7,400		250	20	99	140	68	46		81	46		67		88		150	81	14	9.5	21				
	Organochlorine Pesticides																													
Total OCP	mg/kg	2.5							<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
PAH																														
	Benzo(a) pyrene	mg/kg	0.5		0.7				<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5		<0.5		<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	Benzo(a) pyrene TEQ (LOR)	mg/kg	0.5			3			1.2	1.2	1.2	1.2	1.2		1.2	1.2		1.2		1.2		1.2		1.2	1.2	1.2	1.2	1.2	1.2	
	PAHs (Sum of total)	mg/kg	0.5			300			<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5		<0.5		<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
PCBs (Sum of total)	mg/kg	0.5				1					<0.5		<0.5			<0.5				<0.5	<0.5		<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	

								Field ID	TP19 0.3-0.4	TP20 0.0-0.1	TP20 0.4-0.5	TP21 0.0-0.1	TP22 0.0-0.1	TP23 0.0-0.1	TP24 0.0-0.1	TP25 0.0-0.1	TP26 0.0-0.1	TP26 0.3-0.4	TP27 0.0-0.1	TP27 0.5-0.6	TP27 0.7-0.8	TP28 0.0-1	TP29 0.0-0.1	TP29 0.3-0.4	TP30 0.0-0.1	TP31 0.0-0.1	TP32 0.0-0.1	TP33 0.0-0.1	
								Date	19/02/2020	19/02/2020	19/02/2020	19/02/2020	19/02/2020	19/02/2020	19/02/2020	19/02/2020	19/02/2020	19/02/2020	19/02/2020	19/02/2020	19/02/2020	19/02/2020	19/02/2020	19/02/2020	19/02/2020	19/02/2020	19/02/2020	19/02/2020	19/02/2020
	Unit	EQL	NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil	NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand	NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil	NEPM 2013 Table 1A(1) HILs Res A Soil	NSW EPA 2000 Table 3-5 Microbiological Standards	Site Specific EILs																					
BTEX																													
Benzene	mg/kg	0.1		0.5	50	100					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Toluene	mg/kg	0.1		160	85	14000					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Ethylbenzene	mg/kg	0.1		55	70	4500					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Xylene (m & p)	mg/kg	0.2									<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		
Xylene (o)	mg/kg	0.1									<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Xylene Total	mg/kg	0.3		40	105	12000					<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3		
TRH																													
C6-C10 (F1 minus BTEX)	mg/kg	20		45	180	4400					<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20		
C10-C16 (F2 minus Naphthalene)	mg/kg	50		110	120	3300					<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50		
C16-C34	mg/kg	100	2,500		300	4500					<100	<100	100	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100		
C34-C40	mg/kg	100	10,000		2,800	6300					<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100		
Biological																													
E. Coli	MPN/G	1					100				<10		540	<10	<10	<10	<10		10			190	<10		<10	<10	110	10	
Thermotolerant Coliforms	MPN/G	1					1000				500		>24,000	31	2,000	<10	10	<10	10			190	<10		540	120	1,100	41	
Metals																													
Arsenic	mg/kg	2				100		100			5.5	5.9	5.6	8	4.7	8.9	5.7	21	4.7		5.6	10	6.3	7.3	3.9	7.3	8.9	9.8	
Cadmium	mg/kg	0.4				20					<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	
Chromium (III+VI)	mg/kg	5				100		350			6.4	13	6.8	5.8	<5	7.9	7.4	6.6	5.3		5.3	7.1	19	7.6	<5	14	11	11	
Copper	mg/kg	5				6,000		300			<5	17	9.3	21	11	5.2	<5	<5	<5		<5	5.1	19	<5	8.6	8.6	5.7	5.7	
Lead	mg/kg	5				300		1,100			10	15	17	14	17	12	14	7.8	8.6		8.1	12	18	12	6.5	18	15	17	
Mercury	mg/kg	0.1				40					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	
Nickel	mg/kg	5				50		50			<5	<5	7.9	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5.1	<5	<5	
Zinc	mg/kg	5				7,400		250			17	14	30	19	40	32	14	5.7	6		9.1	<5	12		5.2	5.6	16	15	9.3
Organochlorine Pesticides																													
Total OCP	mg/kg	2.5																											
PAH											<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
Benzo(a) pyrene	mg/kg	0.5			0.7						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(a) pyrene TEQ (LOR)	mg/kg	0.5				3					1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
PAHs (Sum of total)	mg/kg	0.5				300					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
PCBs																													
PCBs (Sum of total)	mg/kg	0.5				1														<0.5		<0.5							

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								Field ID	TP48 0.0-0.1	TP48 1.2-1.3	TP49 0.0-0.1	TP49 0.5-0.6	TP51 0.0-0.1	TP51 0.4-0.5
								Date	20/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020
	Unit	EQL	NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil	NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand	NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil	NEPM 2013 Table 1A(1) Hills Res A Soil	NSW EPA 2000 Table 3-5 Microbiological Standards	Site Specific EILs						
BTEX														
Benzene	mg/kg	0.1		0.5	50	100			<0.1			<0.1	<0.1	
Toluene	mg/kg	0.1		160	85	14000			<0.1			<0.1	<0.1	
Ethylbenzene	mg/kg	0.1		55	70	4500			<0.1			<0.1	<0.1	
Xylene (m & p)	mg/kg	0.2							<0.2			<0.2	<0.2	
Xylene (o)	mg/kg	0.1							<0.1			<0.1	<0.1	
Xylene Total	mg/kg	0.3		40	105	12000			<0.3			<0.3	<0.3	
TRH														
C6-C10 (F1 minus BTEX)	mg/kg	20		45	180	4400			<20			<20	<20	
C10-C16 (F2 minus Naphthalene)	mg/kg	50		110	120	3300			<50			<50	<50	
C16-C34	mg/kg	100	2,500		300	4500			<100			<100	<100	
C34-C40	mg/kg	100	10,000		2,800	6500			<100			<100	<100	
Biological														
E. Coli	MPN/G	1					100		<10		<10		<10	
Thermotolerant Coliforms	MPN/G	1					1000		10		<10		1,400	
Metals														
Arsenic	mg/kg	2				100		100	7.3	13		31	14	14
Cadmium	mg/kg	0.4				20			<0.4	<0.4		<0.4	<0.4	<0.4
Chromium (III+VI)	mg/kg	5				100		350	28	23		30	29	25
Copper	mg/kg	5				6,000		300	10	11		34	18	14
Lead	mg/kg	5				300		1,100	18	20		23	19	18
Mercury	mg/kg	0.1				40			<0.1	<0.1		<0.1	<0.1	<0.1
Nickel	mg/kg	5				400		50	6.5	6.3		31	10	9.1
Zinc	mg/kg	5				7,400		250	30	15		40	30	26
Organochlorine Pesticides														
Total OCP	mg/kg	2.5							<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
PAH														
Benzo(a) pyrene	mg/kg	0.5			0.7				<0.5	<0.5		<0.5	<0.5	<0.5
Benzo(a) pyrene TEQ (LOR)	mg/kg	0.5				3			1.2	1.2		1.2	1.2	1.2
PAHs (Sum of total)	mg/kg	0.5				300			<0.5	<0.5		<0.5	<0.5	<0.5
PCBs														
PCBs (Sum of total)	mg/kg	0.5				1			<0.5		<0.5		<0.5	

					Field ID	DUP 20	DUP25	SP01	SP02	SS21	SS22	SS23	SS24	SS25	SS26	TPS2 0.0-0.1	TPS3 0.0-0.1	TPS3 0.2-0.3	TPS4 0.0-0.1	TPS5 0.0-0.1	TPS5 0.4-0.5	TPS6 0.0-0.1	TPS7 0.0-0.1	TPS8 0.0-0.1	TPS9 0.0-0.1	TPS9 0.4-0.5	TP60 0.9-1.0	TP60 1.9-2.0	TP61 0.0-0.1	TP62 0.1-0.3	TP63 0.1-0.3	TP64 0.1-0.3	TP65 0.1-0.3	TP66 0.1-0.3
					Date	20/02/2020	21/02/2020	21/02/2020	21/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020
					Unit																													
					EQI																													
					NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil	NEPM 2013 Table 1A(1) Contaminant Limits Coarse Soil		
					EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards	EPA 2000 Table 3-5 Microbiological Standards			
					BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX
					Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene
					Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene	Toluene
					Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene	Ethylbenzene
					Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	Xylene (m & p)	
					Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)	Xylene (o)
					Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total	Xylene Total
					THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH	THH
					C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)	C6-C10 (F1 minus BTEX)		
					C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)	C10-C16 (F2 minus Naphthalene)		
					C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34	C16-C34
					C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40	C34-C40
					Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological	Biological
					E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli	E. Coli
					Thermotolerant Coliforms	Thermotolerant Coliforms	Thermotolerant Coliforms	Thermotolerant Coliforms	Thermotolerant Coliforms	Thermotolerant Coliforms	Thermotolerant Coliforms	Thermotolerant Coliforms	Thermotolerant Coliforms	Thermotolerant Coliforms	Thermotolerant Coliforms	Thermotolerant Coliforms																		

Field ID		TP67 0.1-0.3	TP68 0.0-0.1	TP69 0.0-0.1	TP69 0.3-0.4	TP70 0.0-0.1	TP71 0.0-0.1	TP72 0.0-0.1	TP72 0.2-0.3	TP72 0.6-0.7	TP73 0.0-0.1	TP74 0.0-0.1	TP74 0.8-0.9	TP75 0.0-0.1	TP76 0.0-0.1	TP76 1.5-1.6	TP77 0.2-0.3	TP78 0.0-0.2	TP78 1.1-1.2
Date		21/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020
	Unit	COL	NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil	NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand	NEPM 2013 Table 1A(1) HILS Comm/Ind D Soil	EPA 2000 Table 3-5 Microbiological Standards													
BTEX																			
Benzene	mg/kg	0.1		3	430		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1			9000		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1			27000		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Xylene (m & p)	mg/kg	0.2					<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Xylene (o)	mg/kg	0.1					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Xylene Total	mg/kg	0.3		230	81000		<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
THH																			
C6-C10 (F1 minus BTEX)	mg/kg	20		260	26000		<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
C10-C16 (F2 minus Naphthalene)	mg/kg	50			20000		<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
C16-C34	mg/kg	100	3,500		27000		<100	<100	130	<100	<100	<100	<100	<1,000	<1,000	<100	<100	<100	<100
C34-C40	mg/kg	100	10,000		38000		<100	<100	<100	<100	<100	<100	<100	<1,000	<1,000	<100	<100	<100	120
Biological																			
E. Coli	MPN/G	1			100		24,000	<10	<10		<10	<10		<10	<10	<10	<10	<10	<10
Thermotolerant Coliforms	MPN/G	1			1000		>24,000	400	460		<10	1,400	220	510	1,500	18	<10	<10	<10
Metals																			
Arsenic	mg/kg	2			1,000		12	5.8	6.4	3.6	6.8	9.5		5.4	7.8	6.1	8	4	12
Cadmium	mg/kg	0.4			500		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium (III+VI)	mg/kg	5					44	35	27	28	5.5	39	42	38	36	33	39	22	17
Copper	mg/kg	5			240,000		36	29	21	18	20	23		15	18	12	25	18	39
Lead	mg/kg	5			1,500		24	16	19	15	9.2	19		17	17	16	20	15	32
Mercury	mg/kg	0.1			750		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2
Nickel	mg/kg	5			6,000		14	17	7.2	12	<5	6.1	10	11	<5	8.3	11	8	6.2
Zinc	mg/kg	5			400,000		27	27	48	22	28	15		20	20	10	39	29	55
Organochlorine Pesticides																			
Total OCP	mg/kg	2.45					<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
PAH																			
Benzo(a) pyrene	mg/kg	0.5					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1	<0.5
Benzo(a) pyrene TEQ (LOR)	mg/kg	0.5			40		1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.9	1.2
PAHs (Sum of total)	mg/kg	0.5			4,000		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	9.9	<0.5
PCBs																			
PCBs (Sum of total)	mg/kg	0.5			7		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

									Field ID	TP08 0.1-0.3	TP09 0.1-0.3	TP10 0.1-0.3	TP11 0.1-0.3	TP41 0.1-0.3	TP42 0.1-0.3	TP43 0.1-0.3	TP44 0.1-0.3
									Date	18/02/2020	18/02/2020	18/02/2020	18/02/2020	20/02/2020	20/02/2020	20/02/2020	20/02/2020
	Unit	EQL	NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil	NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand	NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil	NEPM 2013 Table 1A(1) HILs Res A Soil	EPA 2000 Table 3-5 Microbiological Standards	Site Specific EILs									
BTEX																	
Benzene	mg/kg	0.1		0.5	50	100				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1		160	85	14000				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1		55	70	4500				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Xylene (m & p)	mg/kg	0.2								<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Xylene (o)	mg/kg	0.1								<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Xylene Total	mg/kg	0.3		40	105	12000				<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
TRH																	
C6-C10 (F1 minus BTEX)	mg/kg	20		45	180	4400				<20	<20	<20	<20	<20	<20	<20	<20
C10-C16 (F2 minus Naphthalene)	mg/kg	50		110	120	3300				<50	<50	<50	<50	84	<50	89	<50
C16-C34	mg/kg	100	2,500		300	4500				160	<100	290	340	2,300	<100	1,300	<100
C34-C40	mg/kg	100	10,000		2,800	6300				<100	<100	120	<100	890	<100	540	<100
Biological																	
E. Coli	MPN/G	1					100			10	210	450	10		<10	86	31
Thermotolerant Coliforms	MPN/G	1					1000			10	360	470	63		10,000	2,500	630
Metals																	
Arsenic	mg/kg	2				100		100		28	9.9	9.5	27	9.7	16	8	14
Cadmium	mg/kg	0.4				20				<0.4	<0.4	<0.4	<0.4	0.5	<0.4	0.6	<0.4
Chromium (III+VI)	mg/kg	5						350		6.9	9.6	5.5	14	28	34	36	33
Copper	mg/kg	5				6,000		300		15	6.9	22	37	53	15	77	14
Lead	mg/kg	5				300		1,100		20	18	23	29	12	14	17	21
Mercury	mg/kg	0.1				40				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	5				400		50		<5	<5	<5	7.8	16	6.7	19	8.1
Zinc	mg/kg	5				7,400		250		54	22	78	180	260	22	310	21
Organochlorine Pesticides																	
Total OCP	mg/kg	2.45								<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
PAH																	
Benzo(a) pyrene	mg/kg	0.5			0.7					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a) pyrene TEQ (LOR)	mg/kg	0.5				3				1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
PAHs (Sum of total)	mg/kg	0.5				300				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PCBs																	
PCBs (Sum of total)	mg/kg	0.5				1											

							Field ID	TP62 0.1-0.3	TP63 0.1-0.3	TP64 0.1-0.3	TP65 0.1-0.3	TP66 0.1-0.3	TP67 0.1-0.3
							Date	21/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020
	Unit	EQL	NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil	NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand	NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil	EPA 2000 Table 3-5 Microbiological Standards							
BTEX													
Benzene	mg/kg	0.1		3	430			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1			99000			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1			27000			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Xylene (m & p)	mg/kg	0.2						<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Xylene (o)	mg/kg	0.1						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Xylene Total	mg/kg	0.3		230	81000			<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
TRH													
C6-C10 (F1 minus BTEX)	mg/kg	20		260	26000			<20	<20	<20	<20	<20	<20
C10-C16 (F2 minus Naphthalene)	mg/kg	50			20000			<50	<50	<50	51	<50	<50
C16-C34	mg/kg	100	3,500		27000			<100	<100	<100	230	<100	<100
C34-C40	mg/kg	100	10,000		38000			<100	<100	<100	<100	<100	<100
Biological													
E. Coli	MPN/G	1				100		<10	<10	<10	10	<10	24,000
Thermotolerant Coliforms	MPN/G	1				1000		150	330	41	63	1,300	>24,000
Metals													
Arsenic	mg/kg	2			3,000			5.9	6.5	6.8	21	7.1	12
Cadmium	mg/kg	0.4			900			<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium (III+VI)	mg/kg	5						12	19	31	80	36	44
Copper	mg/kg	5			240,000			54	68	27	30	18	36
Lead	mg/kg	5			1,500			13	16	17	26	17	24
Mercury	mg/kg	0.1			730			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	5			6,000			6.5	9.7	11	19	9.7	14
Zinc	mg/kg	5			400,000			81	100	30	29	22	27
Organochlorine Pesticides													
Total OCP	mg/kg	2.45						<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
PAH													
Benzo(a) pyrene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a) pyrene TEQ (LOR)	mg/kg	0.5			40			1.2	1.2	1.2	1.2	1.2	1.2
PAHs (Sum of total)	mg/kg	0.5			4,000			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PCBs													
PCBs (Sum of total)	mg/kg	0.5			7								

						Field ID	QAQC1	SW01	SW02	SW03	SW04	SW05	SW06	SW07
						Date	20/02/2020	20/02/2020	20/02/2020	20/02/2020	21/02/2020	21/02/2020	21/02/2020	21/02/2020
	Unit	EQL	ANZECC 2000 Recreational Secondary Contact	ANZECC 2000 FW 95% Adopted Criteria (Dam Water)	ANZECC 2000 FW 95% Adopted Criteria (Creek Water)									
BTEX														
Benzene	µg/L	1		950	950			<4	<1	<1	<1	<1	<1	<1
Toluene	µg/L	1						<4	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	1						6	<1	<1	<1	<1	<1	<1
Xylene (m & p)	µg/L	2						20	<2	<2	<2	<2	<2	<2
Xylene (o)	µg/L	1		350	350			4	<1	<1	<1	<1	<1	<1
Xylene Total	µg/L	3						25	<3	<3	<3	<3	<3	<3
TRH														
C6-C10 (F1 minus BTEX)	µg/L	20						<80	<20	<20	<20	<20	<20	<20
C10-C16 (F2 minus Naphthalene)	µg/L	50						1,100	<50	<50	<50	<50	<50	<50
C16-C34	µg/L	100						2,800	<100	<100	<100	<100	<100	<100
C34-C40	µg/L	100						500	<100	<100	<100	<100	<100	<100
Biological														
E. Coli	cfu/100 ml	1	250					160	<10	<10	41	31	10	20
Thermotolerant Coliforms	cfu/100 mL	1	1,000					580	51	<10	120	400	150	110
Inorganics														
Ammonia as N	mg/L	0.01		0.9	0.9			11	14	0.16	0.02	0.11	0.16	0.12
Nitrate (as N)	mg/L	0.02		0.7	0.7			<0.5	<0.5	<0.02	0.03	<0.02	<0.02	<0.02
pH (Lab)	-	0.1						9	8.4	8.1	7.7	7.1	7.8	7.8
Phosphate total (P)	mg/L	0.01						12	8	2	0.08	0.06	0.11	0.1
Hardness as CaCO3	mg/L	5					135	870	480	220	130	130	140	140
Metals														
Arsenic (filtered)	mg/L	0.001		0.024	0.024		0.018	0.13	0.018	0.014	<0.001	<0.001	0.002	0.002
Cadmium (filtered)	mg/L	0.0002		0.002	0.0008		<0.0002	<0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Chromium (III+VI) (filtered)	mg/L	0.001		0.0084	0.0037		<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper (filtered)	mg/L	0.001		0.0126	0.0055		0.011	0.016	0.015	0.026	0.021	0.014	0.026	0.015
Lead (filtered)	mg/L	0.001		0.0908	0.0258		<0.001	<0.01	<0.001	<0.001	0.002	0.002	0.002	<0.001
Mercury (filtered)	mg/L	0.0001		0.0006	0.0006		<0.0001	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel (filtered)	mg/L	0.001		0.099	0.0429		0.016	0.067	0.017	0.007	0.006	0.005	0.015	0.005
Zinc (filtered)	mg/L	0.005		0.072	0.0312		0.018	0.083	0.027	0.046	0.11	0.15	0.13	0.065

			Field ID	TP04 0.0-0.1	DUP04	RPD	TP04 0.0-0.1	DUP 04A		TP13 0.5-0.6	DUP06		TP13 0.5-0.6	DUP 06A		TP28 0.0-1	DUP10		TP28 0.0-1	DUP 10A		TP40 0.4-0.5	DUP13		TP40 0.4-0.5	DUP 13A		TP47 0.8-0.9	DUP14		
			Date	18/02/2020	18/02/2020	(%)	18/02/2020	18/02/2020	RPD	18/02/2020	18/02/2020	RPD	18/02/2020	18/02/2020	RPD	19/02/2020	19/02/2020	RPD	19/02/2020	19/02/2020	RPD	19/02/2020	19/02/2020	RPD	19/02/2020	19/02/2020	RPD	20/02/2020	20/02/2020	RPD	
	Unit	EQL																													
BTEX																															
Benzene	mg/kg	0.1																													
Toluene	mg/kg	0.1																													
Ethylbenzene	mg/kg	0.1																													
Xylene (m & p)	mg/kg	0.2																													
Xylene (o)	mg/kg	0.1																													
Xylene Total	mg/kg	0.3																													
TRH																															
C6-C10 (F1 minus BTEX)	mg/kg	10																													
C10-C16 (F2 minus Naphthalene)	mg/kg	50																													
C16-C34	mg/kg	100																													
C34-C40	mg/kg	100																													
Biological																															
E. Coli	orgs/g	1		<10			<10										190			190											
Thermotolerant Coliforms	MPN/G	1		<10			<10										190			190											
Halogenated Benzenes																															
Hexachlorobenzene	mg/kg	0.05									<0.05	<0.05	0	<0.05			<0.05			<0.05											
Metals																															
Arsenic	mg/kg	2		13	13	0%	13	<5	89%		14	12	15	14	8	55	6.3	7.2	13	6.3	5	23	12	12	0	12	8	40			
Cadmium	mg/kg	0.4		<0.4	<0.4	0%	<0.4	<1	0%		<0.4	<0.4	0	<0.4	<1	0	<0.4	<0.4	0	<0.4	<1	0	<0.4	<0.4	0	<0.4	<1	0			
Chromium (III+VI)	mg/kg	2		64	54	17%	64	36	56%		28	22	24	28	18	43	19	12	45	19	12	45	29	27	7	29	22	27			
Copper	mg/kg	5		36	41	13%	36	19	62%		29	33	13	29	26	11	5.1	<5	2	5.1	<5	2	24	26	8	24	18	29			
Lead	mg/kg	5		35	22	46%	35	13	92%		26	21	21	26	17	42	19	15	24	19	14	30	24	25	4	24	20	18			
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	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0			
Nickel	mg/kg	2		24	19	23%	24	9	91%		12	12	0	12	7	53	<5	<5	0	<5	3	0	15	16	6	15	9	50			
Zinc	mg/kg	5		77	91	17%	77	29	91%		81	66	20	81	63	25	12	12	0	12	7	53	46	54	16	46	34	30			
Organochlorine Pesticides																															
Total OCP	mg/kg	3									<2.5	<2.5	0	<2.5			<2.5			<2.5											
PAH																															
Benzo(a) pyrene	mg/kg	0.5									<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5			<0.5	<0.5	0	<0.5	<0.5	0			
Benzo(a)pyrene TEQ (LOR)	mg/kg	0.5									1.2	1.2	0	1.2	1.2	0	1.2			1.2			1.2	1.2	0	1.2	1.2	0			
PAHs (Sum of total)	mg/kg	0.5									<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5			<0.5	<0.5	0	<0.5	<0.5	0			
PCBs																															
PCBs (Sum of total)	mg/kg	0.5									<0.5	<0.5	0	<0.5			<0.5			<0.5											
TPH																															
C6-C9	mg/kg	10															<20			<20								<20	<20	0	
C10-C14	mg/kg	20															<20			<20								<20	<20	0	
C15-C28	mg/kg	50															<50			<50								<50	<50	0	
C29-C36	mg/kg	50															<50			<50								<50	<50	0	
C10-C36 (Sum of total)	mg/kg	50															<50			<50								<50	<50	0	

*RPDs have only been considered where a concentration is greater than 1 times the EQL.
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: No limit (1 - 10 x EQL); 50 (10 - 20 x EQL); 30 (> 20 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

			Field ID	TP47 0.8-0.9	DUP 14A		TP51 0.4-0.5	DUP16		TP51 0.4-0.5	DUP 16A		TP59 0.4-0.5	DUP 20		TP59 0.4-0.5	DUP 20A		TP84 0.3-0.4	DUP25		TP84 0.3-0.4	DUP 25A	
			Date	20/02/2020	20/02/2020	RPD	20/02/2020	20/02/2020	RPD	20/02/2020	20/02/2020	RPD	20/02/2020	20/02/2020	RPD	20/02/2020	20/02/2020	RPD	21/02/2020	21/02/2020	RPD	21/02/2020	21/02/2020	RPD
	Unit	EQL																						
BTEX																								
Benzene	mg/kg	0.1		<0.1	<0.2	0														<0.1			<0.1	
Toluene	mg/kg	0.1		<0.1	<0.5	0														<0.1			<0.1	
Ethylbenzene	mg/kg	0.1		<0.1	<0.5	0														<0.1			<0.1	
Xylene (m & p)	mg/kg	0.2		<0.2	<0.5	0														<0.2			<0.2	
Xylene (o)	mg/kg	0.1		<0.1	<0.5	0														<0.1			<0.1	
Xylene Total	mg/kg	0.3		<0.3	<0.5	0														<0.3			<0.3	
TRH																								
C6-C10 (F1 minus BTEX)	mg/kg	10		<20	<10	0														<20			<20	
C10-C16 (F2 minus Naphthalene)	mg/kg	50		<50	<50	0														<500			<500	
C16-C34	mg/kg	100		<100	<100	0														<1,000			<1,000	
C34-C40	mg/kg	100		<100	<100	0														<1,000			<1,000	
Biological																								
E. Coll	orgs/g	1																		<10			<10	
Thermotolerant Coliforms	MPN/G	1																		10			10	
Halogenated Benzenes																								
Hexachlorobenzene	mg/kg	0.05																		<0.05			<0.05	
Metals																								
Arsenic	mg/kg	2			<5		14	19	30	14	9	43	4.2	8.8	71	4.2	7	50	6.1	13	72	6.1	6	2
Cadmium	mg/kg	0.4		<1		<0.4	<0.4	0	<0.4	<1	0	<0.4	<0.4	0	<0.4	<1	0	<0.4	<0.4	0	<0.4	<1	0	0
Chromium (III+VI)	mg/kg	2		11	25	36	36	25	21	17	17	53	103	17	17	0	19	40	71	19	16	17		
Copper	mg/kg	5		5	14	16	13	14	15	7	14	20	35	14	20	35	20	48	82	20	26	26	26	
Lead	mg/kg	5		9	18	27	40	18	17	6	34	41	19	34	38	11	22	57	89	22	22	0	0	
Mercury	mg/kg	0.1		<0.1		<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	0
Nickel	mg/kg	2		2	9.1	9.2	1	9.1	6	41	6.6	8.9	30	6.6	6	10	6.2	15	83	6.2	5	21	21	
Zinc	mg/kg	5		6	26	29	11	26	19	31	50	63	23	50	52	4	76	300	119	76	57	29	29	
Organochlorine Pesticides																								
Total OCP	mg/kg	3																		<2.5			<2.5	
PAH																								
Benzo(a) pyrene	mg/kg	0.5				<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	0
Benzo(a)pyrene TEQ (LOR)	mg/kg	0.5				1.2	1.2	0	1.2	1.2	0	1.2	1.2	0	1.2	1.2	0	1.2	1.2	0	1.2	1.2	0	0
PAHs (Sum of total)	mg/kg	0.5				<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	0
PCBs																								
PCBs (Sum of total)	mg/kg	0.5																		<0.5			<0.5	
TPH																								
C6-C9	mg/kg	10		<20	<10	0														<20			<20	
C10-C14	mg/kg	20		<20	<50	0														<200			<200	
C15-C28	mg/kg	50		<50	<100	0														<500			<500	
C29-C36	mg/kg	50		<50	<100	0														<500			<500	
C10-C36 (Sum of total)	mg/kg	50		<50	<50	0														<500			<500	

*RPDs have only been considered where a concentration is greater than 1
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable
***Interlab Duplicates are matched on a per compound basis as methods

Lot 1 in DP1034565
and Lot 3 in
DP1008818, Corner of
Dossie St and Sloane
St, Goulburn, NSW

APPENDIX

A

GENERAL NOTES AND LIMITATIONS

Explanatory Notes

The methods of description and classification of soils and rocks used in this report are based on Australian Standard AS1726-2017 Geotechnical Site Investigations. Material descriptions are deduced from field observation or engineering examination, and may be appended or confirmed by in situ or laboratory testing. The information is dependent on the scope of investigation, the extent of sampling and testing, and the inherent variability of the conditions encountered.

Subsurface investigation may be conducted by one or a combination of the following methods.

Method

Test Pitting: excavation/trench

BH	Backhoe bucket
EX	Excavator bucket
R	Ripper
H	Hydraulic Hammer
X	Existing excavation
N	Natural exposure

Manual drilling: hand operated tools

HA	Hand Auger

Continuous sample drilling

PT	Push tube
PS	Percussion sampling
SON	Sonic drilling

Hammer drilling

AH	Air hammer
AT	Air track

Spiral flight auger drilling

AS	Auger screwing
AD/V	Continuous flight auger: V-bit
AD/T	Continuous spiral flight auger: TC-Bit
HFA	Continuous hollow flight auger

Rotary non-core drilling

WB	Washbore drilling
RR	Rock roller

Rotary core drilling

PQ	85mm core (wire line core barrel)
HQ	63.5mm core (wire line core barrel)
NMLC	51.94mm core (conventional core barrel)
NQ	47.6mm core (wire line core barrel)
DT	Diatube (concrete coring)

Sampling is conducted to facilitate further assessment of selected materials encountered.

Sampling method

Soil sampling

B	Bulk disturbed sample
D	Disturbed sample
C	Core sample
ES	Environmental soil sample
SPT	Standard Penetration Test sample
U	Thin wall tube 'undisturbed' sample

Water sampling

WS	Environmental water sample

Field testing may be conducted as a means of assessment of the in situ conditions of materials.

Field testing

SPT	Standard Penetration Test
HP/PP	Hand/Pocket Penetrometer
Dynamic Penetrometers (blows per noted increment)	
DCP	Dynamic Cone Penetrometer
PSP	Perth Sand Penetrometer
MC	Moisture Content
VS	Vane Shear
PBT	Plate Bearing Test
IMP	Borehole Impression Test
PID	Photo Ionization Detector

If encountered, refusal (R), virtual refusal (VR) or hammer bouncing (HB) of penetrometers may be noted.

The quality of the rock can be assessed by the degree of natural defects/fractures and the following.

Rock quality description

TCR	Total Core Recovery (%) (length of core recovered divided by the length of core run)
RQD	Rock Quality Designation (%) (sum of axial lengths of core greater than 100mm long divided by the length of core run)

Notes on groundwater conditions encountered may include.

Groundwater

Not Encountered	Excavation is dry in the short term
Not Observed	Water level observation not possible
Seepage	Water seeping into hole
Inflow	Water flowing/flooding into hole

Perched groundwater may result in a misleading indication of the depth to the true water table. Groundwater levels are also likely to fluctuate with variations in climatic and site conditions.

Notes on the stability of excavations may include.

Excavation conditions

Stable	No obvious/gross short term instability noted
Spalling	Material falling into excavation (minor/major)
Unstable	Collapse of the majority, or one or more face of the excavation

Explanatory Notes: General Soil Description

The methods of description and classification of soils used in this report are based on Australian Standard AS1726-2017 Geotechnical Site Investigations. In practice, a material is described as a soil if it can be remoulded by hand in its field condition or in water. The dominant component is shown in upper case, with secondary components in lower case. In general descriptions cover: soil type, plasticity or particle size/shape, colour, strength or density, moisture and inclusions.

In general, soil types are classified according to the dominant particle on the basis of the following particle sizes.

Soil Classification		Particle Size (mm)
CLAY		< 0.002
SILT		0.002 to 0.075
SAND	fine	0.075 to 0.21
	medium	0.21 to 0.6
	coarse	0.6 to 2.36
GRAVEL	fine	2.36 to 6.7
	medium	6.7 to 19
	coarse	19 to 63
COBBLES		63 to 200
BOULDERS		> 200

Soil types may be qualified by the presence of minor components on the basis of field examination methods and/or the soil grading.

Terminology	In coarse grained soils		In fine soils
	% fines	% coarse	% coarse
Trace	≤5	≤15	≤15
With	>5, ≤12	>15, ≤30	>15, ≤30

The strength of cohesive soils is classified by engineering assessment or field/lab testing as follows.

Strength	Symbol	Undrained shear strength
Very Soft	VS	≤12kPa
Soft	S	12kPa to ≤25kPa
Firm	F	25kPa to ≤50kPa
Stiff	St	50kPa to ≤100kPa
Very Stiff	VSt	100kPa to ≤200kPa
Hard	H	>200kPa

Cohesionless soils are classified on the basis of relative density as follows.

Relative Density	Symbol	Density Index
Very Loose	VL	<15%
Loose	L	15% to ≤35%
Medium Dense	MD	35% to ≤65%
Dense	D	65% to ≤85%
Very Dense	VD	>85%

The plasticity of cohesive soils is defined by the Liquid Limit (LL) as follows.

Plasticity	Silt LL	Clay LL
Low plasticity	≤ 35%	≤ 35%
Medium plasticity	N/A	> 35% ≤ 50%
High plasticity	> 50%	> 50%

The moisture condition of soil (w) is described by appearance and feel and may be described in relation to the Plastic Limit (PL), Liquid Limit (LL) or Optimum Moisture Content (OMC).

Moisture condition and description	
Dry	Cohesive soils: hard, friable, dry of plastic limit. Granular soils: cohesionless and free-running
Moist	Cool feel and darkened colour: Cohesive soils can be moulded. Granular soils tend to cohere
Wet	Cool feel and darkened colour: Cohesive soils usually weakened and free water forms when handling. Granular soils tend to cohere

The structure of the soil may be described as follows.

Zoning	Description
Layer	Continuous across exposure or sample
Lens	Discontinuous layer (lenticular shape)
Pocket	Irregular inclusion of different material

The structure of soil layers may include: defects such as softened zones, fissures, cracks, joints and root-holes; and coarse grained soils may be described as strongly or weakly cemented.

The soil origin may also be noted if possible to deduce.

Soil origin and description	
Fill	Anthropogenic deposits or disturbed material
Topsoil	Zone of soil affected by roots and root fibres
Peat	Significantly organic soils
Colluvial	Transported down slopes by gravity/water
Aeolian	Transported and deposited by wind
Alluvial	Deposited by rivers
Estuarine	Deposited in coastal estuaries
Lacustrine	Deposited in freshwater lakes
Marine	Deposits in marine environments
Residual soil	Soil formed by in situ weathering of rock, with no structure/fabric of parent rock evident
Extremely weathered material	Formed by in situ weathering of geological formations, with the structure/fabric of parent rock intact but with soil strength properties

The origin of the soil generally cannot be deduced solely on the appearance of the material and the inference may be supplemented by further geological evidence or other field observation. Where there is doubt, the terms 'possibly' or 'probably' may be used

Explanatory Notes: General Rock Description

The methods of description and classification of rocks used in this report are based on Australian Standard AS1726-2017 Geotechnical Site Investigations. In practice, if a material cannot be remoulded by hand in its field condition or in water, it is described as a rock. In general, descriptions cover: rock type, grain size, structure, colour, degree of weathering, strength, minor components or inclusions, and where applicable, the defect types, shape, roughness and coating/infill.

Rock types are generally described according to the predominant grain or crystal size, and in groups for each rock type as follows.

Rock type	Groups
Sedimentary	Deposited, carbonate (porous or non), volcanic ejection
Igneous	Felsic (much quartz, pale), Intermediate, or mafic (little quartz, dark)
Metamorphic	Foliated or non-foliated
Duricrust	Cementing mineralogy (iron oxides or hydroxides, silica, calcium carbonate, gypsum)

Reference should be made to AS1726 for details of the rock types and methods of classification.

The classification of rock weathering is described based on definitions in AS1726 and summarised as follows.

Term and symbol	Definition
Residual Soil RS	Soil developed on rock with the mass structure and substance of the parent rock no longer evident
Extremely weathered XW	Weathered to such an extent that the rock has 'soil-like' properties. Mass structure and substance still evident
Distinctly weathered DW	The strength is usually changed and may be highly discoloured. Porosity may be increased by leaching, or decreased due to deposition in pores. May be distinguished into MW (Moderately Weathered) and HW (Highly Weathered).
Slightly weathered SW	Slightly discoloured; little or no change of strength from fresh rock
Fresh Rock FR	The rock shows no sign of decomposition or staining

The rock material strength can be defined based on the point load index as follows.

Term and symbol	Point Load Index I_{s50} (MPa)
Very Low VL	0.03 to 0.1
Low L	0.1 to 0.3
Medium M	0.3 to 1.0
High H	1.0 to 3
Very High VH	3 to 10
Extremely High EH	> 10

It is important to note that the rock material strength as above is distinct from the rock mass strength which can be significantly weaker due to the effect of defects.

A preliminary assessment of rock strength may be made using the field guide detailed in AS1726, and this is conducted in the absence of point load testing.

The defect spacing measured normal to defects of the same set or bedding, is described as follows.

Definition	Defect Spacing (mm)
Thinly laminated	< 6
Laminated	6 to 20
Very thinly bedded	20 to 60
Thinly bedded	60 to 200
Medium bedded	200 to 600
Thickly bedded	600 to 2000
Very thickly bedded	> 2000

Terms for describing rock and defects are as follows.

Defect Terms			
Joint	JT	Sheared zone	SZ
Bedding Parting	BP	Seam	SM
Foliation	FL	Vein	VN
Cleavage	CL	Drill Lift	DL
Crushed Seam	CS	Handling Break	HB
Fracture Zone	FZ	Drilling Break	DB

The shape and roughness of defects in the rock mass are described using the following terms.

Planarity	Roughness
Planar PR	Very Rough VR
Curved CU	Rough RF
Undulose UN	Smooth S
Irregular IR	Slickensided SL
Stepped ST	Polished POL
Discontinuous DIS	

The coating or infill associated with defects in the rock mass are described as follows.

Infill and Coating		
Clean	CN	
Stained	SN	
Carbonaceous	X	
Minerals	MU	Unidentified mineral
	MS	Secondary mineral
	KT	Chlorite
	CA	Calcite
	Fe	Iron Oxide
	Qz	Quartz
Veneer	VNR	Thin or patchy coating
Coating	CT	Infill up to 1mm

Graphic Symbols Index

	CLAY		CLAY SILT		SAND		GRAVEL
	Silty CLAY		Clayey SILT		Clayey SAND		Clayey GRAVEL
	Sandy CLAY		Sandy SILT Gravelly		Silty SAND		Silty GRAVEL
	Gravelly CLAY		SILT		Gravelly SAND		Sandy GRAVEL
	Silty Gravelly CLAY		Clayey Sandy SILT		Clayey Silty SAND		Clayey Silty GRAVEL
	Silty Sandy CLAY		Clayey Gravelly SILT		Clayey Gravelly SAND		Clayey Sandy GRAVEL
	Sandy Gravelly		Sandy Gravelly SILT		Silty Gravelly SAND		Silty Sandy GRAVEL
	COBBLES & BOULDERS		Sedimentary rock: fine, mostly clay (CLAYSTONE)		Igneous rock: Felsic, fine (RHYOLITE)		
	PEAT, highly organic soil		Sedimentary rock: fine, mostly silt (SILTSTONE)		Igneous rock: Felsic, coarse (GRANITE)		
	TOPSOIL		Sedimentary rock: fine, silt and clay (MUDSTONE, SHALE, LAMINITE)		Igneous rock: Mafic, fine to medium (BASALT, DOLERITE)		
	FILL		Sedimentary rock: medium (SANDSTONE, GREYWACKE)		Igneous rock: Mafic, coarse (GABBRO)		
	FILL: Asphalt or Bituminous Seal		Sedimentary rock: fine to coarse, angular (BRECCIA)		Metamorphic rock: Foliated, fine to medium (SLATE, PHYLLITE, SHIST)		
	FILL: Ballast		Sedimentary rock: coarse, rounded (CONGLOMERATE)		Metamorphic rock: Foliated, coarse (GNEISS)		
	FILL: Concrete		Sedimentary rock: Organic (COAL)		Metamorphic rock: Non-foliated (QUARTZITE, HORNFELS, MARBLE)		
	FILL: Roadbase		Sedimentary rock: Carbonate (LIMESTONE, DOLOMITE)				
			Sedimentary rock: Volcanic (TUFF, VOLCANIC BRECCIA, AGGLOMERATE)				

Information About This Report

LIMITATIONS

Scope of Services: The report has been prepared in accordance with the scope of services set out in CS's Proposal under CS's Terms of Engagement, or as otherwise agreed with the Client. The scope of services may have been limited and/or amended by a range of factors including time, budget, access and site constraints.

Specific Purpose: The report is provided for the specific development and purpose as described in the report. The report may not contain sufficient information for developments or purposes other than that described in the report.

Currency of Information: The information in this report is considered accurate at the date of issue with regard to the current conditions of the site.

Reliance on Information: In preparing the report CS has necessarily relied upon information provided by the Client and/or their Agents. Such data may include surveys, analyses, designs, maps and plans. CS has not verified the accuracy or completeness of the data except as stated in this report.

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Construction Specifications: Unless otherwise stated, the report, or sections of the report, should not be used as part of a specification for a project, without review and agreement by CS.

Report Should Not be Separated: The report must be read in conjunction with the attached Information Sheets and any other explanatory notes and should be kept in its entirety without separation of individual pages or sections.

Review by Others: CS cannot be held responsible for interpretations or conclusions from review by others of this report or test data, which are not otherwise supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

GENERAL NOTES

Geotechnical and Environmental Reporting: Geotechnical and environmental reporting relies on the interpretation of factual information based on judgment and opinion and is far less exact than other engineering or design disciplines. Geotechnical and environmental reports are for a specific purpose, development and site as described in the report and may not contain sufficient information for other purposes, developments or sites (including adjacent sites) other than that described in the report.

Subsurface Conditions: Subsurface conditions can change with time and can vary between test locations. For example, the actual interface between the materials may be far more gradual or abrupt than indicated and contaminant presence may be affected by spatial and temporal patterns. Therefore, actual conditions in areas not sampled may differ from those predicted since no subsurface investigation, no matter how comprehensive, can reveal all subsurface details and anomalies. Construction operations at or adjacent to the site and natural events such as floods, earthquakes or groundwater fluctuations can also affect subsurface conditions and thus the continuing adequacy of a geotechnical report. CS should be kept informed of any such events and should be retained to identify variances, conduct additional tests if required, and recommend solutions to problems encountered on site.

Groundwater: Groundwater levels indicated on borehole and test pit logs are recorded at specific times. Depending on ground permeability, measured levels may or may not reflect actual levels if measured over a longer time period. Also, groundwater levels and seepage inflows may fluctuate with seasonal and environmental variations and construction activities.

Interpretation of Data: Data obtained from nominated discrete locations, subsequent laboratory testing and empirical or external sources are interpreted by trained professionals in order to provide an opinion about overall site conditions, their likely impact with respect to the report purpose and recommended actions in accordance with any relevant industry standards, guidelines or procedures.

Soil and Rock Descriptions: Soil and rock descriptions are based on AS 1726 – 1993, using visual and tactile assessment except at discrete locations where field and / or laboratory tests have been carried out. Refer to the accompanying soil and rock terms sheet for further information.

Further Advice: CS would be pleased to further discuss how any of the above issues could affect a specific project. We would also be pleased to provide further advice or assistance including:

- Assessment of suitability of designs and construction techniques;
- Contract documentation and specification;
- Construction control testing (earthworks, pavement materials, concrete);
- Construction advice (foundation assessments, excavation support).

Lot 1 in DP1034565
and Lot 3 in
DP1008818, Corner of
Dossie St and Sloane
St, Goulburn, NSW

APPENDIX

B

CONTOUR PLAN



Lot 1 in DP1034565
and Lot 3 in
DP1008818, Corner of
Dossie St and Sloane
St, Goulburn, NSW

APPENDIX

C

LOGS

Client:	Goulburn Mulwaree Council
Project:	Detailed Site Investigation
Location:	Corner Dossie St and Sloane St

Hole No: SS01

Job No: 5046200019

Sheet: 1 of 1

Position: **Angle from Horizontal: 90°**

Surface Elevation:

Rig Type: Hand Tools

Driller: Construction Sciences

Borehole Diameter:

Contractor:

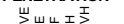
Data Started: 17/2/20

Date Completed: 17/2/20

Logged By: SI

Checked By: AN

Drilling			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Casing		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ HAND TOOLS ↓											
			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m							
		</									

METHOD		PENETRATION		FIELD TESTS		SAMPLES		SOIL CONSISTENCY	
EX	Excavator bucket			SPT	- Standard Penetration Test	B	- Bulk disturbed sample	VS	- Very Soft
R	Ripper			HP	- Hand/Pocket Penetrometer	D	- Disturbed sample	S	- Soft
HA	Hand auger			DCP	- Dynamic Cone Penetrometer	ES	- Environmental sample	F	- Firm
PT	Push tube			PSP	- Perth Sand Penetrometer	U	- Thin wall tube 'undisturbed'	St	- Stiff
SON	Sonic drilling			MC	- Moisture Content	MOISTURE		VSt	- Very Stiff
AH	Air hammer	WATER 		PBT	- Plate Bearing Test	D	- Dry	H	- Hard
PS	Percussion sampler			IMP	- Borehole Impression Test	M	- Moist	RELATIVE DENSITY	
AS	Short spiral auger			PID	- Phito Ionization Detector	W	- Wet	VL	- Very Loose
AD/V	Solid flight auger: V-Bit			VS	- Vane Shear; P=Peak, R=Residual (uncorrected kPa)	PL	- Plastic limit	L	- Loose
AD/T	Solid flight auger: TC-Bit					LL	- Liquid limit	MD	- Medium Dense
HFA	Hollow flight auger					w	- Moisture content	D	- Dense
WB	Washbore drilling							VD	- Very Dense
RR	Rock roller								

Refer to explanatory notes for details of abbreviations and basis of descriptions

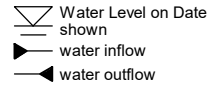
CONSTRUCTION SCIENCES

Client: Goulburn Mulwaree Council Project: Detailed Site Investigation Location: Corner Dossie St and Sloane St				Job No: 5046200019 Sheet: 1 of 1				Hole No: SS02							
Position:				Angle from Horizontal: 90°				Surface Elevation:							
Rig Type: Hand Tools				Driller: Construction Sciences											
Borehole Diameter:				Contractor:											
Data Started: 17/2/20				Date Completed: 17/2/20				Logged By: SI				Checked By: AN			

Drilling			Sampling & Testing		Material Description							
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
HAND TOOLS			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	Gravelly SILT: low plasticity, dark brown, fine to medium grained gravel, with organics	D to M		TOPSOIL 0.00 m: No staining, odour or PACM observed	
								TERMINATED AT 0.10 m Target depth				

METHOD
 EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

 No Resistance
 Refusal
WATER


FIELD TESTS
 SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES
 B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'
MOISTURE
 D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY
 VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard
RELATIVE DENSITY
 VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Client:	Goulburn Mulwaree Council
Project:	Detailed Site Investigation
Location:	Corner Dossie St and Sloane St

Hole No: SS03

Job No: 5046200019

Sheet: 1 of 1

Position:

Angle from Horizontal: 90°

Surface Elevation:

Rig Type: Hand Tools

Driller: Construction Sciences

Borehole Diameter:

Contractor:

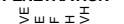
Data Started: 17/2/20

Date Completed: 17/2/20

Logged By: SI

Checked By: AN

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METHOD		PENETRATION		FIELD TESTS		SAMPLES		SOIL CONSISTENCY	
EX	Excavator bucket			SPT	- Standard Penetration Test	B	- Bulk disturbed sample	VS	- Very Soft
R	Ripper			HP	- Hand/Pocket Penetrometer	D	- Disturbed sample	S	- Soft
HA	Hand auger			DCP	- Dynamic Cone Penetrometer	ES	- Environmental sample	F	- Firm
PT	Push tube			PSP	- Perth Sand Penetrometer	U	- Thin wall tube 'undisturbed'	St	- Stiff
SON	Sonic drilling			MC	- Moisture Content	MOISTURE		VSt	- Very Stiff
AH	Air hammer	WATER 		PBT	- Plate Bearing Test	D	- Dry	H	- Hard
PS	Percussion sampler			IMP	- Borehole Impression Test	M	- Moist	RELATIVE DENSITY	
AS	Short spiral auger			PID	- Phito Ionization Detector	W	- Wet	VL	- Very Loose
AD/V	Solid flight auger: V-Bit			VS	- Vane Shear; P=Peak, R=Residual (uncorrected kPa)	PL	- Plastic limit	L	- Loose
AD/T	Solid flight auger: TC-Bit					LL	- Liquid limit	MD	- Medium Dense
HFA	Hollow flight auger					w	- Moisture content	D	- Dense
WB	Washbore drilling							VD	- Very Dense
RR	Rock roller								

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

Client:	Goulburn Mulwaree Council
Project:	Detailed Site Investigation
Location:	Corner Dossie St and Sloane St

Job No: 5046200019

Sheet: 1 of 1

Position: **Angle from Horizontal: 90°**

Surface Elevation:

Rig Type: Hand Tools

Driller: Construction Sciences

Borehole Diameter:

Contractor:

Data Started: 17/2/20

Date Completed: 17/2/20

Logged By: SI

Checked By: AN

Drilling			Water	Sampling & Testing	Depth (m)	Material Description				
Method	Resistance	Casing		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density
↑ HAND TOOLS ↓			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m		</				

METHOD		PENETRATION		FIELD TESTS		SAMPLES		SOIL CONSISTENCY	
EX	Excavator bucket			SPT	- Standard Penetration Test	B	- Bulk disturbed sample	VS	- Very Soft
R	Ripper			HP	- Hand/Pocket Penetrometer	D	- Disturbed sample	S	- Soft
HA	Hand auger			DCP	- Dynamic Cone Penetrometer	ES	- Environmental sample	F	- Firm
PT	Push tube			PSP	- Perth Sand Penetrometer	U	- Thin wall tube 'undisturbed'	St	- Stiff
SON	Sonic drilling			MC	- Moisture Content	MOISTURE		VSt	- Very Stiff
AH	Air hammer	WATER 		PBT	- Plate Bearing Test	D	- Dry	H	- Hard
PS	Percussion sampler			IMP	- Borehole Impression Test	M	- Moist	RELATIVE DENSITY	
AS	Short spiral auger			PID	- Phito Ionization Detector	W	- Wet	VL	- Very Loose
AD/V	Solid flight auger: V-Bit			VS	- Vane Shear; P=Peak, R=Residual (uncorrected kPa)	PL	- Plastic limit	L	- Loose
AD/T	Solid flight auger: TC-Bit					LL	- Liquid limit	MD	- Medium Dense
HFA	Hollow flight auger					w	- Moisture content	D	- Dense
WB	Washbore drilling							VD	- Very Dense
RR	Rock roller								

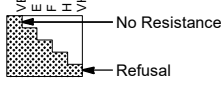
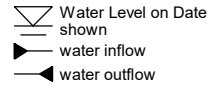
Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

Client: Goulburn Mulwaree Council Project: Detailed Site Investigation Location: Corner Dossie St and Sloane St				Job No: 5046200019 Sheet: 1 of 1				Hole No: SS05							
Position:				Angle from Horizontal: 90°				Surface Elevation:							
Rig Type: Hand Tools				Driller: Construction Sciences											
Borehole Diameter:				Contractor:											
Data Started: 17/2/20				Date Completed: 17/2/20				Logged By: SI				Checked By: AN			

Drilling			Sampling & Testing		Material Description							
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
HAND TOOLS			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	Gravelly SILT: low plasticity, dark brown, fine to medium grained gravel, with organics	D to M		TOPSOIL 0.00 m: No staining, odour or PACM observed	
								TERMINATED AT 0.10 m Target depth				

METHOD
 EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

 No Resistance
 Refusal
WATER

 Water Level on Date shown
 water inflow
 water outflow

FIELD TESTS
 SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES
 B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'
MOISTURE
 D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY
 VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard
RELATIVE DENSITY
 VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Client:	Goulburn Mulwaree Council
Project:	Detailed Site Investigation
Location:	Corner Dossie St and Sloane St

Hole No: SS06

Job No: 5046200019

Sheet: 1 of 1

Position:	Angle from Horizontal: 90°

Surface Elevation:

Rig Type: Hand Tools

Driller: Construction Sciences

Borehole Diameter:

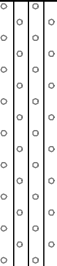
Contractor:

Data Started: 17/2/20

Date Completed: 17/2/20

Logged By: SI

Checked By: AN

Drilling			Sampling & Testing	Depth (m)	Material Description						
Method	Resistance	Casing			Water	Sample or Field Test	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density
HAND TOOLS			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	Gravelly SILT: low plasticity, dark brown, fine to medium grained gravel, with organics	D to M		TOPSOIL 0.00 m: No staining, odour or PACM observed
								TERMINATED AT 0.10 m Target depth			

METHOD		PENETRATION		FIELD TESTS		SAMPLES		SOIL CONSISTENCY	
EX	Excavator bucket		No Resistance	SPT	- Standard Penetration Test	B	- Bulk disturbed sample	VS	- Very Soft
R	Ripper			HP	- Hand/Pocket Penetrometer	D	- Disturbed sample	S	- Soft
HA	Hand auger			DCP	- Dynamic Cone Penetrometer	ES	- Environmental sample	F	- Firm
PT	Push tube			PSP	- Perth Sand Penetrometer	U	- Thin wall tube 'undisturbed'	St	- Stiff
SON	Sonic drilling		Refusal	MC	- Moisture Content	MOISTURE		VSt	- Very Stiff
AH	Air hammer			PBT	- Plate Bearing Test	D	- Dry	H	- Hard
PS	Percussion sampler			IMP	- Borehole Impression Test	M	- Moist	RELATIVE DENSITY	
AS	Short spiral auger			PID	- Phito Ionization Detector	W	- Wet	VL	- Very Loose
AD/V	Solid flight auger: V-Bit			VS	- Vane Shear; P=Peak, R=Residual (uncorrected kPa)	PL	- Plastic limit	L	- Loose
AD/T	Solid flight auger: TC-Bit					LL	- Liquid limit	MD	- Medium Dense
HFA	Hollow flight auger					w	- Moisture content	D	- Dense
WB	Washbore drilling							VD	- Very Dense
RR	Rock roller								

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

Client: Goulburn Mulwaree Council
Project: Detailed Site Investigation
Location: Corner Dossie St and Sloane St

Job No: 5046200019

Sheet: 1 of 1

Position: **Angle from Horizontal: 90°**

Surface Elevation:

Rig Type: Hand Tools

Driller: Construction Sciences

Borehole Diameter:

Contractor:

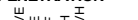
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Date Completed: 17/2/20

Logged By: SI

Checked By: AN

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METHOD	PENETRATION	FIELD TESTS	SAMPLES	SOIL CONSISTENCY
EX Excavator bucket		SPT - Standard Penetration Test	B - Bulk disturbed sample	VS - Very Soft
R Ripper		HP - Hand/Pocket Penetrometer	D - Disturbed sample	S - Soft
HA Hand auger		DCP - Dynamic Cone Penetrometer	ES - Environmental sample	F - Firm
PT Push tube		PSP - Perth Sand Penetrometer	U - Thin wall tube 'undisturbed'	St - Stiff
SON Sonic drilling		MC - Moisture Content		VSt - Very Stiff
AH Air hammer		PBT - Plate Bearing Test		H - Hard
PS Percussion sampler		IMP - Borehole Impression Test		
AS Short spiral auger		PID - Phito Ionization Detector		
AD/V Solid flight auger: V-Bit		VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)		
AD/T Solid flight auger: TC-Bit				
HFA Hollow flight auger				
WB Washbore drilling				
RR Rock roller				
	WATER 		MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

Client:	Goulburn Mulwaree Council
Project:	Detailed Site Investigation
Location:	Corner Dossie St and Sloane St

Hole No: SS08

Job No: 5046200019

Sheet: 1 of 1

Position:	Angle from Horizontal: 90°

Surface Elevation:

Rig Type: Hand Tools

Driller: Construction Sciences

Borehole Diameter:

Contractor:

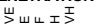
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Date Completed: 17/2/20

Logged By: SI

Checked By: AN

Drilling			Water	Sampling & Testing		Depth (m)	Material Description					
Method	Resistance	Casing		Sample or Field Test	Graphic Log		Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
↑ HAND TOOLS ↓			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m								

METHOD		PENETRATION		FIELD TESTS		SAMPLES		SOIL CONSISTENCY	
EX	Excavator bucket		No Resistance	SPT	- Standard Penetration Test	B	- Bulk disturbed sample	VS	- Very Soft
R	Ripper			HP	- Hand/Pocket Penetrometer	D	- Disturbed sample	S	- Soft
HA	Hand auger			DCP	- Dynamic Cone Penetrometer	ES	- Environmental sample	F	- Firm
PT	Push tube			PSP	- Perth Sand Penetrometer	U	- Thin wall tube 'undisturbed'	St	- Stiff
SON	Sonic drilling	WATER 	Refusal	MC	- Moisture Content	MOISTURE		VSt	- Very Stiff
AH	Air hammer			PBT	- Plate Bearing Test	D	- Dry	H	- Hard
PS	Percussion sampler			IMP	- Borehole Impression Test	M	- Moist	RELATIVE DENSITY	
AS	Short spiral auger			PID	- Phito Ionization Detector	W	- Wet	VL	- Very Loose
AD/V	Solid flight auger: V-Bit			VS	- Vane Shear; P=Peak, R=Residual (uncorrected kPa)	PL	- Plastic limit	L	- Loose
AD/T	Solid flight auger: TC-Bit					LL	- Liquid limit	MD	- Medium Dense
HFA	Hollow flight auger					w	- Moisture content	D	- Dense
WB	Washbore drilling							VD	- Very Dense
RR	Rock roller								

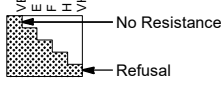
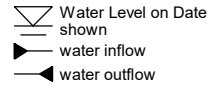
Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

Client: Goulburn Mulwaree Council Project: Detailed Site Investigation Location: Corner Dossie St and Sloane St				Job No: 5046200019 Sheet: 1 of 1				Hole No: SS09							
Position:				Angle from Horizontal: 90°				Surface Elevation:							
Rig Type: Hand Tools				Driller: Construction Sciences											
Borehole Diameter:				Contractor:											
Data Started: 17/2/20				Date Completed: 17/2/20				Logged By: SI				Checked By: AN			

Drilling			Sampling & Testing		Material Description							
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
HAND TOOLS			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	Gravelly SILT: low plasticity, dark brown, fine to medium grained gravel, with organics	D to M		TOPSOIL 0.00 m: No staining, odour or PACM observed	
								TERMINATED AT 0.10 m Target depth				

METHOD
 EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

 No Resistance
 Refusal
WATER

 Water Level on Date shown
 water inflow
 water outflow

FIELD TESTS
 SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

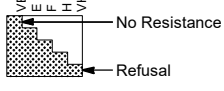
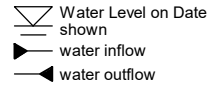
SAMPLES
 B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'
MOISTURE
 D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY
 VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard
RELATIVE DENSITY
 VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Client: Goulburn Mulwaree Council Project: Detailed Site Investigation Location: Corner Dossie St and Sloane St				Job No: 5046200019 Sheet: 1 of 1				Hole No: SS10							
Position:				Angle from Horizontal: 90°				Surface Elevation:							
Rig Type: Hand Tools				Driller: Construction Sciences											
Borehole Diameter:				Contractor:											
Data Started: 18/2/20				Date Completed: 18/2/20				Logged By: SI				Checked By: AN			

Drilling			Sampling & Testing		Material Description						
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
HAND TOOLS			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	Gravelly SILT: low plasticity, dark brown, fine to coarse grained, sub-angular gravel, with organics	D to M		TOPSOIL 0.00 m: PID=1.0 No staining, odour or PACM observed
								TERMINATED AT 0.10 m Target depth			

METHOD
 EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

 No Resistance
 Refusal
WATER

 Water Level on Date shown
 water inflow
 water outflow

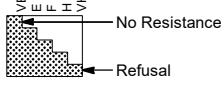
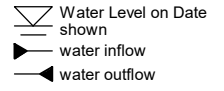
FIELD TESTS
 SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES
 B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'
MOISTURE
 D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY
 VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard
RELATIVE DENSITY
 VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

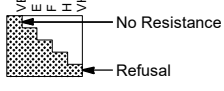
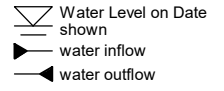
Client: Goulburn Mulwaree Council Project: Detailed Site Investigation Location: Corner Dossie St and Sloane St				Hole No: SS11 Job No: 5046200019 Sheet: 1 of 1			
Position: _____				Angle from Horizontal: 90°		Surface Elevation: _____	
Rig Type: Hand Tools				Driller: Construction Sciences			
Borehole Diameter: _____				Contractor: _____			
Data Started: 18/2/20		Date Completed: 18/2/20		Logged By: SI		Checked By: AN	

Drilling			Sampling & Testing		Material Description						
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
HAND TOOLS			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	Gravelly SILT: low plasticity, dark brown, fine to coarse grained, sub-angular gravel, with organics	D to M		TOPSOIL 0.00 m: PID=2.9 No staining, odour or PACM observed
								TERMINATED AT 0.10 m Target depth			

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client: Goulburn Mulwaree Council Project: Detailed Site Investigation Location: Corner Dossie St and Sloane St				Hole No: SS12 Job No: 5046200019 Sheet: 1 of 1			
Position: _____				Angle from Horizontal: 90°		Surface Elevation: _____	
Rig Type: Hand Tools				Driller: Construction Sciences			
Borehole Diameter: _____				Contractor: _____			
Data Started: 18/2/20		Date Completed: 18/2/20		Logged By: SI		Checked By: AN	

Drilling			Sampling & Testing		Material Description						
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
HAND TOOLS			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	Gravelly SILT: low plasticity, dark brown, fine to coarse grained, sub-angular gravel, with organics	D to M		TOPSOIL 0.00 m: PID=2.1 No staining, odour or PACM observed
								TERMINATED AT 0.10 m Target depth			

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

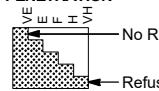
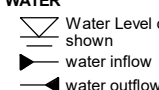
Client: Goulburn Mulwaree Council Project: Detailed Site Investigation Location: Corner Dossie St and Sloane St				Hole No: SS13 Job No: 5046200019 Sheet: 1 of 1			
Position: _____				Angle from Horizontal: 90°		Surface Elevation: _____	
Rig Type: Hand Tools				Driller: Construction Sciences			
Borehole Diameter: _____				Contractor: _____			
Data Started: 18/2/20		Date Completed: 18/2/20		Logged By: SI		Checked By: AN	

Drilling			Sampling & Testing		Material Description						
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ HAND TOOLS ↓			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	Gravelly SILT: low plasticity, dark brown, fine to coarse grained, sub-angular gravel, with organics	D to M		TOPSOIL 0.00 m: PID=1.4 No staining, odour or PACM observed
								TERMINATED AT 0.10 m Target depth			

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phitro Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client: Goulburn Mulwaree Council Project: Detailed Site Investigation Location: Corner Dossie St and Sloane St				Job No: 5046200019 Sheet: 1 of 1			
Position:				Angle from Horizontal: 90°		Surface Elevation:	
Rig Type: Hand Tools				Driller: Construction Sciences			
Borehole Diameter:				Contractor:			
Data Started: 18/2/20		Date Completed: 18/2/20		Logged By: SI		Checked By: AN	

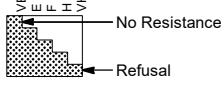
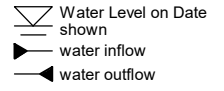
Drilling			Sampling & Testing		Material Description						
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ HAND TOOLS ↓			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	SILT: low plasticity, dark brown, with organics	D to M		TOPSOIL 0.00 m: PID=2.0 No staining, odour or PACM observed
								TERMINATED AT 0.10 m Target depth			

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client: Goulburn Mulwaree Council Project: Detailed Site Investigation Location: Corner Dossie St and Sloane St				Job No: 5046200019 Sheet: 1 of 1				Hole No: SS15							
Position:				Angle from Horizontal: 90°				Surface Elevation:							
Rig Type: Hand Tools				Driller: Construction Sciences											
Borehole Diameter:				Contractor:											
Data Started: 18/2/20				Date Completed: 18/2/20				Logged By: SI				Checked By: AN			

Drilling			Sampling & Testing		Material Description						
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
HAND TOOLS			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	Gravelly SILT: low plasticity, dark brown, fine to medium grained, sub-angular gravel, with organics	D to M		TOPSOIL 0.00 m: PID=1.6 No staining, odour or PACM observed
								TERMINATED AT 0.10 m Target depth			

METHOD
 EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

 No Resistance
 Refusal
WATER

 Water Level on Date shown
 water inflow
 water outflow

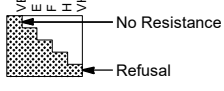
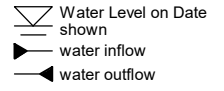
FIELD TESTS
 SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES
 B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'
MOISTURE
 D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY
 VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard
RELATIVE DENSITY
 VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Client: Goulburn Mulwaree Council Project: Detailed Site Investigation Location: Corner Dossie St and Sloane St				Job No: 5046200019 Sheet: 1 of 1				Hole No: SS16							
Position:				Angle from Horizontal: 90°				Surface Elevation:							
Rig Type: Hand Tools				Driller: Construction Sciences											
Borehole Diameter:				Contractor:											
Data Started: 18/2/20				Date Completed: 18/2/20				Logged By: SI				Checked By: AN			

Drilling			Sampling & Testing		Material Description						
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
HAND TOOLS			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	Gravelly SILT: low plasticity, dark brown, fine to medium grained, sub-angular gravel, with organics	D to M		TOPSOIL 0.00 m: PID=1.7 No staining, odour or PACM observed
								TERMINATED AT 0.10 m Target depth			

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client:	Goulburn Mulwaree Council
Project:	Detailed Site Investigation
Location:	Corner Dossie St and Sloane St

Job No: 5046200019

Sheet: 1 of 1

Position: **Angle from Horizontal: 90°**

Surface Elevation:

Rig Type: Hand Tools

Driller: Construction Sciences

Borehole Diameter:

Contractor:

Data Started: 19/2/20

Date Completed: 19/2/20

Logged By: SI

Checked By: AN

Drilling			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Casing		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ HAND TOOLS ↓			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			CL	Gravelly Silty CLAY; low plasticity, grey/brown/orange, fine to medium grained (sandstone) gravel	D to M		TOPSOIL 0.00 m: PID=1.3 No staining, odour or PACM observed
								0.10m			

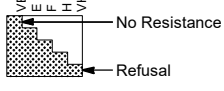
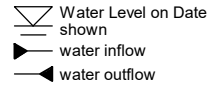
METHOD		PENETRATION		FIELD TESTS		SAMPLES		SOIL CONSISTENCY	
EX	Excavator bucket			SPT	- Standard Penetration Test	B	- Bulk disturbed sample	VS	- Very Soft
R	Ripper			HP	- Hand/Pocket Penetrometer	D	- Disturbed sample	S	- Soft
HA	Hand auger			DCP	- Dynamic Cone Penetrometer	ES	- Environmental sample	F	- Firm
PT	Push tube			PSP	- Perth Sand Penetrometer	U	- Thin wall tube 'undisturbed'	St	- Stiff
SON	Sonic drilling			MC	- Moisture Content	MOISTURE		VSt	- Very Stiff
AH	Air hammer	WATER 		PBT	- Plate Bearing Test	D	- Dry	H	- Hard
PS	Percussion sampler			IMP	- Borehole Impression Test	M	- Moist	RELATIVE DENSITY	
AS	Short spiral auger			PID	- Phito Ionization Detector	W	- Wet	VL	- Very Loose
AD/V	Solid flight auger: V-Bit			VS	- Vane Shear; P=Peak, R=Residual (uncorrected kPa)	PL	- Plastic limit	L	- Loose
AD/T	Solid flight auger: TC-Bit			LL	- Liquid limit	MD	- Medium Dense		
HFA	Hollow flight auger					D	- Dense		
WB	Washbore drilling					w	- Moisture content	VD	- Very Dense
RR	Rock roller								

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

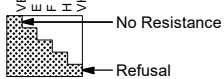
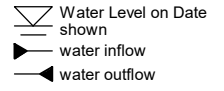
Client: Goulburn Mulwaree Council Project: Detailed Site Investigation Location: Corner Dossie St and Sloane St				Job No: 5046200019 Sheet: 1 of 1				Hole No: SS18							
Position:				Angle from Horizontal: 90°				Surface Elevation:							
Rig Type: Hand Tools				Driller: Construction Sciences											
Borehole Diameter:				Contractor:											
Data Started: 19/2/20				Date Completed: 19/2/20				Logged By: SI				Checked By: AN			

Drilling			Sampling & Testing		Material Description							
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
↑ HAND TOOLS ↓			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	SILT: low plasticity, brown, with organics	D to M		TOPSOIL 0.00 m: PID=1.1 No staining, odour or PACM observed	
								0.10m	TERMINATED AT 0.10 m Target depth			

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client: Goulburn Mulwaree Council Project: Detailed Site Investigation Location: Corner Dossie St and Sloane St				Hole No: SS19 Job No: 5046200019 Sheet: 1 of 1			
Position: _____				Angle from Horizontal: 90°		Surface Elevation: _____	
Rig Type: Hand Tools				Driller: Construction Sciences			
Borehole Diameter: _____				Contractor: _____			
Data Started: 19/2/20		Date Completed: 19/2/20		Logged By: SI		Checked By: AN	

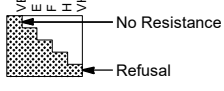
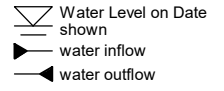
Drilling			Sampling & Testing		Material Description						
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ HAND TOOLS ↓			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			CI	Gravelly CLAY: medium plasticity, brown, fine to medium grained, sub-angular (sandstone) gravel, with organics	D to M		TOPSOIL 0.00 m: PID=2.0 No staining, odour or PACM observed

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client: Goulburn Mulwaree Council Project: Detailed Site Investigation Location: Corner Dossie St and Sloane St				Job No: 5046200019 Sheet: 1 of 1				Hole No: SS20							
Position:				Angle from Horizontal: 90°				Surface Elevation:							
Rig Type: Hand Tools				Driller: Construction Sciences											
Borehole Diameter:				Contractor:											
Data Started: 19/2/20				Date Completed: 19/2/20				Logged By: SI				Checked By: AN			

Drilling			Sampling & Testing		Material Description						
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
HAND TOOLS			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	Clayey SILT: low plasticity, brown, with organics	D to M		TOPSOIL 0.00 m: PID=1.2 No staining, odour or PACM observed
								TERMINATED AT 0.10 m Target depth			

METHOD
 EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

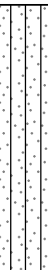
PENETRATION

 No Resistance
 Refusal
WATER

 Water Level on Date shown
 water inflow
 water outflow

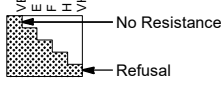
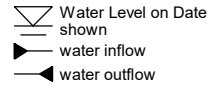
FIELD TESTS
 SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES
 B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'
MOISTURE
 D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

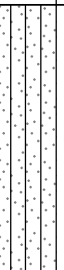
SOIL CONSISTENCY
 VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard
RELATIVE DENSITY
 VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

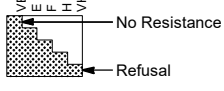
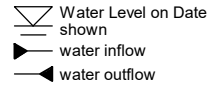
Client: Goulburn Mulwaree Council Project: Detailed Site Investigation Location: Corner Dossie St and Sloane St				Job No: 5046200019 Sheet: 1 of 1				Hole No: SS21							
Position:				Angle from Horizontal: 90°				Surface Elevation:							
Rig Type: Hand Tools				Driller: Construction Sciences											
Borehole Diameter:				Contractor:											
Data Started: 19/2/20				Date Completed: 19/2/20				Logged By: SI				Checked By: AN			

