Remediation Action Plan

Kingsgrove Construction Compound, Surface Works, Kingsgrove NSW

Prepared for: CPB Contractors, Dragados, Samsung Joint Venture (CDS-JV)

WCX-02-10878 / RAP1
V1 final
20th September 2016

ADECONSULTINGGROUP
SOLUTIONS THROUGH INNOVATION

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ABBREVIATIONS

ADE	A.D. Envirotech Australia Pty Ltd
ALS	Australian Laboratory Services
BGL	Below ground level
BR	Blind Replicate
BTEX	Benzene, toluene, ethyl-benzene, xylene
COC	Chain of Custody
DEC	Department of Environment and Conservation
DQI	Data Quality Indicators
DQO	Data Quality Objectives
EILs	Ecological Investigation Levels
ESLs	Ecological Screening Levels
GILs	Groundwater Investigation Levels
HILs	Health Investigation Levels
HSLs	Health Screening Levels
LPI	Land Property Information
LTO	Land Titles Office
NATA	National Association of Testing Authorities
NEPC	National Environmental Protection Council
NEPM	National Environmental Protection Measure
NSW EPA	New South Wales Environmental Protection Authority
OEH	Office of Environment and Heritage
OPPs	Organophosphorous Pesticides
OCPs	Organochlorine Pesticides
PAHs	Polycyclic Aromatic Hydrocarbons
PSI	Preliminary Site Investigation
QA/QC	Quality Assurance/Quality Control
RPD	Relative Percent Difference
SCID	Stored Chemical Information Database
SWL	Standing Water Level
SH&EWMS	Safety Health and Environmental Works Method Statement
TCE	Trichloroethylene
TPH	Total Petroleum Hydrocarbons
TRH	Total Recoverable Hydrocarbons
UCL	Upper Confidence Limit
VAL	Validation Report

DEFINITIONS

Whenever the following terms occur in the Remedial Action Plan (RAP), they shall have the meanings defined below:

"Principal" means the Client.

"Contractor" means the company / person hired by the Principal that is responsible for the construction / remediation works.

"Consultant" means the person appointed by the Principal who shall inspect the compliance of the remediation procedures with the guidelines assigned by the NSW EPA.

"Works" means any process or activity carried out by the contractor during the construction works.

EXECUTIVE SUMMARY

General

A.D. Envirotech Australia Pty Ltd (ADE) was commissioned by CPB Contractors, Dragados, Samsung Joint Venture (CDS-JV) to prepare a Remediation Action Plan (RAP) for the Kingsgrove Construction Compound, Kingsgrove NSW (hereafter referred to as 'the Site'). The Site is located adjacent to the M5 Motorway and includes part of the M5 Linear Park. The site extends on both sides of the M5 Motorway between Kingsgrove and King Georges Road and the park forms an open space easement.

The site will be utilised during the construction phase of the WestConnex New M5. The Kingsgrove Noise Mounds and adjoining parkland comprise part of the project western surface works and will eventually form the Kingsgrove North and Kingsgrove south Construction Compounds.

Anecdotal evidence outlined in former reports developed for the Site and the surrounding area indicates that a former brickpit was located to the east of the site and that the Noise Mounds were created using uncontrolled fill materials from the development of the M5 Motorway and tunnel which runs through the centre and to the east of the Site respectively.

The primary objective of the RAP is to serve as a guidance document for future remediation works and to provide Remediation Assessment Criteria (RAC) as part of the remediation phase. The RAP will outline the procedures for the remediation of the Site to a condition suitable for the proposed future land use as a Motorway and public open space. The RAP will also provide guidance on how the remedial strategy is to be implemented including occupational and environmental controls to be adopted during the removal of the noise mounds to enable the motorway widening and surface works within the Kingsgrove Construction Compound. This will involve the movement and spreading of stockpiles and the construction details of a subsequent capping layer that is to be installed.

The Site, in its current condition, may pose a long term risk to human health and/or the environment if the contamination is left unmanaged. As such, the preferred remedial option is the 'Consolidation and isolation of the soil on-site by containment within a properly designed barrier'. The remediation option will involve the installation of an engineered cap to limit the exposure of Site users and/or off-site receptors to contaminants of concern.

Considering the proposed development construction (refer to Appendix II – Development Plans) this remedial strategy is considered to be the most practical and cost effective. This option would eliminate the link between receptors and contaminants within the soil as well as restricting the infiltration of surface waters which will ultimately reduce the flow of groundwater through the Site. This option will also reduce the amount of waste sent to landfill facilities.

The chosen remediation option calls for the construction of an appropriately engineered capping layer over the contaminated fill material, which is both technically feasible and easy to manage and maintain in future.

The Site in its current state is not suitable for the proposed development and remediation strategies have been designed to protect human and environmental health. ADE considers movement and subsequent capping of contaminated soils throughout the Site will render the Site suitable for its proposed development.

It is considered that conformance with this RAP will reduce the potential for environmental impacts during the remedial and excavation works at the subject Site. By following the RAP and demonstrating compliance with all requirements, a Validation Report will be prepared by a qualified environmental consultant in

accordance with the NSW EPA Contaminated Sites Guidelines for Consultants Reporting on Contaminated Sites (2011) and other appropriate documentation.

The validation investigation shall confirm whether the Site has been remediated to a suitable standard for the proposed development and that no adverse human health and environmental effects have occurred as a result of the works.

Subject to proper implementation of the RAP, it is considered that the Site can be rendered suitable for the proposed commercial / industrial land-use.

Contaminants of Concern associated with impacted soil must be placed on the Section 149 Certificate for the Site.

An Environmental Management Plan (EMP) will be deemed necessary upon the completion of the Validation Report and must be approved by the Site Auditor. The EMP will outline the procedures necessary to provide ongoing monitoring and management to ensure the Site is suitable for the proposed land use as a Motorway and Public Open Space.

1. INTRODUCTION

1.1. Background

A.D. Envirotech Australia Pty Ltd (ADE) was commissioned by CPB Contractors, Dragados, Samsung Joint Venture (CDS-JV) to prepare a Remediation Action Plan (RAP) for the Kingsgrove Construction Compound, Surface Works, Kingsgrove NSW (hereafter referred to as 'the Site').

The Site is located adjacent to the M5 Motorway and includes part of the M5 Linear Park and forms part of the WestConnex Stage 2 – New M5 Project. The Site extends on both sides of the M5 Motorway between Kingsgrove Road and King Georges Road, and forms an open space easement consisting of Beverly Grove Park and two Noise Mounds. Beverly Grove Park, consists of a series of public reserves and a shared pedestrian/cyclist pathway. The Kingsgrove Noise Mounds are located on either side of the M5 Motorway and adjoin Beverly Grove Park.

The Noise Mounds and Beverly Grove Park form part of CDS-JV's 'Western Surface Works' and together with 27-31 Garema Circuit, located to the north of the M5, will form CDS-JV's 'Kingsgrove North and South Construction Compounds'.

To the north of the Site beyond Beverly Grove Park lies residential properties, and to the north-east commercial/industrial properties are located on Garema Circuit. Wolli Creek and commercial/industrial properties are bounded to the south of the Site along The Crescent and Vanessa Street. To the east lie commercial/industrial properties in along Commercial Road and Kingsgrove Road. West of the site is Canterbury Golf Course and residential properties in the suburbs of Beverly Hills and Roselands.

Anecdotal evidence provided by CDS-JV indicate that the Noise Mounds were potentially created using uncontrolled fill materials during the development of the M5 Motorway and tunnel which runs through the centre and to the east of the Site respectively.

The Noise Mounds and Beverly Grove Park is covered with grass and vegetation, including trees and shrubs. During recent investigative works undertaken by ADE in July-August 2016, visual inspection of the Site did not identify any signs of stressed vegetation or indications of potential contamination. There are currently no buildings on Site and infrastructure is limited to pathways, fencing around sections of the Noise Mounds (installed by CDS-JV), stormwater drainage, street lighting, a sediment basin in the south-eastern sector of the southern noise mound, and Wolli Creek Canal located along the southern boundary of the Site.

The primary objective of this RAP is to serve as a guidance document for future remediation/removal of the Northern Noise Mound, Southern Noise Mound Berm, and the shallow surface soils (upper 0.5 m Below Ground Level (BGL)) of the Southern Noise Mound and Beverly Grove Park (BGP). An outline of the various subject areas is provided in Figure 1, on page 14.

This RAP will outline the procedures for the remediation of the Site to a condition suitable for the proposed future land use as a motorway and public open space. The RAP will also provide guidance on how the remedial strategy is to be implemented, the occupational and environmental controls to be adopted during inspection and further classification and the construction requirements of the capping layer that is to be installed over materials that are to remain onsite.

1.2. Proposed Development

The proposed works at the Site include road works for the widening of the M5 Motorway on both the northern and southern sides of the existing M5 motorway, construction of temporary office accommodation and parking, construction of temporary haul roads, removal/relocation of the Northern Noise Mound and Southern Noise Mound Berm, installation of temporary stockpile lay-down areas and sedimentation basins (refer to Appendix II - Development Plans).

To the eastern end of the Site, cut and cover portals to tunnels will be installed by CDS-JV. It must be noted that the construction phase of the Kingsgrove Construction Compound (KCC) will involve both surface and subsurface soil disturbance, including a tunnel shaft located in Garema Circuit, located adjacent and to the north-east of the Site (i.e. outside the boundary of ADE's scope).

The works proposed by CDS-JV will include the installation of shafts, underground services and utilities which will incorporate the excavation and disturbance of soils at depth >0.5 m BGL. Due to the staging of the proposed development, ADE's scope of works is limited to the removal/relocation/remediation of the Northern Noise Mound, Southern Noise Mound Berm, and shallow surface soils within Beverly Grove Park and the Southern Noise Mound (upper 0.5 m BGL). Areas adjacent to and outside of these boundaries are not included within the scope of this RAP as directed by CDS-JV, and will be subject to an independent RAP/further characterisation report (if required).

1.3. Objectives of Remediation Action Plan

The objective of the RAP is to describe the works and methodologies required to remediate the Site to a standard suitable for the proposed future land use as a motorway and public open space, and to provide a scope for validation works to demonstrate that the Site has been successfully remediated. The works should be carried out in a manner to minimise the potential harm to both human health and the environment. Therefore, the RAP provides the following strategy for Site remediation:

- Set remediation goals to ensure that the remediated Site is suitable for the proposed development and will pose no unacceptable risk to human health or the environment with regards to the contaminants of concern;
- Evaluate the range of remediation options available to address the existing contamination on Site, enabling a cost effective and practical soil remediation strategy;
- Document in detail all procedures and plans to be implemented to reduce risks to acceptable levels for the proposed Site use;
- Establish environmental safeguards required to complete the remediation in an environmentally acceptable matter; and
- Comply with the relevant regulatory guidelines.

Following the completion of the remediation works, a Validation Report will be submitted for review by the NSW Environmental Protection Authority (NSW EPA) Site Auditor, and will form part of a statutory Site Audit Statement (SAS) and Report. The SAS is a requirement of Section B31 of the Infrastructure Approval Document (refer to Appendix IV – Supporting Documents) as per Section 115ZB of the Environmental Planning and Assessment Act, 1979

1.4. Reuse of Soil Materials

Reuse and recycling of materials within the Site are key components of CDS-JV's sustainability strategy for the WestConnex Stage 2 – New M5Project. The recycling or reuse of waste, including soils materials, is a key

aspect the WestConnex Project's Sustainability Objectives & Targets, and is outlined in a number of project document and approvals as follows:

The 'WestConnex Sustainability Strategy' (provided in Appendix IV – Supporting Documents) reports a target to "reuse/recycle a minimum of 80% usable spoil", developed in accordance with the NSW EPA's *NSW Waste Avoidance and Resource Recovery Strategy 2014–21.*

The WestConnex Stage 2 – New M5 Project's Infrastructure Approval issued to Roads and Maritime Services (RMS) by the NSW Governments Department of Planning and Environment, under *Environmental Planning and Assessment Act 1979*, outlines specific requirements for waste management. Specifically, Part B, Section B53, stipulates that "the reuse and/or recycling of waste materials generated on site must be maximised as far as practicable, to minimise the need for treatment or disposal of those materials offsite." A copy of infrastructure approval is provided in Appendix IV – Supporting Documents.

The CDS-JV Construction Environmental Management Plan (CEMP) continues with this objective by outlining the prevention of pollution, reducing waste and committing to recovery and reuse of spoil within the project as one of its key targets. A copy of the CEMP is provided in Appendix IV – Supporting Documents.

Taking into consideration these key targets, CDS-JV has engaged ADE to develop an RAP which shall aim to reuse/recycle spoil generated from within the Kingsgrove Construction Compound, for beneficial reuse within the Site where deemed 'fit for purpose'. It is therefore the intention of this RAP to significantly reduce the amount of waste sent to landfill facilities, and assist in achieving the Project's stated goal's and outcomes regarding sustainability, whilst remediating the Site to a state whereby it is suitable for the proposed development.

1.5. Scope of Work

The scope of work required to achieve the objectives of the RAP involves the following:

- Summarise Site conditions and surrounding environment;
- Summarise the current contamination status for the Site;
- Identify regulatory requirements, including licences and approvals required for the remediation works to commence;
- Establish remediation goals to ensure the Site will be suitable for the proposed future land use and will pose no long term risk to human health and/or the environment;
- Define the extent of remediation required;
- Prepare a detailed description of the remediation approach, including capping design, environmental and occupational health and safety controls to be implemented during the excavation and movement of impacted soil materials, in order to minimise short and long term risks at the Site;
- Establish Site validation requirements; and
- Develop an unexpected finds protocol that establishes procedures to be followed in the event that previously unindented contamination sources are identified during remediation works.

1.6. Legislative Requirements

The legislative framework for the RAP is based on guidelines that have been issued by the NSW EPA under the following Acts/Policies:

- Contaminated Land Management Act 1997 (CLM Act);
- Protection of the Environment Operations Act 1997 (POEO Act); and

- Schedule 3 of the State Environmental Planning Policy (State and Regional Development) 2011.

The relevant guidelines based on the aforementioned are as follows:

- Australian Standard AS 4482.1 Guide to the sampling and investigation of potentially contaminated soil. Part 1: Non-volatile and semi-volatile compound, 2005;
- Australian Standard AS 4482.2 Guide to the sampling and investigation of potentially contaminated soil. Part 2: Volatile substances, 1999;
- Department of Environment and Conservation (DEC) Guidelines for the NSW Site Auditor Scheme, NSW, Second Edition (DEC 2006);
- DEC Guidelines for the Assessment and Management of Groundwater Contamination (DEC 2007);
- NSW EPA Guidelines on the Duty to Report Contamination under the Contaminated Management Act 1997, 2014;
- National Environmental Protection Council (NEPC) National Environmental Protection (Assessment of Site Contamination) Measure 1999, 2013 Amendment (NEPM 2013);
- National Water Quality Management Strategy (NQMS), Australian and New Zealand Water Quality Guidelines for Fresh and Marine Waters, 2000. Volume 1 -2, (ANZECC 2000);
- NSW EPA Draft Environmental Guidelines: Solid Waste Landfill, Second Edition, 2015 (NSW EPA 2015);
- NSW Office of Environment and Heritage (OEH) Guidelines for Consultants Reporting on Contaminated Sites (OEH 2011);
- NSW EPA Sampling Design Guidelines, 1995 (NSW EPA 1995);
- NSW EPA Waste Classification Guidelines Part 1: Classifying Waste, 2014 (NSW EPA 2014);
- Safe Work Australia Code of Practice: How to Manage and Control Asbestos in the Workplace (2016);
- Work Health and Safety Act 2011;
- Work Health and Safety Regulation 2011;
- NSW Code of Practice: How to Safely Remove Asbestos (2011);
- WorkCover NSW – Managing asbestos in or on soil (2014); and
- WorkCover NSW Working With Asbestos Guide (2008).

1.7. Whole Report

No one section or part of a section, of this plan should be taken as giving an overall idea of this plan. Each section must be read in conjunction with the whole of this plan, including its appendices and attachments.

2. SITE INFORMATION

2.1. Site Location

The Site is located adjacent to the M5 Motorway, Kingsgrove NSW as outlined in Figure 1**.** The proposed development is outlined in Appendix II – Development Plans.

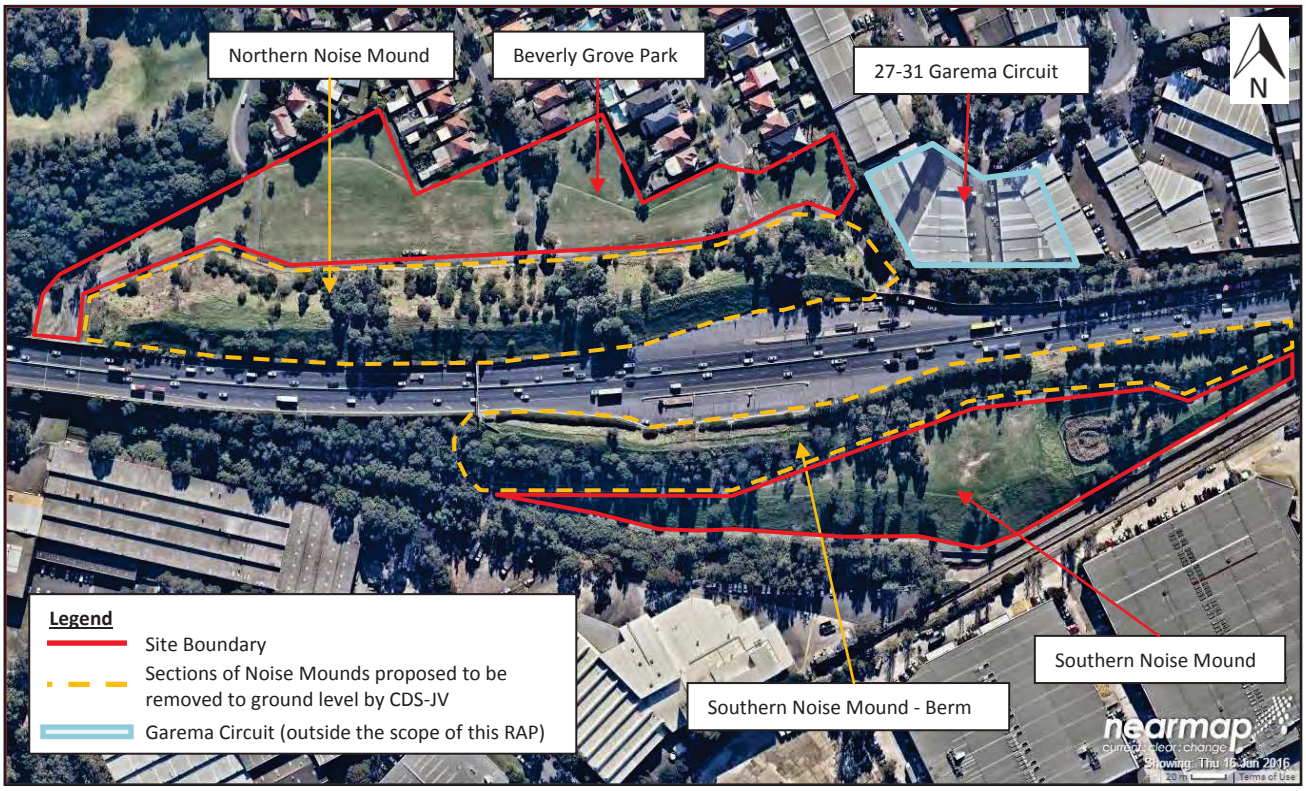


Figure 1 - Regional area surrounding the Site located adjacent to the M5 Motorway, Kingsgrove NSW (aerial imagery adapted from NearMap, accessed 02.08.2016).

2.2. Site Description

The Site details are summarised in Figure 1 and described further in the following sections.

Table 1 - Summary of Site Details

Site Details	
Northern Section of Site	
Site address	Beverly Grove Park, Kingsgrove NSW 2208
Title identification	Kingsgrove northern M5 noise mound (Crown Land); and Beverly Grove Park including; Lots 1 to 9 in DP 1038625; Lot 46 in DP18904; Lots 713 & 714 in DP 13496; Lots 1 to 7 in DP 1077303; and Lots 55, 83, 84, 183 to 186 & 213 to 215 in DP 14705.

Table 1 Continued…

Site Details	
Local Government Area (LGA) and Zoning	Canterbury Bankstown City Council Northern noise mound – SP2 Classified Road Beverly Grove Park – RE1 Public Recreation
Current Site use	Recreational parkland and vegetated noise mound
Proposed Site use	Recreational parkland, vegetated noise mound and motorway
Investigation area	Approximately 37,970m^2 (northern noise mound approximately 19,900m^2)
Southern Section of Site	
Site address	Beverly Grove Park, Kingsgrove NSW 2208
Title identification	Kingsgrove southern M5 noise mound (Crown Land); and Beverly Grove Park (assumed to be Crown Land as Lot and DP identifiers were not available for the southern portion of Beverly Grove Park.
Local Government Area (LGA) and Zoning	Georges River Council Southern noise mound and Beverly Grove Park - SP2 Classified Road
Current Site use	Recreational parkland and vegetated noise mound
Proposed Site use	Recreational parkland, vegetated noise mound and motorway
Investigation area	Approximately 34,980 m2 (southern noise mound approximately 29,300 m^2)

2.3. Site Description

The M5 Motorway runs through the centre of Site and the site consists of the Northern and Southern Noise Mounds and Beverly Grove Park. There were no buildings or structures observed on the Site during the recent Site inspection undertaken by ADE in July-August 2016. With the exception of the two Noise Mounds, the Site is relatively flat with an elevation of approximately 25 m AHD. The elevation at the top of the Noise Mounds varies from is approximately 27-40 m AHD.

2.4. Site History

Review of the previous investigations, specifically a Phase 2 Detailed Site Investigation undertaken by Golder Associates, 2016 (Golder 2016) outlines the following regarding the Site's history:

- "By the 1930s the area of the Site had been cleared and was assumed to be in use for agricultural purposes, with a watercourse identified as Wolli Creek running through the area. Wolli Creek was subsequently channelized and diverted, with fill expected to be present along the former alignment of the creek and surrounding the current creek channel.

- "While the historical information (aerial photographs and title searches) indicates the site had been subdivided for residential development, the site remained cleared and assumed to be used for grazing or recreational purposes until it was cleared for the construction of the M5 East Motorway after 1991. Based on the aerial photographs and historic planning schemes the surrounding land immediately to the north has been used for residential purposes from at least 1931 through to the present day. Surrounding areas to the north east and immediately to the east had formerly been occupied by a brick pit and its associated infrastructure (site buildings and roads) but are now generally occupied by commercial/industrial buildings. The area to the south of the site appears to have been cleared land awaiting development from at least 1930 to 1951 prior to the construction of commercial/industrial buildings."

- "It is assumed that the noise mound stockpiles present on the site were built during the construction of the M5 East Motorway (completed in the early 1990s). A geotechnical and environmental investigation was undertaken by AECOM in preparation for the WCX New M5 project (AECOM 2015b). As a part of this investigation, environmental soil samples were collected from the site and analysed for potential contaminants of concern. The results indicated that locations within the site were impacted by asbestos (northern portion of Beverly Grove Park) and PAHs (southern portion of Beverly Grove Park). Results for soil/fill samples collected by Golder as part of the WCX New M5 geotechnical investigations and noise mound assessment at the site are typically below human health based criteria adopted for commercial/industrial land use."

- "Although there are some gaps in the site history, it is considered the available information was of sufficient standard to identify if potentially contaminating activities had occurred on the site."

2.5. Surrounding Land Use

As per Figure 1, the Site is located in an area of mixed use surrounded by commercial/industrial buildings and residential dwellings, with the M5 Motorway running east to west through the centre of the Site. To the north of the Site lie residential and commercial/industrial properties on Garema Circuit in the suburb of Kingsgrove. Wolli Creek and commercial/industrial properties like to the south along The Crescent and Vanessa Street. To the east lies commercial/industrial properties along Commercial Road and Kingsgrove Road. West of the site is Canterbury Golf Course and residential properties of Beverly Hills and Roselands beyond.

2.6. Groundcover and Vegetation

With the exclusion of paved areas, the Noise Mounds and Beverly Grove Park were observed to be covered with grass, trees and shrubs. No signs of stressed vegetation or indications of potential contamination were observed by ADE during recent Site inspection. There are currently no buildings on Site, and infrastructure is limited to pathways, fencing around sections of the Noise Mounds, stormwater drainage and street lighting.

2.7. Site Topography, Hydrology and Drainage

As per the Golder Associates Phase 2 Report (Golder 2016):

- "Elevation data provided by NearMap (https://maps.au.nearmap.com) indicates that, with the exception of the two noise mounds, the site is relatively flat with an elevation of approximately 25 metres AHD. In the southern portion of the site, a slight gradient towards the south and northern tributary of the Wolli Creek is observed. The elevation at the top of the noise mounds is approximately 40 metres AHD. Drainage at the site is expected to be connected to the municipal stormwater system and Wolli Creek, and would be expected to drain to the east. Topography indicates the surrounding areas are located within the Wolli Creek catchment and there is a general gradient towards the east."