Drilling			Sampling & Testing		Material Description						
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
HAND TOOLS			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	Sandy SILT: low plasticity, grey/brown, fine to coarse grained sand	D to M		TOPSOIL 0.00 m: No staining, odour or PACM observed
								TERMINATED AT 0.10 m Target depth			

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client: Goulburn Mulwaree Council Project: Detailed Site Investigation Location: Corner Dossie St and Sloane St				Job No: 5046200019 Sheet: 1 of 1				Hole No: SS22							
Position:				Angle from Horizontal: 90°				Surface Elevation:							
Rig Type: Hand Tools				Driller: Construction Sciences											
Borehole Diameter:				Contractor:											
Data Started: 19/2/20				Date Completed: 19/2/20				Logged By: SI				Checked By: AN			

Drilling			Sampling & Testing		Material Description						
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
HAND TOOLS			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	Sandy SILT: low plasticity, grey/brown, fine to coarse grained sand	D to M		TOPSOIL 0.00 m: No staining, odour or PACM observed
								TERMINATED AT 0.10 m Target depth			

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client:	Goulburn Mulwaree Council
Project:	Detailed Site Investigation
Location:	Corner Dossie St and Sloane St

Job No: 5046200019

Sheet: 1 of 1

Position: **Angle from Horizontal: 90°**

Surface Elevation:

Rig Type: Hand Tools

Driller: Construction Sciences

Borehole Diameter:

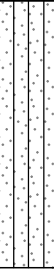
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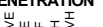
Data Started: 19/2/20

Date Completed: 19/2/20

Logged By: SI

Checked By: AN

Drilling			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Casing		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
HAND TOOLS			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	Sandy SILT: low plasticity, grey/brown, fine to coarse grained sand	D to M		TOPSOIL 0.00 m: No staining, odour or PACM observed
								0.10m	TERMINATED AT 0.10 m Target depth		

METHOD		PENETRATION		FIELD TESTS		SAMPLES		SOIL CONSISTENCY	
EX	Excavator bucket		No Resistance Refusal	SPT	- Standard Penetration Test	B	- Bulk disturbed sample	VS	- Very Soft
R	Ripper			HP	- Hand/Pocket Penetrometer	D	- Disturbed sample	S	- Soft
HA	Hand auger			DCP	- Dynamic Cone Penetrometer	ES	- Environmental sample	F	- Firm
PT	Push tube			PSP	- Perth Sand Penetrometer	U	- Thin wall tube 'undisturbed'	St	- Stiff
SON	Sonic drilling			MC	- Moisture Content	MOISTURE		VSt	- Very Stiff
AH	Air hammer		Water Level on Date shown water inflow water outflow	PBT	- Plate Bearing Test	D	- Dry	H	- Hard
PS	Percussion sampler			IMP	- Borehole Impression Test	M	- Moist	RELATIVE DENSITY	
AS	Short spiral auger			PID	- Phito Ionization Detector	W	- Wet	VL	- Very Loose
AD/V	Solid flight auger: V-Bit			VS	- Vane Shear; P=Peak, R=Residual (uncorrected kPa)	PL	- Plastic limit	L	- Loose
AD/T	Solid flight auger: TC-Bit					LL	- Liquid limit	MD	- Medium Dense
HFA	Hollow flight auger					w	- Moisture content	D	- Dense
WB	Washbore drilling							VD	- Very Dense
RR	Rock roller								

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

Client:	Goulburn Mulwaree Council
Project:	Detailed Site Investigation
Location:	Corner Dossie St and Sloane St

Job No: 5046200019

Sheet: 1 of 1

Position: **Angle from Horizontal: 90°**

Surface Elevation:

Rig Type: Hand Tools

Driller: Construction Sciences

Borehole Diameter:

Contractor:

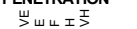
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Date Completed: 19/2/20

Logged By: SI

Checked By: AN

Drilling			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Casing		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ HAND TOOLS ↓			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	Sandy SILT: low plasticity, brown, fine to coarse grained sand, with (surface grass) organics	D to M		TOPSOIL 0.00 m: No staining, odour or PACM observed
								0.10m			TERMINATED AT 0.10 m Target depth

METHOD	PENETRATION	FIELD TESTS	SAMPLES	SOIL CONSISTENCY
EX Excavator bucket		SPT - Standard Penetration Test	B - Bulk disturbed sample	VS - Very Soft
R Ripper		HP - Hand/Pocket Penetrometer	D - Disturbed sample	S - Soft
HA Hand auger		DCP - Dynamic Cone Penetrometer	ES - Environmental sample	F - Firm
PT Push tube		PSP - Perth Sand Penetrometer	U - Thin wall tube 'undisturbed'	St - Stiff
SON Sonic drilling		MC - Moisture Content		VSt - Very Stiff
AH Air hammer		PBT - Plate Bearing Test		H - Hard
PS Percussion sampler		IMP - Borehole Impression Test		
AS Short spiral auger		PID - Phito Ionization Detector		
AD/V Solid flight auger: V-Bit		VS - Vane Shear; P=Peak,		
AD/T Solid flight auger: TC-Bit		R=Residual (uncorrected kPa)		
HFA Hollow flight auger				
WB Washbore drilling				
RR Rock roller				
	WATER  Water Level on Date shown  water inflow  water outflow		MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

Client:	Goulburn Mulwaree Council
Project:	Detailed Site Investigation
Location:	Corner Dossie St and Sloane St

Job No: 5046200019

Sheet: 1 of 1

Position:	Angle from Horizontal: 90°

Surface Elevation:

Rig Type: Hand Tools

Driller: Construction Sciences

Borehole Diameter:

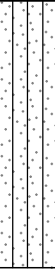
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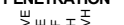
Data Started: 19/2/20

Date Completed: 19/2/20

Logged By: SI

Checked By: AN

Drilling			Water	Sampling & Testing		Depth (m)	Material Description				
Method	Resistance	Casing		Sample or Field Test	Graphic Log		Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
HAND TOOLS			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	Sandy SILT: low plasticity, brown, fine to coarse grained sand, with (surface grass) organics	D to M		TOPSOIL 0.00 m: No staining, odour or PACM observed

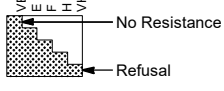
METHOD		PENETRATION		FIELD TESTS		SAMPLES		SOIL CONSISTENCY	
EX	Excavator bucket		No Resistance	SPT	- Standard Penetration Test	B	- Bulk disturbed sample	VS	- Very Soft
R	Ripper			HP	- Hand/Pocket Penetrometer	D	- Disturbed sample	S	- Soft
HA	Hand auger			DCP	- Dynamic Cone Penetrometer	ES	- Environmental sample	F	- Firm
PT	Push tube			PSP	- Perth Sand Penetrometer	U	- Thin wall tube 'undisturbed'	St	- Stiff
SON	Sonic drilling	  	Refusal	MC	- Moisture Content	MOISTURE		VSt	- Very Stiff
AH	Air hammer			PBT	- Plate Bearing Test	D	- Dry	H	- Hard
PS	Percussion sampler			IMP	- Borehole Impression Test	M	- Moist	RELATIVE DENSITY	
AS	Short spiral auger			PID	- Phito Ionization Detector	W	- Wet	VL	- Very Loose
AD/V	Solid flight auger: V-Bit		VS	- Vane Shear; P=Peak, R=Residual (uncorrected kPa)	PL	- Plastic limit	L	- Loose	
AD/T	Solid flight auger: TC-Bit				LL	- Liquid limit	MD	- Medium Dense	
HFA	Hollow flight auger				w	- Moisture content	D	- Dense	
WB	Washbore drilling						VD	- Very Dense	
RR	Rock roller								

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

Client: Goulburn Mulwaree Council Project: Detailed Site Investigation Location: Corner Dossie St and Sloane St				Hole No: SS26 Job No: 5046200019 Sheet: 1 of 1			
Position: _____				Angle from Horizontal: 90°		Surface Elevation: _____	
Rig Type: Hand Tools				Driller: Construction Sciences			
Borehole Diameter: _____				Contractor: _____			
Data Started: 19/2/20		Date Completed: 19/2/20		Logged By: SI		Checked By: AN	

Drilling			Sampling & Testing		Material Description						
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ HAND TOOLS ↓			Groundwater Not Observed	B 0.00 - 0.10 m ES 0.00 - 0.10 m			ML	Sandy SILT: low plasticity, brown, fine to coarse grained sand	D to M		TOPSOIL 0.00 m: No staining, odour or PACM observed

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown  water inflow  water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Hole No: MW01

Client: Goulburn Mulwaree Council Project: Stage 2 - DSI Location: Corner Dossie St and Sloane St, Goulburn	Job No: 5046200019 Angle from Horizontal: 90°	Sheet: 1 of 1 Surface Elevation:
Position:		Driller: CW
Rig Type: Comacchio Geo 215		Contractor: Stratacore Drilling
Borehole Diameter: 125 mm		Checked By: AN
Data Started: 17/2/20	Date Completed: 17/2/20	Logged By: SI

Drilling			Water	Sampling & Testing	Depth (m)	Material Description							
Method	Resistance	Casing		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations		
AD/V			Not Encountered								FILL		
							0.5						
							1.0	ML					
							2.0	2.00m					
				</									

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Hole No: MW01A

Client: Goulburn Mulwaree Council	Job No: 5046200019	Sheet: 1 of 1
Project: Stage 2 - DSI		
Location: Corner Dossie St and Sloane St, Goulburn		

Position:	Angle from Horizontal: 90°	Surface Elevation:
Rig Type: Comacchio Geo 215		Driller: MG
Borehole Diameter: 125 mm		Contractor: Stratacore Drilling
Data Started: 25/2/20	Date Completed: 25/2/20	Logged By: AD
		Checked By: AN

Drilling				Sampling & Testing		Material Description							
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations		
AD/V					2		ML	FILL: Gravelly SILT: low plasticity, brown, medium grained gravel	D to M		FILL		
							GP	FILL: Silty GRAVEL: fine to medium, grey/brown, low plasticity silt					
AH			Not Encountered		4			SANDSTONE: Remoulds as Gravelly Sand, fine to coarse grained, white/pale brown/yellow/grey, fine to coarse grained gravel	D		BEDROCK 3.00 m: Well not constructed.		
				6									
				8									
					10			TERMINATED AT 10.00 m Target depth					

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown  water inflow  water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

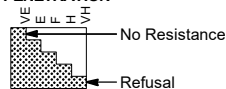
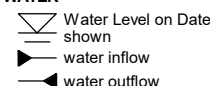
Hole No: MW02

Client: Goulburn Mulwaree Council	Job No: 5046200019	Sheet: 1 of 1
Project: Stage 2 - DSI		
Location: Corner Dossie St and Sloane St, Goulburn		
Position:	Angle from Horizontal: 90°	Surface Elevation:
Rig Type: Comacchio Geo 215		Driller: CW
Borehole Diameter: 125 mm		Contractor: Stratacore Drilling
Data Started: 17/2/20	Date Completed: 17/2/20	Logged By: SI
		Checked By: AN

Drilling			Sampling & Testing		Material Description						
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
AD/V			Not Encountered				ML	Gravelly SILT: low plasticity, dark brown, fine to medium grained gravel, with organics	M		TOPSOIL
					0.5		CL-CI	FILL: Gravelly CLAY: low to medium plasticity, brown/orange, fine to medium grained, sub-angular gravel			FILL
					1.00m		ML	Gravelly SILT: low plasticity, brown/dark brown, fine to medium grained, sub-angular gravel	D to M		NATURAL
					2.00m		GP	Sandy GRAVEL: fine to medium, cream/buff, fine grained (sandstone) sand			
					3.00m		SW	Gravelly SAND: fine to medium grained, cream/buff, fine to medium grained gravel	D		
4.00m			TERMINATED AT 4.00 m Refusal			4.00 m: Refusal on Rock Well not constructed.					
					4.5						

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

WATER

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

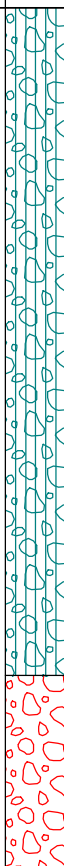
RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

Client: Goulburn Mulwaree Council Project: Stage 2 - DSI Location: Corner Dossie St and Sloane St, Goulburn	Job No: 5046200019 Angle from Horizontal: 90°	Sheet: 1 of 1 Surface Elevation:
Position:		Driller: CW
Rig Type: Comacchio Geo 215		Contractor: Stratacore Drilling
Borehole Diameter: 125 mm		Checked By: AN
Data Started: 17/2/20	Date Completed: 17/2/20	Logged By: SI

Drilling			Sampling & Testing		Material Description						
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ ADV ↓			Not Encountered					Gravelly SILT: low plasticity, brown, fine to medium grained (sandstone) gravel	M to D		NATURAL
								1.0	GP	GRAVEL: fine to medium, cream/buff (weathered sandstone)	D
					1.30m			TERMINATED AT 1.30 m Refusal			1.30 m: Refusal on sandstone bedrock Well not constructed.
					1.5						

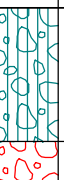
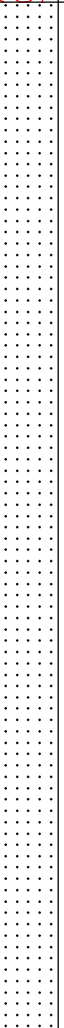
METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Hole No: MW03A

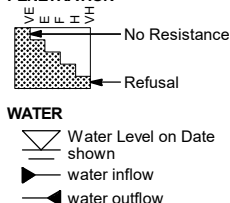
Client: Goulburn Mulwaree Council	Job No: 5046200019	Sheet: 1 of 1
Project: Stage 2 - DSI		
Location: Corner Dossie St and Sloane St, Goulburn		

Position:	Angle from Horizontal: 90°	Surface Elevation:
Rig Type: Comacchio Geo 215		Driller: MG
Borehole Diameter: 125 mm		Contractor: Stratacore Drilling
Data Started: 25/2/20	Date Completed: 25/2/20	Logged By: AD
		Checked By: AN

Drilling			Sampling & Testing		Material Description							
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
↑ AD/V ↓			Not Encountered		1		ML 1.00m	FILL: Gravelly SILT: low plasticity, brown, fine to medium grained (sandstone) gravel	D		FILL	
						GP 1.30m	GRAVEL: fine to medium, (sandstone) brown/pale brown	NATURAL				
							SANDSTONE: Remoulds as Gravelly Sand, fine to coarse grained, pale brown/yellow, fine to medium grained gravel	BEDROCK				
↑ AH ↓					2							
					3							
					4							
					5							
					6							
					7							
					8							
					9							
					9.00m			TERMINATED AT 9.00 m Target depth				9.00 m: Well not constructed.

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE
 D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

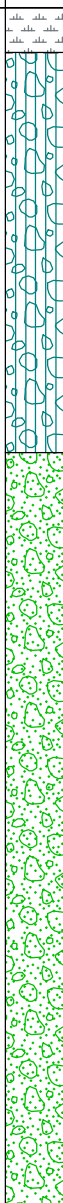
VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

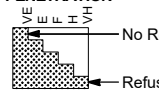
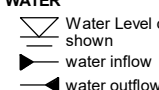
RELATIVE DENSITY
 VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

Client: Goulburn Mulwaree Council	Job No: 5046200019	Sheet: 1 of 1
Project: Stage 2 - DSI		
Location: Corner Dossie St and Sloane St, Goulburn		
Position:	Angle from Horizontal: 90°	Surface Elevation:
Rig Type: Comacchio Geo 215	Driller: CW	
Borehole Diameter: 125 mm	Contractor: Stratacore Drilling	
Data Started: 17/2/20	Date Completed: 17/2/20	Logged By: SI
Checked By: AN		

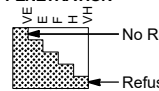
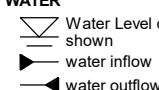
Drilling			Water	Sampling & Testing		Depth (m)	Material Description				
Method	Resistance	Casing		Sample or Field Test	Graphic Log		Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ AD/V ↓			Not Encountered			ML	Gravely SILT: low plasticity, brown/dark brown, fine to medium grained gravel, with organics	M		TOPSOIL	
					0.10m	Gravely SILT: low plasticity, brown/orange, fine to medium grained gravel	NATURAL				
									0.5	ML	
					1.0		Gravely SAND: fine to medium grained, cream/buff, fine to medium grained gravel	D			
					1.5						
					2.0						
					2.5						
					2.70m		TERMINATED AT 2.70 m Refusal			2.70 m: Refusal on sandstone bedrock. Well not constructed.	

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

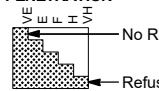
Client: Goulburn Mulwaree Council Project: Stage 2 - Detailed Site Investigation Location: Corner Dossie St and Sloane St, Goulburn				Job No: 5046200019 Sheet: 1 of 1			
Position:				Angle from Horizontal: 90°		Surface Elevation:	
Rig Type: Hand Auger				Driller: CS			
Borehole Diameter:				Contractor:			
Data Started: 17/2/20		Date Completed: 17/2/20		Logged By: SI		Checked By: AN	

Drilling			Sampling & Testing		Material Description			
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure
HA 			Not Encountered	0.00 - 0.10 m			CL 0.02m 0.10m CI-CH 0.70m	ASPHALT/CONCRETE CORE FILL: Gravelly Sandy CLAY: low plasticity, grey Gravelly CLAY: medium to high plasticity, grey/orange
				0.40 - 0.50 m				
					1			
					2			
					3			
					4			
					5			
					6			
					7			
					8			
					9			

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client: Goulburn Mulwaree Council Project: Stage 2 - Detailed Site Investigation Location: Corner Dossie St and Sloane St, Goulburn				Job No: 5046200019 Sheet: 1 of 1			
Position:				Angle from Horizontal: 90°		Surface Elevation:	
Rig Type: Hand Auger				Driller: CS			
Borehole Diameter:				Contractor:			
Data Started: 17/2/20		Date Completed: 17/2/20		Logged By: SI		Checked By: AN	

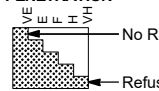
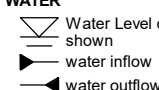
Drilling			Sampling & Testing		Material Description						
Method	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
 HA			Not Encountered	0.00 - 0.10 m		CL 0.02m 0.10m CI-CH 0.70m	ASPHALT/CONCRETE CORE FILL: Gravelly Sandy CLAY: low plasticity, grey Gravelly CLAY: medium to high plasticity, grey/orange	M		0.00 m: No staining, odour or PACM observed FILL Possibly NATURAL	
				0.40 - 0.60 m			TERMINATED AT 0.70 m				
					1						
					2						
					3						
					4						
					5						
					6						
					7						
					8						
					9						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown  water inflow  water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Excavation Dimensions:		Logged By: SI		Checked By: AN	
Date Excavated: 18/2/20					

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	0.00 - 0.10 m DUP3/DUP3A	0.10m		ML	FILL: Gravelly SILT: low plasticity, dark brown with organic matter, fine to medium grained gravel	M		FILL 0.00 m: PID = 3.1ppm No staining, odour or PACM observed
				0.40 - 0.50 m	0.50m		ML	FILL: Gravelly SILT: low plasticity, dark brown, with concrete and metal, fine to medium grained gravel	M to D	0.40 m: PID = 2.2ppm No staining, odour or PACM observed	
				0.90 - 1.00 m	1.00m		CL- CI	FILL: Gravelly CLAY: low to medium plasticity, brown/orange with bones	D	0.90 m: PID = 4.1ppm No staining, odour or PACM observed	
				1.40 - 1.50 m	1.50m	ML	FILL: Gravelly SILT: low plasticity, brown with subangular gravel and sandstone			1.40 m: PID = 2.0ppm No staining, odour or PACM observed	
								TERMINATED AT 1.50 m Refusal			1.50 m: REFUSAL ON ROCK (SANDSTONE)
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council
Project: Stage 2 - Detailed Site Investigation
Location: Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019

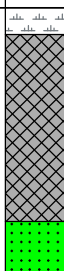
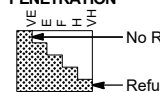
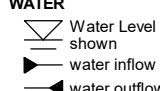
Sheet: 1 of 1

Position: Angle from Horizontal: 90° Surface Elevation:

Machine Type: 5 tonne Excavator Excavation Method: BUCKET

Excavation Dimensions: Contractor: JPK Excavations

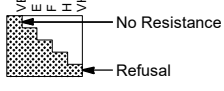
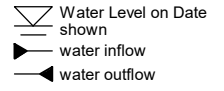
Date Excavated: 18/2/20 Logged By: SI Checked By: AN

Excavation			Water	Sampling & Testing		Material Description						
Method	Resistance	Stability		Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
EX			Not Encountered	0.00 - 0.10 m	0.5		ML	0.10m Gravelly SILT: low plasticity, dark brown, with roots and organics	M		TOPSOIL 0.00 m: PID = 1.5ppm No staining, odour or PACM observed	
				0.30 - 0.40 m			ML	FILL: Gravelly SILT: low plasticity, brown, with concrete slab, plastic and fragment of siltstone	D to M		FILL 0.30 m: PID = 1.9ppm No staining, odour or PACM observed	
				0.70 - 0.80 m				SANDSTONE	D		0.70 m: PID = 1.6ppm No staining, odour or PACM observed	
							1.00	TERMINATED AT 1.00 m Refusal			NATURAL	
					1.5							
					2.0							
					2.5							
					3.0							
					3.5							
					4.0							
					4.5							
METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller				PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow			FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)			SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content		SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense
Refer to explanatory notes for details of abbreviations and basis of descriptions												
CONSTRUCTION SCIENCES												

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Machine Type: 5 tonne Excavator		Logged By: SI		Checked By: AN	
Excavation Dimensions:		Date Excavated: 18/2/20			

Excavation			Sampling & Testing		Material Description								
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations		
EX			Not Encountered	0.00 - 0.10 m	0.5		ML	0.10m Gravelly SILT: low plasticity, brown, with organics	M	D to M	TOPSOIL 0.00 m: PID = 3.3ppm No staining, odour or PACM observed		
				0.40 - 0.50 m				ML	FILL: Gravelly SILT: low plasticity, brown-dark brown, with concrete, glass, asphalt			FILL	
				0.90 - 1.00 m				SM	FILL: Silty SAND: fine to medium grained, brown-orange, with gravel		M	0.40 m: PID = 3.7ppm No staining, odour or PACM observed	
				1.40 - 1.50 m				SP	Gravelly SAND: fine to medium grained, orange-white-pale brown, with sandstone present		M	0.90 m: PID = 4.5ppm No staining, odour or PACM observed NATURAL	
				1.50m		TERMINATED AT 1.50 m Target depth				1.40 m: PID = 3.8ppm No staining, odour or PACM observed			
					2.0								
					2.5								
					3.0								
					3.5								
					4.0								
					4.5								

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phitro Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client:	Goulburn Mulwaree Council
Project:	Stage 2 - Detailed Site Investigation
Location:	Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019

Sheet: 1 of 1

Position: **Angle from Horizontal: 90°**

Surface Elevation:

Machine Type: 5 tonne Excavator

Excavation Method: BUCKET

Excavation Dimensions:

Contractor: JPK Excavations

Date Excavated: 18/2/20

Logged By: SI

Checked By: AN

Excavation			Water	Sampling & Testing		Depth (m)	Material Description				STRUCTURE & Other Observations	
Method	Resistance	Stability		Sample or Field Test	Graphic Log		Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density		
EX			Not Encountered	0.00 - 0.10 m		ML	FILL: Gravelly Sandy SILT: low plasticity, brown, fube ti neduyn gravel, with organics	M	0.00 m: PID = 1.8ppm No staining, odour or PACM observed 0.30 m: PID = 4.8ppm No staining, odour or PACM observed 0.70 m: PID = 3.9ppm No staining, odour or PACM observed 1.30 m: PID = 6.0ppm No staining, odour or PACM observed NATURAL 1.80 m: PID = 4.1ppm No staining, odour or PACM observed			
				0.30 - 0.40 m		0.30m	FILL: Gravelly SILT: low plasticity, dark brown, with plastic and metal	M				
				0.70 - 0.80 m		0.5						
				1.30 - 1.40 m		1.0						
				1.80 - 1.90 m		1.5						
				1.80 m		1.80m	Gravelly SAND: fine to medium grained, orange-brown	M				
				2.10 m		2.10m	TERMINATED AT 2.10 m Target depth					
				2.5								
				3.0								
				3.5								
4.0												
4.5												
METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller			PENETRATION WATER Water Level on Date shown water inflow water outflow			FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Resdual (uncorrected kPa)			SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content		SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense	
Refer to explanatory notes for details of abbreviations and basis of descriptions												
CONSTRUCTION SCIENCES												

Hole No: TP05

Client:	Goulburn Mulwaree Council
Project:	Stage 2 - Detailed Site Investigation
Location:	Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019

Sheet: 1 of 1

Position:	Angle from Horizontal: 90°	Surface Elevation:

Machine Type: 5 tonne Excavator

Excavation Method: BUCKET

Excavation Dimensions:

Contractor: JPK Excavations

Date Excavated: 18/2/20

Logged By: SI

Checked By: AN

Excavation			Water	Sampling & Testing		Depth (m)	Material Description				STRUCTURE & Other Observations
Method	Resistance	Stability		Sample or Field Test	Graphic Log		Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	
EX			Not Encountered	0.00 - 0.10 m		ML	Gravelly SILT: low plasticity, dark brown, with organics and siltstone gravels	M	TOPSOIL 0.00 m: with organics and siltstone gravels 0.00 m: PID = 6.5mm No staining, odour or PACM observed FILL 0.30 m: with sandstone 0.40 m: PID = 8.6mm No staining, odour or PACM observed		
						0.30m					
				0.40 - 0.50 m		SP	FILL: SAND: fine to medium grained, brown-white, with sandstone	D to M			
					0.5		TERMINATED AT 0.50 m Refusal				
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD

EX Excavator bucket

R Ripper

HA Hand auger

PT Push tube

SON Sonic drilling

AH Air hammer

PS Percussion sampler

AS Short spiral auger

AD/V Solid flight auger: V-Bit

AD/T Solid flight auger: TC-Bit

HFA Hollow flight auger

WB Washbore drilling

RR Rock roller

PENETRATION

WATER

Water Level on Date shown

water inflow

water outflow

FIELD TESTS

SPT - Standard Penetration Test

HP - Hand/Pocket Penetrometer

DCP - Dynamic Cone Penetrometer

PSP - Perth Sand Penetrometer

MC - Moisture Content

PBT - Plate Bearing Test

IMP - Borehole Impression Test

PID - Phito Ionization Detector

VS - Vane Shear; P=Peak, R=Resdual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample

D - Disturbed sample

ES - Environmental sample

U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry

M - Moist

W - Wet

PL - Plastic limit

LL - Liquid limit

w - Moisture content

SOIL CONSISTENCY

VS - Very Soft

S - Soft

F - Firm

St - Stiff

VSt - Very Stiff

H - Hard

RELATIVE DENSITY

VL - Very Loose

L - Loose

MD - Medium Dense

D - Dense

VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

Client:	Goulburn Mulwaree Council	Job No: 5046200019	Sheet: 1 of 1
Project:	Stage 2 - Detailed Site Investigation		
Location:	Corner Dossie St and Sloane St, Goulburn		
Position:	Angle from Horizontal: 90°	Surface Elevation:	
Machine Type: 5 tonne Excavator	Excavation Method: BUCKET		
Excavation Dimensions:	Contractor: JPK Excavations		
Date Excavated: 19/2/20	Logged By: SI		Checked By: AN

Excavation			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ EX ↓			Not Encountered	0.00 - 0.10 m		ML	0.10m FILL: Gravelly SAND: low plasticity, brown, with organics	M		FILL 0.00 m: PID = 1.6ppm No staining, odour or PACM observed 0.30 m: PID = 2.4ppm No staining, odour or PACM observed 0.70 m: PID = 2.3ppm No staining, odour or PACM observed	
				0.30 - 0.40 m		ML	FILL: Gravelly SILT: low plasticity, brown	D to M			
				0.70 - 0.80 m		SW	0.80m FILL: Gravelly SAND: fine to coarse grained, orange-brown	D to M			
				TERMINATED AT 0.80 m Refusal							
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: **Goulburn Mulwaree Council**
 Project: **Stage 2 - Detailed Site Investigation**
 Location: **Corner Dossie St and Sloane St, Goulburn**

Job No: **5046200019**

Sheet: **1 of 1**

Position: _____ Angle from Horizontal: **90°** Surface Elevation: _____

Machine Type: **5 tonne Excavator** Excavation Method: **BUCKET**

Excavation Dimensions: _____ Contractor: **JPK Excavations**

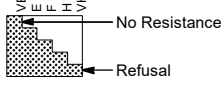
Date Excavated: **19/2/20** Logged By: **SI** Checked By: **AN**

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	0.00 - 0.10 m	0.5		ML	FILL: Gravelly SILT: low plasticity, brown, with organics and siltstone	M		FILL 0.00 m: PID = 6.1ppm No staining, odour or PACM observed 0.40 m: PID = 4.7ppm No staining, odour or PACM observed 0.90 m: PID = 5.9ppm No staining, odour or PACM observed
				0.40 - 0.50 m							
				0.80 m							
				0.90 - 1.00 m							
					1.0		ML	FILL: Gravelly Sandy SILT: low plasticity, brown-white, with sandstone			
					1.00m			TERMINATED AT 1.00 m Refusal			
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD

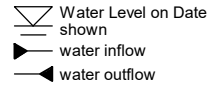
EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION



No Resistance
Refusal

WATER



Water Level on Date shown
 water inflow
 water outflow

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Client: Goulburn Mulwaree Council
 Project: Stage 2 - Detailed Site Investigation
 Location: Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019

Sheet: 1 of 1

Position: Angle from Horizontal: 90° Surface Elevation:

Machine Type: 5 tonne Excavator Excavation Method: BUCKET

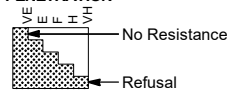
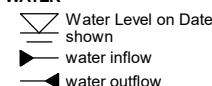
Excavation Dimensions: Contractor: JPK Excavations

Date Excavated: 18/2/20 Logged By: SI Checked By: AN

Excavation					Sampling & Testing		Material Description				
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX				0.10 - 0.30 m			GW	FILL: Silty GRAVEL: fine to coarse, dark grey-pale brown	W		FILL 0.00 m: SEDIMENTARY SAMPLE FROM DAM FLOOR
					0.50m						
					0.5			TERMINATED AT 0.50 m Target depth			
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

WATER

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Hole No: TP09

Client: Goulburn Mulwaree Council
Project: Stage 2 - Detailed Site Investigation
Location: Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019

Sheet: 1 of 1

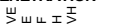
Position:	Angle from Horizontal: 90°	Surface Elevation:

Machine Type: 5 tonne Excavator	Excavation Method: BUCKET

Excavation Dimensions: _____ Contractor: JPK Excavations

Date Excavated: 18/2/20	Logged By: SI	Checked By: AN

Excavation			Water	Sampling & Testing	Depth (m)	Material Description				
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density
EX				0.10 - 0.30 m		GP	FILL: Silty Clayey GRAVEL: fine to medium, pale brown - white	W		FILL 0.00 m: SEDIMENTARY SAMPLE FROM DAM FLOOR
					0.5		0.50m			
							TERMINATED AT 0.50 m Target depth			
					1.0					
					1.5					
					2.0					
					2.5					
					3.0					
					3.5					
					4.0					
					4.5					

METHOD		PENETRATION		FIELD TESTS		SAMPLES		SOIL CONSISTENCY	
EX	Excavator bucket		No Resistance Refusal	SPT	- Standard Penetration Test	B	- Bulk disturbed sample	VS	- Very Soft
R	Ripper			HP	- Hand/Pocket Penetrometer	D	- Disturbed sample	S	- Soft
HA	Hand auger			DCP	- Dynamic Cone Penetrometer	ES	- Environmental sample	F	- Firm
PT	Push tube			PSP	- Perth Sand Penetrometer	U	- Thin wall tube 'undisturbed'	St	- Stiff
SON	Sonic drilling			MC	- Moisture Content			VSt	- Very Stiff
AH	Air hammer			PBT	- Plate Bearing Test	MOISTURE		H	- Hard
PS	Percussion sampler			IMP	- Borehole Impression Test	D	- Dry	RELATIVE DENSITY	
AS	Short spiral auger			PID	- Phito Ionization Detector	M	- Moist	VL	- Very Loose
AD/V	Solid flight auger: V-Bit			VS	- Vane Shear; P=Peak, R=Residual (uncorrected kPa)	W	- Wet	L	- Loose
AD/T	Solid flight auger: TC-Bit					PL	- Plastic limit	MD	- Medium Dense
HFA	Hollow flight auger			LL	- Liquid limit	D	- Dense		
WB	Washbore drilling			w	- Moisture content	VD	- Very Dense		
RR	Rock roller								

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

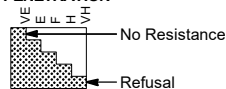
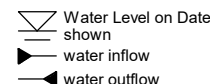
Client: Goulburn Mulwaree Council	Job No: 5046200019	Sheet: 1 of 1
Project: Stage 2 - Detailed Site Investigation		
Location: Corner Dossie St and Sloane St, Goulburn		

Position:	Angle from Horizontal: 90°	Surface Elevation:
Machine Type: 5 tonne Excavator	Excavation Method: BUCKET	
Excavation Dimensions:	Contractor: JPK Excavations	
Date Excavated: 18/2/20	Logged By: SI	Checked By: AN

Excavation			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ EX ↓				0.10 - 0.30 m				GM	FILL: Silty Clayey GRAVEL: fine to medium, cream/buss	W	
					0.50m	TERMINATED AT 0.50 m Target depth					0.50 m: (HARD ROCK)
					0.5						
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

WATER

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Hole No: TP11

Client: Goulburn Mulwaree Council
Project: Stage 2 - Detailed Site Investigation
Location: Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019

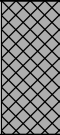
Sheet: 1 of 1

Position:	Angle from Horizontal: 90°	Surface Elevation:

Machine Type: 5 tonne Excavator	Excavation Method: BUCKET

Excavation Dimensions: _____ Contractor: JPK Excavations

Date Excavated: 18/2/20	Logged By: SI	Checked By: AN

Excavation			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX				0.10 - 0.30 m			GM	FILL: Silty GRAVEL: fine to coarse, grey	W		FILL 0.00 m: SEDIMENTARY SAMPLE FROM DAM FLOOR
					0.5			0.50m TERMINATED AT 0.50 m Target depth			
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD		PENETRATION		FIELD TESTS		SAMPLES		SOIL CONSISTENCY	
EX	Excavator bucket		No Resistance Refusal	SPT	- Standard Penetration Test	B	- Bulk disturbed sample	VS	- Very Soft
R	Ripper			HP	- Hand/Pocket Penetrometer	D	- Disturbed sample	S	- Soft
HA	Hand auger			DCP	- Dynamic Cone Penetrometer	ES	- Environmental sample	F	- Firm
PT	Push tube			PSP	- Perth Sand Penetrometer	U	- Thin wall tube 'undisturbed'	St	- Stiff
SON	Sonic drilling			MC	- Moisture Content			Vst	- Very Stiff
AH	Air hammer	PBT	- Plate Bearing Test					H	- Hard
PS	Percussion sampler	IMP	- Borehole Impression Test						
AS	Short spiral auger	PID	- Phito Ionization Detector						
AD/V	Solid flight auger: V-Bit	VS	- Vane Shear; P=Peak, R=Residual (uncorrected kPa)						
AD/T	Solid flight auger: TC-Bit								
HFA	Hollow flight auger								
WB	Washbore drilling								
RR	Rock roller								

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

Client:	Goulburn Mulwaree Council
Project:	Stage 2 - Detailed Site Investigation
Location:	Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019

Sheet: 1 of 1

Position:	Angle from Horizontal: 90°	Surface Elevation:

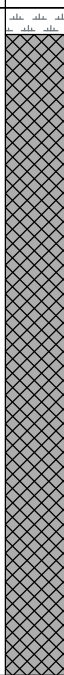
Machine Type: 5 tonne Excavator	Excavation Method: BUCKET

Excavation Dimensions: _____ Contractor: JPK Excavations

Date Excavated: 18/2/20	Logged By: SI	Checked By: AN

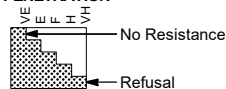
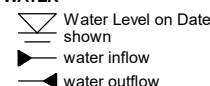
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Client:	Goulburn Mulwaree Council	Job No:	5046200019	Sheet:	1 of 1
Project:	Stage 2 - Detailed Site Investigation				
Location:	Corner Dossie St and Sloane St, Goulburn	Angle from Horizontal:	90°	Surface Elevation:	
Position:		Excavation Method:	BUCKET		
Machine Type:	5 tonne Excavator	Contractor:	JPK Excavations		
Excavation Dimensions:		Logged By:	SI	Checked By:	AN
Date Excavated:	18/2/20				

Excavation			Water	Sampling & Testing	Depth (m)	Material Description								
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations			
EX			Not Encountered	0.00 - 0.10 m		ML	0.10m	Gravelly Sandy SILT: low plasticity, dark brown-pale brown, with sandstone FILL: Gravelly SILT: low plasticity, dark grey-brown, with sandstone and siltstone	M		TOPSOIL 0.00 m: PID = 4.7ppm No staining, odour or PACM observed FILL			
				0.50 - 0.60 m DUP6/DUP6A		0.5	ML						0.50 m: PID = 3.2ppm No staining, odour or PACM observed	
				1.00 - 1.10 m		1.0					1.10m	FILL: Gravelly Silty CLAY: low to medium plasticity, brown-orange	D to M	1.00 m: PID = 3.1ppm No staining, odour or PACM observed
				1.50 - 1.60 m		1.5					1.60m	FILL: Gravelly SILT: low plasticity, grey, with siltstone gravels		1.50 m: PID = 6.1ppm No staining, odour or PACM observed
				2.00 - 2.10 m		2.0	ML				2.10m	FILL: Gravelly SAND: fine to medium grained, brown-pale brown		2.00 m: PID = 4.9ppm No staining, odour or PACM observed
				2.40 - 2.50 m		SP	2.50m			2.40 m: PID = 3.6ppm No staining, odour or PACM observed				
										TERMINATED AT 2.50 m Refusal				
						</								

METHOD

EX Excavator bucket
R Ripper
HA Hand auger
PT Push tube
SON Sonic drilling
AH Air hammer
PS Percussion sampler
AS Short spiral auger
AD/V Solid flight auger: V-Bit
AD/T Solid flight auger: TC-Bit
HFA Hollow flight auger
WB Washbore drilling
RR Rock roller

PENETRATION

WATER

FIELD TESTS

SPT - Standard Penetration Test
HP - Hand/Pocket Penetrometer
DCP - Dynamic Cone Penetrometer
PSP - Perth Sand Penetrometer
MC - Moisture Content
PBT - Plate Bearing Test
IMP - Borehole Impression Test
PID - Phitro Ionization Detector
VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
D - Disturbed sample
ES - Environmental sample
U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
M - Moist
W - Wet
PL - Plastic limit
LL - Liquid limit
w - Moisture content

SOIL CONSISTENCY

VS - Very Soft
S - Soft
F - Firm
St - Stiff
VSt - Very Stiff
H - Hard

RELATIVE DENSITY

VL - Very Loose
L - Loose
MD - Medium Dense
D - Dense
VD - Very Dense

Client:	Goulburn Mulwaree Council	Job No:	5046200019	Sheet:	1 of 1
Project:	Stage 2 - Detailed Site Investigation				
Location:	Corner Dossie St and Sloane St, Goulburn				
Position:		Angle from Horizontal:	90°	Surface Elevation:	
Machine Type:	5 tonne Excavator	Excavation Method:	BUCKET		
Excavation Dimensions:		Contractor:	JPK Excavations		
Date Excavated:	18/2/20	Logged By:	SI	Checked By:	AN

Excavation			Sampling & Testing		Material Description				
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition Consistency Relative Density
EX			Not Encountered	0.00 - 0.10 m			ML	FILL: Gravelly Sandy SILT: low plasticity, brown-pale brown, fine to coarse gravel, with organics FILL: Gravelly SILT: low plasticity, dark brown-grey, with sandstone and siltstone	D to M
				0.40 - 0.50 m	0.5				
				0.90 - 1.00 m	1.0		ML		
				1.40 - 1.50 m	1.5				
				1.90 - 2.00 m	2.0				
				2.40 - 2.50 m	2.5		GM	FILL: Silty GRAVEL: fine to coarse, pale brown-grey	
								TERMINATED AT 2.50 m Refusal	
					3.0				
					3.5				
					4.0				
					4.5				

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller		PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow		FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)		SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content		SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense	

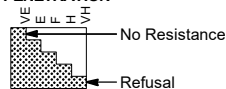
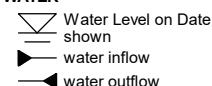
Refer to explanatory notes for details of abbreviations and basis of descriptions

Client:	Goulburn Mulwaree Council	Job No:	5046200019	Sheet:	1 of 1
Project:	Stage 2 - Detailed Site Investigation				
Location:	Corner Dossie St and Sloane St, Goulburn				
Position:		Angle from Horizontal:	90°	Surface Elevation:	
Machine Type:	5 tonne Excavator	Excavation Method:	BUCKET		
Excavation Dimensions:		Contractor:	JPK Excavations		
Date Excavated:	18/2/20	Logged By:	SI	Checked By:	AN

Excavation			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered		0.5 1.0 1.5 2.0		ML	0.10m	FILL: Gravelly Sandy SILT: low plasticity, brown-pale brown, with organic matter, sandstone and siltstone	D to M	FILL 0.00 m: PID = 2.7ppm No staining, odour or PACM observed 0.40 m: PID = 3.4ppm No staining, odour or PACM observed 0.90 m: PID = 3.2ppm No staining, odour or PACM observed 1.40 m: PID = 5.3ppm No staining, odour or PACM observed 1.90 m: PID = 4.8ppm No staining, odour or PACM observed 2.20 m: PID = 3.8ppm No staining, odour or PACM observed
							SW		FILL: Gravelly SAND: fine to coarse grained, brown-pale brown, with sandstone and siltstone	M	
								0.50m	FILL: Gravelly SILT: low plasticity, brown-grey, with siltstone and sandstone		
							ML			D to M	
								2.30m	TERMINATED AT 2.30 m Refusal		
					2.5 3.0 3.5 4.0 4.5						

METHOD

EX Excavator bucket
R Ripper
HA Hand auger
PT Push tube
SON Sonic drilling
AH Air hammer
PS Percussion sampler
AS Short spiral auger
AD/V Solid flight auger: V-Bit
AD/T Solid flight auger: TC-Bit
HFA Hollow flight auger
WB Washbore drilling
RR Rock roller

PENETRATION

WATER

FIELD TESTS

SPT - Standard Penetration Test
HP - Hand/Pocket Penetrometer
DCP - Dynamic Cone Penetrometer
PSP - Perth Sand Penetrometer
MC - Moisture Content
PBT - Plate Bearing Test
IMP - Borehole Impression Test
PID - Phito Ionization Detector
VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
D - Disturbed sample
ES - Environmental sample
U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
M - Moist
W - Wet
PL - Plastic limit
LL - Liquid limit
w - Moisture content

SOIL CONSISTENCY

VS - Very Soft
S - Soft
F - Firm
St - Stiff
VSt - Very Stiff
H - Hard

RELATIVE DENSITY

VL - Very Loose
L - Loose
MD - Medium Dense
D - Dense
VD - Very Dense

Client: **Goulburn Mulwaree Council**
 Project: **Stage 2 - Detailed Site Investigation**
 Location: **Corner Dossie St and Sloane St, Goulburn**

Job No: **5046200019**

Sheet: **1 of 1**

Position: _____ Angle from Horizontal: **90°** Surface Elevation: _____

Machine Type: **5 tonne Excavator** Excavation Method: **BUCKET**

Excavation Dimensions: _____ Contractor: **JPK Excavations**

Date Excavated: **18/2/20** Logged By: **SI** Checked By: **AN**

Excavation			Sampling & Testing		Material Description									
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations			
EX			Not Encountered	0.00 - 0.10 m	0.10m		ML	FILL: Gravelly SILT: low plasticity, dark brown, with siltstone and organic matter	M		FILL 0.00 m: PID = 4.3ppm No staining, odour or PACM observed			
				0.40 - 0.50 m				0.5			ML	FILL: Gravelly Sandy SILT: low plasticity, brown-dark brown, with sandstone and siltstone	0.40 m: PID = 24.4ppm No staining, odour or PACM observed	
				0.90 - 2.00 m	1.0	ML	1.00m	FILL: Gravelly SILT: brown-pale brown, with sandstone and siltstone	D	0.90 m: PID = 4.4ppm No staining, odour or PACM observed				
				1.40 - 1.50 m	1.5					1.50 m: PID = 6.5ppm No staining, odour or PACM observed				
				1.90 - 2.00 m	2.0					2.00m	1.90 m: PID = 8.1ppm No staining, odour or PACM observed			
											TERMINATED AT 2.00 m Refusal			

METHOD
 EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

 No Resistance
 Refusal
WATER

 Water Level on Date shown
 water inflow
 water outflow

FIELD TESTS
 SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES
 B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'
MOISTURE
 D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY
 VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard
RELATIVE DENSITY
 VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Hole No: TP17

Client: Goulburn Mulwaree Council
Project: Stage 2 - Detailed Site Investigation
Location: Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019

Sheet: 1 of 1

Position:	Angle from Horizontal: 90°	Surface Elevation:

Machine Type: 5 tonne Excavator	Excavation Method: BUCKET

Excavation Dimensions: _____ Contractor: JPK Excavations

Date Excavated: 19/2/20	Logged By: SI	Checked By: AN

[illegible]

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Machine Type: 5 tonne Excavator		Logged By: SI		Checked By: AN	
Excavation Dimensions:		Date Excavated: 18/2/20			

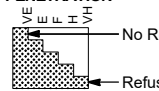
Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	0.00 - 0.10 m PID = 3.7ppm	0.10m		SW-SM	Gravelly Silty SAND: fine to coarse grained, pale brown, with organics	D	M	TOPSOIL 0.00 m: PID = 3.7ppm No staining, odour or PACM observed NATURAL
				0.40 - 0.50 m PID = 4.1ppm	0.5			Gravelly Silty SAND: fine to coarse grained, pale brown			0.40 m: PID = 4.1ppm No staining, odour or PACM observed
					0.80m			TERMINATED AT 0.80 m Refusal			
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Machine Type: 5 tonne Excavator		Logged By: SI		Checked By: AN	
Excavation Dimensions:		Date Excavated: 18/2/20			

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	Soil Type, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	0.00 - 0.10 m	0.5		SW	0.10m Gravelly SAND: fine to coarse grained, pale brown, with organics	M		TOPSOIL 0.00 m: PID = 6.3ppm No staining, odour or PACM observed
								FILL: Gravelly SAND: fine to coarse grained, pale brown			D to M
				0.30 - 0.40 m				SW	0.60m Gravelly Silty SAND: fine to coarse grained, pale brown	D	
				0.90 - 1.00 m				SW-SM	1.00m TERMINATED AT 1.00 m Target depth		0.90 m: PID = 5.9ppm No staining, odour or PACM observed
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

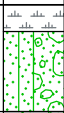
METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER  Water Level on Date shown  water inflow  water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

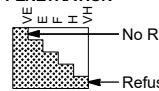
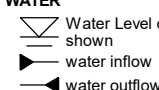
Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Machine Type: 5 tonne Excavator		Logged By: SI		Checked By: AN	
Excavation Dimensions:		Date Excavated: 19/2/20			

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	0.00 - 0.10 m	0.5		ML	0.10m Gravelly SILT: low plasticity, brown, with organics	D to M		TOPSOIL 0.00 m: PID = 1.8ppm No staining, odour or PACM observed
				0.40 - 0.50 m DUP9/DUP9A				Gravelly Silty SAND: fine to coarse grained, brown-orange-pale brown, with sandstone			NATURAL 0.40 m: PID = 2.4ppm No staining, odour or PACM observed
				0.90 - 1.00 m				TERMINATED AT 1.00 m Target depth			0.90 m: PID = 4.1ppm No staining, odour or PACM observed
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

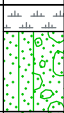
METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

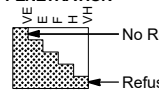
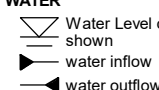
Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Machine Type: 5 tonne Excavator		Logged By: SI		Checked By: AN	
Excavation Dimensions:		Date Excavated: 19/2/20			

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ EX ↓			Not Encountered	0.00 - 0.10 m	0.10m		ML SW-SM	Gravelly SILT: low plasticity, dark brown, with organics	M		TOPSOIL 0.00 m: PID = 2.1ppm No staining, odour or PACM observed NATURAL 0.20 m: PID = 2.6ppm No staining, odour or PACM observed
				0.20 - 0.30 m				Gravelly Silty SAND: fine to coarse grained, brown-orange			
								TERMINATED AT 0.40 m Target depth			
					0.5						
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

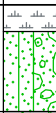
METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

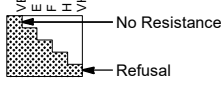
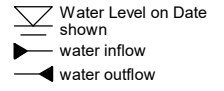
Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Machine Type: 5 tonne Excavator		Excavation Dimensions:		Logged By: SI	
Date Excavated: 19/2/20		Checked By: AN			

Excavation			Sampling & Testing		Material Description							
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
↑ EX ↓			Not Encountered	0.00 - 0.10 m			ML	0.10m Gravelly SILT: low plasticity, dark brown, sub-angular, sandstone gravel, with organics	M		TOPSOIL 0.00 m: PID = 1.6ppm No staining, odour or PACM observed	
			0.30 - 0.40 m		SW-SM		0.40m Gravelly Silty SAND: fine to coarse grained, orange-grey-pale brown, with weathered sandstone				NATURAL 0.30 m: PID = 2.4ppm No staining, odour or PACM observed	
					0.5			TERMINATED AT 0.40 m Target depth				
					1.0							
					1.5							
					2.0							
					2.5							
					3.0							
					3.5							
					4.0							
					4.5							

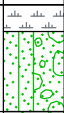
METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

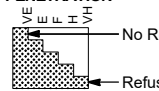
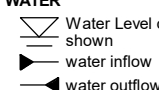
Client: Goulburn Mulwaree Council Project: Stage 2 - Detailed Site Investigation Location: Corner Dossie St and Sloane St, Goulburn				Job No: 5046200019 Sheet: 1 of 1			
Position:				Angle from Horizontal: 90°		Surface Elevation:	
Machine Type: 5 tonne Excavator				Excavation Method: BUCKET			
Excavation Dimensions:				Contractor: JPK Excavations			
Date Excavated: 19/2/20				Logged By: SI		Checked By: AN	

Excavation			Sampling & Testing		Material Description							
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
↑ EX ↓			Not Encountered	0.00 - 0.10 m			ML	0.10m Gravelly SILT: low plasticity, dark brown, sub-angular, sandstone gravel, with organics	M		TOPSOIL 0.00 m: PID = 3.2ppm No staining, odour or PACM observed	
			0.30 - 0.40 m		SW-SM		0.40m Gravelly Silty SAND: fine to coarse grained, orange-pale brown-grey, with weathered sandstone				NATURAL 0.30 m: PID = 2.1ppm No staining, odour or PACM observed	
					0.5			TERMINATED AT 0.40 m Target depth				
					1.0							
					1.5							
					2.0							
					2.5							
					3.0							
					3.5							
					4.0							
					4.5							

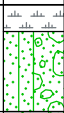
METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

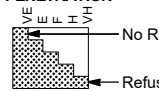
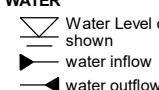
Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET			
Machine Type: 5 tonne Excavator		Excavation Dimensions:		Contractor: JPK Excavations	
Date Excavated: 19/2/20		Logged By: SI		Checked By: AN	

Excavation			Sampling & Testing		Material Description							
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
↑ EX ↓			Not Encountered	0.00 - 0.10 m			ML	0.10m Gravelly SILT: low plasticity, dark brown, with sandstone and organic	M		TOPSOIL 0.00 m: PID = 1.6ppm No staining, odour or PACM observed	
			0.30 - 0.40 m		0.40m		Gravelly Silty SAND: fine to coarse grained, orange-pale brown, with sandstone				NATURAL 0.30 m: PID = 3.3ppm No staining, odour or PACM observed	
					0.5			TERMINATED AT 0.40 m Target depth				
					1.0							
					1.5							
					2.0							
					2.5							
					3.0							
					3.5							
					4.0							
					4.5							

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET			
Machine Type: 5 tonne Excavator		Excavation Dimensions:		Contractor: JPK Excavations	
Date Excavated: 19/2/20		Logged By: SI		Checked By: AN	

Excavation			Sampling & Testing		Material Description							
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
↑ EX ↓			Not Encountered	0.00 - 0.10 m			ML	0.10m SILT: low plasticity, dark brown with sub angular gravel of sandstone, organic matter	M		TOPSOIL 0.00 m: PID = 1.7ppm No staining, odour or PACM observed	
			0.30 - 0.40 m		0.40m		SAND: fine to coarse grained, orange/cream/buff with weathered sandstone				NATURAL 0.30 m: PID = 2.2ppm No staining, odour or PACM observed	
					0.5			TERMINATED AT 0.40 m Target depth				
					1.0							
					1.5							
					2.0							
					2.5							
					3.0							
					3.5							
					4.0							
					4.5							

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Hole No: TP26

Client: Goulburn Mulwaree Council
Project: Stage 2 - Detailed Site Investigation
Location: Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019

Sheet: 1 of 1

Position:	Angle from Horizontal: 90°	Surface Elevation:

Machine Type: 5 tonne Excavator

Excavation Method: BUCKET

Excavation Dimensions:

Contractor: JPK Excavations

Date Excavated: 19/2/20

Logged By: SI

Checked By: AN

Excavation			Water	Sampling & Testing	Depth (m)	Material Description			
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition
↑ EX ↓			Not Encountered	0.00 - 0.10 m	</				

Client: **Goulburn Mulwaree Council**
 Project: **Stage 2 - DSI**
 Location: **Corner Dossie St and Sloane St, Goulburn**

Job No: **5046200019**

Sheet: **1 of 1**

Position: _____ Angle from Horizontal: **90°** Surface Elevation: _____

Machine Type: **5 tonne Excavator** Excavation Method: **Bucket**

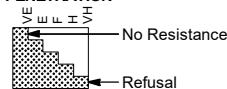
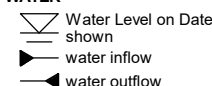
Excavation Dimensions: _____ Contractor: **JPk Excavations**

Date Excavated: **19/2/20** Logged By: **SI** Checked By: **AN**

Excavation			Water	Sampling & Testing		Depth (m)	Material Description				
Method	Resistance	Stability		Sample or Field Test	Graphic Log		Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ EX ↓			Not Encountered	ES 0.00 - 0.10 m		ML	0.20m	FILL: Gravelly SILT: low plasticity, brown/grey/cream, fine to medium grained (weathered sandstone) gravel	M		FILL 0.00 m: PID=2.0ppm No staining, odour or PACM observed.
				SW				0.70m			
						SW	1.00m		Gravelly Silty SAND: fine to coarse grained, orange/grey/cream, low plasticity silt, fine to medium grained (weathered sandstone) gravel	M to D	NATURAL 0.70 m: PID=3.6PPM No staining, odour or PACM observed.
									TERMINATED AT 1.00 m Target depth		

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

WATER

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phitro Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council
Project: Stage 2 - DSI
Location: Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019
Sheet: 1 of 1

Position: _____ **Angle from Horizontal: 90°** **Surface Elevation:** _____

Machine Type: 5 tonne Excavator **Excavation Method: Bucket**

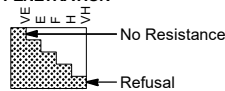
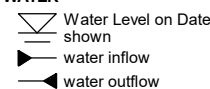
Excavation Dimensions: _____ **Contractor: JPK Excavations**

Date Excavated: 19/2/20 **Logged By: SI** **Checked By: AN**

Excavation			Sampling & Testing		Material Description					
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density
EX			Not Encountered	ES 0.00 - 0.10 m	0.5		SW	FILL: Gravelly Silty SAND: fine to coarse grained, orange/cream/buff, low plasticity silt, fine to medium grained, sub-angular gravel (weathered sandstone) gravel	M to D	FILL 0.00 m: PID=1.6ppm No staining, odour or PACM observed.
				ES 0.40 - 0.50 m						
				ES 0.70 - 0.80 m						
				ES 0.70 - 0.80 m						
					1.0			TERMINATED AT 0.80 m Target depth		0.40 m: PID=2.0ppm No staining, odour or PACM observed. NATURAL 0.70 m: PID=2.1ppm No staining, odour or PACM observed.
					1.5					
					2.0					
					2.5					
					3.0					
					3.5					
					4.0					
					4.5					

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

WATER

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phitro Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

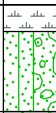
SOIL CONSISTENCY

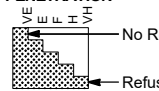
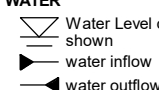
VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

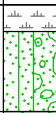
Client: Goulburn Mulwaree Council Project: Stage 2 - DSI Location: Corner Dossie St and Sloane St, Goulburn				Job No: 5046200019 Sheet: 1 of 1			
Position:				Angle from Horizontal: 90°		Surface Elevation:	
Machine Type: 5 tonne Excavator				Excavation Method: Bucket			
Excavation Dimensions:				Contractor: JPK Excavations			
Date Excavated: 19/2/20				Logged By: SI		Checked By: AN	

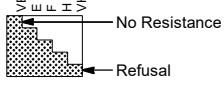
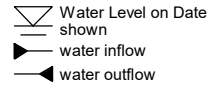
Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ EX ↓			Not Encountered	ES 0.00 - 0.10 m			ML	0.10m Gravelly SILT: low plasticity, dark brown, fine to medium grained gravel, with organics	M	D to M	TOPSOIL 0.00 m: PID=2.7ppm No staining, odour or PACM observed.
			ES 0.30 - 0.40 m		SW		0.40m Gravelly Silty SAND: fine to coarse grained, cream/orange/buff, low plasticity silt, fine to medium grained (weathered sandstone) gravel		NATURAL 0.30 m: PID=3.2ppm No staining, odour or PACM observed.		
					0.5			TERMINATED AT 0.40 m Target depth			
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - DSI		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: Bucket		Contractor: JPK Excavations	
Machine Type: 5 tonne Excavator		Excavation Dimensions:		Logged By: SI	
Date Excavated: 19/2/20		Checked By: AN			

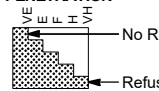
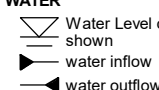
Excavation			Sampling & Testing		Material Description							
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
↑ EX ↓			Not Encountered	ES 0.00 - 0.10 m			ML	0.10m Gravelly SILT: low plasticity, dark brown, fine to medium grained gravel, with organics	M		TOPSOIL 0.00 m: PID=1.6ppm No staining, odour or PACM observed. NATURAL 0.30 m: PID=2.2ppm No staining, odour or PACM observed.	
			ES 0.30 - 0.40 m		SW		0.40m Gravelly Silty SAND: fine to coarse grained, cream/orange/buff, low plasticity silt, fine to medium grained (weathered sandstone) gravel	M to D				
					0.5			TERMINATED AT 0.40 m Target depth				
					1.0							
					1.5							
					2.0							
					2.5							
					3.0							
					3.5							
					4.0							
					4.5							

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council Project: Stage 2 - DSI Location: Corner Dossie St and Sloane St, Goulburn				Job No: 5046200019 Sheet: 1 of 1			
Position:				Angle from Horizontal: 90°		Surface Elevation:	
Machine Type: 5 tonne Excavator				Excavation Method: Bucket			
Excavation Dimensions:				Contractor: JPK Excavations			
Date Excavated: 19/2/20				Logged By: SI		Checked By: AN	

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX ↑ ↓			Not Encountered	ES 0.00 - 0.10 m	0.10m		ML	Gravelly SILT: low plasticity, brown/orange, fine to medium grained gravel, with organics	M	M to D	TOPSOIL 0.00 m: PID=1.6ppm No staining, odour or PACM observed.
				ES 0.20 - 0.30 m	0.30m		SW	Gravelly Silty SAND: fine to coarse grained, orange/cream/grey, low plasticity silt, fine to medium grained (weathered sandstone) gravel TERMINATED AT 0.30 m Refusal	NATURAL 0.10 m: PID=2.1ppm No staining, odour or PACM observed.		
					0.5						
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - DSI		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: Bucket		Contractor: JPK Excavations	
Machine Type: 5 tonne Excavator		Excavation Dimensions:		Logged By: SI	
Date Excavated: 19/2/20		Checked By: AN			

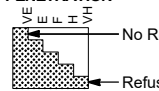
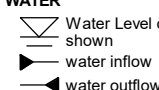
Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	ES 0.00 - 0.10 m			ML	0.10m Gravelly SILT: low plasticity, dark brown, fine to medium grained gravel	M		TOPSOIL 0.00 m: PID=1.4ppm No staining, odour or PACM observed. NATURAL 0.10 m: PID=2.1ppm No staining, odour or PACM observed.
				ES 0.10 - 0.20 m			SW	0.20m Gravelly Silty SAND: fine to coarse grained, orange/red/cream/grey, low plasticity silt, fine to medium grained (weathered sandstone) gravel, with sandstone boulders	D to M		
					0.5			TERMINATED AT 0.20 m Refusal			
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown  water inflow  water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council Project: Stage 2 - DSI Location: Corner Dossie St and Sloane St, Goulburn				Job No: 5046200019 Sheet: 1 of 1			
Position:				Angle from Horizontal: 90°		Surface Elevation:	
Machine Type: 5 tonne Excavator				Excavation Method: Bucket			
Excavation Dimensions:				Contractor: JPK Excavations			
Date Excavated: 19/2/20				Logged By: SI		Checked By: AN	

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX ↑ ↓			Not Encountered	ES 0.00 - 0.10 m	0.10m		ML	Gravelly Sandy SILT: low plasticity, dark brown/orange/cream, fine to coarse grained sand, fine to medium grained (weathered sandstone) gravel, with organics	M		TOPSOIL 0.00 m: PID=4.5ppm No staining, odour or PACM observed.
				ES 0.20 - 0.30 m	0.30m		SW				
					0.5			TERMINATED AT 0.30 m Refusal			
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: **Goulburn Mulwaree Council**
 Project: **Stage 2 - DSI**
 Location: **Corner Dossie St and Sloane St, Goulburn**

Job No: **5046200019**

Sheet: **1 of 1**

Position: _____ Angle from Horizontal: **90°** Surface Elevation: _____

Machine Type: **5 tonne Excavator** Excavation Method: **Bucket**

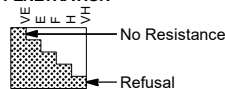
Excavation Dimensions: _____ Contractor: **JPK Excavations**

Date Excavated: **19/2/20** Logged By: **SI** Checked By: **AN**

Excavation			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	ES 0.00 - 0.10 m		ML SW	0.10m	Gravelly SILT: low plasticity, dark brown, fine to medium grained gravel, with organics	M		TOPSOIL 0.00 m: PID=1.9ppm No staining, odour or PACM observed. NATURAL
							Gravelly Silty SAND: fine to coarse grained, orange/grey/cream/red, low plasticity silt, fine to medium grained (weathered sandstone) gravel				0.40 m: PID=6.1ppm No staining, odour or PACM observed.
				ES 0.40 - 0.50 m			0.50m	TERMINATED AT 0.50 m Refusal			
					0.5						
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

WATER

 Water Level on Date shown
 water inflow
 water outflow

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

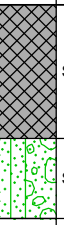
VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

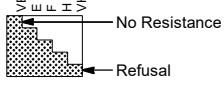
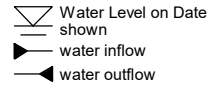
RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - DSI		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: Bucket		Contractor: JPK Excavations	
Machine Type: 5 tonne Excavator		Excavation Dimensions:		Logged By: SI	
Date Excavated: 19/2/20		Checked By: AN			

Excavation			Sampling & Testing		Material Description							
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
↑ EX ↓			Not Encountered	ES 0.00 - 0.10 m	0.5		SW	FILL: Gravelly Silty SAND: fine to coarse grained, brown/cream, low plasticity silt, fine to medium grained (weathered sandstone) gravel	D		FILL 0.00 m: PID=2.5ppm No staining, odour or PACM observed.	
				ES 0.40 - 0.50 m				0.50m			Gravelly Silty SAND: fine to coarse grained, cream/buff/pink, low plasticity silt, fine to medium grained (weathered sandstone) gravel	0.40 m: PID=3.0ppm No staining, odour or PACM observed.
				ES 0.70 - 0.80 m				0.80m				NATURAL 0.70 m: PID=2.7ppm No staining, odour or PACM observed.
											TERMINATED AT 0.80 m Target depth	
					1.0							
					1.5							
					2.0							
					2.5							
					3.0							
					3.5							
					4.0							
					4.5							

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client: Goulburn Mulwaree Council Project: Stage 2 - DSI Location: Corner Dossie St and Sloane St, Goulburn	Job No: 5046200019 Sheet: 1 of 1
Position: _____ Angle from Horizontal: 90° Surface Elevation: _____	
Machine Type: 5 tonne Excavator Excavation Method: Bucket	
Excavation Dimensions: _____ Contractor: JPK Excavations	
Date Excavated: 19/2/20 Logged By: SI Checked By: AN	

Excavation			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	ES 0.00 - 0.10 m	0.5		ML	FILL: Gravelly Silty SILT: low plasticity, brown/grey/orange/cream, low plasticity silt, fine to medium grained (weathered sandstone) gravel, with organics	D to M		FILL 0.00 m: No staining, odour or PACM observed. 0.60 m: No staining, odour or PACM observed. NATURAL 1.00 m: No staining, odour or PACM observed.
				ES 0.60 - 0.70 m	1.0		SW	Gravelly Silty SAND: fine to coarse grained, orange/cream/grey, low plasticity silt, fine to medium grained (weathered sandstone) gravel	M		
				ES 1.00 - 1.10 m							
							1.10m	TERMINATED AT 1.10 m Target depth			
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown  water inflow  water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council
Project: Stage 2 - DSI
Location: Corner Dossie St and Sloane St, Goulburn
Job No: 5046200019
Sheet: 1 of 1

Position: **Angle from Horizontal:** 90° **Surface Elevation:**

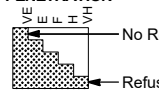
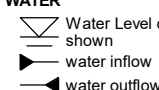
Machine Type: 5 tonne Excavator **Excavation Method:** Bucket

Excavation Dimensions: **Contractor:** JPK Excavations

Date Excavated: 19/2/20 **Logged By:** SI **Checked By:** AN

Excavation			Sampling & Testing		Depth (m)	Material Description							
Method	Resistance	Stability	Water	Sample or Field Test		Graphic Log	Classification	Soil Type, plasticity or particle characteristic, colour, secondary and minor components Rock Type, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations		
EX			Not Encountered	ES 0.00 - 0.10 m	0.5	SW	FILL: Gravelly Silty SAND: fine to coarse grained, orange/cream/buff/grey, low plasticity silt, fine to medium grained (weathered sandstone) gravel	D		FILL 0.00 m: PID=2.6ppm No staining, odour or PACM observed.			
				ES 0.40 - 0.50 m									
							ES 0.90 - 1.00 m	1.0	SW	Gravelly Silty SAND: fine to coarse grained, orange/cream/grey/buff, low plasticity silt, fine to medium grained (weathered sandstone) gravel	M		0.40 m: PID=2.4ppm No staining, odour or PACM observed. NATURAL
										TERMINATED AT 1.00 m Target depth			0.90 m: PID=4.1ppm No staining, odour or PACM observed.
					1.5								
					2.0								
					2.5								
					3.0								
					3.5								
					4.0								
					4.5								

METHOD
EX Excavator bucket
R Ripper
HA Hand auger
PT Push tube
SON Sonic drilling
AH Air hammer
PS Percussion sampler
AS Short spiral auger
AD/V Solid flight auger: V-Bit
AD/T Solid flight auger: TC-Bit
HFA Hollow flight auger
WB Washbore drilling
RR Rock roller

PENETRATION

WATER


FIELD TESTS
SPT - Standard Penetration Test
HP - Hand/Pocket Penetrometer
DCP - Dynamic Cone Penetrometer
PSP - Perth Sand Penetrometer
MC - Moisture Content
PBT - Plate Bearing Test
IMP - Borehole Impression Test
PID - Phitro Ionization Detector
VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES
B - Bulk disturbed sample
D - Disturbed sample
ES - Environmental sample
U - Thin wall tube 'undisturbed'
MOISTURE
D - Dry
M - Moist
W - Wet
PL - Plastic limit
LL - Liquid limit
w - Moisture content

SOIL CONSISTENCY
VS - Very Soft
S - Soft
F - Firm
St - Stiff
VSt - Very Stiff
H - Hard
RELATIVE DENSITY
VL - Very Loose
L - Loose
MD - Medium Dense
D - Dense
VD - Very Dense

Client: Goulburn Mulwaree Council
Project: Stage 2 - DSI
Location: Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019
Sheet: 1 of 1

Position: _____ **Angle from Horizontal:** 90° **Surface Elevation:** _____

Machine Type: 5 tonne Excavator **Excavation Method:** Bucket

Excavation Dimensions: _____ **Contractor:** JPK Excavations

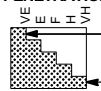
Date Excavated: 19/2/20 **Logged By:** SI **Checked By:** AN

Excavation			Sampling & Testing		Material Description					
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density
EX			Not Encountered	ES 0.00 - 0.10 m			ML	FILL: Gravelly SILT: low plasticity, brown, fine to medium grained gravel, with organics	D to M	FILL 0.00 m: PID=2.1ppm No staining, odour or PACM observed.
				ES 0.40 - 0.50 m	0.5					
				ES 0.90 - 1.00 m	1.0					
				ES 1.40 - 1.50 m	1.5					
							SW	Gravelly Silty SAND: fine to medium grained, brown/orange, low plasticity silt, fine to medium grained (weathered sandstone) gravel	M	NATURAL 1.40 m: PID=1.0ppm No staining, odour or PACM observed.
								TERMINATED AT 1.70 m Target depth		
					2.0					
					2.5					
					3.0					
					3.5					
					4.0					
					4.5					

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION


 No Resistance
 Refusal

WATER

 Water Level on Date shown
 water inflow
 water outflow

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - DSI					
Location: Corner Dossie St and Sloane St, Goulburn		Angle from Horizontal: 90°		Surface Elevation:	
Machine Type: 5 tonne Excavator		Excavation Method: Bucket			
Excavation Dimensions:				Contractor: JPK Excavations	
Date Excavated: 19/2/20		Logged By: SI		Checked By: AN	

Excavation			Water	Sampling & Testing		Depth (m)	Material Description				
Method	Resistance	Stability		Sample or Field Test	Graphic Log		Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	ES 0.00 - 0.10 m		ML	0.10m	Gravelly SILT: low plasticity, dark brown, fine to medium grained gravel, with organics	M	TOPSOIL 0.00 m: PID=1.8ppm No staining, odour or PACM observed. FILL	
							Gravelly Sandy SILT: low plasticity, brown with mottled orange/red, fine to coarse grained sand, fine to medium grained (weathered sandstone) gravel				
				ES 0.50 - 0.60 m				D to M			
				ES 1.00 - 1.10 m							
				ES 1.50 - 1.60 m							
				ES 1.70 - 1.80 m							
				1.70m	Gravelly Silty SAND: fine to coarse grained, orange/red/brown, low plasticity silt, fine to medium grained (weathered sandstone) gravel	M	Possibly NATURAL 1.70 m: PID=1.9ppm No staining, odour or PACM observed.				
				2.00m	TERMINATED AT 2.00 m Target depth						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown  water inflow  water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phitro Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: **Goulburn Mulwaree Council**
 Project: **Stage 2 - DSI**
 Location: **Corner Dossie St and Sloane St, Goulburn**

Job No: **5046200019**

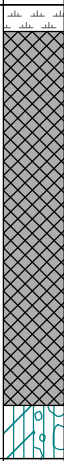
Sheet: **1 of 1**

Position: _____ Angle from Horizontal: **90°** Surface Elevation: _____

Machine Type: **5 tonne Excavator** Excavation Method: **Bucket**

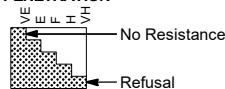
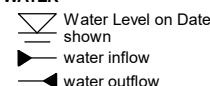
Excavation Dimensions: _____ Contractor: **JPk Excavations**

Date Excavated: **19/2/20** Logged By: **SI** Checked By: **AN**

Excavation			Sampling & Testing		Material Description					
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density
EX			Not Encountered	ES 0.00 - 0.10 m	0.10m		ML	Gravelly SILT: low plasticity, dark brown, fine to medium grained (weathered sandstone) gravel	M	TOPSOIL 0.00 m: PID=1.2ppm No staining, odour or PACM observed
				ES 0.40 - 0.50 m	0.5		ML	FILL: Gravelly SILT: low plasticity, brown/grey, fine to medium grained (weathered sandstone) gravel	D	FILL 0.40 m: PID=1.6ppm No staining, odour or PACM observed.
				ES 1.00 - 1.10 m	1.0		ML	FILL: Gravelly Clayey SILT: low plasticity, brown/orange, fine to medium grained gravel	M	1.00 m: PID=1.4ppm No staining, odour or PACM observed.
				ES 1.50 - 1.60 m	1.5		ML	Gravelly Clayey SILT: low plasticity, orange/red/brown, fine to medium grained (weathered sandstone) gravel		NATURAL 1.50 m: PID=1.4ppm No staining, odour or PACM observed.
					1.70m		ML	TERMINATED AT 1.70 m Target depth		
					2.0					
					2.5					
					3.0					
					3.5					
					4.0					
					4.5					

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

WATER

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

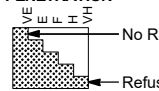
VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Client: Goulburn Mulwaree Council Project: Stage 2 - Detailed Site Investigation Location: Corner Dossie St and Sloane St, Goulburn				Job No: 5046200019 Sheet: 1 of 1			
Position:				Angle from Horizontal: 90°		Surface Elevation:	
Machine Type: 5 tonne Excavator				Excavation Method: BUCKET			
Excavation Dimensions:				Contractor: JPK Excavations			
Date Excavated: 20/2/20				Logged By: SI		Checked By: AN	

Excavation			Water	Sampling & Testing		Depth (m)	Material Description				
Method	Resistance	Stability		Sample or Field Test	Graphic Log		Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX 				0.10 - 0.30 m		ML	FILL: SILT: dark grey	W		FILL 0.00 m: SEDIMENTARY SAMPLE FROM DAM FLOOR	
							0.30m TERMINATED AT 0.30 m				
							0.5				
							1.0				
							1.5				
							2.0				
							2.5				
							3.0				
							3.5				
							4.0				
							4.5				

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

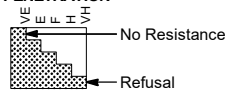
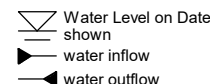
Client: Goulburn Mulwaree Council	Job No: 5046200019	Sheet: 1 of 1
Project: Stage 2 - Detailed Site Investigation		
Location: Corner Dossie St and Sloane St, Goulburn		

Position:	Angle from Horizontal: 90°	Surface Elevation:
Machine Type: 5 tonne Excavator	Excavation Method: BUCKET	
Excavation Dimensions:	Contractor: JPK Excavations	
Date Excavated: 20/2/20	Logged By: SI	Checked By: AN

Excavation			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX ↑ ↓				0.10 - 0.30 m			ML	FILL: Gravelly SILT: grey/brown/orange with siltstone	W		FILL 0.00 m: SEDIMENTARY SAMPLE FROM DAM FLOOR
							0.30m	TERMINATED AT 0.30 m			
					0.5						
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

WATER

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

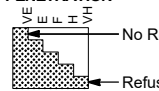
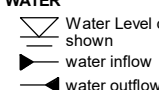
VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation					
Location: Corner Dossie St and Sloane St, Goulburn		Angle from Horizontal: 90°		Surface Elevation:	
Machine Type: 5 tonne Excavator		Excavation Method: BUCKET			
Excavation Dimensions:				Contractor: JPK Excavations	
Date Excavated: 20/2/20		Logged By: SI		Checked By: AN	

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX ↑ ↓				0.10 - 0.30 m		[Hatched Pattern]	ML	FILL: SILT: dark grey	W		FILL 0.00 m: SEDIMENTARY SAMPLE FROM DAM FLOOR
					0.5			0.50m			
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client: Goulburn Mulwaree Council	Job No: 5046200019	Sheet: 1 of 1
Project: Stage 2 - Detailed Site Investigation		
Location: Corner Dossie St and Sloane St, Goulburn		

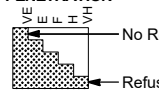
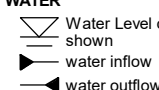
Position:	Angle from Horizontal: 90°	Surface Elevation:

Machine Type: 5 tonne Excavator	Excavation Method: BUCKET	

Excavation Dimensions:	Contractor: JPK Excavations	

Date Excavated: 20/2/20	Logged By: SI	Checked By: AN

Excavation			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX ↑ ↓				0.10 - 0.30 m			ML	FILL: SILT: dark grey/orange	W		FILL 0.00 m: SEDIMENTARY SAMPLE FROM DAM FLOOR
							0.30m	TERMINATED AT 0.30 m			
					0.5						
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Hole No: TP45

Client: Goulburn Mulwaree Council
Project: Stage 2 - Detailed Site Investigation
Location: Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019

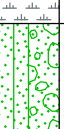
Sheet: 1 of 1

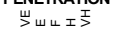
Position:	Angle from Horizontal: 90°	Surface Elevation:

Machine Type: 5 tonne Excavator	Excavation Method: BUCKET

Excavation Dimensions: _____ Contractor: JPK Excavations

Date Excavated: 20/2/20	Logged By: SI	Checked By: AN

Excavation			Water	Sampling & Testing	Depth (m)	Material Description				STRUCTURE & Other Observations	
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition		Consistency Relative Density
EX			Not Encountered	0.00 - 0.10 m		ML	0.10m	SILT: low plasticity, dark brown with sandstone	M	TOPSOIL 0.00 m: PID = 1.2ppm No staining, odour or PACM observed. NATURAL 0.40 m: PID = 1.9ppm No staining, odour or PACM observed.	
						0.40 - 0.50 m		SP-SM			0.50m
					0.5			TERMINATED AT 0.50 m Target depth			
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD		PENETRATION		FIELD TESTS		SAMPLES		SOIL CONSISTENCY	
EX	Excavator bucket		No Resistance Refusal	SPT	- Standard Penetration Test	B	- Bulk disturbed sample	VS	- Very Soft
R	Ripper			HP	- Hand/Pocket Penetrometer	D	- Disturbed sample	S	- Soft
HA	Hand auger			DCP	- Dynamic Cone Penetrometer	ES	- Environmental sample	F	- Firm
PT	Push tube			PSP	- Perth Sand Penetrometer	U	- Thin wall tube 'undisturbed'	St	- Stiff
SON	Sonic drilling			MC	- Moisture Content			VSt	- Very Stiff
AH	Air hammer		Water Level on Date shown water inflow water outflow	PBT	- Plate Bearing Test	MOISTURE		H	- Hard
PS	Percussion sampler			IMP	- Borehole Impression Test	D	- Dry	RELATIVE DENSITY	
AS	Short spiral auger			PID	- Phito Ionization Detector	M	- Moist	VL	- Very Loose
AD/V	Solid flight auger: V-Bit			VS	- Vane Shear; P=Peak, R=Residual (uncorrected kPa)	W	- Wet	L	- Loose
AD/T	Solid flight auger: TC-Bit					PL	- Plastic limit	MD	- Medium Dense
HFA	Hollow flight auger			LL	- Liquid limit	D	- Dense		
WB	Washbore drilling			w	- Moisture content	VD	- Very Dense		
RR	Rock roller								

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

Client: Goulburn Mulwaree Council
Project: Stage 2 - Detailed Site Investigation
Location: Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019
Sheet: 1 of 1

Position: _____ **Angle from Horizontal: 90°** **Surface Elevation:** _____

Machine Type: 5 tonne Excavator **Excavation Method: BUCKET**

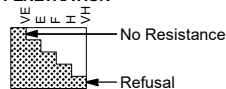
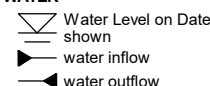
Excavation Dimensions: _____ **Contractor: JPK Excavations**

Date Excavated: 20/2/20 **Logged By: SI** **Checked By: AN**

Excavation			Water	Sampling & Testing		Depth (m)	Material Description				
Method	Resistance	Stability		Sample or Field Test	Graphic Log		Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Seeping	0.00 - 0.10 m		ML	0.10m TOPSOIL	M to W		TOPSOIL 0.00 m: PID = 2.1ppm No staining, odour or PACM observed. FILL	
				0.40 - 0.50 m			0.5				0.60m
				0.70 - 0.80 m		SP-SM	Gravelly Silty SAND: fine to coarse grained, red/orange/grey	M	NATURAL 0.70 m: PID = 1.6ppm No staining, odour or PACM observed.		
							1.0			1.00m	TERMINATED AT 1.00 m Target depth

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

WATER

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak,
 R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: **Goulburn Mulwaree Council**
 Project: **Stage 2 - Detailed Site Investigation**
 Location: **Corner Dossie St and Sloane St, Goulburn**

Job No: **5046200019**

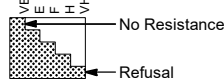
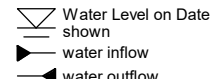
Sheet: **1 of 1**

Position: _____ Angle from Horizontal: **90°** Surface Elevation: _____

Machine Type: **5 tonne Excavator** Excavation Method: **BUCKET**

Excavation Dimensions: _____ Contractor: **JPK Excavations**

Date Excavated: **20/2/20** Logged By: **SI** Checked By: **AN**

Excavation			Sampling & Testing		Material Description											
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations					
EX			Not Encountered	0.00 - 0.10 m	0.5		SP-SC	0.10m FILL: Gravelly Clayey SAND: fine to medium grained, orange/brown with organic matter and sandstone	M		FILL 0.00 m: PID = 2.8ppm No staining, odour or PACM observed.					
				0.30 - 0.40 m			ML	FILL: Gravelly Clayey SILT: low plasticity, orange/grey/dark brown with sandstone			0.30 m: PID = 2.6ppm No staining, odour or PACM observed.					
				0.80 - 0.90 m DUP14, DUP14A			ML				0.80 m: PID = 3.0ppm No staining, odour or PACM observed.					
				1.00 - 1.10 m			ML	FILL: Gravelly SILT: low plasticity, dakr brown/grey with weathered sandstone			1.00 m: PID = 2.5ppm No staining, odour or PACM observed.					
				1.50 - 1.60 m			1.5	CL	FILL: Gravelly Silty CLAY: low plasticity, orange/grey with siltstone	D / M		1.50 m: PID = 2.4ppm No staining, odour or PACM observed.				
										2.0			TERMINATED AT 1.80 m Refusal			
										2.5						
				3.0												
				3.5												
				4.0												
				4.5												
METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller				PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow			FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)			SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content			SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense			
Refer to explanatory notes for details of abbreviations and basis of descriptions																
CONSTRUCTION SCIENCES																

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Excavation Dimensions:		Logged By: SI		Checked By: AN	
Date Excavated: 20/2/20					

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	Soil Type, plasticity or particle characteristic, colour, secondary and minor components Rock Type, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	0.00 - 0.10 m	0.5 1.0 1.30m		ML	0.10m Gravelly SILT: low plasticity, dark brown/grey with organic matter	D to M	D / M D	TOPSOIL 0.00 m: PID = 2.1ppm No staining, odour or PACM observed. Possibly FILL
				0.40 - 0.50 m			SP-SM	FILL: Gravelly Silty SAND: fine to coarse grained, grey/orange/brown with weathered sandstone			0.40 m: PID = 2.0ppm No staining, odour or PACM observed.
				0.90 - 1.00 m			SP-SM	Gravelly Silty SAND: orange with weathered sandstone			0.90 m: PID = 1.5ppm No staining, odour or PACM observed. NATURAL
				1.20 - 1.30 m			SP-SM				1.20 m: PID = 1.9ppm No staining, odour or PACM observed.
				TERMINATED AT 1.30 m Refusal							
					1.5 2.0 2.5 3.0 3.5 4.0 4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council Project: Stage 2 - Detailed Site Investigation Location: Corner Dossie St and Sloane St, Goulburn	Job No: 5046200019 Sheet: 1 of 1	
Position:		Angle from Horizontal: 90°
Machine Type: 5 tonne Excavator		Excavation Method: BUCKET
Excavation Dimensions:		Contractor: JPK Excavations
Date Excavated: 20/2/20		Logged By: SI
		Checked By: AN

Excavation			Water	Sampling & Testing	Depth (m)	Material Description						
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
↑ EX ↓			Not Encountered	0.00 - 0.10 m DUP15, DUP15A		ML	0.10m	D / M		TOPSOIL 0.00 m: PID = 2.1ppm No staining, odour or PACM observed. FILL		
				0.50 - 0.60 m	0.5	SP						Gravelly Silty SAND: fine to coarse grained, orange/cream with weathered sandstone
0.80 - 0.90 m		SP						NATURAL 0.80 m: PID = 1.8ppm No staining, odour or PACM observed.				
					1.0		1.00m					

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown  water inflow  water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council
Project: Stage 2 - Detailed Site Investigation
Location: Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019

Sheet: 1 of 1

Position: Angle from Horizontal: 90° Surface Elevation:

Machine Type: 5 tonne Excavator Excavation Method: BUCKET

Excavation Dimensions: Contractor: JPK Excavations

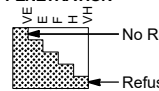
Date Excavated: 20/2/20 Logged By: SI Checked By: AN

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	0.00 - 0.10 m			ML	Gravelly SILT: low plasticity, dark brown/grey with organic matter	D / M		TOPSOIL 0.00 m: PID = 1.8ppm No staining, odour or PACM observed.
				0.20 - 0.30 m			0.20m	FILL: Gravelly Silty SAND: fine to medium grained, dark brown/grey/orange/cream with sandstone			FILL 0.20 m: PID = 1.8ppm No staining, odour or PACM observed.
				0.70 - 0.80 m		0.70m	Gravelly Silty SAND: fine to coarse grained, orange/cream with weathered sandstone	NATURAL 0.70 m: PID = 1.4 ppm No staining, odour or PACM observed.			
						1.10m	TERMINATED AT 1.10 m Target depth				
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD

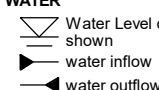
EX Excavator bucket
R Ripper
HA Hand auger
PT Push tube
SON Sonic drilling
AH Air hammer
PS Percussion sampler
AS Short spiral auger
AD/V Solid flight auger: V-Bit
AD/T Solid flight auger: TC-Bit
HFA Hollow flight auger
WB Washbore drilling
RR Rock roller

PENETRATION



No Resistance
Refusal

WATER



Water Level on Date shown
water inflow
water outflow

FIELD TESTS

SPT - Standard Penetration Test
HP - Hand/Pocket Penetrometer
DCP - Dynamic Cone Penetrometer
PSP - Perth Sand Penetrometer
MC - Moisture Content
PBT - Plate Bearing Test
IMP - Borehole Impression Test
PID - Phito Ionization Detector
VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
D - Disturbed sample
ES - Environmental sample
U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
M - Moist
W - Wet
PL - Plastic limit
LL - Liquid limit
w - Moisture content

SOIL CONSISTENCY

VS - Very Soft
S - Soft
F - Firm
St - Stiff
VSt - Very Stiff
H - Hard

RELATIVE DENSITY

VL - Very Loose
L - Loose
MD - Medium Dense
D - Dense
VD - Very Dense

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Excavation Dimensions:		Logged By: SI		Checked By: AN	
Date Excavated: 20/2/20					

Excavation			Sampling & Testing		Material Description								
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations		
EX			Not Encountered	0.00 - 0.10 m		ML	0.10m	D / M			TOPSOIL 0.00 m: PID = 2.4ppm No staining, odour or PACM observed.		
				0.40 - 0.50 m DUP16, DUP16A			0.5				SP	FILL: Gravelly Silty SAND: fine to coarse grained, dark grey/orange/brown with sandstone	0.40 m: PID = 4.4ppm No staining, odour or PACM observed.
				0.90 - 1.00 m			1.0				SP	Gravelly Silty SAND: fine to coarse grained, orange/grey with weathered sandstone	NATURAL 0.90 m: PID = 3.7ppm No staining, odour or PACM observed.
				1.30m			TERMINATED AT 1.30 m Target depth						
					1.5								
					2.0								
					2.5								
					3.0								
					3.5								
					4.0								
					4.5								

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: **Goulburn Mulwaree Council**
 Project: **Stage 2 - Detailed Site Investigation**
 Location: **Corner Dossie St and Sloane St, Goulburn**

Job No: **5046200019**

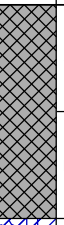
Sheet: **1 of 1**

Position: _____ Angle from Horizontal: **90°** Surface Elevation: _____

Machine Type: **5 tonne Excavator** Excavation Method: **BUCKET**

Excavation Dimensions: _____ Contractor: **JPK Excavations**

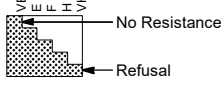
Date Excavated: **20/2/20** Logged By: **SI** Checked By: **AN**

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	0.00 - 0.10 m DUP18/DUP18A			SP	FILL: Gravelly SAND: fine to medium grained, brown/dark brown with siltstone	M		FILL 0.00 m: PID = 9.2ppm No staining, odour or PACM observed.
				0.40 - 0.50 m	0.5		ML	FILL: Gravelly Silty SILT: low to medium plasticity, grey/brown	M / W	0.40 m: PID = 7.4ppm No staining, odour or PACM observed.	
				0.90 - 1.00 m	1.0	CI-CH	Gravelly CLAY: medium to high plasticity, orange/red with sandstone gravels	M	NATURAL 0.90 m: PID = 7.2ppm No staining, odour or PACM observed.		
					1.5		TERMINATED AT 1.50 m Target depth				
					1.50m						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION



WATER

 Water Level on Date shown
 water inflow
 water outflow

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

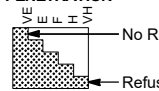
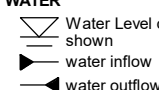
VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Client:	Goulburn Mulwaree Council		Job No:	5046200019		Sheet:	1 of 1	
Project:	Stage 2 - Detailed Site Investigation		Angle from Horizontal:	90°		Surface Elevation:		
Location:	Corner Dossie St and Sloane St, Goulburn		Excavation Method:	BUCKET				
Machine Type:	5 tonne Excavator		Excavation Dimensions:			Contractor:	JPK Excavations	
Date Excavated:	20/2/20		Logged By:	SI		Checked By:	AN	

Excavation			Water	Sampling & Testing		Depth (m)	Material Description				
Method	Resistance	Stability		Sample or Field Test	Graphic Log		Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ EX ↓			Not Encountered	0.00 - 0.10 m		ML	0.10m	FILL: Gravely Sandy SILT: low plasticity, grey with siltstone	M / W		FILL 0.00 m: PID = 8.9ppm No staining, odour or PACM observed. 0.20 m: PID = 10.3ppm No staining, odour or PACM observed. NATURAL 0.50 m: PID = 1.0ppm No staining, odour or PACM observed.
				0.20 - 0.30 m		ML	0.30m	FILL: Gravely SILT: low to medium plasticity, grey with weathered sandstone			
						CI-CH		Gravely CLAY: medium to high plasticity, grey/orange/red with weathered sandstone			
				0.50 - 0.60 m							
				1.0			1.00m	TERMINATED AT 1.00 m Target depth			

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Excavation Dimensions:		Logged By: SI		Checked By: AN	
Date Excavated: 20/2/20					

Excavation			Sampling & Testing		Material Description							
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
↑ EX ↓			Not Encountered	0.00 - 0.10 m	0.5		ML	FILL: Gravelly SILT: low plasticity, grey/brown	D		FILL 0.00 m: PID = 9.2ppm No staining, odour or PACM observed.	
								0.20m			FILL: Gravelly SILT: low plasticity, grey	0.40 m: PID = 6.1ppm No staining, odour or PACM observed.
				0.40 - 0.50 m				0.70m			Gravelly SILT: low plasticity, grey with weathered sandstone	NATURAL
				0.90 - 1.00 m				1.10m			TERMINATED AT 1.10 m Target depth	0.90 m: PID = 0.4ppm No staining, odour or PACM observed.
					1.5							
					2.0							
					2.5							
					3.0							
					3.5							
					4.0							
					4.5							

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client: **Goulburn Mulwaree Council**
 Project: **Stage 2 - Detailed Site Investigation**
 Location: **Corner Dossie St and Sloane St, Goulburn**

Job No: **5046200019**

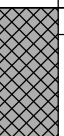
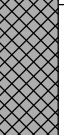
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Position: _____ Angle from Horizontal: **90°** Surface Elevation: _____

Machine Type: **5 tonne Excavator** Excavation Method: **BUCKET**

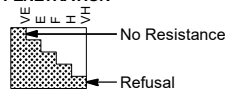
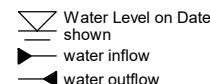
Excavation Dimensions: _____ Contractor: **JPK Excavations**

Date Excavated: **20/2/20** Logged By: **SI** Checked By: **AN**

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	0.00 - 0.10 m			SP	0.10m FILL: Gravelly Silty SAND: fine to medium grained, grey/brown with siltstone FILL: Gravelly SILT: low plasticity, grey	D		FILL 0.00 m: PID = 24.5ppm No staining, odour or PACM observed.
				0.40 - 0.50 m	0.5		ML				0.40 m: PID = 13.1ppm No staining, odour or PACM observed.
				0.90 - 1.00 m	1.0		SP	1.00m FILL: Gravelly Silty SAND: fine to coarse grained, grey/brown with glass, plastic and PACM	M	0.90 m: PID = 7.4ppm No staining, odour or PACM observed.	
				1.40 - 1.50 m	1.5		SP	1.50m Gravelly Clayey SAND: fine to coarse grained, orange/grey with weathered sandstone		1.40 m: PID = 6.8ppm No staining, no odour observed. NATURAL	
				1.90 - 2.00 m	2.0			2.00m		1.90 m: PID = 1.2ppm No staining, odour or PACM observed.	
					2.0			TERMINATED AT 2.00 m Target depth			
					2.5						
					3.0						
				3.5							
				4.0							
				4.5							

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

WATER

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

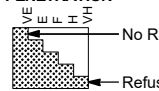
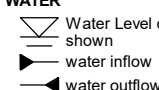
RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Machine Type: 5 tonne Excavator		Logged By: SI		Checked By: AN	
Excavation Dimensions:		Date Excavated: 20/2/20			

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX ↑ ↓			Not Encountered	0.00 - 0.10 m DUP17, DUP17A	0.10m		SP	FILL: Gravelly Silty SAND: fine to medium grained, grey/brown	D		FILL 0.00 m: PID = 4.3ppm No staining, odour or PACM observed.
				0.20 - 0.30 m	0.50m		SP	Gravelly Clayey SAND: fine to coarse grained, orange/brown with weathered sandstone	M		NATURAL 0.20 m: PID = 2.2ppm No staining, odour or PACM observed.
					0.5			TERMINATED AT 0.50 m Target depth			
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

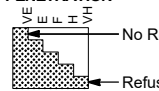
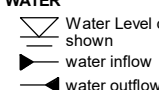
Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Machine Type: 5 tonne Excavator		Excavation Dimensions:		Logged By: SI	
Date Excavated: 20/2/20		Checked By: AN			

Excavation			Sampling & Testing		Material Description								
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations		
EX			Not Encountered	0.00 - 0.10 m	0.10m		ML	FILL: Gravelly Sandy SILT: low plasticity, grey/brown with siltstone	D		FILL 0.00 m: PID = 10.4ppm No staining, odour or PACM observed.		
				0.30 - 0.40 m	0.40m		ML	FILL: Gravelly Sandy SILT: low to medium plasticity, grey/orange				M	
				0.60 - 0.70 m		CL	Gravelly Sandy CLAY: low to medium plasticity, orange/grey			NATURAL 0.60 m: PID = 7.2ppm No staining, odour or PACM observed.			
								1.00m			TERMINATED AT 1.00 m		
					1.5								
					2.0								
					2.5								
					3.0								
					3.5								
					4.0								
					4.5								

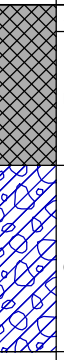
METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation					
Location: Corner Dossie St and Sloane St, Goulburn		Angle from Horizontal: 90°		Surface Elevation:	
Machine Type: 5 tonne Excavator		Excavation Method: BUCKET			
Excavation Dimensions:				Contractor: JPK Excavations	
Date Excavated: 20/2/20		Logged By: SI		Checked By: AN	

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ EX ↓			Not Encountered	0.00 - 0.10 m DUP19, DUP19A	0.10m		SP	FILL: Gravelly Silty SILT: fine to medium, cream/brown	D		FILL 0.00 m: PID = 5.7ppm No staining, odour or PACM observed.
				0.40 - 0.50 m	0.5		CI-CH	Gravelly Silty CLAY: medium to high plasticity, grey/orange/red with weathered sandstone	M		0.40 m: PID = 4.1ppm No staining, odour or PACM observed.
					0.80m			TERMINATED AT 0.80 m Target depth			
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Machine Type: 5 tonne Excavator		Excavation Dimensions:		Logged By: SI	
Date Excavated: 20/2/20		Checked By: AN			

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	0.00 - 0.10 m	0.5		SP	0.10m FILL: Gravelly Silty SAND: fine to medium grained, brown/grey	D	M	FILL 0.00 m: PID = 11.9ppm No staining, odour or PACM observed.
				0.40 - 0.50 m DUP20, DUP20A			ML	0.60m FILL: Gravelly Sandy SILT: low plasticity, brown/grey with brick and plastic and asphalt slab			0.40 m: PID = 10.5ppm No staining, odour or PACM observed.
							CI-CH	Gravelly CLAY: medium to high plasticity, grey/orange			NATURAL
				1.20 - 1.30 m			1.30m	TERMINATED AT 1.30 m Target depth			1.20 m: PID = 2.0ppm No staining, odour or PACM observed.
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown  water inflow  water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client: Goulburn Mulwaree Council
Project: Stage 2 - Detailed Site Investigation
Location: Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019
Sheet: 1 of 1

Position: _____ **Angle from Horizontal: 90°** **Surface Elevation:** _____

Machine Type: 5 tonne Excavator **Excavation Method: BUCKET**

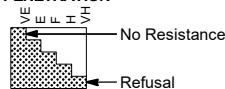
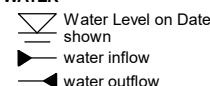
Excavation Dimensions: _____ **Contractor: JPK Excavations**

Date Excavated: 20/2/20 **Logged By: SI** **Checked By: AN**

Excavation			Water	Sampling & Testing	Depth (m)	Material Description						
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
EX			Not Encountered	0.00 - 0.10 m		SP	0.10m	FILL: Gravelly Silty SAND: fine to medium grained, grey/brown with siltstone	D		FILL 0.00 m: PID = 14.5ppm No staining, odour or PACM observed.	
						ML		FILL: Gravelly SILT: low plasticity, grey with sandstone				0.40 m: PID = 13.3ppm No staining, odour or PACM observed.
				0.40 - 0.50 m	0.5	SP	1.50m	FILL: Gravelly Silty SAND: fine to coarse grained, brown/grey with sandstone				0.90 m: PID = 12.9ppm No staining, odour or PACM observed.
				0.90 - 1.00 m	1.0							
				1.40 - 1.50 m	1.5							
						ML		Gravelly SILT: low plasticity, grey with sandstone				1.40 m: PID = 11.1ppm No staining, odour or PACM observed.
1.90 - 2.00 m	2.0					NATURAL 1.90 m: PID = 4.3ppm No staining, odour or PACM observed.						
						TERMINATED AT 2.00 m Target depth						
					2.5							
					3.0							
					3.5							
					4.0							
					4.5							

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

WATER

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

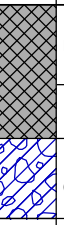
VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

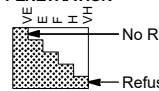
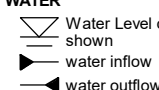
Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Excavation Dimensions:		Logged By: SI		Checked By: AN	
Date Excavated: 21/2/20					

Excavation			Sampling & Testing		Material Description									
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations			
EX			Not Encountered	0.00 - 0.10 m	0.5		ML	FILL: Gravelly SILT: low plasticity, grey/brown	M		FILL 0.00 m: PID = 1.4ppm No staining, odour or PACM observed.			
				0.40 - 0.50 m				CL			FILL: Gravelly Silty CLAY: low plasticity, grey/brown with plastic and cloth	0.40 m: PID = 1.8ppm No staining, odour or PACM observed.		
				0.60 - 0.70 m				CI-CH			Gravelly CLAY: medium to high plasticity, grey/orange	NATURAL 0.60 m: PID = 1.2ppm No staining, odour or PACM observed.		
					1.0			TERMINATED AT 0.80 m Target depth						
					1.5									
					2.0									
					2.5									
					3.0									
					3.5									
					4.0									
					4.5									

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Machine Type: 5 tonne Excavator		Logged By: SI		Checked By: AN	
Excavation Dimensions:		Date Excavated: 21/2/20			

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ EX ↓				0.10 - 0.30 m			ML	FILL: Gravelly Clayey SILT: low plasticity, grey with organic matter	W		FILL 0.00 m: SEDIMENTARY SAMPLE FROM DAM FLOOR
							0.30m	TERMINATED AT 0.30 m			
					0.5						
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

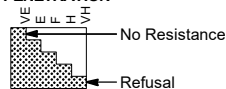
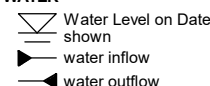
Client: Goulburn Mulwaree Council	Job No: 5046200019	Sheet: 1 of 1
Project: Stage 2 - Detailed Site Investigation		
Location: Corner Dossie St and Sloane St, Goulburn		

Position:	Angle from Horizontal: 90°	Surface Elevation:
Machine Type: 5 tonne Excavator	Excavation Method: BUCKET	
Excavation Dimensions:	Contractor: JPK Excavations	
Date Excavated: 21/2/20	Logged By: SI	Checked By: AN

Excavation			Water	Sampling & Testing		Depth (m)	Material Description			
Method	Resistance	Stability		Sample or Field Test	Graphic Log		Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density
EX ↑ ↓				0.10 - 0.30 m						
</										

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

WATER

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

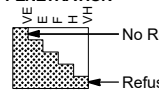
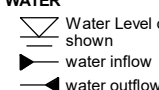
RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council Project: Stage 2 - Detailed Site Investigation Location: Corner Dossie St and Sloane St, Goulburn	Job No: 5046200019 Angle from Horizontal: 90° Excavation Method: BUCKET Logged By: SI	Sheet: 1 of 1 Surface Elevation: Contractor: JPK Excavations Checked By: AN
Position:		
Machine Type: 5 tonne Excavator		
Excavation Dimensions:		
Date Excavated: 21/2/20		

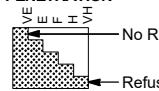
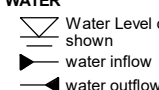
Excavation			Water	Sampling & Testing		Depth (m)	Material Description			
Method	Resistance	Stability		Sample or Field Test	Graphic Log		Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density
EX ↑ ↓				0.10 - 0.30 m						
								</		

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Machine Type: 5 tonne Excavator		Logged By: SI		Checked By: AN	
Excavation Dimensions:		Date Excavated: 21/2/20			

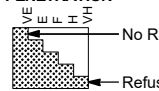
Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX ↑ ↓				0.10 - 0.30 m			CI-CH	FILL: Gravelly Silty CLAY: medium to high plasticity, grey/orange	W		FILL 0.00 m: SEDIMENTARY SAMPLE FROM DAM FLOOR
							0.30m	TERMINATED AT 0.30 m			
					0.5						
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council Project: Stage 2 - Detailed Site Investigation Location: Corner Dossie St and Sloane St, Goulburn				Job No: 5046200019 Sheet: 1 of 1			
Position:				Angle from Horizontal: 90°		Surface Elevation:	
Machine Type: 5 tonne Excavator				Excavation Method: BUCKET			
Excavation Dimensions:				Contractor: JPK Excavations			
Date Excavated: 21/2/20				Logged By: SI		Checked By: AN	

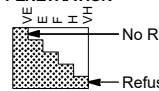
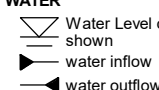
Excavation			Water	Sampling & Testing		Depth (m)	Material Description				
Method	Resistance	Stability		Sample or Field Test	Graphic Log		Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX 				0.10 - 0.30 m		GM	Silty GRAVEL: fine to coarse, grey	W		0.00 m: SEDIMENTARY SAMPLE FROM DAM FLOOR	
							0.30m TERMINATED AT 0.30 m				
							0.5				
							1.0				
							1.5				
							2.0				
							2.5				
							3.0				
							3.5				
							4.0				
							4.5				

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Machine Type: 5 tonne Excavator		Logged By: SI		Checked By: AN	
Excavation Dimensions:		Date Excavated: 21/2/20			

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX ↑ ↓				0.10 - 0.30 m			CI-CH	FILL: CLAY: medium to high plasticity, grey/orange	W		FILL 0.00 m: SEDIMENTARY SAMPLE FROM DAM FLOOR
								0.30m TERMINATED AT 0.30 m			
					0.5						
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation					
Location: Corner Dossie St and Sloane St, Goulburn		Angle from Horizontal: 90°		Surface Elevation:	
Machine Type: 5 tonne Excavator		Excavation Method: BUCKET			
Excavation Dimensions:				Contractor: JPK Excavations	
Date Excavated: 21/2/20		Logged By: SI		Checked By: AN	

Excavation			Sampling & Testing		Material Description							
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
EX			Not Encountered	0.00 - 0.10 m	0.5		CL	FILL: CLAY: low plasticity, grey/orange with organic matter	M		FILL 0.00 m: PID = 0.9ppm No staining, odour or PACM observed.	
							0.20m	FILL: SILT: low plasticity, grey with plastic				
				0.40 - 0.50 m			ML	0.50m	SILT: low plasticity, grey with weathered sandstone	D		0.40 m: PID = 0.9ppm No staining, odour or PACM observed.
				0.90 - 1.00 m			ML	1.00m	TERMINATED AT 1.00 m Target depth			0.90 m: PID = 0.7ppm No staining, odour or PACM observed.
					1.0							
					1.5							
					2.0							
					2.5							
					3.0							
					3.5							
					4.0							
					4.5							

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown  water inflow  water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client:	Goulburn Mulwaree Council
Project:	Stage 2 - Detailed Site Investigation
Location:	Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019

Sheet: 1 of 1

Position: **Angle from Horizontal: 90°**

Surface Elevation:

Machine Type: 5 tonne Excavator

Excavation Method: BUCKET

Excavation Dimensions:

Contractor: JPK Excavations

Date Excavated: 21/2/20

Logged By: SI

Checked By: AN

Excavation			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	0.00 - 0.10 m		ML	0.10m	Gravelly SILT: low plasticity, grey with organic matter	M		TOPSOIL 0.00 m: PID = 0.6ppm No staining, odour or PACM observed.
		0.30 - 0.40 m		CL-CI			Gravelly Silty CLAY: low to medium plasticity, grey with weathered sandstone	NATURAL 0.30 m: PID =0.5ppm No staining, odour or PACM observed.			
					0.5			TERMINATED AT 0.50 m			
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD

EX Excavator bucket
R Ripper
HA Hand auger
PT Push tube
SON Sonic drilling
AH Air hammer
PS Percussion sampler
AS Short spiral auger
AD/V Solid flight auger: V-Bit
AD/T Solid flight auger: TC-Bit
HFA Hollow flight auger
WB Washbore drilling
RR Rock roller

PENETRATION

No Resistance

Refusal

WATER

Water Level on Date shown

water inflow

water outflow

FIELD TESTS

SPT - Standard Penetration Test
HP - Hand/Pocket Penetrometer
DCP - Dynamic Cone Penetrometer
PSP - Perth Sand Penetrometer
MC - Moisture Content
PBT - Plate Bearing Test
IMP - Borehole Impression Test
PID - Phito Ionization Detector
VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
D - Disturbed sample
ES - Environmental sample
U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
M - Moist
W - Wet
PL - Plastic limit
LL - Liquid limit
w - Moisture content

SOIL CONSISTENCY

VS - Very Soft
S - Soft
F - Firm
St - Stiff
VSt - Very Stiff
H - Hard

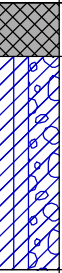
RELATIVE DENSITY

VL - Very Loose
L - Loose
MD - Medium Dense
D - Dense
VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

Client:	Goulburn Mulwaree Council	Job No: 5046200019	Sheet: 1 of 1
Project:	Stage 2 - Detailed Site Investigation		
Location:	Corner Dossie St and Sloane St, Goulburn		
Position:	Angle from Horizontal: 90°	Surface Elevation:	
Machine Type: 5 tonne Excavator	Excavation Method: BUCKET		
Excavation Dimensions:	Contractor: JPK Excavations		
Date Excavated: 21/2/20	Logged By: SI		Checked By: AN

Excavation			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ EX ↓			Not Encountered	0.00 - 0.10 m	0.20m		ML	FILL: Gravelly SILT: low plasticity, grey/cream/brown with siltstone and sandstone	D	FILL 0.00 m: PID = 1.4ppm No staining, odour or PACM observed. NATURAL 0.40 m: PID = 1.2ppm No staining, odour or PACM observed.	
				0.40 - 0.50 m			0.5	Gravelly Silty CLAY: medium to high plasticity, grey	M		
							1.0	TERMINATED AT 1.00 m Target depth			
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: **Goulburn Mulwaree Council**
 Project: **Stage 2 - Detailed Site Investigation**
 Location: **Corner Dossie St and Sloane St, Goulburn**

Job No: **5046200019**

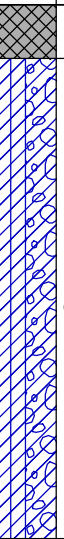
Sheet: **1 of 1**

Position: _____ Angle from Horizontal: **90°** Surface Elevation: _____

Machine Type: **5 tonne Excavator** Excavation Method: **BUCKET**

Excavation Dimensions: _____ Contractor: **JPK Excavations**

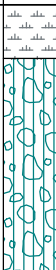
Date Excavated: **21/2/20** Logged By: **SI** Checked By: **AN**

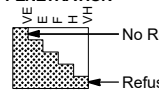
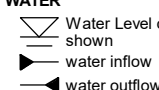
Excavation			Sampling & Testing		Material Description				
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition Consistency Relative Density
↑ EX ↓			Not Encountered	0.00 - 0.10 m			ML	FILL: Clayey SILT: low plasticity, grey with organic matter and siltstone	M
							0.20m	Gravelly Silty CLAY: medium to high plasticity, grey	
				0.40 - 0.50 m	0.5				
					1.0		CI-CH		
					1.5				
					2.0			TERMINATED AT 2.00 m Target depth	
					2.5				
					3.0				
					3.5				
					4.0				
					4.5				

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller		PENETRATION  WATER 		FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)		SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content		SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense	

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Machine Type: 5 tonne Excavator		Excavation Dimensions:		Logged By: SI	
Date Excavated: 21/2/20		Checked By: AN			

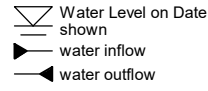
Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	0.00 - 0.10 m	0.5		CL-CI	Silty CLAY: low to medium plasticity, grey/orange with organic matter	M		TOPSOIL 0.00 m: PID = 1.5ppm No staining, odour or PACM observed.
				0.20 - 0.30 m			0.20m	FILL: Gravelly SILT: low plasticity, grey with weathered sandstone	D / M		Possibly FILL 0.20 m: PID = 1.0ppm No staining, odour or PACM observed.
				0.60 - 0.70 m			0.60m	Gravelly SILT: low plasticity, grey with weathered sandstone	M	NATURAL	
							1.00m	TERMINATED AT 1.00 m			
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation					
Location: Corner Dossie St and Sloane St, Goulburn		Angle from Horizontal: 90°		Surface Elevation:	
Machine Type: 5 tonne Excavator		Excavation Method: BUCKET			
Excavation Dimensions:				Contractor: JPK Excavations	
Date Excavated: 21/2/20		Logged By: SI		Checked By: AN	

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	0.00 - 0.10 m	0.5		ML	0.10m Gravelly SILT: low plasticity, grey with organic matter	M	M / D	TOPSOIL 0.00 m: PID = 1ppm No staining, odour or PACM observed. NATURAL
				Gravelly SILT: low plasticity, grey with weathered sandstone				0.40 - 0.50 m			0.40 m: PID = 1.1ppm No staining, odour or PACM observed.
				TERMINATED AT 0.70 m Target depth							
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council
Project: Stage 2 - Detailed Site Investigation
Location: Corner Dossie St and Sloane St, Goulburn

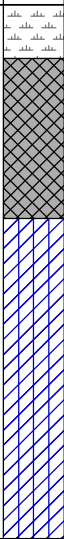
Job No: 5046200019
Sheet: 1 of 1

Position: _____ **Angle from Horizontal: 90°** **Surface Elevation:** _____

Machine Type: 5 tonne Excavator **Excavation Method: BUCKET**

Excavation Dimensions: _____ **Contractor: JPK Excavations**

Date Excavated: 21/2/20 **Logged By: SI** **Checked By: AN**

Excavation			Sampling & Testing		Material Description				
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition Consistency Relative Density
EX			Not Encountered	0.00 - 0.10 m DUP21, DUYP21A	0.00		ML	Gravelly SILT: low plasticity, grey/brown with organic matter	M
				0.20 - 0.30 m	0.20		SP	FILL: Gravelly Silty SAND: fine to coarse grained, grey/brown	
				0.50 - 0.60 m	0.50		ML	FILL: Gravelly Clayey SILT: low plasticity, grey/orange with plastic and weathered sandstone	
				0.80 - 0.90 m	0.80			Silty CLAY: medium to high plasticity, grey/orange	
					1.0				
					1.5				
					2.0			TERMINATED AT 2.00 m Target depth	
					2.5				
					3.0				
					3.5				
					4.0				
					4.5				

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION


 No Resistance
 Refusal

WATER

 Water Level on Date shown
 water inflow
 water outflow

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPk Excavations	
Machine Type: 5 tonne Excavator		Excavation Dimensions:		Logged By: SI	
Date Excavated: 21/2/20		Checked By: AN			

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	0.00 - 0.10 m	0.10m		ML	FILL: Gravelly Sandy SILT: low plasticity, grey with organic matter and siltstone	M / D		FILL 0.00 m: PID = 1.9ppm No staining, odour or PACM observed. NATURAL 0.20 m: PID = 1.8ppm No staining, odour or PACM observed.
				0.20 - 0.30 m	0.50m		ML	Gravelly SILT: low plasticity, grey with weathered sandstone			
					0.5			TERMINATED AT 0.50 m Target depth			
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client: Goulburn Mulwaree Council
Project: Stage 2 - Detailed Site Investigation
Location: Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019
Sheet: 1 of 1

Position: _____ **Angle from Horizontal: 90°** **Surface Elevation:** _____

Machine Type: 5 tonne Excavator **Excavation Method: BUCKET**

Excavation Dimensions: _____ **Contractor: JPK Excavations**

Date Excavated: 21/2/20 **Logged By: SI** **Checked By: AN**

Excavation			Sampling & Testing		Material Description				
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition Consistency Relative Density
↑ EX ↓			Not Encountered	0.00 - 0.10 m	0.0		SP	FILL: Gravelly Silty SAND: fine to medium grained, dark grey with siltstone gravel	D
					0.5				
					1.0				
					1.5				
				1.50 - 1.60 m	1.5		CI-CH	FILL: Gravelly CLAY: medium to high plasticity, orange/grey with siltstone	M
					1.60			Gravelly Silty CLAY: medium to high plasticity, orange/grey with weathered sandstone	
				1.90 - 2.00 m	2.0			TERMINATED AT 2.00 m Target depth	
					2.5				
					3.0				
					3.5				
					4.0				
					4.5				

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller		PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow		FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)		SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content		SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense	

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council
Project: Stage 2 - Detailed Site Investigation
Location: Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019

Sheet: 1 of 1

Position: Angle from Horizontal: 90° Surface Elevation:

Machine Type: 5 tonne Excavator Excavation Method: BUCKET

Excavation Dimensions: Contractor: JPK Excavations

Date Excavated: 21/2/20 Logged By: SI Checked By: AN

Excavation			Sampling & Testing		Material Description							
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
EX			Not Encountered	0.20 - 0.30 m DUP24, DUP24A	0.5		ML	FILL: Gravelly SILT: low plasticity, brown with traces brick and plastic	M		FILL 0.20 m: PID = 1.6ppm STOCKPILE No staining, odour or PACM observed.	
				2.20 - 2.30 m	2.20m		ML	FILL: Gravelly SILT: low plasticity, brown/orange			2.20 m: PID = 3.4ppm No staining, odour or PACM observed.	
					2.30m			Gravelly SILT: low to medium plasticity, orange/grey				NATURAL 2.40 m: PID = 2.2ppm No staining, odour or PACM observed.
				2.40 - 2.50 m	2.5							
					3.00m			TERMINATED AT 3.00 m Target depth				
					3.5							
					4.0							
					4.5							

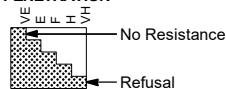
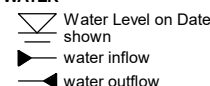
METHOD		PENETRATION		FIELD TESTS		SAMPLES		SOIL CONSISTENCY	
EX	Excavator bucket		No Resistance Refusal	SPT	- Standard Penetration Test	B	- Bulk disturbed sample	VS	- Very Soft
R	Ripper			HP	- Hand/Pocket Penetrometer	D	- Disturbed sample	S	- Soft
HA	Hand auger			DCP	- Dynamic Cone Penetrometer	ES	- Environmental sample	F	- Firm
PT	Push tube			PSP	- Perth Sand Penetrometer	U	- Thin wall tube 'undisturbed'	St	- Stiff
SON	Sonic drilling			MC	- Moisture Content			VSt	- Very Stiff
AH	Air hammer			PBT	- Plate Bearing Test			H	- Hard
PS	Percussion sampler			IMP	- Borehole Impression Test				
AS	Short spiral auger		Water Level on Date shown	PID	- Phito Ionization Detector	D	- Dry	VL	- Very Loose
AD/V	Solid flight auger: V-Bit		water inflow	VS	- Vane Shear; P=Peak, R=Resdual (uncorrected kPa)	M	- Moist	L	- Loose
AD/T	Solid flight auger: TC-Bit		water outflow			W	- Wet	MD	- Medium Dense
HFA	Hollow flight auger					PL	- Plastic limit	D	- Dense
WB	Washbore drilling					LL	- Liquid limit	VD	- Very Dense
RR	Rock roller					w	- Moisture content		

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

METHOD

EX Excavator bucket
R Ripper
HA Hand auger
PT Push tube
SON Sonic drilling
AH Air hammer
PS Percussion sampler
AS Short spiral auger
AD/V Solid flight auger: V-Bit
AD/T Solid flight auger: TC-Bit
HFA Hollow flight auger
WB Washbore drilling
RR Rock roller

PENETRATION

WATER

FIELD TESTS

SPT - Standard Penetration Test
HP - Hand/Pocket Penetrometer
DCP - Dynamic Cone Penetrometer
PSP - Perth Sand Penetrometer
MC - Moisture Content
PBT - Plate Bearing Test
IMP - Borehole Impression Test
PID - Phito Ionization Detector
VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
D - Disturbed sample
ES - Environmental sample
U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
M - Moist
W - Wet
PL - Plastic limit
LL - Liquid limit
w - Moisture content

SOIL CONSISTENCY

VS - Very Soft
S - Soft
F - Firm
St - Stiff
VSt - Very Stiff
H - Hard

RELATIVE DENSITY

VL - Very Loose
L - Loose
MD - Medium Dense
D - Dense
VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

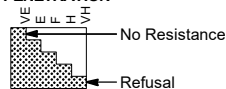
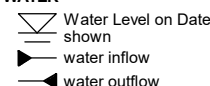
Client: Goulburn Mulwaree Council Project: Stage 2 - Detailed Site Investigation Location: Corner Dossie St and Sloane St, Goulburn	Job No: 5046200019 Sheet: 1 of 1

Position: Machine Type: 5 tonne Excavator Excavation Dimensions: Date Excavated: 21/2/20	Angle from Horizontal: 90° Excavation Method: BUCKET Contractor: JPK Excavations Logged By: SI Checked By: AN

Excavation			Sampling & Testing		Material Description				
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition Consistency Relative Density
EX			Not Encountered	0.00 - 0.20 m			SP	FILL: Gravelly Silty SAND: fine to coarse grained, brown/grey with asphalt slab	M
					0.5				
				1.10 - 1.20 m					
				1.30 - 1.40 m					
					1.10m		ML	FILL: Gravelly Sandy SILT: low plasticity, grey/brown with wood	1.10 m: PID = 3.1ppm No staining, odour or PACM observed.
					1.30m		ML	Gravelly SILT: low plasticity, orange/grey with weathered sandstone	NATURAL 1.30 m: PID = 1.8 ppm No staining, odour or PACM observed.
					1.60m			TERMINATED AT 1.60 m Target depth	
					2.0				
					2.5				
					3.0				
					3.5				
					4.0				
					4.5				

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

WATER

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Client: **Goulburn Mulwaree Council**
 Project: **Stage 2 - Detailed Site Investigation**
 Location: **Corner Dossie St and Sloane St, Goulburn**

Job No: **5046200019**

Sheet: **1 of 1**

Position: _____ Angle from Horizontal: **90°** Surface Elevation: _____

Machine Type: **5 tonne Excavator** Excavation Method: **BUCKET**

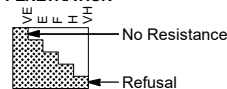
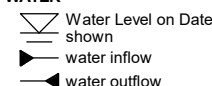
Excavation Dimensions: _____ Contractor: **JPK Excavations**

Date Excavated: **21/2/20** Logged By: **SI** Checked By: **AN**

Excavation			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	0.00 - 0.10 m		ML	0.10m	Gravelly SILT: low plasticity, grey with organic matter	D / M		TOPSOIL 0.00 m: PID = 1.6ppm No staining, odour or PACM observed. NATURAL
							Gravelly SILT: low plasticity, grey/orange with weathered sandstone	M			
				0.40 - 0.50 m			0.5	0.50m	TERMINATED AT 0.50 m Target depth		

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

WATER

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Client: **Goulburn Mulwaree Council**
 Project: **Stage 2 - Detailed Site Investigation**
 Location: **Corner Dossie St and Sloane St, Goulburn**

Job No: **5046200019**

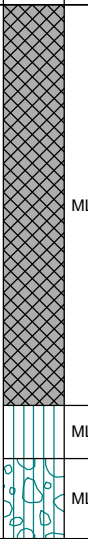
Sheet: **1 of 1**

Position: _____ Angle from Horizontal: **90°** Surface Elevation: _____

Machine Type: **5 tonne Excavator** Excavation Method: **BUCKET**

Excavation Dimensions: _____ Contractor: **JPK Excavations**

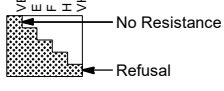
Date Excavated: **21/2/20** Logged By: **SI** Checked By: **AN**

Excavation			Sampling & Testing		Material Description								
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations		
EX			Not Encountered	0.40 - 0.50 m	0.5		ML	FILL: Gravely SILT: low plasticity, brown with fragments of siltstone, plastic	D / M		FILL		
				1.50 - 1.60 m	1.5			SILT: low plasticity, grey	M		NATURAL		
					1.70m			Gravely SILT: low plasticity, grey/orange with weathered sandstone	M / D		1.50 m: No staining, odour or PACM observed.		
					2.00m			TERMINATED AT 2.00 m Target depth					
					2.0								
					2.5								
					3.0								
					3.5								
					4.0								
					4.5								

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION



WATER

 Water Level on Date shown
 water inflow
 water outflow

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phito Ionization Detector
 VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Client:	Goulburn Mulwaree Council
Project:	Stage 2 - Detailed Site Investigation
Location:	Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019

Sheet: 1 of 1

Position: **Angle from Horizontal: 90°**

Surface Elevation:

Machine Type: 5 tonne Excavator

Excavation Method: BUCKET

Excavation Dimensions:

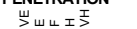
Contractor: JPK Excavations

Date Excavated: 21/2/20

Logged By: SI

Checked By: AN

Excavation			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	0.00 - 0.10 m		ML	0.10m	FILL: Gravelly Sandy SILT: low plasticity, grey	D / M		FILL 0.00 m: PID = 1.8ppm No staining, odour or PACM observed. NATURAL
				ML			Gravelly SILT: low plasticity, grey/orange with weathered sandstone				
				0.40 - 0.50 m		0.50m	TERMINATED AT 0.50 m				
					0.5						
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

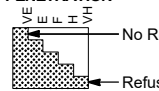
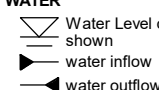
METHOD	PENETRATION	FIELD TESTS	SAMPLES	SOIL CONSISTENCY
EX Excavator bucket		SPT - Standard Penetration Test	B - Bulk disturbed sample	VS - Very Soft
R Ripper		HP - Hand/Pocket Penetrometer	D - Disturbed sample	S - Soft
HA Hand auger		DCP - Dynamic Cone Penetrometer	ES - Environmental sample	F - Firm
PT Push tube		PSP - Perth Sand Penetrometer	U - Thin wall tube 'undisturbed'	St - Stiff
SON Sonic drilling		MC - Moisture Content		VSt - Very Stiff
AH Air hammer		PBT - Plate Bearing Test		H - Hard
PS Percussion sampler		IMP - Borehole Impression Test		
AS Short spiral auger		PID - Phito Ionization Detector		
AD/V Solid flight auger: V-Bit		VS - Vane Shear; P=Peak,		
AD/T Solid flight auger: TC-Bit		R=Residual (uncorrected kPa)		
HFA Hollow flight auger				
WB Washbore drilling				
RR Rock roller				
	WATER 		MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES

Client:	Goulburn Mulwaree Council	Job No: 5046200019	Sheet: 1 of 1
Project:	Stage 2 - Detailed Site Investigation		
Location:	Corner Dossie St and Sloane St, Goulburn		
Position:	Angle from Horizontal: 90°	Surface Elevation:	
Machine Type: 5 tonne Excavator	Excavation Method: BUCKET		
Excavation Dimensions:	Contractor: JPK Excavations		
Date Excavated: 21/2/20	Logged By: SI		Checked By: AN

Excavation			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
↑ EX ↓			Not Encountered	0.00 - 0.10 m DUP23, DUP23A	<						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET		Contractor: JPK Excavations	
Excavation Dimensions:		Logged By: SI		Checked By: AN	
Date Excavated: 21/2/20					

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
EX			Not Encountered	0.00 - 0.10 m	0.30m		ML	FILL: SILT: low plasticity, brown with organic matter	M		FILL 0.00 m: PID = 1.7ppm STOCKPILE No staining, odour or PACM observed. NATURAL
				0.40 - 0.50 m				0.5			
					0.70m	TERMINATED AT 0.70 m Target depth					
					1.0						
					1.5						
					2.0						
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  No Resistance Refusal WATER  Water Level on Date shown water inflow water outflow	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Client: Goulburn Mulwaree Council
Project: Stage 2 - Detailed Site Investigation
Location: Corner Dossie St and Sloane St, Goulburn

Job No: 5046200019
Sheet: 1 of 1

Position: _____ **Angle from Horizontal:** 90° **Surface Elevation:** _____

Machine Type: 5 tonne Excavator **Excavation Method:** BUCKET

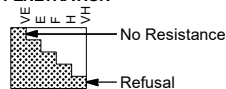
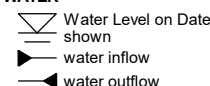
Excavation Dimensions: _____ **Contractor:** JPK Excavations

Date Excavated: 21/2/20 **Logged By:** SI **Checked By:** AN

Excavation			Water	Sampling & Testing	Depth (m)	Material Description				
Method	Resistance	Stability		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density
			Not Encountered	0.00 - 0.10 m		CL-CI	FILL: Gravelly Silty CLAY: low to medium plasticity, brown/orange with gravel of siltstone	D		FILL 0.00 m: PID = 3.8ppm STOCKPILE No staining, odour or PACM observed. 0.30 m: PID = 2.7ppm STOCKPILE possible oil staining
				0.30 - 0.40 m DUP25, DUP25A		0.30m	FILL: Gravelly Sandy SILT: low plasticity, grey/brown/dark grey with asphalt			
					0.5	ML		M		
				1.00 - 1.10 m	1.0	ML	Gravelly SILT: low plasticity, grey with weatherd sandstone			
					1.5		TERMINATED AT 1.50 m Target depth			
					2.0					
	2.5									
	3.0									
	3.5									
	4.0									
	4.5									

METHOD

EX Excavator bucket
 R Ripper
 HA Hand auger
 PT Push tube
 SON Sonic drilling
 AH Air hammer
 PS Percussion sampler
 AS Short spiral auger
 AD/V Solid flight auger: V-Bit
 AD/T Solid flight auger: TC-Bit
 HFA Hollow flight auger
 WB Washbore drilling
 RR Rock roller

PENETRATION

WATER

FIELD TESTS

SPT - Standard Penetration Test
 HP - Hand/Pocket Penetrometer
 DCP - Dynamic Cone Penetrometer
 PSP - Perth Sand Penetrometer
 MC - Moisture Content
 PBT - Plate Bearing Test
 IMP - Borehole Impression Test
 PID - Phitro Ionization Detector
 VS - Vane Shear; P=Peak,
 R=Residual (uncorrected kPa)

SAMPLES

B - Bulk disturbed sample
 D - Disturbed sample
 ES - Environmental sample
 U - Thin wall tube 'undisturbed'

MOISTURE

D - Dry
 M - Moist
 W - Wet
 PL - Plastic limit
 LL - Liquid limit
 w - Moisture content

SOIL CONSISTENCY

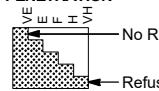
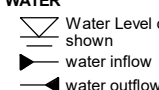
VS - Very Soft
 S - Soft
 F - Firm
 St - Stiff
 VSt - Very Stiff
 H - Hard

RELATIVE DENSITY

VL - Very Loose
 L - Loose
 MD - Medium Dense
 D - Dense
 VD - Very Dense

Client: Goulburn Mulwaree Council		Job No: 5046200019		Sheet: 1 of 1	
Project: Stage 2 - Detailed Site Investigation		Angle from Horizontal: 90°		Surface Elevation:	
Location: Corner Dossie St and Sloane St, Goulburn		Excavation Method: BUCKET			
Machine Type: 5 tonne Excavator		Excavation Dimensions:		Contractor: JPK Excavations	
Date Excavated: 21/2/20		Logged By: SI		Checked By: AN	

Excavation			Sampling & Testing		Material Description						
Method	Resistance	Stability	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition Consistency Relative Density	STRUCTURE & Other Observations	
EX			Not Encountered		0.5			STOCKPILE OF TIMBER, CONCRETE, WOOD, METAL	M / D	FILL 0.00 m: No staining, odour or PACM observed.	
					1.0						
					1.5			1.50m	FILL: SILT: low to medium plasticity, grey with glass and metal		1.50 m: PID = 1.1ppm No staining, odour or PACM observed.
					1.70m		ML				
					2.0		CI-CH	CLAY: medium to high plasticity, grey/orange	M	NATURAL 1.70 m: PID = 1.3ppm No staining, odour or PACM observed.	
					2.10m		TERMINATED AT 2.10 m Target depth				
					2.5						
					3.0						
					3.5						
					4.0						
					4.5						

METHOD EX Excavator bucket R Ripper HA Hand auger PT Push tube SON Sonic drilling AH Air hammer PS Percussion sampler AS Short spiral auger AD/V Solid flight auger: V-Bit AD/T Solid flight auger: TC-Bit HFA Hollow flight auger WB Washbore drilling RR Rock roller	PENETRATION  WATER 	FIELD TESTS SPT - Standard Penetration Test HP - Hand/Pocket Penetrometer DCP - Dynamic Cone Penetrometer PSP - Perth Sand Penetrometer MC - Moisture Content PBT - Plate Bearing Test IMP - Borehole Impression Test PID - Phito Ionization Detector VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)	SAMPLES B - Bulk disturbed sample D - Disturbed sample ES - Environmental sample U - Thin wall tube 'undisturbed' MOISTURE D - Dry M - Moist W - Wet PL - Plastic limit LL - Liquid limit w - Moisture content	SOIL CONSISTENCY VS - Very Soft S - Soft F - Firm St - Stiff VSt - Very Stiff H - Hard RELATIVE DENSITY VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

Lot 1 in DP1034565
and Lot 3 in
DP1008818, Corner of
Dossie St and Sloane
St, Goulburn, NSW

APPENDIX

D

CALIBRATION
CERTIFICATES

PID Calibration Certificate

Instrument **PhoCheck Tiger**
 Serial No. **T-115201**



Air-Met Scientific Pty Ltd
 1300 137 067

Item	Test	Pass	Comments			
Battery	Charge Condition	✓				
	Fuses	✓				
	Capacity	✓				
	Recharge OK?	✓				
Switch/keypad	Operation	✓				
Display	Intensity	✓				
	Operation (segments)	✓				
Grill Filter	Condition	✓				
	Seal	✓				
Pump	Operation	✓				
	Filter	✓				
	Flow	✓				
	Valves, Diaphragm	✓				
PCB	Condition	✓				
Connectors	Condition	✓				
Sensor	PID	✓	10.6 ev			
Alarms	Beeper	✓	Low	High	TWA	STEL
	Settings	✓	50ppm	100ppm		
Software	Version	✓				
Data logger	Operation	✓				
Download	Operation	✓				
Other tests:						

Post sampling results

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

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No		Instrument Reading
PID Lamp		92ppm Isobutylene	NATA	SY245		91.5ppm

Calibrated by: Sarah Lian

Calibration date: **4/02/2020**

Next calibration due: **5/03/2020**

Multi Parameter Water Meter

Instrument YSI Quatro Pro Plus
Serial No. 16G104247



Air-Met Scientific Pty Ltd
1300 137 067

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

Certificate of Calibration

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

Sensor	Serial no	Standard Solutions	Certified	Solution Bottle Number	Instrument Reading
1. pH 7.00		pH 7.00		330737	pH 6.92
2. pH 4.00		pH 4.00		330734	pH 3.94
3. pH 10.00		pH 10.00		324189	pH 9.76
3. mV		234mV		338782/337308	234mV
4. EC		2.76mS		333787	2.74mS
5. D.O		0.00ppm		329994	0.00ppm
6. Temp		20.2°C		MultiTherm	20.3°C

Calibrated by: Sarah Lian

Calibration date: 19/02/2020

Next calibration due: 20/03/2020

Lot 1 in DP1034565
and Lot 3 in
DP1008818, Corner of
Dossie St and Sloane
St, Goulburn, NSW

APPENDIX

E

LABORATORY
CERTIFICATES



CHAIN OF CUSTODY RECORD

Eurofins | mgt. ABN 50 005 055 521



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07 3902 4600

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Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105

08 9251 9500

EnviroSampleWA@eurofins.com



Melbourne Laboratory

8 Montez Road Dandenong South VIC 3175

03 8564 5000

EnviroSampleVic@eurofins.com

Company	Construction Sciences	Project No	5046200019	Project Manager	Abanish Nepal	Sampler(s)	SI, AD, JB
Address	31 Anvil Road, Seven Hills, NSW	Project Name	Corner of Dosale St and Sloane St, Goulburn	EDD Format	ESdat	Handed over by	
Contact Name	Abanish Nepal	Analyses When multiple analyses are required, please specify "Item" or "File" or "Suite". Suite E code must be used to attach suite E analysis.	TRH, BTEX (B11) PAH OCP PCB Metals (8) (M8) E. coli & faecal coliform PM & EC B7 B13 (OCP & PCB) HOLD			Email for Invoice	abanish.nepal@constructionsciences.net
Phone No	0438 620 611					Email for Results	abanish.nepal@constructionsciences.net
Special Directions						Containers	Change container type & size if necessary
Purchase Order	191217CONN					Required Turnaround Time	Indicate time in hours/minutes/seconds
Quote ID No						Overnight (reporting by 9am) ☐ Same day ☐ 2 days ☐ 5 days (Standard) ☒ Other ☐	
No	Client Sample ID	Sampled Date/Time cc/mm/yyyy hh:mm	Matrix Solid (S) Water (W)	Sample Comments / Dangerous Goods Hazard Warning			
1	SS01	17/02/20	S				X
2	SS02	"	S				X
3	SS03	"	S				X
4	SS04	"	S				X
5	SS05	"	S				X
6	SS06	"	S				X
7	SS07	"	S				X
8	SS08	"	S				X
9	SS09	"	S				X
10	BH01 0.0-0.1	"	S				X
Total Counts				1	1	8	9
Method of Shipment	☒ Courier (#) ☐ Hand Delivered ☐ Postal	Name	Abanish	Signature	Abanish	Date	26-2-20
Eurofins mgt. Laboratory Use Only	Received By	SYD BNE MEL PER ADL NTL DRW	Signature	Date	26/02/20	Time	3:01 PM
	Received By	SYD BNE MEL PER ADL NTL DRW	Signature	Date		Time	
						Temperature	9.5°C
						Report No	704317



CHAIN OF CUSTODY RECORD

Eurofins | mgt | ABN 50 005 085 521

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☐ Melbourne Laboratory
6 Monterey Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVIC@eurofins.com

Company		Construction Sciences		Project #		5046200019		Project Manager		Abanish Nepal		Sampler(s)		SI, AD, JB			
Address		31 Anvil Road, Seven Hills, NSW		Project Name		Corner of Dossie St and Stanes St, Goulburn		EDD Format		ESdat		Handed over by					
Contact Name		Abanish Nepal		Analyse: Values must be requested/ tested specifically/ Total or 'Field' Sulfide must be used for all Sulfide testing		TRH, BTEX PAH OCP PCB MB E. coli & Faecal coliform PM 2.5 BT B13 (OCP & PCB) HOLD		Email for Invoice		abanish.nepal@constructionsciences.net		Email for Results		abanish.nepal@constructionsciences.net, Craig O'Connell			
Phone No		0436 620 611						Containers		Required Turnaround Time		Default will be 5 days if not used					
Special Directions								90mL Plastic 250mL Plastic 125mL Plastic 200mL Amber Glass 60mL Vial 50mL PFAS PET Jar (Glass or HDPE) Asbestos bag		*Surcharge will apply ☐ Overnight (reporting by 9am) ☐ Same day ☐ 1 day ☐ 2 days ☐ 3 days ☒ 5 days (Standard) ☐ Other							
Purchase Order								Sample Comments		Dangerous Goods Hazard Warning							
Quote ID No		191217CONN															
No	Client Sample ID	Sampled Date/Time	Matrix														
1	BH01 0.4-0.5	17/02/20	S														
2	BH02 0.0-0.1	"	S														
3	BH02 0.4-0.5	"	S														
4	SS10	18/02/20	S														
5	SS11	"	S														
6	SS12	"	S														
7	SS13	"	S														
8	SS14	"	S														
9	SS15	"	S														
10	SS16	"	S														
Total Counts				1	2	6	5	2									
Method of Shipment		☒ Courier (#)		☐ Hand Delivered		☐ Postal		Name		Abanish		Signature		AN			
Date		26.2.20		Time		1300											
Eurofins mgt Laboratory Use Only		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Temperature					
		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Report No		704317			

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Melbourne Laboratory

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Company		Construction Sciences		Project No	5046200019		Project Manager	Abanish Nepal		Sampler(s)	SI, AD, JB				
Address		31 Anvil Road, Seven Hills, NSW		Project Name	Corner of Dossie St and Sloane St, Goulburn		EDD Format	ESdat		Handed over by					
Contact Name		Abanish Nepal		Analytes When multiple analytes are specified, please specify 'Total' or 'Range'. SHE code must be used to indicate SHE reporting.	TRH, BTEX PAH OCP PCB MS ECOLI & Faecal coliform PH & EC B7 B13 HOLD							Email for Invoice	abanish.nepal@constructionsciences.net		
Phone No		0436 620 611										Email for Results	abanish.nepal@constructionsciences.net		
Special Directions												Containers Change container type and size if necessary		Required Turnaround Time Default will be 5 days if not ticked	
Purchase Order												☐ Overnight (reporting by 9am) ☐ Same day ☐ 1 day ☐ 2 days ☐ 3 days ☐ 5 days (Standard) ☐ Other			
Quote ID No		191217CONN													
No	Client Sample ID	Sampled Date/Time	Matrix	Solid (S)	Water (W)							Sample Comments / Dangerous Goods Hazard Warning			
1	DUP01	18/02	S			/									
2	DUP01A	"	S			/									
3	TP01 0.0-0.1	"	S			/									
4	DUP03	"	S						/						
5	DUP03A	"	S						/						
6	TP01 0.4-0.5	"	S				/	/							
7	TP01 0.9-1.0	"	S			/									
8	TP01 1.4-1.5	"	S						/						
9	TP02 0.0-0.1	"	S			/	/	/							
10	TP02 0.3-0.4	"	S						/						
Total Counts				1		2	2	2	2	4					
Method of Shipment		☒ Courier (#)) ☐ Hand Delivered ☐ Postal		Name		Signature		Date		Time					
						AN		26/2		1300					
Eurofins mgt Laboratory Use Only		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Temperature			
		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Report No			
												704317			



CHAIN OF CUSTODY RECORD

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Melbourne Laboratory

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03 8564 5000 EnviroSampleVic@eurofins.com

Company		Construction Sciences		Project No		5046200019		Project Manager		Abanish Nepal		Sampler(s)		SI, AD, JB	
Address		31 Anvil Road, Seven Hills, NSW		Project Name		Corner of Dossie St and Sloane St, Goulburn		EDD Format		ESdat		Handed over by			
Contact Name		Abanish Nepal		Email for Invoice		abanish.nepal@constructionsciences.net		Email for Results		abanish.nepal@constructionsciences.net					
Phone No		0436 620 611													
Special Directions															
Purchase Order															
Quote ID No		1912170NN													

No	Client Sample ID	Sampled Date/Time dd/mm/yyyy hh:mm	Matrix Solid (S) Water (W)	Analyses										Containers		Required Turnaround Time		Sample Comments / Dangerous Goods Hazard Warning	
				PAH	OC	PCB	M8	E coli & Faecal coliform	PM 2.5	B7	B13	MOU	30mL Plastic	250mL Plastic	125mL Plastic	250mL Amber Glass	40mL Vial		50mL PFAS NET
1	TP02 0.7-0.8	18/02	S																
2	TP03 0.0-0.1	"	S																
3	TP03 0.4-0.5	"	S																
4	TP03 0.9-1.0	"	S																
5	TP03 1.4-1.5	"	S																
6	TP04 0.0-0.1	"	S																
7	TP04 0.3-0.4	"	S																
8	TP04 0.7-0.8	"	S																
9	TP04 1.3-1.4	"	S																
10	TP04 1.8-1.9	"	S																
Total Counts				1	3	3	2	1	2	3									

Method of Shipment	☒ Courier (#	☐ Hand Delivered	☐ Postal	Name	Signature	Date	Time
					AN	26/12	12:00

Eurofins mgt	Received By	SYD BNE MEL PER ADL NTL DRW	Signature	Date	Time	Temperature
Laboratory Use Only	Received By	SYD BNE MEL PER ADL NTL DRW	Signature	Date	Time	Report No
						704317

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CHAIN OF CUSTODY RECORD

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6 Monterey Road Dandenong South VIC 3175
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Company		Construction Sciences		Project No		5046200019		Project Manager		Abanish Nepal		Sample type		SI, AD, JB	
Address		31 Anvil Road, Seven Hills, NSW		Project Name		Corner of Dossie St and Sloane St, Goulburn		EDD Format		ESdat		Handed over by			
Contact Name		Abanish Nepal		Analyses When results are required, please specify "Urgent" or "Flasher" SUIITE, 1000 that be used to speed DATE entry		TRH, BTEX PAH OCP PCB M8 E coli & Faecal coliform PM REC B7 B13 HOLD						Email for Invoice		abanish.nepal@constructionsciences.net	
Phone No		0436 620 611										Email for Results		abanish.nepal@constructionsciences.net	
Special Directions															
Purchase Order															
Quote ID No		191217CONN													
No		Client Sample ID		Sampled Date/Time oostmccy hh:mm		Matrix Solid (S) Water (W)									
1		DUP04		18/02		S									
2		DUP04A		11		S									
3		TP05 0.0-0.1		11		S									
4		TP05 0.4-0.5		11		S									
5		TP06 0.0-0.1		11		S									
6		TP06 0.3-0.4		11		S									
7		TP06 0.7-0.8		11		S									
8		TP07 0.0-0.1		11		S									
9		TP07 0.4-0.5		11		S									
10		TP07 0.9-1.0		11		S									
11		TP08 0.1-0.3		11		S									
		Total Counts													
Method of Shipment		☒ Courier (#		☐ Hand Delivered		☐ Postal		Name		Signature		Date		Time	
										AN		26/12		12:00	
Eurofins reg Laboratory Use Only		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Temperature			
		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Report No		704317	