2.8. Hydrogeology

As per the Golder Associates Phase 2 Report (Golder 2016):

- "One groundwater monitoring well (WCX-BH-006) was installed in the northern portion of the site as a part of a factual contamination assessment conducted by AECOM (AECOM 2015b). Gauging results from WCXBH-006 presented in the project Environmental Impact Statement (EIS) (AECOM 2015c)

indicate that groundwater levels on the site are approximately 4.5 metres below top of casing (mbtoc). The groundwater level in off-site monitoring wells installed by Golder as part of a project wide assessment located immediately to east of the site were recorded at 4.7 m bgl at location LDS-BH-1021 with a groundwater inflow noted at a depth of 4.2 m bgl at location LDS BH-1019. Groundwater sampling proposed at LDS-BH-1019 as part of the project wide assessment has not been performed to date, however no analysis was proposed at LDS-BH- 1021 or at WCX-BH-006"

It must be noted that the assessment and/or remediation of groundwater is not within the scope of ADE's works, or this RAP, as directed by CDS-JV.

2.9. Local Geology and Soil

As per the Golder Associates Phase 2 Report (Golder 2016):

- "Based on review of on-line mapping on the eSPADE web site residual soil at the site would be part of the disturbed terrain, Blacktown and Birrong soil landscapes. Disturbed terrain landscapes consist of previous estuaries, swamps, wetlands, quarries and cut and fill areas. Soils at these sites are typically shallow to moderately deep, sandy loam and compacted clay materials at shallow depths (less than 60 cm), deep artificial fill typically dredged sand and mud, demolition rubble, industrial and household waste, rocks and local soil materials. Soils at the site would be expected to have high permeability, have low to very low soil fertility, and have a variable erosion hazard (low to extreme) (Chapman et al. 1989).

- Soils of the Blacktown landscape are typically shallow to moderately deep *Red* and *Brown Podzolic Soils* on crests, upper slopes and well-drained areas. Deeper *Yellow Podzolic Soils* and *Soloths* are present on lower slopes and in areas of poor drainage. Soils at the site would be expected to have moderately reactive and highly plastic subsoils and exhibit low soil fertility and poor drainage (Chapman et al. 1989).

- Soils of the Birrong landscape are typically deep *Yellow Podzolic Soils* and *Yellow Solodic Soils* on older alluvial terraces, with deep *Solodic Soils* and *Yellow Solonetz* on current flood plains. Soil at the site would be expected to have a high soil erosion hazard, saline subsoils, exhibit seasonal water logging and have very low soil fertility (Chapman et al. 1989)."

2.10. Contaminated Land Register

A search undertaken by Golder (2016) of the NSW Office of Environment and Heritage (OEH) 'Contaminated Land – Record of Notices' listed by the NSW EPA under the *Contaminated Land Management Act 1997* does not identify notices related to the source Site, or for any adjacent sites.

2.11. POEO Public Register Search

A search undertaken by Golder (2016) of the NSW EPA POEO Act public register did not identify any items regarding the Site (e.g. environmental protection licences, penalty notices issued by the NSW EPA, exemptions from the provisions of the POEO Act etc.

2.12. Section 149

As per the Golder Associates Phase 2 Report (2016):

- "The Kingsgrove Construction Compound Site is located on areas of Crown Land and 29 parcels of land on the northern part of Beverly Grove Park. Section 149 certificates could not be obtained for areas of Crown Land as they have no allocated Lot and DP title identifiers. A Section 149 (2) & (5) planning certificate for a representative lot on the Site, issued under Section 149 of the *EP&A Act*, was obtained from Canterbury City Council. The planning certificate, issued on 19 January 2016, for Lot 55 DP 14705 (101 Glamis Street) included the following information relating to contamination issues:

    - The site is zoned RE1 Public Recreation;
    - The land is not affected by any matter arising under the *CLM Act*; and
    - The land is not affected by a policy adopted by Council which would restrict development because of the likelihood of land slip, bush fire, flooding, tidal inundation, subsidence, acid sulfate soils, unhealthy building land or any other risk."

2.13. Acid Sulphate Soils

As per the Golder Associates Phase 2 Report (2016):

- "Acid sulfate soil (ASS) planning sheets associated with the *Canterbury Local Environment Plan 2012* (the CLEP) (CCC 2012) and the *Hurstville Local Environment Plan 2012* (the HLEP) (HCC 2012) did not identify the class of ASS relevant to the area occupied by the KCC site, indicating there is a low potential for the presence of ASS at the site."

- "Acid sulfate soil (ASS) planning maps were originally prepared by the NSW Department of Land and Water Conservation to indicate the potential presence of ASS, rather than the severity of ASS at a particular location. The planning maps identify five classes of ASS (Class 1 to Class 5) and identify types of works likely to present an environmental risk for each class of land (ASSMAC 1998). If the types of work are proposed in an area identified with potential ASS, further investigations are required to confirm the presence of ASS, and if present, the potential risk to the environment. Further investigations and development consent may be required for work on Class 5 land within 500 metres of adjacent Class 1, 2, 3 or 4 land that is below 5 metres Australian Height Datum and by which the water table is likely to be lowered below 1 metre Australian Height Datum on adjacent Class 1, 2, 3 or 4 land."

- "On-line ASS mapping hosted by the Australian Soil Resource Information System (ASRIS) was reviewed through a Google Earth interface. The ASRIS mapping is based on existing data sets which have been converted to a national classification system (ASRIS 2011). ASRIS shows the site as being in an area of "Low Probability" of ASS."

3. SUMMARY OF PREVIOUS REPORTS AND AUDITS

The following provides a summary of previous investigations undertaken by external parties within the CDS-JV Site, identified as the Kingsgrove Construction Compound (KCC), Beverly Grove Park, Kingsgrove NSW.

3.1. AECOM Report 'WestConnex Stage 2: M5 KGRIU Noise Mound Stockpile Factual Stockpile Contamination Characterisation' (AECOM 2015a).

AECOM performed an assessment of noise mounds on the southern side of the M5 East Motorway approximately 700 m to the southwest of the Kingsgrove Construction Compound. This area is proposed to be disturbed as part of the King Georges Road Interchange Upgrade (KGRIU). Eighty soil samples were analysed for TRH, BTEXN, metals, OCPs, phenols and PCBs and twenty samples were analysed for asbestos.

With the exception of asbestos, the maximum results reported for all other analytes were significantly below the respective HIL/HSL for a commercial / industrial land use scenario adopted by AECOM. From the twenty asbestos samples, eight samples were confirmed to contain asbestos. From the eight samples that contained asbestos, six of these contained friable asbestos in the form of fibre cement debris. Loose bundles of friable asbestos fibres were detected within two of the samples; however no loose asbestos fibres were detected within any of the samples collected.

The subject area is not included within the Kingsgrove Construction Compound works and therefore this area is not included within this Remediation Action Plan.

3.2. AECOM Report 'WestConnex Stage 2: M5 Factual Contamination Assessment' (AECOM 2015b).

AECOM undertook a soil and groundwater contamination assessment for the entirety of the WestConnex New M5 project. Thirteen boreholes were completed within the vicinity of the site, with five of these being within the Kingsgrove Construction Compound.

With the exception of asbestos, the maximum results reported for all other analytes were significantly below the respective HIL/HSL for a commercial / industrial land use scenario adopted by AECOM. Asbestos was detected within one sample from location WCX_BH_006 at 1-1.1m bgl which is located towards the central section of Beverly Grove Park. Friable asbestos was detected at a concentration for 0.001% w/w, however no free asbestos fibres were detected within the sample.

3.3. AECOM Report 'WestConnex New M5 Environmental Impact Statement' (AECOM 2015c).

AECOM prepared the Environmental Impact Statement (EIS) for WCX New M5 (AECOM 2015c). Within this report a technical working paper on contamination, (AECOM 2015d) and a technical working paper on Groundwater (AECOM 2015e) were included.

These reports identified potential onsite sources of contamination including historical filling in the area, fill placed within the noise mounds and the asbestos that had been reported in previous assessments. Other offsite potential contamination sources were identified which included historical commercial / industrial activities in and around Garema Circuit to the east of Beverly Grove Park and the Northern Noise Mound.

ADE has been provided with the data from the AECOM 2015c EIS, which has been collated and presented in Appendix III – Results Tables. The data from the AECOM 2015c EIS is from samples collected ≥0.5 m BGL, from Beverly Grove Park, and the Southern Noise Mounds, i.e. at depths greater than the scope of this RAP.

No data from the AECOM 2015c EIS was derived from samples collected from the Northern Noise Mound or Southern Noise Mound Berm.

3.4. Golder Associates Pty Ltd Report 'Phase 1 Environmental Site Assessment – Kingsgrove Construction Compound, Western Surface Works', 2016b.

Golder Associates was engaged by CDS-JV to undertake a Phase 1 ESA is to determine the potential contamination within the KCC site. The Phase 1 ESA identified the following;

- Noise mounds are present on either side of the current M5 East Motorway, there were no signs of stressed vegetation or other indicators of potential contamination within the mounds.
- Previous AECOM investigations have identified the presence of anthropogenic materials within the fill, tar and hydrocarbon odours associated with black staining.
- Based on results from an existing borehole on the northern side of the northern noise mound and an offsite well to the east of the site groundwater is expected to be at shallow depths of approximately 4.5 m bgl. Deeper groundwater is likely to flow in easterly direction.
- Potential contamination sources on the site include the uncontrolled filling during the channelization of Wolli Creek and within the noise mounds created during the construction of the Motorway during the 1990s.
- A former brickworks was identified towards the east of Kingsgrove Construction Compound which could be a potential source of contamination within the site due to uncontrolled filling. Also to the east of the Site on Garema Circuit, industrial processes including fertiliser manufacturing and various other commercial / industrial land uses were identified.
- Asbestos has been identified within the Site, however the concentrations of other potential contaminants of concern are typically low and are below the human health based criteria adopted for commercial / industrial land use.

The Golder Associates Phase 1 ESA concluded that there is a Moderate to High potential for impacts to soil and groundwater from historical and current site activities.

3.5. Golder Associates Pty Ltd Report 'Phase 2 Environmental Site Assessment – Kingsgrove Construction Compound, Western Surface Works', dated 15 July 2016c.

Golder Associates was engaged by CDS-JV to undertake a Phase 2 ESA to determine the nature and extent of contamination.

Asbestos in soil was detected above the site assessment criteria at nine locations for commercial / industrial and open space land use. FA / FA were identified in six locations within Beverly Grove Park and the Southern Noise Mound. In addition, fragments of ACM were identified at two investigation locations on Beverly Grove Park and in thirteen test pit locations across the noise mounds.

Lead was detected above the HIL C assessment criteria in the southern noise mound and Beverly Grove Park and B(a)P TEQ was detected above the HIL C criteria at five locations across the site. Exceedances of EILs and ESLs were recorded in various samples for copper, lead, B(a)P and TRH across the site.

Where these exceedances occurred, a 95% upper confidence limit (UCL) of the average concentration of the relevant analyte was performed and in all cases the 95% UCL was below the relevant assessment criteria. However as outlined in Schedule B1 of the NEPM, the UCL for asbestos is not applicable.

A groundwater assessment was undertaken as part of the Phase 2 ESA in which nickel and zinc were identified above the adopted site assessment criteria in one of the samples collected. Golder concluded that

as no nickel or zinc sources were identified within the site that it is considered to be indicative of background ranges for the area.

Gas monitoring wells were also installed within the site which detected methane in LDS-BH-6088A in the eastern end of the southern noise mound. Methane was measured at a peak concentration of 15.6% methane with a post purge concentration of 6.2% methane. Further rounds of gas measurements were undertaken which reported a similar, but lower methane concentration. A gas monitoring well located adjacent to the west of the former brick pit (LDS-BH-6087A) had no detection of methane.

Following the detection of methane within the gas monitoring well LDS-BH-6088A, groundwater samples were collected to and analysed for dissolved gases. Dissolved methane was detected within the groundwater at ranges from <5 to 13,000 µg/L. Golder indicates that due to the highest concentration of methane being detected within the southern noise mound and there being zero flow, the source of the methane is unlikely to be the former brickpit and attributed the methane to the presence of vegetation placed within the fill materials.

Golder concluded in the Phase 2 ESA that:

- Given the identification of asbestos impacted fill on the site, and as the noise mounds will require to be relocated during the Project works, it is considered that further investigation into quality of fill buried at depth in the noise mounds should be performed to inform a Remediation Action Plan; and
- Based on the presence of methane in the vadose zone and dissolved methane in groundwater, there is the potential for excavation works to uncover pockets of gas in the noise mounds and for outgassing and accumulation of methane in subsurface structures during the construction works. Management plans for the proposed works should include a monitoring program to assess if methane accumulation is occurring, and include mitigation measures in the event that methane is detected in structures at concentrations which would pose a risk of explosion.

3.6. ADE Report 'Site Soil Characterisation Report' dated 30th August, 2016 (ADE 2016)

ADE was engaged by CDS-JV to undertake further characterisation of the soils within the Northern Noise Mound and Southern Noise Mound - Berm located within the Kingsgrove Construction Compound (refer to Appendix IV – Supporting Documents). These investigations were undertaken to provide supplementary contamination data for the noise mounds to aid in establishing remediation options for the site.

Eleven (11) slots were excavated from the southern side of the Southern Noise Mound – Berm. The slots were excavated from the base to the crest of the berm, which varied in height from 2 – 11 m. Slot 1 was not completed as ADE was advised by the client that the area was unable to be excavated. All samples collected from within the southern noise mound slots meet HIL D assessment criteria (as per NEPM 2013) for Commercial/Industrial land use in regards to Heavy Metals, TRH, BTEX, PAHs, PCBs, OCPs / OPPs.

In total seventy two (72) samples (comprised of both fibre cement and soil samples) were collected from within the Southern Noise Mound – Berm. Bonded asbestos containing fibre cement debris was detected within the subject area. Five (5) of the soil samples collected contained AF/FA less than 7 mm, however no samples contained asbestos less than 2 mm, loose or respirable fibres.

It was concluded that the small fragments (<7mm but >2mm) have originated from larger fibre cement debris and are still bonded in a cement matrix. Whilst these fragments are less than 7 mm in diameter and are considered friable asbestos, results from samples to date do not indicate that any of the asbestos materials are in a form which is respirable.

Six (6) slots were excavated from the northern side of the Northern Noise Mound (refer to Appendix I – Aerial Photograph). The slots were excavated from the base of the berm to the top, which varied in height from 2 – 12 m. All samples collected from within the southern noise mound slots meet HIL D assessment criteria (as per NEPM 2013) for Commercial/Industrial land use in regards to Heavy Metals, TRH, BTEX, PAHs, PCBs, OCPs / OPPs.

A total of eighteen (18) samples, comprised of one (1) fibre cement and seventeen (17) soil samples, were analysed for asbestos. One (1) of the slots (Slot 1) was found to contain potential asbestos containing fibre cement. Laboratory analysis of a fibre cement sample collected from Slot 1 was confirmed to contain asbestos. None of the soil samples collected contained asbestos above the HSL D criteria (as per NEPM 2013).

Asbestos air monitoring conducted throughout the investigation works revealed that the concentration of airborne fibres were below the detection limit of the method and deemed safe in regards to airborne asbestos risk.

4. SITE CONTAMINATION – AREAS OF CONCERN

Based on results derived from former investigations within the Site by Golder, AECOM, and an Interim Site Soil Characterisation Report completed by ADE, several Areas of Concern (AoC) have been identified within Site.

As noted in former sections throughout this RAP, the current scope of works issued to ADE by CDS-JV is limited to the removal/relocation/remediation of the Northern Noise Mound, Southern Noise Mound Berm, and shallow surface soils within Beverly Grove Park and the Southern Noise Mound (upper 0.5 m BGL). Areas adjacent to and outside of these boundaries are not included within the scope of this RAP, as directed by CDS-JV, and will be subject to an independent RAP/further characterisation report.

4.1. AoC within Beverly Grove Park

A review of collated results from former and current investigations undertaken within the Site, outlines the following contaminants of concern above the adopted Site Assessment Criteria (SAC) within Beverly Grove Park (refer to Appendix III – Results Tables).

Table 2 - Potential Areas of Concern within Beverly Grove Park.

Location	Contaminant of Concern	Depth (m BGL)	Concentration / Dimension detected	Guideline Exceedance	SAC Criteria	Remediation required?	Justification	AoC
LDS-BH-1011-0.1-0.2	B(a)P	0.1–0.2	2.3 mg/kg	ESL-D NEPM 2013	1.4 mg/kg	No	In the footprint of the proposed road widening > no ecological receptor	N/A
LDS-TP-6087/0.05	**Asbestos**	**0.05**	**Present (No dimensions / concentration outlined by Golder 2016)**	**HSL-D NEPM 2013**	**No observable asbestos on surface**	**Yes**	**Above SAC**	**AOC1 Bonded Asbestos**
LDS-TP-6097/0.05	**Asbestos**	**0.05**	**Present (No dimensions / concentration outlined by Golder 2016)**	**HSL-D NEPM 2013**	**No observable asbestos on surface**	**Yes**	**Above SAC**	**AOC2 Bonded Asbestos**
LDS-TP-6133/0.05	**Asbestos**	**0.05**	**0.026% w/w (<7mm)**	**HSL-D NEPM 2013**	**0.001% w/w**	**Yes**	**Above SAC**	**AOC3 Friable Asbestos**
LDS-TP-6138/0.05	**Asbestos**	**0.05**	**Present (No dimensions / concentration outlined by Golder 2016)**	**HSL-D NEPM 2013**	**No observable asbestos on surface**	**Yes**	**Above SAC**	**AOC4 Bonded Asbestos**

4.2. AoC within the Northern Noise Mound

A review of collated results from former and current investigations undertaken within the Site, outlines the following contaminants of concern above the adopted SAC within the Northern Noise Mound (refer to Appendix III – Results Tables). It must be noted that at the time of developing this RAP, ADE's further characterisation of the Northern Noise Mound was ongoing. As such, an addendum to this RAP may be required pending results of the additional assessment.

Table 3 – Potential Areas of Concern within the Northern Noise Mound

Location	Contaminant of Concern	Depth (m BGL)	Concentration / Dimension detected	Guideline Exceedance	SAC Criteria	Remediation required?	Justification	AoC
LDS-TP-6003/0.1	Asbestos	0.1	Present (No dimensions / concentration outlined by Golder 2016)	N/A	N/A	Yes	Golder 2016 do not identify concentration. Removal to segregate 'Special Waste' from Noise Mound.	AOC5 Bonded Asbestos
LDS-TP-6003/0.5	Asbestos	0.5	Present (No dimensions / concentration outlined by Golder 2016)	N/A	N/A	Yes	Golder 2016 do not identify concentration. Removal to segregate 'Special Waste' from Noise Mound.	AOC6 Bonded Asbestos
LDS-TP-6005/0.1	Asbestos	0.1	Present (No dimensions / concentration outlined by Golder 2016)	N/A	N/A	Yes	Golder 2016 do not identify concentration. Removal to segregate 'Special Waste' from Noise Mound.	AOC7 Bonded Asbestos
LDS-TP-6006/0.2	Asbestos	0.2	Present (No dimensions / concentration outlined by Golder 2016)	N/A	N/A	Yes	Golder 2016 do not identify concentration. Removal to segregate 'Special Waste' from Noise Mound.	AOC8 Bonded Asbestos
LDS-TP-6007/0.5	Asbestos	0.5	Present (No dimensions / concentration outlined by Golder 2016)	N/A	N/A	Yes	Golder 2016 do not identify concentration. Removal to segregate 'Special Waste' from Noise Mound.	AOC9 Bonded Asbestos
LDS-TP-6009/0.5	Asbestos	0.5	Present (No dimensions / concentration outlined by Golder 2016)	N/A	N/A	Yes	Golder 2016 do not identify concentration. Removal to segregate 'Special Waste' from Noise Mound.	AOC10 Bonded Asbestos
LDS-TP-6010/0.5	Asbestos	0.5	Present (No dimensions / concentration outlined by Golder 2016)	N/A	N/A	Yes	Golder 2016 do not identify concentration. Removal to segregate 'Special Waste' from Noise Mound.	AOC11 Bonded Asbestos
LDS-TP-6010/1.5	Asbestos	1.5	Present (No dimensions / concentration outlined by Golder 2016)	N/A	N/A	Yes	Golder 2016 do not identify concentration. Removal to segregate 'Special Waste' from Noise Mound.	AOC12 Bonded Asbestos
LDS-TP-6011/0.1	Asbestos	0.1	Present (No dimensions / concentration outlined by Golder 2016)	N/A	N/A	Yes	Golder 2016 do not identify concentration. Removal to segregate 'Special Waste' from Noise Mound.	AOC13 Bonded Asbestos
ADE-TP1-N-Asb1	Asbestos	0.5	Present (No dimensions / concentration outlined)	N/A	N/A	Yes	Removal to segregate 'Special Waste' from Noise Mound.	AOC36* Bonded Asbestos

Notes to table

* Area of Concern 36 is intentionally numbered out of sequential order as the additional investigation by ADE of the Northern Noise Mound was undertaken following assessment of Southern Noise Mound.

4.3. AoC within the Southern Noise Mound

A review of collated results from former and current investigations undertaken within the Site, outlines the following contaminants of concern above the adopted SAC within the Southern Noise Mound (refer to Appendix III – Results Tables).

Table 4 – Potential Areas of Concern within the Southern Noise Mound

Location	Contaminant of Concern	Depth (m BGL)	Concentration / Dimension detected	Guideline Exceedance	SAC Criteria	Remediation required?	Justification	AoC
LDS-TP-6020/0.2	**Asbestos**	**0.2**	**Present (No dimensions / concentration outlined by Golder 2016)**	**N/A**	**N/A**	**Yes**	**Golder 2016 do not identify concentration. Removal to segregate 'Special Waste' from Noise Mound.**	**AOC14 Bonded Asbestos**

4.4. AoC within the Southern Noise Mound Berm

A review of collated results from former and current investigations undertaken within the Site, outlines the following contaminants of concern above the adopted SAC within the Southern Noise Mound Berm (refer to Appendix III – Results Tables).

Table 5 – Potential Areas of Concern within the Southern Noise Mound Berm.

Location	Contaminant of Concern	Depth (m BGL)	Concentration / Dimension detected	Guideline Exceedance	SAC Criteria	Remediation required?	Justification	AoC
LDS-TP-6015/0.5	B(a)P	0.5	5.5 mg/kg	ESL-D NEPM 2013	1.4 mg/kg	No	Proposed use as fill within future noise mound / engineering fill under road / offsite disposal. Therefore, no ecological receptors.	N/A
LDS-BH-1048-1.5-1.9	B(a)P	1.5-1.9	1.4 mg/kg	ESL-D NEPM 2013	1.4 mg/kg	No	Proposed use as fill within future noise mound / engineering fill under road / offsite disposal. Therefore, no ecological receptors.	N/A
LDS-BH-1048-0.8-1.0	**Asbestos**	**0.8-1.0**	**0.002% w/w (<7mm)**	**HSL-D NEPM 2013**	**0.001% w/w**	**Yes**	**Above SAC**	**AOC15 Friable Asbestos**
LDS-BH-1016-0.5-0.7	**Asbestos**	**0.5-0.7**	**0.078% w/w (<7mm)**	**HSL-D NEPM 2013**	**0.001% w/w**	**Yes**	**Above SAC**	**AOC16 Friable Asbestos**
LDS-TP-6013/1.0	**Asbestos**	**1.0**	**Present (No dimensions / concentration outlined by Golder 2016)**	**N/A**	**N/A**	**Yes**	**Golder 2016 do not identify concentration. Removal to segregate 'Special Waste' from Noise Mound.**	**AOC17 Bonded Asbestos**
LDS-TP-6014/0.5	**Asbestos**	**0.5**	**Present (No dimensions / concentration outlined by Golder 2016)**	**N/A**	**N/A**	**Yes**	**Golder 2016 do not identify concentration. Removal to segregate 'Special Waste' from Noise Mound.**	**AOC18 Bonded Asbestos**
LDS-TP-6014/C1	**Asbestos**	**0.0-1.5**	**0.17% w/w (>7mm)**	**HSL-D NEPM 2013**	**0.05% w/w**	**Yes**	**Above SAC**	**AOC19 Bonded Asbestos**
LDS-TP-6015/1.0	**Asbestos**	**1.0**	**Present (No dimensions / concentration outlined by Golder 2016)**	**N/A**	**N/A**	**Yes**	**Golder 2016 do not identify concentration. Removal to segregate 'Special Waste' from Noise Mound.**	**AOC20 Bonded Asbestos**

Table 5 Continued...