CHAIN OF CUSTODY RECORD

Eurofins | mgt ABN 50 005 085 521

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[illegible]



CHAIN OF CUSTODY RECORD

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☐ Melbourne Laboratory
6 Monastery Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVic@eurofins.com

Company		Construction Sciences		Project No	5046200019		Project Manager	Abanish Nepal		Sampler(s)	SI, AD, JB	
Address		31 Anvil Road, Seven Hills, NSW		Project Name	Corner of Dossie St and Sloane St, Goulburn		EDD Format	ESdat		Handed over by		
Contact Name		Abanish Nepal		Analyses What testing are requested, please specify 'T' for on 'T' and 'S' for 'S'. If code must be used for matrix, state 'M'. TRH BTEX PAH OLP PCB MR E. coli & Faecal col PH & EC B7 B13 HOLD	Email for Invoice		abanish.nepal@constructionsciences.net					
Phone No		0436 620 611			Email for Results		abanish.nepal@constructionsciences.net					
Special Directions					Containers Change container type & size if necessary		Required Turnaround Time Default will be 5 days if not listed					
Purchase Order					500mL Plastic 250mL Plastic 125mL Plastic 250mL Amber Glass 40mL Vial 60mL PFAS PET Jar (Glass or HDPE) Water-based Test Kits		☐ Overnight (reporting by 9am) ☐ Same day+ ☐ 1 day+ ☐ 2 days+ ☐ 3 days+ ☒ 5 days (Standard) ☐ Other()					
Quote ID No		191217CONN		Matrix Bulk (S) Water (W)						Sample Comments / Dangerous Goods Hazard Warning		
No	Client Sample ID	Sampled Date/Time Customer's hours	Matrix									
1	TP13 0.0-0.1	18/02	S									
2	TP13 0.5-0.6	"	S									
3	TP13 1.0-1.1	"	S									
4	TP13 1.5-1.6	"	S									
5	TP13 2.0-2.1	"	S									
6	TP13 2.4-2.5	"	S									
7	DUPOG	"	S									
8	DUPOGA	"	S									
9	TP14 0.0-0.1	"	S									
10	TP14 0.4-0.5	"	S									
Total Counts				3 3 2 2 1 3								
Method of Shipment		☒ Courier (#) ☐ Hand Delivered ☐ Postal		Name		Signature		Date		Time		
Eurofins mgt Laboratory Use Only		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Temperature
		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Report No



CHAIN OF CUSTODY RECORD

Eurofins | mgt. ABN 50 005 085 521



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08 9251 9600 EnviroSampleWA@eurofins.com



Melbourne Laboratory

6 Montlary Road Dandenong South VIC 3175
03 8564 3000 EnviroSampleVic@eurofins.com

Company		Construction Sciences		Project No	5046200019		Project Manager	Abanish Nepal		Sampler(s)	SL, AD, JB				
Address		31 Anvil Road, Seven Hills, NSW		Project Name	Corner of Dossie St and Sloane St, Goulburn		EDD Format	ESdat		Handed over by					
Contact Name		Abanish Nepal		Analyses When results are requested, please specify "Total" or "Filtered" SULTE can only be used to allow SULTE analysis	TRH BTEX PAH OCF PCB MR E Coli & Faecal coli PH & EC B7 B13 HOLD							Email for Invoice	abanish.nepal@constructionsciences.net		
Phone No		0436 620 611										Email for Results	abanish.nepal@constructionsciences.net		
Special Directions												Containers		Required Turnaround Time	
Purchase Order												300ml Plastic 250ml Plastic 125ml Plastic 200ml Amber Glass 40ml Vial 500ml PPAP PET Jar (Glass or HDPE) Microbiology Package		Default will be 5 days if not ticked *Surcharge will apply ☐ Overnight (reporting by 9am)* ☐ Same day* ☐ 1 day* ☐ 2 days* ☐ 3 days* ☒ 5 days (Standard) ☐ Other()	
Quote ID No		191217CONN													
No	Client Sample ID	Sampled Date/Time	Matrix												
1	TP14 0.9-1.0	18/02	S												
2	TP14 1.4-1.5	"	S												
3	TP14 1.9-2.0	"	S												
4	TP14 2.4-2.5	"	S												
5	TP15 0.0-0.1	"	S												
6	TP15 0.4-0.5	"	S												
7	TP15 0.9-1.0	"	S												
8	TP15 1.4-1.5	"	S												
9	TP15 1.9-2.0	"	S												
10	TP15 2.2-2.3	"	S												
Total Counts				1 1 2 7											
Method of Shipment		☒ Courier (#) ☐ Hand Delivered ☐ Postal		Name		Signature		Date		Time					
Eurofins mgt Laboratory Use Only		Received By		SYD BME MEL PER ADL NTL DRW		Signature		Date		Time					
		Received By		SYD BME MEL PER ADL NTL DRW		Signature		Date		Time					
										Report No					



CHAIN OF CUSTODY RECORD

Eurofins | mgt ABN 50 005 085 521



Sydney Laboratory

Unit F3 Bldg F 15 Macra Road Lane Cove West NSW 2066
02 9900 8400 EnviroSampleNSW@eurofins.com



Brisbane Laboratory

Unit 1 21 Smallwood Place Murrumbidgee QLD 4172
07 3932 4500 EnviroSampleQLD@eurofins.com



Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com



Melbourne Laboratory

8 Monterey Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVIC@eurofins.com

Company		Construction Sciences		Project #	5046200019		Project Manager	Abanish Nepal		Sampler(s)	SI, AD, JB				
Address		31 Anvil Road, Seven Hills, NSW		Project Name	Corner of Dossie St and Sloane St, Goulburn		EDD Format	ESdet		Handed over by					
Contact Name		Abanish Nepal		Special Directions Where media are required, please specify "Your" or "Filler" SARF- media must be used in all test state pieces	TRH BTEX PAH OCF PCB MR E coli & Faecal coli PM & EC B7 B13 HOLD							Email for Invoice	abanish.nepal@constructionsciences.net		
Phone No		0436 620 611										Email for Results	abanish.nepal@constructionsciences.net		
Quote ID No		191217CONN										Containers Change container type & size if necessary		Required Turnaround Time Default will be 5 days if not ticked	
Purchase Order												☐ Overnight (reporting by 9am) ☐ Same day ☐ 1 day ☐ 2 days ☐ 3 days ☒ 5 days (Standard) ☐ Other			
No	Client Sample ID	Sampled Date/Time odm/yyyy hh:mm	Matrix Solid (S) Water (W)									Sample Comments / Dangerous Goods Hazard Warning			
1	DUP07	18/02	S									X			
2	DUP07A	"	S									X			
3	DUP08	"	S									X			
4	DUP08A	"	S									X			
5	TP16 0.0-0.1	"	S									XX			
6	TP16 0.4-0.5	"	S									XX			
7	TP16 0.9-1.0	"	S									XX			
8	TP16 1.4-1.5	"	S									XX			
9	TP16 1.9-2.0	"	S									XX			
10	~~TP08 0.1-0.3~~	~~"~~	~~S~~									~~XX~~			
Total Counts							1	2	1	6					
Method of Shipment		☒ Courier (#) ☐ Hand Delivered ☐ Postal		Name		Signature		Date		Time					
Eurofins mgt Laboratory Use Only		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Temperature			
		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Report #			



CHAIN OF CUSTODY RECORD

Eurofins | mgt ABN 50 005 035 521



Sydney Laboratory

Unit F3 Bld F 15 Mars Road Lane Cove West NSW 2056
02 9900 8400 EnviroSampleNSW@eurofins.com



Brisbane Laboratory

Unit 1 21 Smallwood Place Murrumbidgee QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com



Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com



Melbourne Laboratory

5 Montferry Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVIC@eurofins.com

Company		Construction Sciences		Project #	5046200019			Project Manager	Abanish Nepal			Sampler(s)	SI, AD, JB					
Address		31 Anvil Road, Seven Hills, NSW		Project Name	Corner of Dossie St and Sloane St, Goulburn			EDD Format	ESdat			Handed over by						
Contact Name		Abanish Nepal		Analytes When made an inspection, please specify "Total" or "Filtered" Sub-T: each must be used to extract all TE pricing.	TRH BTEX PAH OCP PCBs MH E. coli & Faecal coli PHBEC BT B13 HOLD								Email for Invoice	abanish.nepal@constructionsciences.net				
Phone No		0436 620 611											Email for Results	abanish.nepal@constructionsciences.net				
Special Directions													Containers Change container type & size if necessary			Required Turnaround Time Default will be 5 days if not ticked		
Purchase Order													300mL Plastic 200mL Plastic 125mL Plastic 200mL Amber Glass 40mL Vial 800mL PPAS PET Jar (Glass or HDPE) Pathogen Plastic			Surcharge will apply ☐ Overnight (reporting by 9am) ☐ Same day* ☐ 2 days* ☒ 5 days (Standard) ☐ Other()		
Quote ID No		191217 CONN																
No	Client Sample ID	Sampled Date/Time	Matrix	Solid (S)	Liq (L)	PAH	OCP	PCBs	MH	E. coli	Faecal coli	PHBEC	BT	B13	HOLD			
1	TP17 0.0-0.1	19/02/20	S							/		/	/					
2	TP17 0.4-0.5	"	S											/				
3	TP18 0.0-0.1	"	S							/		/	/					
4	TP18 0.4-0.5	"	S			/			/									
5	TP19 0.0-0.1	"	S	/					/									
6	TP19 0.3-0.4	"	S		/				/									
7	TP19 0.9-1.0	"	S										/					
8	TP20 0.0-0.1	"	S						/									
9	TP20 0.4-0.5	"	S									/						
10	TP20 0.9-1.0	"	S										/					
Total Counts				1	2			2	4	3	2	3						
Method of Shipment		☒ Courier (#) ☐ Hand Delivered ☐ Postal		Name		Signature		AN		Date		26/2		Time 1300				
Eurofins mgt Laboratory Use Only		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Temperature						
		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Report No		704317				



CHAIN OF CUSTODY RECORD

Eurofins | mgt ABN 50 065 065 521



Sydney Laboratory

Unit F3 Bldg F 16 Mars Road Lane Cove West NSW 2066
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Brisbane Laboratory

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Perth Laboratory

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08 9251 9600 EnviroSampleWA@eurofins.com

Melbourne Laboratory

8 Monterey Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVic@eurofins.com

Company		Construction Sciences		Project No		5046200019		Project Manager		Abanish Nepal		Sampler		SI, AD, JB	
Address		31 Anvil Road, Seven Hills, NSW		Project Name		Corner of Dossie St and Sloane St, Goulburn		EDD Format		ESdat		Handed over by			
Contact Name		Abanish Nepal		Analysis Where matrix and analyte are present, please specify "Matrix of Analyte" (NOTE: does not need to be used to enter plate ID)		TRM BTEX PAH OCP PCB MR E. coli & Faecal coli PM 2.5 BT B13 HOD		Email for Invoice		abanish.nepal@constructionsciences.net		Email for Results		abanish.nepal@constructionsciences.net	
Phone No		0436 620 611						Containers		Required Turnaround Time					
Special Directions								50mL Plastic 25mL Plastic 125mL Plastic 200mL Amber Glass 40mL Vial 50mL PPAS PET Jar (Glass or HDPE) Packer Plastic		*Surcharge will apply ☐ Overnight (reporting by 9am) ☐ Same day+ ☐ 1 day+ ☐ 2 days+ ☐ 3 days+ ☒ 5 days (Standard) ☐ Other()					
Purchase Order								Sample Comments / Dangerous Goods Hazard Warning							
Quote ID No		191217CONN		Matrix		Solid (S) Waste (W)									
No	Client Sample ID	Sampled Date/Time	Matrix												
1	DOP09	19/02/20	S												
2	DOP09A	"	S												
3	TP 21 0.0-0.1	"	S												
4	TP 21 0.2-0.3	"	S												
5	TP 22 0.0-0.1	"	S												
6	TP 22 0.3-0.4	"	S												
7	TP 23 0.0-0.1	"	S												
8	TP 23 0.3-0.4	"	S												
9	TP 24 0.0-0.1	"	S												
10	TP 24 0.3-0.4	"	S												
Total Counts				4 4 6											
Method of Shipment				☒ Courier (#) ☐ Hand Delivered ☐ Postal Name Signature AN Date 26/2 Time 1200											
Eurofins mgt Laboratory Use Only				Received By Received By SYD BNE MEL PER ADL NTL DRW SYD BNE MEL PER ADL NTL DRW Signature Signature Date Date Time Time Temperature Report No											

CHAIN OF CUSTODY RECORD

Eurofins | reg. ARN 50 005 085 521



Sydney Laboratory

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Brisbane Laboratory

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Perth Laboratory

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08 9251 9500 EnviroSampleWA@ourofins.com



Melbourne Laboratory

Melbourne Laboratory
6 Monterey Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVic@eurofins.com

Company		Construction Sciences		Project No		5046200019		Project Manager		Abanish Nepal		Sampler(s)		SI, AD, JB	
Address		31 Anvil Road, Seven Hills, NSW		Project Name		Corner of Dossie St and Sloane St, Goulburn		EDD Format		ES&at		Handed over by			
Contact Name		Abanish Nepal		Analyst Wherever you collected your sample, Take a Photo of Soil EDD must be used to attach SITE print								Email for Invoice		abanish.nepal@constructionsciences.net	
Phone No		0436 620 611										Email for Results		abanish.nepal@constructionsciences.net	
Special Directions															
Purchase Order															
Quote ID No		191217CONN													
No	Client Sample ID	Sampled Date/Time	Matrix	TRH	PAH	OC	PCB	MR	Ecol	PM	B7	B13	HOLD	Containers	Required Turnaround Time
1	TP25 0.0-0.1	19/02/20	S											500mL Plastic	Default est. by 5 days if not specified
2	TP25 0.3-0.4	"	S											250mL Plastic	Overnight (reporting by 9am) +
3	TP26 0.0-0.1	"	S											125mL Plastic	Same day + 1 day +
4	TP26 0.3-0.4	"	S											200mL Amber Glass	2 days + 3 days +
5	TP26 0.5-0.6	"	S											40mL Vial	5 days (Standard)
6	TP27 0.0-0.1	"	S											500mL PPAS PET Jar (Glass or HDPE)	Other
7	TP27 0.5-0.6	"	S											Pathogen Plastic	
8	TP27 0.7-0.8	"	S												
9	DUP 10	"	S												
10	DUP 10A	"	S												
Total Counts				2	4	3	3	1	2						
Method of Shipment				☒ Courier (#) ☐ Hand Delivered ☐ Postal Name Signature Date Time											
Eurofins (mpt Laboratory Use Only)				Received By Received By Signature Signature Date Date Time Time Temperature Report No											



CHAIN OF CUSTODY RECORD

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Sydney Laboratory

Unit F3 Bld F 18 Mars Road Lane Cove West NSW 2066
02 9900 8400 EnviroSampleNSW@eurofins.com



Brisbane Laboratory

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07 3902 4500 EnviroSampleQLD@eurofins.com



Perth Laboratory

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08 9251 9500 EnviroSampleWA@eurofins.com



Melbourne Laboratory

6 Montague Road Dandenong South VIC 3175
03 8584 5000 EnviroSampleVic@eurofins.com

Company		Construction Sciences		Project No		5046200019		Project Manager		Abanish Nepal		Sampler(s)		SI, AD, JB					
Address		31 Anvil Road, Seven Hills, NSW		Project Name		Corner of Dossie St and Sioane St, Goulburn		EDD Format		ESdat		Handed over by							
Contact Name		Abanish Nepal		Analysis Where media are requested, please specify "out" or "flask" SUTE code must be used to reflect SUTE priority		TRH BTX PAH OCB PUB NB E. coli & faecal coli PM & EC B7 B3 MOLD										Email for Invoice		abanish.nepal@constructionsciences.net	
Phone No		0436 620 611														Email for Results		abanish.nepal@constructionsciences.net	
Special Directions																Containers		Required Turnaround Time	
Purchase Order																500ml Plastic 250ml Plastic 125ml Plastic 200ml Amber Glass 40ml Vial 50ml PBAS PET Jar (glass or HDPE) 100ml Plastic		Default will be 5 days if not listed ☐ Overnight (reporting by 9am) ☐ Same day ☐ 1 day ☐ 2 days ☒ 5 days (Standard) ☐ 3 days ☐ Other	
Quote ID No		19127 CONN																	
No	Client Sample ID	Sampled Date/Time	Matrix																
1	TP 28 0.0-0.1	19/02/20	S																
2	TP 28 0.4-0.5	11	S																
3	TP 28 0.7-0.8	11	S																
4	TP 29 0.0-0.1	11	S																
5	TP 29 0.3-0.4	11	S																
6	TP 30 0.0-0.1	11	S																
7	TP 30 0.3-0.4	11	S																
8	DUP 11	11	S																
9	DUP 11 A	11	S																
10	TP 31 0.0-0.1	11	S																
Total Counts				4 4 1 5															
Method of Shipment				☒ Courier (#) ☐ Hand Delivered ☐ Postal Name Signature Date Time															
Eurofins mgt Laboratory Use Only				Received By Received By SYD BNE MEL PER ADL NTL DRW SYD BNE MEL PER ADL NTL DRW Signature Signature Date Date Time Time Temperature Report No															

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Brisbane Laboratory

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07 3902 4600 EnviroSampleQLD@eurofins.com



Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com



Melbourne Laboratory

6 Montrose Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVic@eurofins.com

Company		Construction Sciences		Project No		5046200019		Project Manager		Abanish Nepal		Sampler(s)		SI, AD, JB	
Address		31 Anvil Road, Seven Hills, NSW		Project Name		Corner of Dossie St and Sloane St, Goulburn		EDD Format		ESdat		Handed over by			
Contact Name		Abanish Nepal		Analytical Where results are required, please specify "Total" or "Residue" NOTE: Code must be used to indicate BULK or PLATE		TRM BTX PAH PCP PCB MS E coli & Faecal Coli PHREEC ST B13 HOLD		Email for Invoice		abanish.nepal@constructionsciences.net		Email for Results		abanish.nepal@constructionsciences.net	
Phone No		0435 620 611						Containers		Required Turnaround Time					
Special Directions								500ml Plastic 250ml Plastic 125ml Plastic 200ml Amber Glass 60ml Vial 500ml PPAS PET Jar (Glass or HDPE) 2.0kg or 4.0kg		*Surcharge will apply ☐ Overnight (reporting by 9am) ☐ Same day ☐ 1 day ☐ 2 days ☐ 3 days ☒ 5 days (Standard) ☐ Other					
Purchase Order								Sample Comments		Dangerous Goods Hazard Warning					
Quote ID No		191217COWN													

No	Client Sample ID	Sampled Date/Time	Matrix	Test(s)	Result(s)	Signature	Date	Time		
1	TP31 0.2-0.3	19/02/20	S			/				
2	TP32 0.0-0.1	11	S			/				
3	TP32 0.1-0.2	11	S			/				
4	TP33 0.0-0.1	11	S			/				
5	TP33 0.2-0.5	11	S			/				
6	TP34 0.0-0.1	11	S			/				
7	TP34 0.4-0.5	11	S			/				
8	TP35 0.0-0.1	11	S			/				
9	TP35 0.4-0.5	11	S			/				
10	TP35 0.7-0.8	11	S			/				
Total Counts				1	1	1	4	3	1	5

Method of Shipment	☒ Courier (#)	☐ Hand Delivered	☐ Postal	Name	Signature	AN	Date	26/2	Time	1300
Eurofins mgt Laboratory Use Only	Received By	SYD BNE MEL PER ADL NTL DRW	Signature	Date	Time	Temperature	Report No	704317		



CHAIN OF CUSTODY RECORD

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Sydney Laboratory

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Brisbane Laboratory

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07 3902 4600 EnviroSampleQLD@eurofins.com



Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com



Melbourne Laboratory

5 Monterey Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVic@eurofins.com

Company		Construction Sciences		Project No		5046200019		Project Manager		Abanish Nepal		Sampler(s)		SI, AD, JB					
Address		31 Anvil Road, Seven Hills, NSW		Project Name		Corner of Dossle St and Sloane St, Goulburn		EDD Format		ESdat		Handed over by							
Contact Name		Abanish Nepal		Analyse Where there is an increased risk of contamination, the use of "Filtered" bottles could reduce the risk of contamination.		TRH BTEX PAH OC PCB NR E. coli & faecal coli PM10 B7 B13 HOV										Email for Invoice		abanish.nepal@constructionsciences.net	
Phone No		0435 620 511														Email for Results		abanish.nepal@constructionsciences.net	
Special Directions																Containers		Required Turnaround Time	
Purchase Order																☐ Overnight (reporting by 9am) ☐ Same day ☐ 2 days ☒ 5 days (Standard) ☐ Other		*Surcharge will apply ☐ 1 day ☐ 3 days	
Quote ID No		191217CONN										500mL Plastic 250mL Plastic 125mL Plastic 200mL Amber Glass 40mL Vial 50mL PPAS PET Jar (Glass or HDPE) Paragon Plastic		Sample Comments / Dangerous Goods Hazard Warning					
No	Client Sample ID	Sampled Date/Time	Matrix																
		dd/mm/yyyy	Solid (S) Water (W)																
1	DUP 12	19/02/20	S																
2	DUP 12A	"	S																
3	TP36 0.0-0.1	"	S																
4	TP36 0.6-0.7	"	S																
5	TP36 1.0-1.1	"	S																
6	TP37 0.0-0.1	"	S																
7	TP37 0.4-0.5	"	S																
8	TP37 0.9-1.0	"	S																
9	TP38 0.0-0.1	"	S																
10	TP38 0.4-0.5	"	S																
Total Counts				1 1 3 3 3 5															
Method of Shipment		☒ Courier (#) ☐ Hand Delivered ☐ Postal Name Signature Date Time																	
Eurofins mgt Laboratory Use Only		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Temperature							
		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Report No		704317					



CHAIN OF CUSTODY RECORD

Eurofins | mgt ABN 50 005 385 521



Sydney Laboratory

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Brisbane Laboratory

Unit 1 21 Smallwood Place Murrumbidgee QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com



Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105
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Melbourne Laboratory

6 Montney Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVIC@eurofins.com

Company		Construction Sciences		Project No	5046200019		Project Manager	Abanish Nepal		Sampler(s)	SI, AD, JB				
Address		31 Anvil Road, Seven Hills, NSW		Project Name	Corner of Dossie St and Sloane St, Goulburn		EDD Format	ESdat		Handed over by					
Contact Name		Abanish Nepal		Analytes Where reagents are required, please specify 'Toxic' or 'Flammable' - SULFATE (not used) is used to amend (SULFATE) only	TRH BTX PAH OCP PCB NG E Coli & Faecal Coli PR & EC BT B13 HOLD							Email for Invoice	abanish.nepal@constructionsciences.net		
Phone No		0436 620 611										Email for Results	abanish.nepal@constructionsciences.net		
Special Directions												Containers Specify container type and size if necessary		Required Turnaround Time Default will be 3 days if not ticked	
Purchase Order												☐ Overnight (reporting by 9am) * ☐ Same day * ☐ 1 day * ☐ 2 days * ☐ 3 days * ☒ 5 days (Standard) ☐ Other ()			
Quote ID No		191217CONN													

No	Client Sample ID	Sampled Date/Time date only hh:mm	Matrix Solid (S) Water (W)	Analytes										Sample Comments / Dangerous Goods Hazard Warning			
1	TP 38 0.9-1.0	19/02/20	S														
2	TP 38 1.4-1.5	19/02/20	S														
3	TP 39 0.0-0.1	11	S														
4	TP 39 0.5-0.6	11	S														
5	TP 39 1.0-1.1	11	S														
6	TP 39 1.5-1.6	11	S														
7	TP 39 1.7-1.8	11	S														
8	TP 40 0.0-0.1	11	S														
9	TP 40 0.4-0.5	11	S														
10	TP 40 1.0-1.1	11	S														
Total Counts				2	2	2	2	2	2	4							

Method of Shipment	☒ Courier (#)	☐ Hand Delivered	☐ Postal	Name	Signature	AN	Date	26/2	Time	1300
Eurofins mgt Laboratory Use Only	Received By		SYD BNE MEL PER ADL NTL DRW	Signature		Date		Time		Temperature
	Received By		SYD BNE MEL PER ADL NTL DRW	Signature		Date		Time		Report No

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CHAIN OF CUSTODY RECORD

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☒ Sydney Laboratory

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☐ Brisbane Laboratory

Unit 1 Z1 Smallwood Place Murarie QLD 4172
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☐ Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory

6 Montevy Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVIC@eurofins.com

Company	Construction Sciences	Project No	5046200019	Project Manager	Abanish Nepal	Sampler(s)	SI, AD, JB		
Address	31 Anvil Road, Seven Hills, NSW	Project Name	Corner of Dossie St and Sloane St, Goulburn	EDD Format	ESdat	Handed over by			
Contact Name	Abanish Nepal	Analysed Where mixes are required, please specify 'Train' or 'Fallout' BUFE code may be used to assist QA/Testing	TRH, BTEX PAH OCP PCB MR E. coli & Faecal coliform PM & TC ST B13 HOLD	Email for Invoice: abanish.nepal@constructionsciences.net					
Phone No	0436 620 611			Email for Results: abanish.nepal@constructionsciences.net					
Special Directions				Containers Change container type & size if necessary.					
Purchase Order				Required Turnaround Time Default will be 5 days if not ticked					
Quote ID No	191217CONN					* Surcharge will apply			
No	Client Sample ID	Sampled Date/Time (dd/mm/yyyy hh:mm)	Matrix Solid (S) Water (W)	50mL Plastic 25mL Plastic 125mL Plastic 20mL Amber Glass 40mL Vial 500mL PP40 PET Jar (Glass or HDPE) Pa. Thogen Plastic				☐ Overnight (reporting by 9am) ☐ Same day ☐ 1 day ☐ 2 days ☒ 5 days (Standard) ☐ Other	
1	TP40 1.5-1.06	19/02/20	S						
2	DUP 13	"	S						
3	DUP 13A	"	S						
4	SS17	"	S						
5	SS18	"	S						
6	SS19	"	S						
7	SS20	"	S						
8	DUP02	"	S						
9	DUP02A	"	S						
10	TP41 0.1-0.3	20/02/20	S						
Total Counts				2	3	1	4	3	3

Method of Shipment

☒ Courier (#

)

☐ Hand Delivered

☐ Postal

Name

Signature

Date

Time

Eurofins | mgt
Laboratory Use Only

Received By

Received By

SYD | BNE | MEL | PER | ADL | NTL | DRW

Signature

Date

Time

Temperature

SYD | BNE | MEL | PER | ADL | NTL | DRW

Signature

Date

Time

Report No

704317

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Page 17 of 33



CHAIN OF CUSTODY RECORD

Eurofins | mgt. ABN 50 005 085 521



Sydney Laboratory

Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2066
02 9900 8400 EnviroSampleNSW@eurofins.com



Brisbane Laboratory

Unit 1 21 Smallwood Place Muramba QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com



Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9500 EnviroSampleWA@eurofins.com



Melbourne Laboratory

5 Mortons Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVIC@eurofins.com

Company		Construction Sciences		Project No		5046208019		Project Manager		Abanish Nepal		Sampler(s)		SI, AD, JB	
Address		31 Anvil Road, Seven Hills, NSW		Project Name		Corner of Dossle St and Sloane St, Goulburn		EDD Format		ESdat		Handed over by			
Contact Name		Abanish Nepal		Analysis Where multiple samples are required, please specify "Time to Point" or "Point to Point" and include the use of "Time to Point" or "Point to Point" in the sample description.		TPH BTX PAH OP PCB MS E. coli & Faecal Coli PH & PC B7 B13 HOLD		Email for Invoice		abanish.nepal@constructionsciences.net		Email for Results		abanish.nepal@constructionsciences.net	
Phone No		0436 620 611						Containers		Required Turnaround Time					
Special Directions								Change container type & size if necessary		Default will be 5 days if not noted					
Purchase Order								50mL Plastic 250mL Plastic 125mL Plastic 200mL Amber Glass 40mL Vial 50mL PPAS PET Jar (Glass or HDPE) Pathogen Test Kit		*Surcharge will apply ☐ Overnight (reporting by 9am)* ☐ Same day* ☐ 1 day* ☐ 2 days* ☐ 3 days* ☒ 5 days (Standard) ☐ Other()					
Quote ID No		191217CONN													
No	Client Sample ID	Sampled Date/Time	Matrix	Salt (S)	Water (W)										
1	TP42 0.1-0.3	20/02/20	S			/	/						X	X	
2	TP43 0.1-0.3	"	S			/	/						X	X	
3	TP44 0.1-0.3	"	S			/	/						X	X	
4	TP45 0.0-0.1	"	S			/	/	/					X	X	
5	TP45 0.4-0.5	"	S							/			X	X	
6	TP46 0.0-0.1	"	S			/	/	/					X	X	
7	TP46 0.4-0.5	"	S							/			X	X	
8	TP46 0.7-0.8	"	S							/			X	X	
9	TP47 0.0-0.1	"	S			/	/	/					X	X	
10	TP47 0.3-0.4	"	S			/	/	/					X	X	
Total Counts						7	6	3	3						
Method of Shipment		☒ Courier (#) ☐ Hand Delivered ☐ Postal		Name		Signature		Date		26/2		Time		1800	
Eurofins mgt Laboratory Use Only		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Temperature			
		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Report No		704317	



CHAIN OF CUSTODY RECORD

Eurofins | mgt. ABN 50 005 085 521



Sydney Laboratory

Unit F3 Bld.F 16 Mars Road Lane Cove West NSW 2066
02 9900 8400 EnviroSampleNSW@eurofins.com



Brisbane Laboratory

Unit 1 21 Smallwood Place Muramba QLD 4172
07 3902 4500 EnviroSampleQLD@eurofins.com



Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com



Melbourne Laboratory

5 Montague Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVic@eurofins.com

Company		Construction Sciences		Project No	5046200019		Project Manager	Abanish Nepal		Sampler(s)	SI, AD, JB				
Address		31 Anvil Road, Seven Hills, NSW		Project Name	Corner of Dossia St and Sloane St, Goulburn		EDD Format	ESdat		Handed over by					
Contact Name		Abanish Nepal		Analyses Where multiple analyses are required, please specify "Test 1" or "Test 2" etc. BUT note media used to avoid confusion	TRH BTX PAH OP PCB MB E. coli & faecal coli PM 10 B7 B13 HOLD							Email for Invoice	abanish.nepal@constructionsciences.net		
Phone No		0436 620 611										Email for Results	abanish.nepal@constructionsciences.net		
Special Directions												Containers Change container type & size if necessary		Required Turnaround Time Default will be 5 days if not stated	
Purchase Order												500mL Plastic		Overnight (reporting by 9am) * Same day * 2 days * 5 days (Standard) Other (	
Quote ID No		191217CONN		500mL Plastic		250mL Plastic		125mL Plastic		200mL Amber Glass		40mL Vial			
				500mL PPAG PET		Jar (Glass or HDPE)		Pathogen		Residue					
No	Client Sample ID	Sampled Date/Time (dd/mm/yyyy hh:mm)	Matrix Solid (S) Water (W)										Sample Comments (Dangerous Goods Hazard Warning)		
1	TP47 0.8-0.9	20/02/20	S	/											
2	TP47 1.0-1.1	"	S												
3	TP47 1.5-1.6	"	S	/	/	/									
4	DUP 14	"	S	/											
5	DUP 14A	"	S	/											
6	TP48 0.0-0.1	"	S				/	/	/						
7	TP48 0.4-0.5	"	S						/						
8	TP48 0.9-1.0	"	S						/						
9	TP48 1.2-1.3	"	S		/	/									
10	TP49 0.0-0.1	"	S				/	/							
Total Counts				3	2		2	2	1	2	3				
Method of Shipment		☒ Courier (#) ☐ Hand Delivered ☐ Postal		Name		Signature		AN		Date		20/2			
Eurofins mgt. Laboratory Use Only		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Temperature			
		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Report No			

Eurofins Environment Testing Australia Pty Ltd trading as Eurofins | mgt.

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CHAIN OF CUSTODY RECORD

Eurofins | mgt. ABN 50 055 085 521



Sydney Laboratory

Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2065
02 9900 8400 EnviroSampleNSW@eurofins.com



Brisbane Laboratory

Unit 1 21 Smallwood Place Murarie QLD 4172
07 3802 4800 EnviroSampleQLD@eurofins.com



Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9500 EnviroSampleWA@eurofins.com



Melbourne Laboratory

6 Monterey Road Dandenong South VIC 3175
03 8594 5000 EnviroSampleVic@eurofins.com

Company Construction Sciences		Project No 5046200019		Project Manager Abanish Nepal		Sampler(s) SI, AD, JB	
Address 31 Anvil Road, Seven Hills, NSW		Project Name Corner of Dossie St and Sloane St, Goulburn		EDD Format ESdet		Handed over by	
Contact Name Abanish Nepal		Analysees When results are requested, please specify 'Referral' or 'Planner' - So the correct results can be issued to the correct client.		Email for Invoice abanish.nepal@constructionsciences.net		Email for Results abanish.nepal@constructionsciences.net	
Phone No 0436 620 611							
Special Directions							
Purchase Order							
Quote ID No 191217CONN							

No	Client Sample ID	Sampled Date/Time dd/mm/yyyy hh:mm	Matrix Soil (S) Water (W)	Containers Change container type & size if necessary							Required Turnaround Time Default will be 5 days if not noted		Sample Comments / Dangerous Goods Hazard Warning					
				500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL Vial	500mL PPAS PET	Jar (Glass or HDPE)	Pathogen Plastic	Overnight (reporting by 9am)♦		Same day♦	2 days♦	5 days (Standard)	Other	
1	TP49 0.5-0.6	20/02/20	S															
2	TP49 0.8-0.9	"	S															
3	DUP 15	"	S															
4	DUP 15A	"	S															
5	TP50 0.0-0.1	"	S															
6	TP50 0.2-0.3	"	S															
7	TP50 0.7-0.8	"	S															
8	TP 51 0.0-0.1	"	S															
9	TP 51 0.4-0.5	"	S															
10	TP 51 0.9-1.0	"	S															
Total Counts				2	2	2	3	2	5									

Method of Shipment	☒ Courier (#)	☐ Hand Delivered	☐ Postal	Name	Signature	Date	Time
					<i>AN</i>	20/2	1300

Eurofins mgt Laboratory Use Only	Received By	SYD BNE MEL PER ADL NTL DRW	Signature	Date	Time	Temperature
	Received By	SYD BNE MEL PER ADL NTL DRW	Signature	Date	Time	Report No
						704317

Eurofins Environment Testing Australia Pty Ltd trading as Eurofins | mgt

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02 9900 8400 EnviroSampleNSW@elmcdfns.com

07 3902 4600 EvidenSampleOI@seim.ufsc.br

08 9251 9600 EnviroSampleWA@mpfs.com

(3 856 6000 EnquirySupport@info.gov.sg)

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | met Standard Terms and Conditions unless agreed otherwise. A copy of Eurofins | met Standard Terms and Conditions is available on request.

☒ Sydney Laboratory☐ Brisbane Laboratory

Parth Laboratory

Melbourne Laboratory

6 Monterey Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVics@eurofins.com

Company

Address

Contact Name

Phone No

Special Directions

Purchase Order

Quote ID No

Construction Sciences

31 Anvil Road, Seven Hills, NSW

Abanish Nepal

0436 620 611

19121700NN

Project No

Project Name

Project Manager

5046200019

Corner of Dossie St and Sloane St, Goulburn

ESdat

Analyses

When made an impression, please specify 'Total' or 'Target' - BUT E code must be used to extract BUT E only

TRH

PAH

OCP

PCB

MR

E Coli & Faecal Coli

PM & EC

B7

B13

HOLD

Sampler(s)

Handed over by

Email for Invoice

Email for Results

St, AD, JB

abanish.nepal@constructionsciences.net

abanish.nepal@constructionsciences.net

Containers

Required Turnaround Time

500mL Plastic

250mL Plastic

125mL Plastic

250mL Amber Glass

40mL Vial

500mL PFAS PET

Jar (Glass or HDPE)

Pathogen Plastic

Default will be 5 days if not listed

Overnight (reporting by 9am)

Same day

2 days

5 days (Standard)

Other

Sample Comments

Dangerous Goods Hazard Warning

Client Sample ID

Sampled Date/Time

Matrix

TP 53

TP 53

TP 54

TP 54

TP 54

TP 55

TP 55

TP 55

TP 55

TP 55

0.2-0.3

0.5-0.6

0.0-0.1

0.4-0.5

0.9-1.0

0.0-0.1

0.4-0.5

0.9-1.0

1.4-1.5

1.9-2.0

20/02/20

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6

Method of Shipment

Courier (if)

Hand Delivered

Postal

Name

Signature

Date

Time

Received By

Received By

SYD | BNE | MEL | PER | ADL | NTL | DRW

Signature

Date

Time

Temperature

Report No

Submission of samples to the laboratory will be deemed an agreement that the samples are for testing only and not for distribution or other use.

704317

Submission of samples to the laboratory will be deemed as acceptance of Eurofins' mgf Standard Terms and Conditions unless agreed otherwise. A copy of Eurofins' mgf Standard Terms and Conditions is available on request.

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CHAIN OF CUSTODY RECORD

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Sydney Laboratory

Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2066
02 9900 8400 EnviroSampleNSW@eurofins.com



Brisbane Laboratory

Unit 1 21 Smallwood Place Muramba QLD 4172
07 3902 4500 EnviroSampleQLD@eurofins.com



Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9500 EnviroSampleWA@eurofins.com



Melbourne Laboratory

6 Monkeroy Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVic@eurofins.com

Company Construction Sciences		Project No 5046200019		Project Manager Abanish Nepal		Sampler(s) SI, AD, JB	
Address 31 Anvil Road, Seven Hills, NSW		Project Name Corner of Dossie St and Sloane St, Goulburn		EOD Form ESdai		Handed over by	
Contact Name Abanish Nepal		Analysis Where results are required, please specify "Total" or "Filter" (NOTE: code must be used to avoid confusion)		Email for Invoice abanish.nepal@constructionsciences.net		Email for Results abanish.nepal@constructionsciences.net	
Phone No 0436 620 611				Containers Change container type & size if necessary		Required Turnaround Time Default will be 5 days if not booked	
Special Directions				500mL Plastic 250mL Plastic 125mL Plastic 250mL Amber Glass 40mL Vial 50mL PFAS PET Jar (Glass or HDPE)		• Surcharge will apply ☐ Overnight (reporting by 9am) ☐ Same day+ ☐ 1 day+ ☐ 2 days+ ☐ 3 days+ ☒ 5 days (Standard) ☐ Other()	
Purchase Order				500mL Plastic 250mL Plastic 125mL Plastic 250mL Amber Glass 40mL Vial 50mL PFAS PET Jar (Glass or HDPE)		Sample Comments / Dangerous Goods Hazard Warning	
Quote ID No 191217CONN		TRM BTEX PAH OCP PCB M8 E coli & Faecal coli PM & EC B7 B13 HOLD					
No	Client Sample ID	Sampled Date/Time dd/mm/yyyy hh:mm	Matrix Solid (S) Water (W)				
1	TP 56 0.0-0.1	20/02/20	S	/	/	/	X
2	TP 56 0.2-0.3	"	S				X
3	TP 57 0.0-0.1	"	S	/	/	/	X
4	TP 57 0.3-0.4	"	S				X
5	TP 57 0.6-0.7	"	S				X
6	DUP 19	"	S				X
7	DUP 19A	"	S				X
8	TP 58 0.0-0.1	"	S	/	/	/	X
9	TP 58 0.4-0.5	"	S				X
10	TP 59 0.0-0.1	"	S	/	/	/	X
Total Counts				4	4	4	6
Method of Shipment ☒ Courier (#) ☐ Hand Delivered ☐ Postal		Name		Signature AN		Date 20/2	
Eurofins mgt Laboratory Use Only		Received By		Signature		Date	
		Received By		Signature		Date	
		Report No				704317	



CHAIN OF CUSTODY RECORD

Eurofins | mgt. A8N 50 005 085 521



Sydney Laboratory

Unit F3 Bld.F 16 Mars Road Lane Cove West NSW 2086
02 9500 8400 EnviroSampleNSW@eurofins.com



Brisbane Laboratory

Unit 1 21 Smallwood Place Murrumbidgee QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com



Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9500 EnviroSampleWA@eurofins.com



Melbourne Laboratory

6 Montfry Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVic@eurofins.com

Company		Construction Sciences		Project No		5046200019		Project Manager		Abanish Nepal		Sampler(s)		SI, AD, JB	
Address		31 Anvil Road, Seven Hills, NSW		Project Name		Corner of Dossle St and Sloane St, Goulburn		EDD Format		ESdat		Handed over by			
Contact Name		Abanish Nepal		Email for Invoice		abanish.nepal@constructionsciences.net		Email for Results		abanish.nepal@constructionsciences.net					
Phone No		0436 620 611													
Special Directions															
Purchase Order															
Quote ID No		1912/7COWW													

No	Client Sample ID	Sampled Date/Time	Matrix	Analyses							Containers		Required Turnaround Time		Sample Comments / Dangerous Goods Hazard Warning														
				TRM	BTEX	PAH	OCP	PCB	MR	E. coli	Staph. coli	PH	REC	ST		RIJ	HOLD	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL Vial	50mL PFAS PET	Jar (Glass or HDPE)	*Surcharge will apply				
1	TP 59 0.4-0.5	20/02/20	S	/		/																							
2	TP 59 1.2-1.3	"	S																										
3	TP 60 0.0-0.1	"	S																										
4	TP 60 0.4-0.5	"	S																										
5	TP 60 0.9-1.0	"	S																										
6	TP 60 1.4-1.5	"	S																										
7	TP 60 1.9-2.0	"	S	/		/																							
8	DUP 20	"	S	/		/																							
9	DUP 20A	"	S	/		/																							
10	SS 21	"	S	/	/	/																							
Total Counts				5	1	5	1	1	1	2																			

Method of Shipment		☒ Courier (#)		☐ Hand Delivered		☐ Postal		Name		Signature		Date		Time	
Eurofins mgt. Laboratory Use Only		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Temperature		Report No	
		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Report No		704317	



CHAIN OF CUSTODY RECORD

Eurofins | mgt ABN 50 005 085 521



Sydney Laboratory

Unit F3 Bld F 15 Mars Road Lane Cove West NSW 2066
02 9930 8400 EnviroSampleNSW@eurofins.com



Brisbane Laboratory

Unit 1 21 Smallwood Place Murrumbidgee QLD 4172
07 3907 4600 EnviroSampleQLD@eurofins.com



Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com



Melbourne Laboratory

5 Montferry Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVIC@eurofins.com

Company		Construction Sciences		Project No		5046200019		Project Manager		Abanish Nepal		Sampler(s)		SI, AD, JB															
Address		31 Anvil Road, Seven Hills, NSW		Project Name		Corner of Dossie St and Sloane St, Goulburn		EOD Format		ESdat		Handed over by																	
Contact Name		Abanish Nepal		Analysis: Where possible, we request clients specify 'Tracer' or 'Parent' substance as we need to know the full name.		TRH BTEX		DAH		OCP		PCB		MR		E coli & faecal coli		PH & EC		B7		B13		HOLD		Nitrate, Ammonia, phosphorus		PH & Hardness	
Phone No		0436 620 611				500ml Plastic		250ml Plastic		125ml Plastic		200ml Amber Glass		40ml Vial		500ml PFAS PET		Jar (Glass or HDPE)		☐ Overnight (reporting by 9am) ☐ Same day ☐ 1 day ☐ 2 days ☐ 3 days ☒ 5 days (Standard) ☐ Other		☐ Overnight (reporting by 9am) ☐ Same day ☐ 1 day ☐ 2 days ☐ 3 days ☒ 5 days (Standard) ☐ Other							
Special Directions						Required Turnaround Time		Default will be 5 days if not ticked																					
Purchase Order				Email for Invoice		abanish.nepal@constructionsciences.net		Email for Results		abanish.nepal@constructionsciences.net																			
Quote ID No		191217CONW																											

No	Client Sample ID	Sampled Date/Time	Matrix	Test	Result	Notes
1	SS 22	20/02/20	S		/	
2	SS 23	"	S		/	
3	SS 24	"	S		/	
4	SS 25	"	S		/	
5	SS 26	"	S		/	
6	SWel	"	W		/	
7	SWR	"	W		/	
8	SWOB	"	W		/	
9	QAQC1	"	W		/	
10	QAQC2	"	W		/	
Total Counts				3	5	3

Method of Shipment		☒ Courier (#)		☐ Hand Delivered		☐ Postal		Name		Signature		Date		Time	
Eurofins mgt Laboratory Use Only		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Temperature		Report No	
		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Report No		1704317	



CHAIN OF CUSTODY RECORD

Eurofins | mgt ABN 50 005 085 521



Sydney Laboratory

Unit F3 Bld.F 16 Mars Road Lane Cove West NSW 2066

02 8900 8400 EnviroSampleNSW@eurofins.com



Brisbane Laboratory

Unit 1 21 Smallwood Place Murarie QLD 4172

07 3902 4600 EnviroSampleQLD@eurofins.com



Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105

08 9251 9600 EnviroSampleWA@eurofins.com



Melbourne Laboratory

5 Monterey Road Dandenong South VIC 3175

03 8564 5000 EnviroSampleVic@eurofins.com

Company		Construction Sciences		Project No		5046200019		Project Manager		Abanish Nepal		Sampler(s)		SI, AD, JB	
Address		31 Anvil Road, Seven Hills, NSW		Project Name		Corner of Dossie St and Sloane St, Goulburn		EDO Format		ESdat		Handed over by			
Contact Name		Abanish Nepal		Analyses Wherever an irregular, please specify "Vial" or "Filled" BUT E code must be used to attach SAME plate		TRH BTEX PAH OCP PCB MR E coli & faecal coli PM DEC BT BID HOLD									
Phone No		0436 820 611													
Special Directions															
Purchase Order															
Quote ID No		191217CONNM		Email for Invoice		abanish.nepal@constructionsciences.net									
				Email for Results		abanish.nepal@constructionsciences.net									
				Containers Change container type & size if necessary		Required Turnaround Time Default will be 5 days if not stated									
				90mL Plastic		250mL Plastic									
				125mL Plastic		20mL Amber Glass									
				40mL Vial		50mL PPAS PET									
				Jar (Glass or HDPE)		Pakogen Plastic									
						*Surcharge will apply									
						☐ Overnight (reporting by 9am)*									
						☐ Same day* ☐ 1 day*									
						☐ 2 days* ☐ 3 days*									
						☒ 5 days (Standard)									
						☐ Other()									
				Sample Comments / Dangerous Goods Hazard Warning											
No	Client Sample ID	Sampled Date/Time (dd/mm/yyyy hh:mm)	Matrix Solid (S) Liquid (L)												
1	TP G1 0.0-0.1	21/02/20	S												
2	TP G1 0.4-0.5	"	S												
3	TP G1 0.6-0.7	"	S												
4	TP G2 0.1-0.3	"	S												
5	TP G3 0.1-0.3	"	S												
6	TP G4 0.1-0.3	"	S												
7	TP G5 0.1-0.3	"	S												
8	TP G6 0.1-0.3	"	S												
9	TP G7 0.1-0.3	"	S												
10	TP G8 0.0-0.1	"	S												
Total Counts				8 8 2 2											
Method of Shipment				☒ Courier (#) ☐ Hand Delivered ☐ Postal Name Signature AN Date 26/2 Time 13:00											
Eurofins mgt Laboratory Use Only				Received By Signature Date Time Temperature											
				Received By Signature Date Time Report No 704317											

Eurofins Environment Testing Australia Pty Ltd trading as Eurofins | mgt

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Page 26 of 33



☐ **Melbourne Laboratory**
6 Monterey Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVics@eurofins.com

Eurofins Environment Testing Australia Pty Ltd trading as Eurofins | mgt

Submission of samples to the laboratory will be deemed as acceptance of Eurofins' [not](#) Standard Terms and Conditions unless agreed otherwise. A copy of Eurofins' [not](#) Standard Terms and Conditions is available on request.



CHAIN OF CUSTODY RECORD

Eurofins | mgt. ABN 50 005 085 521



Sydney Laboratory

Unit F3 Bld.F 16 Mars Road Lane Cove West NSW 2066
02 9900 8400 EnviroSampleNSW@eurofins.com



Brisbane Laboratory

Unit 1 21 Smallwood Place Murarie QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com



Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 8600 EnviroSampleWA@eurofins.com



Melbourne Laboratory

5 Moneray Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVic@eurofins.com

Company		Construction Sciences		Project No		5045200019		Project Manager		Abanish Nepal		Sampler(s)		SI, AD, JB	
Address		31 Anvil Road, Seven Hills, NSW		Project Name		Corner of Dossie St and Sloane St, Goulburn		EDD Formal		ESdat		Handed over by			
Contact Name		Abanish Nepal		Analyser Where results are requested, please specify 'Test for' and 'Test for' code must be used to support SUIE pricing.		TRH BTEX PAH OCP PCB MR E coli PH DEC B7 B13 HOLD						Email for Invoice		abanish.nepal@constructionsciences.net	
Phone No		0436 620 611										Email for Results		abanish.nepal@constructionsciences.net	
Special Directions												Containers		Required Turnaround Time	
Purchase Order												500ml Plastic 250ml Plastic 125ml Plastic 250ml Amber Glass 400ml Vial 500ml PFAS PET Jar (Glass or HDPE) Petrogen Flush		Default will be 5 days (if not ticked) • Surcharge will apply ☐ Overnight (reporting by 9am)• ☐ Same day• ☐ 2 days• ☒ 5 days (Standard) ☐ Other()	
Quote ID No		191217CONN													
No	Client Sample ID	Sampled Date/Time dd/mm/yyyy hh:mm	Matrix Solid (S) Water (W)												
1	TP 72 0.6-0.7	21/02/20	S												
2	TP 73 0.0-0.1	21/02/20	S												
3	TP 73 0.4-0.5	"	S												
4	DUP 21	"	S												
5	DUP 21 A	"	S												
6	DUP 22	"	S												
7	DUP 22 A	"	S												
8	DUP 23	"	S												
9	DUP 24 A	"	S												
10	DUP 25	"	S												
Total Counts				1 2 1 1 1 7											
Method of Shipment		☒ Courier (#)) ☐ Hand Delivered ☐ Postal		Name		Signature		Date		Time		Temperature		Report No	
Eurofins mgt Laboratory Use Only		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Temperature		Report No	
		Received By		SYD BNE MEL PER ADL NTL DRW		Signature		Date		Time		Temperature		Report No	

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Page 10 of 10
10-DUP 23 A
10-DUP 24

HOLD
HOLD

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5 Monterey Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVic@neurofins.com

Company		Construction Sciences		Project No		5046200019		Project Manager		Abanish Nepal		Sampler(s)		SI, AD, JB	
Address		31 Anvil Road, Seven Hills, NSW		Project Name		Corner of Dossie St and Sloane St, Goulburn		EDD Format		ESdat		Handed over by			
Contact Name		Abanish Nepal		Analysis		Where multiple are requested, please specify "Total" or "Filtered". SUTTE code must be used to select SUTTE plating						Email for Invoice		abanish.nepal@constructionsciences.net	
Phone No		0436 620 611										Email for Results		abanish.nepal@constructionsciences.net	
Special Directions															
Purchase Order															
Quote ID No		191217CONN													
No	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	TRH	BTEX	PAH	OP	PUR	MS	E coli & Faecal coli	PH	PEC	B7	B13	HOLD
1	DUP 25 A	21/02/20	S						/						
2	DUP 26	"	S												
3	DUP 26 A	"	S												
4	TP 74 0.0-0.1	"	S						/	/	/				
5	TP 74 0.2-0.3	"	S												
6	TP 74 0.5-0.6	"	S												
7	TP 74 0.8-0.9	"	S	/					/						
8	TP 75 0.0-0.1	"	S						/	/	/				
9	TP 75 0.2-0.3	"	S												
10	TP 76 0.0-0.1	"	S						/	/	/				
Total Counts				1			2	3		3	3		5		

Method of Shipment: ☒ Courier (#) ☐ Hand Delivered ☐ Postal

Name: _____ Signature: AN Date: 26/2 Time: 1300

Received By: _____

Received By: _____

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Eurofins Environmental Testing Australia Pty Ltd trading as Eurofins | mgf

Signature: _____ Date: _____

Signature: _____ Date: _____

Temperature: _____

Report No: 706312



CHAIN OF CUSTODY RECORD

Eurofins | mgt ABN 50 005 085 521



Sydney Laboratory

Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2066
02 9900 8400 EnviroSampleNSW@eurofins.com



Brisbane Laboratory

Unit 1 21 Smallwood Place Murrumbidgee QLD 4172
07 3302 4900 EnviroSampleQLD@eurofins.com



Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com



Melbourne Laboratory

6 Montague Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVic@eurofins.com

Company	Construction Sciences	Project No	5046200019	Project Manager	Abanish Nepal	Sampler(s)	SI, AD, JB
Address	31 Anvil Road, Seven Hills, NSW	Project Name	Corner of Dossie St and Sloane St, Goulburn	EDD Format	ESdat	Handed over by	
Contact Name	Abanish Nepal	Analytical Where indicated, please specify 'Total' or 'Flame' - NOTE: code must be used to indicate 'Total' or 'Flame'.	TRH BTEX PAH OCP PCP MX E. coli & faecal coli PH & etc B7 B12 HOLD	Email for Invoice	abanish.nepal@constructionsciences.net		
Phone No	0436 620 611			Email for Results	abanish.nepal@constructionsciences.net		
Special Directions				Containers	Required Turnaround Time		
Purchase Order				Change container type & size if necessary	Default will be 5 days if not ticked.		
Quote ID No	191217(CONN)			500ml Plastic 250ml Plastic 125ml Plastic 200ml Amber Glass 40ml Vial 500ml PP/PS PET Jar (Glass or HDPE) Pathogen Plastic	☐ Overnight (reporting by 9am) * ☐ Same day * ☐ 1 day * ☐ 2 days * ☒ 5 days (Standard) ☐ Other ()		
No	Client Sample ID	Sampled Date/Time	Matrix	Sample Comments / Dangerous Goods Hazard Warning			
1	TP 76 1.5-1.6	21/07/20	S				
2	TP 76 1.9-2.0	"	S				
3	TP 77 0.2-0.3	"	S				
4	TP 78 2.2-2.3	"	S				
5	TP 77 2.4-2.5	"	S				
6	TP 78 0.0-0.2	"	S				
7	TP 78 1.1-1.2	"	S				
8	TP 78 1.3-1.4	"	S				
9	TP 79 0.0-0.1	"	S				
10	TP 79 0.4-0.5	"	S				
Total Counts				1	15	42	5

Method of Shipment	☒ Courier (#)	☐ Hand Delivered	☐ Postal	Name	Signature	Date	Time
Eurofins mgt Laboratory Use Only	Received By	BYD ONE MEL PER AGL NTL DRW		Signature	Date	Time	Temperature
	Received By	BYD ONE MEL PER AGL NTL DRW		Signature	Date	Time	Report No

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CHAIN OF CUSTODY RECORD

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Sydney Laboratory

Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2086
02 9900 8400 EnviroSampleNSW@eurofins.com



Brisbane Laboratory

Unit 1 21 Smallwood Place Murarie QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com



Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com



Melbourne Laboratory

5 Housley Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVic@eurofins.com

Company		Construction Sciences		Project No	5046200019		Project Manager	Abanish Nepal		Sampler(s)	SI, AD, JB			
Address		31 Anvil Road, Seven Hills, NSW		Project Name	Corner of Dossie St and Sloane St, Goulburn		EDD Format	ESdat		Handed over by				
Contact Name		Abanish Nepal		Analyse (Where matrix is requested, please specify 'Total' or 'Filtered' SUIE code matrix used to allow SUIE pricing)	BTEX PAH OCP PCB MS E coli & Faecal coli PH & TEC B7 B13 HOUJ				Email for Invoice	abanish.nepal@constructionsciences.net				
Phone No		0436 620 611							Email for Results	abanish.nepal@constructionsciences.net				
Special Directions									Containers Change container type & size if necessary			Required Turnaround Time Default will be 5 days if not ticked		
Purchase Order									50mL Plastic 250mL Plastic 125mL Plastic 20mL Amber Glass 4mL Vial 50mL PFAS PET Jar (Glass or HDPE) Pathogen Plastic			* Surcharge will apply ☐ Overnight (reporting by 9am) ☐ Same day+ ☐ 1 day+ ☐ 2 days+ ☐ 3 days+ ☒ 5 days (Standard) ☐ Other		
Quote ID No		191217CONN												
No	Client Sample ID	Sampled Date/Time (dd/mm/yyyy hh:mm)	Matrix Solid (S) Water (W)											
1	TP 80 0.4-0.5	21/02/20	S											
2	TP 80 1.5-1.6	"	S											
3	TP 81 0.0-0.1	"	S											
4	TP 81 0.4-0.5	"	S											
5	TP 82 0.0-0.1	"	S											
6	TP 82 0.2-0.3	"	S											
7	TP 83 0.0-0.1	"	S											
8	TP 83 0.4-0.5	"	S											
9	TP 84 0.0-0.1	"	S											
10	TP 84 0.8-0.4	"	S											
Total Counts				1	1	6	5	4	3					

Method Signature	☒ Courier (#) ☐ Hand Delivered ☐ Postal	Name	Signature	Date	Time
			AN	26/2	1800
Eurofins mgt Laboratory Use Only	Received By	Signature	Date	Time	Temperature
	Received By	Signature	Date	Time	Report No
					704312

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Sydney Laboratory

Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2056
02 9900 8400 EnviroSampleNSW@eurofins.com



Brisbane Laboratory

Unit 1 21 Smallwood Place Muramba QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com



Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com



Melbourne Laboratory

8 Montevary Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVic@eurofins.com

Company Construction Sciences		Project No 5046200019		Project Manager Abanish Nepal		Sampler(s) SI, AD, JB												
Address 31 Anvil Road, Seven Hills, NSW		Project Name Corner of Dossie St and Sloane St, Goulburn		EDD Format ES04L, EQ04S 610		Handed over by												
Contact Name Abanish Nepal		Analyses Where made, an independent sample specific 'Test' or 'Fabric' SMT - one that is used to define the property		ESdat		Email for Invoice abanish.nepal@constructionsciences.net												
Phone No 0436 620 611				Email for Results abanish.nepal@constructionsciences.net														
Special Directions				Containers Change container type & size if necessary.		Required Turnaround Time Default will be 5 days if not ticked												
Purchase Order				☐ Overnight (reporting by 9am) ☐ Same day ☐ 1 day ☐ 2 days ☒ 5 days (Standard) ☐ Other														
Quote ID No 191207CONW				☐ 30mL Plastic ☐ 25mL Plastic ☐ 125mL Plastic ☐ 200mL Amber Glass ☐ 40mL Vial ☐ 50mL PFAS PET Jar (Glass or HDPE) ☒ Info on Flash		☐ Exchange will apply ☐ 1 day ☐ 3 days												
No	Client Sample ID	Sampled Date/Time dd/mm/yyyy	Matrix Solid (S) Waste (W)	TRH BTEX PAH OLP PCB MS E Coli & Faecal Coli PM & EC B7 B13 PAH (low level) HOLI Nitrate, Ammonia, Phosphorus PM & Manganese										Sample Comments / Dangerous Goods Hazard Warning				
1	TP 84 1.0-1.0	21/02/20	S	/	/	/	/	/	/	/	/	/	/	/	/	/	X	X
2	TP 85 1.5-1.6	"	S														X	X
3	TP 85 1.7-1.8	"	S														X	X
4	SP01	"	S														X	
5	SP02	"	S														X	X
6	ABC 01	"	S														X	
7	ABC 02	"	S														X	
8	ABC 03	"	S														X	
9	SW 04	"	W	/	/	/	/	/	/	/	/	/	/	/	/	/	X	X
10	SW 05	"	W	/	/	/	/	/	/	/	/	/	/	/	/	/	X	X
Total Counts				2	1			6	3	3	3	3		1	2	2		
Method of Shipment ☒ Courier (#) ☐ Hand Delivered ☐ Postal		Name		Signature AN		Date 26/2		Time 1300										
Eurofins mgt Laboratory Use Only		Received By		Signature		Date		Time		Temperature								
		Received By		Signature		Date		Time		Report No								

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CHAIN OF CUSTODY RECORD

Eurofins | mgt ABN 50 005 085 521



Sydney Laboratory

Unit F3 Bldg 15 Marks Road Lane Cove West NSW 2055
02 8900 8400 EnviroSampleNSW@eurofins.com



Brisbane Laboratory

Unit 1 21 Smallwood Place Muramba QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com



Perth Laboratory

Unit 2 91 Leach Highway Kewdale WA 6105
08 925 19600 EnviroSampleWA@eurofins.com



Melbourne Laboratory

8 Montclare Road Dandenong South VIC 3175
03 8564 6000 EnviroSampleVic@eurofins.com

Company Construction Sciences		Project No 5048200019		Project Manager Abanish Nepal		Sampler(s) SI, AD, JB	
Address 31 Anvil Road, Seven Hills, NSW		Project Name Corner of Dossle St and Sloane St, Goulburn		EDD Format ESsat		Handed over by	
Contact Name Abanish Nepal		Analysis Where made are requested, please specify "Total" or "Filtered" SUIE code must be used to attract BUIE pricing.		Email for Invoice abanish.nepal@constructionsciences.net		Email for Results abanish.nepal@constructionsciences.net	
Phone No 0436 620 611				Containers Change container type & size if necessary		Required Turnaround Time Default will be 5 days if not listed	
Special Directions				☐ Overnight (reporting by 9am) ☐ Same day ☐ 1 day ☐ 2 days ☐ 3 days ☒ 5 days (Standard) ☐ Other			
Purchase Order				30mL Plastic 25mL Plastic 125mL Plastic 20mL Amber Glass 40mL Vial 50mL PFA/PE Jar (Glass or HDPE) Patagon Plastic			
Quote ID No 191217CONN		TRM BTEX PAH (Low POC) OCP PCB MR E-COLI & Faecal Coli PH & EC BT BIR HOLD BTEX Nitrate, Ammonia & Phosphorus PH & Hardness		50mL Plastic 25mL Plastic 125mL Plastic 20mL Amber Glass 40mL Vial 50mL PFA/PE Jar (Glass or HDPE) Patagon Plastic		Sample Comments / Dangerous Goods Hazard Warning	
No	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)				
1	SW06	21/02/20	W	/	/	/	/
2	SW07	"	W	/	/	/	/
3	~~SW04~~						
4	~~SW01~~						
5	Trip Spike 1	"	W				
6	Trip Blank 1	"	W				
7	~~SW03~~						
8	Trip Spike 2		W				
9	Trip Blank 2		W				
10	Trip Spike/Blank						
Total Counts				2	2	1	4 2 2
Method of Shipment		☒ Courier (#) ☐ Hand Delivered ☐ Postal		Name		Signature AN	
Date		26/2		Time		1300	
Received By				Signature		Date	
Received By				Signature		Date	
Temperature				Time		Report No	
Report No				704317			

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#AU04_Enviro_Sample_NSW

To: Abanish Nepal
Subject: RE: Eurofins Sample Receipt Advice - Report 704432 : Site HOLD: CORNER OF DOSSIE ST AND SLOANE ST GOULBURN (5046200019)

From: Abanish Nepal [<mailto:Abanish.Nepal@constructionsciences.net>]
Sent: Thursday, 27 February 2020 10:40 AM
To: #AU04_Enviro_Sample_NSW; Ursula Long
Cc: Craig Cowper; Jennifer Brown; Samuel Inameti
Subject: RE: Eurofins Sample Receipt Advice - Report 704432 : Site HOLD: CORNER OF DOSSIE ST AND SLOANE ST GOULBURN (5046200019)
Importance: High

Hi,

Could you please not analyse the following samples for E coli and faecal coliform?

- TP 54 0.0-0.1
- TP55 0.0-0.1
- TP56 0.0-0.1
- TP57 0.0-0.1
- TP58 0.0-0.1
- TP59 0.0-0.1
- TP60 0.0-0.1
- TP61 0.0-0.1

We will provide another response in relation to the missing samples.

Regards,

Abanish Nepal
SENIOR CONSULTANT
CONSTRUCTION SCIENCES



Phone 02 8646 2000 Direct 02 8646 2018 Mobile 0436 620 611
Address 31 Anvil Road, Seven Hills, New South Wales 2147 Australia

Email abanish.nepal@constructionsciences.net Web www.constructionsciences.net

CONNECT WITH CONSTRUCTION SCIENCES



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From: EnviroSampleNSW@eurofins.com <EnviroSampleNSW@eurofins.com>

Sent: Wednesday, 26 February 2020 9:42 PM

To: Abanish Nepal <Abanish.Nepal@constructionsciences.net>

Cc: Craig Cowper <Craig.Cowper@constructionsciences.net>; Jennifer Brown <Jennifer.Brown@constructionsciences.net>

Subject: Eurofins Sample Receipt Advice - Report 704432 : Site HOLD: CORNER OF DOSSIE ST AND SLOANE ST GOULBURN (5046200019)

Dear Valued Client,

Samples on hold, continue from report #704432.
Samples not received: TP50 0.2-0.3, TP52 0.9-1.0.
Extra samples: TP56 0.9-1.0

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 | mgt Analytical Services Manager as soon as possible to make certain that they get changed.

Regards

Luca Dominici
Sample Receipt

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

[EnviroNote 1079 - PFAS Fingerprinting](#)
[EnviroNote 1080 - Total Organofluorine Analysis & PFAS Investigations](#)

Click [here](#) to report this email as spam.

ScannedByWebsenseForEurofins

Sample Receipt Advice

Company name: **Construction Sciences Pty Ltd**
Contact name: **Abanish Nepal**
Project name: **CORNER OF DOSSIE ST AND SLOANE ST GOULBURN**
Project ID: **5046200019**
COC number: **Not provided**
Turn around time: **5 Day**
Date/Time received: **Feb 26, 2020 3:01 PM**
Eurofins reference: **704317**

Sample information

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

Notes

Samples TP60 0.4-0.5, TP50 0.0-0.1 and TP50 0.7-0.8 not received, analysis cancelled. Micro Jar not received for sample TP61 0.0-0.1, micro analysis cancelled. Samples DUP01A, DUP04A, DUP06A, DUP10A, DUP13A, DUP14A, DUP16A, DUP20A, QAQC2, DUP25A forwarded to ALS for analysis.

Contact notes

If you have any questions with respect to these samples please contact:

Ursula Long on Phone : or by e.mail: UrsulaLong@eurofins.com

Results will be delivered electronically via e.mail to Abanish Nepal - Abanish.Nepal@constructionsciences.net.

Construction Sciences Pty Ltd
2/4 Kellogg Rd
Glendenning
NSW 2761



NATA Accredited
Accreditation Number 1261
Site Number 18217 & 14271

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or
measurements included in this document are traceable
to Australian/national standards.

Attention: **Abanish Nepal**

Report **704317-S**
Project name **CORNER OF DOSSIE ST AND SLOANE ST GOULBURN**
Project ID **5046200019**
Received Date **Feb 26, 2020**

Client Sample ID			SS01	SS02	SS03	SS04
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36274	S20-Fe36275	S20-Fe36276	S20-Fe36277
Date Sampled			Feb 17, 2020	Feb 17, 2020	Feb 17, 2020	Feb 17, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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
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	%	99	80	89	87
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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
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

Client Sample ID			SS01	SS02	SS03	SS04
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36274	S20-Fe36275	S20-Fe36276	S20-Fe36277
Date Sampled			Feb 17, 2020	Feb 17, 2020	Feb 17, 2020	Feb 17, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	%	78	80	75	77
p-Terphenyl-d14 (surr.)	1	%	81	80	79	83
% Moisture	1	%	30	32	33	34
Heavy Metals						
Arsenic	2	mg/kg	3.8	3.5	3.8	2.6
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	18	17	19	23
Copper	5	mg/kg	18	16	16	18
Lead	5	mg/kg	21	18	18	21
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	5.9	5.9	5.9	6.2
Zinc	5	mg/kg	100	58	77	86
Pathogens						
E.coli	1	MPN/g	M15< 10	20	M15<10	M15<10
Thermotolerant Coliforms	1	MPN/g	< 10	20	< 10	< 10

Client Sample ID			SS05	SS06	SS07	SS08
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36278	S20-Fe36279	S20-Fe36280	S20-Fe36281
Date Sampled			Feb 17, 2020	Feb 17, 2020	Feb 17, 2020	Feb 17, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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
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	%	75	-	55	66

Client Sample ID			SS05	SS06	SS07	SS08
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36278	S20-Fe36279	S20-Fe36280	S20-Fe36281
Date Sampled			Feb 17, 2020	Feb 17, 2020	Feb 17, 2020	Feb 17, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	83	-	87	83
p-Terphenyl-d14 (surr.)	1	%	85	-	88	83
% Moisture	1	%	24	29	14	32
Heavy Metals						
Arsenic	2	mg/kg	2.3	2.1	2.5	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	17	18	16	12
Copper	5	mg/kg	9.1	12	7.9	12
Lead	5	mg/kg	15	17	14	14
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	26	49	20	38
Pathogens						
E.coli	1	MPN/g	M15<10	-	M15<10	M15<10
Thermotolerant Coliforms	1	MPN/g	< 10	-	10	< 10

Client Sample ID			SS09	BH01 0.0-0.1	BH02 0.0-0.1	SS10
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36282	S20-Fe36283	S20-Fe36284	S20-Fe36285
Date Sampled			Feb 17, 2020	Feb 17, 2020	Feb 17, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	-
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	73	77	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	83	92	84	-
p-Terphenyl-d14 (surr.)	1	%	101	91	92	-

Client Sample ID			SS09	BH01 0.0-0.1	BH02 0.0-0.1	SS10
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36282	S20-Fe36283	S20-Fe36284	S20-Fe36285
Date Sampled			Feb 17, 2020	Feb 17, 2020	Feb 17, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	< 0.1	-
4,4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05	-
4,4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05	-
4,4'-DDT	0.05	mg/kg	-	< 0.05	< 0.05	-
a-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
b-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
d-BHC	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-BHC (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	0.2	mg/kg	-	< 0.2	< 0.2	-
Toxaphene	1	mg/kg	-	< 1	< 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	-	< 0.2	< 0.2	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.2	< 0.2	-
Dibutylchloroendate (surr.)	1	%	-	62	60	-
Tetrachloro-m-xylene (surr.)	1	%	-	51	52	-
% Moisture	1	%	35	21	21	13
Heavy Metals						
Arsenic	2	mg/kg	2.8	11	5.8	14
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	13	11	< 5	25
Copper	5	mg/kg	19	17	< 5	37
Lead	5	mg/kg	18	29	21	58
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	6.2	< 5	< 5	11
Zinc	5	mg/kg	44	75	64	79
Pathogens						
E.coli	1	MPN/g	M15<10	-	-	-
Thermotolerant Coliforms	1	MPN/g	< 10	-	-	-

Client Sample ID			SS11 Soil S20-Fe36286 Feb 18, 2020	SS12 Soil S20-Fe36287 Feb 18, 2020	SS13 Soil S20-Fe36288 Feb 18, 2020	SS14 Soil S20-Fe36289 Feb 18, 2020
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	-	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	-	< 20
TRH C15-C28	50	mg/kg	230	< 50	-	< 50
TRH C29-C36	50	mg/kg	200	< 50	-	< 50
TRH C10-C36 (Total)	50	mg/kg	430	< 50	-	< 50
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	83	-	81
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	360	< 100	-	< 100
TRH >C34-C40	100	mg/kg	150	< 100	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	510	< 100	-	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	12	2.1	-	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	12	2.4	-	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	12	2.6	-	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	1.3	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	0.7	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	7.6	1.7	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	7.8	1.6	-	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	6.1	0.8	-	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	5.3	0.7	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	4.1	1.4	-	< 0.5
Chrysene	0.5	mg/kg	5.3	1.3	-	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	2.1	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	7.3	1.6	-	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	6.8	1.2	-	< 0.5
Naphthalene	0.5	mg/kg	0.5	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	2.4	0.7	-	< 0.5
Pyrene	0.5	mg/kg	8.2	1.9	-	< 0.5
Total PAH*	0.5	mg/kg	65.5	12.9	-	< 0.5
2-Fluorobiphenyl (surr.)	1	%	88	60	-	78
p-Terphenyl-d14 (surr.)	1	%	114	103	-	88

Client Sample ID			SS11 Soil S20-Fe36286 Feb 18, 2020	SS12 Soil S20-Fe36287 Feb 18, 2020	SS13 Soil S20-Fe36288 Feb 18, 2020	SS14 Soil S20-Fe36289 Feb 18, 2020
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2	< 0.2	-	< 0.2
Toxaphene	1	mg/kg	< 1	< 1	-	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	-	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	-	< 0.2
Dibutylchloredate (surr.)	1	%	62	73	-	83
Tetrachloro-m-xylene (surr.)	1	%	89	77	-	76
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Total PCB*	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibutylchloredate (surr.)	1	%	62	73	-	83
Tetrachloro-m-xylene (surr.)	1	%	89	77	-	76
% Moisture	1	%	15	18	14	19
Heavy Metals						
Arsenic	2	mg/kg	8.4	11	30	61
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	38	41	73	27
Copper	5	mg/kg	20	20	20	10.0
Lead	5	mg/kg	23	26	42	33
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	12	12	23	6.3
Zinc	5	mg/kg	50	47	37	19

Client Sample ID			SS15	SS16	DUP01	TP01 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36290	S20-Fe36291	S20-Fe36292	S20-Fe36293
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	-	-
TRH C10-C14	20	mg/kg	< 20	< 20	-	-
TRH C15-C28	50	mg/kg	110	150	-	-
TRH C29-C36	50	mg/kg	< 50	110	-	-
TRH C10-C36 (Total)	50	mg/kg	110	260	-	-
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	%	81	81	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	150	260	-	-
TRH >C34-C40	100	mg/kg	< 100	120	-	-
TRH >C10-C40 (total)*	100	mg/kg	150	380	-	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	4.8	7.2	-	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	4.8	7.2	-	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	4.8	7.2	-	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	0.9	-	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benz(a)anthracene	0.5	mg/kg	3.6	3.7	-	-
Benzo(a)pyrene	0.5	mg/kg	3.1	4.7	-	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	1.9	3.1	-	-
Benzo(g,h,i)perylene	0.5	mg/kg	1.2	4.0	-	-
Benzo(k)fluoranthene	0.5	mg/kg	2.9	3.9	-	-
Chrysene	0.5	mg/kg	2.6	2.9	-	-
Dibenz(a,h)anthracene	0.5	mg/kg	0.6	0.9	-	-
Fluoranthene	0.5	mg/kg	3.7	4.3	-	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	-
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	2.2	4.2	-	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	-
Phenanthrene	0.5	mg/kg	1.2	1.2	-	-
Pyrene	0.5	mg/kg	4.1	5.3	-	-
Total PAH*	0.5	mg/kg	27.1	39.1	-	-
2-Fluorobiphenyl (surr.)	1	%	80	93	-	-
p-Terphenyl-d14 (surr.)	1	%	103	84	-	-

Client Sample ID			SS15	SS16	DUP01	TP01 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36290	S20-Fe36291	S20-Fe36292	S20-Fe36293
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	-	-
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	-	-
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	-	-
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	-	-
a-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-
Aldrin	0.05	mg/kg	< 0.05	< 0.05	-	-
b-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-
d-BHC	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-BHC (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	0.2	mg/kg	< 0.2	< 0.2	-	-
Toxaphene	1	mg/kg	< 1	< 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	< 0.2	< 0.2	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	-	-
Dibutylchloredate (surr.)	1	%	73	99	-	-
Tetrachloro-m-xylene (surr.)	1	%	84	108	-	-
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	-	-
Dibutylchloredate (surr.)	1	%	73	99	-	-
Tetrachloro-m-xylene (surr.)	1	%	84	108	-	-
% Moisture	1	%	26	18	19	17
Heavy Metals						
Arsenic	2	mg/kg	15	9.3	8.7	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	-
Chromium	5	mg/kg	43	44	21	-
Copper	5	mg/kg	24	30	27	-
Lead	5	mg/kg	35	41	51	-
Mercury	0.1	mg/kg	< 0.1	0.1	< 0.1	-
Nickel	5	mg/kg	14	14	8.4	-
Zinc	5	mg/kg	70	66	66	-

Client Sample ID			SS15	SS16	DUP01	TP01 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36290	S20-Fe36291	S20-Fe36292	S20-Fe36293
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Pathogens						
E.coli	1	MPN/g	-	-	-	110
Thermotolerant Coliforms	1	MPN/g	-	-	-	390

Client Sample ID			TP01 0.4-0.5	TP01 0.9-1.0	TP02 0.0-0.1	TP03 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36294	S20-Fe36295	S20-Fe36296	S20-Fe36297
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	-
TRH C10-C14	20	mg/kg	< 20	26	< 20	-
TRH C15-C28	50	mg/kg	210	930	< 50	-
TRH C29-C36	50	mg/kg	160	400	< 50	-
TRH C10-C36 (Total)	50	mg/kg	370	1356	< 50	-
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	%	84	83	84	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	63	< 50	-
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	63	< 50	-
TRH >C16-C34	100	mg/kg	300	1300	< 100	-
TRH >C34-C40	100	mg/kg	110	310	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	410	1673	< 100	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	4.0	-	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	4.0	-	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	4.0	-	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	0.6	-	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	2.8	-	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	2.6	-	< 0.5	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	1.9	-	< 0.5	-
Benzo(g,h,i)perylene	0.5	mg/kg	1.5	-	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	2.1	-	< 0.5	-
Chrysene	0.5	mg/kg	2.3	-	< 0.5	-
Dibenz(a,h)anthracene	0.5	mg/kg	0.5	-	< 0.5	-
Fluoranthene	0.5	mg/kg	5.1	-	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	1.8	-	< 0.5	-

Client Sample ID			TP01 0.4-0.5	TP01 0.9-1.0	TP02 0.0-0.1	TP03 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36294	S20-Fe36295	S20-Fe36296	S20-Fe36297
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	-
Phenanthrene	0.5	mg/kg	2.7	-	< 0.5	-
Pyrene	0.5	mg/kg	5.3	-	< 0.5	-
Total PAH*	0.5	mg/kg	29.2	-	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	83	-	65	-
p-Terphenyl-d14 (surr.)	1	%	92	-	68	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2	-	< 0.2	< 0.2
Toxaphene	1	mg/kg	< 1	-	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2	-	< 0.2	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	-	< 0.2	< 0.2
Dibutylchloroendate (surr.)	1	%	123	-	71	114
Tetrachloro-m-xylene (surr.)	1	%	98	-	64	97
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Aroclor-1232	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Total PCB*	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibutylchloroendate (surr.)	1	%	123	-	71	114
Tetrachloro-m-xylene (surr.)	1	%	98	-	64	97
% Moisture	1	%	13	18	5.9	22

Client Sample ID			TP01 0.4-0.5	TP01 0.9-1.0	TP02 0.0-0.1	TP03 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36294	S20-Fe36295	S20-Fe36296	S20-Fe36297
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	16	-	15	-
Cadmium	0.4	mg/kg	< 0.4	-	< 0.4	-
Chromium	5	mg/kg	42	-	51	-
Copper	5	mg/kg	39	-	17	-
Lead	5	mg/kg	28	-	33	-
Mercury	0.1	mg/kg	< 0.1	-	< 0.1	-
Nickel	5	mg/kg	12	-	10	-
Zinc	5	mg/kg	71	-	35	-
Pathogens						
E.coli	1	MPN/g	-	-	M15<10	M15<10
Thermotolerant Coliforms	1	MPN/g	-	-	< 10	< 10

Client Sample ID			TP03 0.4-0.5	TP03 0.9-1.0	TP04 0.0-0.1	TP04 0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36298	S20-Fe36299	S20-Fe36300	S20-Fe36301
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	93	-	-	-
TRH C10-C36 (Total)	50	mg/kg	93	-	-	-
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	%	81	-	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	110	-	-	-
TRH >C34-C40	100	mg/kg	< 100	-	-	-
TRH >C10-C40 (total)*	100	mg/kg	110	-	-	-
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	-	-

Client Sample ID			TP03 0.4-0.5	TP03 0.9-1.0	TP04 0.0-0.1	TP04 0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36298	S20-Fe36299	S20-Fe36300	S20-Fe36301
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	%	67	71	-	-
p-Terphenyl-d14 (surr.)	1	%	76	60	-	-
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
α-BHC	0.05	mg/kg	-	-	-	< 0.05
Aldrin	0.05	mg/kg	-	-	-	< 0.05
β-BHC	0.05	mg/kg	-	-	-	< 0.05
δ-BHC	0.05	mg/kg	-	-	-	< 0.05
Dieldrin	0.05	mg/kg	-	-	-	< 0.05
Endosulfan I	0.05	mg/kg	-	-	-	< 0.05
Endosulfan II	0.05	mg/kg	-	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	-	< 0.05
Endrin	0.05	mg/kg	-	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	-	< 0.05
Endrin ketone	0.05	mg/kg	-	-	-	< 0.05
γ-BHC (Lindane)	0.05	mg/kg	-	-	-	< 0.05
Heptachlor	0.05	mg/kg	-	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	-	< 0.05
Methoxychlor	0.2	mg/kg	-	-	-	< 0.2
Toxaphene	1	mg/kg	-	-	-	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	-	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	-	< 0.2
Dibutylchloroendate (surr.)	1	%	-	-	-	89
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	109
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

Client Sample ID			TP03 0.4-0.5	TP03 0.9-1.0	TP04 0.0-0.1	TP04 0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36298	S20-Fe36299	S20-Fe36300	S20-Fe36301
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1254	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1260	0.5	mg/kg	-	-	-	< 0.5
Total PCB*	0.5	mg/kg	-	-	-	< 0.5
Dibutylchloroendate (surr.)	1	%	-	-	-	89
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	109
% Moisture	1	%	19	12	15	29
Heavy Metals						
Arsenic	2	mg/kg	14	8.0	13	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	-
Chromium	5	mg/kg	38	< 5	64	-
Copper	5	mg/kg	41	< 5	36	-
Lead	5	mg/kg	29	9.8	35	-
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Nickel	5	mg/kg	19	< 5	24	-
Zinc	5	mg/kg	100	7.5	77	-
Pathogens						
E.coli	1	MPN/g	-	-	M15<10	-
Thermotolerant Coliforms	1	MPN/g	-	-	< 10	-

Client Sample ID			TP04 1.3-1.4	TP04 1.8-1.9	DUP04	TP05 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36302	S20-Fe36303	S20-Fe36304	S20-Fe36305
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	84	-	-	-
TRH C10-C36 (Total)	50	mg/kg	84	-	-	-
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	%	81	-	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	-	-	-
TRH >C34-C40	100	mg/kg	< 100	-	-	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	-	-

Client Sample ID			TP04 1.3-1.4	TP04 1.8-1.9	DUP04	TP05 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36302	S20-Fe36303	S20-Fe36304	S20-Fe36305
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
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	-	-
Benzo(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	%	99	92	-	-
p-Terphenyl-d14 (surr.)	1	%	86	87	-	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	-	< 0.1
4,4'-DDD	0.05	mg/kg	-	-	-	< 0.05
4,4'-DDE	0.05	mg/kg	-	-	-	< 0.05
4,4'-DDT	0.05	mg/kg	-	-	-	< 0.05
a-BHC	0.05	mg/kg	-	-	-	< 0.05
Aldrin	0.05	mg/kg	-	-	-	< 0.05
b-BHC	0.05	mg/kg	-	-	-	< 0.05
d-BHC	0.05	mg/kg	-	-	-	< 0.05
Dieldrin	0.05	mg/kg	-	-	-	< 0.05
Endosulfan I	0.05	mg/kg	-	-	-	< 0.05
Endosulfan II	0.05	mg/kg	-	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	-	< 0.05
Endrin	0.05	mg/kg	-	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	-	< 0.05
Endrin ketone	0.05	mg/kg	-	-	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	-	-	< 0.05
Heptachlor	0.05	mg/kg	-	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	-	< 0.05
Methoxychlor	0.2	mg/kg	-	-	-	< 0.2
Toxaphene	1	mg/kg	-	-	-	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	-	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	-	< 0.2
Dibutylchloroendate (surr.)	1	%	-	-	-	108
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	91

Client Sample ID			TP04 1.3-1.4 Soil	TP04 1.8-1.9 Soil	DUP04 Soil	TP05 0.0-0.1 Soil
Sample Matrix			S20-Fe36302	S20-Fe36303	S20-Fe36304	S20-Fe36305
Eurofins Sample No.			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Date Sampled						
Test/Reference	LOR	Unit				
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
Dibutylchlorodenate (surr.)	1	%	-	-	-	108
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	91
% Moisture	1	%	17	15	13	23
Heavy Metals						
Arsenic	2	mg/kg	-	36	13	-
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4	-
Chromium	5	mg/kg	-	23	54	-
Copper	5	mg/kg	-	< 5	41	-
Lead	5	mg/kg	-	24	22	-
Mercury	0.1	mg/kg	-	< 0.1	< 0.1	-
Nickel	5	mg/kg	-	< 5	19	-
Zinc	5	mg/kg	-	18	91	-
Pathogens						
E.coli	1	MPN/g	-	-	-	M15<10
Thermotolerant Coliforms	1	MPN/g	-	-	-	52

Client Sample ID			TP05 0.4-0.5 Soil	TP06 0.0-0.1 Soil	TP07 0.0-0.1 Soil	TP07 0.9-1.0 Soil
Sample Matrix			S20-Fe36306	S20-Fe36307	S20-Fe36308	S20-Fe36309
Eurofins Sample No.			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Date Sampled						
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	-
TRH C10-C14	20	mg/kg	< 20	< 20	22	-
TRH C15-C28	50	mg/kg	< 50	53	73	-
TRH C29-C36	50	mg/kg	< 50	110	150	-
TRH C10-C36 (Total)	50	mg/kg	< 50	163	245	-
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	%	105	81	99	-

Client Sample ID			TP05 0.4-0.5 Soil S20-Fe36306 Feb 18, 2020	TP06 0.0-0.1 Soil S20-Fe36307 Feb 18, 2020	TP07 0.0-0.1 Soil S20-Fe36308 Feb 18, 2020	TP07 0.9-1.0 Soil S20-Fe36309 Feb 18, 2020
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	140	200	-
TRH >C34-C40	100	mg/kg	< 100	< 100	140	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	140	340	-
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	%	89	92	99	92
p-Terphenyl-d14 (surr.)	1	%	82	89	94	91
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	-
α-BHC	0.05	mg/kg	-	-	< 0.05	-
Aldrin	0.05	mg/kg	-	-	< 0.05	-
β-BHC	0.05	mg/kg	-	-	< 0.05	-
δ-BHC	0.05	mg/kg	-	-	< 0.05	-
Dieldrin	0.05	mg/kg	-	-	< 0.05	-
Endosulfan I	0.05	mg/kg	-	-	< 0.05	-
Endosulfan II	0.05	mg/kg	-	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	-	-	< 0.05	-
Endrin	0.05	mg/kg	-	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	-	-	< 0.05	-
Endrin ketone	0.05	mg/kg	-	-	< 0.05	-
γ-BHC (Lindane)	0.05	mg/kg	-	-	< 0.05	-
Heptachlor	0.05	mg/kg	-	-	< 0.05	-

Client Sample ID			TP05 0.4-0.5	TP06 0.0-0.1	TP07 0.0-0.1	TP07 0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36306	S20-Fe36307	S20-Fe36308	S20-Fe36309
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Heptachlor epoxide	0.05	mg/kg	-	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.05	-
Methoxychlor	0.2	mg/kg	-	-	< 0.2	-
Toxaphene	1	mg/kg	-	-	< 1	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	< 0.2	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	< 0.2	-
Dibutylchloroendate (surr.)	1	%	-	-	120	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	92	-
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	-
Dibutylchloroendate (surr.)	1	%	-	-	120	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	92	-
% Moisture	1	%	9.0	20	19	19
Heavy Metals						
Arsenic	2	mg/kg	2.6	12	9.8	10
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	< 5	23	21	41
Copper	5	mg/kg	5.4	48	66	25
Lead	5	mg/kg	5.9	17	21	26
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	11	12	14
Zinc	5	mg/kg	20	99	140	68
Pathogens						
E.coli	1	MPN/g	-	10	M15< 10	-
Thermotolerant Coliforms	1	MPN/g	-	20	< 10	-

Client Sample ID			TP08 0.1-0.3	TP09 0.1-0.3	TP10 0.1-0.3	TP11 0.1-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36310	S20-Fe36351	S20-Fe36352	S20-Fe36353
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	56	< 50	76	130
TRH C29-C36	50	mg/kg	140	70	220	280
TRH C10-C36 (Total)	50	mg/kg	196	70	296	410

Client Sample ID			TP08 0.1-0.3 Soil S20-Fe36310 Feb 18, 2020	TP09 0.1-0.3 Soil S20-Fe36351 Feb 18, 2020	TP10 0.1-0.3 Soil S20-Fe36352 Feb 18, 2020	TP11 0.1-0.3 Soil S20-Fe36353 Feb 18, 2020
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
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	%	88	76	97	89
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	160	< 100	290	340
TRH >C34-C40	100	mg/kg	< 100	< 100	120	< 100
TRH >C10-C40 (total)*	100	mg/kg	160	< 100	410	340
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	%	85	68	84	94
p-Terphenyl-d14 (surr.)	1	%	89	103	108	126
% Moisture	1	%	23	19	14	21
Heavy Metals						
Arsenic	2	mg/kg	28	9.9	9.5	27
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	6.9	9.6	5.5	14
Copper	5	mg/kg	15	6.9	22	37
Lead	5	mg/kg	20	18	23	29
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5	7.8
Zinc	5	mg/kg	54	22	78	180

Client Sample ID			TP08 0.1-0.3	TP09 0.1-0.3	TP10 0.1-0.3	TP11 0.1-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36310	S20-Fe36351	S20-Fe36352	S20-Fe36353
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Pathogens						
E.coli	1	MPN/g	10	210	450	10
Thermotolerant Coliforms	1	MPN/g	10	360	470	63

Client Sample ID			TP12 0.0-0.1	TP12 1.4-1.5	TP13 0.0-0.1	TP13 0.5-0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36354	S20-Fe36355	S20-Fe36356	S20-Fe36357
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	-	58	-	-
TRH C10-C36 (Total)	50	mg/kg	-	58	-	-
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	%	-	74	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	-	-
TRH >C34-C40	100	mg/kg	-	< 100	-	-
TRH >C10-C40 (total)*	100	mg/kg	-	< 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

Client Sample ID			TP12 0.0-0.1	TP12 1.4-1.5	TP13 0.0-0.1	TP13 0.5-0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36354	S20-Fe36355	S20-Fe36356	S20-Fe36357
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	%	65	-	-	69
p-Terphenyl-d14 (surr.)	1	%	79	-	-	79
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-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
Aldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
b-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
d-BHC	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-BHC (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	0.2	mg/kg	< 0.2	-	-	< 0.2
Toxaphene	1	mg/kg	< 1	-	-	< 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	< 0.2	-	-	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	-	-	< 0.2
Dibutylchloroendate (surr.)	1	%	96	-	-	114
Tetrachloro-m-xylene (surr.)	1	%	94	-	-	100
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
Dibutylchloroendate (surr.)	1	%	96	-	-	114
Tetrachloro-m-xylene (surr.)	1	%	94	-	-	100
% Moisture	1	%	22	19	12	18

Client Sample ID			TP12 0.0-0.1	TP12 1.4-1.5	TP13 0.0-0.1	TP13 0.5-0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36354	S20-Fe36355	S20-Fe36356	S20-Fe36357
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	10	-	-	14
Cadmium	0.4	mg/kg	< 0.4	-	-	< 0.4
Chromium	5	mg/kg	31	-	-	28
Copper	5	mg/kg	37	-	-	29
Lead	5	mg/kg	18	-	-	26
Mercury	0.1	mg/kg	< 0.1	-	-	< 0.1
Nickel	5	mg/kg	11	-	-	12
Zinc	5	mg/kg	46	-	-	81
Pathogens						
E.coli	1	MPN/g	M15< 10	-	M15< 10	-
Thermotolerant Coliforms	1	MPN/g	52	-	< 10	-

Client Sample ID			TP13 1.5-1.6	DUP06	TP14 0.0-0.1	TP14 0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36358	S20-Fe36359	S20-Fe36360	S20-Fe36361
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	-	-	120
TRH C10-C36 (Total)	50	mg/kg	< 50	-	-	120
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	%	83	-	-	72
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	-	-	150
TRH >C34-C40	100	mg/kg	< 100	-	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	-	150
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	-	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	-	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5

Client Sample ID			TP13 1.5-1.6	DUP06	TP14 0.0-0.1	TP14 0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36358	S20-Fe36359	S20-Fe36360	S20-Fe36361
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
2-Fluorobiphenyl (surr.)	1	%	74	87	-	80
p-Terphenyl-d14 (surr.)	1	%	102	81	-	110
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	-	-
α-BHC	0.05	mg/kg	-	< 0.05	-	-
Aldrin	0.05	mg/kg	-	< 0.05	-	-
β-BHC	0.05	mg/kg	-	< 0.05	-	-
δ-BHC	0.05	mg/kg	-	< 0.05	-	-
Dieldrin	0.05	mg/kg	-	< 0.05	-	-
Endosulfan I	0.05	mg/kg	-	< 0.05	-	-
Endosulfan II	0.05	mg/kg	-	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	-
Endrin	0.05	mg/kg	-	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	-
Endrin ketone	0.05	mg/kg	-	< 0.05	-	-
γ-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	-
Heptachlor	0.05	mg/kg	-	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	-
Methoxychlor	0.2	mg/kg	-	< 0.2	-	-
Toxaphene	1	mg/kg	-	< 1	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.2	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.2	-	-
Dibutylchloroendate (surr.)	1	%	-	94	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	100	-	-
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	-	-

Client Sample ID			TP13 1.5-1.6	DUP06	TP14 0.0-0.1	TP14 0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36358	S20-Fe36359	S20-Fe36360	S20-Fe36361
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1254	0.5	mg/kg	-	< 0.5	-	-
Aroclor-1260	0.5	mg/kg	-	< 0.5	-	-
Total PCB*	0.5	mg/kg	-	< 0.5	-	-
Dibutylchloroendate (surr.)	1	%	-	94	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	100	-	-
% Moisture	1	%	11	16	17	18
Heavy Metals						
Arsenic	2	mg/kg	10	12	-	6.3
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-	< 0.4
Chromium	5	mg/kg	45	22	-	26
Copper	5	mg/kg	32	33	-	31
Lead	5	mg/kg	31	21	-	13
Mercury	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Nickel	5	mg/kg	25	12	-	11
Zinc	5	mg/kg	46	66	-	67
Pathogens						
E.coli	1	MPN/g	-	-	M15 < 10	-
Thermotolerant Coliforms	1	MPN/g	-	-	< 10	-

Client Sample ID			TP14 1.9-2.0	TP15 0.0-0.1	TP15 1.4-1.5	TP16 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36362	S20-Fe36363	S20-Fe36364	S20-Fe36365
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	-
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	%	-	-	74	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	-
TRH >C34-C40	100	mg/kg	-	-	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	-	-	< 100	-

Client Sample ID			TP14 1.9-2.0	TP15 0.0-0.1	TP15 1.4-1.5	TP16 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36362	S20-Fe36363	S20-Fe36364	S20-Fe36365
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
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	%	-	-	80	-
p-Terphenyl-d14 (surr.)	1	%	-	-	105	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
α-BHC	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
β-BHC	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
δ-BHC	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
γ-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2	< 0.2	-	< 0.2
Toxaphene	1	mg/kg	< 1	< 1	-	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	-	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	-	< 0.2
Dibutylchloroendate (surr.)	1	%	102	97	-	103
Tetrachloro-m-xylene (surr.)	1	%	105	110	-	114

Client Sample ID			TP14 1.9-2.0	TP15 0.0-0.1	TP15 1.4-1.5	TP16 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36362	S20-Fe36363	S20-Fe36364	S20-Fe36365
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 18, 2020	Feb 18, 2020
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Total PCB*	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibutylchlorodenate (surr.)	1	%	102	97	-	103
Tetrachloro-m-xylene (surr.)	1	%	105	110	-	114
% Moisture	1	%	17	21	37	24
Heavy Metals						
Arsenic	2	mg/kg	-	-	7.7	-
Cadmium	0.4	mg/kg	-	-	< 0.4	-
Chromium	5	mg/kg	-	-	16	-
Copper	5	mg/kg	-	-	40	-
Lead	5	mg/kg	-	-	16	-
Mercury	0.1	mg/kg	-	-	< 0.1	-
Nickel	5	mg/kg	-	-	8.5	-
Zinc	5	mg/kg	-	-	88	-
Pathogens						
E.coli	1	MPN/g	-	20	-	30
Thermotolerant Coliforms	1	MPN/g	-	62	-	74

Client Sample ID			TP16 0.4-0.5	TP16 1.9-2.0	TP17 0.0-0.1	TP18 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36366	S20-Fe36367	S20-Fe36368	S20-Fe36369
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	66	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	66	< 50	< 50
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	%	70	82	85	87

Client Sample ID			TP16 0.4-0.5 Soil S20-Fe36366 Feb 18, 2020	TP16 1.9-2.0 Soil S20-Fe36367 Feb 18, 2020	TP17 0.0-0.1 Soil S20-Fe36368 Feb 19, 2020	TP18 0.0-0.1 Soil S20-Fe36369 Feb 19, 2020
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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
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	%	52	59	57	64
p-Terphenyl-d14 (surr.)	1	%	80	86	74	73
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
α-BHC	0.05	mg/kg	-	-	< 0.05	< 0.05
Aldrin	0.05	mg/kg	-	-	< 0.05	< 0.05
β-BHC	0.05	mg/kg	-	-	< 0.05	< 0.05
δ-BHC	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
γ-BHC (Lindane)	0.05	mg/kg	-	-	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	-	-	< 0.05	< 0.05

Client Sample ID			TP16 0.4-0.5	TP16 1.9-2.0	TP17 0.0-0.1	TP18 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36366	S20-Fe36367	S20-Fe36368	S20-Fe36369
Date Sampled			Feb 18, 2020	Feb 18, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Heptachlor epoxide	0.05	mg/kg	-	-	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.05	< 0.05
Methoxychlor	0.2	mg/kg	-	-	< 0.2	< 0.2
Toxaphene	1	mg/kg	-	-	< 1	< 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	-	-	< 0.2	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	< 0.2	< 0.2
Dibutylchloroendate (surr.)	1	%	-	-	87	82
Tetrachloro-m-xylene (surr.)	1	%	-	-	92	99
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
Dibutylchloroendate (surr.)	1	%	-	-	87	82
Tetrachloro-m-xylene (surr.)	1	%	-	-	92	99
% Moisture	1	%	41	17	7.5	7.4
Heavy Metals						
Arsenic	2	mg/kg	11	13	4.9	8.2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	31	33	< 5	5.4
Copper	5	mg/kg	52	59	< 5	< 5
Lead	5	mg/kg	21	34	11	12
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	16	12	< 5	< 5
Zinc	5	mg/kg	150	81	14	9.5
Pathogens						
E.coli	1	MPN/g	-	-	M15< 10	M15< 10
Thermotolerant Coliforms	1	MPN/g	-	-	300	110

Client Sample ID			TP18 0.4-0.5	TP19 0.0-0.1	TP19 0.3-0.4	TP20 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36370	S20-Fe36371	S20-Fe36372	S20-Fe36373
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	-	-

Client Sample ID			TP18 0.4-0.5	TP19 0.0-0.1	TP19 0.3-0.4	TP20 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36370	S20-Fe36371	S20-Fe36372	S20-Fe36373
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	-	-
Toluene	0.1	mg/kg	-	< 0.1	-	-
Ethylbenzene	0.1	mg/kg	-	< 0.1	-	-
m&p-Xylenes	0.2	mg/kg	-	< 0.2	-	-
o-Xylene	0.1	mg/kg	-	< 0.1	-	-
Xylenes - Total	0.3	mg/kg	-	< 0.3	-	-
4-Bromofluorobenzene (surr.)	1	%	-	87	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	-	-
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	%	55	-	81	-
p-Terphenyl-d14 (surr.)	1	%	102	-	109	-
% Moisture	1	%	17	12	9.8	7.1
Heavy Metals						
Arsenic	2	mg/kg	5.8	-	5.5	-
Cadmium	0.4	mg/kg	< 0.4	-	< 0.4	-
Chromium	5	mg/kg	8.7	-	6.4	-
Copper	5	mg/kg	6.3	-	< 5	-
Lead	5	mg/kg	12	-	10	-
Mercury	0.1	mg/kg	< 0.1	-	< 0.1	-
Nickel	5	mg/kg	< 5	-	< 5	-
Zinc	5	mg/kg	21	-	17	-

Client Sample ID			TP18 0.4-0.5	TP19 0.0-0.1	TP19 0.3-0.4	TP20 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36370	S20-Fe36371	S20-Fe36372	S20-Fe36373
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Pathogens						
E.coli	1	MPN/g	-	M15< 10	-	M15< 10
Thermotolerant Coliforms	1	MPN/g	-	< 10	-	500

Client Sample ID			TP20 0.4-0.5	TP21 0.0-0.1	TP22 0.0-0.1	TP23 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36374	S20-Fe36375	S20-Fe36376	S20-Fe36377
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	75	84	77
TRH C10-C36 (Total)	50	mg/kg	< 50	75	84	77
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	%	82	111	138	68
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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
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

Client Sample ID			TP20 0.4-0.5	TP21 0.0-0.1	TP22 0.0-0.1	TP23 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36374	S20-Fe36375	S20-Fe36376	S20-Fe36377
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	%	94	91	90	90
p-Terphenyl-d14 (surr.)	1	%	89	81	82	82
% Moisture	1	%	12	30	16	34
Heavy Metals						
Arsenic	2	mg/kg	5.9	5.6	8.0	4.7
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	13	6.8	5.8	< 5
Copper	5	mg/kg	< 5	17	9.3	21
Lead	5	mg/kg	15	17	17	14
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	7.9	< 5	< 5
Zinc	5	mg/kg	14	30	19	40
Pathogens						
E.coli	1	MPN/g	-	540	M15< 10	M15< 10
Thermotolerant Coliforms	1	MPN/g	-	>24000	31	2000

Client Sample ID			TP24 0.0-0.1	TP25 0.0-0.1	TP26 0.0-0.1	TP26 0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36378	S20-Fe36379	S20-Fe36380	S20-Fe36381
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	56	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	56	< 50	< 50
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	%	83	78	83	80
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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

Client Sample ID			TP24 0.0-0.1	TP25 0.0-0.1	TP26 0.0-0.1	TP26 0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36378	S20-Fe36379	S20-Fe36380	S20-Fe36381
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	96	88	90	-
p-Terphenyl-d14 (surr.)	1	%	86	78	79	-
% Moisture	1	%	18	16	4.9	9.6
Heavy Metals						
Arsenic	2	mg/kg	8.9	5.7	21	4.7
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	7.9	7.4	6.6	5.3
Copper	5	mg/kg	11	5.2	< 5	< 5
Lead	5	mg/kg	17	12	14	7.8
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	32	14	5.7	6.0
Pathogens						
E.coli	1	MPN/g	M01< 10	M15< 10	M15< 10	-
Thermotolerant Coliforms	1	MPN/g	< 10	10	< 10	-

Client Sample ID			TP27 0.0-0.1	TP27 0.5-0.6	TP27 0.7-0.8	DUP10
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36382	S20-Fe36383	S20-Fe36384	S20-Fe36385
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	-	-
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	%	-	94	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	-	-
TRH >C34-C40	100	mg/kg	-	< 100	-	-
TRH >C10-C40 (total)*	100	mg/kg	-	< 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	%	-	113	61	-
p-Terphenyl-d14 (surr.)	1	%	-	102	128	-

Client Sample ID			TP27 0.0-0.1	TP27 0.5-0.6	TP27 0.7-0.8	DUP10
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36382	S20-Fe36383	S20-Fe36384	S20-Fe36385
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	-
4,4'-DDD	0.05	mg/kg	< 0.05	-	-	-
4,4'-DDE	0.05	mg/kg	< 0.05	-	-	-
4,4'-DDT	0.05	mg/kg	< 0.05	-	-	-
a-BHC	0.05	mg/kg	< 0.05	-	-	-
Aldrin	0.05	mg/kg	< 0.05	-	-	-
b-BHC	0.05	mg/kg	< 0.05	-	-	-
d-BHC	0.05	mg/kg	< 0.05	-	-	-
Dieldrin	0.05	mg/kg	< 0.05	-	-	-
Endosulfan I	0.05	mg/kg	< 0.05	-	-	-
Endosulfan II	0.05	mg/kg	< 0.05	-	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	-
Endrin	0.05	mg/kg	< 0.05	-	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	-
Endrin ketone	0.05	mg/kg	< 0.05	-	-	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	-
Heptachlor	0.05	mg/kg	< 0.05	-	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	-
Methoxychlor	0.2	mg/kg	< 0.2	-	-	-
Toxaphene	1	mg/kg	< 1	-	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2	-	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	-	-	-
Dibutylchloroendate (surr.)	1	%	82	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	97	-	-	-
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	-	-	-
Dibutylchloroendate (surr.)	1	%	82	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	97	-	-	-
% Moisture	1	%	11	13	13	7.4
Heavy Metals						
Arsenic	2	mg/kg	-	5.6	10	7.2
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	-	5.3	7.1	12
Copper	5	mg/kg	-	< 5	< 5	< 5
Lead	5	mg/kg	-	8.6	8.1	15
Mercury	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	-	< 5	< 5	< 5
Zinc	5	mg/kg	-	9.1	< 5	12

Client Sample ID			TP27 0.0-0.1	TP27 0.5-0.6	TP27 0.7-0.8	DUP10
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36382	S20-Fe36383	S20-Fe36384	S20-Fe36385
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Pathogens						
E.coli	1	MPN/g	10	-	-	-
Thermotolerant Coliforms	1	MPN/g	10	-	-	-

Client Sample ID			TP28 0.0-1	TP29 0.0-0.1	TP29 0.3-0.4	TP30 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36463	S20-Fe36464	S20-Fe36465	S20-Fe36466
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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
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	%	91	-	91	85
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5

Client Sample ID			TP28 0.0-1 Soil S20-Fe36463 Feb 19, 2020	TP29 0.0-0.1 Soil S20-Fe36464 Feb 19, 2020	TP29 0.3-0.4 Soil S20-Fe36465 Feb 19, 2020	TP30 0.0-0.1 Soil S20-Fe36466 Feb 19, 2020
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	52	-	INT	104
p-Terphenyl-d14 (surr.)	1	%	66	-	91	65
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	-
4,4'-DDD	0.05	mg/kg	< 0.05	-	-	-
4,4'-DDE	0.05	mg/kg	< 0.05	-	-	-
4,4'-DDT	0.05	mg/kg	< 0.05	-	-	-
a-BHC	0.05	mg/kg	< 0.05	-	-	-
Aldrin	0.05	mg/kg	< 0.05	-	-	-
b-BHC	0.05	mg/kg	< 0.05	-	-	-
d-BHC	0.05	mg/kg	< 0.05	-	-	-
Dieldrin	0.05	mg/kg	< 0.05	-	-	-
Endosulfan I	0.05	mg/kg	< 0.05	-	-	-
Endosulfan II	0.05	mg/kg	< 0.05	-	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	-
Endrin	0.05	mg/kg	< 0.05	-	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	-
Endrin ketone	0.05	mg/kg	< 0.05	-	-	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	-
Heptachlor	0.05	mg/kg	< 0.05	-	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	-
Methoxychlor	0.2	mg/kg	< 0.2	-	-	-
Toxaphene	1	mg/kg	< 1	-	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2	-	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	-	-	-
Dibutylchloroendate (surr.)	1	%	72	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	88	-	-	-
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	-	-	-
Dibutylchloroendate (surr.)	1	%	72	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	88	-	-	-
% Moisture	1	%	6.5	13	9.7	15

Client Sample ID			TP28 0.0-1	TP29 0.0-0.1	TP29 0.3-0.4	TP30 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36463	S20-Fe36464	S20-Fe36465	S20-Fe36466
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	6.3	-	7.3	3.9
Cadmium	0.4	mg/kg	< 0.4	-	< 0.4	< 0.4
Chromium	5	mg/kg	19	-	7.6	< 5
Copper	5	mg/kg	5.1	-	< 5	< 5
Lead	5	mg/kg	19	-	12	6.5
Mercury	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	-	< 5	< 5
Zinc	5	mg/kg	12	-	5.2	5.6
Pathogens						
E.coli	1	MPN/g	190	M15< 10	-	M15< 10
Thermotolerant Coliforms	1	MPN/g	190	< 10	-	540

Client Sample ID			TP31 0.0-0.1	TP32 0.0-0.1	TP33 0.0-0.1	TP34 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36467	S20-Fe36468	S20-Fe36469	S20-Fe36470
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	-
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	%	82	80	88	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	-
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

Client Sample ID			TP31 0.0-0.1	TP32 0.0-0.1	TP33 0.0-0.1	TP34 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36467	S20-Fe36468	S20-Fe36469	S20-Fe36470
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	%	76	79	86	44
p-Terphenyl-d14 (surr.)	1	%	99	122	76	90
% Moisture	1	%	10	17	17	11
Heavy Metals						
Arsenic	2	mg/kg	7.3	8.9	9.8	8.4
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	14	11	11	11
Copper	5	mg/kg	8.6	8.6	5.7	5.6
Lead	5	mg/kg	18	15	17	18
Mercury	0.1	mg/kg	0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	5.1	< 5	< 5	< 5
Zinc	5	mg/kg	16	15	9.3	9.8
Pathogens						
E.coli	1	MPN/g	^{M15} < 10	110	10	^{M15} < 10
Thermotolerant Coliforms	1	MPN/g	120	1100	41	86

Client Sample ID			TP34 0.4-0.5	TP35 0.0-0.1	TP36 0.0-0.1	TP36 0.6-0.7
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36471	S20-Fe36472	S20-Fe36473	S20-Fe36474
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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
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	%	129	55	-	126

Client Sample ID			TP34 0.4-0.5	TP35 0.0-0.1	TP36 0.0-0.1	TP36 0.6-0.7
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36471	S20-Fe36472	S20-Fe36473	S20-Fe36474
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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
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	%	-	91	-	77
p-Terphenyl-d14 (surr.)	1	%	-	86	-	75
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
α-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
β-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
δ-BHC	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
γ-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05	-	< 0.05

Client Sample ID			TP34 0.4-0.5	TP35 0.0-0.1	TP36 0.0-0.1	TP36 0.6-0.7
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36471	S20-Fe36472	S20-Fe36473	S20-Fe36474
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	< 0.05
Methoxychlor	0.2	mg/kg	-	< 0.2	-	< 0.2
Toxaphene	1	mg/kg	-	< 1	-	< 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	-	< 0.2	-	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.2	-	< 0.2
Dibutylchloroendate (surr.)	1	%	-	89	-	68
Tetrachloro-m-xylene (surr.)	1	%	-	89	-	76
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
Dibutylchloroendate (surr.)	1	%	-	89	-	68
Tetrachloro-m-xylene (surr.)	1	%	-	89	-	76
% Moisture	1	%	11	3.2	4.7	10
Heavy Metals						
Arsenic	2	mg/kg	-	7.0	-	6.2
Cadmium	0.4	mg/kg	-	< 0.4	-	< 0.4
Chromium	5	mg/kg	-	7.1	-	11
Copper	5	mg/kg	-	< 5	-	5.2
Lead	5	mg/kg	-	8.9	-	15
Mercury	0.1	mg/kg	-	< 0.1	-	< 0.1
Nickel	5	mg/kg	-	< 5	-	< 5
Zinc	5	mg/kg	-	6.2	-	7.0
Pathogens						
E.coli	1	MPN/g	-	M15< 10	M15< 10	-
Thermotolerant Coliforms	1	MPN/g	-	20	< 10	-

Client Sample ID			TP37 0.0-0.1	TP37 0.9-1.0	TP38 0.0-0.1	TP39 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36475	S20-Fe36476	S20-Fe36477	S20-Fe36478
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	-

Client Sample ID			TP37 0.0-0.1	TP37 0.9-1.0	TP38 0.0-0.1	TP39 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36475	S20-Fe36476	S20-Fe36477	S20-Fe36478
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
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	%	81	76	79	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	-
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	%	99	-	98	-
p-Terphenyl-d14 (surr.)	1	%	81	-	79	-
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-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
b-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
d-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.05	-	< 0.05	-

Client Sample ID			TP37 0.0-0.1	TP37 0.9-1.0	TP38 0.0-0.1	TP39 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36475	S20-Fe36476	S20-Fe36477	S20-Fe36478
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
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-BHC (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	0.2	mg/kg	< 0.2	-	< 0.2	-
Toxaphene	1	mg/kg	< 1	-	< 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	< 0.2	-	< 0.2	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	-	< 0.2	-
Dibutylchloredate (surr.)	1	%	74	-	56	-
Tetrachloro-m-xylene (surr.)	1	%	86	-	86	-
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	-
Dibutylchloredate (surr.)	1	%	74	-	56	-
Tetrachloro-m-xylene (surr.)	1	%	86	-	86	-
% Moisture	1	%	7.4	9.9	11	8.9
Heavy Metals						
Arsenic	2	mg/kg	50	29	7.1	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	-
Chromium	5	mg/kg	23	18	13	-
Copper	5	mg/kg	13	8.0	6.5	-
Lead	5	mg/kg	22	16	15	-
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Nickel	5	mg/kg	6.0	5.3	< 5	-
Zinc	5	mg/kg	17	14	12	-
Pathogens						
E.coli	1	MPN/g	M15< 10	-	4900	M15< 10
Thermotolerant Coliforms	1	MPN/g	< 10	-	4900	< 10

Client Sample ID			TP39 0.5-0.6	TP39 1.7-1.8	TP40 0.0-0.1	TP40 0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36479	S20-Fe36480	S20-Fe36481	S20-Fe36482
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	-	-	-
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	%	107	-	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	-	-	-
TRH >C34-C40	100	mg/kg	< 100	-	-	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	-	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	-	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	-	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
2-Fluorobiphenyl (surr.)	1	%	68	79	-	90
p-Terphenyl-d14 (surr.)	1	%	72	81	-	75

Client Sample ID			TP39 0.5-0.6	TP39 1.7-1.8	TP40 0.0-0.1	TP40 0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36479	S20-Fe36480	S20-Fe36481	S20-Fe36482
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	-
4,4'-DDD	0.05	mg/kg	< 0.05	-	-	-
4,4'-DDE	0.05	mg/kg	< 0.05	-	-	-
4,4'-DDT	0.05	mg/kg	< 0.05	-	-	-
a-BHC	0.05	mg/kg	< 0.05	-	-	-
Aldrin	0.05	mg/kg	< 0.05	-	-	-
b-BHC	0.05	mg/kg	< 0.05	-	-	-
d-BHC	0.05	mg/kg	< 0.05	-	-	-
Dieldrin	0.05	mg/kg	< 0.05	-	-	-
Endosulfan I	0.05	mg/kg	< 0.05	-	-	-
Endosulfan II	0.05	mg/kg	< 0.05	-	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	-
Endrin	0.05	mg/kg	< 0.05	-	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	-
Endrin ketone	0.05	mg/kg	< 0.05	-	-	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	-
Heptachlor	0.05	mg/kg	< 0.05	-	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	-
Methoxychlor	0.2	mg/kg	< 0.2	-	-	-
Toxaphene	1	mg/kg	< 1	-	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2	-	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	-	-	-
Dibutylchloroendate (surr.)	1	%	107	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	80	-	-	-
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	-	-	-
Dibutylchloroendate (surr.)	1	%	107	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	80	-	-	-
% Moisture	1	%	3.0	7.6	5.8	8.0
Heavy Metals						
Arsenic	2	mg/kg	5.2	12	-	12
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-	< 0.4
Chromium	5	mg/kg	14	19	-	29
Copper	5	mg/kg	6.0	8.1	-	24
Lead	5	mg/kg	10.0	17	-	24
Mercury	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Nickel	5	mg/kg	< 5	< 5	-	15
Zinc	5	mg/kg	15	14	-	46

Client Sample ID			TP39 0.5-0.6	TP39 1.7-1.8	TP40 0.0-0.1	TP40 0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36479	S20-Fe36480	S20-Fe36481	S20-Fe36482
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Pathogens						
E.coli	1	MPN/g	-	-	M15 < 10	-
Thermotolerant Coliforms	1	MPN/g	-	-	< 10	-

Client Sample ID			DUP13	SS17	SS18	SS19
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36483	S20-Fe36484	S20-Fe36485	S20-Fe36486
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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
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	%	-	80	-	79
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	-	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	-	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(b,j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5

Client Sample ID			DUP13	SS17	SS18	SS19
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36483	S20-Fe36484	S20-Fe36485	S20-Fe36486
Date Sampled			Feb 19, 2020	Feb 19, 2020	Feb 19, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
2-Fluorobiphenyl (surr.)	1	%	105	96	-	109
p-Terphenyl-d14 (surr.)	1	%	72	88	-	101
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-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
b-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
d-BHC	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-BHC (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	0.2	mg/kg	-	< 0.2	-	< 0.2
Toxaphene	1	mg/kg	-	< 1	-	< 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	-	< 0.2	-	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.2	-	< 0.2
Dibutylchloroendate (surr.)	1	%	-	68	-	87
Tetrachloro-m-xylene (surr.)	1	%	-	77	-	91
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
Dibutylchloroendate (surr.)	1	%	-	68	-	87
Tetrachloro-m-xylene (surr.)	1	%	-	77	-	91
% Moisture	1	%	11	10	14	16

Client Sample ID			DUP13 Soil S20-Fe36483 Feb 19, 2020	SS17 Soil S20-Fe36484 Feb 19, 2020	SS18 Soil S20-Fe36485 Feb 19, 2020	SS19 Soil S20-Fe36486 Feb 19, 2020
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	12	6.9	6.6	8.0
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	27	28	25	36
Copper	5	mg/kg	26	9.2	8.9	21
Lead	5	mg/kg	25	36	27	25
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	16	6.7	< 5	19
Zinc	5	mg/kg	54	16	15	41

Client Sample ID			SS20 Soil S20-Fe36487 Feb 19, 2020	TP41 0.1-0.3 Soil S20-Fe36488 Feb 20, 2020	TP42 0.1-0.3 Soil S20-Fe36489 Feb 20, 2020	TP43 0.1-0.3 Soil S20-Fe36490 Feb 20, 2020
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	57	< 20	62
TRH C15-C28	50	mg/kg	< 50	390	< 50	320
TRH C29-C36	50	mg/kg	< 50	2100	< 50	1000
TRH C10-C36 (Total)	50	mg/kg	< 50	2547	< 50	1382
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	%	87	56	88	109
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	84	< 50	89
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	84	< 50	89
TRH >C16-C34	100	mg/kg	< 100	2300	< 100	1300
TRH >C34-C40	100	mg/kg	< 100	890	< 100	540
TRH >C10-C40 (total)*	100	mg/kg	< 100	3274	< 100	1929
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

Client Sample ID			SS20	TP41 0.1-0.3	TP42 0.1-0.3	TP43 0.1-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36487	S20-Fe36488	S20-Fe36489	S20-Fe36490
Date Sampled			Feb 19, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	83	85	98
p-Terphenyl-d14 (surr.)	1	%	97	75	78	95
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	-	-	-
α-BHC	0.05	mg/kg	< 0.05	-	-	-
Aldrin	0.05	mg/kg	< 0.05	-	-	-
β-BHC	0.05	mg/kg	< 0.05	-	-	-
δ-BHC	0.05	mg/kg	< 0.05	-	-	-
Dieldrin	0.05	mg/kg	< 0.05	-	-	-
Endosulfan I	0.05	mg/kg	< 0.05	-	-	-
Endosulfan II	0.05	mg/kg	< 0.05	-	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	-
Endrin	0.05	mg/kg	< 0.05	-	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	-
Endrin ketone	0.05	mg/kg	< 0.05	-	-	-
γ-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	-
Heptachlor	0.05	mg/kg	< 0.05	-	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	-
Methoxychlor	0.2	mg/kg	< 0.2	-	-	-
Toxaphene	1	mg/kg	< 1	-	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2	-	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	-	-	-
Dibutylchloroendate (surr.)	1	%	88	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	86	-	-	-
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	-	-	-

Client Sample ID			SS20	TP41 0.1-0.3	TP42 0.1-0.3	TP43 0.1-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36487	S20-Fe36488	S20-Fe36489	S20-Fe36490
Date Sampled			Feb 19, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Dibutylchloroendate (surr.)	1	%	88	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	86	-	-	-
% Moisture	1	%	17	72	20	72
Heavy Metals						
Arsenic	2	mg/kg	20	9.7	16	8.0
Cadmium	0.4	mg/kg	< 0.4	0.5	< 0.4	0.6
Chromium	5	mg/kg	30	28	34	36
Copper	5	mg/kg	44	53	15	77
Lead	5	mg/kg	31	12	14	17
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	20	16	6.7	19
Zinc	5	mg/kg	47	260	22	310
Pathogens						
E.coli	1	MPN/g	-	-	M15< 10	86
Thermotolerant Coliforms	1	MPN/g	-	-	10000	2500

Client Sample ID			TP44 0.1-0.3	TP45 0.0-0.1	TP46 0.0-0.1	TP47 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36491	S20-Fe36492	S20-Fe36493	S20-Fe36494
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	-
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	%	85	88	98	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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			TP44 0.1-0.3	TP45 0.0-0.1	TP46 0.0-0.1	TP47 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36491	S20-Fe36492	S20-Fe36493	S20-Fe36494
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	111	97	104	-
p-Terphenyl-d14 (surr.)	1	%	78	85	87	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Methoxychlor	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Toxaphene	1	mg/kg	-	< 1	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.2	< 0.2	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.2	< 0.2	< 0.2
Dibutylchloroendate (surr.)	1	%	-	70	65	110
Tetrachloro-m-xylene (surr.)	1	%	-	85	87	112

Client Sample ID			TP44 0.1-0.3	TP45 0.0-0.1	TP46 0.0-0.1	TP47 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36491	S20-Fe36492	S20-Fe36493	S20-Fe36494
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1221	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Total PCB*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibutylchlorodendate (surr.)	1	%	-	70	65	110
Tetrachloro-m-xylene (surr.)	1	%	-	85	87	112
% Moisture	1	%	21	28	17	18
Heavy Metals						
Arsenic	2	mg/kg	14	9.2	7.4	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	-
Chromium	5	mg/kg	33	25	17	-
Copper	5	mg/kg	14	23	12	-
Lead	5	mg/kg	21	19	15	-
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Nickel	5	mg/kg	8.1	9.2	5.1	-
Zinc	5	mg/kg	21	71	35	-
Pathogens						
E.coli	1	MPN/g	31	640	360	M15< 10
Thermotolerant Coliforms	1	MPN/g	630	17000	540	< 10

Client Sample ID			TP47 0.3-0.4	TP47 0.8-0.9	TP47 1.5-1.6	DUP14
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36495	S20-Fe36669	S20-Fe36670	S20-Fe36671
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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
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	86	-	97

Client Sample ID			TP47 0.3-0.4	TP47 0.8-0.9	TP47 1.5-1.6	DUP14
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36495	S20-Fe36669	S20-Fe36670	S20-Fe36671
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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
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	%	102	-	97	-
p-Terphenyl-d14 (surr.)	1	%	91	-	62	-
% Moisture	1	%	11	9.7	9.4	9.1
Heavy Metals						
Arsenic	2	mg/kg	6.7	-	13	-
Cadmium	0.4	mg/kg	< 0.4	-	< 0.4	-
Chromium	5	mg/kg	21	-	22	-
Copper	5	mg/kg	12	-	9.4	-
Lead	5	mg/kg	17	-	20	-
Mercury	0.1	mg/kg	< 0.1	-	< 0.1	-
Nickel	5	mg/kg	5.5	-	< 5	-
Zinc	5	mg/kg	19	-	13	-
Pathogens						
E.coli	1	MPN/g	M15< 10	-	-	-
Thermotolerant Coliforms	1	MPN/g	< 10	-	-	-

Client Sample ID			TP48 0.0-0.1	TP48 1.2-1.3	TP49 0.0-0.1	TP49 0.5-0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36672	S20-Fe36673	S20-Fe36674	S20-Fe36675
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	-	< 0.1
Toluene	0.1	mg/kg	< 0.1	-	-	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	-	-	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	-	-	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	-	-	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	-	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	92	-	-	86
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	-	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	-	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
2-Fluorobiphenyl (surr.)	1	%	104	107	-	102
p-Terphenyl-d14 (surr.)	1	%	103	90	-	86

Client Sample ID			TP48 0.0-0.1	TP48 1.2-1.3	TP49 0.0-0.1	TP49 0.5-0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36672	S20-Fe36673	S20-Fe36674	S20-Fe36675
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	< 0.1	-
4,4'-DDD	0.05	mg/kg	< 0.05	-	< 0.05	-
4,4'-DDE	0.05	mg/kg	< 0.05	-	< 0.05	-
4,4'-DDT	0.05	mg/kg	< 0.05	-	< 0.05	-
a-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
b-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
d-BHC	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-BHC (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	0.2	mg/kg	< 0.2	-	< 0.2	-
Toxaphene	1	mg/kg	< 1	-	< 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	< 0.2	-	< 0.2	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	-	< 0.2	-
Dibutylchloroendate (surr.)	1	%	96	-	102	-
Tetrachloro-m-xylene (surr.)	1	%	89	-	107	-
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	-
Dibutylchloroendate (surr.)	1	%	96	-	102	-
Tetrachloro-m-xylene (surr.)	1	%	89	-	107	-
% Moisture	1	%	10	13	16	11
Heavy Metals						
Arsenic	2	mg/kg	7.3	13	-	31
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-	< 0.4
Chromium	5	mg/kg	28	23	-	30
Copper	5	mg/kg	10	11	-	34
Lead	5	mg/kg	18	20	-	23
Mercury	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Nickel	5	mg/kg	6.5	6.3	-	31
Zinc	5	mg/kg	30	15	-	40

Client Sample ID			TP48 0.0-0.1	TP48 1.2-1.3	TP49 0.0-0.1	TP49 0.5-0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36672	S20-Fe36673	S20-Fe36674	S20-Fe36675
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
Pathogens						
E.coli	1	MPN/g	M15< 10	-	M15< 10	-
Thermotolerant Coliforms	1	MPN/g	10	-	< 10	-

Client Sample ID			TP51 0.0-0.1	TP51 0.4-0.5	DUP16	TP52 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36678	S20-Fe36679	S20-Fe36680	S20-Fe36681
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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
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	-	-	87
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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
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

Client Sample ID			TP51 0.0-0.1 Soil S20-Fe36678 Feb 20, 2020	TP51 0.4-0.5 Soil S20-Fe36679 Feb 20, 2020	DUP16 Soil S20-Fe36680 Feb 20, 2020	TP52 0.0-0.1 Soil S20-Fe36681 Feb 20, 2020
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	%	109	65	87	95
p-Terphenyl-d14 (surr.)	1	%	104	86	85	90
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-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
Aldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
b-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
d-BHC	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-BHC (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	0.2	mg/kg	< 0.2	-	-	< 0.2
Toxaphene	1	mg/kg	< 1	-	-	< 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	< 0.2	-	-	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	-	-	< 0.2
Dibutylchloroendate (surr.)	1	%	102	-	-	72
Tetrachloro-m-xylene (surr.)	1	%	93	-	-	80
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
Dibutylchloroendate (surr.)	1	%	102	-	-	72
Tetrachloro-m-xylene (surr.)	1	%	93	-	-	80
% Moisture	1	%	13	17	16	4.0

Client Sample ID			TP51 0.0-0.1	TP51 0.4-0.5	DUP16	TP52 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36678	S20-Fe36679	S20-Fe36680	S20-Fe36681
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	14	14	19	3.0
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	29	25	36	< 5
Copper	5	mg/kg	18	14	16	< 5
Lead	5	mg/kg	19	18	27	12
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	10	9.1	9.2	< 5
Zinc	5	mg/kg	30	26	29	43
Pathogens						
E.coli	1	MPN/g	M15< 10	-	-	M15< 10
Thermotolerant Coliforms	1	MPN/g	1400	-	-	52

Client Sample ID			TP53 0.0-0.1	TP53 0.2-0.3	TP54 0.0-0.1	TP55 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36682	S20-Fe36683	S20-Fe36684	S20-Fe36685
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	70
TRH C10-C36 (Total)	50	mg/kg	-	< 50	< 50	70
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	0.9
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	0.3
Xylenes - Total	0.3	mg/kg	-	< 0.3	< 0.3	1.1
4-Bromofluorobenzene (surr.)	1	%	-	85	89	103
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5

Client Sample ID			TP53 0.0-0.1 Soil S20-Fe36682 Feb 20, 2020	TP53 0.2-0.3 Soil S20-Fe36683 Feb 20, 2020	TP54 0.0-0.1 Soil S20-Fe36684 Feb 20, 2020	TP55 0.0-0.1 Soil S20-Fe36685 Feb 20, 2020
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	88	76	84
p-Terphenyl-d14 (surr.)	1	%	-	97	97	103
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
α-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
β-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
δ-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
γ-BHC (Lindane)	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Methoxychlor	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Toxaphene	1	mg/kg	-	< 1	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.2	< 0.2	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.2	< 0.2	< 0.2
Dibutylchloroendate (surr.)	1	%	-	77	80	101
Tetrachloro-m-xylene (surr.)	1	%	-	88	85	84
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1221	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5

Client Sample ID			TP53 0.0-0.1 Soil S20-Fe36682 Feb 20, 2020	TP53 0.2-0.3 Soil S20-Fe36683 Feb 20, 2020	TP54 0.0-0.1 Soil S20-Fe36684 Feb 20, 2020	TP55 0.0-0.1 Soil S20-Fe36685 Feb 20, 2020
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1254	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Total PCB*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibutylchloredate (surr.)	1	%	-	77	80	101
Tetrachloro-m-xylene (surr.)	1	%	-	88	85	84
% Moisture	1	%	11	11	8.5	12
Heavy Metals						
Arsenic	2	mg/kg	-	5.5	8.3	6.9
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	-	20	42	16
Copper	5	mg/kg	-	11	17	34
Lead	5	mg/kg	-	10	25	28
Mercury	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	-	< 5	12	5.4
Zinc	5	mg/kg	-	21	28	120
Pathogens						
E.coli	1	MPN/g	1600	-	-	-
Thermotolerant Coliforms	1	MPN/g	4900	-	-	-

Client Sample ID			TP55 0.4-0.5 Soil S20-Fe36686 Feb 20, 2020	TP56 0.0-0.1 Soil S20-Fe36687 Feb 20, 2020	TP57 0.0-0.1 Soil S20-Fe36688 Feb 20, 2020	TP58 0.0-0.1 Soil S20-Fe36689 Feb 20, 2020
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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
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	%	-	107	98	98
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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			TP55 0.4-0.5	TP56 0.0-0.1	TP57 0.0-0.1	TP58 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36686	S20-Fe36687	S20-Fe36688	S20-Fe36689
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
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	%	99	101	96	98
p-Terphenyl-d14 (surr.)	1	%	66	102	87	95
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
α-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
β-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
δ-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
γ-BHC (Lindane)	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Methoxychlor	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Toxaphene	1	mg/kg	-	< 1	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.2	< 0.2	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.2	< 0.2	< 0.2
Dibutylchloroendate (surr.)	1	%	-	101	87	78
Tetrachloro-m-xylene (surr.)	1	%	-	84	79	102

Client Sample ID			TP55 0.4-0.5	TP56 0.0-0.1	TP57 0.0-0.1	TP58 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36686	S20-Fe36687	S20-Fe36688	S20-Fe36689
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1221	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Total PCB*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibutylchloroendate (surr.)	1	%	-	101	87	78
Tetrachloro-m-xylene (surr.)	1	%	-	84	79	102
% Moisture	1	%	9.7	8.2	10	6.1
Heavy Metals						
Arsenic	2	mg/kg	9.1	11	9.9	3.4
Cadmium	0.4	mg/kg	0.6	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	27	13	31	7.4
Copper	5	mg/kg	34	69	33	11
Lead	5	mg/kg	110	17	20	12
Mercury	0.1	mg/kg	0.2	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	6.4	5.4	6.2	< 5
Zinc	5	mg/kg	410	51	52	30

Client Sample ID			TP59 0.0-0.1	TP59 0.4-0.5	TP60 0.9-1.0	TP60 1.9-2.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36690	S20-Fe36691	S20-Fe36694	S20-Fe36695
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	-
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	%	89	-	90	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	-

Client Sample ID			TP59 0.0-0.1 Soil S20-Fe36690 Feb 20, 2020	TP59 0.4-0.5 Soil S20-Fe36691 Feb 20, 2020	TP60 0.9-1.0 Soil S20-Fe36694 Feb 20, 2020	TP60 1.9-2.0 Soil S20-Fe36695 Feb 20, 2020
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C34-C40	100	mg/kg	< 100	-	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	< 100	-
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	86	91	103
p-Terphenyl-d14 (surr.)	1	%	98	84	80	88
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	-	-	-
α-BHC	0.05	mg/kg	< 0.05	-	-	-
Aldrin	0.05	mg/kg	< 0.05	-	-	-
β-BHC	0.05	mg/kg	< 0.05	-	-	-
δ-BHC	0.05	mg/kg	< 0.05	-	-	-
Dieldrin	0.05	mg/kg	< 0.05	-	-	-
Endosulfan I	0.05	mg/kg	< 0.05	-	-	-
Endosulfan II	0.05	mg/kg	< 0.05	-	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	-
Endrin	0.05	mg/kg	< 0.05	-	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	-
Endrin ketone	0.05	mg/kg	< 0.05	-	-	-
γ-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	-
Heptachlor	0.05	mg/kg	< 0.05	-	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	-
Methoxychlor	0.2	mg/kg	< 0.2	-	-	-
Toxaphene	1	mg/kg	< 1	-	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	-	-

Client Sample ID			TP59 0.0-0.1	TP59 0.4-0.5	TP60 0.9-1.0	TP60 1.9-2.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36690	S20-Fe36691	S20-Fe36694	S20-Fe36695
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2	-	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	-	-	-
Dibutylchloredate (surr.)	1	%	82	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	102	-	-	-
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	-	-	-
Dibutylchloredate (surr.)	1	%	82	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	102	-	-	-
% Moisture	1	%	5.5	10	10	7.3
Heavy Metals						
Arsenic	2	mg/kg	2.3	4.2	38	14
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	8.0	17	26	57
Copper	5	mg/kg	11	14	18	16
Lead	5	mg/kg	8.8	34	23	20
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	6.6	9.5	7.7
Zinc	5	mg/kg	27	50	25	20

Client Sample ID			DUP 20	SS21	SS22	SS23
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36696	S20-Fe36697	S20-Fe36698	S20-Fe36699
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
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

Client Sample ID			DUP 20	SS21	SS22	SS23
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36696	S20-Fe36697	S20-Fe36698	S20-Fe36699
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	%	88	99	96	91
p-Terphenyl-d14 (surr.)	1	%	86	98	93	91
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-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
b-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
d-BHC	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-BHC (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	0.2	mg/kg	-	< 0.2	< 0.2	-
Toxaphene	1	mg/kg	-	< 1	< 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	-	< 0.2	< 0.2	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.2	< 0.2	-
Dibutylchloroendate (surr.)	1	%	-	80	82	-
Tetrachloro-m-xylene (surr.)	1	%	-	103	95	-
% Moisture	1	%	9.8	1.2	1.5	2.6
Heavy Metals						
Arsenic	2	mg/kg	8.8	6.7	6.0	5.7
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	53	< 5	5.0	11
Copper	5	mg/kg	20	6.1	16	42
Lead	5	mg/kg	41	31	28	24
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	8.9	< 5	< 5	5.2
Zinc	5	mg/kg	63	75	110	110

Client Sample ID			SS24	SS25	SS26	TP61 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36700	S20-Fe36701	S20-Fe36702	S20-Fe36707
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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
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	%	-	-	-	98
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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
TRH >C34-C40	100	mg/kg	-	-	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	-	-	< 100
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	%	97	98	91	91
p-Terphenyl-d14 (surr.)	1	%	89	92	91	94

Client Sample ID			SS24 Soil S20-Fe36700 Feb 20, 2020	SS25 Soil S20-Fe36701 Feb 20, 2020	SS26 Soil S20-Fe36702 Feb 20, 2020	TP61 0.0-0.1 Soil S20-Fe36707 Feb 21, 2020
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Methoxychlor	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Toxaphene	1	mg/kg	-	< 1	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.2	< 0.2	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.2	< 0.2	< 0.2
Dibutylchloroendate (surr.)	1	%	-	75	70	82
Tetrachloro-m-xylene (surr.)	1	%	-	96	90	91
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
Dibutylchloroendate (surr.)	1	%	-	-	-	82
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	91
% Moisture	1	%	3.5	4.6	4.3	14
Heavy Metals						
Arsenic	2	mg/kg	4.2	5.0	6.9	7.3
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	14	8.9	< 5	32
Copper	5	mg/kg	9.1	5.1	< 5	14
Lead	5	mg/kg	15	23	29	25
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5	6.3
Zinc	5	mg/kg	93	88	69	43

Client Sample ID			TP62 0.1-0.3 Soil S20-Fe36708 Feb 21, 2020	TP63 0.1-0.3 Soil S20-Fe36709 Feb 21, 2020	TP64 0.1-0.3 Soil S20-Fe36710 Feb 21, 2020	TP65 0.1-0.3 Soil S20-Fe36711 Feb 21, 2020
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	26
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	160
TRH C29-C36	50	mg/kg	60	< 50	< 50	74
TRH C10-C36 (Total)	50	mg/kg	60	< 50	< 50	260
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	%	90	69	80	78
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	51
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	51
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	230
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	281
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	%	130	90	89	85
p-Terphenyl-d14 (surr.)	1	%	80	84	92	85
% Moisture	1	%	27	35	30	22

Client Sample ID			TP62 0.1-0.3	TP63 0.1-0.3	TP64 0.1-0.3	TP65 0.1-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36708	S20-Fe36709	S20-Fe36710	S20-Fe36711
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	5.9	6.5	6.8	21
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	12	19	31	80
Copper	5	mg/kg	54	68	27	30
Lead	5	mg/kg	13	16	17	26
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	6.5	9.7	11	19
Zinc	5	mg/kg	81	100	30	29
Pathogens						
E.coli	1	MPN/g	M15< 10	M15< 10	M15< 10	10
Thermotolerant Coliforms	1	MPN/g	150	330	41	63

Client Sample ID			TP66 0.1-0.3	TP67 0.1-0.3	TP68 0.0-0.1	TP69 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36712	S20-Fe36713	S20-Fe36714	S20-Fe36809
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	58
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	88
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	146
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	%	51	85	97	103
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	130
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	130
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

Client Sample ID			TP66 0.1-0.3	TP67 0.1-0.3	TP68 0.0-0.1	TP69 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36712	S20-Fe36713	S20-Fe36714	S20-Fe36809
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	%	83	85	72	89
p-Terphenyl-d14 (surr.)	1	%	91	90	79	90
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
α-BHC	0.05	mg/kg	-	-	< 0.05	< 0.05
Aldrin	0.05	mg/kg	-	-	< 0.05	< 0.05
β-BHC	0.05	mg/kg	-	-	< 0.05	< 0.05
δ-BHC	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
γ-BHC (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	0.2	mg/kg	-	-	< 0.2	< 0.2
Toxaphene	1	mg/kg	-	-	< 1	< 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	-	-	< 0.2	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	< 0.2	< 0.2
Dibutylchloroendate (surr.)	1	%	-	-	70	89
Tetrachloro-m-xylene (surr.)	1	%	-	-	80	83
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

Client Sample ID			TP66 0.1-0.3	TP67 0.1-0.3	TP68 0.0-0.1	TP69 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36712	S20-Fe36713	S20-Fe36714	S20-Fe36809
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
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
Dibutylchloredate (surr.)	1	%	-	-	70	89
Tetrachloro-m-xylene (surr.)	1	%	-	-	80	83
% Moisture	1	%	28	20	20	17
Heavy Metals						
Arsenic	2	mg/kg	7.1	12	5.8	6.4
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	36	44	35	27
Copper	5	mg/kg	18	36	29	21
Lead	5	mg/kg	17	24	16	19
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	9.7	14	17	7.2
Zinc	5	mg/kg	22	27	27	48
Pathogens						
E.coli	1	MPN/g	M15< 10	24000	M15< 10	M15< 10
Thermotolerant Coliforms	1	MPN/g	1300	>24000	400	460

Client Sample ID			TP69 0.3-0.4	TP70 0.0-0.1	TP71 0.0-0.1	TP72 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36810	S20-Fe36811	S20-Fe36812	S20-Fe36813
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	-
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	%	-	104	104	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	-

Client Sample ID			TP69 0.3-0.4	TP70 0.0-0.1	TP71 0.0-0.1	TP72 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36810	S20-Fe36811	S20-Fe36812	S20-Fe36813
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	92	91	91	-
p-Terphenyl-d14 (surr.)	1	%	56	87	83	-
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-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
b-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
d-BHC	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-BHC (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	0.2	mg/kg	-	< 0.2	< 0.2	-
Toxaphene	1	mg/kg	-	< 1	< 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	-	< 0.2	< 0.2	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.2	< 0.2	-
Dibutylchloroendate (surr.)	1	%	-	71	72	-
Tetrachloro-m-xylene (surr.)	1	%	-	76	75	-

Client Sample ID			TP69 0.3-0.4	TP70 0.0-0.1	TP71 0.0-0.1	TP72 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36810	S20-Fe36811	S20-Fe36812	S20-Fe36813
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
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	-
Dibutylchlorodendate (surr.)	1	%	-	71	72	-
Tetrachloro-m-xylene (surr.)	1	%	-	76	75	-
% Moisture	1	%	19	2.8	14	15
Heavy Metals						
Arsenic	2	mg/kg	3.6	6.8	9.5	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	-
Chromium	5	mg/kg	28	5.5	39	-
Copper	5	mg/kg	18	20	23	-
Lead	5	mg/kg	15	9.2	19	-
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Nickel	5	mg/kg	12	< 5	6.1	-
Zinc	5	mg/kg	22	28	15	-
Pathogens						
E.coli	1	MPN/g	-	M15< 10	M15< 10	M15< 10
Thermotolerant Coliforms	1	MPN/g	-	< 10	1400	220

Client Sample ID			TP72 0.2-0.3	TP72 0.6-0.7	TP73 0.0-0.1	DUP25
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36814	S20-Fe36815	S20-Fe36816	S20-Fe36817
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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	-
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	%	99	-	94	-

Client Sample ID			TP72 0.2-0.3	TP72 0.6-0.7	TP73 0.0-0.1	DUP25
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36814	S20-Fe36815	S20-Fe36816	S20-Fe36817
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	91	77	97	-
p-Terphenyl-d14 (surr.)	1	%	82	84	98	-
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	-
α-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
β-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
δ-BHC	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	-
γ-BHC (Lindane)	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.05	-	< 0.05	-

Client Sample ID			TP72 0.2-0.3	TP72 0.6-0.7	TP73 0.0-0.1	DUP25
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36814	S20-Fe36815	S20-Fe36816	S20-Fe36817
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	< 0.05	-
Methoxychlor	0.2	mg/kg	< 0.2	-	< 0.2	-
Toxaphene	1	mg/kg	< 1	-	< 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	< 0.2	-	< 0.2	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	-	< 0.2	-
Dibutylchloroendate (surr.)	1	%	69	-	99	-
Tetrachloro-m-xylene (surr.)	1	%	79	-	83	-
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	-
Dibutylchloroendate (surr.)	1	%	69	-	99	-
Tetrachloro-m-xylene (surr.)	1	%	79	-	83	-
% Moisture	1	%	10.0	8.7	11	25
Heavy Metals						
Arsenic	2	mg/kg	5.4	7.8	6.1	13
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	42	38	36	40
Copper	5	mg/kg	15	18	12	48
Lead	5	mg/kg	17	17	16	57
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	10	11	< 5	15
Zinc	5	mg/kg	20	20	10	300
Pathogens						
E.coli	1	MPN/g	-	-	M15< 10	-
Thermotolerant Coliforms	1	MPN/g	-	-	510	-