Location	Contaminant of Concern	Depth (m BGL)	Concentration / Dimension detected	Guideline Exceedance	SAC Criteria	Remediation required?	Justification	AoC
LDS-TP-6016/1.4	Asbestos	1.4	Present (No dimensions / concentration outlined by Golder 2016)	N/A	N/A	Yes	Golder 2016 do not identify concentration. Removal to segregate 'Special Waste' from Noise Mound.	AOC21 Bonded Asbestos
LDS-TP-6017/0.1	Asbestos	0.1	Present (No dimensions / concentration outlined by Golder 2016)	N/A	N/A	Yes	Golder 2016 do not identify concentration. Removal to segregate 'Special Waste' from Noise Mound.	AOC22 Bonded Asbestos
LDS-TP-6017/1.1	Asbestos	1.1	Present (No dimensions / concentration outlined by Golder 2016)	N/A	N/A	Yes	Golder 2016 do not identify concentration. Removal to segregate 'Special Waste' from Noise Mound.	AOC23 Bonded Asbestos
LDS-TP-6017/C1	Asbestos	0.0-1.5	0.004% w/w (<7mm)	HSL-D NEPM 2013	0.001% w/w	Yes	Above SAC	AOC24 Friable Asbestos
ADE-TP2-NEPM2	Asbestos	2.0	0.014% w/w (>7mm)	HSL-D No	0.05	Yes	Removal to segregate 'Special Waste' from Noise Mound.	AOC25 Bonded Asbestos
ADE-TP3-Asb2	Asbestos	0.5	5.8 x 4.7 x 0.5 cm	N/A	N/A	Yes	Removal to segregate 'Special Waste' from Noise Mound.	AOC26 Bonded Asbestos
ADE-TP3-Asb3	Asbestos	0.5	7.7 x 5.5 x 0.5 cm	N/A	N/A	Yes	Removal to segregate 'Special Waste' from Noise Mound.	AOC27 Bonded Asbestos
ADE-TP3-Asb5	Asbestos	4.0	9.3 x 5.0 x 0.5 cm	N/A	N/A	Yes	Removal to segregate 'Special Waste' from Noise Mound.	AOC28 Bonded Asbestos
ADE-TP3-Asb8	Asbestos	8.0	3.4 x 3.0 x 0.4 cm	N/A	N/A	Yes	Removal to segregate 'Special Waste' from Noise Mound.	AOC29 Bonded Asbestos
ADE-TP3-Asb9	Asbestos	8.0	5.8 x 3.8 x 0.6 cm	N/A	N/A	Yes	Removal to segregate 'Special Waste' from Noise Mound.	AOC30 Bonded Asbestos
ADE-TP4-Asb3	Asbestos	4.0	4.0 x 2.0 x 2.0 mm (No weight of sample indicated)	N/A	N/A	Yes	Removal to segregate 'Special Waste' from Noise Mound.	AOC31 Friable Asbestos
ADE-TP4-Asb5	Asbestos	4.0	4.8 x 3.5 x 0.5 cm	N/A	N/A	Yes	Removal to segregate 'Special Waste' from Noise Mound.	AOC32 Bonded Asbestos
ADE-TP4-Asb6	Asbestos	5.5	3.8 x 3.0 x 0.6 cm	N/A	N/A	Yes	Removal to segregate 'Special Waste' from Noise Mound.	AOC33 Bonded Asbestos
ADE-TP5-Asb3	Asbestos	0.3	5.8 x 4.6 x 0.5 cm	N/A	N/A	Yes	Removal to segregate 'Special Waste' from Noise Mound.	AOC34 Bonded Asbestos
ADE-TP5-Asb4	Asbestos	0.3	4.9 x 3.2 x 0.5 cm	N/A	N/A	Yes	Removal to segregate 'Special Waste' from Noise Mound.	AOC35 Bonded Asbestos

5. REMEDIAL OPTIONS

The main objectives of Site remediation works are to render the Site suitable for the proposed future land use (commercial/industrial and public open space) and to ensure that the works will not pose unacceptable risks to human health or to the environment.

5.1. Extent of Remediation Required – Known extent

Former environmental investigations undertaken (refer to Section 3) have indicated the presence of Contaminants of Concern (COCs), located within soils in Beverly Grove Park, the Northern Noise Mound, Southern Noise Mound and Southern Noise Mound Berm.

The COCs identified were Asbestos Containing Materials (ACM) in both friable (<7mm diameter) and bonded (>7mm diameter) forms (refer to Appendix I – Figures for locations).

5.2. Unknown Extent

ADE notes that the full extent of remedial works will not be ascertained until remediation works begin. This is due to the fact that a complete assessment of the Noise Mounds is yet to be undertaken, due to the inability to get plant/equipment safe access to the both the Northern and Southern Noise Mounds, including the Southern Noise Mound Berm. The following aspects of the remediation works can be considered unknown:

- Full extent of asbestos containing materials within the Noise Mounds and Berm; and
- Classification of soil materials inaccessible to date within the Noise Mounds and Berm.

5.3. Remediation Options

In assessing and determining the optimal remedial options available to the Site, the following factors have been considered:

- The source, types and level of contamination present;
- The vertical and lateral extent of soil contamination;
- The leachate potential of contaminants;
- Heterogeneity of the soil materials present within the Site;
- The future land use proposed for the remediation area;
- Proven remediation methods and technologies that are available;
- Time, budgetary, engineering, environmental constraints; and
- Regulatory requirements.

A number of remedial options were reviewed. The suitability of the remedial options was examined with respect to the requirements of the proposed development and discussed with CDS-JV to determine what is practical. Typical remedial options that may achieve the remedial objectives are identified as:

- Removal of contaminated material to landfill;
- On-site treatment and re-use of contaminated material;
- Encapsulation of the contaminated soils by a physical barrier system.

The preferred remediation hierarchy for this RAP has been made with reference to NSW DECCW Guidelines for the NSW Site Auditor Scheme (2006).

5.4. Remediation Rationale

Removal of contaminated material to landfill

Excavation and removal to landfill involves physically excavating and transporting impacted soil to a licensed landfill facility for treatment or disposal. Disposal to landfill may require prior treatment of the impacted soil if the chemical levels exceed landfill criteria as determined in the NSW EPA *Waste Classification Guidelines* (2014).

Given that the significant volume of materials present within the Site, i.e. approximately 300,000 tonnes, the removal of all contaminated fill material to landfill is not considered to underpin the sustainability objectives of the project.

Furthermore, given the projects sustainability target of retaining at least 80% of usable spoil within the Site (as outlined in Section 1.4), the disposal of all soil materials to landfill without considering other opportunities in accordance with principles outlined in the Waste Avoidance and Resource Recovery Act 2007, is considered to conflict with projects stated objectives.

ADE has been advised by CDS-JV that of the approximate 300,000 tonnes of spoil required for removal/relocation, approximately 140,000 tonnes of material may be used as engineering fill and capped on-site, pending the materials being deemed 'fit for purpose' following additional characterisation.

Therefore, approximately 160,000 tonnes of surplus materials will unavoidably require off-site disposal or recycling or re-use.

On-site treatment and re-use of contaminated material

Onsite treatment and reuse of the contaminated fill/stockpiles is not a preferred option based on:

- The cost of removing/reducing the asbestos from within the fill materials would exhaust allowable time and financial resources;
- Contaminants of concern such as asbestos are unable to be destroyed; and
- Some soils have been identified as containing friable asbestos (<7 mm), and therefore cannot be 'emu-picked' as a form of remediation.

This option is not considered further.

Consolidation and isolation of the soil on-site by containment within a properly designed barrier

Consolidation and isolation via a physical barrier system over the contaminated fill material including relocating materials from the Northern Noise Mound, Southern Noise Mound and Berm, would remove the exposure pathway to future users of the Site. This option typically comprises construction of cap over the impacted material.

Caps are typically comprised of a 'hi-visibility' marker mesh (i.e. geo-textile fabric) to visually separate the underlying contaminated materials from the overlying 'clean fill'. The long term management of the integrity of the capping layer would be outlined in an appropriate environmental management plan (EMP) with provisions of regular inspection and maintenance included as necessary. For the capping of asbestos containing materials, ADE recommends a minimum capping layer with a thickness of at least 0.5 m.

ADE has been advised by CDS-JV that approximately 140,000 tonnes of soil materials may be capped and contained within the Site (refer to Appendix II – Development Plans).

Once the impacted materials have been relocated construction of the capping layer can commence. It is considered that the option to cap and contain aligns with the WestConnex Project's stated objectives regarding the re-use of soil materials and sustainability objectives.

5.5. Remediation Option Explanation

The Site, in its current condition, may pose a long term risk to human health and/or the environment if the contamination is left unmanaged. As such, the preferred remedial option is the 'Consolidation and isolation of the soil on-site by containment within a properly designed barrier', with surplus materials unable to be retained disposed off-site to a facility that is licensed to receive the waste stream. The remediation option will involve the installation of an engineered cap to limit the exposure of Site users and/or off-site receptors to contaminants of concern.

Considering the proposed development construction (refer to Appendix II – Development Plans). This remedial strategy is considered to be the most practical and cost effective. The option would eliminate the link between receptors and contaminants within the impacted soils as well. This option will also reduce the amount of waste sent to landfill facilities to the extent practicable given the design of the proposed development.

The chosen remediation option calls for the construction of an appropriately engineered capping layer over the contaminated fill material, which is both technically feasible and easy to manage and maintain in the future. Further details of the general remediation strategy and requirements for the Site are included in Section 6.

It is considered that areas within the Site outside the current scope of this RAP, i.e. soils materials beyond 0.5 m BGL and groundwater within the Site will require further investigation. The remediation strategy outlined for the Northern Noise Mound, Southern Noise Mound Berm, and shallow surface soils within Beverly Grove Park and the Southern Noise Mound (upper 0.5 m BGL) may not be suitable for other areas within the Site outside the scope of this RAP.

6. REMEDIATION WORKS PLAN

6.1. Overview

The remediation strategy proposed will involve the cut and validation of the Areas of Concern outlined in Section 4; additional assessment of soil materials within the Northern Noise Mound and Southern Noise Mound Berm which has yet to be adequately characterised; transport and capping of 140,000 tonne of materials deemed 'fit for purpose' as engineering fill below a permanent cap; and waste classification and off-site disposal off surplus materials unable to be retained on-site. This section of the RAP provides the principle strategy for the proposed remediation works at the Site.

CDS-JV has provided a preliminary Stage 1 works plan for the Kingsgrove Construction Compound with the main objective to re-use the contaminated soil materials (GSW/ACM) on site with minimal off-site disposal. The assumed production during the noise mound remediation works is 1,000m^3 per day with four crews working simultaneously. Stage 1 will involve the excavation of the noise mounds to road surface levels (refer to Appendix II – Development Plans).

6.2. Roles and Responsibilities

The roles and responsibilities of the various parties involved in the remediation and subsequent validation of the Site are outlined below:

Table 6 – Roles and Responsibilities for the remediation works

Roles	Responsibility
CDS-JV Project Manager	Responsible for overall direction of civil and environmental works associated with the remediation works.
Remediation Contractor	Responsible for undertaking the remedial works (civil and earthworks) and for procuring and complying with all the relevant approvals such as those required to undertake the proposed remediation works.
Environmental Consultant	Responsible for providing technical guidance to the remediation contractor in order to successfully implement the requirements set out in the RAP. Collection and analysis of samples for waste analysis and classification; validation samples following the removal of AoC outlined in 4; inspection and visual validation of the engineered cap; and advising CDS-JV of appropriate actions necessary based on observations, sampling and analysis. Responsible for providing an independent review and validation of the remediation works.
NSW EPA Site Auditor	Responsible for reviewing the Environmental Consultant's reports and providing interim advice pertaining to the Site's remediation works. The NSW EPA Site Auditor is an independent third party ensuring that the remediation works being undertaken are in line with relevant Legislation, codes and guidelines which will culminate in a Site Audit Statement (SAS) deeming the site suitable for the proposed land use.

6.3. Preliminaries and Approvals

The project is declared to be State significant infrastructure (SSI) under section 115U(2) of the EP&A Act by reason of the operation of clause 14 and Schedule 3 of the *State Environmental Planning Policy (State and Regional Development) 2011*. As such the provision of SEPP 55 which seeks to determine whether or not the development is considered designated development is not applicable in accordance with section 77A(2) of

the Environmental Planning Act 1979 which stipulates that "Designated development does not include State significant development despite any such declaration". Notwithstanding this, the proposal for remediation should be submitted to, and approved by appointed NSW EPA Accredited Site Auditor and Sydney Motorway Corporation prior to commencement.

6.4. Site Preparation

On approval to commence earthworks, preparation of Remediation activities will include the following:

- Appointment of an appropriately qualified and experienced Remediation Contractor;
- Site mobilisation and installation of all required environmental and WH&S controls, in accordance with an approved safe work method statement (SWMS) / works program;
- The identification and marking of the initial estimated remediation area extents will be undertaken by the Remediation Contractor using available data/information;
- Ensure a Class A Licensed Asbestos Removalist with current SafeWork NSW permit has been engaged to supervise and carry out remediation works; and
- Preparing the Site for remediation works (erect/repair boundary fencing and other general preparatory works).

6.5. Removal of outlined Areas of Concern - Bonded and Friable ACM

Areas of Concern outlined in Section 4 of this report outline that soil materials within the Site have been impacted by ACM (both bonded and friable). As such, all remediation and validation works will be supervised by an appropriately qualified Remediation Contractor, and Licensed Class A Asbestos Removalist. The remediation works must be undertaken in accordance with CDS-JV's Asbestos Management Plan, the Licensed Asbestos Removalist's Site specific Asbestos Removal Control Plan, and in accordance with relevant SafeWork NSW guidelines for the safe removal and handling of ACM.

The asbestos removal works shall be undertaken in accordance with Work Health and Safety Standards as outlined in Section 11. A Clearance Inspection and Validation of the work area should be carried out when the Asbestos Removal Contractor's representative on Site considers the removal works are satisfactorily completed. This will involve collection of residual soil samples of the remediated area, and submission of samples to a NATA accredited laboratory. The validation works should be undertaken as follows:

- The remediated area will be visually inspected by the Environmental Consultant and/or Occupational Hygienist for ACM on the surface, and to a depth of 0.1 m BGL by raking the residual soils where practical. If any further ACM is identified, further removal / segregation works will be completed by the Remediation Contractor until the soil is visually free of ACM and validation sampling can be undertaken;
- Validation sampling of the side walls of the excavation will include 1 validation sample from each strata of concern (i.e. surface soil and fill) at a spacing of 1 location per side wall or 1 location per 5 m length of side wall, whichever is greater;
- Validation sampling of the base of the excavation will include at least 1 sample per 5 m x 5 m grid (or at least one base sample per excavation). For large excavations, sample numbers will comply with the numbers recommended in the NSW EPA (1995), *Contaminated Sites: Sampling Design Guidelines* (for the size of the remediation area).

Validation soil samples will be collected and analysed as follows.

6.6. Validation of Areas of Concern containing Bonded Asbestos

- For Areas of Concern identified to contain Bonded ACM, the residual soils within the subject area will be inspected to be free of visible ACM, followed by collection of 60-120 g samples to be analysed for asbestos in accordance with AS4964 – 2004: *Method for the Qualitative identification of asbestos in bulk samples.*

6.7. Validation of Areas of Concern containing Friable Asbestos

- For Areas of Concern identified to contain Friable ACM, the residual soils will be inspected to be free of visible ACM, and 500 ml soil samples collected from the location and depth of concern to conduct AF and FA assessment in accordance with AS4964 – 2004: *Method for the Qualitative identification of asbestos in bulk sample.*

In the case of a positive analytical result for asbestos within the validation sample, further removal works will be required.

A clearance report will be issued by the Environmental Consultant / Occupational Hygienist / Asbestos Assessor following the clearance inspection to certify that works have been completed satisfactorily and it is safe to resume normal operations. The clearance report and associated samples shall be included in the Validation Report by the environmental consultant.

6.8. Northern Noise Mound and Southern Noise Mound Berm. Additional Waste Characterisation and Removal

The following works shall be undertaken for the proposed remediation/relocation of soil materials located within the Noise Mounds and Berm, following the removal and validation of Areas of Concern outlined in Section 4 and Section 6.5 of this RAP:

- During the excavation of the Noise Mounds, a suitably qualified, competent Asbestos Removal Contractor and Remediation Contractor will visually assess the soil materials throughout to determine if ACM is present.
- The soils will be separated by the Asbestos Removal Contractor and Remediation Contractor based on visual observations and differing soil characteristics into appropriate stockpiles.
- The separation process will be conducted during the excavation of the mounds by spreading the soil materials in 100-200 mm layers to determine the presence or absence of ACM prior to stockpiling.
- From initial inspection of the Noise Mounds, it is expected that there will be clear indications within the noise mounds of the soil characteristics due to differing sources of fill / ENM during the development of the mounds.

The visual separation will likely include Excavated Natural Material, General Solid Waste, and Special Waste (Asbestos) based on Golder 2016 and anecdotal indication from engineers working on original M5. If any unexpected finds such as storage drums are identified, the associated materials will be stockpiled and tested for disposal separately in line with the NSW EPA *Waste Classification Guidelines, Part 1: Classifying Waste* (2014).

Following the separation of the soil materials from the noise mounds and stockpiling by the Remediation Contractor, additional sampling will be undertaken by the Environmental Consultant to determine the classification and suitability for the materials to be re-used onsite as engineering fill a permanent cap, off-site re-use or recycling, or for off-site disposal to a facility licensed to receive the waste.

Sampling of the soil materials will be conducted following the stockpiling of materials from the Noise Mounds. This will aim to validate whether the process of visual separation of materials has been successful. In-situ waste classification of the Noise Mounds is not proposed as it is predicted that material will be slump and fold in on itself, and is not considered practicable due size of the mounds and safety considerations.

Airborne Asbestos Monitoring (AAM) will be undertaken throughout the investigation process using the Membrane Filter Method described in the National Occupational Health and Safety Commission Guidance Note (2005). Samples collected will be analysed by a NATA accredited laboratory

6.9. Stockpile materials segregated by the Remediation Contractor to be 'free of ACM', to be sampled by the Environmental Consultant

Discrete samples will be collected directly from the stockpile the Environmental Consultant using an excavator to undertake test-pits, whilst wearing disposable nitrile gloves. Samples will be placed into UV resistant glass jars with Teflon lined lids and stored in a pre chilled cooler for transport to the laboratory.

A photoionisation detector (PID) with a 10.6 eV lamp, pre-calibrated with isobutylene gas at 100 ppm will be used to screen the headspace gases of the collected samples to assess for the presence of Volatile Organic Compounds (VOC's). To obtain an accurate reading, a representative soil sample will be placed in a disposable zip lock plastic bag. The sampling head of the PID will be inserted into the bag, with the zip lock bag sealed around its stem to remove influence from ambient air. The soils within the zip-lock back will be gently agitated, and the maximum concentration of VOC's will be recorded. The zip-lock bag will be disposed of following single use and will not be reused at other sampling locations.

A calibration certificate of the PID instrument will be included within the validation report. Field logs will be kept to document the soil description, profile and observations of each test pit.

For soil materials generated from the Noise Mounds, the adopted sample density for chemical characterisation will be undertaken as per the VIC EPA Industrial Waste Resource Guidelines for Soil Sampling (2010) as referenced in the National Environmental Protection Measure - Assessment of Site Contamination 1999 (2013 Amendment) Schedule B2 (as outlined in Table 7) for on-site reuse or offsite disposal under the NSW EPA *Waste Classification Guidelines, Part 1: Classifying Waste*.

Table 7 - Minimum sampling density for chemical characterisation of the subject stockpile.

Soil Volume (m^3)	Sample to volume ratio	Minimum number of samples required
≤75	1:25 (minimum 3 samples)	3
76-100		4
101-125		5
126-150		6
151-175		7
176-200		8
201-225		9
226-250		10
251-2500	1:250* (minimum 10 samples)	10
2501-2750		11
2751-3000		12
3001 >		1:250

For the assessment of ACM, the sampling density of the stockpiles will be undertaken as per the *Western Australian Department of Health (DOH) Guidelines for the Assessment, Remediation and Management of*

Asbestos-Contaminated Sites Guidelines (2009) (WA DOH 2009). This method involves 14 sampling points per 1 000m^3 of stockpiled materials in which at least one 10 L and at least one 500mL sample is collected from each sample location.

Where deemed suitable by the Environmental Consultant, and following confirmation by the client, the sampling density as per the NSW EPA's *Excavated Natural Materials Order* 2014, for classification as ENM, may be adopted if applicable.

At the time of preparing this RAP, a NSW EPA Site Specific Resource Recovery Exemption (SSRRE) was applied for by ADE/CDS-JV, and was in the process of being reviewed by the EPA. If granted, where deemed suitable by the Environmental Consultant and following confirmation by the client, a sampling regime may be undertaken in accordance with and SSRRE for beneficial re-use off-site.

6.10. Stockpile materials segregated by the Remediation Contractor 'to contain ACM' to be sampled by the Environmental Consultant

If any of the soil materials are visually contaminated by asbestos, they will be noted and stockpiled separately by the Remediation Contractor to prevent any cross contamination with soils free of ACM. The stockpiling and segregation of soils noted to contain ACM must be undertaken in accordance with CDS-JV's AMP.

A PID will be used to screen the headspace gases in accordance with the method outlined in Section 6.9, on page 33.

For the assessment of a subject stockpile identified with ACM, ADE proposes to adopt the minimum sampling density prescribed in the 'Victorian EPA Industrial Waste Resource Guidelines for Soil Sampling (2010)' (VIC EPA) as outlined in Table 7 for both chemical characterisation and to determine if the materials contain bonded (>7 mm) or friable asbestos (<7mm). It must be noted that additional samples may be collected by the environmental consultant onsite based on site observations, such as visual or olfactory signs of potentially contaminated material.

The WA DOH 2009 Guidelines for stockpile sampling will not be adopted for stockpiles deemed to contain asbestos, as once a stockpile is deemed to contain ACM the aim will be to reuse the impacted material as fill within a containment cell onsite, as outlined in section 6.14. Therefore, a determination of the concentration of ACM in soil is not deemed to be warranted.

If the material is required to be disposed of offsite, it will be classified as per the NSW EPA Waste Classification Guidelines (2014). Specifically, soil materials found to contain any ACM within the generated stockpiles will be classified as 'Special Waste'.

6.11. Laboratory Analysis of Samples

6.11.1 Samples proposed for off-site disposal as per the EPA Waste Classification Guidelines, Part 1: Classifying Waste and Re-Use within the Site

Soils that are proposed for offsite disposal in accordance with the NSW EPA *Waste Classification Guidelines, Part 1: Classifying Waste* (2014) will be assessed for the following contaminants of concern:

- Heavy Metals (M8) – Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel and Zinc;
- Polycyclic Aromatic Hydrocarbons (PAHs);

- Total Recoverable Hydrocarbons (TRH);
- Benzene, Toluene, Ethylbenzene and Xylene (BTEX);
- Organochlorine Pesticides (OCPs);
- Organophosphate Pesticides (OPPs);
- Polychlorinated Biphenyls (PCBs); and
- Asbestos (Bulk ID) in accordance with AS4964 – 2004: *Method for the Qualitative identification of asbestos in bulk sample.*

If on-site screening using a PID identifies elevated VOC's above 30 ppm, the material will then be classified as an unexpected find. In response to an unexpected find, one in four samples will be analysed for VOCs/VHCs until such a time that a statistical analysis can show that VOCs/VHCs can be analysed at a lower ratio or ceased if the unexpected find has been completely removed.

6.11.2 Samples proposed for off-site disposal as per the NSW EPA *Excavated Natural Material Order* 2014

Soils that are proposed offsite disposal in accordance with the NSW EPA *Excavated Natural Material Order* 2014, will be assessed for the following contaminants of concern:

- M8
- PAHs;
- TRH;
- BTEX;
- OCPs;
- OPPs;
- PCBs;
- Asbestos (Bulk ID) in accordance with AS4964 – 2004: *Method for the Qualitative identification of asbestos in bulk sample;*
- pH;
- Electrical Conductivity (EC); and
- Foreign Materials.

Additional analysis of soils for ASS/PASS may be required if a pH of <5 is observed in the soil samples collected.

If on-site screening using a PID identifies elevated VOC's above 30 ppm, additional laboratory analysis for VOCs/VHC's will be undertaken.

6.11.3 Samples proposed for off-site disposal as per a NSW EPA *Specific Resource Recovery Exemption*

Any soils proposed for classification under a NSW EPA Specific Resource Recovery Exemption, must be sampled and analysed in strict accordance with the approved Exemption. If on-site screening using a PID identifies elevated VOC's above 30 ppm, additional laboratory analysis for VOCs/VHC's will be undertaken.

6.12. Stockpile Management

Stockpiles must be managed as per the CDS-JV's 'Construction Spoil Management Plan (2016)', provided in refer to Appendix II – Development Plans. Stockpile Management practices for temporary stockpile sites

related to works other than tunnel construction will be in accordance with the CDS-JV's Soil and Water Quality Management Sub Plan (SWQMP) and take into account the following general principles:

- Materials will not be stockpiled within the tree protection zone (in accordance with AS 4970) of trees or native vegetation to be retained, and never pushed up around the base of trees. Trees are not to be flooded or waterlogged as a result of stockpile development.
- Soil materials will be stockpiled separately based on their classification and identified with signage.
- Asbestos containing stockpiles shall be covered with geofabric to prevent the possible release of fibres;
- Erosion and Sediment Control Plans (ESCP) will be prepared and implemented in advance of stockpiling.
- The ESCP will detail soil and water management measures consistent with Managing Urban Stormwater - Soils and Construction Vols 1 and 2, 4th Edition (Landcom, 2004) to minimise soil erosion and the discharge of sediment and other pollutants to land and/or waters.
- Erosion and sedimentation controls will be erected between the site and any drainage lines or down-slope areas.
- A diversion bund will be installed on the uphill side of the stockpile to divert water around the site, unless run on water is 'dirty' construction water. Where this occurs 'dirty' run on water shall be diverted to erosion and sediment controls.
- Erosion and sediment control structures shall remain installed and maintained until sufficient stabilisation is achieved as per the Blue Book.
- Separating 'clean' run-on water from 'dirty' (e.g. turbid) construction area run-off.
- Maximising the diversion of turbid construction runoff into detention/sediment basins.
- Controlling run-off during the construction of stockpiles (e.g. fill shaping and the construction of temporary dykes and batter drains).
- Diverting stockpile run-off through sediment traps as soon as practical to reduce surface flow lengths and velocities.
- Controls will be installed around all stockpiles that are in place for more than 10 days in order to prevent wind and water erosion. These controls will be in accordance with the Erosion and Sediment control plan and may include stabilisation with cover crop or similar appropriate controls as per the site ESCP.
- Dust management measures (including for vehicle movements associated with stockpiling activities) will be implemented in accordance with the requirements of the Construction Air Quality Management Plan (AQMP).