Client Sample ID			TP74 0.0-0.1	TP74 0.8-0.9	G01TP75 0.0-0.1	G01TP76 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36818	S20-Fe36819	S20-Fe36820	S20-Fe36821
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	-	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	-	< 200	< 200
TRH C15-C28	50	mg/kg	< 50	-	< 500	< 500
TRH C29-C36	50	mg/kg	< 50	-	< 500	< 500
TRH C10-C36 (Total)	50	mg/kg	< 50	-	< 500	< 500

Client Sample ID			TP74 0.0-0.1	TP74 0.8-0.9	G01TP75 0.0-0.1	G01TP76 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36818	S20-Fe36819	S20-Fe36820	S20-Fe36821
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
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	%	96	-	104	102
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	-	< 500	< 500
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	-	< 500	< 500
TRH >C16-C34	100	mg/kg	< 100	-	< 1000	< 1000
TRH >C34-C40	100	mg/kg	< 100	-	< 1000	< 1000
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	< 1000	< 1000
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	%	99	87	96	93
p-Terphenyl-d14 (surr.)	1	%	98	65	85	83
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05

Client Sample ID			TP74 0.0-0.1	TP74 0.8-0.9	G01TP75 0.0-0.1	G01TP76 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36818	S20-Fe36819	S20-Fe36820	S20-Fe36821
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endosulfan I	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2	-	< 0.2	< 0.2
Toxaphene	1	mg/kg	< 1	-	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2	-	< 0.2	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	-	< 0.2	< 0.2
Dibutylchloredate (surr.)	1	%	90	-	79	85
Tetrachloro-m-xylene (surr.)	1	%	81	-	81	79
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Aroclor-1232	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Total PCB*	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibutylchloredate (surr.)	1	%	90	-	79	85
Tetrachloro-m-xylene (surr.)	1	%	81	-	81	79
% Moisture	1	%	12	15	1.0	4.1
Heavy Metals						
Arsenic	2	mg/kg	8.0	4.0	12	10
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	33	39	22	17
Copper	5	mg/kg	25	18	39	38
Lead	5	mg/kg	20	15	32	25
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	8.3	11	8.0	6.2
Zinc	5	mg/kg	39	29	55	27
Pathogens						
E.coli	1	MPN/g	M15< 10	-	M15< 10	M15< 10
Thermotolerant Coliforms	1	MPN/g	1500	-	10	< 10

Client Sample ID			TP76 1.5-1.6	TP77 0.2-0.3	TP78 0.0-0.2	TP78 1.1-1.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36822	S20-Fe36823	S20-Fe36824	S20-Fe36825
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	-	61	< 50	< 50
TRH C29-C36	50	mg/kg	-	< 50	< 50	74
TRH C10-C36 (Total)	50	mg/kg	-	61	< 50	74
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	%	-	97	105	106
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	120
TRH >C10-C40 (total)*	100	mg/kg	-	< 100	< 100	120
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	1.4	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	1.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.9	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	1.2	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	1.0	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	0.7	< 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	0.8	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	0.8	< 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	1.4	< 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	0.8	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	0.6	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	1.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	9.3	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	93	98	93	89
p-Terphenyl-d14 (surr.)	1	%	81	97	90	113

Client Sample ID			TP76 1.5-1.6 Soil S20-Fe36822 Feb 21, 2020	TP77 0.2-0.3 Soil S20-Fe36823 Feb 21, 2020	TP78 0.0-0.2 Soil S20-Fe36824 Feb 21, 2020	TP78 1.1-1.2 Soil S20-Fe36825 Feb 21, 2020
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	< 0.1	-
4,4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05	-
4,4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05	-
4,4'-DDT	0.05	mg/kg	-	< 0.05	< 0.05	-
a-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
b-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
d-BHC	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-BHC (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	0.2	mg/kg	-	< 0.2	< 0.2	-
Toxaphene	1	mg/kg	-	< 1	< 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	-	< 0.2	< 0.2	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.2	< 0.2	-
Dibutylchloroendate (surr.)	1	%	-	88	79	-
Tetrachloro-m-xylene (surr.)	1	%	-	95	89	-
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	-
Dibutylchloroendate (surr.)	1	%	-	88	79	-
Tetrachloro-m-xylene (surr.)	1	%	-	95	89	-
% Moisture	1	%	17	15	6.5	6.4
Heavy Metals						
Arsenic	2	mg/kg	12	8.2	15	12
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	55	30	54	24
Copper	5	mg/kg	18	31	20	43
Lead	5	mg/kg	33	180	23	29
Mercury	0.1	mg/kg	< 0.1	0.2	< 0.1	< 0.1
Nickel	5	mg/kg	11	12	9.9	9.8
Zinc	5	mg/kg	39	230	29	55

Client Sample ID			TP76 1.5-1.6	TP77 0.2-0.3	TP78 0.0-0.2	TP78 1.1-1.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36822	S20-Fe36823	S20-Fe36824	S20-Fe36825
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Pathogens						
E.coli	1	MPN/g	M15< 10	M15< 10	M15< 10	M15< 10
Thermotolerant Coliforms	1	MPN/g	< 10	10	50	< 10

Client Sample ID			TP79 0.0-0.1	G01TP80 0.4-0.5	TP80 1.5-1.6	TP81 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36826	S20-Fe36827	S20-Fe36828	S20-Fe36829
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	-	< 20
TRH C10-C14	20	mg/kg	< 20	< 200	-	< 20
TRH C15-C28	50	mg/kg	< 50	< 500	-	< 50
TRH C29-C36	50	mg/kg	< 50	< 500	-	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 500	-	< 50
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	77	-	96
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	< 500	-	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 500	-	< 50
TRH >C16-C34	100	mg/kg	< 100	< 1000	-	< 100
TRH >C34-C40	100	mg/kg	< 100	< 1000	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 1000	-	< 100
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

Client Sample ID			TP79 0.0-0.1	G01TP80 0.4-0.5	TP80 1.5-1.6	TP81 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36826	S20-Fe36827	S20-Fe36828	S20-Fe36829
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	%	84	99	95	88
p-Terphenyl-d14 (surr.)	1	%	97	90	116	109
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	-
4,4'-DDD	0.05	mg/kg	-	< 0.05	-	-
4,4'-DDE	0.05	mg/kg	-	< 0.05	-	-
4,4'-DDT	0.05	mg/kg	-	< 0.05	-	-
a-BHC	0.05	mg/kg	-	< 0.05	-	-
Aldrin	0.05	mg/kg	-	< 0.05	-	-
b-BHC	0.05	mg/kg	-	< 0.05	-	-
d-BHC	0.05	mg/kg	-	< 0.05	-	-
Dieldrin	0.05	mg/kg	-	< 0.05	-	-
Endosulfan I	0.05	mg/kg	-	< 0.05	-	-
Endosulfan II	0.05	mg/kg	-	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	-
Endrin	0.05	mg/kg	-	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	-
Endrin ketone	0.05	mg/kg	-	< 0.05	-	-
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	-
Heptachlor	0.05	mg/kg	-	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	-
Methoxychlor	0.2	mg/kg	-	< 0.2	-	-
Toxaphene	1	mg/kg	-	< 1	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.2	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.2	-	-
Dibutylchloroendate (surr.)	1	%	-	104	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	101	-	-
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	-	-
Dibutylchloroendate (surr.)	1	%	-	104	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	101	-	-
% Moisture	1	%	9.5	8.1	12	11

Client Sample ID			TP79 0.0-0.1	G01-TP80 0.4-0.5	TP80 1.5-1.6	TP81 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36826	S20-Fe36827	S20-Fe36828	S20-Fe36829
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	4.9	4.6	4.1	2.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	18	13	21	16
Copper	5	mg/kg	9.2	23	14	15
Lead	5	mg/kg	19	22	26	18
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	5.6	7.1	< 5
Zinc	5	mg/kg	14	38	22	22
Pathogens						
E.coli	1	MPN/g	M15< 10	M15< 10	-	M15< 10
Thermotolerant Coliforms	1	MPN/g	< 10	< 10	-	370

Client Sample ID			TP82 0.0-0.1	TP83 0.0-0.1	TP84 0.0-0.1	G01-TP84 0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36830	S20-Fe36831	S20-Fe36832	S20-Fe36833
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	-	< 20
TRH C10-C14	20	mg/kg	< 20	22	-	< 200
TRH C15-C28	50	mg/kg	< 50	68	-	< 500
TRH C29-C36	50	mg/kg	< 50	68	-	< 500
TRH C10-C36 (Total)	50	mg/kg	< 50	158	-	< 500
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	%	99	91	-	98
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	-	< 500
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	-	< 500
TRH >C16-C34	100	mg/kg	< 100	110	-	< 1000
TRH >C34-C40	100	mg/kg	< 100	< 100	-	< 1000
TRH >C10-C40 (total)*	100	mg/kg	< 100	110	-	< 1000
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	-	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	-	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5

Client Sample ID			TP82 0.0-0.1	TP83 0.0-0.1	TP84 0.0-0.1	G01-TP84 0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36830	S20-Fe36831	S20-Fe36832	S20-Fe36833
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
2-Fluorobiphenyl (surr.)	1	%	97	96	-	84
p-Terphenyl-d14 (surr.)	1	%	95	97	-	103
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
α-BHC	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
β-BHC	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
δ-BHC	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
γ-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2	< 0.2	-	< 0.2
Toxaphene	1	mg/kg	< 1	< 1	-	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	-	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	-	< 0.2
Dibutylchloroendate (surr.)	1	%	89	106	-	82
Tetrachloro-m-xylene (surr.)	1	%	92	93	-	72
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5

Client Sample ID			TP82 0.0-0.1	TP83 0.0-0.1	TP84 0.0-0.1	G01-TP84 0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36830	S20-Fe36831	S20-Fe36832	S20-Fe36833
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Total PCB*	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibutylchloredate (surr.)	1	%	89	106	-	82
Tetrachloro-m-xylene (surr.)	1	%	92	93	-	72
% Moisture	1	%	16	20	10	8.1
Heavy Metals						
Arsenic	2	mg/kg	3.5	4.8	-	6.1
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-	< 0.4
Chromium	5	mg/kg	22	19	-	19
Copper	5	mg/kg	7.3	18	-	20
Lead	5	mg/kg	19	20	-	22
Mercury	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Nickel	5	mg/kg	< 5	7.0	-	6.2
Zinc	5	mg/kg	12	51	-	76
Pathogens						
E.coli	1	MPN/g	M15< 10	M15< 10	M15< 10	M15< 10
Thermotolerant Coliforms	1	MPN/g	< 10	390	85	10

Client Sample ID			TP84 1.0-1.1	TP85 1.5-1.6	G01-SP01	SP02
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36834	S20-Fe36835	S20-Fe36836	S20-Fe36837
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20	< 200	< 20
TRH C15-C28	50	mg/kg	-	< 50	1000	540
TRH C29-C36	50	mg/kg	-	< 50	1900	110
TRH C10-C36 (Total)	50	mg/kg	-	< 50	2900	650
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	%	-	93	102	113
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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	< 500	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	< 50	< 500	< 50
TRH >C16-C34	100	mg/kg	-	< 100	2300	570
TRH >C34-C40	100	mg/kg	-	< 100	1700	160
TRH >C10-C40 (total)*	100	mg/kg	-	< 100	4000	730

Client Sample ID			TP84 1.0-1.1	TP85 1.5-1.6	G01 SP01	SP02
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36834	S20-Fe36835	S20-Fe36836	S20-Fe36837
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	0.7	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	1.1	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.4	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
Benzo(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	1.1	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	0.6	< 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	1.4	< 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	3.6	< 0.5
2-Fluorobiphenyl (surr.)	1	%	81	94	96	97
p-Terphenyl-d14 (surr.)	1	%	98	99	97	103
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
α-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
β-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
δ-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
γ-BHC (Lindane)	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Methoxychlor	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Toxaphene	1	mg/kg	-	< 1	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.2	< 0.2	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.2	< 0.2	< 0.2
Dibutylchloroendate (surr.)	1	%	-	98	108	124
Tetrachloro-m-xylene (surr.)	1	%	-	91	90	89

Client Sample ID			TP84 1.0-1.1	TP85 1.5-1.6	G01 SP01	SP02
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36834	S20-Fe36835	S20-Fe36836	S20-Fe36837
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1221	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Total PCB*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibutylchlorodendate (surr.)	1	%	-	98	108	124
Tetrachloro-m-xylene (surr.)	1	%	-	91	90	89
% Moisture	1	%	9.5	25	< 1	< 1
Heavy Metals						
Arsenic	2	mg/kg	2.6	5.9	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	19	27	< 5	6.6
Copper	5	mg/kg	5.8	25	130	< 5
Lead	5	mg/kg	9.5	36	14	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	10	< 5	< 5
Zinc	5	mg/kg	10	81	26	18
Pathogens						
E.coli	1	MPN/g	-	M15< 10	-	-
Thermotolerant Coliforms	1	MPN/g	-	790	-	-

Client Sample ID			ABC01	ABC02	ABC03	TP40 1.0-1.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36838	S20-Fe36839	S20-Fe36840	S20-Fe37658
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
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
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	%	-	-	-	57

Client Sample ID			ABC01	ABC02	ABC03	TP40 1.0-1.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36838	S20-Fe36839	S20-Fe36840	S20-Fe37658
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
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
TRH >C34-C40	100	mg/kg	-	-	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	-	-	< 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	%	-	-	-	85
p-Terphenyl-d14 (surr.)	1	%	-	-	-	91
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
α-BHC	0.05	mg/kg	-	-	-	< 0.05
Aldrin	0.05	mg/kg	-	-	-	< 0.05
β-BHC	0.05	mg/kg	-	-	-	< 0.05
δ-BHC	0.05	mg/kg	-	-	-	< 0.05
Dieldrin	0.05	mg/kg	-	-	-	< 0.05
Endosulfan I	0.05	mg/kg	-	-	-	< 0.05
Endosulfan II	0.05	mg/kg	-	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	-	< 0.05
Endrin	0.05	mg/kg	-	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	-	< 0.05
Endrin ketone	0.05	mg/kg	-	-	-	< 0.05
γ-BHC (Lindane)	0.05	mg/kg	-	-	-	< 0.05
Heptachlor	0.05	mg/kg	-	-	-	< 0.05

Client Sample ID			ABC01	ABC02	ABC03	TP40 1.0-1.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Fe36838	S20-Fe36839	S20-Fe36840	S20-Fe37658
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 19, 2020
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Heptachlor epoxide	0.05	mg/kg	-	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	-	< 0.05
Methoxychlor	0.2	mg/kg	-	-	-	< 0.2
Toxaphene	1	mg/kg	-	-	-	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	-	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	-	< 0.2
Dibutylchloroendate (surr.)	1	%	-	-	-	79
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	83
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
Dibutylchloroendate (surr.)	1	%	-	-	-	79
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	83
Conductivity (1:5 aqueous extract at 25°C as rec.)	10	uS/cm	< 10	23	11	-
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	6.3	6.9	6.6	-
% Moisture	1	%	12	16	13	9.8
Heavy Metals						
Arsenic	2	mg/kg	4.0	4.1	6.3	6.9
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	15	39	32	21
Copper	5	mg/kg	< 5	24	13	9.6
Lead	5	mg/kg	15	23	25	12
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	20	11	< 5
Zinc	5	mg/kg	6.5	47	15	14

Sample History

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

A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

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

Description	Testing Site	Extracted	Holding Time
Eurofins mgt Suite B4			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Feb 29, 2020	14 Days
BTEX - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Feb 29, 2020	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Feb 29, 2020	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Feb 29, 2020	
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Sydney	Feb 29, 2020	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water	Sydney	Feb 29, 2020	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water	Sydney	Feb 29, 2020	28 Days
Conductivity (1:5 aqueous extract at 25°C as rec.) - Method: LTM-INO-4030 Conductivity	Sydney	Feb 27, 2020	7 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Sydney	Feb 27, 2020	7 Days
E.coli - Method: LTM-MIC-6621 E.Coli and Total Coliforms by the MPN	Melbourne	Feb 28, 2020	72 Hour
Thermotolerant Coliforms - Method: Inhouse: Thermotolerant Coliforms in Soil by MPN*	Melbourne	Feb 28, 2020	72 Hour
% Moisture - Method: LTM-GEN-7080 Moisture	Sydney	Feb 26, 2020	14 Days
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Feb 29, 2020	180 Days

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NSW 2761

Order No.:
Report #: 704317
Phone: 02 9854 1700
Fax:

Received: Feb 26, 2020 3:01 PM
Due: Mar 2, 2020
Priority: 3 Day
Contact Name: Abanish Nepal

Project Name: CORNER OF DOSSIE ST AND SLOANE ST GOULBURN
Project ID: 5046200019

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Ammonia (as N)	CANCELLED	Conductivity (1:5 aqueous extract at 25°C as rec.)	E.coli	HOLD	Nitrate (as N)	pH (1:5 Aqueous extract at 25°C as rec.)	pH (at 25°C)	Phosphate total (as P)	Thermotolerant Coliforms	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Eurofins mgt Suite B1.3	Hardness Set	Moisture Set	Eurofins mgt Suite B7	Eurofins mgt Suite B1	Eurofins mgt Suite B1	Eurofins mgt Suite B4				
						Melbourne Laboratory - NATA Site # 1254 & 14271				X			X		X		X	X	X	X			X		X		X	X	X	X	X
						Sydney Laboratory - NATA Site # 18217			X			X				X					X	X	X		X		X	X	X	X	X
						Brisbane Laboratory - NATA Site # 20794																									
						Perth Laboratory - NATA Site # 23736																									
						External Laboratory																									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID																										
1	SS01	Feb 17, 2020		Soil	S20-Fe36274				X						X								X	X							
2	SS02	Feb 17, 2020		Soil	S20-Fe36275				X						X								X	X							
3	SS03	Feb 17, 2020		Soil	S20-Fe36276				X						X								X	X							
4	SS04	Feb 17, 2020		Soil	S20-Fe36277				X						X								X	X							
5	SS05	Feb 17, 2020		Soil	S20-Fe36278				X						X								X	X							
6	SS06	Feb 17, 2020		Soil	S20-Fe36279													X					X								
7	SS07	Feb 17, 2020		Soil	S20-Fe36280				X						X								X	X							
8	SS08	Feb 17, 2020		Soil	S20-Fe36281				X						X								X	X							
9	SS09	Feb 17, 2020		Soil	S20-Fe36282				X						X								X	X							
10	BH01 0.0-0.1	Feb 17, 2020		Soil	S20-Fe36283												X						X	X							

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																												
Perth Laboratory - NATA Site # 23736																												
11	BH02 0.0-0.1	Feb 17, 2020		Soil	S20-Fe36284												X						X	X				
12	SS10	Feb 18, 2020		Soil	S20-Fe36285													X					X					
13	SS11	Feb 18, 2020		Soil	S20-Fe36286																X		X	X				
14	SS12	Feb 18, 2020		Soil	S20-Fe36287																X		X	X				
15	SS13	Feb 18, 2020		Soil	S20-Fe36288													X					X					
16	SS14	Feb 18, 2020		Soil	S20-Fe36289																X		X	X				
17	SS15	Feb 18, 2020		Soil	S20-Fe36290																X		X	X				
18	SS16	Feb 18, 2020		Soil	S20-Fe36291																X		X	X				
19	DUP01	Feb 18, 2020		Soil	S20-Fe36292													X					X					
20	TP01 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36293				X						X								X					
21	TP01 0.4-0.5	Feb 18, 2020		Soil	S20-Fe36294																X		X	X				
22	TP01 0.9-1.0	Feb 18, 2020		Soil	S20-Fe36295																		X				X	
23	TP02 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36296				X						X						X		X	X				

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
24	TP03 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36297				X						X						X		X				
25	TP03 0.4-0.5	Feb 18, 2020		Soil	S20-Fe36298																		X	X			
26	TP03 0.9-1.0	Feb 18, 2020		Soil	S20-Fe36299											X		X					X				
27	TP04 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36300				X						X			X					X				
28	TP04 0.3-0.4	Feb 18, 2020		Soil	S20-Fe36301																X		X				
29	TP04 1.3-1.4	Feb 18, 2020		Soil	S20-Fe36302																		X				X
30	TP04 1.8-1.9	Feb 18, 2020		Soil	S20-Fe36303											X		X					X				
31	DUP04	Feb 18, 2020		Soil	S20-Fe36304													X					X				
32	TP05 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36305				X						X						X		X				
33	TP05 0.4-0.5	Feb 18, 2020		Soil	S20-Fe36306																		X	X			
34	TP06 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36307				X						X								X	X			
35	TP07 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36308				X						X						X		X	X			
36	TP07 0.9-1.0	Feb 18, 2020		Soil	S20-Fe36309											X		X					X				

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
37	TP08 0.1-0.3	Feb 18, 2020		Soil	S20-Fe36310				X						X								X	X			
38	TP09 0.1-0.3	Feb 18, 2020		Soil	S20-Fe36351				X						X								X	X			
39	TP10 0.1-0.3	Feb 18, 2020		Soil	S20-Fe36352				X						X								X	X			
40	TP11 0.1-0.3	Feb 18, 2020		Soil	S20-Fe36353				X						X								X	X			
41	TP12 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36354				X						X	X		X			X		X				
42	TP12 1.4-1.5	Feb 18, 2020		Soil	S20-Fe36355																		X			X	
43	TP13 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36356				X						X								X				
44	TP13 0.5-0.6	Feb 18, 2020		Soil	S20-Fe36357											X		X			X		X				
45	TP13 1.5-1.6	Feb 18, 2020		Soil	S20-Fe36358																		X	X			
46	DUP06	Feb 18, 2020		Soil	S20-Fe36359											X		X			X		X				
47	TP14 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36360				X						X								X				
48	TP14 0.4-0.5	Feb 18, 2020		Soil	S20-Fe36361																		X	X			
49	TP14 1.9-2.0	Feb 18, 2020		Soil	S20-Fe36362																X		X				

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X					X		X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																												
Perth Laboratory - NATA Site # 23736																												
50	TP15 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36363				X						X						X		X					
51	TP15 1.4-1.5	Feb 18, 2020		Soil	S20-Fe36364																		X	X				
52	TP16 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36365				X						X						X		X					
53	TP16 0.4-0.5	Feb 18, 2020		Soil	S20-Fe36366																		X	X				
54	TP16 1.9-2.0	Feb 18, 2020		Soil	S20-Fe36367																		X	X				
55	TP17 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36368				X						X						X		X	X				
56	TP18 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36369				X						X						X		X	X				
57	TP18 0.4-0.5	Feb 19, 2020		Soil	S20-Fe36370											X		X					X					
58	TP19 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36371				X						X								X				X	
59	TP19 0.3-0.4	Feb 19, 2020		Soil	S20-Fe36372											X		X					X					
60	TP20 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36373				X						X								X					
61	TP20 0.4-0.5	Feb 19, 2020		Soil	S20-Fe36374																		X	X				
62	TP21 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36375				X						X								X	X				

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Order No.:
Report #: 704317
Phone: 02 9854 1700
Fax:

Received: Feb 26, 2020 3:01 PM
Due: Mar 2, 2020
Priority: 3 Day
Contact Name: Abanish Nepal

Project Name: CORNER OF DOSSIE ST AND SLOANE ST GOULBURN
Project ID: 5046200019

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Ammonia (as N)	CANCELLED	Conductivity/ (1:5 aqueous extract at 25° C as rec.)	E.coli	HOLD	Nitrate (as N)	pH (1:5 Aqueous extract at 25° C as rec.)	pH (at 25° C)	Phosphate total (as P)	Thermotolerant Coliforms	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Eurofins mgt Suite B13	Hardness Set	Moisture Set	Eurofins mgt Suite B7	Eurofins mgt Suite B1	Eurofins mgt Suite B1	Eurofins mgt Suite B4
Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
63	TP22 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36376				X						X								X	X			
64	TP23 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36377				X						X								X	X			
65	TP24 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36378				X						X								X	X			
66	TP25 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36379				X						X								X	X			
67	TP26 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36380				X						X								X	X			
68	TP26 0.3-0.4	Feb 19, 2020		Soil	S20-Fe36381													X					X			X	
69	TP27 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36382				X						X						X		X				
70	TP27 0.5-0.6	Feb 19, 2020		Soil	S20-Fe36383																		X	X			
71	TP27 0.7-0.8	Feb 19, 2020		Soil	S20-Fe36384											X		X					X				
72	DUP10	Feb 19, 2020		Soil	S20-Fe36385													X					X				
73	TP28 0.0-1	Feb 19, 2020		Soil	S20-Fe36463				X						X						X		X	X			
74	TP29 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36464				X						X								X				
75	TP29 0.3-0.4	Feb 19, 2020		Soil	S20-Fe36465																		X	X			

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
76	TP30 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36466				X						X								X	X			
77	TP31 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36467				X						X								X	X			
78	TP32 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36468				X						X								X	X			
79	TP33 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36469				X						X								X	X			
80	TP34 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36470				X						X	X		X					X				
81	TP34 0.4-0.5	Feb 19, 2020		Soil	S20-Fe36471																		X			X	
82	TP35 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36472				X						X						X		X	X			
83	TP36 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36473				X						X								X				
84	TP36 0.6-0.7	Feb 19, 2020		Soil	S20-Fe36474																X		X	X			
85	TP37 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36475				X						X						X		X	X			
86	TP37 0.9-1.0	Feb 19, 2020		Soil	S20-Fe36476													X					X			X	
87	TP38 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36477				X						X						X		X	X			
88	TP39 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36478				X						X								X				

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
89	TP39 0.5-0.6	Feb 19, 2020		Soil	S20-Fe36479																X		X	X			
90	TP39 1.7-1.8	Feb 19, 2020		Soil	S20-Fe36480											X		X					X				
91	TP40 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36481				X						X								X				
92	TP40 0.4-0.5	Feb 19, 2020		Soil	S20-Fe36482											X		X					X				
93	DUP13	Feb 19, 2020		Soil	S20-Fe36483											X		X					X				
94	SS17	Feb 19, 2020		Soil	S20-Fe36484																X		X	X			
95	SS18	Feb 19, 2020		Soil	S20-Fe36485													X					X				
96	SS19	Feb 19, 2020		Soil	S20-Fe36486																X		X	X			
97	SS20	Feb 19, 2020		Soil	S20-Fe36487																X		X	X			
98	TP41 0.1-0.3	Feb 20, 2020		Soil	S20-Fe36488																		X	X			
99	TP42 0.1-0.3	Feb 20, 2020		Soil	S20-Fe36489				X						X								X	X			
100	TP43 0.1-0.3	Feb 20, 2020		Soil	S20-Fe36490				X						X								X	X			
101	TP44 0.1-0.3	Feb 20, 2020		Soil	S20-Fe36491				X						X								X	X			

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
102	TP45 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36492				X						X						X		X	X			
103	TP46 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36493				X						X						X		X	X			
104	TP47 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36494				X						X						X		X				
105	TP47 0.3-0.4	Feb 20, 2020		Soil	S20-Fe36495				X						X								X	X			
106	TP47 0.8-0.9	Feb 20, 2020		Soil	S20-Fe36669																		X			X	
107	TP47 1.5-1.6	Feb 20, 2020		Soil	S20-Fe36670											X		X					X				
108	DUP14	Feb 20, 2020		Soil	S20-Fe36671																		X			X	
109	TP48 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36672				X						X						X		X	X			
110	TP48 1.2-1.3	Feb 20, 2020		Soil	S20-Fe36673											X		X					X				
111	TP49 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36674				X						X						X		X				
112	TP49 0.5-0.6	Feb 20, 2020		Soil	S20-Fe36675																		X	X			
113	TP50 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36676		X																				
114	TP50 0.7-0.8	Feb 20, 2020		Soil	S20-Fe36677		X																				

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
115	TP51 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36678				X						X						X		X	X			
116	TP51 0.4-0.5	Feb 20, 2020		Soil	S20-Fe36679											X		X				X					
117	DUP16	Feb 20, 2020		Soil	S20-Fe36680											X		X				X					
118	TP52 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36681				X						X						X		X	X			
119	TP53 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36682				X						X							X					
120	TP53 0.2-0.3	Feb 20, 2020		Soil	S20-Fe36683																X		X	X			
121	TP54 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36684																X		X	X			
122	TP55 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36685																X		X	X			
123	TP55 0.4-0.5	Feb 20, 2020		Soil	S20-Fe36686											X		X					X				
124	TP56 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36687																X		X	X			
125	TP57 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36688																X		X	X			
126	TP58 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36689																X		X	X			
127	TP59 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36690																X		X	X			

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
128	TP59 0.4-0.5	Feb 20, 2020		Soil	S20-Fe36691											X		X					X				
129	TP60 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36692					X																	
130	TP60 0.4-0.5	Feb 20, 2020		Soil	S20-Fe36693		X																				
131	TP60 0.9-1.0	Feb 20, 2020		Soil	S20-Fe36694																		X	X			
132	TP60 1.9-2.0	Feb 20, 2020		Soil	S20-Fe36695											X		X					X				
133	DUP 20	Feb 20, 2020		Soil	S20-Fe36696											X		X					X				
134	SS21	Feb 20, 2020		Soil	S20-Fe36697											X	X	X					X				
135	SS22	Feb 20, 2020		Soil	S20-Fe36698											X	X	X					X				
136	SS23	Feb 20, 2020		Soil	S20-Fe36699											X		X					X				
137	SS24	Feb 20, 2020		Soil	S20-Fe36700											X		X					X				
138	SS25	Feb 20, 2020		Soil	S20-Fe36701											X	X	X					X				
139	SS26	Feb 20, 2020		Soil	S20-Fe36702											X	X	X					X				
140	SW01	Feb 20, 2020		Water	S20-Fe36703	X			X		X		X	X	X				X			X			X		

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
141	SW02	Feb 20, 2020		Water	S20-Fe36704	X			X		X		X	X	X				X			X			X		
142	SW03	Feb 20, 2020		Water	S20-Fe36705	X			X		X		X	X	X				X			X			X		
143	QAQC1	Feb 20, 2020		Water	S20-Fe36706														X								
144	TP61 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36707																X		X	X			
145	TP62 0.1-0.3	Feb 21, 2020		Soil	S20-Fe36708				X						X								X	X			
146	TP63 0.1-0.3	Feb 21, 2020		Soil	S20-Fe36709				X						X								X	X			
147	TP64 0.1-0.3	Feb 21, 2020		Soil	S20-Fe36710				X						X								X	X			
148	TP65 0.1-0.3	Feb 21, 2020		Soil	S20-Fe36711				X						X								X	X			
149	TP66 0.1-0.3	Feb 21, 2020		Soil	S20-Fe36712				X						X								X	X			
150	TP67 0.1-0.3	Feb 21, 2020		Soil	S20-Fe36713				X						X								X	X			
151	TP68 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36714				X						X						X		X	X			
152	TP69 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36809				X						X						X		X	X			
153	TP69 0.3-0.4	Feb 21, 2020		Soil	S20-Fe36810											X		X					X				

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Glendenning
NSW 2761

Project Name: CORNER OF DOSSIE ST AND SLOANE ST GOULBURN
Project ID: 5046200019

Order No.:
Report #: 704317
Phone: 02 9854 1700
Fax:

Received: Feb 26, 2020 3:01 PM
Due: Mar 2, 2020
Priority: 3 Day
Contact Name: Abanish Nepal

Eurofins Analytical Services Manager : Ursula Long

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
154	TP70 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36811				X						X						X		X	X			
155	TP71 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36812				X						X						X		X	X			
156	TP72 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36813				X						X								X				
157	TP72 0.2-0.3	Feb 21, 2020		Soil	S20-Fe36814																X		X	X			
158	TP72 0.6-0.7	Feb 21, 2020		Soil	S20-Fe36815											X		X					X				
159	TP73 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36816				X						X						X		X	X			
160	DUP25	Feb 21, 2020		Soil	S20-Fe36817													X					X				
161	TP74 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36818				X						X						X		X	X			
162	TP74 0.8-0.9	Feb 21, 2020		Soil	S20-Fe36819											X		X					X				
163	TP75 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36820				X						X						X		X	X			
164	TP76 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36821				X						X						X		X	X			
165	TP76 1.5-1.6	Feb 21, 2020		Soil	S20-Fe36822				X						X	X		X					X				
166	TP77 0.2-0.3	Feb 21, 2020		Soil	S20-Fe36823				X						X						X		X	X			

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
167	TP78 0.0-0.2	Feb 21, 2020		Soil	S20-Fe36824				X						X						X		X	X			
168	TP78 1.1-1.2	Feb 21, 2020		Soil	S20-Fe36825				X						X								X	X			
169	TP79 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36826				X						X								X	X			
170	TP80 0.4-0.5	Feb 21, 2020		Soil	S20-Fe36827				X						X						X		X	X			
171	TP80 1.5-1.6	Feb 21, 2020		Soil	S20-Fe36828											X		X					X				
172	TP81 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36829				X						X								X	X			
173	TP82 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36830				X						X						X		X	X			
174	TP83 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36831				X						X						X		X	X			
175	TP84 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36832				X						X								X				
176	TP84 0.3-0.4	Feb 21, 2020		Soil	S20-Fe36833				X						X						X		X	X			
177	TP84 1.0-1.1	Feb 21, 2020		Soil	S20-Fe36834											X		X					X				
178	TP85 1.5-1.6	Feb 21, 2020		Soil	S20-Fe36835				X						X						X		X	X			
179	SP01	Feb 21, 2020		Soil	S20-Fe36836																X		X	X			

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
180	SP02	Feb 21, 2020		Soil	S20-Fe36837																X		X	X			
181	ABC01	Feb 21, 2020		Soil	S20-Fe36838			X				X						X					X				
182	ABC02	Feb 21, 2020		Soil	S20-Fe36839			X				X						X					X				
183	ABC03	Feb 21, 2020		Soil	S20-Fe36840			X				X						X					X				
184	SW04	Feb 21, 2020		Water	S20-Fe36841	X			X		X		X	X	X				X			X				X	
185	SW05	Feb 21, 2020		Water	S20-Fe36842	X			X		X		X	X	X				X			X				X	
186	SW06	Feb 21, 2020		Water	S20-Fe36843	X			X		X		X	X	X				X			X				X	
187	SW07	Feb 21, 2020		Water	S20-Fe36844	X			X		X		X	X	X				X			X				X	
188	TRIP SPIKE 1	Feb 21, 2020		Water	S20-Fe36845															X							
189	TRIP BLANK 1	Feb 21, 2020		Water	S20-Fe36846															X							
190	TRIP SPIKE 2	Feb 21, 2020		Water	S20-Fe36847															X							
191	TRIP BLANK 2	Feb 21, 2020		Water	S20-Fe36848															X							
192	TP40 1.0-1.1	Feb 19, 2020		Soil	S20-Fe37658																X		X	X			

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Melbourne Laboratory - NATA Site # 1254 & 14271	X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217		X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																						
Perth Laboratory - NATA Site # 23736																						
Test Counts	7	3	3	94	1	7	3	7	7	94	33	6	47	8	4	63	7	176	102	15	15	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

****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
NC	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

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
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	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
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							
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-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.2			0.2	Pass	
Toxaphene	mg/kg	< 1			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	
Method Blank							
Conductivity (1:5 aqueous extract at 25°C as rec.)	uS/cm	< 10			10	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 - 1999 NEPM Fractions							
TRH C6-C9	%	86			70-130	Pass	
TRH C10-C14	%	110			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	100			70-130	Pass	
Toluene	%	104			70-130	Pass	
Ethylbenzene	%	108			70-130	Pass	
m&p-Xylenes	%	112			70-130	Pass	
o-Xylene	%	110			70-130	Pass	
Xylenes - Total	%	112			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	94			70-130	Pass	
TRH C6-C10	%	86			70-130	Pass	
TRH >C10-C16	%	103			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	76			70-130	Pass	
Acenaphthylene	%	70			70-130	Pass	
Anthracene	%	70			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benz(a)anthracene	%	75			70-130	Pass	
Benzo(a)pyrene	%	74			70-130	Pass	
Benzo(b&j)fluoranthene	%	77			70-130	Pass	
Benzo(g,h,i)perylene	%	106			70-130	Pass	
Benzo(k)fluoranthene	%	85			70-130	Pass	
Chrysene	%	78			70-130	Pass	
Dibenz(a,h)anthracene	%	85			70-130	Pass	
Fluoranthene	%	72			70-130	Pass	
Fluorene	%	74			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	78			70-130	Pass	
Naphthalene	%	75			70-130	Pass	
Phenanthrene	%	76			70-130	Pass	
Pyrene	%	74			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	80			70-130	Pass	
4,4'-DDD	%	128			70-130	Pass	
4,4'-DDE	%	79			70-130	Pass	
4,4'-DDT	%	83			70-130	Pass	
a-BHC	%	80			70-130	Pass	
Aldrin	%	78			70-130	Pass	
b-BHC	%	75			70-130	Pass	
d-BHC	%	86			70-130	Pass	
Dieldrin	%	77			70-130	Pass	
Endosulfan I	%	81			70-130	Pass	
Endosulfan II	%	85			70-130	Pass	
Endosulfan sulphate	%	71			70-130	Pass	
Endrin	%	82			70-130	Pass	
Endrin aldehyde	%	78			70-130	Pass	
Endrin ketone	%	95			70-130	Pass	
g-BHC (Lindane)	%	79			70-130	Pass	
Heptachlor	%	106			70-130	Pass	
Heptachlor epoxide	%	72			70-130	Pass	
Hexachlorobenzene	%	88			70-130	Pass	
Methoxychlor	%	71			70-130	Pass	
Toxaphene	%	114			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	70			70-130	Pass	
Total PCB*	%	107			70-130	Pass	
LCS - % Recovery							
Conductivity (1:5 aqueous extract at 25°C as rec.)	%	104			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	98			70-130	Pass	
Cadmium	%	97			70-130	Pass	
Chromium	%	96			70-130	Pass	
Copper	%	97			70-130	Pass	
Lead	%	102			70-130	Pass	
Mercury	%	90			70-130	Pass	
Nickel	%	99			70-130	Pass	
Zinc	%	98			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	S20-Fe26021	NCP	%	130			70-130	Pass	
Acenaphthylene	S20-Fe26021	NCP	%	128			70-130	Pass	
Anthracene	S20-Fe26021	NCP	%	123			70-130	Pass	
Benz(a)anthracene	S20-Fe24887	NCP	%	118			70-130	Pass	
Benzo(a)pyrene	S20-Fe26021	NCP	%	130			70-130	Pass	
Benzo(b&j)fluoranthene	S20-Fe24887	NCP	%	111			70-130	Pass	
Benzo(g,h,i)perylene	S20-Fe24887	NCP	%	113			70-130	Pass	
Benzo(k)fluoranthene	S20-Fe26021	NCP	%	117			70-130	Pass	
Chrysene	S20-Fe24887	NCP	%	104			70-130	Pass	
Dibenz(a,h)anthracene	S20-Fe24887	NCP	%	112			70-130	Pass	
Fluoranthene	S20-Fe24887	NCP	%	107			70-130	Pass	
Fluorene	S20-Fe24887	NCP	%	103			70-130	Pass	
Indeno(1,2,3-cd)pyrene	S20-Fe24887	NCP	%	112			70-130	Pass	
Naphthalene	S20-Fe26021	NCP	%	126			70-130	Pass	
Phenanthrene	S20-Fe26021	NCP	%	125			70-130	Pass	
Pyrene	S20-Fe24887	NCP	%	103			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S20-Fe36275	CP	%	116			70-130	Pass	
Cadmium	S20-Fe36275	CP	%	117			70-130	Pass	
Chromium	S20-Fe36275	CP	%	118			70-130	Pass	
Copper	S20-Fe36275	CP	%	109			70-130	Pass	
Lead	S20-Fe36275	CP	%	109			70-130	Pass	
Mercury	S20-Fe36275	CP	%	106			70-130	Pass	
Nickel	S20-Fe36275	CP	%	111			70-130	Pass	
Zinc	S20-Fe36275	CP	%	111			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S20-Fe41808	NCP	%	115			70-130	Pass	
4,4'-DDD	S20-Fe41808	NCP	%	80			70-130	Pass	
4,4'-DDE	S20-Fe41808	NCP	%	113			70-130	Pass	
4,4'-DDT	S20-Fe41808	NCP	%	122			70-130	Pass	
Aldrin	S20-Fe41808	NCP	%	122			70-130	Pass	
b-BHC	S20-Fe41808	NCP	%	120			70-130	Pass	
d-BHC	S20-Fe41808	NCP	%	116			70-130	Pass	
Dieldrin	S20-Fe41808	NCP	%	121			70-130	Pass	
Endosulfan I	S20-Fe41808	NCP	%	95			70-130	Pass	
Endosulfan II	S20-Fe41808	NCP	%	110			70-130	Pass	
Endosulfan sulphate	S20-Fe41808	NCP	%	119			70-130	Pass	
Endrin	S20-Fe41808	NCP	%	113			70-130	Pass	
Endrin aldehyde	S20-Fe41808	NCP	%	88			70-130	Pass	
Endrin ketone	S20-Fe30984	NCP	%	103			70-130	Pass	
g-BHC (Lindane)	S20-Fe30984	NCP	%	99			70-130	Pass	
Heptachlor	S20-Fe30984	NCP	%	91			70-130	Pass	
Heptachlor epoxide	S20-Fe41808	NCP	%	99			70-130	Pass	
Methoxychlor	S20-Fe41808	NCP	%	128			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Total PCB*	S20-Fe30984	NCP	%	85			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S20-Fe36298	CP	%	106			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Cadmium	S20-Fe36298	CP	%	114		70-130	Pass	
Chromium	S20-Fe36298	CP	%	111		70-130	Pass	
Copper	S20-Fe36298	CP	%	116		70-130	Pass	
Lead	S20-Fe36298	CP	%	112		70-130	Pass	
Mercury	S20-Fe36298	CP	%	107		70-130	Pass	
Nickel	S20-Fe36298	CP	%	107		70-130	Pass	
Zinc	S20-Fe36298	CP	%	98		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1				
TRH C6-C9	S20-Fe36307	CP	%	71		70-130	Pass	
TRH C10-C14	S20-Fe36307	CP	%	71		70-130	Pass	
Spike - % Recovery								
BTEX				Result 1				
Benzene	S20-Fe36307	CP	%	85		70-130	Pass	
Toluene	S20-Fe36307	CP	%	84		70-130	Pass	
Ethylbenzene	S20-Fe36307	CP	%	86		70-130	Pass	
m&p-Xylenes	S20-Fe36307	CP	%	89		70-130	Pass	
o-Xylene	S20-Fe36307	CP	%	87		70-130	Pass	
Xylenes - Total	S20-Fe36307	CP	%	88		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1				
Naphthalene	S20-Fe36307	CP	%	72		70-130	Pass	
TRH C6-C10	S20-Fe36307	CP	%	70		70-130	Pass	
TRH >C10-C16	S20-Fe36307	CP	%	79		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides				Result 1				
α-BHC	S20-Fe42083	NCP	%	105		70-130	Pass	
Hexachlorobenzene	S20-Fe42083	NCP	%	104		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides				Result 1				
Toxaphene	S20-Fe34454	NCP	%	108		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1				
TRH C6-C9	S20-Fe36366	CP	%	90		70-130	Pass	
TRH C10-C14	S20-Fe36366	CP	%	71		70-130	Pass	
Spike - % Recovery								
BTEX				Result 1				
Benzene	S20-Fe36366	CP	%	102		70-130	Pass	
Toluene	S20-Fe36366	CP	%	99		70-130	Pass	
Ethylbenzene	S20-Fe36366	CP	%	100		70-130	Pass	
m&p-Xylenes	S20-Fe36366	CP	%	103		70-130	Pass	
o-Xylene	S20-Fe36366	CP	%	99		70-130	Pass	
Xylenes - Total	S20-Fe36366	CP	%	102		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1				
Naphthalene	S20-Fe36366	CP	%	79		70-130	Pass	
TRH C6-C10	S20-Fe36366	CP	%	87		70-130	Pass	
TRH >C10-C16	S20-Fe36366	CP	%	78		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1				
TRH C6-C9	S20-Fe36379	CP	%	84		70-130	Pass	
Spike - % Recovery								
BTEX				Result 1				
Benzene	S20-Fe36379	CP	%	85		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Toluene	S20-Fe36379	CP	%	84		70-130	Pass	
Ethylbenzene	S20-Fe36379	CP	%	82		70-130	Pass	
m&p-Xylenes	S20-Fe36379	CP	%	79		70-130	Pass	
o-Xylene	S20-Fe36379	CP	%	78		70-130	Pass	
Xylenes - Total	S20-Fe36379	CP	%	79		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1				
Naphthalene	S20-Fe36379	CP	%	79		70-130	Pass	
TRH C6-C10	S20-Fe36379	CP	%	87		70-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	S20-Fe36379	CP	%	110		70-130	Pass	
Cadmium	S20-Fe36379	CP	%	112		70-130	Pass	
Chromium	S20-Fe36379	CP	%	111		70-130	Pass	
Copper	S20-Fe36379	CP	%	103		70-130	Pass	
Lead	S20-Fe36379	CP	%	111		70-130	Pass	
Nickel	S20-Fe36379	CP	%	109		70-130	Pass	
Zinc	S20-Fe36379	CP	%	107		70-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	S20-Fe36468	CP	%	97		70-130	Pass	
Cadmium	S20-Fe36468	CP	%	103		70-130	Pass	
Copper	S20-Fe36468	CP	%	83		70-130	Pass	
Lead	S20-Fe36468	CP	%	86		70-130	Pass	
Mercury	S20-Fe36468	CP	%	118		70-130	Pass	
Nickel	S20-Fe36468	CP	%	90		70-130	Pass	
Zinc	S20-Fe36468	CP	%	79		70-130	Pass	
Spike - % Recovery								
Polychlorinated Biphenyls				Result 1				
Aroclor-1260	S20-Fe36494	CP	%	82		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1				
TRH C10-C14	S20-Fe36675	CP	%	87		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1				
TRH >C10-C16	S20-Fe36675	CP	%	85		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1				
TRH C10-C14	S20-Fe36694	CP	%	78		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1				
TRH >C10-C16	S20-Fe36694	CP	%	77		70-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	S20-Fe36694	CP	%	84		70-130	Pass	
Cadmium	S20-Fe36694	CP	%	107		70-130	Pass	
Copper	S20-Fe36694	CP	%	113		70-130	Pass	
Lead	S20-Fe36694	CP	%	107		70-130	Pass	
Mercury	S20-Fe36694	CP	%	106		70-130	Pass	
Nickel	S20-Fe36694	CP	%	124		70-130	Pass	
Zinc	S20-Fe36694	CP	%	121		70-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	S20-Fe36708	CP	%	121		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Cadmium	S20-Fe36708	CP	%	111			70-130	Pass	
Chromium	S20-Fe36708	CP	%	122			70-130	Pass	
Lead	S20-Fe36708	CP	%	120			70-130	Pass	
Mercury	S20-Fe36708	CP	%	110			70-130	Pass	
Nickel	S20-Fe36708	CP	%	111			70-130	Pass	
Zinc	S20-Fe36708	CP	%	118			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S20-Fe36812	CP	%	117			70-130	Pass	
Chromium	S20-Fe36812	CP	%	106			70-130	Pass	
Copper	S20-Fe36812	CP	%	92			70-130	Pass	
Lead	S20-Fe36812	CP	%	121			70-130	Pass	
Mercury	S20-Fe36812	CP	%	120			70-130	Pass	
Nickel	S20-Fe36812	CP	%	125			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S20-Fe36834	CP	%	123			70-130	Pass	
Cadmium	S20-Fe36834	CP	%	124			70-130	Pass	
Mercury	S20-Fe36834	CP	%	124			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S20-Fe36274	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S20-Fe36274	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S20-Fe36274	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S20-Fe36274	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S20-Fe36274	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S20-Fe36274	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S20-Fe36274	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S20-Fe36274	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S20-Fe36274	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S20-Fe36274	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S20-Fe36274	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S20-Fe36274	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S20-Fe36274	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S20-Fe36274	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S20-Fe36274	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S20-Fe36274	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S20-Fe36274	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S20-Fe36274	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S20-Fe36274	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S20-Fe36274	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S20-Fe36274	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g,h,i)perylene	S20-Fe36274	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S20-Fe36274	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S20-Fe36274	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a,h)anthracene	S20-Fe36274	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S20-Fe36274	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Fluorene	S20-Fe36274	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1.2.3-cd)pyrene	S20-Fe36274	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S20-Fe36274	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S20-Fe36274	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S20-Fe36274	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	S20-Fe36274	CP	%	30	34	11	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S20-Fe36274	CP	mg/kg	3.8	3.2	17	30%	Pass
Cadmium	S20-Fe36274	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	S20-Fe36274	CP	mg/kg	18	17	3.0	30%	Pass
Copper	S20-Fe36274	CP	mg/kg	18	23	22	30%	Pass
Lead	S20-Fe36274	CP	mg/kg	21	22	5.0	30%	Pass
Mercury	S20-Fe36274	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Nickel	S20-Fe36274	CP	mg/kg	5.9	7.1	19	30%	Pass
Zinc	S20-Fe36274	CP	mg/kg	100	130	25	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	S20-Fe36284	CP	%	21	20	4.0	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S20-Fe36284	CP	mg/kg	5.8	5.4	7.0	30%	Pass
Cadmium	S20-Fe36284	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	S20-Fe36284	CP	mg/kg	< 5	< 5	<1	30%	Pass
Copper	S20-Fe36284	CP	mg/kg	< 5	5.6	49	30%	Fail
Lead	S20-Fe36284	CP	mg/kg	21	23	12	30%	Pass
Mercury	S20-Fe36284	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Nickel	S20-Fe36284	CP	mg/kg	< 5	< 5	<1	30%	Pass
Zinc	S20-Fe36284	CP	mg/kg	64	47	31	30%	Fail
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C10-C14	S20-Fe36286	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	S20-Fe36286	CP	mg/kg	230	180	27	30%	Pass
TRH C29-C36	S20-Fe36286	CP	mg/kg	200	170	17	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
TRH >C10-C16	S20-Fe36286	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	S20-Fe36286	CP	mg/kg	360	290	23	30%	Pass
TRH >C34-C40	S20-Fe36286	CP	mg/kg	150	140	8.0	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	S20-Fe36286	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1221	S20-Fe36286	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	S20-Fe36286	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1242	S20-Fe36286	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1248	S20-Fe36286	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1254	S20-Fe36286	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1260	S20-Fe36286	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Total PCB*	S20-Fe36286	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	S20-Fe36294	CP	%	13	13	2.0	30%	Pass

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S20-Fe36296	CP	mg/kg	15	21	34	30%	Fail	Q15
Cadmium	S20-Fe36296	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S20-Fe36296	CP	mg/kg	51	58	13	30%	Pass	
Copper	S20-Fe36296	CP	mg/kg	17	16	7.0	30%	Pass	
Lead	S20-Fe36296	CP	mg/kg	33	27	19	30%	Pass	
Mercury	S20-Fe36296	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S20-Fe36296	CP	mg/kg	10	8.7	18	30%	Pass	
Zinc	S20-Fe36296	CP	mg/kg	35	36	3.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S20-Fe36304	CP	%	13	16	20	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S20-Fe36306	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S20-Fe36306	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S20-Fe36306	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S20-Fe36306	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S20-Fe36306	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S20-Fe36306	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S20-Fe36306	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S20-Fe36306	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S20-Fe36306	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S20-Fe36310	CP	mg/kg	28	45	46	30%	Fail	Q02
Cadmium	S20-Fe36310	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S20-Fe36310	CP	mg/kg	6.9	14	71	30%	Fail	Q15
Copper	S20-Fe36310	CP	mg/kg	15	33	78	30%	Fail	Q15
Lead	S20-Fe36310	CP	mg/kg	20	44	74	30%	Fail	Q15
Mercury	S20-Fe36310	CP	mg/kg	< 0.1	0.1	55	30%	Fail	Q15
Nickel	S20-Fe36310	CP	mg/kg	< 5	7.8	79	30%	Fail	Q15
Zinc	S20-Fe36310	CP	mg/kg	54	100	63	30%	Fail	Q02
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S20-Fe36354	CP	%	22	20	9.0	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g,h,i)perylene	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a,h)anthracene	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1,2,3-cd)pyrene	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Naphthalene	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	S20-Fe36357	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	S20-Fe36357	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	S20-Fe36357	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	S20-Fe36357	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-BHC	S20-Fe36357	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	S20-Fe36357	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-BHC	S20-Fe36357	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-BHC	S20-Fe36357	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	S20-Fe36357	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	S20-Fe36357	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	S20-Fe36357	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	S20-Fe36357	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	S20-Fe36357	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	S20-Fe36357	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	S20-Fe36357	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-BHC (Lindane)	S20-Fe36357	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	S20-Fe36357	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S20-Fe36357	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S20-Fe36357	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S20-Fe36357	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1221	S20-Fe36357	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1242	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1248	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1254	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1260	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Total PCB*	S20-Fe36357	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C6-C9	S20-Fe36364	CP	mg/kg	< 20	< 20	<1	30%	Pass
Duplicate								
BTEX				Result 1	Result 2	RPD		
Benzene	S20-Fe36364	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Toluene	S20-Fe36364	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethylbenzene	S20-Fe36364	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
m&p-Xylenes	S20-Fe36364	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
o-Xylene	S20-Fe36364	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Xylenes - Total	S20-Fe36364	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
Naphthalene	S20-Fe36364	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	S20-Fe36364	CP	mg/kg	< 20	< 20	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	S20-Fe36364	CP	%	37	34	7.0	30%	Pass

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S20-Fe36366	CP	mg/kg	11	6.3	51	30%	Fail	Q15
Cadmium	S20-Fe36366	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S20-Fe36366	CP	mg/kg	31	19	48	30%	Fail	Q15
Copper	S20-Fe36366	CP	mg/kg	52	47	11	30%	Pass	
Lead	S20-Fe36366	CP	mg/kg	21	23	7.0	30%	Pass	
Mercury	S20-Fe36366	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S20-Fe36366	CP	mg/kg	16	10	44	30%	Fail	Q15
Zinc	S20-Fe36366	CP	mg/kg	150	150	2.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S20-Fe36374	CP	%	12	13	14	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S20-Fe36378	CP	mg/kg	8.9	5.3	51	30%	Fail	Q15
Cadmium	S20-Fe36378	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S20-Fe36378	CP	mg/kg	7.9	< 5	46	30%	Fail	Q15
Copper	S20-Fe36378	CP	mg/kg	11	6.7	52	30%	Fail	Q15
Lead	S20-Fe36378	CP	mg/kg	17	9.9	54	30%	Fail	Q15
Mercury	S20-Fe36378	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S20-Fe36378	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S20-Fe36378	CP	mg/kg	32	17	64	30%	Fail	Q15
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S20-Fe36384	CP	%	13	13	2.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S20-Fe36467	CP	mg/kg	7.3	5.6	27	30%	Pass	
Cadmium	S20-Fe36467	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S20-Fe36467	CP	mg/kg	14	9.0	45	30%	Fail	Q15
Copper	S20-Fe36467	CP	mg/kg	8.6	6.5	28	30%	Pass	
Lead	S20-Fe36467	CP	mg/kg	18	12	36	30%	Fail	Q15
Mercury	S20-Fe36467	CP	mg/kg	0.1	0.1	3.0	30%	Pass	
Nickel	S20-Fe36467	CP	mg/kg	5.1	< 5	58	30%	Fail	Q15
Zinc	S20-Fe36467	CP	mg/kg	16	15	7.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S20-Fe36471	CP	%	11	12	8.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S20-Fe36480	CP	mg/kg	12	10	17	30%	Pass	
Cadmium	S20-Fe36480	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S20-Fe36480	CP	mg/kg	19	16	14	30%	Pass	
Copper	S20-Fe36480	CP	mg/kg	8.1	5.4	40	30%	Fail	Q15
Lead	S20-Fe36480	CP	mg/kg	17	14	19	30%	Pass	
Mercury	S20-Fe36480	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S20-Fe36480	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S20-Fe36480	CP	mg/kg	14	10	26	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S20-Fe36481	CP	%	5.8	5.9	2.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S20-Fe36491	CP	%	21	19	8.0	30%	Pass	

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S20-Fe36491	CP	mg/kg	14	14	2.0	30%	Pass
Cadmium	S20-Fe36491	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	S20-Fe36491	CP	mg/kg	33	37	11	30%	Pass
Copper	S20-Fe36491	CP	mg/kg	14	16	13	30%	Pass
Lead	S20-Fe36491	CP	mg/kg	21	26	21	30%	Pass
Mercury	S20-Fe36491	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Nickel	S20-Fe36491	CP	mg/kg	8.1	9.6	18	30%	Pass
Zinc	S20-Fe36491	CP	mg/kg	21	27	23	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C10-C14	S20-Fe36493	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	S20-Fe36493	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	S20-Fe36493	CP	mg/kg	< 50	< 50	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
TRH >C10-C16	S20-Fe36493	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	S20-Fe36493	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	S20-Fe36493	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	S20-Fe36493	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	S20-Fe36493	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	S20-Fe36493	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	S20-Fe36493	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-BHC	S20-Fe36493	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	S20-Fe36493	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-BHC	S20-Fe36493	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-BHC	S20-Fe36493	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	S20-Fe36493	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	S20-Fe36493	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	S20-Fe36493	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	S20-Fe36493	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	S20-Fe36493	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	S20-Fe36493	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	S20-Fe36493	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-BHC (Lindane)	S20-Fe36493	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Heptachlor	S20-Fe36493	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S20-Fe36493	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S20-Fe36493	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S20-Fe36493	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Toxaphene	S20-Fe36493	CP	mg/kg	< 1	< 1	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1221	S20-Fe36493	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1242	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1248	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1254	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1260	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Total PCB*	S20-Fe36493	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C6-C9	S20-Fe36672	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C10-C14	S20-Fe36672	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	S20-Fe36672	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	S20-Fe36672	CP	mg/kg	< 50	< 50	<1	30%	Pass
Duplicate								
BTX				Result 1	Result 2	RPD		
Benzene	S20-Fe36672	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Toluene	S20-Fe36672	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethylbenzene	S20-Fe36672	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
m&p-Xylenes	S20-Fe36672	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
o-Xylene	S20-Fe36672	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Xylenes - Total	S20-Fe36672	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
Naphthalene	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	S20-Fe36672	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH >C10-C16	S20-Fe36672	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	S20-Fe36672	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	S20-Fe36672	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	S20-Fe36672	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	S20-Fe36672	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	S20-Fe36672	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	S20-Fe36672	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-BHC	S20-Fe36672	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	S20-Fe36672	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-BHC	S20-Fe36672	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-BHC	S20-Fe36672	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	S20-Fe36672	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	S20-Fe36672	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	S20-Fe36672	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	S20-Fe36672	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	S20-Fe36672	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	S20-Fe36672	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	S20-Fe36672	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-BHC (Lindane)	S20-Fe36672	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	S20-Fe36672	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S20-Fe36672	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S20-Fe36672	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S20-Fe36672	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1221	S20-Fe36672	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1242	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1248	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1254	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1260	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Total PCB*	S20-Fe36672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	S20-Fe36674	CP	%	16	15	6.0	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	S20-Fe36679	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S20-Fe36679	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S20-Fe36679	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	S20-Fe36679	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	S20-Fe36679	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	S20-Fe36679	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	S20-Fe36679	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	S20-Fe36679	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	S20-Fe36679	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	S20-Fe36679	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S20-Fe36679	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S20-Fe36679	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S20-Fe36679	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S20-Fe36679	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S20-Fe36679	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S20-Fe36679	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S20-Fe36680	CP	mg/kg	19	16	14	30%	Pass
Cadmium	S20-Fe36680	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	S20-Fe36680	CP	mg/kg	36	31	17	30%	Pass
Copper	S20-Fe36680	CP	mg/kg	16	19	18	30%	Pass
Lead	S20-Fe36680	CP	mg/kg	27	22	19	30%	Pass
Mercury	S20-Fe36680	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Nickel	S20-Fe36680	CP	mg/kg	9.2	11	19	30%	Pass
Zinc	S20-Fe36680	CP	mg/kg	29	34	15	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	S20-Fe36686	CP	%	9.7	10	4.0	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C10-C14	S20-Fe36688	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	S20-Fe36688	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	S20-Fe36688	CP	mg/kg	< 50	< 50	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
TRH >C10-C16	S20-Fe36688	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	S20-Fe36688	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	S20-Fe36688	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	S20-Fe36688	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	S20-Fe36688	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	S20-Fe36688	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	S20-Fe36688	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-BHC	S20-Fe36688	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	S20-Fe36688	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-BHC	S20-Fe36688	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-BHC	S20-Fe36688	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	S20-Fe36688	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	S20-Fe36688	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	S20-Fe36688	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	S20-Fe36688	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	S20-Fe36688	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Endrin aldehyde	S20-Fe36688	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	S20-Fe36688	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-BHC (Lindane)	S20-Fe36688	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	S20-Fe36688	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S20-Fe36688	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S20-Fe36688	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S20-Fe36688	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Toxaphene	S20-Fe36688	CP	mg/kg	< 1	< 1	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1221	S20-Fe36688	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1242	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1248	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1254	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1260	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Total PCB*	S20-Fe36688	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C6-C9	S20-Fe36690	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C10-C14	S20-Fe36690	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	S20-Fe36690	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	S20-Fe36690	CP	mg/kg	< 50	< 50	<1	30%	Pass
Duplicate								
BTX				Result 1	Result 2	RPD		
Benzene	S20-Fe36690	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Toluene	S20-Fe36690	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethylbenzene	S20-Fe36690	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
m&p-Xylenes	S20-Fe36690	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
o-Xylene	S20-Fe36690	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Xylenes - Total	S20-Fe36690	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
Naphthalene	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	S20-Fe36690	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH >C10-C16	S20-Fe36690	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	S20-Fe36690	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	S20-Fe36690	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Naphthalene	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	S20-Fe36690	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	S20-Fe36690	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	S20-Fe36690	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	S20-Fe36690	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-BHC	S20-Fe36690	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	S20-Fe36690	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-BHC	S20-Fe36690	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-BHC	S20-Fe36690	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	S20-Fe36690	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	S20-Fe36690	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	S20-Fe36690	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	S20-Fe36690	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	S20-Fe36690	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	S20-Fe36690	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	S20-Fe36690	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-BHC (Lindane)	S20-Fe36690	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	S20-Fe36690	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S20-Fe36690	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S20-Fe36690	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S20-Fe36690	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1221	S20-Fe36690	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1242	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1248	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1254	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1260	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Total PCB*	S20-Fe36690	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S20-Fe36691	CP	mg/kg	4.2	5.2	20	30%	Pass
Cadmium	S20-Fe36691	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	S20-Fe36691	CP	mg/kg	17	19	12	30%	Pass
Copper	S20-Fe36691	CP	mg/kg	14	17	18	30%	Pass
Lead	S20-Fe36691	CP	mg/kg	34	39	14	30%	Pass
Mercury	S20-Fe36691	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Nickel	S20-Fe36691	CP	mg/kg	6.6	6.9	5.0	30%	Pass
Zinc	S20-Fe36691	CP	mg/kg	50	60	18	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	S20-Fe36697	CP	%	1.2	1.1	6.0	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S20-Fe36701	CP	mg/kg	5.0	4.6	8.0	30%	Pass
Cadmium	S20-Fe36701	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	S20-Fe36701	CP	mg/kg	8.9	6.4	32	30%	Fail
Copper	S20-Fe36701	CP	mg/kg	5.1	< 5	14	30%	Pass

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Lead	S20-Fe36701	CP	mg/kg	23	18	23	30%	Pass
Mercury	S20-Fe36701	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Nickel	S20-Fe36701	CP	mg/kg	< 5	< 5	<1	30%	Pass
Zinc	S20-Fe36701	CP	mg/kg	88	79	11	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S20-Fe36707	CP	mg/kg	7.3	6.6	10	30%	Pass
Cadmium	S20-Fe36707	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	S20-Fe36707	CP	mg/kg	32	28	13	30%	Pass
Copper	S20-Fe36707	CP	mg/kg	14	9.9	31	30%	Fail
Lead	S20-Fe36707	CP	mg/kg	25	22	14	30%	Pass
Mercury	S20-Fe36707	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Nickel	S20-Fe36707	CP	mg/kg	6.3	< 5	28	30%	Pass
Zinc	S20-Fe36707	CP	mg/kg	43	36	19	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	S20-Fe36711	CP	%	22	25	14	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C6-C9	S20-Fe36809	CP	mg/kg	< 20	< 20	<1	30%	Pass
Duplicate								
BTEX				Result 1	Result 2	RPD		
Benzene	S20-Fe36809	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Toluene	S20-Fe36809	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethylbenzene	S20-Fe36809	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
m&p-Xylenes	S20-Fe36809	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
o-Xylene	S20-Fe36809	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Xylenes - Total	S20-Fe36809	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
Naphthalene	S20-Fe36809	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	S20-Fe36809	CP	mg/kg	< 20	< 20	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	S20-Fe36810	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S20-Fe36810	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S20-Fe36810	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	S20-Fe36810	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	S20-Fe36810	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	S20-Fe36810	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	S20-Fe36810	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	S20-Fe36810	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	S20-Fe36810	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	S20-Fe36810	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S20-Fe36810	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S20-Fe36810	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S20-Fe36810	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S20-Fe36810	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S20-Fe36810	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S20-Fe36810	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S20-Fe36811	CP	mg/kg	6.8	3.3	69	30%	Fail	Q15
Cadmium	S20-Fe36811	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S20-Fe36811	CP	mg/kg	5.5	< 5	27	30%	Pass	
Copper	S20-Fe36811	CP	mg/kg	20	7.9	87	30%	Fail	Q15
Lead	S20-Fe36811	CP	mg/kg	9.2	5.0	59	30%	Fail	Q15
Mercury	S20-Fe36811	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S20-Fe36811	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S20-Fe36811	CP	mg/kg	28	13	77	30%	Fail	Q15
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S20-Fe36815	CP	%	8.7	8.7	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	S20-Fe36818	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S20-Fe36818	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S20-Fe36818	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	S20-Fe36818	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S20-Fe36818	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S20-Fe36818	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g,h,i)perylene	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a,h)anthracene	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1,2,3-cd)pyrene	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S20-Fe36818	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4,4'-DDD	S20-Fe36818	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4,4'-DDE	S20-Fe36818	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4,4'-DDT	S20-Fe36818	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
α-BHC	S20-Fe36818	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S20-Fe36818	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
β-BHC	S20-Fe36818	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
δ-BHC	S20-Fe36818	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S20-Fe36818	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S20-Fe36818	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S20-Fe36818	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S20-Fe36818	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S20-Fe36818	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Endrin aldehyde	S20-Fe36818	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	S20-Fe36818	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-BHC (Lindane)	S20-Fe36818	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	S20-Fe36818	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S20-Fe36818	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S20-Fe36818	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S20-Fe36818	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Toxaphene	S20-Fe36818	CP	mg/kg	< 1	< 1	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1221	S20-Fe36818	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1242	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1248	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1254	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1260	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Total PCB*	S20-Fe36818	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S20-Fe36822	CP	mg/kg	12	19	45	30%	Fail Q15
Cadmium	S20-Fe36822	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	S20-Fe36822	CP	mg/kg	55	65	17	30%	Pass
Copper	S20-Fe36822	CP	mg/kg	18	25	31	30%	Fail Q15
Lead	S20-Fe36822	CP	mg/kg	33	59	55	30%	Fail Q15
Mercury	S20-Fe36822	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Nickel	S20-Fe36822	CP	mg/kg	11	13	15	30%	Pass
Zinc	S20-Fe36822	CP	mg/kg	39	41	7.0	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C6-C9	S20-Fe36825	CP	mg/kg	< 20	< 20	<1	30%	Pass
Duplicate								
BTEX				Result 1	Result 2	RPD		
Benzene	S20-Fe36825	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Toluene	S20-Fe36825	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethylbenzene	S20-Fe36825	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
m&p-Xylenes	S20-Fe36825	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
o-Xylene	S20-Fe36825	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Xylenes - Total	S20-Fe36825	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
Naphthalene	S20-Fe36825	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	S20-Fe36825	CP	mg/kg	< 20	< 20	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	S20-Fe36825	CP	%	6.4	5.8	9.0	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S20-Fe36833	CP	mg/kg	6.1	6.3	4.0	30%	Pass
Cadmium	S20-Fe36833	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	S20-Fe36833	CP	mg/kg	19	20	7.0	30%	Pass
Copper	S20-Fe36833	CP	mg/kg	20	23	14	30%	Pass
Lead	S20-Fe36833	CP	mg/kg	22	24	11	30%	Pass
Mercury	S20-Fe36833	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Nickel	S20-Fe36833	CP	mg/kg	6.2	7.3	17	30%	Pass
Zinc	S20-Fe36833	CP	mg/kg	76	93	20	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	S20-Fe36835	CP	%	25	24	2.0	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Conductivity (1:5 aqueous extract at 25°C as rec.)	S20-Fe36838	CP	uS/cm	< 10	< 10	<1	30%	Pass
pH (1:5 Aqueous extract at 25°C as rec.)	S20-Fe36838	CP	pH Units	6.3	6.1	Pass	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C6-C9	S20-Fe37658	CP	mg/kg	< 20	< 20	<1	30%	Pass
Duplicate								
BTEX				Result 1	Result 2	RPD		
Benzene	S20-Fe37658	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Toluene	S20-Fe37658	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethylbenzene	S20-Fe37658	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
m&p-Xylenes	S20-Fe37658	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
o-Xylene	S20-Fe37658	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Xylenes - Total	S20-Fe37658	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
Naphthalene	S20-Fe37658	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	S20-Fe37658	CP	mg/kg	< 20	< 20	<1	30%	Pass

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
G01	The LORs have been raised due to matrix interference
M01	Microbiological Testing performed outside the recommended holding time
M15	LOR raised due to physical properties of sample
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
Q02	The duplicate %RPD is outside the recommended acceptance criteria. Further analysis indicates sample heterogeneity as the cause
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)
Gabriele Cordero	Senior Analyst-Inorganic (NSW)
Gabriele Cordero	Senior Analyst-Metal (NSW)
Nandhini Uthayakumaran	Senior Analyst-Microbiology (VIC)



Glenn Jackson

General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

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Accreditation Number 1261
Site Number 18217 & 14271

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or
measurements included in this document are traceable
to Australian/national standards.