6.13. Reuse of Asbestos Containing Soils

ADE has been advised by the client that it plans to utilise and reuse material from designated asbestos containing stockpiles within the Site, specifically as engineering fill beneath the proposed M5 widening (bounded by retaining walls and traffic surface) and proposed capped noise mound within Beverly Grove Park. The areas in which the soil materials containing ACM will be re-used, the asbestos materials will be placed under a permanent cap, included within the Sites Section 149 Certificate, and will be subject to a long-

term Environmental Management Plan. All deleterious materials that are encountered as 'unexpected finds', or materials that will limit the compaction of the soils materials (e.g. vegetation), will be removed, stockpiled separately, and subsequently subject to further waste classification for off-site disposal.

It must be noted that the stockpiles are considered to contain asbestos and thus must be handled in accordance with the Site AMP. The process will be supervised by an appropriately experienced environmental consultant and undertaken under the supervision of a licensed asbestos assessor and removal contractor.

Furthermore, the soils must be demonstrated to be 'fit for purpose' and not to cause potential harm to both human health and the environment, through additional sampling as outlined in Section 6.10-6.11.

6.14. Capping Layer

The capping layer will be designed to safely contain the asbestos impacted soil/stockpile materials within areas designated by CDS-JV. The imported capping fill should be of a low permeability material and once imported, should be compacted sufficiently. Surveyed levels will be established prior to the installation of the cap, and incrementally during its installation to establish the relevant levels of asbestos contaminated soils and materials consisting of the cap itself. The surveyed drawings should be provided to the environmental consultant as 'as built' drawing's, which will be used for the purpose of the Site validation report and form part of the EMP.

As per the Western Australian Department of Health (WA DOH) *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia* (2009), endorsed by NEPM 2013, the following information is outlined regarding the required thickness of the Capping Layer:

> *"Nominally, the depth of the clean fill should be at least 1 m for public open spaces and at least 0.5 m for all other uses, such as residential or commercial activities. The greater depth for the public space is because of: the potential for deeper below-ground activity associated with such areas, such as irrigation systems and service trenches; the potential lower awareness of the presence of the contamination; and the increased practicability of having such deep covers."*

Taking this into consideration, the minimum requirements for the capping layer include:

- A marker layer (preferably in a bright colour) consisting of geofabric material directly above the contaminated soil to serve as a visual signal that potentially hazardous material exists below the mesh layer; and
- A layer of VENM, ENM, or soil materials sourced within the Site validated to be free of ACM and 'fit for purpose' in accordance with the proposed land-use (i.e. soils below HIL-C of NEPM 2013 for Public Open Space; HIL-D of NEPM 2013 for Commercial/Industrial land-use; and EILs/ESL's of NEPM 2013 where applicable), shall then be imported and spread across the mesh layer to a minimum depth of 0.5 m in areas of the Site proposed for future Commercial/Industrial Land-Use, and a 1 m capping layer in areas proposed for future Site use as Public Open Space. An environmental consultant shall be present at various stages during the construction of the capping layer to ensure the requirements meet the specification set out in this RAP.
- The use of a hi-visibility marker layer on the slope of the proposed future Noise Mounds may cause stability issues. The final design on the capping layer must be reviewed by a suitably qualified Geotechnical Engineer to ensure that the use of hi-visibility marker layer will not lead to slope instability, or reduction in the required minimum depth of capping over time. The approved design of the cap will be provided to the Auditor for review once developed.

The Remediation Contractor will conduct visual inspections (including photograph documentation in the event the Environmental Consultant is not present) and, if required, confirmation of analytical testing of the imported material confirms that it meets the requirements of this RAP (refer to Section 8 for more detail on the validation process).

If soil materials are imported into the Site form an offsite source (e.g. VENM/ENM), the Remediation Contractor will obtain documentation from the fill provider that must be provided to the Environmental Consultant for the purposes of the Validation Report. The Environmental Consultant must critically review and approve the Waste Classification reports prior to import, to ensure the materials can be legally imported into Site and are 'fit for purpose'. The following information must be collected:

- Classification documentation;
- Date of arrival on Site;
- Volume / quantity of fill material;
- Provider; and
- Source of fill material.

6.15. Unexpected Finds

An unexpected finds protocol has been developed to provide guidance on processes to follow if an unexpected find is encountered during the remediation or future civil and construction works. The following sub-section outline the procedures to be implemented for various unexpected finds scenarios.

6.16. Soil and Groundwater Contamination

Due to areas of the Noise Mounds being inaccessible during former investigative works by ADE, Golder and AECOM, there remains a potential for contamination of soils materials to be present between sampled locations. In the event that further areas of potential contamination are found during civil earthworks and remediation works, the following protocols will ensue:

- Upon discovery of further potential sources of contamination, the CDS-JV Project Manager is to be notified and the area barricaded;
- Visual identification of the nature of the issue and the likely extent of the Area of Concern by the Environmental Consultant is to be undertaken;
- The Environmental Consultant is to conduct appropriate investigations with a view to identifying the nature and extent of the contamination;
- If contamination is found and remediation action or management is considered necessary, an addendum or supplement to the RAP will be prepared by the Environmental Consultant approved by the EPA Accredited Site Auditor; and
- The additional remediation will be implemented by the Remediation Contractor and validated by the Environmental Consultant.

7. REMEDIATION ACCEPTANCE CRITERIA

The proposed development at the Site is a commercial/industrial site in the form of a roadway and public open space. The Remediation Acceptance Criteria (RAC) has been selected in accordance with 'Assessment of Site Contamination, National Environment Protection (Assessment of Site Contamination) Measure 1999, 2013 Amendment'.

Given the proposed development at the Site, the following investigation and screening levels have been adapted from Golder Associates Phase 2 Site Assessment (2016) and selected in order to successfully remediate and validate the Site.

7.1. Health Investigation Levels (HILs)

The NEPM (2013) guidelines stipulate four generic land use settings for assessment used in the first stage (Tier 1 or 'screening') of potential risks to human health from a broad range of metals and organic substances. The HILs are applicable for assessing human health risk via all relevant pathways of exposure for the following generic land use settings:

- HIL A - Residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake, (no poultry), also includes children's day care centres, preschools and primary schools;
- HIL B - Residential with minimal opportunities for soil access includes dwellings with fully and permanently paved yard space such as high-rise buildings and flats;
- **HIL C - Public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and footpaths. It does not include undeveloped public open space (such as urban bushland and reserves) which should be subject to a site-specific assessment where appropriate;**
- **HIL D - Commercial/industrial such as shops, offices, factories and industrial sites.**

The adopted HILs from Table 1A (1), Schedule B1 of the NEPM (2013) are shown in below.

7.2. Health Screening Levels (HSLs)

HSLs have been developed for selected petroleum compounds and fractions and are applicable to assessing human health risk via the inhalation and direct contact pathways. The HSLs depend on specific soil physicochemical properties, land use scenarios, and the characteristics of building structures.

Due to the proposed development of a roadway and public open space, ADE has adopted the NEPM 2013 Tier 1 screening criteria for BTEX, Naphthalene, TRH fractions C6-C10 and C10-C16 for Vapour Intrusion. Further tier 1 HSL screening criteria as per Friebel and Nadebaum's *Health Screening levels for petroleum hydrocarbons in soil and groundwater, Part 2: Application Document, Technical report No. 10* (2011) have also been adopted to include Vapour Risk to Intrusive Maintenance Workers (Shallow Trench 0.0 to <2.0 m), and HSL levels for direct human contact, outlined in Table 8 and Table 9.

7.3. Ecological Screening Levels (ESLs)

ESLs have been developed for selected petroleum hydrocarbon compounds and total petroleum hydrocarbon (TPH) fractions and are applicable to assessing risk to terrestrial ecosystems. ESLs are provided for coarse and fine soils under urban, residential and public open space and commercial / industrial land

use scenarios. They are generally applicable to the top 2 m of soil which represent plant root zones. ESLs were adopted for this assessment and outlined in Table 8 and Table 9.

7.4. Ecological Investigation Levels (EILs)

EILs have been developed for selected metals and organic substances and are applicable for assessing risk to terrestrial ecosystems. EILs depend on specific soil physiochemical properties and land use scenarios and generally apply to the top 2 m of soil.

Generic EILs are provided for lead, arsenic, DDT and naphthalene in NEPC 2013. The generic EILs are independent of soil type. Site specific EILs for chromium (III), copper, nickel, lead and zinc were calculated by Golder Associates (2016b) using the Interactive (Excel) Calculation Spreadsheet provided on the NEPM Toolbox site. Results for soil parameters (i.e. pH, CEC, clay content, TOC) for samples obtained during the Phase 2 investigations were used as inputs to the spreadsheet. The soil specific "aged" (i.e. for metals present in soil greater than 2 years) EILs were adopted for this assessment and outlined in Table 8 and Table 9.

7.5. Management Limits

'Petroleum hydrocarbon management limits' ('management limits') are a set of assessment criteria outlined in NEPM 2013 applicable to petroleum hydrocarbon compounds which aim to avoid or minimise the potential effects of:

- 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.

The adopted Management Limits from Table 1B (7), Schedule B1 of NEPM (2013) are shown in Table 8 and Table 9.

7.6. Asbestos

The NEPM (2013) provides specific guidance for the assessment of asbestos in soils, based on the Western Australian Department of Health (DoH) *Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia* (WA DoH 2009). The DoH Guidelines identify three groups of asbestos contamination:

- Asbestos Containing Material (ACM): asbestos which is bound in a matrix and cannot pass through a 7mm x 7mm sieve;
- Fibrous Asbestos (FA): Friable asbestos material, such as severely weathered ACM and loose fibrous material such as insulation products. FA is defined as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure; and
- Asbestos fines (AF): includes free fibres of asbestos, small fibre bundles and ACM fragments that pass through a 7mm x 7mm sieve.

Table 8 - HIL D Remediation Assessment Criteria for soil contamination, mg/kg (unless otherwise specified)

Analyte	Health Investigation Levels (HILs)[1]	Health Screening Levels (HSLs)						Ecological Limits		Management Limits
	HIL D (mg/kg)	Vapour Intrusion (0 m to <1 m) - HSL D[1,3] (mg/kg)	Vapour Intrusion (1m to <2m) - HSL D[1, 3] (mg/kg)	Vapour Intrusion (2m to <4m) - HSL D[1, 3] (mg/kg)	Vapour Intrusion (4m+) - HSL D[1,3] (mg/kg)	HSL Intrusive Maintenance Worker (Shallow Trench)[3] (mg/kg)	Direct Contact -HSL D (mg/kg)	EILs (D)[6] (mg/kg)	ESL (D)[7] (mg/kg)	Management Limits[7] Commercial / Industrial (mg/kg)
Arsenic (total)	3000	-	-	-	-	-	-	160	-	-
Cadmium	900	-	-	-	-	-	-	-	-	-
Chromium (Total)	3,600	-	-	-	-	-	-	950	-	-
Copper	240,000	-	-	-	-	-	-	320	-	-
Lead	1,500	-	-	-	-	-	-	1,800	-	-
Mercury (inorganic)	730	-	-	-	-	-	-	-	-	-
Nickel	6,000	-	-	-	-	-	-	330	-	-
Zinc	400,000	-	-	-	-	-	-	840	-	-
Carcinogenic PAHs (as BaP TEQ)[2]	40	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	-	-	-	-	-	-	-	-	1.4	-
Polycyclic Aromatic hydrocarbons (PAHs)	4,000	-	-	-	-	-	-	-	-	-
Cyanide	1,500	-	-	-	-	-	-	-	-	-
PCBs (Total)	7	-	-	-	-	-	-	-	-	-
DDT+DDE+DDD	3,600	-	-	-	-	-	-	-	-	-
Aldrin and Dieldrin	45	-	-	-	-	-	-	-	-	-
Chlordane	530	-	-	-	-	-	-	-	-	-
Endosulfan	2,000	-	-	-	-	-	-	-	-	-
Endrin	100	-	-	-	-	-	-	-	-	-
Heptachlor	50	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	80	-	-	-	-	-	-	-	-	-
Methoxychlor	2,500	-	-	-	-	-	-	-	-	-
Chlorpyrifos	2,000	-	-	-	-	-	-	-	-	-
Trichloroethylene	-	-	-	-	-	-	-	-	-	-
Trichloroethane	-	-	-	-	-	-	-	-	-	-
Tetrachloroethylene	-	-	-	-	-	-	-	-	-	-
Cis-1,2-dichloroethene	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	-	-	-	-	-	-	-	-	-	-
Benzene	-	3	3	3	3	1,100	430	-	75	-
Toluene	-	-	-	-	-	120,000	99,000	-	135	-
Ethyl Benzene	-	-	-	-	-	85,000	27,000	-	165	-
Xylene	-	230	-	-	-	130,000	81,000	-	95	-
Naphthalene	-	-	-	-	-	29,000	11,000	370	-	-
TRH: $C_6 - C_{10}$ (F1)	-	260	370	630	-	82,000	26,000	-	215	800
TRH: $C_{10} - C_{16}$ (F2)		20,000	-	-	-	62,000	20,000	-	170	1,000
TRH: C_{16}- C_{34} (F3)	-	27,000	-	-	-	85,000	27,000	-	1,700	5,000
TRH: $C_{34} - C_{40}$ (F4)	-	38,000	-	-	-	120,000	38,000	-	3,300	10,000
Bonded ACM	0.05%	-	-	-	-	-	-	-	-	-
Fibrous asbestos and asbestos fines	0.001%	-	-	-	-	-	-	-	-	-
All forms of asbestos	No visible asbestos for surface soils	-	-	-	-	-	-	-	-	-

Notes to table

1 Human exposure settings based on land use have been established for HILs (see Taylor and Langley 1998). These are:
D. Commercial/industrial premises such as shops, offices, factories and industrial sites. (For details on derivation of HILs for human exposure settings based on land use see Schedule B(7A) of NEPM 2013.

2 Carcinogenic PAHs: HIL is based on the 8 carcinogenic PAHs and their Toxic Equivalency Factor (TEFs) (potency relative to B(a)P). The B(a)P TEQ (Toxic Equivalency Quantity) is calculated by multiplying the concentration of each carcinogenic PAH in the sample by its B(a)P TEF.

3 Most conservative criteria adopted outlined for vapour risk and direct contact. Values adopted for 'Sand' where applicable for screening purposes.

4 Laboratory detection limit adopted for screening purposes.

5 To obtain F1, subtract the sum of BTEX from the C_6-C_{10} fraction.

6 EILs derived from Golder Associates (2016b)

7 The most conservative ESLs and MLs for coarse or fine grained soils adopted

Table 9 - HIL C Remediation Assessment Criteria for soil contamination, mg/kg (unless otherwise specified)

Analyte	Health Investigation Levels (HILs)[1]	Health Screening Levels (HSLs)						Ecological Limits		Management Limits
	HIL C (mg/kg)	Vapour Intrusion (0 m to <1 m) - HSL C[1,3] (mg/kg)	Vapour Intrusion (1m to <2m) - HSL C[1,3] (mg/kg)	Vapour Intrusion (2m to <4m) - HSL C[1,3] (mg/kg)	Vapour Intrusion (4m+) - HSL C[1,3] (mg/kg)	HSL Intrusive Maintenance Worker (Shallow Trench)[3] (mg/kg)	Direct Contact -HSL C (mg/kg)	EILs (C)[6] (mg/kg)	ESL (C)[7] (mg/kg)	Management Limits[7] Open Space (mg/kg)
Arsenic (total)	300	-	-	-	-	-	-	100	-	-
Cadmium	90	-	-	-	-	-	-	-	-	-
Chromium (Total)	300	-	-	-	-	-	-	570	-	-
Copper	17,000	-	-	-	-	-	-	220	-	-
Lead	600	-	-	-	-	-	-	1,100	-	-
Mercury (inorganic)	80	-	-	-	-	-	-	-	-	-
Nickel	1,200	-	-	-	-	-	-	190	-	-
Zinc	30,000	-	-	-	-	-	-	590	-	-
Carcinogenic PAHs (as BaP TEQ)[2]	3	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	-	-	-	-	-	-	-	-	0.7	-
Polycyclic aromatic hydrocarbons (PAHs)	300	-	-	-	-	-	-	-	-	-
PCBs (Total)	1	-	-	-	-	-	-	-	-	-
DDT+DDE+DDD	400	-	-	-	-	-	-	-	-	-
Aldrin and Dieldrin	10	-	-	-	-	-	-	-	-	-
Chlordane	70	-	-	-	-	-	-	-	-	-
Endosulfan	340	-	-	-	-	-	-	-	-	-
Endrin	20	-	-	-	-	-	-	-	-	-
Heptachlor	10	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	10	-	-	-	-	-	-	-	-	-
Methoxychlor	400	-	-	-	-	-	-	-	-	-
Chlorpyrifos	250	-	-	-	-	-	-	-	-	-
Trichloroethylene	-	-	-	-	-	-	-	-	-	-
Trichloroethane	-	-	-	-	-	-	-	-	-	-
Tetrachloroethylene	-	-	-	-	-	-	-	-	-	-
Cis-1,2-dichloroethene	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	-	-	-	-	-	-	-	-	-	-
Benzene	-	-	-	-		1,100	120	-	50	-
Toluene	-	-	-	-	-	120,000	18,000	-	85	-
Ethyl Benzene	-	-	-	-	-	85,000	5,300	-	70	-
Xylene	-	-	-	-	-	130,000	15,000	-	45	-
Naphthalene	-	-	-	-	-	29,000	1,900	170	-	-
TRH: $C_6 - C_{10}$ (F1)	-	-	-	-	-	82,000	5,100	-	180	800
TRH: $C_{10} - C_{16}$ (F2)		-	-	-	-	62,000	3,800	-	120	1,000
TRH: C_{16}- C_{34} (F3)	-	-	-	-	-	85,000	5,300	-	300	3,500
TRH: $C_{34} - C_{40}$ (F4)	-	-	-	-	-	120,000	7,400	-	2,800	10,000
Bonded ACM	0.02%	-	-	-	-	-	-	-	-	-
Fibrous asbestos and asbestos fines	0.001%	-	-	-	-	-	-	-	-	-
All forms of asbestos	No visible asbestos for surface soils	-	-	-	-	-	-	-	-	-

Notes to table

1 Human exposure settings based on land use have been established for HILs (see Taylor and Langley 1998). These are:
C. Public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and footpaths (for details on derivation of HILs for human exposure settings based on land use see Schedule B(7A) of NEPM 2013.

2 Carcinogenic PAHs: HIL is based on the 8 carcinogenic PAHs and their Toxic Equivalency Factor (TEFs) (potency relative to B(a)P). The B(a)P TEQ (Toxic Equivalency Quantity) is calculated by multiplying the concentration of each carcinogenic PAH in the sample by its B(a)P TEF.

3 Most conservative criteria adopted outlined for vapour risk and direct contact. Values adopted for 'Sand' where applicable for screening purposes.

4 Laboratory detection limit adopted for screening purposes.

5 To obtain F1, subtract the sum of BTEX from the C_6-C_{10} fraction.

6 EILs derived from Golder Associates (2016b)

7 The most conservative ESLs and MLs for coarse or fine grained soils adopted

The Site will be considered successfully remediated if and when the concentrations of any identified contaminants) are below the adopted investigation and screening levels provided in Table 8 and Table 9.

7.7. Statistical Analysis

A contaminant concentration in soil will be deemed acceptable if:

- The maximum concentration of all samples meet the specified acceptance criteria; or
- The 95% UCL average concentration of each contaminant is below the acceptance criteria; and
- No individual exceedance is greater than 2.5 times the acceptance criteria.If a location is found to have more than two and half times (2.5x) a contaminant's acceptable limit, then it will be classified as a "hot-spot", requiring further assessment, remediation, removal or management.

If the calculated 95% UCL of the arithmetic average concentration of the contaminant is above their acceptance criteria, then the soil will be considered contaminated, requiring further assessment, remediation, removal or management.

In accordance with NEPM 2013, statistical analysis of results regarding Asbestos Containing Materials is not deemed appropriate and will not be undertaken.

7.8. Waste Analysis and Classification

For waste classification purposes, soil materials will be assessed against:

- The NSW EPA publication *Waste Classification Guidelines Part One: Classifying Waste* (November 2014); and
- The NSW EPA 'Excavated Natural Material Order (2014).

Table 10 - General Solid Waste Assessment Criteria, Leachable Concentrations (TCLP) and Specific Contaminant Concentrations (SCC) Values for Classifying Waste by Chemical Assessment

Site Assessment Criteria		
Analytes	**Maximum Values of Total Concentration Assigned for General Solid Waste CT1/CT2, mg/kg**	**Maximum Values of Total Concentration Assigned for General Solid Waste TCLP1 (mg/L) / SCC1 (mg/kg)**
PAHs		
Total PAHs	200/800	NA/200
Benzo(a)pyrene	0.8/3.2	0.04/10
OCPs		
Endolsufan[1]	60/240	3/108
OPPs		
Chlorpyrifos	4/16	0.2/7.5
TRH		
$C_6 - C_9$ Petroleum Hydrocarbons	650/2,600	NA/650
$C_{10} - C_{36}$ Petroleum Hydrocarbons	10,000/40,000	NA/10,000
BTEX		
Benzene	10/40	0.5/18
Toluene	288/1,152	14.4/518
Ethylbenzene	600/2,400	30/1,080
Xylenes (Total)	1,000/4,000	50/1,800
Metals		
Arsenic	100/400	5.0/500
Cadmium	20/80	1.0/100
Chromium[2]	100/400	5/1,900
Copper	NA	NA
Lead	100/400	5/1,500
Mercury	4/16	0.2/50

Table 10 Continued...

Site Assessment Criteria		
Analytes	**Maximum Values of Total Concentration Assigned for General Solid Waste CT1/CT2, mg/kg**	**Maximum Values of Total Concentration Assigned for General Solid Waste TCLP1 (mg/L) / SCC1 (mg/kg)**
Nickel	40/160	2/1,050
Zinc	NA	NA
Other		
Cyanide (Total)	320/1,280	16/5,900
PCBs	<50/<50	NA/<50
Phenol	288/1,152	14.4/518
Asbestos[3]	No asbestos detected	No asbestos detected
Other Contaminants listed identified in the site assessment	As per NSW EPA Waste Classification Guidelines. Part 1: Classifying Waste	As per NSW EPA Waste Classification Guidelines. Part 1: Classifying Waste

Notes to table

1 - Endosulfan (CAS Registry Number 115-29-7) means the total of Endosulfan I (CAS Registry Number 959-988), Endosulfan II (CAS Registry Number 891-86-1) and Endosulfan sulfate (CAS Registry Number 1031-07-8).

2 – Chromium (Total)

3 – Any stockpile containing ACM will be classified as Special Waste (Asbestos) with a secondary chemical characterisation.

Table 11 -Assessment Criteria as outlined in the ENM Order 2014.

Analytes	**Threshold Criteria**	
	Maximum average concentration, for characterisation assigned for Excavated Natural Material (ENM), mg/kg	**Absolute maximum concentration, for characterisation assigned for Excavated Natural Material (ENM), mg/kg**
Arsenic	20	40
Cadmium	0.5	1
Chromium	50	100
Copper	100	200
Lead	50	100
Mercury	0.5	1
Nickel	30	60
Zinc	150	300
EC	1.5 dS/m	3 dS/m
pH [(1)]	5 to 9	4.5 to 10
$C_6 – C_{10}$ hydrocarbons	N/A	N/A
C_{10}- C_{34} hydrocarbons	250	500
Benzene	N/A	0.5
Toluene	N/A	65
Ethyl-benzene	N/A	25
Xylenes (total)	N/A	N/A
Benzo(a)pyrene	0.5	1
PAH total	20	40
RTA Foreign Materials (Type III)[(2)]	0.05%	0.10%
Asbestos	-ve	-ve

Notes to tables:

(1) The ranges given for pH are for the minimum and maximum acceptable pH values in the excavated natural material.

(2) Test includes rubber, plastic, bitumen, paper, cloth, paint and wood (wood = construction timber only, naturally occurring wood,/twigs/roots etc are excluded).

Should any Virgin Excavated Natural Materials (VENM) be required to be removed offsite for beneficial re-use/disposal, it would be assessed against published background concentrations:

- NEPM (1999). *National Environmental Protection (Assessment of Site Contamination) Measure* Schedule B(1) Guidelines on the Investigation Levels for Soil and Groundwater, Background Ranges.

The background concentrations for the analytes of concern are provided in below.

Table 12 - Published Australian Background Soil Concentrations

Contaminant	ANZECC 1992 (mg/kg)	NEPC 1999 (mg/kg)
Arsenic	0.2-30	1-50
Cadmium	0.04-2	1
Chromium	0.5-110	5-1000
Copper	1-190	2-100
Lead	<2-200	2-200
Mercury	0.001-0.1	0.03
Nickel	2-400	5-500
Zinc	2-180	10-300
PAHs	0.95-5	ND

Organic analytes (TPH, BTEX, OCP, PCB and phenols) would be assessed against the laboratory reporting limit. In other words, for organic analytes, VENM analysis results must be within the laboratory PQL (practical quantification limit) to be classified as VENM.