Attention: Abanish Nepal

Report 704317-W
Project name CORNER OF DOSSIE ST AND SLOANE ST GOULBURN
Project ID 5046200019
Received Date Feb 26, 2020

Client Sample ID			G01SW01	G01SW02	SW03	QAQC1
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-Fe36703	S20-Fe36704	S20-Fe36705	S20-Fe36706
Date Sampled			Feb 20, 2020	Feb 20, 2020	Feb 20, 2020	Feb 20, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.08	< 0.02	< 0.02	-
TRH C10-C14	0.05	mg/L	0.55	< 0.05	< 0.05	-
TRH C15-C28	0.1	mg/L	2.7	< 0.1	< 0.1	-
TRH C29-C36	0.1	mg/L	0.9	< 0.1	< 0.1	-
TRH C10-C36 (Total)	0.1	mg/L	4.15	< 0.1	< 0.1	-
BTEX						
Benzene	0.001	mg/L	< 0.004	< 0.001	< 0.001	-
Toluene	0.001	mg/L	< 0.004	< 0.001	< 0.001	-
Ethylbenzene	0.001	mg/L	0.006	< 0.001	< 0.001	-
m&p-Xylenes	0.002	mg/L	0.020	< 0.002	< 0.002	-
o-Xylene	0.001	mg/L	0.004	< 0.001	< 0.001	-
Xylenes - Total	0.003	mg/L	0.025	< 0.003	< 0.003	-
4-Bromofluorobenzene (surr.)	1	%	99	108	102	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.01	mg/L	< 0.04	< 0.01	< 0.01	-
TRH C6-C10	0.02	mg/L	< 0.08	< 0.02	< 0.02	-
TRH C6-C10 less BTEX (F1) ^{N04}	0.02	mg/L	< 0.08	< 0.02	< 0.02	-
TRH >C10-C16	0.05	mg/L	1.1	< 0.05	< 0.05	-
TRH >C10-C16 less Naphthalene (F2) ^{N01}	0.05	mg/L	1.1	< 0.05	< 0.05	-
TRH >C16-C34	0.1	mg/L	2.8	< 0.1	< 0.1	-
TRH >C34-C40	0.1	mg/L	0.5	< 0.1	< 0.1	-
TRH >C10-C40 (total)*	0.1	mg/L	4.4	< 0.1	< 0.1	-
Ammonia (as N)	0.01	mg/L	11	14	0.16	-
Nitrate (as N)	0.02	mg/L	< 0.5	< 0.5	< 0.02	-
pH (at 25°C)	0.1	pH Units	9.0	8.4	8.1	-
Phosphate total (as P)	0.01	mg/L	12	8.0	2.0	-
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	0.13	0.018	0.014	0.018
Cadmium (filtered)	0.0002	mg/L	< 0.002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.01	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	0.016	0.015	0.026	0.011
Lead (filtered)	0.001	mg/L	< 0.01	< 0.001	< 0.001	< 0.001
Mercury (filtered)	0.0001	mg/L	< 0.001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.067	0.017	0.007	0.016
Zinc (filtered)	0.005	mg/L	0.083	0.027	0.046	0.018

Client Sample ID			G01SW01 Water S20-Fe36703 Feb 20, 2020	G01SW02 Water S20-Fe36704 Feb 20, 2020	SW03 Water S20-Fe36705 Feb 20, 2020	QAQC1 Water S20-Fe36706 Feb 20, 2020
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Alkali Metals						
Calcium	0.5	mg/L	100	88	58	-
Magnesium	0.5	mg/L	150	64	18	-
Hardness Set						
Hardness mg equivalent CaCO3/L	5	mg/L	870	480	220	-
Pathogens						
E.coli	1	MPN/100mL	160	M15< 10	M15< 10	-
Thermotolerant Coliforms	1	MPN/100mL	580	51	M15< 10	-

Client Sample ID			SW04 Water S20-Fe36841 Feb 21, 2020	SW05 Water S20-Fe36842 Feb 21, 2020	SW06 Water S20-Fe36843 Feb 21, 2020	SW07 Water S20-Fe36844 Feb 21, 2020
Sample Matrix						
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	103	99	94	95
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1) ^{N04}	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2) ^{N01}	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Ammonia (as N)	0.01	mg/L	0.02	0.11	0.16	0.12
Nitrate (as N)	0.02	mg/L	0.03	< 0.02	< 0.02	< 0.02
pH (at 25°C)	0.1	pH Units	7.7	7.1	7.8	7.8
Phosphate total (as P)	0.01	mg/L	0.08	0.06	0.11	0.10
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	< 0.001	< 0.001	0.002	0.002
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	0.021	0.014	0.026	0.015
Lead (filtered)	0.001	mg/L	0.002	0.002	0.002	< 0.001

Client Sample ID			SW04	SW05	SW06	SW07
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-Fe36841	S20-Fe36842	S20-Fe36843	S20-Fe36844
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
Heavy Metals						
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.006	0.005	0.015	0.005
Zinc (filtered)	0.005	mg/L	0.11	0.15	0.13	0.065
Alkali Metals						
Calcium	0.5	mg/L	24	24	27	25
Magnesium	0.5	mg/L	17	17	18	18
Hardness Set						
Hardness mg equivalent CaCO3/L	5	mg/L	130	130	140	140
Pathogens						
E.coli	1	MPN/100mL	41	31	10	20
Thermotolerant Coliforms	1	MPN/100mL	120	400	150	110

Client Sample ID			R20 TRIP SPIKE 1	TRIP BLANK 1	R20 TRIP SPIKE 2	TRIP BLANK 2
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-Fe36845	S20-Fe36846	S20-Fe36847	S20-Fe36848
Date Sampled			Feb 21, 2020	Feb 21, 2020	Feb 21, 2020	Feb 21, 2020
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.001	mg/L	95	< 0.001	91	< 0.001
Toluene	0.001	mg/L	94	< 0.001	89	< 0.001
Ethylbenzene	0.001	mg/L	96	< 0.001	90	< 0.001
m&p-Xylenes	0.002	mg/L	100	< 0.002	95	< 0.002
o-Xylene	0.001	mg/L	100	< 0.001	91	< 0.001
Xylenes - Total	0.003	mg/L	100	< 0.003	94	< 0.003
4-Bromofluorobenzene (surr.)	1	%	126	124	123	127

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

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

Description	Testing Site	Extracted	Holding Time
Eurofins mgt Suite B4			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Feb 27, 2020	7 Days
BTEX - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Feb 27, 2020	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Feb 27, 2020	7 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Feb 27, 2020	
Ammonia (as N) - Method: LTM-INO-4200 Ammonia by Discrete Analyser	Melbourne	Feb 27, 2020	28 Days
Nitrate (as N) - Method: LTM-INO-4120 Analysis of NOx NO2 NH3 by FIA	Melbourne	Feb 27, 2020	28 Days
pH (at 25°C) - Method: LTM-GEN-7090 pH in water by ISE	Melbourne	Feb 27, 2020	0 Hours
Phosphate total (as P) - Method: APHA 4500-P E. Phosphorus	Melbourne	Feb 27, 2020	28 Days
Metals M8 filtered - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	Feb 27, 2020	28 Days
Hardness Set			
Calcium - Method:	Melbourne	Feb 27, 2020	180 Days
Magnesium - Method:	Melbourne	Feb 27, 2020	180 Days
Hardness mg equivalent CaCO3/L - Method:	Melbourne	Feb 27, 2020	28 Days
E.coli - Method: LTM-MIC-6621 E.Coli and Total Coliforms by the MPN	Melbourne	Feb 28, 2020	24 Hour
Thermotolerant Coliforms - Method: Inhouse LTM-MIC-6623: Thermotolerant Coliforms by MPN	Melbourne	Feb 28, 2020	24 Hour

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Order No.:
Report #: 704317
Phone: 02 9854 1700
Fax:

Received: Feb 26, 2020 3:01 PM
Due: Mar 2, 2020
Priority: 3 Day
Contact Name: Abanish Nepal

Project Name: CORNER OF DOSSIE ST AND SLOANE ST GOULBURN
Project ID: 5046200019

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Ammonia (as N)	CANCELLED	Conductivity (1:5 aqueous extract at 25°C as rec.)	E.coli	HOLD	Nitrate (as N)	pH (1:5 Aqueous extract at 25°C as rec.)	pH (at 25°C)	Phosphate total (as P)	Thermotolerant Coliforms	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Eurofins mgt Suite B13	Hardness Set	Moisture Set	Eurofins mgt Suite B7	Eurofins mgt Suite B1	Eurofins mgt Suite B1	Eurofins mgt Suite B4	
Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X					X		X		X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X	
Brisbane Laboratory - NATA Site # 20794																												
Perth Laboratory - NATA Site # 23736																												
External Laboratory																												
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID																							
1	SS01	Feb 17, 2020		Soil	S20-Fe36274				X						X								X	X				
2	SS02	Feb 17, 2020		Soil	S20-Fe36275				X						X								X	X				
3	SS03	Feb 17, 2020		Soil	S20-Fe36276				X						X								X	X				
4	SS04	Feb 17, 2020		Soil	S20-Fe36277				X						X								X	X				
5	SS05	Feb 17, 2020		Soil	S20-Fe36278				X						X								X	X				
6	SS06	Feb 17, 2020		Soil	S20-Fe36279													X					X					
7	SS07	Feb 17, 2020		Soil	S20-Fe36280				X						X								X	X				
8	SS08	Feb 17, 2020		Soil	S20-Fe36281				X						X								X	X				
9	SS09	Feb 17, 2020		Soil	S20-Fe36282				X						X								X	X				
10	BH01 0.0-0.1	Feb 17, 2020		Soil	S20-Fe36283												X						X	X				

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
11	BH02 0.0-0.1	Feb 17, 2020		Soil	S20-Fe36284												X						X	X			
12	SS10	Feb 18, 2020		Soil	S20-Fe36285													X					X				
13	SS11	Feb 18, 2020		Soil	S20-Fe36286																X		X	X			
14	SS12	Feb 18, 2020		Soil	S20-Fe36287																X		X	X			
15	SS13	Feb 18, 2020		Soil	S20-Fe36288													X					X				
16	SS14	Feb 18, 2020		Soil	S20-Fe36289																X		X	X			
17	SS15	Feb 18, 2020		Soil	S20-Fe36290																X		X	X			
18	SS16	Feb 18, 2020		Soil	S20-Fe36291																X		X	X			
19	DUP01	Feb 18, 2020		Soil	S20-Fe36292													X					X				
20	TP01 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36293				X						X								X				
21	TP01 0.4-0.5	Feb 18, 2020		Soil	S20-Fe36294																X		X	X			
22	TP01 0.9-1.0	Feb 18, 2020		Soil	S20-Fe36295																		X			X	
23	TP02 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36296				X						X						X		X	X			

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
24	TP03 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36297				X						X						X		X				
25	TP03 0.4-0.5	Feb 18, 2020		Soil	S20-Fe36298																		X	X			
26	TP03 0.9-1.0	Feb 18, 2020		Soil	S20-Fe36299											X		X					X				
27	TP04 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36300				X						X			X					X				
28	TP04 0.3-0.4	Feb 18, 2020		Soil	S20-Fe36301																X		X				
29	TP04 1.3-1.4	Feb 18, 2020		Soil	S20-Fe36302																		X			X	
30	TP04 1.8-1.9	Feb 18, 2020		Soil	S20-Fe36303											X		X					X				
31	DUP04	Feb 18, 2020		Soil	S20-Fe36304													X					X				
32	TP05 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36305				X						X						X		X				
33	TP05 0.4-0.5	Feb 18, 2020		Soil	S20-Fe36306																		X	X			
34	TP06 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36307				X						X								X	X			
35	TP07 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36308				X						X						X		X	X			
36	TP07 0.9-1.0	Feb 18, 2020		Soil	S20-Fe36309											X		X					X				

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Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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Murarie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
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Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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IANZ # 1327

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

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X	X		X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
37	TP08 0.1-0.3	Feb 18, 2020		Soil	S20-Fe36310				X						X								X	X			
38	TP09 0.1-0.3	Feb 18, 2020		Soil	S20-Fe36351				X						X								X	X			
39	TP10 0.1-0.3	Feb 18, 2020		Soil	S20-Fe36352				X						X								X	X			
40	TP11 0.1-0.3	Feb 18, 2020		Soil	S20-Fe36353				X						X								X	X			
41	TP12 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36354				X						X	X		X		X		X					
42	TP12 1.4-1.5	Feb 18, 2020		Soil	S20-Fe36355																		X			X	
43	TP13 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36356				X						X								X				
44	TP13 0.5-0.6	Feb 18, 2020		Soil	S20-Fe36357											X		X			X		X				
45	TP13 1.5-1.6	Feb 18, 2020		Soil	S20-Fe36358																		X	X			
46	DUP06	Feb 18, 2020		Soil	S20-Fe36359											X		X			X		X				
47	TP14 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36360				X						X								X				
48	TP14 0.4-0.5	Feb 18, 2020		Soil	S20-Fe36361																		X	X			
49	TP14 1.9-2.0	Feb 18, 2020		Soil	S20-Fe36362																X		X				

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
50	TP15 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36363				X						X						X		X				
51	TP15 1.4-1.5	Feb 18, 2020		Soil	S20-Fe36364																		X	X			
52	TP16 0.0-0.1	Feb 18, 2020		Soil	S20-Fe36365				X						X						X		X				
53	TP16 0.4-0.5	Feb 18, 2020		Soil	S20-Fe36366																		X	X			
54	TP16 1.9-2.0	Feb 18, 2020		Soil	S20-Fe36367																		X	X			
55	TP17 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36368				X						X						X		X	X			
56	TP18 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36369				X						X						X		X	X			
57	TP18 0.4-0.5	Feb 19, 2020		Soil	S20-Fe36370											X		X					X				
58	TP19 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36371				X						X								X			X	
59	TP19 0.3-0.4	Feb 19, 2020		Soil	S20-Fe36372											X		X					X				
60	TP20 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36373				X						X								X				
61	TP20 0.4-0.5	Feb 19, 2020		Soil	S20-Fe36374																		X	X			
62	TP21 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36375				X						X								X	X			

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
63	TP22 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36376				X						X								X	X			
64	TP23 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36377				X						X								X	X			
65	TP24 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36378				X						X								X	X			
66	TP25 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36379				X						X								X	X			
67	TP26 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36380				X						X								X	X			
68	TP26 0.3-0.4	Feb 19, 2020		Soil	S20-Fe36381													X					X			X	
69	TP27 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36382				X						X						X		X				
70	TP27 0.5-0.6	Feb 19, 2020		Soil	S20-Fe36383																		X	X			
71	TP27 0.7-0.8	Feb 19, 2020		Soil	S20-Fe36384											X		X					X				
72	DUP10	Feb 19, 2020		Soil	S20-Fe36385													X					X				
73	TP28 0.0-1	Feb 19, 2020		Soil	S20-Fe36463				X						X						X		X	X			
74	TP29 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36464				X						X								X				
75	TP29 0.3-0.4	Feb 19, 2020		Soil	S20-Fe36465																		X	X			

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
76	TP30 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36466				X						X								X	X			
77	TP31 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36467				X						X								X	X			
78	TP32 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36468				X						X								X	X			
79	TP33 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36469				X						X								X	X			
80	TP34 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36470				X						X	X		X					X				
81	TP34 0.4-0.5	Feb 19, 2020		Soil	S20-Fe36471																		X			X	
82	TP35 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36472				X						X						X		X	X			
83	TP36 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36473				X						X								X				
84	TP36 0.6-0.7	Feb 19, 2020		Soil	S20-Fe36474																X		X	X			
85	TP37 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36475				X						X						X		X	X			
86	TP37 0.9-1.0	Feb 19, 2020		Soil	S20-Fe36476													X					X			X	
87	TP38 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36477				X						X						X		X	X			
88	TP39 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36478				X						X								X				

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NATA # 1261 Site # 18217

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Company Name: Construction Sciences Pty Ltd
Address: 2/4 Kellogg Rd
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Order No.:
Report #: 704317
Phone: 02 9854 1700
Fax:

Received: Feb 26, 2020 3:01 PM
Due: Mar 2, 2020
Priority: 3 Day
Contact Name: Abanish Nepal

Project Name: CORNER OF DOSSIE ST AND SLOANE ST GOULBURN
Project ID: 5046200019

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Ammonia (as N)	CANCELLED	Conductivity/ (1:5 aqueous extract at 25° C as rec.)	E.coli	HOLD	Nitrate (as N)	pH (1:5 Aqueous extract at 25° C as rec.)	pH (at 25° C)	Phosphate total (as P)	Thermotolerant Coliforms	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Eurofins mgt Suite B13	Hardness Set	Moisture Set	Eurofins mgt Suite B7	Eurofins mgt Suite B1	Eurofins mgt Suite B1	Eurofins mgt Suite B4
Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
89	TP39 0.5-0.6	Feb 19, 2020		Soil	S20-Fe36479																X		X	X			
90	TP39 1.7-1.8	Feb 19, 2020		Soil	S20-Fe36480											X		X				X					
91	TP40 0.0-0.1	Feb 19, 2020		Soil	S20-Fe36481			X							X							X					
92	TP40 0.4-0.5	Feb 19, 2020		Soil	S20-Fe36482											X		X				X					
93	DUP13	Feb 19, 2020		Soil	S20-Fe36483											X		X					X				
94	SS17	Feb 19, 2020		Soil	S20-Fe36484															X		X	X				
95	SS18	Feb 19, 2020		Soil	S20-Fe36485													X				X					
96	SS19	Feb 19, 2020		Soil	S20-Fe36486															X		X	X				
97	SS20	Feb 19, 2020		Soil	S20-Fe36487																X		X	X			
98	TP41 0.1-0.3	Feb 20, 2020		Soil	S20-Fe36488																		X	X			
99	TP42 0.1-0.3	Feb 20, 2020		Soil	S20-Fe36489			X							X								X	X			
100	TP43 0.1-0.3	Feb 20, 2020		Soil	S20-Fe36490			X							X								X	X			
101	TP44 0.1-0.3	Feb 20, 2020		Soil	S20-Fe36491			X							X								X	X			

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
102	TP45 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36492				X						X						X		X	X			
103	TP46 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36493				X						X						X		X	X			
104	TP47 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36494				X						X						X		X				
105	TP47 0.3-0.4	Feb 20, 2020		Soil	S20-Fe36495				X						X								X	X			
106	TP47 0.8-0.9	Feb 20, 2020		Soil	S20-Fe36669																		X			X	
107	TP47 1.5-1.6	Feb 20, 2020		Soil	S20-Fe36670											X		X					X				
108	DUP14	Feb 20, 2020		Soil	S20-Fe36671																		X			X	
109	TP48 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36672				X						X						X		X	X			
110	TP48 1.2-1.3	Feb 20, 2020		Soil	S20-Fe36673											X		X					X				
111	TP49 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36674				X						X						X		X				
112	TP49 0.5-0.6	Feb 20, 2020		Soil	S20-Fe36675																		X	X			
113	TP50 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36676		X																				
114	TP50 0.7-0.8	Feb 20, 2020		Soil	S20-Fe36677		X																				

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
115	TP51 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36678				X						X						X		X	X			
116	TP51 0.4-0.5	Feb 20, 2020		Soil	S20-Fe36679											X		X				X					
117	DUP16	Feb 20, 2020		Soil	S20-Fe36680											X		X				X					
118	TP52 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36681				X						X						X		X	X			
119	TP53 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36682				X						X								X				
120	TP53 0.2-0.3	Feb 20, 2020		Soil	S20-Fe36683																X		X	X			
121	TP54 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36684																X		X	X			
122	TP55 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36685																X		X	X			
123	TP55 0.4-0.5	Feb 20, 2020		Soil	S20-Fe36686											X		X					X				
124	TP56 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36687																X		X	X			
125	TP57 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36688																X		X	X			
126	TP58 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36689																X		X	X			
127	TP59 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36690																X		X	X			

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
128	TP59 0.4-0.5	Feb 20, 2020		Soil	S20-Fe36691											X		X					X				
129	TP60 0.0-0.1	Feb 20, 2020		Soil	S20-Fe36692					X																	
130	TP60 0.4-0.5	Feb 20, 2020		Soil	S20-Fe36693		X																				
131	TP60 0.9-1.0	Feb 20, 2020		Soil	S20-Fe36694																		X	X			
132	TP60 1.9-2.0	Feb 20, 2020		Soil	S20-Fe36695											X		X					X				
133	DUP 20	Feb 20, 2020		Soil	S20-Fe36696											X		X					X				
134	SS21	Feb 20, 2020		Soil	S20-Fe36697											X	X	X					X				
135	SS22	Feb 20, 2020		Soil	S20-Fe36698											X	X	X					X				
136	SS23	Feb 20, 2020		Soil	S20-Fe36699											X		X					X				
137	SS24	Feb 20, 2020		Soil	S20-Fe36700											X		X					X				
138	SS25	Feb 20, 2020		Soil	S20-Fe36701											X	X	X					X				
139	SS26	Feb 20, 2020		Soil	S20-Fe36702											X	X	X					X				
140	SW01	Feb 20, 2020		Water	S20-Fe36703	X			X		X		X	X	X				X			X			X		

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
141	SW02	Feb 20, 2020		Water	S20-Fe36704	X			X		X		X	X	X				X			X			X		
142	SW03	Feb 20, 2020		Water	S20-Fe36705	X			X		X		X	X	X				X			X			X		
143	QAQC1	Feb 20, 2020		Water	S20-Fe36706														X								
144	TP61 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36707																X		X	X			
145	TP62 0.1-0.3	Feb 21, 2020		Soil	S20-Fe36708				X						X								X	X			
146	TP63 0.1-0.3	Feb 21, 2020		Soil	S20-Fe36709				X						X								X	X			
147	TP64 0.1-0.3	Feb 21, 2020		Soil	S20-Fe36710				X						X								X	X			
148	TP65 0.1-0.3	Feb 21, 2020		Soil	S20-Fe36711				X						X								X	X			
149	TP66 0.1-0.3	Feb 21, 2020		Soil	S20-Fe36712				X						X								X	X			
150	TP67 0.1-0.3	Feb 21, 2020		Soil	S20-Fe36713				X						X								X	X			
151	TP68 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36714				X						X						X		X	X			
152	TP69 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36809				X						X						X		X	X			
153	TP69 0.3-0.4	Feb 21, 2020		Soil	S20-Fe36810											X		X					X				

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
154	TP70 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36811				X						X						X		X	X			
155	TP71 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36812				X						X						X		X	X			
156	TP72 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36813				X						X								X				
157	TP72 0.2-0.3	Feb 21, 2020		Soil	S20-Fe36814																X		X	X			
158	TP72 0.6-0.7	Feb 21, 2020		Soil	S20-Fe36815											X		X					X				
159	TP73 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36816				X						X						X		X	X			
160	DUP25	Feb 21, 2020		Soil	S20-Fe36817													X					X				
161	TP74 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36818				X						X						X		X	X			
162	TP74 0.8-0.9	Feb 21, 2020		Soil	S20-Fe36819											X		X					X				
163	TP75 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36820				X						X						X		X	X			
164	TP76 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36821				X						X						X		X	X			
165	TP76 1.5-1.6	Feb 21, 2020		Soil	S20-Fe36822				X						X	X		X					X				
166	TP77 0.2-0.3	Feb 21, 2020		Soil	S20-Fe36823				X						X						X		X	X			

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Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
167	TP78 0.0-0.2	Feb 21, 2020		Soil	S20-Fe36824				X						X						X		X	X			
168	TP78 1.1-1.2	Feb 21, 2020		Soil	S20-Fe36825				X						X								X	X			
169	TP79 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36826				X						X								X	X			
170	TP80 0.4-0.5	Feb 21, 2020		Soil	S20-Fe36827				X						X						X		X	X			
171	TP80 1.5-1.6	Feb 21, 2020		Soil	S20-Fe36828											X		X					X				
172	TP81 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36829				X						X								X	X			
173	TP82 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36830				X						X						X		X	X			
174	TP83 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36831				X						X						X		X	X			
175	TP84 0.0-0.1	Feb 21, 2020		Soil	S20-Fe36832				X						X								X				
176	TP84 0.3-0.4	Feb 21, 2020		Soil	S20-Fe36833				X						X						X		X	X			
177	TP84 1.0-1.1	Feb 21, 2020		Soil	S20-Fe36834											X		X					X				
178	TP85 1.5-1.6	Feb 21, 2020		Soil	S20-Fe36835				X						X						X		X	X			
179	SP01	Feb 21, 2020		Soil	S20-Fe36836																X		X	X			

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Glendenning
NSW 2761

Order No.:
Report #: 704317
Phone: 02 9854 1700
Fax:

Received: Feb 26, 2020 3:01 PM
Due: Mar 2, 2020
Priority: 3 Day
Contact Name: Abanish Nepal

Project Name: CORNER OF DOSSIE ST AND SLOANE ST GOULBURN
Project ID: 5046200019

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Ammonia (as N)	CANCELLED	Conductivity/ (1:5 aqueous extract at 25° C as rec.)	E.coli	HOLD	Nitrate (as N)	pH (1:5 Aqueous extract at 25° C as rec.)	pH (at 25° C)	Phosphate total (as P)	Thermotolerant Coliforms	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Eurofins mgt Suite B13	Hardness Set	Moisture Set	Eurofins mgt Suite B7	Eurofins mgt Suite B1	Eurofins mgt Suite B1	Eurofins mgt Suite B4
Melbourne Laboratory - NATA Site # 1254 & 14271						X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217							X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																											
Perth Laboratory - NATA Site # 23736																											
180	SP02	Feb 21, 2020		Soil	S20-Fe36837																X		X	X			
181	ABC01	Feb 21, 2020		Soil	S20-Fe36838			X				X						X					X				
182	ABC02	Feb 21, 2020		Soil	S20-Fe36839			X				X						X					X				
183	ABC03	Feb 21, 2020		Soil	S20-Fe36840			X				X						X					X				
184	SW04	Feb 21, 2020		Water	S20-Fe36841	X			X		X		X	X	X				X			X				X	
185	SW05	Feb 21, 2020		Water	S20-Fe36842	X			X		X		X	X	X				X			X				X	
186	SW06	Feb 21, 2020		Water	S20-Fe36843	X			X		X		X	X	X				X			X				X	
187	SW07	Feb 21, 2020		Water	S20-Fe36844	X			X		X		X	X	X				X			X				X	
188	TRIP SPIKE 1	Feb 21, 2020		Water	S20-Fe36845															X							
189	TRIP BLANK 1	Feb 21, 2020		Water	S20-Fe36846															X							
190	TRIP SPIKE 2	Feb 21, 2020		Water	S20-Fe36847															X							
191	TRIP BLANK 2	Feb 21, 2020		Water	S20-Fe36848															X							
192	TP40 1.0-1.1	Feb 19, 2020		Soil	S20-Fe37658																X		X	X			

Australia

Melbourne
6 Monterey Road
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Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
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NATA # 1261 Site # 18217

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NATA # 1261 Site # 20794

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Site # 23736

New Zealand

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Rolleston, Christchurch 7675
Phone : 0800 856 450
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ABN – 50 005 085 521

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e.mail : EnviroSales@eurofins.com

Company Name: Construction Sciences Pty Ltd
Address: 2/4 Kellogg Rd
Glendenning
NSW 2761

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Melbourne Laboratory - NATA Site # 1254 & 14271	X			X		X		X	X	X				X			X		X	X	X	X
Sydney Laboratory - NATA Site # 18217		X	X		X		X				X	X	X		X	X		X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794																						
Perth Laboratory - NATA Site # 23736																						
Test Counts	7	3	3	94	1	7	3	7	7	94	33	6	47	8	4	63	7	176	102	15	15	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

****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
NC	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

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
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	
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							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
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							
Ammonia (as N)	mg/L	< 0.01			0.01	Pass	
Nitrate (as N)	mg/L	< 0.02			0.02	Pass	
Phosphate total (as P)	mg/L	< 0.01			0.01	Pass	
Method Blank							
Heavy Metals							
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	112			70-130	Pass	
TRH C10-C14	%	79			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	103			70-130	Pass	
Toluene	%	97			70-130	Pass	
Ethylbenzene	%	101			70-130	Pass	
m&p-Xylenes	%	111			70-130	Pass	
o-Xylene	%	98			70-130	Pass	
Xylenes - Total	%	106			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	114			70-130	Pass	
TRH C6-C10	%	113			70-130	Pass	
TRH >C10-C16	%	74			70-130	Pass	
LCS - % Recovery							

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Ammonia (as N)			%	95			70-130	Pass	
Nitrate (as N)			%	101			70-130	Pass	
Phosphate total (as P)			%	82			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	M20-Fe37710	NCP	%	92			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	M20-Fe37710	NCP	%	88			70-130	Pass	
Spike - % Recovery									
				Result 1					
Ammonia (as N)	M20-Fe36760	NCP	%	89			70-130	Pass	
Nitrate (as N)	M20-Fe36782	NCP	%	101			70-130	Pass	
Phosphate total (as P)	B20-Fe32098	NCP	%	108			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic (filtered)	S20-Fe36841	CP	%	100			70-130	Pass	
Cadmium (filtered)	S20-Fe36841	CP	%	101			70-130	Pass	
Chromium (filtered)	S20-Fe36841	CP	%	97			70-130	Pass	
Copper (filtered)	S20-Fe36841	CP	%	97			70-130	Pass	
Lead (filtered)	S20-Fe36841	CP	%	100			70-130	Pass	
Mercury (filtered)	S20-Fe36841	CP	%	95			70-130	Pass	
Nickel (filtered)	S20-Fe36841	CP	%	99			70-130	Pass	
Zinc (filtered)	S20-Fe36841	CP	%	92			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S20-Fe34501	NCP	%	90			70-130	Pass	
Toluene	S20-Fe34501	NCP	%	96			70-130	Pass	
Ethylbenzene	S20-Fe34501	NCP	%	98			70-130	Pass	
m&p-Xylenes	S20-Fe34501	NCP	%	107			70-130	Pass	
o-Xylene	S20-Fe34501	NCP	%	97			70-130	Pass	
Xylenes - Total	S20-Fe34501	NCP	%	104			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S20-Fe34501	NCP	%	85			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S20-Fe34501	NCP	%	105			70-130	Pass	
TRH C6-C10	S20-Fe34501	NCP	%	84			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
				Result 1	Result 2	RPD			
Ammonia (as N)	M20-Fe36782	NCP	mg/L	0.04	0.01	110	30%	Fail	Q15
Nitrate (as N)	M20-Fe36782	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
pH (at 25°C)	M20-Fe37823	NCP	pH Units	7.9	7.9	pass	30%	Pass	
Phosphate total (as P)	S20-Fe32718	NCP	mg/L	0.03	0.03	11	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S20-Fe36841	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium (filtered)	S20-Fe36841	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium (filtered)	S20-Fe36841	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S20-Fe36841	CP	mg/L	0.021	0.021	<1	30%	Pass	

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Lead (filtered)	S20-Fe36841	CP	mg/L	0.002	0.001	11	30%	Pass
Mercury (filtered)	S20-Fe36841	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass
Nickel (filtered)	S20-Fe36841	CP	mg/L	0.006	0.006	4.0	30%	Pass
Zinc (filtered)	S20-Fe36841	CP	mg/L	0.11	0.11	<1	30%	Pass
Duplicate								
Alkali Metals				Result 1	Result 2	RPD		
Calcium	S20-Fe36842	CP	mg/L	24	24	1.0	30%	Pass
Magnesium	S20-Fe36842	CP	mg/L	17	17	1.0	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C10-C14	S20-Fe36844	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass
TRH C15-C28	S20-Fe36844	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass
TRH C29-C36	S20-Fe36844	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
TRH >C10-C16	S20-Fe36844	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass
TRH >C16-C34	S20-Fe36844	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass
TRH >C34-C40	S20-Fe36844	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
BTEX				Result 1	Result 2	RPD		
Benzene	B20-Fe33664	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Toluene	B20-Fe33664	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Ethylbenzene	B20-Fe33664	NCP	mg/L	0.001	0.001	5.0	30%	Pass
m&p-Xylenes	B20-Fe33664	NCP	mg/L	0.008	0.007	2.0	30%	Pass
o-Xylene	B20-Fe33664	NCP	mg/L	0.002	0.002	2.0	30%	Pass
Xylenes - Total	B20-Fe33664	NCP	mg/L	0.010	0.010	2.0	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C6-C9	S20-Fe40325	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
Naphthalene	S20-Fe40325	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass
TRH C6-C10	S20-Fe40325	NCP	mg/L	< 0.02	< 0.02	<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
G01	The LORs have been raised due to matrix interference
M15	LOR raised due to physical properties of sample
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.
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.
R20	This sample is a Trip Spike and therefore all results are reported as a percentage

Authorised By

Ursula Long	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)
Nandhini Uthayakumaran	Senior Analyst-Microbiology (VIC)
Scott Beddoes	Senior Analyst-Inorganic (VIC)



Glenn Jackson

General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

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#AU04_Enviro_Sample_NSW

To: Ursula Long
Subject: RE: Report 704317 - CEC request

From: Jennifer Brown [<mailto:Jennifer.Brown@constructionsciences.net>]
Sent: Monday, 9 March 2020 1:50 PM
To: Ursula Long
Cc: Abanish Nepal; Ammar Dawood
Subject: Report 704317 - CEC request

EXTERNAL EMAIL*

Hi Ursula, hope you had a good weekend.
Can we please get samples

S20-Fe36838
S20-Fe36839
S20-Fe36840

Analysed for CEC, standard TAT. Report Dossie St, Goulburn 704317
Many thanks as always,

Jennifer Brown
GRADUATE ENVIRONMENTAL SCIENTIST (APAC)
CONSTRUCTION SCIENCES



Phone Direct Fax (02) 8646 2025
Address 31 Anvil Road, Seven Hills, New South Wales 2147 Australia

Email jennifer.brown@constructionsciences.net Web www.constructionsciences.net

CONNECT WITH CONSTRUCTION SCIENCES



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Sample Receipt Advice

Company name: **Construction Sciences Pty Ltd**
Contact name: **Abanish Nepal**
Project name: **ADDITIONAL - CORNER OF DOSSIE ST AND SLOANE ST GOULBURN**
Project ID: **5046200019**
COC number: **Not provided**
Turn around time: **5 Day**
Date/Time received: **Mar 9, 2020 1:50 PM**
Eurofins reference: **706635**

Sample information

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

Contact notes

If you have any questions with respect to these samples please contact:

Ursula Long on Phone : or by e.mail: UrsulaLong@eurofins.com

Results will be delivered electronically via e.mail to Abanish Nepal - Abanish.Nepal@constructionsciences.net.

Construction Sciences Pty Ltd
2/4 Kellogg Rd
Glendenning
NSW 2761



NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
 The results of the tests, calibrations and/or
 measurements included in this document are traceable
 to Australian/national standards.

Attention: **Abanish Nepal**

Report **706635-S**
 Project name **ADDITIONAL - CORNER OF DOSSIE ST AND SLOANE ST GOULBURN**
 Project ID **5046200019**
 Received Date **Mar 09, 2020**

Client Sample ID			ABC01	ABC02	ABC03
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S20-Ma11656	S20-Ma11657	S20-Ma11658
Date Sampled			Feb 17, 2020	Feb 17, 2020	Feb 17, 2020
Test/Reference	LOR	Unit			
Conductivity (1:5 aqueous extract at 25°C as rec.)	10	uS/cm	< 10	22	12
% Moisture	1	%	12	9.8	7.1
Cation Exchange Capacity					
Cation Exchange Capacity	0.05	meq/100g	2.3	8.0	3.7

Sample History

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

A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

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

Description

Conductivity (1:5 aqueous extract at 25°C as rec.)

- Method: LTM-INO-4030 Conductivity

Cation Exchange Capacity

- Method: LTM-MET-3060 Cation Exchange Capacity by bases & Exchangeable Sodium Percentage

% Moisture

- Method: LTM-GEN-7080 Moisture

Testing Site

Sydney

Melbourne

Sydney

Extracted

Mar 13, 2020

Mar 14, 2020

Mar 09, 2020

Holding Time

7 Days

180 Days

14 Days

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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

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

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

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

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

Company Name: Construction Sciences Pty Ltd
Address: 2/4 Kellogg Rd
Glendenning
NSW 2761

Order No.:
Report #: 706635
Phone: 02 9854 1700
Fax:

Received: Mar 9, 2020 1:50 PM
Due: Mar 16, 2020
Priority: 5 Day
Contact Name: Abanish Nepal

Project Name: ADDITIONAL - CORNER OF DOSSIE ST AND SLOANE ST GOULBURN
Project ID: 5046200019

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Moisture Set	Cation Exchange Capacity
Melbourne Laboratory - NATA Site # 1254 & 14271							X
Sydney Laboratory - NATA Site # 18217						X	X
Brisbane Laboratory - NATA Site # 20794							
Perth Laboratory - NATA Site # 23736							
External Laboratory							
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID		
1	ABC01	Feb 17, 2020		Soil	S20-Ma11656	X	X
2	ABC02	Feb 17, 2020		Soil	S20-Ma11657	X	X
3	ABC03	Feb 17, 2020		Soil	S20-Ma11658	X	X
Test Counts						3	3

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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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
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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

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

Quality Control Results

Test				Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank										
Conductivity (1:5 aqueous extract at 25°C as rec.)				uS/cm	< 10			10	Pass	
Method Blank										
Cation Exchange Capacity										
Cation Exchange Capacity				meq/100g	< 0.05			0.05	Pass	
LCS - % Recovery										
Conductivity (1:5 aqueous extract at 25°C as rec.)				%	98			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1				Acceptance Limits	Pass Limits	Qualifying Code
Duplicate										
					Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25°C as rec.)	S20-Ma16917	NCP	uS/cm	66	62	7.3	30%	Pass		
% Moisture	S20-Ma11638	NCP	%	14	14	1.0	30%	Pass		

Comments

Sample Integrity

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

Authorised By

Ursula Long	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Gabriele Cordero	Senior Analyst-Inorganic (NSW)



Glenn Jackson General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

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

Company		Construction Sciences		Project No		5046200019		Project Manager		Abanish Nepal		Sampler(s)		SI, AD, JB			
Address		31 Anvil Road, Seven Hills, NSW		Project Name		Corner of Dossie St and Sloane St, Goulburn		EDD Format ESdat, EQulS etc		ESdat		Handed over by					
Contact Name		Abanish Nepal		Analyses Where metals are requested, please specify "Total" or "Filtered". SUITE code must be used to attract SUITE pricing.								Email for Invoice		abanish.nepal@constructionsciences.net			
Phone No		0436 620 611										Email for Results		abanish.nepal@constructionsciences.net			
Special Directions																	
Purchase Order																	
Quote ID No																	
No	Client Sample ID		Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)													
1	RINSATE		25/2/20 W	X	X	X	X	X	X	X	X	X	X	X	X	X	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
Total Counts					112		1		1		1		112				
Method of Shipment		☐ Courier (#) ☐ Hand Delivered ☐ Postal		Name		Signature		Date		Time		Temperature		Report No			
Eurofins mgt Laboratory Use Only		Received By		Luca D		SYD BNE MEL PER ADL NTL DRW		Signature		Date		25/02/20		Time		1:40 PM	
		Received By				SYD BNE MEL PER ADL NTL DRW		Signature		Date				Time			

Sample Receipt Advice

Company name: **Construction Sciences Pty Ltd**
Contact name: **Abanish Nepal**
Project name: **CORNER OF DOSSIE ST AND SLOANE ST GOULBURN**
Project ID: **5046200019**
COC number: **Not provided**
Turn around time: **5 Day**
Date/Time received: **Feb 25, 2020 1:40 PM**
Eurofins reference: **704004**

Sample information

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

Contact notes

If you have any questions with respect to these samples please contact:

Ursula Long on Phone : or by e.mail: UrsulaLong@eurofins.com

Results will be delivered electronically via e.mail to Abanish Nepal - Abanish.Nepal@constructionsciences.net.

Construction Sciences Pty Ltd
2/4 Kellogg Rd
Glendenning
NSW 2761



NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or
measurements included in this document are traceable
to Australian/national standards.

Attention: Abanish Nepal

Report 704004-W
Project name CORNER OF DOSSIE ST AND SLOANE ST GOULBURN
Project ID 5046200019
Received Date Feb 25, 2020

Client Sample ID			RINSATE
Sample Matrix			Water
Eurofins Sample No.			S20-Fe34181
Date Sampled			Feb 25, 2020
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
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
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	%	123
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
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
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.001	mg/L	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001
Anthracene	0.001	mg/L	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001
Benzo(b&j)fluoranthene ^{N07}	0.001	mg/L	< 0.001
Benzo(g,h,i)perylene	0.001	mg/L	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001
Chrysene	0.001	mg/L	< 0.001
Dibenz(a,h)anthracene	0.001	mg/L	< 0.001
Fluoranthene	0.001	mg/L	< 0.001
Fluorene	0.001	mg/L	< 0.001

Client Sample ID			RINSATE
Sample Matrix			Water
Eurofins Sample No.			S20-Fe34181
Date Sampled			Feb 25, 2020
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001
Naphthalene	0.001	mg/L	< 0.001
Phenanthrene	0.001	mg/L	< 0.001
Pyrene	0.001	mg/L	< 0.001
Total PAH*	0.001	mg/L	< 0.001
2-Fluorobiphenyl (surr.)	1	%	110
p-Terphenyl-d14 (surr.)	1	%	129
Organochlorine Pesticides			
Chlordanes - Total	0.001	mg/L	< 0.001
4,4'-DDD	0.0001	mg/L	< 0.0001
4,4'-DDE	0.0001	mg/L	< 0.0001
4,4'-DDT	0.0001	mg/L	< 0.0001
α-BHC	0.0001	mg/L	< 0.0001
Aldrin	0.0001	mg/L	< 0.0001
β-BHC	0.0001	mg/L	< 0.0001
δ-BHC	0.0001	mg/L	< 0.0001
Dieldrin	0.0001	mg/L	< 0.0001
Endosulfan I	0.0001	mg/L	< 0.0001
Endosulfan II	0.0001	mg/L	< 0.0001
Endosulfan sulphate	0.0001	mg/L	< 0.0001
Endrin	0.0001	mg/L	< 0.0001
Endrin aldehyde	0.0001	mg/L	< 0.0005
Endrin ketone	0.0001	mg/L	< 0.0001
γ-BHC (Lindane)	0.0001	mg/L	< 0.0001
Heptachlor	0.0001	mg/L	< 0.0001
Heptachlor epoxide	0.0001	mg/L	< 0.0001
Hexachlorobenzene	0.0001	mg/L	< 0.0001
Methoxychlor	0.0001	mg/L	< 0.0001
Toxaphene	0.01	mg/L	< 0.01
Aldrin and Dieldrin (Total)*	0.0001	mg/L	< 0.0001
DDT + DDE + DDD (Total)*	0.0001	mg/L	< 0.0001
Vic EPA IWRG 621 OCP (Total)*	0.001	mg/L	< 0.001
Vic EPA IWRG 621 Other OCP (Total)*	0.001	mg/L	< 0.001
Dibutylchloroendate (surr.)	1	%	109
Tetrachloro-m-xylene (surr.)	1	%	95
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

Sample History

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A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

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Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Feb 26, 2020	7 Days
BTEX - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Feb 25, 2020	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Feb 25, 2020	7 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Feb 26, 2020	
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Sydney	Feb 26, 2020	7 Days
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Mar 02, 2020	180 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water	Sydney	Feb 26, 2020	7 Days

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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

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

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

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

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

Company Name: Construction Sciences Pty Ltd
Address: 2/4 Kellogg Rd
Glendenning
NSW 2761

Project Name: CORNER OF DOSSIE ST AND SLOANE ST GOULBURN
Project ID: 5046200019

Order No.:
Report #: 704004
Phone: 02 9854 1700
Fax:

Received: Feb 25, 2020 1:40 PM
Due: Mar 3, 2020
Priority: 5 Day
Contact Name: Abanish Nepal

Eurofins Analytical Services Manager : Ursula Long

Sample Detail

Organochlorine Pesticides

Eurofins | mgt Suite B7

Melbourne Laboratory - NATA Site # 1254 & 14271

Sydney Laboratory - NATA Site # 18217

Brisbane Laboratory - NATA Site # 20794

Perth Laboratory - NATA Site # 23736

External Laboratory

No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID		
1	RINSATE	Feb 25, 2020		Water	S20-Fe34181	X	X

Test Counts

1 1

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- 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.
- Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
- Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
- 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.
- pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
- Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
- For Matrix Spikes and LCS results a dash " - " in the report means that the specific analyte was not added to the QC sample.
- Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
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	
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							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
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							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g,h,i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a,h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1,2,3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/L	< 0.001			0.001	Pass	
4,4'-DDD	mg/L	< 0.0001			0.0001	Pass	
4,4'-DDE	mg/L	< 0.0001			0.0001	Pass	
4,4'-DDT	mg/L	< 0.0001			0.0001	Pass	
a-BHC	mg/L	< 0.0001			0.0001	Pass	
Aldrin	mg/L	< 0.0001			0.0001	Pass	
b-BHC	mg/L	< 0.0001			0.0001	Pass	
d-BHC	mg/L	< 0.0001			0.0001	Pass	
Dieldrin	mg/L	< 0.0001			0.0001	Pass	
Endosulfan I	mg/L	< 0.0001			0.0001	Pass	
Endosulfan II	mg/L	< 0.0001			0.0001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	mg/L	< 0.0001			0.0001	Pass	
Endrin	mg/L	< 0.0001			0.0001	Pass	
Endrin aldehyde	mg/L	< 0.0001			0.0001	Pass	
Endrin ketone	mg/L	< 0.0001			0.0001	Pass	
g-BHC (Lindane)	mg/L	< 0.0001			0.0001	Pass	
Heptachlor	mg/L	< 0.0001			0.0001	Pass	
Heptachlor epoxide	mg/L	< 0.0001			0.0001	Pass	
Hexachlorobenzene	mg/L	< 0.0001			0.0001	Pass	
Methoxychlor	mg/L	< 0.0001			0.0001	Pass	
Toxaphene	mg/L	< 0.01			0.01	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 - 1999 NEPM Fractions							
TRH C6-C9	%	95			70-130	Pass	
TRH C10-C14	%	98			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	92			70-130	Pass	
Toluene	%	97			70-130	Pass	
Ethylbenzene	%	101			70-130	Pass	
m&p-Xylenes	%	109			70-130	Pass	
o-Xylene	%	98			70-130	Pass	
Xylenes - Total	%	106			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	110			70-130	Pass	
TRH C6-C10	%	94			70-130	Pass	
TRH >C10-C16	%	95			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	84			70-130	Pass	
Acenaphthylene	%	78			70-130	Pass	
Anthracene	%	75			70-130	Pass	
Benz(a)anthracene	%	85			70-130	Pass	
Benzo(a)pyrene	%	90			70-130	Pass	
Benzo(b&j)fluoranthene	%	88			70-130	Pass	
Benzo(g,h,i)perylene	%	114			70-130	Pass	
Benzo(k)fluoranthene	%	101			70-130	Pass	
Chrysene	%	89			70-130	Pass	
Dibenz(a,h)anthracene	%	97			70-130	Pass	
Fluoranthene	%	80			70-130	Pass	
Fluorene	%	82			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	89			70-130	Pass	
Naphthalene	%	70			70-130	Pass	
Phenanthrene	%	82			70-130	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
Pyrene			%	80			70-130	Pass		
LCS - % Recovery										
Organochlorine Pesticides										
Chlordanes - Total			%	83			70-130	Pass		
4.4'-DDD			%	73			70-130	Pass		
4.4'-DDE			%	115			70-130	Pass		
4.4'-DDT			%	89			70-130	Pass		
a-BHC			%	85			70-130	Pass		
Aldrin			%	82			70-130	Pass		
b-BHC			%	87			70-130	Pass		
d-BHC			%	92			70-130	Pass		
Dieldrin			%	100			70-130	Pass		
Endosulfan I			%	95			70-130	Pass		
Endosulfan II			%	93			70-130	Pass		
Endosulfan sulphate			%	81			70-130	Pass		
Endrin			%	119			70-130	Pass		
Endrin aldehyde			%	70			70-130	Pass		
Endrin ketone			%	85			70-130	Pass		
g-BHC (Lindane)			%	90			70-130	Pass		
Heptachlor			%	77			70-130	Pass		
Heptachlor epoxide			%	79			70-130	Pass		
Hexachlorobenzene			%	81			70-130	Pass		
Methoxychlor			%	87			70-130	Pass		
LCS - % Recovery										
Heavy Metals										
Arsenic			%	104			70-130	Pass		
Cadmium			%	104			70-130	Pass		
Chromium			%	103			70-130	Pass		
Copper			%	99			70-130	Pass		
Lead			%	104			70-130	Pass		
Mercury			%	111			70-130	Pass		
Nickel			%	101			70-130	Pass		
Zinc			%	101			70-130	Pass		
Test		Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery										
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					Result 1					
TRH C6-C9		S20-Fe34501	NCP	%	85			70-130	Pass	
Spike - % Recovery										
BTEX					Result 1					
Benzene		S20-Fe34501	NCP	%	90			70-130	Pass	
Toluene		S20-Fe34501	NCP	%	96			70-130	Pass	
Ethylbenzene		S20-Fe34501	NCP	%	98			70-130	Pass	
m&p-Xylenes		S20-Fe34501	NCP	%	107			70-130	Pass	
o-Xylene		S20-Fe34501	NCP	%	97			70-130	Pass	
Xylenes - Total		S20-Fe34501	NCP	%	104			70-130	Pass	
Spike - % Recovery										
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					Result 1					
Naphthalene		S20-Fe34501	NCP	%	105			70-130	Pass	
TRH C6-C10		S20-Fe34501	NCP	%	84			70-130	Pass	
Spike - % Recovery										
Heavy Metals					Result 1					
Arsenic		S20-Fe40840	NCP	%	88			70-130	Pass	
Cadmium		S20-Fe40840	NCP	%	96			70-130	Pass	
Chromium		S20-Fe40840	NCP	%	101			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Copper	S20-Fe40840	NCP	%	102			70-130	Pass	
Lead	S20-Fe40840	NCP	%	106			70-130	Pass	
Mercury	S20-Fe40840	NCP	%	101			70-130	Pass	
Nickel	S20-Fe40840	NCP	%	102			70-130	Pass	
Zinc	S20-Fe40840	NCP	%	98			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	B20-Fe33664	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	B20-Fe33664	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	B20-Fe33664	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	B20-Fe33664	NCP	mg/L	0.001	0.001	5.0	30%	Pass	
m&p-Xylenes	B20-Fe33664	NCP	mg/L	0.008	0.007	2.0	30%	Pass	
o-Xylene	B20-Fe33664	NCP	mg/L	0.002	0.002	2.0	30%	Pass	
Xylenes - Total	B20-Fe33664	NCP	mg/L	0.010	0.010	2.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	B20-Fe33664	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	B20-Fe33664	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S20-Fe40839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	S20-Fe40839	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S20-Fe40839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	S20-Fe40839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead	S20-Fe40839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury	S20-Fe40839	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S20-Fe40839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	S20-Fe40839	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
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)
Gabriele Cordero	Senior Analyst-Metal (NSW)



Glenn Jackson

General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

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SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : ES2006837

Client : CONSTRUCTION SCIENCES PTY LTD Contact : Abanish Nepal Address : 31 Anvil Rd Seven Hills 2147 E-mail : Abanish.Nepal@constructionscience s.net Telephone : 02 8646 2018 Facsimile : ---- Project : Corner of Dossie St and Sloana St, Goulburn-5046200019 Order number : ---- C-O-C number : ---- Site : ---- Sampler :	Laboratory : Environmental Division Sydney Contact : Brenda Hong Address : 277-289 Woodpark Road Smithfield NSW Australia 2164 E-mail : Brenda.Hong@ALSGlobal.com Telephone : +61 2 8784 8555 Facsimile : +61-2-8784 8500 Page : 1 of 3 Quote number : EB2018CARCONSC0001 (EN/024/18) QC Level : NEPM 2013 B3 & ALS QC Standard

Dates

Date Samples Received : 27-Feb-2020 13:35 Client Requested Due Date : 05-Mar-2020	Issue Date : 28-Feb-2020 Scheduled Reporting Date : 05-Mar-2020

Delivery Details

Mode of Delivery : Carrier No. of coolers/boxes : 1 Receipt Detail :	Security Seal : Intact. Temperature : 7.3°C - Ice Bricks present No. of samples received / analysed : 10 / 10

General Comments

- This report contains the following information:
 - Sample Container(s)/Preservation Non-Compliances
 - Summary of Sample(s) and Requested Analysis
 - Proactive Holding Time Report
 - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.



Sample Container(s)/Preservation Non-Compliances

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

- No sample container / preservation non-compliance exists.

Summary of Sample(s) and Requested Analysis

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

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

Matrix: **SOIL**

Laboratory sample ID	Client sampling date / time	Client sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP075 SIM PAH only SIM - PAH only	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-04 TRH/BTEXN
ES2006837-001	18-Feb-2020 00:00	DUP 01A	✓		✓	
ES2006837-002	18-Feb-2020 00:00	DUP 04A	✓		✓	
ES2006837-003	18-Feb-2020 00:00	DUP 06A	✓	✓	✓	
ES2006837-004	19-Feb-2020 00:00	DUP 10A	✓		✓	
ES2006837-005	19-Feb-2020 00:00	DUP 13A	✓	✓	✓	
ES2006837-006	20-Feb-2020 00:00	DUP 14A	✓		✓	✓
ES2006837-007	20-Feb-2020 00:00	DUP 16A	✓	✓	✓	
ES2006837-008	20-Feb-2020 00:00	DUP 20A	✓	✓	✓	
ES2006837-010	21-Feb-2020 00:00	DUP 25A	✓		✓	

Matrix: **WATER**

Laboratory sample ID	Client sampling date / time	Client sample ID	WATER - W-02 8 Metals
ES2006837-009	20-Feb-2020 00:00	QAQC2	✓

Proactive Holding Time Report

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



Requested Deliverables

Abanish Nepal

- *AU Certificate of Analysis - NATA (COA)	Email	Abanish.Nepal@constructionscienc es.net
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Abanish.Nepal@constructionscienc es.net
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Abanish.Nepal@constructionscienc es.net
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Abanish.Nepal@constructionscienc es.net
- A4 - AU Tax Invoice (INV)	Email	Abanish.Nepal@constructionscienc es.net
- Chain of Custody (CoC) (COC)	Email	Abanish.Nepal@constructionscienc es.net
- EDI Format - ESDAT (ESDAT)	Email	Abanish.Nepal@constructionscienc es.net
- EDI Format - XTab (XTAB)	Email	Abanish.Nepal@constructionscienc es.net

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	csap@constructionsciences.net



CERTIFICATE OF ANALYSIS

Work Order	: ES2006837
Client	: CONSTRUCTION SCIENCES PTY LTD
Contact	: Abanish Nepal
Address	: 31 Anvil Rd Seven Hills 2147
Telephone	: 02 8646 2018
Project	: Corner of Dossie St and Sloana St, Goulburn-5046200019
Order number	: 5046200019
C-O-C number	: ----
Sampler	: ----
Site	: ----
Quote number	: EN/024/18
No. of samples received	: 10
No. of samples analysed	: 10

Page : 1 of 9
Laboratory : Environmental Division Sydney
Contact : Brenda Hong
Address : 277-289 Woodpark Road Smithfield NSW Australia 2164

Telephone : +61 2 8784 8555
Date Samples Received : 27-Feb-2020 13:35
Date Analysis Commenced : 02-Mar-2020
Issue Date : 05-Mar-2020 15:25



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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW



General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

ø = ALS is not NATA accredited for these tests.

~ = Indicates an estimated value.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP071: Poor duplicate precision for sample W01 due to sample heterogeneity. Confirmed by re-extraction and re-analysis.
- EG020: Positive results for sample ES2006837-#009 have been confirmed by re-digestion and reanalysis.



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Client sample ID

				DUP 01A	DUP 04A	DUP 06A	DUP 10A	DUP 13A
Client sampling date / time				18-Feb-2020 00:00	18-Feb-2020 00:00	18-Feb-2020 00:00	19-Feb-2020 00:00	19-Feb-2020 00:00
Compound	CAS Number	LOR	Unit	ES2006837-001	ES2006837-002	ES2006837-003	ES2006837-004	ES2006837-005
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	19.7	17.7	16.6	6.6	9.5
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	5	<5	8	5	8
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	11	36	18	12	22
Copper	7440-50-8	5	mg/kg	20	19	26	<5	18
Lead	7439-92-1	5	mg/kg	39	13	17	14	20
Nickel	7440-02-0	2	mg/kg	4	9	7	3	9
Zinc	7440-66-6	5	mg/kg	41	29	63	7	34
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	----	----	<0.5	----	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	----	----	<0.5	----	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	----	----	<0.5	----	<0.5
Fluorene	86-73-7	0.5	mg/kg	----	----	<0.5	----	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	----	----	<0.5	----	<0.5
Anthracene	120-12-7	0.5	mg/kg	----	----	<0.5	----	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	----	----	<0.5	----	<0.5
Pyrene	129-00-0	0.5	mg/kg	----	----	<0.5	----	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	----	----	<0.5	----	<0.5
Chrysene	218-01-9	0.5	mg/kg	----	----	<0.5	----	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	----	----	<0.5	----	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	----	----	<0.5	----	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	----	----	<0.5	----	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	----	----	<0.5	----	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	----	----	<0.5	----	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	----	----	<0.5	----	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	----	----	<0.5	----	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	----	----	<0.5	----	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	----	----	0.6	----	0.6
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	----	----	1.2	----	1.2
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	----	----	83.9	----	91.0



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	DUP 01A	DUP 04A	DUP 06A	DUP 10A	DUP 13A
Client sampling date / time					18-Feb-2020 00:00	18-Feb-2020 00:00	18-Feb-2020 00:00	19-Feb-2020 00:00	19-Feb-2020 00:00
Compound	CAS Number	LOR	Unit		ES2006837-001	ES2006837-002	ES2006837-003	ES2006837-004	ES2006837-005
				Result	Result	Result	Result	Result	Result
EP075(SIM)S: Phenolic Compound Surrogates - Continued									
2-Chlorophenol-D4	93951-73-6	0.5	%	----	----	85.7	----	95.8	
2,4,6-Tribromophenol	118-79-6	0.5	%	----	----	74.6	----	85.0	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	----	----	95.8	----	106	
Anthracene-d10	1719-06-8	0.5	%	----	----	89.1	----	111	
4-Terphenyl-d14	1718-51-0	0.5	%	----	----	92.9	----	107	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	DUP 14A	DUP 16A	DUP 20A	DUP 25A	----
Client sampling date / time					20-Feb-2020 00:00	20-Feb-2020 00:00	20-Feb-2020 00:00	21-Feb-2020 00:00	----
Compound	CAS Number	LOR	Unit		ES2006837-006	ES2006837-007	ES2006837-008	ES2006837-010	-----
					Result	Result	Result	Result	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		13.3	12.0	9.2	11.5	----
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		<5	9	7	6	----
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	<1	----
Chromium	7440-47-3	2	mg/kg		11	21	17	16	----
Copper	7440-50-8	5	mg/kg		5	15	20	26	----
Lead	7439-92-1	5	mg/kg		9	17	38	22	----
Nickel	7440-02-0	2	mg/kg		2	6	6	5	----
Zinc	7440-66-6	5	mg/kg		6	19	52	57	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		----	<0.5	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		----	<0.5	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg		----	<0.5	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg		----	<0.5	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg		----	<0.5	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg		----	<0.5	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg		----	<0.5	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg		----	<0.5	<0.5	----	----
Benzo(a)anthracene	56-55-3	0.5	mg/kg		----	<0.5	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg		----	<0.5	<0.5	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		----	<0.5	<0.5	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		----	<0.5	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		----	<0.5	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		----	<0.5	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		----	<0.5	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		----	<0.5	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		----	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		----	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		----	0.6	0.6	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		----	1.2	1.2	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	----	----	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	DUP 14A	DUP 16A	DUP 20A	DUP 25A	----
Client sampling date / time					20-Feb-2020 00:00	20-Feb-2020 00:00	20-Feb-2020 00:00	21-Feb-2020 00:00	----
Compound	CAS Number	LOR	Unit		ES2006837-006	ES2006837-007	ES2006837-008	ES2006837-010	-----
					Result	Result	Result	Result	----
EP080/071: Total Petroleum Hydrocarbons - Continued									
C10 - C14 Fraction	----	50	mg/kg		<50	----	----	----	----
C15 - C28 Fraction	----	100	mg/kg		<100	----	----	----	----
C29 - C36 Fraction	----	100	mg/kg		<100	----	----	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	----	----	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	----	----	----	----
>C10 - C16 Fraction	----	50	mg/kg		<50	----	----	----	----
>C16 - C34 Fraction	----	100	mg/kg		<100	----	----	----	----
>C34 - C40 Fraction	----	100	mg/kg		<100	----	----	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	----	----	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	----	----	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	----	----	----	----
Toluene	108-88-3	0.5	mg/kg		<0.5	----	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	----	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	----	----	----	----
^ Sum of BTEX	----	0.2	mg/kg		<0.2	----	----	----	----
^ Total Xylenes	----	0.5	mg/kg		<0.5	----	----	----	----
Naphthalene	91-20-3	1	mg/kg		<1	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		----	95.8	91.1	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		----	101	96.6	----	----
2,4,6-Tribromophenol	118-79-6	0.5	%		----	83.7	75.7	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		----	112	108	----	----
Anthracene-d10	1719-06-8	0.5	%		----	116	114	----	----
4-Terphenyl-d14	1718-51-0	0.5	%		----	112	108	----	----
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%		100	----	----	----	----
Toluene-D8	2037-26-5	0.2	%		106	----	----	----	----

Page : 7 of 9
 Work Order : ES2006837
 Client : CONSTRUCTION SCIENCES PTY LTD
 Project : Corner of Dossie St and Sloana St, Goulburn-5046200019



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	DUP 14A	DUP 16A	DUP 20A	DUP 25A	----
				Client sampling date / time	20-Feb-2020 00:00	20-Feb-2020 00:00	20-Feb-2020 00:00	21-Feb-2020 00:00	----
Compound	CAS Number	LOR	Unit		ES2006837-006	ES2006837-007	ES2006837-008	ES2006837-010	-----
					Result	Result	Result	Result	----
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		95.8	----	----	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	QAQC2	----	----	----	----
Client sampling date / time					20-Feb-2020 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2006837-009	-----	-----	-----	-----
				Result	----	----	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L		0.016	----	----	----	----
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	----	----	----	----
Chromium	7440-47-3	0.001	mg/L		0.002	----	----	----	----
Copper	7440-50-8	0.001	mg/L		0.008	----	----	----	----
Nickel	7440-02-0	0.001	mg/L		0.015	----	----	----	----
Lead	7439-92-1	0.001	mg/L		<0.001	----	----	----	----
Zinc	7440-66-6	0.005	mg/L		0.023	----	----	----	----
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	----	----	----	----



Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	63	123
2-Chlorophenol-D4	93951-73-6	66	122
2,4,6-Tribromophenol	118-79-6	40	138
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	70	122
Anthracene-d10	1719-06-8	66	128
4-Terphenyl-d14	1718-51-0	65	129
EP080S: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	73	133
Toluene-D8	2037-26-5	74	132
4-Bromofluorobenzene	460-00-4	72	130

QUALITY CONTROL REPORT

Work Order	: ES2006837	Page	: 1 of 8
Client	: CONSTRUCTION SCIENCES PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: Abanish Nepal	Contact	: Brenda Hong
Address	: 31 Anvil Rd Seven Hills 2147	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: 02 8646 2018	Telephone	: +61 2 8784 8555
Project	: Corner of Dossie St and Sloana St, Goulburn-5046200019	Date Samples Received	: 27-Feb-2020
Order number	: 5046200019	Date Analysis Commenced	: 02-Mar-2020
C-O-C number	: ----	Issue Date	: 05-Mar-2020
Sampler	: ----		
Site	: ----		
Quote number	: EN/024/18		
No. of samples received	: 10		
No. of samples analysed	: 10		



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

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Edwandy Fadjjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW



General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key :
 Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
 CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
 LOR = Limit of reporting
 RPD = Relative Percentage Difference
 # = Indicates failed QC

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 2888985)									
ES2006837-001	DUP 01A	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	11	18	43.8	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	4	5	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	5	6	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	20	19	7.55	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	39	46	17.2	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	41	41	0.00	No Limit
ES2006896-003	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	18	18	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	12	13	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	9	10	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	15	15	0.00	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	15	16	0.00	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	62	63	0.00	0% - 50%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 2888989)									
ES2006837-003	DUP 06A	EA055: Moisture Content	----	0.1	%	16.6	16.3	2.31	0% - 50%
ES2006896-008	Anonymous	EA055: Moisture Content	----	0.1	%	20.4	20.2	1.24	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2888986)									
ES2006837-001	DUP 01A	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
ES2006896-003	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2885832)									
ES2006837-003	DUP 06A	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2885832) - continued									
ES2006837-003	DUP 06A	EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
			205-82-3						
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
ES2006804-001	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	0.5	<0.5	0.00	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
			205-82-3						
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	0.5	<0.5	0.00	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	0.6	<0.5	0.00	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	1.6	<0.5	105	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	0.5	<0.5	0.00	No Limit
		EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2885833)							
ES2006804-001	Anonymous	EP071: C15 - C28 Fraction	----	100	mg/kg	2720	# 2130	24.3	0% - 20%
		EP071: C29 - C36 Fraction	----	100	mg/kg	130	150	14.3	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2885833) - continued									
ES2006804-001	Anonymous	EP071: C10 - C14 Fraction	----	50	mg/kg	610	390	44.4	0% - 50%
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2887968)									
ES2007136-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2885833)									
ES2006804-001	Anonymous	EP071: >C16 - C34 Fraction	----	100	mg/kg	2050	1760	15.4	0% - 20%
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	110	0.00	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	1430	# 890	46.4	0% - 20%
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2887968)									
ES2007136-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
EP080: BTEXN (QC Lot: 2887968)									
ES2007136-001	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
	EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit	
Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG020F: Dissolved Metals by ICP-MS (QC Lot: 2887381)									
EM2002728-002	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	0.0002	0.0001	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	0.002	0.001	0.00	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.015	98.3	No Limit
ES2006884-004	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	0.404	0.404	0.0997	0% - 20%
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	0.044	0.042	2.93	0% - 20%
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	0.038	0.038	0.00	0% - 20%
		EG020A-F: Copper	7440-50-8	0.001	mg/L	98.2	96.7	1.47	0% - 20%
		EG020A-F: Lead	7439-92-1	0.001	mg/L	0.016	0.015	0.00	0% - 50%
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	2.01	1.99	1.00	0% - 20%
	EG020A-F: Zinc	7440-66-6	0.005	mg/L	187	189	1.37	0% - 20%	
EG035F: Dissolved Mercury by FIMS (QC Lot: 2887380)									
EM2002728-003	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
ES2004641-002	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit

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

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 2888985)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	100	86.0	126
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	94.4	83.0	113
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	79.4	76.0	128
EG005T: Copper	7440-50-8	5	mg/kg	<5	32 mg/kg	93.4	86.0	120
EG005T: Lead	7439-92-1	5	mg/kg	<5	40 mg/kg	96.6	80.0	114
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55 mg/kg	91.2	87.0	123
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	90.5	80.0	122
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2888986)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	78.6	70.0	105
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2885832)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	92.2	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	96.0	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	94.8	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	95.0	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	96.6	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	97.2	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	100	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	99.9	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	88.4	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	89.7	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	0.5	mg/kg	<0.5	6 mg/kg	86.9	68.0	116
	205-82-3							
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	94.5	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	90.8	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	90.6	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	90.9	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	87.4	63.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2885833)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	104	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	98.7	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	94.5	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2887968)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	106	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2885833)								



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2885833) - continued								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	100	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	97.9	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	79.9	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2887968)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	108	68.4	128
EP080: BTEXN (QCLot: 2887968)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	98.5	62.0	116
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	97.6	67.0	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	97.2	65.0	117
EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	2 mg/kg	101	66.0	118
	106-42-3							
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	101	68.0	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	94.2	63.0	119

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) LowHigh	
Method: Compound	CAS Number	LOR	Unit	Result				
EG020F: Dissolved Metals by ICP-MS (QCLot: 2887381)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	94.1	85.0	114
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	93.0	84.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	93.1	85.0	111
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	92.9	81.0	111
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	93.7	83.0	111
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	90.8	82.0	112
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	94.3	81.0	117
EG035F: Dissolved Mercury by FIMS (QCLot: 2887380)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	103	83.0	105

Matrix Spike (MS) Report

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

Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike Concentration	SpikeRecovery(%) MS	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number			Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 2888985)							
ES2006837-001	DUP 01A	EG005T: Arsenic	7440-38-2	50 mg/kg	100	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	98.7	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	107	70.0	130

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 Work Order : ES2006837
 Client : CONSTRUCTION SCIENCES PTY LTD
 Project : Corner of Dossie St and Sloana St, Goulburn-5046200019



Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 2888985) - continued							
ES2006837-001	DUP 01A	EG005T: Copper	7440-50-8	250 mg/kg	99.8	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	103	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	99.3	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	100	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2888986)							
ES2006837-001	DUP 01A	EG035T: Mercury	7439-97-6	5 mg/kg	84.5	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2885832)							
ES2006804-001	Anonymous	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	93.9	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	95.9	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2885833)							
ES2006804-001	Anonymous	EP071: C10 - C14 Fraction	----	523 mg/kg	101	73.0	137
		EP071: C15 - C28 Fraction	----	2319 mg/kg	115	53.0	131
		EP071: C29 - C36 Fraction	----	1714 mg/kg	114	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2887968)							
ES2007136-001	Anonymous	EP080: C6 - C9 Fraction	----	32.5 mg/kg	102	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2885833)							
ES2006804-001	Anonymous	EP071: >C10 - C16 Fraction	----	860 mg/kg	107	73.0	137
		EP071: >C16 - C34 Fraction	----	3223 mg/kg	115	53.0	131
		EP071: >C34 - C40 Fraction	----	1058 mg/kg	115	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2887968)							
ES2007136-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	103	70.0	130
EP080: BTEXN (QCLot: 2887968)							
ES2007136-001	Anonymous	EP080: Benzene	71-43-2	2.5 mg/kg	85.4	70.0	130
		EP080: Toluene	108-88-3	2.5 mg/kg	86.2	70.0	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	88.8	70.0	130
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	90.0	70.0	130
			106-42-3				
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	89.0	70.0	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	82.0	70.0	130
Sub-Matrix: WATER				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 2887381)							
EM2002728-004	Anonymous	EG020A-F: Arsenic	7440-38-2	1 mg/L	97.5	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.25 mg/L	92.3	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	98.0	70.0	130



Sub-Matrix: WATER

Sub-Matrix: WATER				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 2887381) - continued							
EM2002728-004	Anonymous	EG020A-F: Copper	7440-50-8	1 mg/L	103	70.0	130
		EG020A-F: Lead	7439-92-1	1 mg/L	98.3	70.0	130
		EG020A-F: Nickel	7440-02-0	1 mg/L	90.6	70.0	130
		EG020A-F: Zinc	7440-66-6	1 mg/L	96.0	70.0	130
EG035F: Dissolved Mercury by FIMS (QCLot: 2887380)							
EM2002728-001	Anonymous	EG035F: Mercury	7439-97-6	0.01 mg/L	78.5	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: ES2006837	Page	: 1 of 7
Client	: CONSTRUCTION SCIENCES PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: Abanish Nepal	Telephone	: +61 2 8784 8555
Project	: Corner of Dossie St and Sloana St, Goulburn-5046200019	Date Samples Received	: 27-Feb-2020
Site	: ----	Issue Date	: 05-Mar-2020
Sampler	: ----	No. of samples received	: 10
Order number	: 5046200019	No. of samples analysed	: 10

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

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

Summary of Outliers

Outliers : Quality Control Samples

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

- **NO Method Blank value outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- Duplicate outliers exist - please see following pages for full details.
- For all regular sample matrices, **NO** surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

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



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EP080/071: Total Petroleum Hydrocarbons	ES2006804--001	Anonymous	C15 - C28 Fraction	----	24.3 %	0% - 20%	RPD exceeds LOR based limits
EP080/071: Total Recoverable Hydrocarbons - NEPM 2	ES2006804--001	Anonymous	>C10 - C16 Fraction	----	46.4 %	0% - 20%	RPD exceeds LOR based limits

Analysis Holding Time Compliance

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

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

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

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

Matrix: **SOIL**

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055) DUP 01A,								



Matrix: **SOIL**

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T) DUP 01A, DUP 06A	DUP 04A,	18-Feb-2020	02-Mar-2020	17-Mar-2020	✓	03-Mar-2020	17-Mar-2020	✓
Soil Glass Jar - Unpreserved (EG035T) DUP 10A,	DUP 13A	19-Feb-2020	02-Mar-2020	18-Mar-2020	✓	03-Mar-2020	18-Mar-2020	✓
Soil Glass Jar - Unpreserved (EG035T) DUP 14A, DUP 20A	DUP 16A,	20-Feb-2020	02-Mar-2020	19-Mar-2020	✓	03-Mar-2020	19-Mar-2020	✓
Soil Glass Jar - Unpreserved (EG035T) DUP 25A		21-Feb-2020	02-Mar-2020	20-Mar-2020	✓	03-Mar-2020	20-Mar-2020	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075(SIM)) DUP 06A		18-Feb-2020	02-Mar-2020	03-Mar-2020	✓	03-Mar-2020	11-Apr-2020	✓
Soil Glass Jar - Unpreserved (EP075(SIM)) DUP 13A		19-Feb-2020	02-Mar-2020	04-Mar-2020	✓	03-Mar-2020	11-Apr-2020	✓
Soil Glass Jar - Unpreserved (EP075(SIM)) DUP 16A,	DUP 20A	20-Feb-2020	02-Mar-2020	05-Mar-2020	✓	03-Mar-2020	11-Apr-2020	✓
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP080) DUP 14A		20-Feb-2020	02-Mar-2020	05-Mar-2020	✓	03-Mar-2020	05-Mar-2020	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP080) DUP 14A		20-Feb-2020	02-Mar-2020	05-Mar-2020	✓	03-Mar-2020	05-Mar-2020	✓
EP080: BTEXN								
Soil Glass Jar - Unpreserved (EP080) DUP 14A		20-Feb-2020	02-Mar-2020	05-Mar-2020	✓	03-Mar-2020	05-Mar-2020	✓

Matrix: **WATER**

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F) QAQC2	20-Feb-2020	----	----	----	02-Mar-2020	18-Aug-2020	✓
EG035F: Dissolved Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG035F) QAQC2	20-Feb-2020	----	----	----	02-Mar-2020	19-Mar-2020	✓



Quality Control Parameter Frequency Compliance

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

Matrix: **SOIL**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	2	14	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	8	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	2	50.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	2	50.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	2	50.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	2	50.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Dissolved Mercury by FIMS	EG035F	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	14	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Dissolved Mercury by FIMS	EG035F	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Dissolved Mercury by FIMS	EG035F	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard

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 Project : Corner of Dossie St and Sloana St, Goulburn-5046200019



Matrix: **WATER**

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

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Method Blanks (MB) - Continued							
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	14	7.14	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Dissolved Mercury by FIMS	EG035F	1	20	5.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	14	7.14	5.00	✔	NEPM 2013 B3 & ALS QC Standard



Brief Method Summaries

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

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM (2013) Schedule B(3) Section 6.1 and Table 1 (14 day holding time).
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM (2013) Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl ₂) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
TRH - Semivolatile Fraction	EP071	SOIL	In house: Referenced to USEPA SW 846 - 8015A Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. Compliant with NEPM amended 2013.
PAH/Phenols (SIM)	EP075(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270D. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3) (Method 502 and 507)
TRH Volatiles/BTEX	EP080	SOIL	In house: Referenced to USEPA SW 846 - 8260B. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM amended 2013.
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Dissolved Mercury by FIMS	EG035F	WATER	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl ₂)(Cold Vapour generation) AAS) Samples are 0.45µm filtered prior to analysis. FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
Preparation Methods	Method	Matrix	Method Descriptions
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM (2013) Schedule B(3) (Method 202)
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.

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Preparation Methods	Method	Matrix	Method Descriptions
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.

ASET

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PHONE: (02) 99872183 FAX: (02) 99872151 EMAIL: info@ausaet.com.au

CHAIN OF CUSTODY RECORD

ASET JOB NO: ASET80070 / 83250 / 1 - 132

Name/ Company Name: Construction Sciences

Address: 31 Anvil Road, Seven Hills

Contact Ph: 0436 625 144

Contact Name: Abanish Nepal

Job No: 5046200019

Project Name: DSI Goulburn

Purchase Order: As per Mahen's email dated 17.12.19 (\$35/per sample)

Email Results to: craig.cowper@constructionsciences.net;
abanish.nepal@constructionsciences.net;
ammam.dawood@constructionsciences.net;
jennifer.brown@constructionsciences.net

Asbestos in Material

Asbestos in Soil (+/-)

Asbestos WA/ NEPM 500ml

Asbestos Fibre Count

Asbestos in Water

Asbestos in Dust

HOLD

	Bag ID	Sample ID	Date	Type	Container	Sample Location	Asbestos in Material	Asbestos in Soil (+/-)	Asbestos WA/ NEPM 500ml	Asbestos Fibre Count	Asbestos in Water	Asbestos in Dust	HOLD
1	TP01 0.0-0.1	TP01 0.0-0.1	18/02/2020	Soil	P. Bag	Goulburn			X				
2	TP01 0.4-0.5	TP01 0.1-0.5	18/02/2020	Soil	P. Bag	Goulburn			X				
3	TP01 0.9-1.0	TP01 0.5-1.0	18/02/2020	Soil	P. Bag	Goulburn			X				
4	TP01 1.4-1.5	TP01 1.0-1.5	18/02/2020	Soil	P. Bag	Goulburn			X				
5	TP02 0.0-0.1	TP02 0.0-0.1	18/02/2020	Soil	P. Bag	Goulburn			X				
6	TP02 0.3-0.4	TP02 0.1-0.8	18/02/2020	Soil	P. Bag	Goulburn			X				
7	TP02 0.7-0.8	--		Soil	P. Bag	Goulburn			X				X
8	TP03 0.0-0.1	TP03 0.0-0.1	18/02/2020	Soil	P. Bag	Goulburn			X				
9	TP03 0.4-0.5	TP03 0.1-1.0	18/02/2020	Soil	P. Bag	Goulburn			X				
10	TP03 0.9-1.0	--		Soil	P. Bag	Goulburn			X				X
11	TP04 0.0-0.1	TP04 0.0-0.1	18/02/2020	Soil	P. Bag	Goulburn			X				
12	TP04 0.3-0.4	TP04 0.1-1.0	18/02/2020	Soil	P. Bag	Goulburn			X				
13	TP04 0.7-0.8	--		Soil	P. Bag	Goulburn			X				X
14	TP04 1.3-1.4	TP04 1.0-1.8	18/02/2020	Soil	P. Bag	Goulburn			X				
15	TP05 0.0-0.1	TP05 0.0-0.1	18/02/2020	Soil	P. Bag	Goulburn			X				
16	TP05 0.4-0.5	TP05 0.1-0.5	18/02/2020	Soil	P. Bag	Goulburn			X				
17	TP06 0.0-0.1	TP06 0.0-0.1	19/02/2020	Soil	P. Bag	Goulburn			X				
18	TP06 0.3-0.4	TP06 0.1-0.8	19/02/2020	Soil	P. Bag	Goulburn			X				
19	TP06 0.7-0.8	--		Soil	P. Bag	Goulburn			X				X
20	TP07 0.0-0.1	TP07 0.0-0.1	19/02/2020	Soil	P. Bag	Goulburn			X				
21	TP07 0.4-0.5	TP07 0.1-1.0	19/02/2020	Soil	P. Bag	Goulburn			X				
22	TP07 0.9-1.0	--		Soil	P. Bag	Goulburn			X				X
23	TP12 0.0-0.1	TP12 0.0-0.1	18/02/2020	Soil	P. Bag	Goulburn			X				
24	TP12 0.4-0.5	TP12 0.1-1.0	18/02/2020	Soil	P. Bag	Goulburn			X				
25	TP12 0.9-1.0	--		Soil	P. Bag	Goulburn			X				X
26	TP12 1.4-1.5	TP12 1.0-1.8	18/02/2020	Soil	P. Bag	Goulburn			X				

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31	TP12 1.7-1.8	--		Soil	P. Bag	Goulburn											X
32	TP13 0.0-0.1	TP13 0.0-0.1	18/02/2020	Soil	P. Bag	Goulburn				X							
33	TP13 0.5-0.6	TP13 0.1-1.0	18/02/2020	Soil	P. Bag	Goulburn				X							
34	TP13 1.0-1.1	--		Soil	P. Bag	Goulburn											X
35	TP13 1.5-1.6	TP13 1.0-2.0	18/02/2020	Soil	P. Bag	Goulburn				X							
36	TP13 2.0-2.1	TP13 2.0-2.5	18/02/2020	Soil	P. Bag	Goulburn				X							
37	TP13 2.4-2.5	--		Soil	P. Bag	Goulburn											X
38	TP14 0.0-0.1	TP14 0.0-0.1	18/02/2020	Soil	P. Bag	Goulburn				X							
39	TP14 0.4-0.5	TP14 0.1-1.0	18/02/2020	Soil	P. Bag	Goulburn				X							
40	TP14 0.9-1.0	--		Soil	P. Bag	Goulburn											X
41	TP14 1.4-1.5	TP14 1.0-2.0	18/02/2020	Soil	P. Bag	Goulburn				X							
42	TP14 1.9-2.0	--		Soil	P. Bag	Goulburn											X
43	TP14 2.4-2.5	TP14 2.0-2.5	18/02/2020	Soil	P. Bag	Goulburn				X							
44	TP15 0.0-0.1	TP15 0.0-0.1	18/02/2020	Soil	P. Bag	Goulburn				X							
45	TP15 0.4-0.5	TP15 0.1-1.0	18/02/2020	Soil	P. Bag	Goulburn				X							
46	TP15 0.9-1.0	--		Soil	P. Bag	Goulburn											X
47	TP15 1.4-1.5	TP15 1.0-2.0	18/02/2020	Soil	P. Bag	Goulburn				X							
48	TP15 1.9-2.0	--		Soil	P. Bag	Goulburn											X
49	TP15 2.2-2.3	TP15 2.0-2.3	18/02/2020	Soil	P. Bag	Goulburn				X							
50	TP16 0.0-0.1	TP16 0.0-0.1	18/02/2020	Soil	P. Bag	Goulburn				X							
51	TP16 0.4-0.5	TP16 0.1-1.0	18/02/2020	Soil	P. Bag	Goulburn				X							
52	TP16 0.9-1.0	--		Soil	P. Bag	Goulburn											X
53	TP16 1.4-1.5	TP16 1.0-2.0	18/02/2020	Soil	P. Bag	Goulburn				X							
54	TP16 1.9-2.0	--		Soil	P. Bag	Goulburn											X
55	TP17 0.0-0.1	TP17 0.0-0.1	19/02/2020	Soil	P. Bag	Goulburn				X							
56	TP17 0.4-0.5	TP17 0.1-0.5	19/02/2020	Soil	P. Bag	Goulburn				X							
57	TP18 0.0-0.1	TP18 0.0-0.1	18/02/2020	Soil	P. Bag	Goulburn				X							
58	TP18 0.4-0.5	TP18 0.1-0.8	18/02/2020	Soil	P. Bag	Goulburn											X
59	TP19 0.0-0.1	TP19 0.0-0.1	18/02/2020	Soil	P. Bag	Goulburn				X							
60	TP19 0.3-0.4	TP19 0.1-0.6	18/02/2020	Soil	P. Bag	Goulburn				X							
61	TP26 0.0-0.1	TP26 0.0-0.1	19/02/2020	Soil	P. Bag	Goulburn				X							
62	TP26 0.3-0.4	TP26 0.1-0.5	19/02/2020	Soil	P. Bag	Goulburn				X							
63	TP27 0.0-0.1	TP27 0.0-0.1	19/02/2020	Soil	P. Bag	Goulburn				X							
64	TP27 0.5-0.6	TP27 0.1-0.7	19/02/2020	Soil	P. Bag	Goulburn				X							
65	TP28 0.0-0.1	TP28 0.0-0.1	19/02/2020	Soil	P. Bag	Goulburn				X							
66	TP28 0.4-0.5	TP28 0.1-0.5	19/02/2020	Soil	P. Bag	Goulburn				X							
67	TP35 0.0-0.1	TP35 0.0-0.1	19/02/2020	Soil	P. Bag	Goulburn				X							
68	TP35 0.4-0.5	TP35 0.1-0.5	19/02/2020	Soil	P. Bag	Goulburn				X							
69	TP36 0.0-0.1	TP36 0.0-0.1	19/02/2020	Soil	P. Bag	Goulburn				X							

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50	70	TP36 0.6-0.7	TP36 0.1-0.7	19/02/2020	Soil	P. Bag	Goulburn			X				
51	71	TP37 0.0-0.1	TP37 0.0-0.1	19/02/2020	Soil	P. Bag	Goulburn			X				
52	72	TP37 0.4-0.5	TP37 0.1-0.5	19/02/2020	Soil	P. Bag	Goulburn			X				
53	73	TP38 0.0-0.1	TP38 0.0-0.1	19/02/2020	Soil	P. Bag	Goulburn			X				
54	74	TP38 0.4-0.5	TP38 0.1-1.0	19/02/2020	Soil	P. Bag	Goulburn			X				
	75	TP38 0.9-1.0	TP38 1.0-1.3	19/02/2020	Soil	P. Bag	Goulburn							X
55	76	TP39 0.0-0.1	TP39 0.0-0.1	19/02/2020	Soil	P. Bag	Goulburn			X				
56	77	TP39 0.5-0.6	TP39 0.1-1.0	19/02/2020	Soil	P. Bag	Goulburn			X				
	78	TP39 1.0-1.1	--		Soil	P. Bag	Goulburn							X
	79	TP39 1.5-1.6	TP39 1.0-1.7	19/02/2020	Soil	P. Bag	Goulburn							X
57	80	TP40 0.0-0.1	TP40 0.0-0.1	19/02/2020	Soil	P. Bag	Goulburn			X				
58	81	TP40 0.4-0.5	TP40 0.1-1.0	19/02/2020	Soil	P. Bag	Goulburn			X				
	82	TP40 1.0-1.1	TP40 1.0-1.3	19/02/2020	Soil	P. Bag	Goulburn							X
59	83	SS10	SS10	19/02/2020	Soil	P. Bag	Goulburn			X				
60	84	SS11	SS11	19/02/2020	Soil	P. Bag	Goulburn			X				
61	85	SS12	SS12	19/02/2020	Soil	P. Bag	Goulburn			X				
62	86	SS13	SS13	19/02/2020	Soil	P. Bag	Goulburn			X				
63	87	SS14	SS14	19/02/2020	Soil	P. Bag	Goulburn			X				
64	88	SS15	SS15	19/02/2020	Soil	P. Bag	Goulburn			X				
65	89	SS16	SS16	19/02/2020	Soil	P. Bag	Goulburn			X				
66	90	SS17	SS17	19/02/2020	Soil	P. Bag	Goulburn			X				
67	91	SS18	SS18	19/02/2020	Soil	P. Bag	Goulburn			X				
68	92	SS19	SS19	19/02/2020	Soil	P. Bag	Goulburn			X				
69	93	SS20	SS20	19/02/2020	Soil	P. Bag	Goulburn			X				
70	94	TP55 PACM	TP55 PACM	20/02/2020	Soil	P. Bag	Goulburn	X						
71	95	PACM 1	PACM 1	21/02/2020	Soil	P. Bag	Goulburn	X						
72	96	ACM01	ACM01	21/02/2020	Soil	P. Bag	Goulburn	X						
73	97	TP45 0.0-0.1	TP45 0.0-0.1	20/02/2020	Soil	P. Bag	Goulburn			X				
74	98	TP46 0.0-0.1	TP46 0.0-0.1	20/02/2020	Soil	P. Bag	Goulburn			X				
75	99	TP46 0.4-0.5	TP46 0.1-0.6	20/02/2020	Soil	P. Bag	Goulburn			X				
76	100	TP47 0.0-0.1	TP47 0.0-0.1	20/02/2020	Soil	P. Bag	Goulburn			X				
77	101	TP47 0.3-0.4	TP47 0.1-1.0	20/02/2020	Soil	P. Bag	Goulburn			X				
	102	TP47 0.8-0.9	--		Soil	P. Bag	Goulburn							X
	103	TP47 1.0-1.1	--		Soil	P. Bag	Goulburn							X
78	104	TP47 1.5-1.6	TP47 1.0-1.8	20/02/2020	Soil	P. Bag	Goulburn			X				
79	105	TP48 0.0-0.1	TP48 0.0-0.1	20/02/2020	Soil	P. Bag	Goulburn			X				
80	106	TP48 0.4-0.5	TP48 0.1-1.0	20/02/2020	Soil	P. Bag	Goulburn			X				
	107	TP48 0.9-1.0	--		Soil	P. Bag	Goulburn							X
81	107	TP49 0.0-0.1	TP49 0.0-0.1	20/02/2020	Soil	P. Bag	Goulburn			X				

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82	108	TP49 0.5-0.6	TP49 0.1-0.7	20/02/2020	Soil	P. Bag	Goulburn			X				
83	109	TP50 0.0-0.1	TP50 0.0-0.1	20/02/2020	Soil	P. Bag	Goulburn			X				
84	110	TP50 0.2-0.3	TP50 0.1-0.7	20/02/2020	Soil	P. Bag	Goulburn			X				
85	111	TP51 0.0-0.1	TP51 0.0-0.1	20/02/2020	Soil	P. Bag	Goulburn			X				
86	112	TP51 0.1-0.9	TP51 0.1-1.0	20/02/2020	Soil	P. Bag	Goulburn			X				
87	113	TP52 0.0-0.1	TP52 0.0-0.1	20/02/2020	Soil	P. Bag	Goulburn			X				
88	114	TP52 0.1-0.4	TP52 0.1-0.8	20/02/2020	Soil	P. Bag	Goulburn			X				
89	115	TP53 0.0-0.1	TP53 0.0-0.1	20/02/2020	Soil	P. Bag	Goulburn			X				
90	116	TP53 0.2-0.3	TP53 0.1-0.3	20/02/2020	Soil	P. Bag	Goulburn			X				
91	117	TP54 0.0-0.1	TP54 0.0-0.1	20/02/2020	Soil	P. Bag	Goulburn			X				
92	118	TP54 0.4-0.5	TP54 0.1-0.7	20/02/2020	Soil	P. Bag	Goulburn			X				
93	119	TP55 0.0-0.1	TP55 0.0-0.1	20/02/2020	Soil	P. Bag	Goulburn			X				
94	120	TP55 0.4-0.5	TP55 0.1-1.0	20/02/2020	Soil	P. Bag	Goulburn			X				
	121	TP55 0.9-1.0			Soil	P. Bag	Goulburn							X
95	121	TP55 1.4-1.5	TP55 1.0-1.5	20/02/2020	Soil	P. Bag	Goulburn			X				
96	122	TP56 0.0-0.1	TP56 0.0-0.1	20/02/2020	Soil	P. Bag	Goulburn			X				
97	123	TP57 0.0-0.1	TP57 0.0-0.1	20/02/2020	Soil	P. Bag	Goulburn			X				
98	124	TP57 0.3-0.4	TP57 0.1-0.4	20/02/2020	Soil	P. Bag	Goulburn			X				
99	125	TP58 0.0-0.1	TP58 0.0-0.1	20/02/2020	Soil	P. Bag	Goulburn			X				
100	126	TP59 0.0-0.1	TP59 0.0-0.1	20/02/2020	Soil	P. Bag	Goulburn			X				
101	127	TP59 0.4-0.5	TP59 0.1-0.6	20/02/2020	Soil	P. Bag	Goulburn			X				
102	128	TP60 0.0-0.1	TP60 0.0-0.1	20/02/2020	Soil	P. Bag	Goulburn			X				
103	129	TP60 0.4-0.5	TP60 0.1-1.0	20/02/2020	Soil	P. Bag	Goulburn			X				
	130	TP60 0.9-1.0			Soil	P. Bag	Goulburn							X
104	130	TP60 1.4-1.5	TP60 1.0-1.5	20/02/2020	Soil	P. Bag	Goulburn			X				
105	131	TP61 0.0-0.1	TP61 0.0-0.1	21/02/2020	Soil	P. Bag	Goulburn			X				
106	132	TP61 0.4-0.5	TP61 0.1-0.5	21/02/2020	Soil	P. Bag	Goulburn			X				
107	133	TP68 0.0-0.1	TP68 0.0-0.1	21/02/2020	Soil	P. Bag	Goulburn			X				
108	134	TP68 0.4-0.5	TP68 0.1-0.5	21/02/2020	Soil	P. Bag	Goulburn			X				
109	135	TP69 0.0-0.1	TP69 0.0-0.1	21/02/2020	Soil	P. Bag	Goulburn			X				
110	136	TP70 0.0-0.1	TP70 0.0-0.1	21/02/2020	Soil	P. Bag	Goulburn			X				
111	137	TP71 0.0-0.1	TP71 0.0-0.1	21/02/2020	Soil	P. Bag	Goulburn			X				
112	138	TP72 0.0-0.1	TP72 0.0-0.1	21/02/2020	Soil	P. Bag	Goulburn			X				
113	139	TP72 0.2-0.3	TP72 0.1-0.6	21/02/2020	Soil	P. Bag	Goulburn			X				
114	140	TP73 0.0-0.1	TP73 0.0-0.1	21/02/2020	Soil	P. Bag	Goulburn			X				
115	141	TP74 0.0-0.1	TP74 0.0-0.1	21/02/2020	Soil	P. Bag	Goulburn			X				
116	142	TP74 0.2-0.3	TP74 0.1-0.8	21/02/2020	Soil	P. Bag	Goulburn			X				
	143	TP74 0.5-0.6			Soil	P. Bag	Goulburn							X
117	143	TP75 0.0-0.1	TP75 0.0-0.1	21/02/2020	Soil	P. Bag	Goulburn			X				

26 FEB 2020

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118	144	TP76 0.0-0.1	TP76 0.0-1.0	21/02/2020	Soil	P. Bag	Goulburn			X					
119	145	TP77 0.2-0.3	TP77 0.0-1.0	21/02/2020	Soil	P. Bag	Goulburn			X					
120	146	TP77 2.2-2.3	TP77 2.2-2.3	21/02/2020	Soil	P. Bag	Goulburn			X					
121	147	TP78 0.0-0.2	TP78 0.0-1.0	21/02/2020	Soil	P. Bag	Goulburn			X					
122	148	TP78 1.1-1.2	TP78 1.1-1.3	21/02/2020	Soil	P. Bag	Goulburn			X					
123	149	TP79 0.0-0.1	TP79 0.0-0.1	21/02/2020	Soil	P. Bag	Goulburn			X					
124	150	TP80 0.4-0.5	TP80 0.0-1.0	21/02/2020	Soil	P. Bag	Goulburn			X					
125	151	TP81 0.0-0.1	TP81 0.0-0.1	21/02/2020	Soil	P. Bag	Goulburn			X					
126	152	TP82 0.0-0.1	TP82 0.0-0.1	21/02/2020	Soil	P. Bag	Goulburn			X					
127	153	TP83 0.0-0.1	TP83 0.0-0.1	21/02/2020	Soil	P. Bag	Goulburn			X					
128	154	TP84 0.0-0.1	TP84 0.0-0.1	21/02/2020	Soil	P. Bag	Goulburn			X					
129	155	TP84 0.3-0.4	TP84 0.3-1.0	21/02/2020	Soil	P. Bag	Goulburn			X					
130	156	TP85 1.5-1.6	TP85 ~~1.5-1.7~~	21/02/2020	Soil	P. Bag	Goulburn			X					
131		SPI	0.0-0.1												
132		SPO2													
Relinquished By: Abanish Nepal							Received By: Ovini			Turn around time					Shipment Method
Date & Time: 25/02/2020; 2210							Date & Time: 26/2/20 9:00am			Same Day	24 hrs	48 hrs	3 Days	5 days	Courier
Signature: AN							Signature: 							X	

RECEIVED
 26 FEB 2020
 BY: Ovini



AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref : ASET80070 / 83250 / 1 - 43
Your ref : 5046200019 - DSI Goulburn
NATA Accreditation No: 14484

2 March 2020

Construction Sciences
31 Anvil Road
Seven Hills NSW 2147



Attn: Mr Abanish Nepal

Accredited for compliance with ISO/IEC 17025 - Testing.

Dear Abanish

Asbestos Identification

This report presents the results of forty three samples out of one hundred and thirty two samples, forwarded by Construction Sciences on 26 February 2020, for analysis for asbestos.

1.Introduction:Forty three samples out of one hundred and thirty two samples forwarded were examined and analysed for the presence of asbestos.

2. Methods : The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method **(Australian Standard AS 4964 - 2004 and Safer Environment Method 1 as the supplementary work instruction) (Qualitative Analysis only).**

The report also provides approximate weights and percentages, categories of asbestos forms appearing in the sample, such as **AF**(Asbestos Fines), **FA**(Friable Asbestos and **ACM** (Asbestos Containing Material), also satisfying the requirements of the WA/ NEPM Guidelines)

3. Results : **Sample No. 1. ASET80070 / 83250 / 1. 5046200019 - TP01 0.0-0.1.**
Approx dimensions 10.0 cm x 10.0 cm x 5.3 cm
Approximate total dry weight of soil = 530.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, glass, wood chips and plant matter.
No asbestos detected.

Sample No. 2. ASET80070 / 83250 / 2. 5046200019 - TP01 0.1-0.5.
Approx dimensions 10.0 cm x 10.0 cm x 5.7 cm
Approximate total dry weight of soil = 565.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, cement, bitumen, glass, shale, wood chips and plant matter.
No asbestos detected.

Sample No. 3. ASET80070 / 83250 / 3. 5046200019 - TP01 0.5-1.0.
Approx dimensions 10.0 cm x 10.0 cm x 6.4 cm
Approximate total dry weight of soil = 640.0g
The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, cement, char, glass, shale, wood chips and plant matter.
No asbestos detected.

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OCCUPATIONAL HEALTH & SAFETY STUDIES • INDOOR AIR QUALITY SURVEYS • HAZARDOUS MATERIAL SURVEYS • RADIATION SURVEYS • ASBESTOS SURVEYS
ASBESTOS DETECTION & IDENTIFICATION • REPAIR & CALIBRATION OF SCIENTIFIC EQUIPMENT • AIRBORNE FIBRE & SILICA MONITORING



Sample No. 4. ASET80070 / 83250 / 4. 5046200019 - TP01 1.0-1.5.

Approx dimensions 10.0 cm x 10.0 cm x 6.8 cm

Approximate total dry weight of soil = 680.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, bitumen, glass, shale, wood chips and plant matter.

No asbestos detected.

Sample No. 5. ASET80070 / 83250 / 5. 5046200019 - TP02-0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 5.9 cm

Approximate total dry weight of soil = 595.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, char, shale, wood chips and plant matter.

No asbestos detected.

Sample No. 6. ASET80070 / 83250 / 6. 5046200019 - TP02 0.1-0.8.

Approx dimensions 10.0 cm x 10.0 cm x 7.8 cm

Approximate total dry weight of soil = 785.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, cement, bitumen, shale, wood chips and plant matter.

No asbestos detected.

Sample No. 7. ASET80070 / 83250 / 7. 5046200019 - TP03 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 6.0 cm

Approximate total dry weight of soil = 595.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, cement, bitumen, glass, shale, char, wood chips and plant matter.

No asbestos detected.

Sample No. 8. ASET80070 / 83250 / 8. 5046200019 - TP03 0.1-1.0.

Approx dimensions 10.0 cm x 10.0 cm x 6.7 cm

Approximate total dry weight of soil = 565.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, char, plastic, glass, shale, wood chips and plant matter.

No asbestos detected.

Sample No. 9. ASET80070 / 83250 / 9. 5046200019 - TP04 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 5.9 cm

Approximate total dry weight of soil = 585.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, cement, bitumen, glass, plastic, char, wood chips and plant matter.

No asbestos detected.

Sample No. 10. ASET80070 / 83250 / 10. 5046200019 - TP04 0.1-1.0.

Approx dimensions 10.0 cm x 10.0 cm x 5.0 cm

Approximate total dry weight of soil = 400.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, paint flakes, plaster, glass, shale, wood chips and plant matter.

No asbestos detected.

Sample No. 11. ASET80070 / 83250 / 11. 5046200019 - TP04 1.0-1.8.

Approx dimensions 10.0 cm x 10.0 cm x 5.8 cm

Approximate total dry weight of soil = 585.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, bitumen, plaster, shale, wood chips and plant matter.

No asbestos detected.



Sample No. 12. ASET80070 / 83250 / 12. 5046200019 - TP05 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 5.1 cm

Approximate total dry weight of soil = 505.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, bitumen, shale, wood chips and plant matter.

No asbestos detected.

Sample No. 13. ASET80070 / 83250 / 13. 5046200019 - TP05 0.1-0.5.

Approx dimensions 10.0 cm x 10.0 cm x 7.9 cm

Approximate total dry weight of soil = 795.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone and plant matter.

No asbestos detected.

Sample No. 14. ASET80070 / 83250 / 14. 5046200019 - TP06 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 6.2cm

Approximate total dry weight of soil = 615.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, bitumen, glass, shale, wood chips and plant matter.

No asbestos detected.

Sample No. 15. ASET80070 / 83250 / 15. 5046200019 - TP06 0.1-0.8.

Approx dimensions 10.0 cm x 10.0 cm x 7.5 cm

Approximate total dry weight of soil = 750.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, paint flakes, glass, wood chips and plant matter.

No asbestos detected.

Sample No. 16. ASET80070 / 83250 / 16. 5046200019 - TP07 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 6.0 cm

Approximate total dry weight of soil = 600.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, char, bitumen, plastic, wood chips and plant matter.

No asbestos detected.

Sample No. 17. ASET80070 / 83250 / 17. 5046200019 - TP07 0.1-1.0.

Approx dimensions 10.0 cm x 10.0 cm x 6.3 cm

Approximate total dry weight of soil = 565.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, bitumen, glass, shale, plastic, wood chips and plant matter.

No asbestos detected.

Sample No. 18. ASET80070 / 83250 / 18. 5046200019 - TP12 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 5.9 cm

Approximate total dry weight of soil = 595.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, bitumen, glass, shale, wood chips and plant matter.

No asbestos detected.

Sample No. 19. ASET80070 / 83250 / 19. 5046200019 - TP12 0.1-1.0.

Approx dimensions 10.0 cm x 10.0 cm x 6.5 cm

Approximate total dry weight of soil = 650.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, cement, bitumen, glass, shale, char, wood chips and plant matter.

No asbestos detected.



Sample No. 20. ASET80070 / 83250 / 20. 5046200019 - TP12 1.0-1.8.

Approx dimensions 10.0 cm x 10.0 cm x 6.6 cm

Approximate total dry weight of soil = 660.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, bitumen, corroded metal, shale, wood chips and plant matter.

No asbestos detected.

Sample No. 21. ASET80070 / 83250 / 21. 5046200019 - TP13 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 7.6 cm

Approximate total dry weight of soil = 765.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, wood chips and plant matter.

No asbestos detected.

Sample No. 22. ASET80070 / 83250 / 22. 5046200019 - TP13 0.1-1.0.

Approx dimensions 10.0 cm x 10.0 cm x 6.3 cm

Approximate total dry weight of soil = 625.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, bitumen, shale, wood chips and plant matter.

No asbestos detected.

Sample No. 23. ASET80070 / 83250 / 23. 5046200019 - TP13 1.0-2.0.

Approx dimensions 10.0 cm x 10.0 cm x 7.0 cm

Approximate total dry weight of soil = 705.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, bitumen, glass, shale, wood chips and plant matter.

No asbestos detected.

Sample No. 24. ASET80070 / 83250 / 24. 5046200019 - TP13 2.0-2.5.

Approx dimensions 10.0 cm x 10.0 cm x 5.8 cm

Approximate total dry weight of soil = 585.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, bitumen, shale, char, wood chips and plant matter.

No asbestos detected.

Sample No. 25. ASET80070 / 83250 / 25. 5046200019 - TP14 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 8.1 cm

Approximate total dry weight of soil = 815.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, wood chips and plant matter.

No asbestos detected.

Sample No. 26. ASET80070 / 83250 / 26. 5046200019 - TP14 0.1-1.0.

Approx dimensions 10.0 cm x 10.0 cm x 6.6 cm

Approximate total dry weight of soil = 660.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, bitumen, glass, shale, wood chips and plant matter.

No asbestos detected.

Sample No. 27. ASET80070 / 83250 / 27. 5046200019 - TP14 1.0-2.0.

Approx dimensions 10.0 cm x 10.0 cm x 6.5 cm

Approximate total dry weight of soil = 645.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, bitumen, glass, shale, char, wood chips and plant matter.

No asbestos detected.



Sample No. 28. ASET80070 / 83250 / 28. 5046200019 - TP14 2.0-2.5.

Approx dimensions 10.0 cm x 10.0 cm x 7.4 cm

Approximate total dry weight of soil = 740.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, bitumen, shale, char, wood chips and plant matter.

No asbestos detected.

Sample No. 29. ASET80070 / 83250 / 29. 5046200019 - TP15 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 6.8 cm

Approximate total dry weight of soil = 675.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, bitumen, shale, char, wood chips and plant matter.

No asbestos detected.

Sample No. 30. ASET80070 / 83250 / 30. 5046200019 - TP15 0.1-1.0.

Approx dimensions 10.0 cm x 10.0 cm x 6.6 cm

Approximate total dry weight of soil = 660.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, bitumen, glass, shale, wood chips and plant matter.

No asbestos detected.

Sample No. 31. ASET80070 / 83250 / 31. 5046200019 - TP15 1.0-2.0.

Approx dimensions 10.0 cm x 10.0 cm x 7.0 cm

Approximate total dry weight of soil = 645.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, plastic, shale, wood chips and plant matter.

No asbestos detected.

Sample No. 32. ASET80070 / 83250 / 32. 5046200019 - TP15 2.0-2.3.

Approx dimensions 10.0 cm x 10.0 cm x 7.8 cm

Approximate total dry weight of soil = 780.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, plastic, shale, char, wood chips and plant matter.

No asbestos detected.

Sample No. 33. ASET80070/ 83250/ 33. 5046200019 - TP16 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 6.2 cm

Approximate total dry weight of soil = 615.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, bitumen, glass, shale, wood chips and plant matter.

No asbestos detected.

Sample No. 34. ASET80070 / 83250 / 34. 5046200019 - TP16 0.1-1.0.

Approx dimensions 10.0 cm x 10.0 cm x 6.2 cm

Approximate total dry weight of soil = 615.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, shale, char, wood chips and plant matter.

No asbestos detected.

Sample No. 35. ASET80070 / 83250 / 35. 5046200019 - TP16 1.0-2.0.

Approx dimensions 10.0 cm x 10.0 cm x 7.3 cm

Approximate total dry weight of soil = 725.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, plastic, bitumen, glass, shale, char, wood chips and plant matter.

No asbestos detected.



Sample No. 36. ASET80070 / 83250 / 36. 5046200019 - TP17 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 7.7 cm

Approximate total dry weight of soil = 770.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone and plant matter.

No asbestos detected.

Sample No. 37. ASET80070 / 83250 / 37. 5046200019 - TP17 0.1-0.5.

Approx dimensions 10.0 cm x 10.0 cm x 7.6 cm

Approximate total dry weight of soil = 760.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone and plant matter.

No asbestos detected.

Sample No. 38. ASET80070 / 83250 / 38. 5046200019 - TP18 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 8.1 cm

Approximate total dry weight of soil = 810.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone and plant matter.

No asbestos detected.

Sample No. 39. ASET80070 / 83250 / 39. 5046200019 - TP19 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 7.5 cm

Approximate total dry weight of soil = 745.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, wood chips and plant matter.

No asbestos detected.

Sample No. 40. ASET80070 / 83250 / 40. 5046200019 - TP19 0.1-0.6.

Approx dimensions 10.0 cm x 10.0 cm x 7.5 cm

Approximate total dry weight of soil = 750.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, wood chips and plant matter.

No asbestos detected.

Sample No. 41. ASET80070 / 83250 / 41. 5046200019 - TP26 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 9.9 cm

Approximate total dry weight of soil = 997.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone and plant matter.

No asbestos detected.

Sample No. 42. ASET80070 / 83250 / 42. 5046200019 - TP26 0.1-0.5.

Approx dimensions 10.0 cm x 10.0 cm x 9.4 cm

Approximate total dry weight of soil = 935.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone and plant matter.

No asbestos detected.

Sample No. 43. ASET80070 / 83250 / 43. 5046200019 - TP27 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 6.9 cm

Approximate total dry weight of soil = 690.0g

The sample consisted of a mixture of clayish sandy soil, stones, fragments of sandstone, wood chips and plant matter.

No asbestos detected.

Reported by,



Mahen De Silva. BSc, MSc, Grad Dip (Occ Hyg)
Occupational Hygienist / Approved Identifier.
Approved Signatory



Accredited for compliance with ISO/IEC 17025 - Testing.

This report is consistent with the analytical procedures and reporting recommendations in the Western Australia Guidelines for the Assessment Remediation and Management of Asbestos contaminated sites in Western Australia and it also satisfies the requirements of the current NEPM Guidelines. NATA Accreditation does not cover the performance of this service.

Disclaimers;

The approx; weights given above can be used only as a guide. They do not represent absolute weights of each kind of asbestos, as it is impossible to extract all loose fibres from soil and other asbestos containing building material samples using this method. However above figures may be used as closest approximations to the exact values in each case. Estimation and/ or reporting of asbestos fibre weights in asbestos containing materials and soil is out of the Scope of the NATA Accreditation. NATA Accreditation only covers the qualitative part of the results reported. This weight disclaimer also covers weight / weight percentages if given.

ACM - Asbestos Containing Material - Products or materials that contain asbestos in an inert bound matrix such as cement or resin. Here taken to be sound material, even as fragments and not fitting through a 7mm X 7 mm sieve.

AF -Includes asbestos free fibres, small fibre bundles and also ACM fragments that pass through a 7mm X 7 mm sieve.

FA -Friable asbestos material such as severely weathered ACM, and asbestos in the form of loose fibrous material such as insulation products.

^ denotes loose fibres of relevant asbestos types detected in soil/dust.

*** denotes asbestos detected in ACM in bonded form.**

denotes friable asbestos as soft fibro plaster and/ or highly weathered ACM that will easily crumble.

The results contained in this report relate only to the sample/s submitted for testing. Australian Safer Environment & Technology accepts no responsibility for whether or not the submitted sample/s is/are representative. Results indicating "No asbestos detected" indicates a reporting limit specified in AS4964 -2004 which is 0.1g/ Kg (0.01%). Any amounts



detected at assumed lower level than that would be reported, however those assumed lower levels may be treated as "No asbestos detected" as specified and recommended by AS4964-2004. Trace / respirable level asbestos will be reported only when detected and trace analysis have been performed on each sample as required by AS4964-2004. When loose asbestos fibres/ fibre bundles are detected and reported that means they are larger handpicked fibres/ fibre bundles, and they do not represent respirable fibres. Dust/soil samples are always subjected to trace analysis except where the amounts involved are extremely minute and trace analysis is not possible to be carried out. When trace analysis is not performed on dust samples it will be indicated in the report that trace analysis has not been carried out due to the volume of the sample being extremely minute.

Estimation of asbestos weights involves the use of following assumptions;

Volume of each kind of Asbestos present in broken edges have been visually estimated and its been assumed that volumes remain similar throughout the binding matrix and those volumes are only approximate and not exact. Material densities have been assumed to be similar to commonly found similar materials and may not be exact.

All samples indicating "No asbestos detected" are assumed to be less than 0.001 % unless the actual approximate weight is given.



AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref : ASET80070 / 83250 / 44 - 65
Your ref : 5046200019 – DSI Goulburn
NATA Accreditation No: 14484

2 March 2020

Construction Sciences
31 Anvil Road
Seven Hills NSW 2147

Attn: Mr Abanish Nepal



Dear Abanish

Accredited for compliance with ISO/IEC 17025 - Testing.

Asbestos Identification

This report presents the results of twenty two samples out of one hundred and thirty two samples, forwarded by Construction Sciences on 26 February 2020, for analysis for asbestos.

1.Introduction: Twenty two samples out of one hundred and thirty two samples forwarded were examined and analysed for the presence of asbestos.

2. Methods : The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method **(Australian Standard AS 4964 - 2004 and Safer Environment Method 1 as the supplementary work instruction) (Qualitative Analysis only).**

The report also provides approximate weights and percentages, categories of asbestos forms appearing in the sample, such as **AF**(Asbestos Fines), **FA**(Friable Asbestos) and **ACM** (Asbestos Containing Material), also satisfying the requirements of the WA/ NEPM Guidelines)

3. Results : **Sample No. 44. ASET80070 / 83250 / 44. 5046200019 - TP27 0.1-0.7.**
Approx dimensions 10.0 cm x 10.0 cm x 7.3 cm
Approximate total weight of soil = 734.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 45. ASET80070 / 83250 / 45. 5046200019 - TP28 0.0-0.1.
Approx dimensions 10.0 cm x 10.0 cm x 7.7 cm
Approximate total weight of soil = 770.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 46. ASET80070 / 83250 / 46. 5046200019 - TP28 0.1-0.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.8 cm
Approximate total weight of soil = 777.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 47. ASET80070 / 83250 / 47. 5046200019 - TP35 0.0-0.1.
Approx dimensions 10.0 cm x 10.0 cm x 8.7 cm
Approximate total weight of soil = 870.0g.
The sample consisted of a mixture of clayish sandy soil, stones, shale, plant and animal matter.
No asbestos detected.

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Sample No. 48. ASET80070 / 83250 / 48. 5046200019 - TP35 0.1-0.5.
Approx dimensions 10.0 cm x 10.0 cm x 9.0 cm
Approximate total weight of soil = 898.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 49. ASET80070 / 83250 / 49. 5046200019 - TP36 0.0-0.01.
Approx dimensions 10.0 cm x 10.0 cm x 7.8 cm
Approximate total weight of soil = 776.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 50. ASET80070 / 83250 / 50. 5046200019 - TP36 0.1-0.7.
Approx dimensions 10.0 cm x 10.0 cm x 9.0 cm
Approximate total weight of soil = 896.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 51. ASET80070 / 83250 / 51. 5046200019 - TP37 0.0-0.1.
Approx dimensions 10.0 cm x 10.0 cm x 8.3 cm
Approximate total weight of soil = 830.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 52. ASET80070 / 83250 / 52. 5046200019 - TP37 0.1-0.5.
Approx dimensions 10.0 cm x 10.0 cm x 7.7 cm
Approximate total weight of soil = 774.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 53. ASET80070 / 83250 / 53. 5046200019 - TP38 0.0-0.1.
Approx dimensions 10.0 cm x 10.0 cm x 6.4 cm
Approximate total weight of soil = 638.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 54. ASET80070 / 83250 / 54. 5046200019 - TP38 0.1-1.0.
Approx dimensions 10.0 cm x 10.0 cm x 9.3 cm
Approximate total weight of soil = 929.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 55. ASET80070 / 83250 / 55. 5046200019 - TP39 0.0-0.1.
Approx dimensions 10.0 cm x 10.0 cm x 8.1 cm
Approximate total weight of soil = 809.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 56. ASET80070 / 83250 / 56. 5046200019 - TP39 0.1-1.0.
Approx dimensions 10.0 cm x 10.0 cm x 9.2 cm
Approximate total weight of soil = 923.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.



Sample No. 57. ASET80070 / 83250 / 57. 5046200019 - TP40 0.0-0.1.
Approx dimensions 10.0 cm x 10.0 cm x 6.4 cm
Approximate total weight of soil = 630.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 58. ASET80070 / 83250 / 58. 5046200019 - TP40 0.1-1.0.
Approx dimensions 10.0 cm x 10.0 cm x 7.7 cm
Approximate total weight of soil = 766.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 59. ASET80070 / 83250 / 59. 5046200019 - SS10.
Approx dimensions 10.0 cm x 10.0 cm x 5.9 cm
Approximate total weight of soil = 588.0g.
The sample consisted of a mixture of clayish sandy soil, stones, plant matter and fragments of bitumen.
No asbestos detected.

Sample No. 60. ASET80070 / 83250 / 60. 5046200019 - SS11.
Approx dimensions 10.0 cm x 10.0 cm x 6.7 cm
Approximate total weight of soil = 672.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 61. ASET80070 / 83250 / 61. 5046200019 - SS12.
Approx dimensions 10.0 cm x 10.0 cm x 6.2 cm
Approximate total weight of soil = 623.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 62. ASET80070 / 83250 / 62. 5046200019 - SS13.
Approx dimensions 10.0 cm x 10.0 cm x 6.1 cm
Approximate total weight of soil = 611.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 63. ASET80070 / 83250 / 63. 5046200019 - SS14.
Approx dimensions 10.0 cm x 10.0 cm x 5.1 cm
Approximate total weight of soil = 514.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 64. ASET80070 / 83250 / 64. 5046200019 - SS15.
Approx dimensions 10.0 cm x 10.0 cm x 6.3 cm
Approximate total weight of soil = 628.0g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 65. ASET80070 / 83250 / 65. 5046200019 - SS16.

Approx dimensions 10.0 cm x 10.0 cm x 7.7 cm

Approximate total weight of soil = 774.0g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.

Reported by,




**Mahen De Silva. BSc, MSc, Grad Dip (Occ Hyg)
Occupational Hygienist / Approved Identifier.
Approved Signatory**

Accredited for compliance with ISO/IEC 17025 - Testing.

This report is consistent with the analytical procedures and reporting recommendations in the Western Australia Guidelines for the Assessment Remediation and Management of Asbestos contaminated sites in Western Australia and it also satisfies the requirements of the current NEPM Guidelines. NATA Accreditation does not cover the performance of this service.

Disclaimers;

The approx; weights given above can be used only as a guide. They do not represent absolute weights of each kind of asbestos, as it is impossible to extract all loose fibres from soil and other asbestos containing building material samples using this method. However above figures may be used as closest approximations to the exact values in each case. Estimation and/ or reporting of asbestos fibre weights in asbestos containing materials and soil is out of the Scope of the NATA Accreditation. NATA Accreditation only covers the qualitative part of the results reported. This weight disclaimer also covers weight / weight percentages if given.

ACM - Asbestos Containing Material - Products or materials that contain asbestos in an inert bound matrix such as cement or resin. Here taken to be sound material, even as fragments and not fitting through a 7mm X 7 mm sieve.

AF -Includes asbestos free fibres, small fibre bundles and also ACM fragments that pass through a 7mm X 7 mm sieve.

FA -Friable asbestos material such as severely weathered ACM, and asbestos in the form of loose fibrous material such as insulation products.

^ denotes loose fibres of relevant asbestos types detected in soil/dust.

*** denotes asbestos detected in ACM in bonded form.**

denotes friable asbestos as soft fibro plaster and/ or highly weathered ACM that will easily crumble.

The results contained in this report relate only to the sample/s submitted for testing. Australian Safer Environment & Technology accepts no responsibility for whether or not the submitted sample/s is/are representative. Results indicating



"No asbestos detected" indicates a reporting limit specified in AS4964 -2004 which is 0.1g/ Kg (0.01%). Any amounts detected at assumed lower level than that would be reported, however those assumed lower levels may be treated as "No asbestos detected" as specified and recommended by AS4964-2004. Trace / respirable level asbestos will be reported only when detected and trace analysis have been performed on each sample as required by AS4964-2004. When loose asbestos fibres/ fibre bundles are detected and reported that means they are larger handpicked fibres/ fibre bundles, and they do not represent respirable fibres. Dust/soil samples are always subjected to trace analysis except where the amounts involved are extremely minute and trace analysis is not possible to be carried out. When trace analysis is not performed on dust samples it will be indicated in the report that trace analysis has not been carried out due to the volume of the sample being extremely minute.

Estimation of asbestos weights involves the use of following assumptions;

Volume of each kind of Asbestos present in broken edges have been visually estimated and its been assumed that volumes remain similar throughout the binding matrix and those volumes are only approximate and not exact. Material densities have been assumed to be similar to commonly found similar materials and may not be exact.

All samples indicating "No asbestos detected" are assumed to be less than 0.001 % unless the actual approximate weight is given.



AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref : ASET80070 / 83250 / 66 – 87
Your ref : 5046200019 – DSI Goulburn
NATA Accreditation No: 14484

2 March 2020

Construction Sciences
31 Anvil Road
Seven Hills NSW 2147

Attn: Mr Abanish Nepal



Dear Abanish

Accredited for compliance with ISO/IEC 17025 - Testing.

Asbestos Identification

This report presents the results of twenty two samples out of one hundred and thirty two samples, forwarded by Construction Sciences on 26 February 2020, for analysis for asbestos.

1.Introduction: Twenty two samples out of one hundred and thirty two samples forwarded were examined and analysed for the presence of asbestos.

2. Methods : The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method **(Australian Standard AS 4964 - 2004 and Safer Environment Method 1 as the supplementary work instruction) (Qualitative Analysis only).**

The report also provides approximate weights and percentages, categories of asbestos forms appearing in the sample, such as **AF**(Asbestos Fines), **FA**(Friable Asbestos and **ACM** (Asbestos Containing Material), also satisfying the requirements of the WA/ NEPM Guidelines)

3. Results : **Sample No. 66. ASET80070 / 83250 / 66. 5046200019 - SS17.**
Approx dimensions 10.0 cm x 10.0 cm x 7.2 cm
Approximate total dry weight of soil = 718g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 67. ASET80070 / 83250 / 67. 5046200019 - SS18.
Approx dimensions 10.0 cm x 10.0 cm x 6.2 cm
Approximate total dry weight of soil = 624g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 68. ASET80070 / 83250 / 68. 5046200019 - SS19.
Approx dimensions 10.0 cm x 10.0 cm x 6.8 cm
Approximate total dry weight of soil = 677g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 69. ASET80070 / 83250 / 69. 5046200019 - SS20.
Approx dimensions 10.0 cm x 10.0 cm x 6.0 cm
Approximate total dry weight of soil = 604g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

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λ Sample No. 70. ASET80070 / 83250 / 70. 5046200019 – TP55 PACM.

Approx dimensions 17.6 cm x 7.5 cm x 1.8 cm

The sample consisted of a fragment of a fibre cement material* (ACM).

Chrysotile* (Approximate estimated weight = 53.01g) asbestos detected.

Approximate total dry weight of fragment = 333g.

λ Sample No. 71. ASET80070 / 83250 / 71. 5046200019 - PACM 1.

Approx dimensions 4.1 cm x 2.3 cm x 0.5 cm

The sample consisted of a fragment of a fibre cement material* (ACM).

Chrysotile* (Approximate estimated weight = 0.96g) asbestos detected.

Approximate total dry weight of fragment = 6g.

λ Sample No. 72. ASET80070 / 83250 / 72. 5046200019 - ACM01.

Approx dimensions 3.5 cm x 1.8 cm x 0.4 cm

The sample consisted of a fragment of a fibre cement material* (ACM).

Chrysotile* (Approximate estimated weight = 0.24g) asbestos detected.

Approximate total dry weight of fragment = 1.5g.

Sample No. 73. ASET80070 / 83250 / 73. 5046200019 - TP45 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 5.9 cm

Approximate total dry weight of soil = 595g.

The sample consisted of a mixture of clayish sandy soil, stones, plant matter and fragments of cement.

No asbestos detected.

Sample No. 74. ASET80070 / 83250 / 74. 5046200019 - TP46 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 7.4 cm

Approximate total dry weight of soil = 741g.

The sample consisted of a mixture of clayish sandy soil, stones, plant matter and plastic.

No asbestos detected.

Sample No. 75. ASET80070 / 83250 / 75. 5046200019 - TP46 0.1-0.6.

Approx dimensions 10.0 cm x 10.0 cm x 10.0 cm

Approximate total dry weight of soil = 1088g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.

Sample No. 76. ASET80070 / 83250 / 76. 5046200019 - TP47 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 7.0 cm

Approximate total dry weight of soil = 698g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.

Sample No. 77. ASET80070 / 83250 / 77. 5046200019 - TP47 0.1-1.0.

Approx dimensions 10.0 cm x 10.0 cm x 7.3 cm

Approximate total dry weight of soil = 731g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.

Sample No. 78. ASET80070 / 83250 / 78. 5046200019 - TP47 1.0-1.8.

Approx dimensions 10.0 cm x 10.0 cm x 7.0 cm

Approximate total dry weight of soil = 705g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.



Sample No. 79. ASET80070 / 83250 / 79. 5046200019 -TP48 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 6.0 cm

Approximate total dry weight of soil = 601g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.

Sample No. 80. ASET80070 / 83250 / 80. 5046200019 - TP48 0.1-1.0.

Approx dimensions 10.0 cm x 10.0 cm x 7.2 cm

Approximate total dry weight of soil = 723g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.

Sample No. 81. ASET80070 / 83250 / 81. 5046200019 - TP49 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 6.6 cm

Approximate total dry weight of soil = 657g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.

Sample No. 82. ASET80070 / 83250 / 82. 5046200019 - TP49 0.1-0.7.

Approx dimensions 10.0 cm x 10.0 cm x 7.6 cm

Approximate total dry weight of soil = 759g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.

Sample No. 83. ASET80070 / 83250 / 83. 5046200019 - TP50 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 6.8 cm

Approximate total dry weight of soil = 680g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.

Sample No. 84. ASET80070 / 83250 / 84. 5046200019 - TP50 0.1-0.7.

Approx dimensions 10.0 cm x 10.0 cm x 6.8 cm

Approximate total dry weight of soil = 684g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.

Sample No. 85. ASET80070 / 83250 / 85. 5046200019 - TP51 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 6.7 cm

Approximate total dry weight of soil = 672g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.

Sample No. 86. ASET80070 / 83250 / 86. 5046200019 - TP51 0.1-1.0.

Approx dimensions 10.0 cm x 10.0 cm x 7.1 cm

Approximate total dry weight of soil = 711g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.



Sample No. 87. ASET80070 / 83250 / 87. 5046200019 - TP52 0.0-0.1.
Approx dimensions 10.0 cm x 10.0 cm x 6.3 cm
Approximate total dry weight of soil = 627g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Reported by,

Mahen De Silva. BSc, MSc, Grad Dip (Occ Hyg)
Occupational Hygienist / Approved Identifier.
Approved Signatory



**WORLD RECOGNISED
ACCREDITATION**

Accredited for compliance with ISO/IEC 17025 - Testing.

This report is consistent with the analytical procedures and reporting recommendations in the Western Australia Guidelines for the Assessment Remediation and Management of Asbestos contaminated sites in Western Australia and it also satisfies the requirements of the current NEPM Guidelines. NATA Accreditation does not cover the performance of this service.

Disclaimers;

The approx; weights given above can be used only as a guide. They do not represent absolute weights of each kind of asbestos, as it is impossible to extract all loose fibres from soil and other asbestos containing building material samples using this method. However above figures may be used as closest approximations to the exact values in each case. Estimation and/ or reporting of asbestos fibre weights in asbestos containing materials and soil is out of the Scope of the NATA Accreditation. NATA Accreditation only covers the qualitative part of the results reported. This weight disclaimer also covers weight / weight percentages if given.

ACM - Asbestos Containing Material - Products or materials that contain asbestos in an inert bound matrix such as cement or resin. Here taken to be sound material, even as fragments and not fitting through a 7mm X 7 mm sieve.

AF -Includes asbestos free fibres, small fibre bundles and also ACM fragments that pass through a 7mm X 7 mm sieve.

FA -Friable asbestos material such as severely weathered ACM, and asbestos in the form of loose fibrous material such as insulation products.

^ denotes loose fibres of relevant asbestos types detected in soil/dust.

*** denotes asbestos detected in ACM in bonded form.**

denotes friable asbestos as soft fibro plaster and/ or highly weathered ACM that will easily crumble.

λ denotes samples that have been analysed only in accordance to AS 4964 – 2004.

The results contained in this report relate only to the sample/s submitted for testing. Australian Safer Environment & Technology accepts no responsibility for whether or not the submitted sample/s is/are representative. Results indicating "No asbestos detected" indicates a reporting limit specified in AS4964 -2004 which is 0.1g/ Kg (0.01%). Any amounts



detected at assumed lower level than that would be reported, however those assumed lower levels may be treated as "No asbestos detected" as specified and recommended by A4964-2004. Trace / respirable level asbestos will be reported only when detected and trace analysis have been performed on each sample as required by AS4964-2004. When loose asbestos fibres/ fibre bundles are detected and reported that means they are larger handpicked fibres/ fibre bundles, and they do not represent respirable fibres. Dust/soil samples are always subjected to trace analysis except where the amounts involved are extremely minute and trace analysis is not possible to be carried out. When trace analysis is not performed on dust samples it will be indicated in the report that trace analysis has not been carried out due to the volume of the sample being extremely minute.

Estimation of asbestos weights involves the use of following assumptions;

Volume of each kind of Asbestos present in broken edges have been visually estimated and its been assumed that volumes remain similar throughout the binding matrix and those volumes are only approximate and not exact. Material densities have been assumed to be similar to commonly found similar materials and may not be exact.

All samples indicating "No asbestos detected" are assumed to be less than 0.001 % unless the actual approximate weight is given.



AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref: ASET80070 / 83250 / 88 - 132
Your ref: 5046200019 - DSI Goulburn
NATA Accreditation No: 14484

2 March 2020

Construction Sciences
31 Anvil Road
Seven Hills NSW 2147



Attn: Mr Abanish Nepal

Accredited for compliance with ISO/IEC 17025 - Testing.

Dear Abanish

Asbestos Identification

This report presents the results of forty five samples out of one hundred and thirty two samples, forwarded by Construction Sciences on 26 February 2020, for analysis for asbestos.

1.Introduction:Forty five samples out of one hundred and thirty two samples forwarded were examined and analysed for the presence of asbestos.

2. Methods : The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method **(Australian Standard AS 4964 - 2004 and Safer Environment Method 1 as the supplementary work instruction) (Qualitative Analysis only).**

The report also provides approximate weights and percentages, categories of asbestos forms appearing in the sample, such as **AF**(Asbestos Fines), **FA**(Friable Asbestos and **ACM** (Asbestos Containing Material), also satisfying the requirements of the WA/ NEPM Guidelines)

3. Results : **Sample No. 88. ASET80070 / 83250 / 88. 5046200019 - TP52 0.1-0.8.**
Approx dimensions 10.0 cm x 10.0 cm x 7.5 cm
Approximate total dry weight of soil = 774g.
The sample consisted of a mixture of clayish sandy soil, shale, stones and plant matter.
No asbestos detected.

Sample No. 89. ASET80070 / 83250 / 89. 5046200019 - TP53 0.0-0.1.
Approx dimensions 10.0 cm x 10.0 cm x 6.5 cm
Approximate total dry weight of soil = 672g.
The sample consisted of a mixture of clayish sandy soil, shale, stones, plant matter and fragments of cement.
No asbestos detected.

Sample No. 90. ASET80070 / 83250 / 90. 5046200019 - TP53 0.1-0.3.
Approx dimensions 10.0 cm x 10.0 cm x 5.5 cm
Approximate total dry weight of soil = 526g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

Sample No. 91. ASET80070 / 83250 / 91. 5046200019 - TP54 0.0-0.1.
Approx dimensions 10.0 cm x 10.0 cm x 6.0 cm
Approximate total dry weight of soil = 609g.
The sample consisted of a mixture of clayish sandy soil, stones and plant matter.
No asbestos detected.

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Sample No. 92. ASET80070 / 83250 / 92. 5046200019 - TP54 0.1-0.7.

Approx dimensions 10.0 cm x 10.0 cm x 5.5 cm

Approximate total dry weight of soil = 553g.

The sample consisted of a mixture of clayish sandy soil, stones, plant matter and fragments of plaster.

No asbestos detected.

Sample No. 93. ASET80070 / 83250 / 93. 5046200019 - TP55 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 5.0 cm

Approximate total dry weight of soil = 499g.

The sample consisted of a mixture of clayish sandy soil, sandstone, stones, plant matter, fragments of plaster, cement and glass.

No asbestos detected.

Sample No. 94. ASET80070 / 83250 / 94. 5046200019 - TP55 0.1-1.0.

Approx dimensions 10.0 cm x 10.0 cm x 5.0 cm

Approximate total dry weight of soil = 524g.

The sample consisted of a mixture of clayish sandy soil, stones, plant matter and fragments of glass.

No asbestos detected.

Sample No. 95. ASET80070 / 83250 / 95. 5046200019 - TP55 1.0-1.5.

Approx dimensions 10.0 cm x 10.0 cm x 5.5 cm

Approximate total dry weight of soil = 561g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.

Sample No. 96. ASET80070 / 83250 / 96. 5046200019 - TP56 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 6.5 cm

Approximate total dry weight of soil = 636g.

The sample consisted of a mixture of clayish sandy soil, shale, stones and plant matter.

No asbestos detected.

Sample No. 97. ASET80070 / 83250 / 97. 5046200019 - TP57 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 7.0 cm

Approximate total dry weight of soil = 720g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.

Sample No. 98. ASET80070 / 83250 / 98. 5046200019 - TP57 0.1-0.4.

Approx dimensions 10.0 cm x 10.0 cm x 6.5 cm

Approximate total dry weight of soil = 661g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected.

Sample No. 99. ASET80070 / 83250 / 99. 5046200019 - TP58 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 6.5 cm

Approximate total dry weight of soil = 630g.

The sample consisted of a mixture of clayish sandy soil, shale, stones and plant matter.

No asbestos detected.



Sample No. 100. ASET80070 / 83250 / 100. 5046200019 - TP59 0.0-0.1.

Approx dimensions 10.0 cm x 10.0 cm x 7.0 cm

Approximate total dry weight of soil = 711g.

The sample consisted of a mixture of clayish sandy soil, stones, plant matter and fragments of plastic.

No asbestos detected.

Sample No. 101. ASET80070 / 83250 / 101. 5046200019 - TP59 0.1-0.6

Approx dimensions 10.0 cm x 10.0 cm x 6.0 cm

Approximate total dry weight of soil = 622g.

The sample consisted of a mixture of clayish sandy soil, shale, stones, plant matter and fragments of bitumen.

No asbestos detected.

Sample No. 102. ASET80070 / 83250 / 102. 5046200019 - TP60 0.0-0.1

Approx dimensions 10.0 cm x 10.0 cm x 6.5 cm

Approximate total dry weight of soil = 626g.

The sample consisted of a mixture of clayish sandy soil, shale, stones and plant matter.

No asbestos detected

Sample No. 103. ASET80070 / 83250 / 103. 5046200019 - TP60 0.1-1.0

Approx dimensions 10.0 cm x 10.0 cm x 6.0 cm

Approximate total dry weight of soil = 621g.

The sample consisted of a mixture of clayish sandy soil, shale, stones and plant matter.

No asbestos detected

Sample No. 104. ASET80070 / 83250 / 104. 5046200019 - TP60 1.0-1.5

Approx dimensions 10.0 cm x 10.0 cm x 7.0 cm

Approximate total dry weight of soil = 681g.

The sample consisted of a mixture of clayish sandy soil, shale, stones, plant matter and fragments of glass.

No asbestos detected

Sample No. 105. ASET80070 / 83250 / 105. 5046200019 - TP61 0.0-0.1

Approx dimensions 10.0 cm x 10.0 cm x 5.0 cm

Approximate total dry weight of soil = 505g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected

Sample No. 106. ASET80070 / 83250 / 106. 5046200019 - TP61 0.1-0.5

Approx dimensions 10.0 cm x 10.0 cm x 6.0 cm

Approximate total dry weight of soil = 599g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected

Sample No. 107. ASET80070 / 83250 / 107. 5046200019 - TP68 0.0-0.1

Approx dimensions 10.0 cm x 10.0 cm x 5.0 cm

Approximate total dry weight of soil = 496g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected



Sample No. 108. ASET80070 / 83250 / 108. 5046200019 - TP68 0.1-0.5

Approx dimensions 10.0 cm x 10.0 cm x 6.0 cm

Approximate total dry weight of soil = 623g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected

Ω Sample No. 109. ASET80070 / 83250 / 109. 5046200019 - TP69 0.0-0.1

Approx dimensions 10.0 cm x 10.0 cm x 4.5 cm

Approximate total dry weight of soil = 473g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected

Sample No. 110. ASET80070 / 83250 / 110. 5046200019 - TP70 0.0-0.1

Approx dimensions 10.0 cm x 10.0 cm x 6.0 cm

Approximate total dry weight of soil = 589g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected

Sample No. 111. ASET80070 / 83250 / 111. 5046200019 - TP71 0.0-0.1

Approx dimensions 10.0 cm x 10.0 cm x 6.0 cm

Approximate total dry weight of soil = 608g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected

Sample No. 112. ASET80070 / 83250 / 112. 5046200019 - TP72 0.0-0.1

Approx dimensions 10.0 cm x 10.0 cm x 5.0 cm

Approximate total dry weight of soil = 505g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected

Sample No. 113. ASET80070 / 83250 / 113. 5046200019 - TP72 0.1-0.6

Approx dimensions 10.0 cm x 10.0 cm x 6.0 cm

Approximate total dry weight of soil = 579g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected

Sample No. 114. ASET80070 / 83250 / 114. 5046200019 - TP73 0.0-0.1

Approx dimensions 10.0 cm x 10.0 cm x 5.0 cm

Approximate total dry weight of soil = 493g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected

Sample No. 115. ASET80070 / 83250 / 115. 5046200019 - TP74 0.0-0.1

Approx dimensions 10.0 cm x 10.0 cm x 5.0 cm

Approximate total dry weight of soil = 524g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected

Sample No. 116. ASET80070 / 83250 / 116. 5046200019 - TP74 0.1-0.8

Approx dimensions 10.0 cm x 10.0 cm x 6.0 cm

Approximate total dry weight of soil = 615g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected



Sample No. 117. ASET80070 / 83250 / 117. 5046200019 - TP75 0.0-0.1

Approx dimensions 10.0 cm x 10.0 cm x 6.5 cm

Approximate total dry weight of soil = 651g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected

Sample No. 118. ASET80070 / 83250 / 118. 5046200019 - TP76 0.0-1.0

Approx dimensions 10.0 cm x 10.0 cm x 8.5 cm

Approximate total dry weight of soil = 830g.

The sample consisted of a mixture of clayish sandy soil, shale, stones, plant matter and fragments of bitumen.

No asbestos detected

Ω Sample No. 119. ASET80070 / 83250 / 119. 5046200019 - TP77 0.0-1.0

Approx dimensions 10.0 cm x 10.0 cm x 4.5 cm

Approximate total dry weight of soil = 441g.

The sample consisted of a mixture of clayish sandy soil, stones, plant matter, fragments of plastic and glass.

No asbestos detected

Ω Sample No. 120. ASET80070 / 83250 / 120. 5046200019 - TP77 2.2-2.3

Approx dimensions 10.0 cm x 10.0 cm x 3.5 cm

Approximate total dry weight of soil = 368g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected

Sample No. 121. ASET80070 / 83250 / 121. 5046200019 - TP78 0.0-1.0

Approx dimensions 10.0 cm x 10.0 cm x 7.0 cm

Approximate total dry weight of soil = 689g.

The sample consisted of a mixture of clayish sandy soil, shale, stones, plant matter and fragments of bitumen.

No asbestos detected

Sample No. 122. ASET80070 / 83250 / 122. 5046200019 - TP78 1.1-1.3

Approx dimensions 10.0 cm x 10.0 cm x 8.0 cm

Approximate total dry weight of soil = 781g.

The sample consisted of a mixture of clayish sandy soil, shale, stones, plant matter and fragments of bitumen.

No asbestos detected

Sample No. 123. ASET80070 / 83250 / 123. 5046200019 - TP79 0.0-0.1

Approx dimensions 10.0 cm x 10.0 cm x 6.0 cm

Approximate total dry weight of soil = 589g.

The sample consisted of a mixture of clayish sandy soil, shale, stones and plant matter.

No asbestos detected

Sample No. 124. ASET80070 / 83250 / 124. 5046200019 - TP80 0.0-1.0

Approx dimensions 10.0 cm x 10.0 cm x 7.0 cm

Approximate total dry weight of soil = 714g.

The sample consisted of a mixture of clayish sandy soil, stones, plant matter, fragments of plastic and bitumen.

No asbestos detected



Sample No. 125. ASET80070 / 83250 / 125. 5046200019 - TP81 0.0-0.1

Approx dimensions 10.0 cm x 10.0 cm x 6.5 cm

Approximate total dry weight of soil = 670g.

The sample consisted of a mixture of clayish sandy soil, stones and plant matter.

No asbestos detected

Sample No. 126. ASET80070 / 83250 / 126. 5046200019 - TP82 0.0-0.1

Approx dimensions 10.0 cm x 10.0 cm x 5.5 cm

Approximate total dry weight of soil = 551g.

The sample consisted of a mixture of clayish sandy soil, stones, plant matter and fragments of plastic.

No asbestos detected

Sample No. 127. ASET80070 / 83250 / 127. 5046200019 - TP83 0.0-0.1

Approx dimensions 10.0 cm x 10.0 cm x 4.0 cm

Approximate total dry weight of soil = 410g.

The sample consisted of a mixture of clayish sandy soil, stones, plant matter, fragments of cement and brick.

No asbestos detected

Sample No. 128. ASET80070 / 83250 / 128. 5046200019 - TP84 0.0-0.1

Approx dimensions 10.0 cm x 10.0 cm x 8.5 cm

Approximate total dry weight of soil = 865g.

The sample consisted of a mixture of clayish sandy soil, shale, stones and plant matter.

No asbestos detected

Sample No. 129. ASET80070 / 83250 / 129. 5046200019 - TP84 0.3-1.0

Approx dimensions 10.0 cm x 10.0 cm x 8.5 cm

Approximate total dry weight of soil = 825g.

The sample consisted of a mixture of clayish sandy soil, shale, stones, plant matter and fragments of bitumen.

No asbestos detected

Sample No. 130. ASET80070 / 83250 / 130. 5046200019 - TP85 0.0-0.1

Approx dimensions 10.0 cm x 10.0 cm x 5.0 cm

Approximate total dry weight of soil = 486g.

The sample consisted of a mixture of clayish sandy soil, stones, plant matter, fragments of plaster, glass and plastic.

No asbestos detected

Sample No. 131. ASET80070 / 83250 / 131. 5046200019 - SP1

Approx dimensions 10.0 cm x 10.0 cm x 6.5 cm

Approximate total dry weight of soil = 639g.

The sample consisted of a mixture of clayish sandy soil, stones, plant matter and fragments of bitumen.

No asbestos detected

Sample No. 132. ASET80070 / 83250 / 132. 5046200019 - SP02
 Approx dimensions 10.0 cm x 10.0 cm x 8.5 cm
 Approximate total dry weight of soil = 826g.
 The sample consisted of a mixture of sandy soil, stones and plant matter.
No asbestos detected

Reported by,



Mahen De Silva. BSc, MSc, Grad Dip (Occ Hyg)
Occupational Hygienist / Approved Identifier.
Approved Signatory



Accredited for compliance with ISO/IEC 17025 - Testing.

This report is consistent with the analytical procedures and reporting recommendations in the Western Australia Guidelines for the Assessment Remediation and Management of Asbestos contaminated sites in Western Australia and it also satisfies the requirements of the current NEPM Guidelines. NATA Accreditation does not cover the performance of this service.

Disclaimers;

The approx; weights given above can be used only as a guide. They do not represent absolute weights of each kind of asbestos, as it is impossible to extract all loose fibres from soil and other asbestos containing building material samples using this method. However above figures may be used as closest approximations to the exact values in each case. Estimation and/ or reporting of asbestos fibre weights in asbestos containing materials and soil is out of the Scope of the NATA Accreditation. NATA Accreditation only covers the qualitative part of the results reported. This weight disclaimer also covers weight / weight percentages if given.

ACM - Asbestos Containing Material - Products or materials that contain asbestos in an inert bound matrix such as cement or resin. Here taken to be sound material, even as fragments and not fitting through a 7mm X 7 mm sieve.

AF -Includes asbestos free fibres, small fibre bundles and also ACM fragments that pass through a 7mm X 7 mm sieve.

FA -Friable asbestos material such as severely weathered ACM, and asbestos in the form of loose fibrous material such as insulation products.

^ denotes loose fibres of relevant asbestos types detected in soil/dust.

*** denotes asbestos detected in ACM in bonded form.**

denotes friable asbestos as soft fibro plaster and/ or highly weathered ACM that will easily crumble.

λ denotes samples that have been analysed only in accordance to AS 4964 – 2004.

Ω Sample volume criteria of 500mL have not been satisfied.

The results contained in this report relate only to the sample/s submitted for testing. Australian Safer Environment & Technology accepts no responsibility for whether or not the submitted sample/s is/are representative. Results indicating "No asbestos detected" indicates a reporting limit specified in AS4964 -2004 which is 0.1g/ Kg (0.01%). Any amounts detected at assumed lower level than that would be reported, however those assumed lower levels may be treated as



"No asbestos detected" as specified and recommended by A4964-2004. Trace / respirable level asbestos will be reported only when detected and trace analysis have been performed on each sample as required by AS4964-2004. When loose asbestos fibres/ fibre bundles are detected and reported that means they are larger handpicked fibres/ fibre bundles, and they do not represent respirable fibres. Dust/soil samples are always subjected to trace analysis except where the amounts involved are extremely minute and trace analysis is not possible to be carried out. When trace analysis is not performed on dust samples it will be indicated in the report that trace analysis has not been carried out due to the volume of the sample being extremely minute.

Estimation of asbestos weights involves the use of following assumptions;

Volume of each kind of Asbestos present in broken edges have been visually estimated and its been assumed that volumes remain similar throughout the binding matrix and those volumes are only approximate and not exact. Material densities have been assumed to be similar to commonly found similar materials and may not be exact.

All samples indicating "No asbestos detected" are assumed to be less than 0.001 % unless the actual approximate weight is given.

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