7.9. Adoption of Former Results and Data Points

The NSW EPA's general Waste Classification Principles outlines the following:

> *"When classifying waste using chemical assessment it is not appropriate to exclude sample results. Selectively choosing sample results to classify waste introduces bias and violates fundamental statistical principles. For example, where a waste has been chemically assessed 'in situ', and the waste is excavated and chemically assessed as a stockpile, both in-situ and stockpile analytical results are to be used in classifying the waste. There must be scientifically valid reasons for the exclusion of sample results."*

Taking this into consideration, former data points outlined in Appendix III – Results Tables will be evaluated when classifying the materials for potential off-site disposal and re-use.

7.10. Aesthetics

NEPM 2013 requires that aesthetic quality of accessible soils be considered even if analytical testing demonstrates that concentrations of COPCs are within the SAC.

It should be noted that there are no quantifiable guidelines in determining if soils are appropriately aesthetic, however the NEPM 2013 does indicate that professional judgement with regard to quantity, type and distribution of foreign materials and/or odours in relation to the specific land use should be employed.

The following scenarios (but not limited to) would trigger further aesthetic assessment:

- Hydrocarbon sheen on surface water;
- Anthropogenic soil staining; and

- Odorous soils i.e. petroleum hydrocarbon odours or hydrogen sulphide in soil.

7.11. Duty to Report Contamination.

During the course of the environmental investigations at the Site, ADE concluded that there was no basis to consider a Duty to Report Contamination regarding asbestos in, or on, soil.

However, if during the remediation works any additional sources of contamination are discovered an assessment of the analytical results against the SAC shall be undertaken.

In accordance with the Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997 (CLM Act) the following shall provide an assessment of the clients responsibility to notify the NSW EPA of additional contamination that may be encountered.

On-Site Soil Contamination

For the purposes of section 60(3)(b) of the CLM Act, notification of contamination in, or on, soil on the land is required where:

- The 95 % upper confidence limit on the arithmetic average concentration of a contaminant in or on soil is equal to or above the Health Investigation Level and/or Health Screening Level for that contaminant for the current or approved use of the respective on-site land, as specified in Section 6, Schedule B1 of the *National Environment Protection (Assessment of Site Contamination) Measure 1999* (NEPC 2013)

  OR

- The concentration of a contaminant in an individual soil sample is equal to or more than 250% of the Health Investigation Level and/or Health Screening Level for that contaminant for the current or approved use of the respective on-site land, as specified in Section 6, Schedule B1 of the *National Environment Protection (Assessment of Site Contamination) Measure 1999* (NEPC 2013)

  AND

- A person has been or foreseeably will be exposed to the contaminant or a by-product of the contaminant.

8. VALIDATION AND MONITORING

8.1. Validation

Upon the completion of the remediation works within the Site by the Remediation Contractor, a suitably qualified Environmental Consultant should undertake validation sampling and investigation.

As the remediation involves excavation and assessment of contamination, notably asbestos containing materials (both bonded and friable), a licensed Class A Asbestos removalist should supervise the remediation works to ensure compliance with the RAP and the appropriate controls are in place.

A validation (Phase IV) assessment report shall be prepared by the Environmental Consultant in accordance with the NSW EPA Contaminated Sites *Guidelines for Consultants Reporting on Contaminated Sites* (2000) and other relevant and appropriate guidelines.

The validation report shall confirm that the Site has been remediated to a suitable standard for the proposed land-use and that no related adverse human health and environmental effects have occurred or likely to occur as a result of the remediation works. The validation report shall also include details of the total volume of contaminated materials removed/relocated/capped, and disposal receipts collated once materials are transported to an EPA licensed landfill. Any relevant information regarding future or on-going management requirements, notification mechanisms, management plans and an Asbestos Clearance Inspections for areas where asbestos removal has been undertaken shall be included in the Validation Report.

Validation sampling will be undertaken in order to provide quantitative analysis of the Sites suitability for the proposed development. This will include sampling of the Sites surface and/or the base and walls of any excavations, including the footprint of the Noise Mounds and Bern following their relocation.

Following the remediation and validation works at the Site, a Validation report will be prepared for submission to the NSW EPA Site Auditor. This process will culminate in the NSW EPA Site Auditor preparing a Site Audit Statement which will deem the Site suitable for the proposed land use as a Motorway and Public Open Space.

8.2. Sample Collection and Handling

ADE's standard decontamination procedures shall be undertaken prior to sampling events to avoid the possibility of cross-contamination.

The soil sampling equipment and items likely to come into contact with soil samples will be thoroughly washed followed by rinsing with phosphate-free detergent and deionised water before the collection of samples. Due care should be taken with the disposal of any washings and residues from such cleaning operations.

A field observation log will be kept by sampling personnel. Details recorded in the log included:

- Borehole and sample number;
- Soil profile notes;
- Sampling method;
- Sample identification;
- Sample description; and

- Sample point measurements.

A comprehensive master sample register will be maintained. As samples are received, they will be given a unique sequential number from the sample register into which details from the labels will be entered.

Before packing and dispatch of samples for analysis, a Chain of Custody will be completed. This form recorded details of the individual samples being dispatched and the type of analysis required for each sample.

8.3. Laboratory Analysis of Validation Samples

The following table outlines the suite of analysis required for laboratory analysis of samples collected during remediation works, taking into consideration known potential contaminants of concern (PCoC) and relevant guidelines pertaining to the activity being undertaken.

8.4. Quality Assurance Plan

Quality Assurance (QA) and Quality Control (QC) procedures will be adopted throughout the field sampling program. All samples shall be analysed by NATA Accredited Laboratories using tests in accordance with the NEPM (2013) Guidelines.

If the QA/QC samples meet the assigned criteria of valid results for:

- Laboratory duplicate samples 95%
- Laboratory blank samples 100%
- Laboratory spike samples 95%
- Laboratory control samples 95%
- Blind replicate samples 95%
- Rinsate samples 75%
- Spiked VOC trip samples 75%
- Trip blank samples 95%
- Field replicate measurements 75%.

With overall completeness of 95%, then the data collected in the course of the investigation will be considered valid and acceptable.

8.5. Data Quality Objectives

The validating report shall be conducted in accordance with the Data Quality Objectives (DQOs) and QA/QC procedures to ensure the repeatability and reliability of the results. A checklist of Data Quality Indicators (DQI) in accordance with the NSW Site Auditor Scheme (2nd Ed.) will be undertaken as part of the validation assessment.

The validation assessment will be planned in accordance with the following DQOs:

8.6. State the Problem

Contamination issues and potential contamination issues have been identified in previous investigations outlined in Section 3 related to historical use of the Site. Remediation and validation of identified

contamination is required to address these issues and render the Site suitable for the proposed Motorway and Public Open Space.

8.7. Identify the Decision

The decisions to be made on the results of the former investigation are;

- Are contaminant concentrations of the contaminants of potential concern (COPC) on the Site in excess of the NSW EPA and National Environmental Protection Council (NEPC) – endorsed acceptance criteria?
- Are contaminant concentrations of the COPC's in excess of the relevant Tier 1 Site Assessment criteria as outlined in NEPM (2013), Schedule B(1) and the NSW EPA Sampling Design Guidelines (1995)?
- Have the investigative works been undertaken in accordance with the NSW EPA Guidelines for Consultants Reporting on Contaminated Sites (2000), NSW EPA Sampling Design Guidelines (1995) and the requirements of the RAP?
- What is the Conceptual Site Model (sources, receptors, migration pathways)?
- Is there sufficient information on the distribution and characteristics of soil and fill requiring remediation?
- Does any contamination at the Site occur at concentrations that pose, or may pose, unacceptable liability or risk to human health and the environment?
- Do the findings of the investigation provide a higher level of understanding and certainty on the source of identified contamination?
- If likely adverse impacts on human health and the environment are identified, what are suitable actions to make to make the Site suitable for the intended future land use?

8.8. Identify Inputs to the Decision

The following data will be reviewed / collected;

- Sampling of soil as per the proposed remediation works;
- Remediation acceptance criteria will be based on NEPM (2013), as outlined in Section 7;
- Samples will be analysed by a NATA accredited laboratory; and
- Field observations and screening will be considered when determining the analytical program.

8.9. Define the Boundary of the Assessment

The study boundary is as shown in Figure 1 and Appendix I – Figures.

8.10. Develop a Decision Rule

The analytical data obtained during the additional investigations and validation works will be assessed against the remediation acceptance criteria (RAC) as discussed in Section 7.

The Data Quality Indicators as summarised in Section 8.13 – 8.18 will be used in assessing the validity of the obtained data.

8.11. Specify Acceptable limits on Decision Errors

Documentation & Data Completeness

- Site conditions properly described.
- Sampling locations properly described and located.
- Completion of field records, chain of custody documentation, laboratory test certificates from NATA-registered laboratories.
- Samples are collected from all areas of potential environmental concern and from stockpiled soils during the remediation process.
- Samples are tested for a selection of potential contaminants of concern.

Data Comparability

- Use of appropriate techniques for the sampling, storage and transportation of samples.
- Implementation of NATA certified laboratories using analytical procedures as outlined in NEPM 2013.
- Use of secondary NATA certified laboratory for split samples.

Data Representativeness

- Collection of representative samples from each sampling location.
- Collection of representative samples from the stockpiles during the remediation process.
- Use of appropriate techniques for sampling, storage and transportation of samples.

Precision for Sampling and Analysis

- Use of appropriately trained and qualified field personnel.
- Use of appropriate laboratory quality analysis assessment (i.e. blind replicates).
- Relative Percent Difference's (RPD's) to be less than 30% for inorganic and 50% for organic analytes.

Accuracy for Sampling and Analysis

- Satisfy laboratory QA/QC Criteria.
- All laboratory duplicate samples within acceptable ranges.
- All control results within acceptable ranges.

Types of Decision Errors

- The planning team determined that the two decision errors were:
    - deciding that soil on Site is contaminated when it truly is not, and
    - deciding that soil on Site is not contaminated when it truly is.
- The true state of nature for decision error (i) is that soil is not contaminated.
- The true state of nature for decision error (ii) is that soil is contaminated.

8.12. Optimise the Design for Obtaining Data

Pre-approved Work Plan

This Remediation Action Plan for the required remediation works at the site has been developed to assess the concentrations of contaminants present in fill material at the Site.

Compliance with EPA Guidelines

- Use of appropriate techniques for the sampling, storage and transportation of samples.
- Implementation of NATA certified laboratory using analytical procedures as outlined in NEPC 2013.

8.13. Data Quality Indicators

The principle DQIs are precision, accuracy, representativeness, comparability, and completeness referred to by the acronym PARCC. Precision and accuracy are the quantitative measures, representativeness and comparability are qualitative, and completeness is a combination of both quantitative and qualitative measures.

8.14. Precision

Precision is a measure of agreement among replicate measurements of the same property, made under prescribed similar conditions. Review of laboratory and field duplicate measurements are to be assessed to identify if the levels of precision are adequate.

Australian Standard 4482.1 specifies the typical Relative Percentage Difference (RPD) for blind replicate samples to be 30% - 50%. The following control limits are proposed to be used in the investigation for analysis of Blind Replicate (intra-laboratory duplicates).

- If both samples values are less than the DL, the RPD is not calculated.
- A control limit of ± the DL if either the sample or duplicate value is less than 5x the DL.
- A control limit of 50% for the RPD for original and blind/split replicate sample values greater than or equal to 5x the Detection Limit (DL).

8.15. Accuracy

Accuracy is a measure of the closeness of an individual measurement to the true value. Accuracy is determined by analysing a reference material of known pollutant concentration or by re-analysing a sample to which a material of known concentration or amount of pollutant has been added.

Accuracy is to be evaluated by reviewing the values of percentage recoveries reported in:

- Laboratory spiked (matrix and blank) samples.
- Laboratory Method blanks;
- Laboratory Control Samples.

8.16. Representativeness

Representativeness is a measure of the degree to which data accurately and precisely represent a characteristic of a population parameter at a sampling point or for a process condition or environmental condition.

To ensure that field and laboratory investigation of soil and groundwater were representative of the environmental conditions, the following will be reviewed following the investigation:

- Review of laboratory QA/QC results; and
- Critical review of field methodologies employed including collection methodologies, handling, storage and preservation techniques employed.

8.17. Comparability

Comparability is the qualitative term that expresses the ability to fairly compare sample test results taken from the same site at different times.

Field personnel assigned for the project must have considerable experience in the environmental investigation of contaminated sites. Training records of the personnel are to be made available upon request by the client. Sampling and measurements in the field are to be performed by the same personnel during the field stage of the investigation.

The environmental investigation procedures to be used by personnel in the field must be undertaken in accordance with methodologies approved by the environmental consultant and as per industry standards. No deviations from the sampling procedures are to be introduced during the field, limiting the potential for negligent bias in the data collected.
The consultant must note spatial and temporal changes observed onsite site during the sampling period, to account for any significant bias in the data produced due to the environmental dynamics.

Units in which the data was measured in the field and the laboratory analysis must employ the same metrics.

8.18. Completeness

The following will be reviewed throughout the course of the investigation to ensure works were completed to satisfactory standards and to review the integrity of the data set produced:

- Field observation logs;
- Chain of Custodies;
- Orders;
- Laboratory accreditation; and
- Laboratory reports.

9. VALIDATION REPORT

A validation assessment report should be prepared by a suitably qualified environmental consultant in accordance with NSW EPA Contaminated Sites Guidelines for Consultants Reporting on Contaminated Sites (2011) at the completion of the remediation works programme. The validation report would comment on the suitability of the Site for the proposed land use as a Motorway and Public Open Space.

A long-term Environmental Management Plan (EMP) should be prepared to detail location of the contaminated material and the ongoing management requirements for the long-term maintenance of the capping layers. It would also include the maintenance and inspection requirements for the cap, strategies for ensuring that the cap is not damaged due to unplanned excavations and requirements for prompt restoration in case of cap breaches. Finally, the EMP will be subject to approval by the Site Auditor and made legally enforceable.

This process will culminate in the NSW EPA Site Auditor preparing a Site Audit Statement which will deem the Site suitable for the proposed land use as a Motorway and Public Open Space.

10. SITE MANAGEMENT PLAN

10.1. Enquiries

Any enquiries regarding the work required by this document should be referred to:

Principal: [redacted]
CPB Contractors, Dragados, Samsung Joint Venture (CDS-JV)
[redacted]

Consultant:

[redacted]
A. D. Envirotech Australia Pty Ltd.
4/10-11 Millennium Court, Silverwater NSW
(02) 9648-6669 or 0402 389 911
[redacted]

Contractor: To be advised.

All works conducted as part of this Remediation Action Plan must comply with the CDS-JV Construction Environmental Management Plan (CEMP) and Asbestos Management Plan (AMP) (refer to Appendix IV – Supporting Documents).

10.2. Site Provisions

Local regulations apply to the Site of the works and the Contractor must ascertain these before commencing the soil remediation.

10.3. Adherence to Codes

The Contractor is advised that all relevant Standards, Codes, Acts and Regulations should be applied to the works and strictly adhered to for the duration of the soil remediation.

10.4. Site

The Contractor should determine in conjunction with the Principal the areas to be set aside for use by the Contractor for location of the service units, soil loading and truck decontamination areas.

On-site identification of contaminated areas should be carried out by the Consultant. This will be based upon the existing data and information relating to the extent of contamination on the Site. The contaminated areas should be isolated and the materials therein should be disposed of as detailed in the following sections.

If previously unidentified potentially hazardous materials are encountered during the course of bulk earthworks the Consultant should inspect and test the materials as a matter of urgency. The Consultant should subsequently provide strategies for dealing with any newly discovered hazardous materials.

10.5. Programming of the Works

The Contractor should program all work to cause minimum inconvenience to the neighbourhood occupants. Site hours will be determined by the client.

10.6. Works on Site

The Contractor should ensure that all surrounding areas are protected against damage by dust, dirt, shock or contaminated materials.
Any other materials or objects found during the remediation procedures should be inspected and disposed of in accordance with the recommendations of the Consultant.

10.7. Damage to Services

The Contractor should ensure that no damage occurs to existing structures. If damage occurs, the Contractor should immediately give notice of the damage of any water, gas, electric, drainage, sewerage, telephone or other services in the area.

10.8. Dewatering of Excavation Pit

No dewatering is expected to be undertaken as part of the remediation works falling under the scope of this RAP.

10.9. Waste Water

The Contractor should determine the locations to which all waste water generated by the work shall be discharged.

10.10. Temporary fire Extinguishers

When work under the Contract warrants the provision of fire fighting appliances, the Contractor should provide such appropriate fully charged, maintained and accessible fire extinguishers as are necessary for the care and safety of the Works.

10.11. Environmental Protection

The Contractor should observe and comply with all environmental requirements that apply to the area in which the work under the Contract is to be carried out.

10.12. Runoff Control

Adequate water quality, sediment and erosion control measures must be in place before and during the remediation works. If in the opinion of the Consultant the measures are inadequate, the Contractor may be required to install the appropriate systems.

Stockpiles of contaminated soil will be present on the Site, they should be bunded with sediment control fences or straw bales to ensure any sediment laden runoff is not discharged into storm water canals or drains.

Visual inspections of the surface water control on the Site should be carried out by the Consultant on a regular basis.

10.13. Noise Control

The Contractor should take all practicable precautions to minimise noise arising out of or resulting from any activity associated with the work under the Contract.

10.14. Site and Dust Control

Except as otherwise provided in the Contract, delivery of materials to the Site, space for storage of such materials and for building sheds, offices and other temporary structures, if required, should be allowed only in accordance with arrangements entered into between the Contractor and Principal and subject to such conditions as are determined by the Principal.

10.15. Nuisance Odour Control

If odours are detected during the works the following protocol would be applied:

- Odour source and type of odour to be investigated. This could include air monitoring or sampling of any suspect media in addition to observations of physical conditions.
- Temporary covering of the source to mitigate odours whilst waiting for monitoring/analytical results. This could include the temporary reinstatement of ground conditions.
- Assessing more permanent ways of dealing with the issue. This could include disposal of odorous material off Site, the use of masking agents or controlled progressive excavation etc.
- The re-use of odorous soils for construction purposes would not be undertaken unless the material has been aerated and the odorous material has been chemically assessed to be suitable and the odours have been adequately attenuated.

10.16. Disposal of Waste

The removal from Site and the disposal of contaminated materials should be in accordance with the EPA regulations. These activities should be monitored and reported upon by the Consultant.

Prior to removing materials from the Site, the EPA or EPA approved landfill should be notified of the nature of the material and should be provided with transportation and tip details.

All contaminated materials should be dampened prior to loading to prevent contaminated dust escaping into the atmosphere.

All materials must be classified in accordance with WH&S requirements.

No vehicle or container should leave the Site laden with any material unless it is loaded in a manner that will prevent the discharge or dropping of any of the materials.

10.17. Publicity

The Contractor should not furnish any information or issue any document concerning the work under the Contract for publication in any medium without the prior written approval from the Principal.

10.18. Approval to Commence Soil Removal Work

The Contractor should not commence the removal of any soil until approval to proceed is given by the Principal.

10.19. Authorities

The Contractor is advised that the EPA, local Council and /or WorkCover Authority, may be called upon to give advice on current work procedures and practices at any stage throughout the Contract without prior notice to the Contractor.

10.20. Work Practice

If at any stage during the works in progress, the work practice is considered to be of a lesser standard than that required by the specification, or the Principal, or where airborne or waterborne contamination levels are excessive - all work should cease.

A complete review of work practice should take place.

A complete clean-up of the area and/or implementation of appropriate control procedures by the Contractor should be undertaken immediately, all to the satisfaction of the Principal.

The specified procedure should be undertaken and repeated until satisfactory work practices and air purity levels are achieved. All costs incurred by the specified procedure should be at the Contractor's expense.

10.21. Decontamination

The Contractor is to provide adequate washing facilities for all persons engaged in the removal of contaminated soil and/or disposal clothing.

All persons engaged in the removal of contaminated soil should use the washing facilities and should observe the applicable standards of hygiene procedures.

10.22. Safety

All works should be undertaken in accordance with relevant Safe Work Method Statements (SWMS). The Contractor must ensure that the Site is made secure at all times during the course of the Contract. Any unsafe areas are to be adequately fenced off and signposted. All pits which might constitute a hazard are to be covered.

10.23. Contaminated Waste

The Remediation Contractor should provide all receipts to the Environmental Consultant to ensure that the waste has been disposed of in accordance with the EPA docket disposal system.

Please note that the tracking of all waste is required from the ground to the truck to tip. Details required include date of excavation, transport and tipping, type of waste and the lot.

This information needs to be provided to the consultant and included in the validation report.

11. HEALTH AND SAFETY ISSUES

Throughout the course of the remedial work extreme emphasis should be put upon matters relating to the health and safety of Site staff, Site visitors and the public. The Contractor should endeavour to minimise the risk of adverse health effects resulting from potential exposure to hazardous substances during the Site remediation program.

All aspects of Health and Safety should be addressed in the Site specific WH&S plan prepared by the Contractor. ADE recommends in brief a number of Health and Safety aspects relating to the contaminants found at the subject Site:

- Before undertaking works all personnel should be inducted according to the activities conducted on the Site. All personnel should be advised of officer responsible for the implementation of WH&S procedures. All personnel should read and understand the WH&S Plan prior to commencing Site works;

- The Site supervisor is to be aware of the presence of all individuals on Site at all times;

- All gates to the Site should be locked outside of normal working hours to ensure that no members of the public are exposed to any hazardous substances located on Site;

- Delineate and restrict access to the contaminated areas. If access into the delineated areas is gained appropriate PPE must be worn. The following PPE should be considered, depending the nature of the contaminants a P2 mask/P3 mask, disposable coveralls and nitrile works gloves as required in addition to mandatory PPE (Steel Capped Boots, Hi-Vis Vest, Safety Glasses), to ensure that Site personnel do not come into direct contact with contaminated soil;

- As outlined in Golder (2016b) methane has been identified within the vadose zone and dissolved methane in groundwater. There is potential for excavation works to uncover pockets of gas in the noise mounds and for outgassing. A Methane Management Plan for the proposed works should be created which shall include a monitoring program to assess whether methane accumulation is occurring.

- Eating, drinking, smoking, taking of medicine, chewing gum or tobacco is prohibited in the immediate vicinity of the remedial operations. Furthermore, hands and if necessary, face will be thoroughly washed by workers before meals;

- Appropriate warning signs should be placed at the affected areas;

- All necessary protective clothing including gloves, suits, dust masks, footwear, eye protection and hearing protection should be available on Site. Site clothing is to be laundered separately;

- All previously confirmed areas of contamination should be identified on Site by the Consultant prior to the beginning of works. These areas should be isolated by pegging and taping;

- The soils in the excavation areas should be inspected continually, by the Site supervisor, for the presence of additional, potentially hazardous waste material. If evidence of such material is found, the suspect area should be isolated immediately and the Environmental Consultant should carry out a full scale inspection and testing. Based upon the inspection, test results and regulations, the Consultant should produce appropriate management/removal plan for dealing effectively with the contaminants;

- In the event that any member of the field crew experiences any adverse exposure symptoms while on Site, the entire crew should immediately stop works and act according to the instructions of the Site supervisor; and

- The discovery of any conditions that would suggest the existence of a situation more hazardous than anticipated would result in the evacuation of the field team and re-evaluation of the hazard and the level of protection required.

12. CONCLUSIONS

The Site in its current state is not suitable for the proposed development and remediation strategies have been designed to protect human and environmental health. ADE considers that removal of the Areas of Concern Containing Bonded and Friable Asbestos, followed by subsequent capping of contaminated soils in designated areas within the Site will render the Site suitable for its proposed development.

It is considered that conformance with this RAP will reduce the potential for environmental impacts during the remedial and excavation works at the subject Site. By following the RAP and demonstrating compliance with all requirements, a Validation Report will be prepared by a qualified environmental consultant in accordance with the NSW EPA Contaminated Sites Guidelines for Consultants Reporting on Contaminated Sites (2011) and other appropriate documentation.

The validation investigation shall confirm whether the Site has been remediated to a suitable standard for the proposed development and that no adverse human health and environmental effects have occurred as a result of the works.

Subject to proper implementation of the RAP it is considered that the Site can be rendered suitable for the proposed commercial / industrial land-use and Public Open Space.

Contaminants of Concern associated with impacted soil must be placed on the Section 149 Certificate for the Site.

A Long Term Environmental Management Plan (EMP) will be deemed necessary upon the completion of the Validation Report and must be approved by the Site Auditor. The EMP will outline the procedures necessary to provide ongoing monitoring and management to ensure the Site is suitable for the proposed land use as a Motorway and Public Open Space.

13. LIMITATIONS

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based on information provided by the client. The advice herein relates only to this project and all results, conclusions and recommendations made should be reviewed by a competent and experienced person with experience in environmental investigations, before being used for any other purpose. A.D. Envirotech Australia Pty Ltd (ADE) accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This report should not be reproduced or amended in any away without prior approval by the client or ADE and should not be relied upon by any other party, who should make their own independent enquiries.

The extent of sampling of soils and subsequent analysis has been necessarily limited and has been targeted towards areas where contamination is considered to be most likely based on the knowledge of the Site history and visual observation. This approach maximises the probability of identifying contaminants, however, it may not identify contamination which occurs in unexpected locations or from unexpected sources.

Further, soils rock and aquifer conditions are often variable, resulting in non-homogenous contaminant distributions across a Site. Contaminant concentrations have been identified at chosen sample locations, however, conditions between samples locations can only be inferred on the basis of the estimated geological and hydrogeological conditions and the nature and extent of indentified contamination. Boundaries between zones of variable contamination are often indistinct and have been interpreted based on available information and the application of professional judgement. The accuracy with which the subsurface conditions have been characterised depends on the frequency and methods of sampling and the uniformity of subsurface conditions and is therefore limited by the scope of works undertaken.

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

ADE's professional opinions are based upon its professional judgement, experience, training and results from analytical data. In some cases further testing and analysis may be required, thus producing different results and/or opinions. ADE has limited investigation to the scope agreed upon with its client.

ADE has used a degree of care and skill ordinarily exercised in similar investigations by reputable member of the Environmental Industry within Australia. No other warranty, expressed or implied, is made or intended.

14. REFERENCES

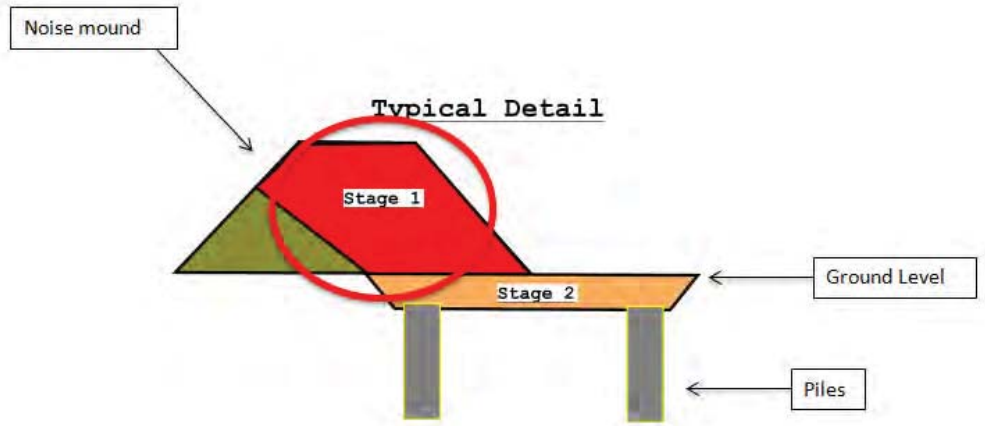
1. Australian Standard AS 4482.1 Guide to the sampling and investigation of potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds.
2. Contract Laboratory Program. National Functional Guidelines For Inorganic Data Review, USEPA, 1994.
3. Contract Laboratory Program. National Functional Guidelines For Organic Data Review, US EPA, 1994.
4. Data Quality Assessment Statistical Toolbox (DataQUEST) (EPA QA/G-9D)
5. Department of Natural Resources, Groundwater Bore Search, NRAtlaswebSite, February 2010
6. Decision Error Feasibility Trials (DEFT) Software for the Data Quality Objectives Process (EPA QA/G-4D)
7. EPA Guidelines for Environmental Management of on-Site remediation.
8. EPA Requirements for Quality Assurance Project Plans (EPA QA/R-5)
9. Guidance for the Data Quality Objectives Process (EPA QA/G-4)
10. Guidance on Quality Assurance Project Plans (EPA QA/G-5)
11. Guidance for the Preparation of Standard Operating Procedures for Quality-Related Documents (EPA QA/G-6)
12. Guidance for Data Quality Assessment: Practical Methods for Data Analysis(EPA QA/G-9)
13. Guidance on Data Quality Indicators, EPA QA/G-5I
14. Guidelines for the Assessment of On-Site Containment of Contaminated Soil, ANZECC, 1999.
15. Guidelines for Consultants Reporting on Contaminated Sites, NSW EPA, September 2011
16. National Environmental Protection (Assessment of Site Contamination) Measure 1999, 2013 Amendment.
17. NSW Code of Practice: How to Manage and Control Asbestos in the Workplace (2011)
18. NSW Code of Practice: How to Safely Remove Asbestos (2011)
19. NSW EPA Sampling Design Guidelines (1995).
20. UPSS Technical Note: Site Validation Reporting, Environment Climate Change & Water (2014).
21. Waste Classification Guidelines Part 1: Classifying Waste, NSW EPA, November 2014.
22. WestConnex New M5: Construction Environmental Management Plan, M5N-ES-PLN-PWD-0001 (June, 2016)
23. Westconnex New M5: Construction Spoil Management Plan, M5N-CN-PLN-PWD-0002 (May, 2016)
24. WestConnex New M5: Instrument of Approval. *Section 115Z of the Environmental Planning and Assessment Act 1979.*
25. WestConnex Sustainability Strategy (Sept 2015)
26. Work Health and Safety Act 2011
27. Work Health and Safety Regulation 2011.
28. WorkCover NSW Working With Asbestos Guide (2008)

Appendix I - Figures

ADE CONSULTING GROUP SOLUTIONS THROUGH INNOVATION	**CLIENT:** CDSJV	**TITLE:** Asbestos Contamination Hotspot Map, Kingsgrove Construction Compound, Kingsgrove NSW	**PROJECT:** WCX-02-10878
	DRAWN BY [redacted] **CHECKED BY:** [redacted]		**Figure No:** A1
	SCALE: As shown **Date:** 18.08.2016	**SOURCE:** Map adapted from 2016 Nearmap Ltd	**Revision:** v1

Appendix II - Development Plans

Stage 1

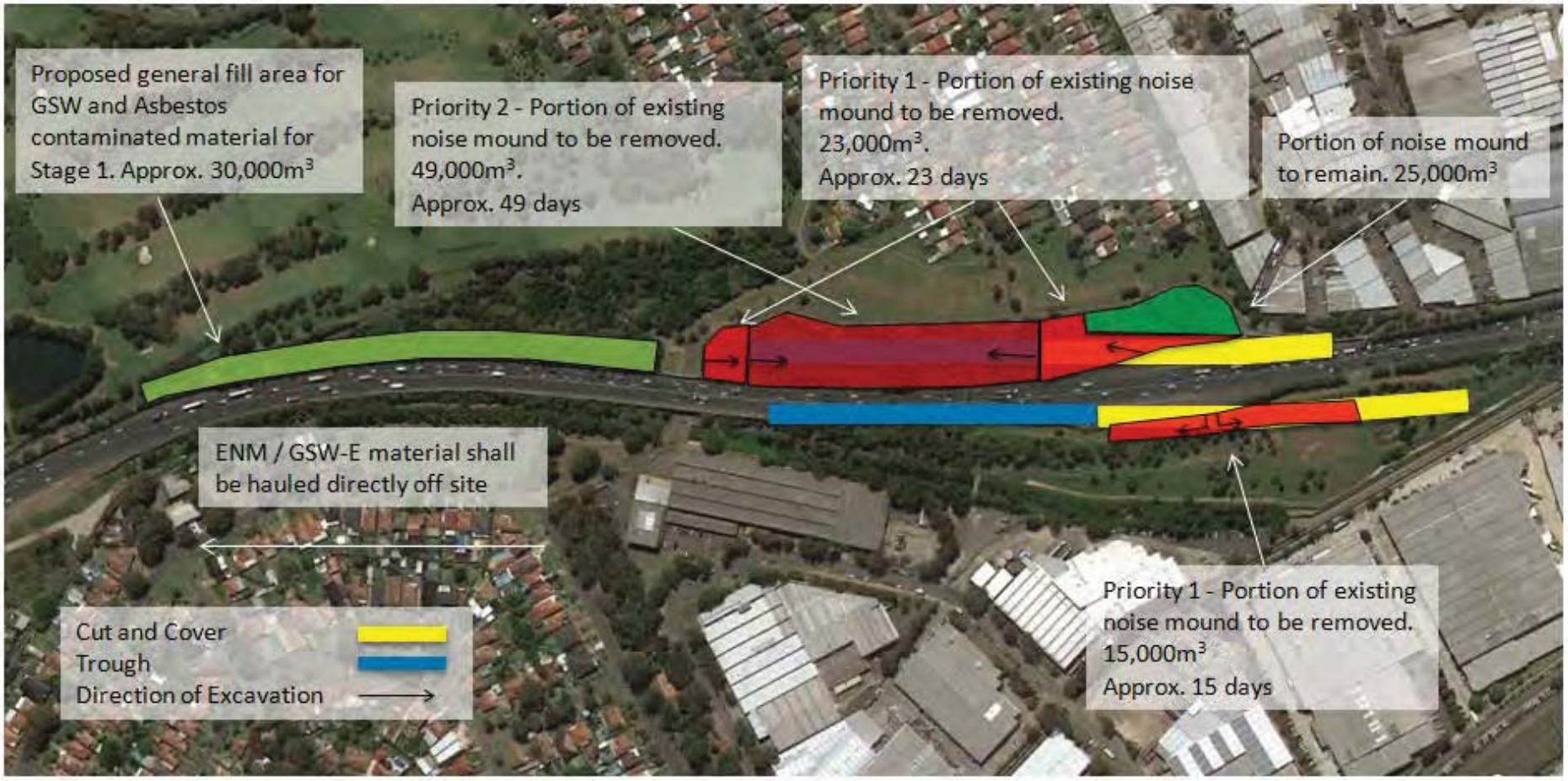


Excavation of noise mounds up to road surface level

- Re-use on site – 30,000m^3 (Est. 60,000T)
- Remain in tact on site – 25,000m^3 (Est. 50,000T)
- Disposal off site – 57,000m^3 (Est. 114,000T)
- Estimated duration 72 days based on 1000m^3 / work face / day

Stage 1
Excavation of noise mounds up to road surface level

NEW M5 PROJECT



WestConnex New M5

CPB DRAGADOS SAMSUNG C&T

WESTERN SURFACE WORKS REMEDIATION STRATEGY

Appendix III - Results Tables

ADE_WCX-02-10878
KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 2 - BEVERLY GROVE PARK (BGP),
ASBESTOS
COMMERCIAL/INDUSTRIAL

						Asbestos								
						Asbestos in soil (>7mm ACM)	Asbestos in soil (<2mm AF/FA)	Asbestos in soil (<7mm AF/FA)	Asbestos in soil (>2mm to <7mm AF/FA)	Weight Asbestos in soil (>7mm ACM)	Weight Asbestos in soil (<2mm AF/FA)	Weight Asbestos in soil (>2mm to <7mm AF/FA)	Asbestos (1 Detect or <1 Non Detect)	Sample weight (dry)
					outout unit	%w/w	%w/w	%w/w	%w/w	g	g	g	No	g
					EQL	0.01	0.001	0.001	0.001	0.01	0.0001	0.0001	0	1
		WCX - Kingsgrove - Commercial/Industrial - HSL				0.05		0.001						
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time									
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)														
Golder	BGP	LDS-BH-1007	LDS-BH1007-0.4-0.5	0.4-0.5	12/11/2015	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	842
Golder	BGP	LDS-TP-1212	LDS-TP-1212_0.5-0.7	0.5-0.7	16/11/2015	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	824
Golder	BGP	LDS-BH-6088	LDS-BH-6088/0.5	0.5	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	332
Golder	BGP	LDS-BH-6092	LDS-BH-6092/0.05	0.05	10/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	509
Golder	BGP	LDS-BH-6095A	LDS-BH-6095A/0.05	0.05	10/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	425
Golder	BGP	LDS-TP-6086	LDS-TP-6086/0.05	0.05	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	590
Golder	BGP	LDS-TP-6086	LDS-TP-6086/0.5	0.5	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	368
Golder	BGP	LDS-TP-6087	LDS-TP-6087/0.05	0.05	6/05/2016	0.02	<0.001	<0.001	<0.001	1.64	<0.0001	<0.0001	1[B]	1075
Golder	BGP	LDS-TP-6087	LDS-TP-6087/0.5	0.5	6/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	1001
Golder	BGP	LDS-TP-6089	LDS-TP-6089/0.05	0.05	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	510
Golder	BGP	LDS-TP-6089	LDS-TP-6089/0.5	0.5	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	618
Golder	BGP	LDS-TP-6090	LDS-TP-6090/0.05	0.05	6/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	1045
Golder	BGP	LDS-TP-6090	LDS-TP-6090/0.5	0.5	6/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	913
Golder	BGP	LDS-TP-6091	LDS-TP-6091/0.05	0.05	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	729
Golder	BGP	LDS-TP-6091	LDS-TP-6091/0.5	0.5	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	1147
Golder	BGP	LDS-TP-6093	LDS-TP-6093/0.05	0.05	17/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	646
Golder	BGP	LDS-TP-6093	LDS-TP-6093/0.5	0.5	17/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	722
Golder	BGP	LDS-TP-6094	LDS-TP-6094/0.05	0.05	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	1060
Golder	BGP	LDS-TP-6094	LDS-TP-6094/0.5	0.5	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	1145
Golder	BGP	LDS-TP-6096	LDS-TP-6096/0.05	0.05	17/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	643
Golder	BGP	LDS-TP-6096	LDS-TP-6096/0.5	0.5	17/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	640
Golder	BGP	LDS-TP-6097	LDS-TP-6097/0.05	0.05	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	470
Golder	BGP	LDS-TP-6097	LDS-TP-6097/0.05 ACM	0.05	9/05/2016	-	-	-	-	-	-	-	1[B]	-
Golder	BGP	LDS-TP-6097	LDS-TP-6097/0.5	0.5	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	447
Golder	BGP	LDS-TP-6130	LDS-TP-6130/0.05	0.05	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	572
Golder	BGP	LDS-TP-6131	LDS-TP-6131/0.05	0.05	6/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	933
Golder	BGP	LDS-TP-6132	LDS-TP-6132/0.05	0.05	6/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	708
Golder	BGP	LDS-TP-6133	LDS-TP-6133/0.05	0.05	16/05/2016	<0.01	<0.001	0.026	0.026	<0.01	<0.0001	0.169	1[B]	655
Golder	BGP	LDS-TP-6134	LDS-TP-6134/0.05	0.05	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	708
Golder	BGP	LDS-TP-6135	LDS-TP-6135/0.05	0.05	6/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	1115
Golder	BGP	LDS-TP-6136	LDS-TP-6136/0.05	0.05	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	540
Golder	BGP	LDS-TP-6137	LDS-TP-6137/0.05	0.05	17/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	659
Golder	BGP	LDS-TP-6138	LDS-TP-6138/0.05	0.05	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	680
Golder	BGP	LDS-TP-6138	LDS-TP-6138/0.05 ACM	0.05	9/05/2016	-	-	-	-	-	-	-	1[B]	-
Golder	BGP	LDS-TP-6139	LDS-TP-6139/0.05	0.05	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	630
Golder	BGP	LDS-TP-6140	LDS-TP-6140/0.05	0.05	17/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	590
Golder	BGP	LDS-TP-6141	LDS-TP-6141/0.05	0.05	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	609
Golder	BGP	LDS-TP-6142	LDS-TP-6142/0.05	0.05	17/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	721
Golder	BGP	LDS-TP-6143	LDS-TP-6143/0.05	0.05	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	709
Golder	BGP	LDS-TP-6144	LDS-TP-6144/0.05	0.05	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	777

ADE_WCX-02-10878
KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 2 - BEVERLY GROVE PARK (BGP),
ASBESTOS
COMMERCIAL/INDUSTRIAL

						Asbestos									
						Asbestos in soil (>7mm ACM)	Asbestos in soil (<2mm AF/FA)	Asbestos in soil (<7mm AF/FA)	Asbestos in soil (>2mm to <7mm AF/FA)	Weight Asbestos in soil (>7mm ACM)	Weight Asbestos in soil (<2mm AF/FA)	Weight Asbestos in soil (>2mm to <7mm AF/FA)	Asbestos (1 Detect or <1 Non Detect)	Sample weight (dry)
					outout unit	%w/w	%w/w	%w/w	%w/w	g	g	g	No	g
					EQL	0.01	0.001	0.001	0.001	0.01	0.0001	0.0001	0	1
		WCX - Kingsgrove - Commercial/Industrial - HSL				0.05		0.001						
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time									
Samples collected from outside the boundaries of the RAP/ADE's Scope (i.e. ±0.5 m BGL)														
AECOM	BGP	WCXBH005	WCXBH005_0.5-0.6	0.5-0.6	19/09/2014	<0.1	-	<0.0004	-	<0.01	-	<0.001	<1	844
AECOM	BGP	WCXBH006	WCXBH006_1.0-1.1	1-1.1	19/09/2014	<0.1	-	0.0043	-	<0.01	-	0.001	1[#1]	421
Golder	BGP	LDS-BH-6086A	LDS-BH-6086A/2	2	10/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	426
Golder	BGP	LDS-BH-6086A	LDS-BH-6086A/3	3	10/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	415
Golder	BGP	LDS-BH-6089A	LDS-BH-6089A/2	2	10/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	381
Golder	BGP	LDS-BH-6090A	LDS-BH-6090A/2	2	10/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	506
Golder	BGP	LDS-BH-6090A	LDS-BH-6090A/3	3	10/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	491
Golder	BGP	LDS-BH-6093A	LDS-BH-6093 A/2.0	2	13/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	412
Golder	BGP	LDS-BH-6093A	LDS-BH-6093 A/3.0	3	13/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	512
Golder	BGP	LDS-BH-6097A	LDS-BH-6097A/2	2	10/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	409
Golder	BGP	LDS-BH-6131A	LDS-BH-6131A/2	2	10/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	453
Golder	BGP	LDS-BH-6131A	LDS-BH-6131A/3	3	10/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	415
Golder	BGP	LDS-BH-6131A	LDS-BH-6131A/4	4	10/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	332
Golder	BGP	LDS-BH-6132A	LDS-BH-6132 A/2.0	2	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	547
Golder	BGP	LDS-BH-6132A	LDS-BH-6132 A/3.0	3	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	733
Golder	BGP	LDS-BH-6132A	LDS-BH-6132 A/4.0	4	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	527
Golder	BGP	LDS-BH-6132A	LDS-BH-6132 A/5.0	5	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	398
Golder	BGP	LDS-BH-6132A	LDS-BH-6132 A/6.0	6	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	594
Golder	BGP	LDS-BH-6134A	LDS-BH-6134 A/2.0	2	13/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	514
Golder	BGP	LDS-BH-6134A	LDS-BH-6134 A/3.0	3	13/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	470
Golder	BGP	LDS-BH-6135A	LDS-BH-6135 A/2.0	2	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	830
Golder	BGP	LDS-BH-6135A	LDS-BH-6135 A/3.0	3	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	514
Golder	BGP	LDS-BH-6135A	LDS-BH-6135 A/4.0	4	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	492
Golder	BGP	LDS-BH-6135A	LDS-BH-6135 A/5.0	5	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	524
Golder	BGP	LDS-BH-6135A	LDS-BH-6135 A/6.0	6	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	389
Golder	BGP	LDS-BH-6137A	LDS-BH-6137 A/2.0	2	13/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	417
Golder	BGP	LDS-BH-6137A	LDS-BH-6137 A/3.0	3	13/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	589
Golder	BGP	LDS-BH-6138A	LDS-BH-6138A/2	2	10/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	482
Golder	BGP	LDS-BH-6138A	LDS-BH-6138A/3	3	10/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	310
Golder	BGP	LDS-BH-6139A	LDS-BH-6139A/2	2	10/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	428
Golder	BGP	LDS-BH-6141A	LDS-BH-6141A/2	2	10/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	453
Golder	BGP	LDS-BH-6142A	LDS-BH-6142 A/2.0	2	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	489
Golder	BGP	LDS-BH-6142A	LDS-BH-6142 A/3.0	3	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	535
Golder	BGP	LDS-BH-6143A	LDS-BH-6143 A/2.0	2	13/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	642
Golder	BGP	LDS-BH-6143A	LDS-BH-6143 A/3.0	3	13/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	875
Golder	BGP	LDS-TP-6086	LDS-TP-6086/1.0	1	9/05/2016	<0.01	<0.001	0.003	0.003	<0.01	<0.0001	0.017	1[#1]	560
Golder	BGP	LDS-TP-6087	LDS-TP-6087/1.0	1	6/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	1011
Golder	BGP	LDS-TP-6089	LDS-TP-6089/1.0	1	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	610
Golder	BGP	LDS-TP-6089	LDS-TP-6089/1.4	1.4	9/05/2016	<0.01	<0.001	0.002	0.002	<0.01	<0.0001	0.009	1[#1]	380
Golder	BGP	LDS-TP-6090	LDS-TP-6090/1.0	1	6/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	1070
Golder	BGP	LDS-TP-6091	LDS-TP-6091/1.0	1	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	1020
Golder	BGP	LDS-TP-6091	LDS-TP-6091/1.4	1.4	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	1080
Golder	BGP	LDS-TP-6093	LDS-TP-6093/1.0	1	17/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	758
Golder	BGP	LDS-TP-6094	LDS-TP-6094/1.0	1	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	1062
Golder	BGP	LDS-TP-6094	LDS-TP-6094/1.4	1.4	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	562
Golder	BGP	LDS-TP-6096	LDS-TP-6096/1.0	1	17/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	530
Golder	BGP	LDS-TP-6096	LDS-TP-6096/1.4	1.4	17/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	543
Golder	BGP	LDS-TP-6097	LDS-TP-6097/1.0	1	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	400
Golder	BGP	LDS-TP-6097	LDS-TP-6097/1.4	1.4	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	387
Golder	BGP	LDS-TP-6130	LDS-TP-6130/1.0	1	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	507
Golder	BGP	LDS-TP-6130	LDS-TP-6130/1.4	1.4	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	466
Golder	BGP	LDS-TP-6131	LDS-TP-6131/1.0	1	6/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	1184
Golder	BGP	LDS-TP-6132	LDS-TP-6132/1.0	1	6/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	1148
Golder	BGP	LDS-TP-6133	LDS-TP-6133/1.0	1	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	714
Golder	BGP	LDS-TP-6133	LDS-TP-6133/1.4	1.4	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	510
Golder	BGP	LDS-TP-6134	LDS-TP-6134/1.0	1	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	767
Golder	BGP	LDS-TP-6135	LDS-TP-6135/1.0	1	6/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	1038
Golder	BGP	LDS-TP-6136	LDS-TP-6136/1.0	1	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	500
Golder	BGP	LDS-TP-6136	LDS-TP-6136/1.4	1.4	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	497
Golder	BGP	LDS-TP-6137	LDS-TP-6137/1.0	1	17/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	612
Golder	BGP	LDS-TP-6138	LDS-TP-6138/1.0	1	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	590
Golder	BGP	LDS-TP-6139	LDS-TP-6139/1.0	1	9/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	465
Golder	BGP	LDS-TP-6140	LDS-TP-6140/1.0	1	17/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	564
Golder	BGP	LDS-TP-6140	LDS-TP-6140/1.4	1.4	17/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	600
Golder	BGP	LDS-TP-6141	LDS-TP-6141/1.0	1	9/05/2016	<0.01	<0.001	0.01	0.01	<0.01	<0.0001	0.0575	1[#1]	565
Golder	BGP	LDS-TP-6142	LDS-TP-6142/1.0	1	17/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	783
Golder	BGP	LDS-TP-6143	LDS-TP-6143/1.0	1	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	720
Golder	BGP	LDS-TP-6144	LDS-TP-6144/1.0	1	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	776
Golder	BGP	LDS-TP-6144	LDS-TP-6144/1.4	1.4	16/05/2016	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	820
			Statistical Summary		Number of Results	107	105	107	105	107	105	107	109	107
					Number of Detects	1	0	5	4	1	0	5	8	107
					Minimum Concentration	<0.01	<0.001	<0.0004	<0.001	<0.01	<0.0001	<0.0001	<1	310
					Minimum Detect	0.02	ND	0.002	0.002	1.64	ND	0.001	1	310
					Maximum Concentration	<0.1	<0.001	0.026	0.026	1.64	<0.0001	0.169	1	1184
					Maximum Detect	0.02	ND	0.026	0.026	1.64	ND	0.169	1	1184
					Average Concentration	0.006	5E-04	0.0009	0.0009	0.02	0.00005	0.0024	0.54	644
					Median Concentration	0.005	5E-04	0.0005	0.0005	0.01	0.00005	0.00005	0.5	590
					Standard Deviation	0.006	0	0.0027	0.0027	0.16	0	0.017	0.13	224
					Number of Guideline Exceedances	2	0	5	0	0	0	0	0	0
					Number of Guideline Exceedances (Detects Only)	0	0	5	0	0	0	0	0	0

Notes to Table
#1 Asbestos Detected, Yes
#2 Fibre Type CRY,AMO
#3 Fibre Type CRY

ADE CONSULTING GROUP

ADE_WCX-02-10878
KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 1 - BEVERLY GROVE PARK (BGP), COMMERCIAL INDUSTRIAL

Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
							Heavy Metals							
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
						EQL	3	0.3	0.3	0.5	1	0.01	0.5	0.5
		WCX - Kingsgrove - Commercial/ Industrial EIL/ESL					160		950	320	1800		330	840
		WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures					3000	900	3600	240000	1500	730	6000	400000
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)														
Golder	BGP	LDS-BH-6088	LDS-BH-6088/0.5	0.5	9/05/2016	SE152059-1	<3	0.4	8.6	12	17	<0.01	9	49
Golder	BGP	LDS-BH-6092	LDS-BH-6092/0.05	0.05	10/05/2016	SE152092-1	7	0.5	15	30	46	0.05	5	54
Golder	BGP	LDS-BH-6095A	LDS-BH-6095A/0.05	0.05	10/05/2016	SE152092-1	5	0.4	13	18	50	0.09	4.6	74
Golder	BGP	LDS-BH-6095A	QCA288	0.05	10/05/2016	SE152092-1	7	0.4	16	15	47	0.05	5.1	53
Golder	BGP	LDS-BH-6095A	QCB288	0.05	10/05/2016	ES1610286	6	<1	14	17	46	<0.1	5	66
Golder	BGP	LDS-TP-6086	LDS-TP-6086/0.05	0.05	9/05/2016	SE152059-1	6	0.4	13	27	63	0.1	5.9	69
Golder	BGP	LDS-TP-6086	LDS-TP-6086/0.5	0.5	9/05/2016	SE152059-1	8	0.5	14	18	39	0.03	6.4	44
Golder	BGP	LDS-TP-6087	LDS-TP-6087/0.05	0.05	6/05/2016	SE151971-1	5	0.5	16	19	64	0.07	8	73
Golder	BGP	LDS-TP-6087	LDS-TP-6087/0.5	0.5	6/05/2016	SE151971-1	6	<0.3	12	6.4	13	-	1	8.2
Golder	BGP	LDS-TP-6089	LDS-TP-6089/0.05	0.05	9/05/2016	SE152059-1	8	0.4	12	27	57	0.07	6.4	83
Golder	BGP	LDS-TP-6089	LDS-TP-6089/1.4	0.4	9/05/2016	SE152059-1	12	1.4	31	110	1000	0.57	16	290
Golder	BGP	LDS-TP-6090	LDS-TP-6090/0.05	0.05	6/05/2016	SE151971-1	4	<0.3	11	18	44	0.03	6.3	59
Golder	BGP	LDS-TP-6090	LDS-TP-6090/0.5	0.5	6/05/2016	SE151971-1	4	<0.3	11	11	20	-	4.2	30
Golder	BGP	LDS-TP-6091	LDS-TP-6091/0.05	0.05	16/05/2016	SE152404-1	6	0.4	11	22	68	0.04	8.6	77
Golder	BGP	LDS-TP-6091	QCA294	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6091	LDS-TP-6091/0.5	0.5	16/05/2016	SE152404-1	4	0.3	9.5	18	42	0.04	12	53
Golder	BGP	LDS-TP-6093	LDS-TP-6093/0.05	0.05	17/05/2016	SE152442-1	7	0.6	16	15	41	0.07	4.2	56
Golder	BGP	LDS-TP-6093	QCA299	0.05	17/05/2016	SE152442-1	7	0.6	16	12	39	0.06	4.7	46
Golder	BGP	LDS-TP-6093	QCB299	0.05	17/05/2016	ES1611002	6	1.3	16	13	40	<0.1	4	37
Golder	BGP	LDS-TP-6093	LDS-TP-6093/0.5	0.5	17/05/2016	SE152442-1	5	0.5	13	22	32	0.04	10	53
Golder	BGP	LDS-TP-6094	LDS-TP-6094/0.05	0.05	16/05/2016	SE152404-1	6	0.4	15	19	35	0.06	11	67
Golder	BGP	LDS-TP-6094	LDS-TP-6094/0.5	0.5	16/05/2016	SE152404-1	6	0.5	20	14	29	0.07	6.2	34
Golder	BGP	LDS-TP-6096	LDS-TP-6096/0.05	0.05	17/05/2016	SE152442-1	5	2.3	16	20	42	0.06	8.5	93
Golder	BGP	LDS-TP-6096	QCA305	0.05	17/05/2016	SE152442-1	5	4.5	17	18	43	0.06	7.8	66
Golder	BGP	LDS-TP-6096	QCB305	0.05	17/05/2016	ES1611002	6	2.6	19	22	43	<0.1	10	117
Golder	BGP	LDS-TP-6096	LDS-TP-6096/0.5	0.5	17/05/2016	SE152442-1	9	0.9	28	11	33	0.04	4.9	26
Golder	BGP	LDS-TP-6097	LDS-TP-6097/0.05	0.05	9/05/2016	SE152059-1	5	0.4	11	42	40	0.03	4	41
Golder	BGP	LDS-TP-6097	LDS-TP-6097/0.5	0.5	9/05/2016	SE152059-1	7	0.5	18	12	33	0.04	5.2	34
Golder	BGP	LDS-TP-6097	QCA286	0.5	9/05/2016	SE152059-1	5	0.4	11	13	37	0.04	4.7	44
Golder	BGP	LDS-TP-6097	QCB286	0.5	9/05/2016	ES1610163	6	<0.4	18	16	51	<0.1	7	58
Golder	BGP	LDS-TP-6130	LDS-TP-6130/0.05	0.05	16/05/2016	SE152404-1	6	0.5	14	14	35	0.02	6.3	43
Golder	BGP	LDS-TP-6131	LDS-TP-6131/0.05	0.05	6/05/2016	SE151971-1	4	0.3	10	15	40	0.05	5.5	54
Golder	BGP	LDS-TP-6132	LDS-TP-6132/0.05	0.05	6/05/2016	SE151971-1	4	0.3	11	18	40	0.06	6.4	57
Golder	BGP	LDS-TP-6133	LDS-TP-6133/0.05	0.05	16/05/2016	SE152404-1	10	0.8	15	21	45	0.06	8.7	530
Golder	BGP	LDS-TP-6134	LDS-TP-6134/0.05	0.05	16/05/2016	SE152404-1	7	0.6	13	20	36	0.05	7	43
Golder	BGP	LDS-TP-6135	LDS-TP-6135/0.05	0.05	6/05/2016	SE151971-1	5	<0.3	12	16	40	0.07	6.7	53
Golder	BGP	LDS-TP-6136	LDS-TP-6136/0.05	0.05	16/05/2016	SE152404-1	6	0.4	12	19	41	0.05	6.8	53
Golder	BGP	LDS-TP-6137	LDS-TP-6137/0.05	0.05	17/05/2016	SE152442-1	6	0.5	15	18	38	0.05	7	53
Golder	BGP	LDS-TP-6138	LDS-TP-6138/0.05	0.05	9/05/2016	SE152059-1	7	0.5	16	22	55	0.05	6.7	58
Golder	BGP	LDS-TP-6139	LDS-TP-6139/0.05	0.05	9/05/2016	SE152059-1	15	0.5	20	52	45	0.05	11	92
Golder	BGP	LDS-TP-6140	LDS-TP-6140/0.05	0.05	17/05/2016	SE152442-1	6	0.5	18	16	41	0.05	3.6	46
Golder	BGP	LDS-TP-6141	LDS-TP-6141/0.05	0.05	9/05/2016	SE152059-1	9	0.6	19	17	46	0.06	6.4	56
Golder	BGP	LDS-TP-6142	LDS-TP-6142/0.05	0.05	17/05/2016	SE152442-1	5	0.7	13	26	47	0.07	15	87
Golder	BGP	LDS-TP-6143	LDS-TP-6143/0.05	0.05	16/05/2016	SE152404-1	5	0.4	11	15	43	0.04	5.4	61
Golder	BGP	LDS-TP-6144	LDS-TP-6144/0.05	0.05	16/05/2016	SE152404-1	<3	<0.3	8.5	13	17	0.01	9.5	50
Golder	BGP	LDS-TP-6144	QCA292	0.05	16/05/2016	SE152404-1	<3	<0.3	6.7	18	19	0.02	11	62
Golder	BGP	LDS-TP-6144	QCB292	0.05	16/05/2016	ES1611008	<5	<0.4	10	12	19	<0.1	14	56
Golder	BGP	LDS-BH-1007	LDS-BH1007-0.4-0.5	0.4-0.5	12/11/2015	SE146148-1	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-1007	LDS-BH1007-0.9-1.0	0.9-1	12/11/2015	SE146148-1	5	0.3	25	13	13	<0.01	4.4	10
Golder	BGP	LDS-BH-1011	LDS-BH1011-0.1-0.2	0.1-0.2	12/11/2015	SE146148-1	8	1.6	13	28	240	0.07	7.3	77
Golder	BGP	LDS-BH-1011	LDS-BH1011-0.9-1.0	0.9-1	12/11/2015	SE146148-1	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-1212	LDS-TP-1212_0.5-0.7	0.5-0.7	16/11/2015	SE146143-1	7	1.5	21	34	36	0.03	39	180
Golder	BGP	LDS-TP-1212	QCA200		16/11/2015	SE146143-1	4	0.5	9.6	28	33	0.04	26	160
Golder	BGP	LDS-TP-1212	QCB200	0.5-0.7	16/11/2015	ES1536626	5	<1	10	30	30	<0.1	27	134

Field_ID	Benzene	Toluene	Ethylbenzene	Xylenes (m & p)	Xylene (o)	Xylenes (Sum of total) (Lab Reported)	Total BTEX	TRH C6 - C9 Fraction	TRH C10 - C14 Fraction	TRH C15 - C28 Fraction	TRH C29 - C36 Fraction	TRH+C10 - C36 (Sum of total) (Lab Reported)	TRH C6 - C10 Fraction F1	TRH C6 - C10 Fraction Less BTEX F1	TRH >C10 - C16 Fraction F2	TRH >C10 - C16 Fraction Less Naphthalene F2	TRH >C16 - C34 Fraction F3	TRH >C34 - C40 Fraction F4	TRH C37 - C40 Fraction	TRH+C10 - C40 (Sum of total) (Lab Reported)
	MAH							TPH Group - Waste Classification					TRH - HSL							
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.1	0.1	0.1	0.2	0.1	0.3	0.2	10	20	45	45	50	10	10	25	25	90	100	100	50
WCX - Kingsgrove - Commercial/ Industrial EIL/ESL	75	135	165			95								215		170	1700	3300		
WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures	3					230								260		1000	5000	10000		
LDS-BH-6088/0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH-6092/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH-6095A/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCA288	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCB288	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	-	<50
LDS-TP-6086/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	46	90	67	200	<25	<25	<25	<25	130	<120	<100	<210
LDS-TP-6086/0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	53	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6087/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6087/0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6089/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	52	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6089/1.4	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6090/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6090/0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6091/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCA294	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6091/0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6093/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCA299	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCB299	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	<50	<100	<100	<50	-	-	<50	-	<100	<100	-	<50
LDS-TP-6093/0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6094/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6094/0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6096/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCA305	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCB305	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	<50	<100	<100	<50	-	-	<50	-	<100	<100	-	<50
LDS-TP-6096/0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6097/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6097/0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCA286	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCB286	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	<50	<100	<100	<50	-	-	<50	-	<100	<100	-	<50
LDS-TP-6130/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6131/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	110	76	190	<25	<25	<25	<25	170	<120	<100	<210
LDS-TP-6132/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6133/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6134/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6135/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6136/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6137/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6138/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6139/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6140/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6141/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6142/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6143/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6144/0.05	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCA292	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCB292	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	<50	<100	<100	<50	-	-	<50	-	<100	<100	-	<50
LDS-BH1007-0.4-0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1007-0.9-1.0	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH1011-0.1-0.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	47	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH1011-0.9-1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-1212_0.5-0.7	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCA200	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCB200	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	-	<50

Field_ID	Chlordane (Sum of total) (Calculated)	2,4-DDT	a-BHC	Aldrin	Aldrin & Dieldrin (Sum of total) (Lab Reported)	Aldrin & Dieldrin (Sum of total) (Calculated)	b-BHC	Chlordane (Sum of total)	cis-Chlordane	gamma-Chlordane	trans-Chlordane	d-BHC	DDD
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.1	0.05	0.05	0.05		0.05	0.05	0.05	0.1	0.05	0.05	0.05
WCX - Kingsgrove - Commercial/ Industrial EIL/ESL													
WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures					45			530					
LDS-BH-6088/0.5	∩[#1]	<0.1	<0.1	<0.1	-	∩[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-BH-6092/0.05	∩[#1]	<0.1	<0.1	<0.1	-	∩[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-BH-6095A/0.05	∩[#1]	<0.1	<0.1	<0.1	-	∩[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
QCA288	∩[#1]	<0.1	<0.1	<0.1	-	∩[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
QCB288	∩[#1]	-	<0.05	<0.05	<0.05	∩[#2]	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05
LDS-TP-6086/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6086/0.5	∩[#1]	<0.1	<0.1	<0.1	-	∩[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-TP-6087/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6087/0.5	∩[#1]	<0.1	<0.1	<0.1	-	∩[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-TP-6089/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6089/1.4	∩[#1]	<0.1	<0.1	<0.1	-	∩[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-TP-6090/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6090/0.5	∩[#1]	<0.1	<0.1	<0.1	-	∩[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-TP-6091/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA294	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6091/0.5	∩[#1]	<0.1	<0.1	<0.1	-	∩[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-TP-6093/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA299	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB299	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6093/0.5	∩[#1]	<0.1	<0.1	<0.1	-	∩[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-TP-6094/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6094/0.5	∩[#1]	<0.1	<0.1	<0.1	-	∩[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-TP-6096/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA305	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB305	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6096/0.5	∩[#1]	<0.1	<0.1	<0.1	-	∩[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-TP-6097/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6097/0.5	∩[#1]	<0.1	<0.1	<0.1	-	∩[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
QCA286	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB286	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6130/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6131/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6132/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6133/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6134/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6135/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6136/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6137/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6138/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6139/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6140/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6141/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6142/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6143/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6144/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA292	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB292	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1007-0.4-0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1007-0.9-1.0	∩[#1]	<0.1	<0.1	<0.1	-	∩[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-BH1011-0.1-0.2	∩[#1]	<0.1	<0.1	<0.1	-	∩[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-BH1011-0.9-1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-1212_0.5-0.7	∩[#1]	<0.1	<0.1	<0.1	-	∩[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
QCA200	∩[#1]	<0.1	<0.1	<0.1	-	∩[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
QCB200	-	-	-	-	-	-	-	-	-	-	-	-	-

ADE CONSULTING GROUP

ADE_WCX-02-10878
KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 1 - BEVERLY GROVE PARK (BGP), COMMERCIAL INDUSTRIAL

							Heavy Metals								MAH						
							Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Benzene	Toluene	Ethylbenzene	Xylenes (m & p)	Xylene (o)	Xylenes (Sum of total) (Lab Reported)	Total BTEX
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
						EQL	3	0.3	0.3	0.5	1	0.01	0.5	0.5	0.1	0.1	0.1	0.2	0.1	0.3	0.2
		WCX - Kingsgrove - Commercial/ Industrial EIL/ESL					160		950	320	1800		330	840	75	135	165			95	
		WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures					3000	900	3600	240000	1500	730	6000	400000	3					230	
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number															
Samples collected from outside the boundaries of the RAP/ADE's Scope (i.e. ≥0.5 m BGL)																					
AECOM	BGP	WCXBH005	WCXBH005_0.5-0.6	0.5-0.6	19/09/2014	ES1421296005	<5	<1	9	9	13	<0.1	6	31	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
AECOM	BGP	WCXBH005	WCXBH005_4.5-4.95	4.5-4.95	22/09/2014	ES1421863011	8	<1	9	29	17	<0.1	2	21	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
AECOM	BGP	WCXBH006	WCXBH006_1.0-1.1	1-1.1	19/09/2014	ES1421296009	6	<1	17	14	25	<0.1	8	25	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
AECOM	BGP	WCXBH006	WCXBH006_1.5-1.95	1.5-1.95	24/09/2014	ES1421863012	7	<1	16	28	43	<0.1	6	98	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
AECOM	BGP	WCXBH006	WCXBH006_4.5-4.95	4.5-4.95	24/09/2014	ES1421863014	6	<1	14	17	17	<0.1	<2	<5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
Golder	BGP	LDS-BH-6086A	LDS-BH-6086A/2	2	10/05/2016	SE152092-1	4	0.4	17	8.2	18	0.01	2.4	5.9	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6086A	LDS-BH-6086A/3	3	10/05/2016	SE152092-1	8	0.7	25	12	24	<0.01	2.2	11	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6086A	LDS-BH-6086A/4	4	10/05/2016	SE152092-1	5	0.7	22	13	24	<0.01	1.8	11	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6087A	LDS-BH-6087A/3	3	10/05/2016	SE152092-1	5	0.4	12	12	37	0.04	4.1	49	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6088	LDS-BH-6088/2.0	2	9/05/2016	SE152059-1	4	<0.3	6.2	15	14	<0.01	0.6	6.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6089A	LDS-BH-6089A/2	2	10/05/2016	SE152092-1	11	0.7	17	46	120	0.2	15	130	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6089A	LDS-BH-6089A/3	3	10/05/2016	SE152092-1	8	0.4	16	9.4	22	<0.01	1.1	5.3	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6090A	LDS-BH-6090A/2	2	10/05/2016	SE152092-1	5	0.3	11	11	18	0.02	3.1	22	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6090A	LDS-BH-6090A/3	3	10/05/2016	SE152092-1	7	0.9	17	11	27	<0.01	1.3	11	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6090A	QCA287	3	10/05/2016	SE152092-1	11	1.3	31	14	38	<0.01	2	20	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6090A	QCB287	3	10/05/2016	ES1610286	20	<0.4	18	13	12	<0.1	<2	<5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
Golder	BGP	LDS-BH-6090A	LDS-BH-6090A/4	4	10/05/2016	SE152092-1	<3	<0.3	11	9.4	12	0.02	0.9	3.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6091A	LDS-BH-6091A/3.0	3	13/05/2016	SE152209-1	3	<0.3	11	13	14	0.02	2.4	11	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6092	LDS-BH-6092/2	2	10/05/2016	SE152092-1	10	0.4	18	6.5	21	<0.01	<0.5	4.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6093A	LDS-BH-6093A/2.0	2	13/05/2016	SE152209-1	15	1	35	12	36	<0.01	0.8	12	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6093A	LDS-BH-6093A/3.0	3	13/05/2016	SE152209-1	3	<0.3	5.6	16	17	<0.01	0.7	4	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6093A	LDS-BH-6093A/4.0	4	13/05/2016	SE152209-1	<3	<0.3	4.9	17	8	<0.01	1	4.9	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6094A	LDS-BH-6094A/3.0	3	13/05/2016	SE152209-1	51	0.5	11	12	20	<0.01	0.7	4.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6095A	LDS-BH-6095A/1.5	1.5	10/05/2016	SE152092-1	16	<0.3	8.2	8.7	19	<0.01	<0.5	3.8	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6097A	LDS-BH-6097A/2	2	10/05/2016	SE152092-1	7	<0.3	16	11	16	<0.01	1.4	7.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6097A	LDS-BH-6097A/3	3	10/05/2016	SE152092-1	7	0.5	7	13	18	0.01	0.5	6.3	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6131A	LDS-BH-6131A/2	2	10/05/2016	SE152092-1	4	<0.3	5.4	9.4	16	0.08	5.3	21	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6131A	LDS-BH-6131A/3	3	10/05/2016	SE152092-1	5	0.4	19	7.6	19	0.01	2.7	7	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6131A	LDS-BH-6131A/4	4	10/05/2016	SE152092-1	10	0.6	29	14	21	<0.01	2.6	10	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/2.0	2	9/05/2016	SE152059-1	<3	<0.3	6.3	17	31	0.14	6.4	40	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/3.0	3	9/05/2016	SE152059-1	5	<0.3	13	9.9	15	<0.01	1.6	5.3	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/4.0	4	9/05/2016	SE152059-1	6	0.5	26	8.5	18	<0.01	2.8	8.9	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/5.0	5	9/05/2016	SE152059-1	13	1	19	19	32	<0.01	1.2	13	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/6.0	6	9/05/2016	SE152059-1	4	0.3	9.4	8.2	12	<0.01	1.2	5.7	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6134A	LDS-BH-6134A/2.0	2	13/05/2016	SE152209-1	4	<0.3	12	8.7	12	<0.01	2	6.3	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6134A	LDS-BH-6134A/3.0	3	13/05/2016	SE152209-1	<3	<0.3	7.9	10	8	<0.01	3	7.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/2.0	2	9/05/2016	SE152059-1	<3	<0.3	4.5	4.1	16	0.05	0.7	25	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/3.0	3	9/05/2016	SE152059-1	5	0.4	21	8.6	19	<0.01	2	7.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/4.0	4	9/05/2016	SE152059-1	5	<0.3	11	8.7	14	<0.01	3	5.6	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/5.0	5	9/05/2016	SE152059-1	30	1	30	17	33	<0.01	1.7	19	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/6.0	6	9/05/2016	SE152059-1	5	0.4	19	11	21	<0.01	3	9.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6137A	LDS-BH-6137A/2.0	2	13/05/2016	SE152209-1	6	0.3	16	15	23	0.01	4.6	26	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6137A	LDS-BH-6137A/3.0	3	13/05/2016	SE152209-1	<3	<0.3	7.4	4.1	15	<0.01	5.1	22	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6138A	LDS-BH-6138A/2	2	10/05/2016	SE152092-1	4	0.4	17	7.8	22	0.03	4.1	15	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6138A	LDS-BH-6138A/3	3	10/05/2016	SE152092-1	6	0.6	24	8.3	21	<0.01	2.1	8.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6138A	QCA213	3	10/05/2016	SE152092-1	7	0.6	26	9.7	22	<0.01	2.1	9	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6138A	QCB213	3	10/05/2016	ES1610287	8	<0.4	33	15	22	<0.1	3	<5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
Golder	BGP	LDS-BH-6139A	LDS-BH-6139A/2	2	10/05/2016	SE152092-1	8	0.9	34	9.8	30	<0.01	1.8	10	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6141A	LDS-BH-6141A/2	2	10/05/2016	SE152092-1	8	0.6	27	13	24	0.03	3.1	10	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6142A	LDS-BH-6142A/2.0	2	16/05/2016	SE152404-1	<3	<0.3	4.7	5.7	15	0.02	<0.5	1.9	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6142A	LDS-BH-6142A/3.0	3	16/05/2016	SE152404-1	<3	<0.3	1.9	5.4	12	0.03	<0.5	1.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6143A	LDS-BH-6143A/2.0	2	13/05/2016	SE152209-1	<3	0.7	11	26	65	0.27	8.9	61	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-6143A	LDS-BH-6143A/3.0	3	13/05/2016	SE152209-1	4	1.4	14	34	120	0.27	7.7	57	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6086	LDS-TP-6086/1.0	1	9/05/2016	SE152059-1	5	0.4	17	16	35	0.05	6.1	46	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6087	LDS-TP-6087/1.0	1	6/05/2016	SE151971-1	<3	<0.3	7	4.3	9	0.02	3	9.9	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6089	LDS-TP-6089/1.0	1	9/05/2016	SE152059-1	4	0.3	11	16	66	0.06	5.2	58	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6090	LDS-TP-6090/1.0	1	6/05/2016	SE151971-1	4	<0.3	12	12	29	0.02	5	34	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6091	LDS-TP-6091/1.0	1	16/05/2016	SE152404-1	5	0.5	11	17	42	0.05	6.7	69	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6091	LDS-TP-6091/1.4	1.4	16/05/2016	SE152404-1	6	0.6	13	16	40	0.08	6	110	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6093	LDS-TP-6093/1.0	1	17/05/2016	SE152442-1	4	<0.3	6.3	17	18	0.02	3.1	19	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6094	LDS-TP-6094/1.0	1	16/05/2016	SE152404-1	7	0.5	16	16	33	0.07	6.2	43	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6094	LDS-TP-6094/1.4	1.4	16/05/2016	SE152404-1	7	0.6	26	11	21	<0.01	3	11	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6096	LDS-TP-6096/1.0	1	17/05/2016	SE152442-1	11	1.3	39	12	32	0.03	3.1	18	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6096	LDS-TP-6096/1.4	1.4	17/05/2016	SE152442-1	14	1.2	34	9.1	32	0.02	1.2	14	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6097	LDS-TP-6097/1.0	1	9/05/2016	SE152059-1	5	0.4	18	10	20	<0.01	2.7	9	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6097	LDS-TP-6097/1.4	1.4	9/05/2016	SE152059-1	<3	<0.3	8.2	5.4	9	<0.01	1.9	2.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6130	LDS-TP-6130/1.0	1	16/05/2016	SE152404-1	8	0.6	23	9.8	20	0.01	2.4	9	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6130	LDS-TP-6130/1.4	1.4	16/05/2016	SE152404-1	13	1.1	34	9.3	25	<0.01	1.8	11	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6131	LDS-TP-6131/1.0	1	6/05/2016	SE151971-1	4	<0.3	7	18	49	0.24	8.9	63	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6132	LDS-TP-6132/1.0	1	6/05/2016	SE151971-1	<3	<0.3	6.7	16	42	0.12	6.5	35	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6133	LDS-TP-6133/1.0	1	16/05/2016	SE152404-1	5	0.4	12	12	26	0.05	5.4	44	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6133	LDS-TP-6133/1.4	1.4	16/05/2016	SE152404-1	6	0.5	12	16	30	0.03	8.2	41	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6134	LDS-TP-6134/1.0	1	16/05/2016	SE152404-1	5	0.4	11	16	53	0.04	4.9	63	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6134	QCA297	1	16/05/2016	SE152404-1	<3	<0.3	6.6	6.4	22	0.18	2.4	26	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6134	QCB297	1	16/05/2016	ES1611008	<5	<0.4	13	11	35	<0.1	5	63	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
Golder	BGP	LDS-TP-6135	LDS-TP-6135/1.0	1	6/05/2016	SE151971-1	<3	<0.3	7	19	42	0.18	6.5	43	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6136	LDS-TP-6136/1.0	1	16/05/2016	SE152404-1	6	0.6	18	11	25	0.01	5.6	23	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6136	LDS-TP-6136/1.4	1.4	16/05/2016	SE152404-1	5	0.3	16	11	16	0.02	2.1	8.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6137	LDS-TP-6137/1.0	1	17/05/2016	SE152442-1	6	0.5	14	17	28	0.04	8.4	50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6138	LDS-TP-6138/1.0	1	9/05/2016	SE152059-1	6	0.6	11	700	130	0.06	11	310	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6139	LDS-TP-6139/1.0	1	9/05/2016	SE152059-1	7	0.5	19	15	39	0.03	4.5	34	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6140	LDS-TP-6140/1.0	1	17/05/2016	SE152442-1	10	1.1	32	11	29	0.02	2.5	13	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6140	LDS-TP-6140/1.4	1.4	17/05/2016	SE152442-1	9	1	28	12	27	<0.01	1.9	9.3	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6141	LDS-TP-6141/1.0	1	9/05/2016	SE152059-1	7	0.5	16	25	67	0.06	8.6	74	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6142	LDS-TP-6142/1.0	1	17/05/2016	SE152442-1	6	0.6	12	20	40	0.07	9.1	54	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6143	LDS-TP-6143/1.0	1	16/05/2016	SE152404-1	5	5.4	15	39	110	0.66	18	120	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6143	QCA293	1	16/05/2016	SE152404-1	4	2.6	14	40	81	0.3	19	100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6143	QCB293	1	16/05/2016	ES1611008	5	0.9	15	45	65	0.2	33	165	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
Golder	BGP	LDS-TP-6144	LDS-TP-6144/1.0	1	16/05/2016	SE152404-1	3	0.6	6.9	28	22	0.03	22	110	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-6144	LDS-TP-6144/1.4	1.4	16/05/2016	SE152404-1	3	0.6	7.5	29	25	0.04	26	150	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-1007	LDS-BH1007-1.4-1.5	1.4-1.5	12/11/2015	SE146148-1	6	0.6	23	16	23	<0.01	2.6	16	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-BH-1011	LDS-BH011-002-3-3.45	3-3.4	13/11/2015	SE145985-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-1011	LDS-BH1011-1.4-1.5	1.4-1.5	12/11/2015	SE146148-1	4	0.3	23	9.3	16	<0.01	4.8	14	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-1212	LDS-TP-1212_1.7-2.0	1.7-2	16/11/2015	SE146143-1	4	<0.3	11	30	60	0.29	7.5	71	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
Golder	BGP	LDS-TP-1212	LDS-TP-1212_2.8-3.0	2.8-3	16/11/2015	SE146143-1	3	<0.3	7.5	29	81	0.3	8	85	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6
			Statistical Summary			Number of Results	145	145	145	145	145	143	145	145	145	145	145	145	145	145	145
						Number of Detects	125	100	145	145	145	92	139	142	0	0	0	0	0	0	0
						Minimum Concentrations	<3	<0.3	1.9	4.1	8	<0.01	<0.5	1.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.2
						Minimum Detect	3	0.3	1.9	4.1	8	0.01	0.5	1.5	ND	ND	ND	ND	ND	ND	ND
						Maximum Concentration	51	5.4	39	700	1000	0.66	39	530	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6
						Maximum Detect	51	5.4	39	700	1000	0.66	39	530	ND	ND	ND	ND	ND	ND	ND
						Average Concentration	6.3	0.59	15	22	42	0.057	6.1	49	0.055	0.071	0.071	0.12	0.071	0.16	0.28
						Median Concentration	5	0.5	14	15	31	0.04	5	37	0.05	0.05	0.05	0.1	0.05	0.15	0.3
						Standard Deviation	5.3	0.67	7.3	58	85	0.09	6.1	62	0.015	0.061	0.061	0.046	0.061	0.031	0.061
						Number of Guideline Exceedances	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
						Number of Guideline Exceedances (Detects Only)	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

	TPH Group - Waste Classification					TRH - HSL																					
Field_ID	TRH C6 - C9 Fraction	TRH C10 - C14 Fraction	TRH C15 - C28 Fraction	TRH C29 - C36 Fraction	TRH+C10 - C36 (Sum of total) (Lab Reported)	TRH C6 - C10 Fraction F1	TRH C6 - C10 Fraction Less BTEX F1	TRH >C10 - C16 Fraction F2	TRH >C10 - C16 Fraction Less Naphthalene F2	TRH >C16 - C34 Fraction F3	TRH >C34 - C40 Fraction F4	TRH C37 - C40 Fraction	TRH+C10 - C40 (Sum of total) (Lab Reported)	Chlordane (Sum of total) (Calculated)	2,4-DDT	a-BHC	Aldrin	Aldrin & Dieldrin (Sum of total) (Lab Reported)	Aldrin & Dieldrin (Sum of total) (Calculated)	b-BHC	Chlordane (Sum of total)	cis-Chlordane	gamma-Chlordane	trans-Chlordane	d-BHC	DDD
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	10	20	45	45	50	10	10	25	25	90	100	100	50		0.1	0.05	0.05	0.05		0.05	0.05	0.05	0.1	0.05	0.05	0.05
WCX - Kingsgrove - Commercial/ Industrial EIL/ESL							215		170	1700	3300															
WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures							260		1000	5000	10000							45			530					
WCXBH005_0.5-0.6	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	-	<50	n#1	-	<0.05	<0.05	<0.05	n#2	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05
WCXBH005_4.5-4.95	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	-	<50	-	-	-	-	-	-	-	-	-	-	-	-	-
WCXBH006_1.0-1.1	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	-	<50	0#1	-	<0.05	<0.05	<0.05	0#2	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05
WCXBH006_1.5-1.95	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	-	<50	0#1	-	<0.05	<0.05	<0.05	0#2	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05
WCXBH006_4.5-4.95	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	-	<50	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6086A/2	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6086A/3	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6086A/4	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-BH-6087A/3	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-BH-6088/2.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-BH-6089A/2	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6089A/3	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-BH-6090A/2	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6090A/3	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA287	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB287	-	<50	<100	<100	<50	-	-	<50	-	<100	<100	-	<50	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6090A/4	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-BH-6091A/3.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-BH-6092/2	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-BH-6093A/2.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6093A/3.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6093A/4.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-BH-6094A/3.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-BH-6095A/1.5	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-BH-6097A/2	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6097A/3	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-BH-6131A/2	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6131A/3	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6131A/4	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6132A/2.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6132A/3.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6132A/4.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6132A/5.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6132A/6.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6134A/2.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6134A/3.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6135A/2.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6135A/3.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6135A/4.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6135A/5.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6135A/6.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6137A/2.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6137A/3.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6138A/2	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6138A/3	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA213	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB213	-	<50	<100	<100	<50	-	-	<50	-	<100	<100	-	<50	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6139A/2	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6141A/2	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6142A/2.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6142A/3.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6143A/2.0	<20	<20	190	230	430	<25	<25	<25	<25	370	<120	<100	430	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6143A/3.0	<20	<20	<45	65	<110	<25	<25	<25	<25	91	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6086/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6087/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6089/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6090/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6091/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6091/1.4	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6093/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6094/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6094/1.4	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6096/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6096/1.4	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6097/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6097/1.4	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6130/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6130/1.4	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6131/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6132/1.0	<20	<20	52	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6133/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6133/1.4	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6134/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA297	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB297	-	<50	<100	<100	<50	-	-	<50	-	<100	<100	-	<50	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6135/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6136/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6136/1.4	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6137/1.0	<20	<20	45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6138/1.0	<20	<20	63	53	120	<25	<25	<25	<25	110	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6139/1.0	<20	<20	67	53	120	<25	<25	<25	<25	110	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6140/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6140/1.4	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6141/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6142/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6143/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA293	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB293	-	<50	<100	<100	<50	-	-	<50	-	<100	<100	-	<50	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6144/1.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6144/1.4	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1007-1.4-1.5	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-BH011-002-3-3.45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1011-1.4-1.5	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-TP-1212_1.7-2.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
LDS-TP-1212_2.8-3.0	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1
Number of Results	137	145	145	145	145	137	137	145	137	145	145	130	145	36	32	36	36	4	36	36	4	36	32	4	36	36
Number of Detects	0	1	9	7	5	0	0	0	0	6	0	0	1	36	0	0	0	0	36	0	0	0	0	0	0	0
Minimum Concentrations	<10	<20	<45	<45	<50	<10	<10	<25	<25	<90	<100	<100	<50	<0	<0.1	<0.05	<0.05	<0.05	<0	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05
Minimum Detect	ND	46	45	53	120	ND	ND	ND	ND	91	ND	ND	430	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<20	<50	190	230	430	<25	<25	<50	<50	370	<120	<100	430	0	<0.1	<0.1	<0.1	<0.05	0	<0.1	<0.05	<0.1	<0.1	<0.05	<0.1	<0.1
Maximum Detect	ND	46	190	230	430	ND	ND	ND	ND	370	ND	ND	430	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration	9.7	12	29	28	57	12	12	14	13	50	59	50	99	0	0.05	0.047	0.047	0.025	0	0.047	0.025	0.047	0.05	0.025	0.047	0.047
Median Concentration	10	10	22.5	22.5	55	12.5	12.5	12.5	12.5	45	60	50	105	0	0.05	0.05	0.05	0.025	0	0.05	0.025	0.05	0.05	0.025	0.05	0.05
Standard Deviation	1.1	5.4	19	20	37	1.7	1.7	3.8	2.8	31	3.1	0	37	0	0	0.008	0.008	0	0	0.008	0	0.008	0	0	0.008	0.008
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ADE CONSULTING GROUP

ADE_WCX-02-10878
KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 1 - BEVERLY GROVE PARK (BGP),
COMMERCIAL INDUSTRIAL

							Organochlorine Pesticides																							Organophosphorous Pesticides																				
							DDE	DDT	DDT+DDE+DDD (Sum of total) (Lab Reported)	DDT+DDE+DDD (Sum of total) (Calculated)	Dieldrin	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endosulfan I & II (Sum of Total) (Calculated)	Endrin	Endrin aldehyde	Endrin ketone	g-BHC	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Isodrin	Methoxychlor	Mirex	o,p-DDD	o,p-DDE	trans-Nonachlor	Azinphos-methyl	Bromophos-ethyl	Carbophenothion	Chlorfenvinphos	Chlorpyriphos	Chlorpyriphos-methyl	Demeton-s-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenamiphos	Fenitrothion	Fenthion	Malathion	Methidathion	Parathion-methyl	Monocrotophos	Parathion	Pirimphos-ethyl	Prothiofos
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
						EQL	0.05	0.1	0.05		0.05	0.05	0.05	0.05	0.05		0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.05	0.05	0.5	0.2	0.2	0.2	0.05	0.05
		WCX - Kingsgrove - Commercial/ Industrial EIL/ESL						640																																										
		WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures							3600			2000					100				50		80											2000																
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number																																												
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																																																		
Golder	BGP	LDS-BH-6088	LDS-BH-6088/0.5	0.5	9/05/2016	SE152059-1	<0.1	<0.1	-	n[#2]	<0.2	-	<0.2	<0.2	<0.1	n[#2]	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-BH-6092	LDS-BH-6092/0.05	0.05	10/05/2016	SE152092-1	<0.1	<0.1	-	n[#2]	<0.2	-	<0.2	<0.2	<0.1	n[#2]	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-BH-6095A	LDS-BH-6095A/0.05	0.05	10/05/2016	SE152092-1	<0.1	<0.1	-	n[#2]	<0.2	-	<0.2	<0.2	<0.1	n[#2]	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-BH-6095A	QCA288	0.05	10/05/2016	SE152092-1	<0.1	<0.1	-	n[#2]	<0.2	-	<0.2	<0.2	<0.1	n[#2]	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-BH-6095A	QCB288	0.05	10/05/2016	ES1610286	<0.05	<0.2	<0.05	n[#2]	<0.05	<0.05	<0.05	<0.05	<0.05	n[#2]	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.2	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	<0.2	<0.2	<0.2	<0.05	<0.05
Golder	BGP	LDS-TP-6086	LDS-TP-6086/0.05	0.05	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6086	LDS-TP-6086/0.5	0.5	9/05/2016	SE152059-1	<0.1	<0.1	-	n[#2]	<0.2	-	<0.2	<0.2	<0.1	n[#2]	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-TP-6087	LDS-TP-6087/0.05	0.05	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6087	LDS-TP-6087/0.5	0.5	6/05/2016	SE151971-1	<0.1	<0.1	-	n[#2]	<0.2	-	<0.2	<0.2	<0.1	n[#2]	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-TP-6089	LDS-TP-6089/0.05	0.05	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6089	LDS-TP-6089/1.4	0.4	9/05/2016	SE152059-1	<0.1	<0.1	-	n[#2]	<0.2	-	<0.2	<0.2	<0.1	n[#2]	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-TP-6090	LDS-TP-6090/0.05	0.05	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6090	LDS-TP-6090/0.5	0.5	6/05/2016	SE151971-1	<0.1	<0.1	-	n[#2]	<0.2	-	<0.2	<0.2	<0.1	n[#2]	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-TP-6091	LDS-TP-6091/0.05	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6091	QCA294	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6091	LDS-TP-6091/0.5	0.5	16/05/2016	SE152404-1	<0.1	<0.1	-	n[#2]	<0.2	-	<0.2	<0.2	<0.1	n[#2]	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-TP-6093	LDS-TP-6093/0.05	0.05	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6093	QCA299	0.05	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6093	QCB299	0.05	17/05/2016	ES1611002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6093	LDS-TP-6093/0.5	0.5	17/05/2016	SE152442-1	<0.1	<0.1	-	n[#2]	<0.2	-	<0.2	<0.2	<0.1	n[#2]	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-TP-6094	LDS-TP-6094/0.05	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6094	LDS-TP-6094/0.5	0.5	16/05/2016	SE152404-1	<0.1	<0.1	-	n[#2]	<0.2	-	<0.2	<0.2	<0.1	n[#2]	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-TP-6096	LDS-TP-6096/0.05	0.05	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6096	QCA305	0.05	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6096	QCB305	0.05	17/05/2016	ES1611002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6096	LDS-TP-6096/0.5	0.5	17/05/2016	SE152442-1	<0.1	<0.1	-	n[#2]	<0.2	-	<0.2	<0.2	<0.1	n[#2]	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-TP-6097	LDS-TP-6097/0.05	0.05	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6097	LDS-TP-6097/0.5	0.5	9/05/2016	SE152059-1	<0.1	<0.1	-	n[#2]	<0.2	-	<0.2	<0.2	<0.1	n[#2]	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-TP-6097	QCA286	0.5	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6097	QCB286	0.5	9/05/2016	ES1610163	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6130	LDS-TP-6130/0.05	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6131	LDS-TP-6131/0.05	0.05	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6132	LDS-TP-6132/0.05	0.05	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6133	LDS-TP-6133/0.05	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6134	LDS-TP-6134/0.05	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6135	LDS-TP-6135/0.05	0.05	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6136	LDS-TP-6136/0.05	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6137	LDS-TP-6137/0.05	0.05	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6138	LDS-TP-6138/0.05	0.05	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6139	LDS-TP-6139/0.05	0.05	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6140	LDS-TP-6140/0.05	0.05	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6141	LDS-TP-6141/0.05	0.05	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6142	LDS-TP-6142/0.05	0.05	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6143	LDS-TP-6143/0.05	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6144	LDS-TP-6144/0.05	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6144	QCA292	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6144	QCB292	0.05	16/05/2016	ES1611008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-1007	LDS-BH1007-0.4-0.5	0.4-0.5	12/11/2015	SE146148-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-1007	LDS-BH1007-0.9-1.0	0.9-1	12/11/2015	SE146148-1	<0.1	<0.1	-	n[#2]	<0.2	<0.2	<0.2	<0.1	n[#2]	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-BH-1011	LDS-BH1011-0.1-0.2	0.1-0.2	12/11/2015	SE146148-1	<0.1	<0.1	-	n[#2]	<0.2	<0.2	<0.2	<0.1	n[#2]	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-BH-1011	LDS-BH1011-0.9-1.0	0.9-1	12/11/2015	SE146148-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-1212	LDS-TP-1212_0.5-0.7	0.5-0.7	16/11/2015	SE146143-1	<0.1	<0.1	-	n[#2]	<0.2	<0.2	<0.2	<0.1	n[#2]	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-TP-1212	QCA200		16/11/2015	SE146143-1	<0.1	<0.1	-	n[#2]	<0.2	<0.2	<0.2	<0.1	n[#2]	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-TP-1212	QCB200	0.5-0.7	16/11/2015	ES1536626	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ADE_WCX-02-10878
KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 1 - BEVERLY GROVE PARK (BGP),
COMMERCIAL INDUSTRIAL

Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number	DDE	DDT	DDT+DDE+DDD (Sum of total) (Lab Reported)	DDT+DDE+DDD (Sum of total) (Calculated)	Dieldrin	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endosulfan I & II (Sum of Total) (Calculated)	Endrin	Endrin aldehyde	Endrin ketone	g-BHC	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Isodrin	Methoxychlor	Mirex	o,p-DDD	o,p-DDE	trans-Nonachlor	Azinphos-methyl	Bromophos-ethyl	Carbophenothion	Chlorfenvinphos	Chlorpyriphos	Chlorpyriphos-methyl	Demeton-s-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenamiphos	Fenitrothion	Fenthion	Malathion	Methidathion	Parathion-methyl	Monocrotophos	Parathion	Pirimphos-ethyl	Prothiofos
							Organochlorine Pesticides																							Organophosphorous Pesticides																				
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
						EQL	0.05	0.1	0.05		0.05	0.05	0.05	0.05	0.05		0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.05	0.05	0.5	0.2	0.2	0.2	0.05	0.05
		WCX - Kingsgrove - Commercial/ Industrial EIL/ESL						640																																										
		WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures							3600			2000					100				50		80											2000																
Samples collected from outside the boundaries of the RAP/ADE's Scope (i.e. ≥0.5 m BGL)																																																		
AECOM	BGP	WCXBH005	WCXBH005_0.5-0.6	0.5-0.6	19/09/2014	ES1421296005	<0.05	<0.2	<0.05	n#2	<0.05	<0.05	<0.05	<0.05	<0.05	n#2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.2	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	<0.2	<0.2	<0.2	<0.05	<0.05
AECOM	BGP	WCXBH005	WCXBH005_4.5-4.95	4.5-4.95	22/09/2014	ES1421863011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AECOM	BGP	WCXBH006	WCXBH006_1.0-1.1	1-1.1	19/09/2014	ES1421296009	<0.05	<0.2	<0.05	0#2	<0.05	<0.05	<0.05	<0.05	<0.05	0#2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.2	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	<0.2	<0.2	<0.2	<0.05	<0.05
AECOM	BGP	WCXBH006	WCXBH006_1.5-1.95	1.5-1.95	24/09/2014	ES1421863012	<0.05	<0.2	<0.05	0#2	<0.05	<0.05	<0.05	<0.05	<0.05	0#2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.2	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	<0.2	<0.2	<0.2	<0.05	<0.05
AECOM	BGP	WCXBH006	WCXBH006_4.5-4.95	4.5-4.95	24/09/2014	ES1421863014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6086A	LDS-BH-6086A/2	2	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6086A	LDS-BH-6086A/3	3	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6086A	LDS-BH-6086A/4	4	10/05/2016	SE152092-1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-BH-6087A	LDS-BH-6087A/3	3	10/05/2016	SE152092-1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-BH-6088	LDS-BH-6088/2.0	2	9/05/2016	SE152059-1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-BH-6089A	LDS-BH-6089A/2	2	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6089A	LDS-BH-6089A/3	3	10/05/2016	SE152092-1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-BH-6090A	LDS-BH-6090A/2	2	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6090A	LDS-BH-6090A/3	3	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6090A	QCA287	3	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6090A	QCB287	3	10/05/2016	ES1610286	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6090A	LDS-BH-6090A/4	4	10/05/2016	SE152092-1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-BH-6091A	LDS-BH-6091A/3.0	3	13/05/2016	SE152209-1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-BH-6092	LDS-BH-6092/2	2	10/05/2016	SE152092-1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-BH-6093A	LDS-BH-6093A/2.0	2	13/05/2016	SE152209-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6093A	LDS-BH-6093A/3.0	3	13/05/2016	SE152209-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6093A	LDS-BH-6093A/4.0	4	13/05/2016	SE152209-1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-BH-6094A	LDS-BH-6094A/3.0	3	13/05/2016	SE152209-1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-BH-6095A	LDS-BH-6095A/1.5	1.5	10/05/2016	SE152092-1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-BH-6097A	LDS-BH-6097A/2	2	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6097A	LDS-BH-6097A/3	3	10/05/2016	SE152092-1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-BH-6131A	LDS-BH-6131A/2	2	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6131A	LDS-BH-6131A/3	3	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6131A	LDS-BH-6131A/4	4	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/2.0	2	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/3.0	3	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/4.0	4	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/5.0	5	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/6.0	6	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6134A	LDS-BH-6134A/2.0	2	13/05/2016	SE152209-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6134A	LDS-BH-6134A/3.0	3	13/05/2016	SE152209-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/2.0	2	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/3.0	3	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/4.0	4	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/5.0	5	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/6.0	6	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6137A	LDS-BH-6137A/2.0	2	13/05/2016	SE152209-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6137A	LDS-BH-6137A/3.0	3	13/05/2016	SE152209-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6138A	LDS-BH-6138A/2	2	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6138A	LDS-BH-6138A/3	3	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6138A	QCA213	3	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6138A	QCB213	3	10/05/2016	ES1610287	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6139A	LDS-BH-6139A/2	2	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6141A	LDS-BH-6141A/2	2	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6142A	LDS-BH-6142A/2.0	2	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6142A	LDS-BH-6142A/3.0	3	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6143A	LDS-BH-6143A/2.0	2	13/05/2016	SE152209-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6143A	LDS-BH-6143A/3.0	3	13/05/2016	SE152209-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6086	LDS-TP-6086/1.0	1	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6087	LDS-TP-6087/1.0	1	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6089	LDS-TP-6089/1.0	1	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6090	LDS-TP-6090/1.0	1	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6091	LDS-TP-6091/1.0	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6091	LDS-TP-6091/1.4	1.4	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6093	LDS-TP-6093/1.0	1	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6094	LDS-TP-6094/1.0	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6094	LDS-TP-6094/1.4	1.4	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6096	LDS-TP-6096/1.0	1	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6096	LDS-TP-6096/1.4	1.4	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6097	LDS-TP-6097/1.0	1	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6097	LDS-TP-6097/1.4	1.4	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6130	LDS-TP-6130/1.0	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6130	LDS-TP-6130/1.4	1.4	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6131	LDS-TP-6131/1.0	1	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6132	LDS-TP-6132/1.0	1	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6133	LDS-TP-6133/1.0	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6133	LDS-TP-6133/1.4	1.4	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6134	LDS-TP-6134/1.0	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6134	QCA297	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6134	QCB297	1	16/05/2016	ES1611008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6135	LDS-TP-6135/1.0	1	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6136	LDS-TP-6136/1.0	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6136	LDS-TP-6136/1.4	1.4	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6137	LDS-TP-6137/1.0	1	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6138	LDS-TP-6138/1.0	1	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6139	LDS-TP-6139/1.0	1	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6140	LDS-TP-6140/1.0	1	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6140	LDS-TP-6140/1.4	1.4	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6141	LDS-TP-6141/1.0	1	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6142	LDS-TP-6142/1.0	1	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6143	LDS-TP-6143/1.0	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6143	QCA293	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6143	QCB293	1	16/05/2016	ES1611008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6144	LDS-TP-6144/1.0	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6144	LDS-TP-6144/1.4	1.4	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-1007	LDS-BH1007-1.4-1.5	1.4-1.5	12/11/2015	SE146148-1	<0.1	<0.1	-	n#2	<0.2	<0.2	<0.2	<0.1	n#2	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-BH-1011	LDS-BH011-002-3-3.45	3-3.4	13/11/2015	SE145985-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-1011	LDS-BH1011-1.4-1.5	1.4-1.5	12/11/2015	SE146148-1	<0.1	<0.1	-	n#2	<0.2	<0.2	<0.2	<0.1	n#2	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-TP-1212	LDS-TP-1212_1.7-2.0	1.7-2	16/11/2015	SE146143-1	<0.1	<0.1	-	n#2	<0.2	<0.2	<0.2	<0.1	n#2	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	BGP	LDS-TP-1212	LDS-TP-1212_2.8-3.0	2.8-3	16/11/2015	SE146143-1	<0.1	<0.1	-	n#2	<0.2	<0.2	<0.2	<0.1	n#2	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Statistical Summary						Number of Results	36	36	4	36	36	12	36	36	36	28	36	36	36	36	36	36	36	32	36	32	32	32	32	36	36	4	4	36	4	4	36	36	36	36	4	32	4	36	32	4	4	36	4	4
						Number of Detects	0	0	0	36	0	0	0	0	8	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
						Minimum Concentrations	<0.05	<0.1	<0.05	<0	<0.05	<0.05	<0.05	<0.05	<0	<0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.5	<0.2	<0.2	<0.2	<0.05	<0.05
						Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
						Maximum Concentration	<0.1	<0.2	<0.05	0	<0.2	<0.2	<0.2	<0.2	<0.1	0	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.05	<0.05	<0.2	<0.05	<0.05	<0.5	<0.5	<0.5	<0.2	<0.05	<0.2	<0.05	<0.2	<0.5	<0.2	<0.2	<0.2	<0.05	<0.05
						Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
						Average Concentration	0.047	0.056	0.025	0	0.092	0.075	0.092	0.081	0.036	0	0.092	0.047	0.047	0.047	0.047	0.047	0.047	0.05	0.056	0.05	0.05	0.05	0.05	0.092	0.092	0.025	0.025	0.092	0.025	0.025	0.23	0.23	0.23	0.092	0.025	0.1	0.025	0.092	0.25	0.1	0.1	0.1	0.025	0.025
						Median Concentration	0.05	0.05	0.025	0	0.1	0.1	0.1	0.1	0.05	0	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.025	0.025	0.1	0.025	0.025	0.25	0.25	0.25	0.1	0.025	0.1	0.025	0.1	0.25	0.1	0.1	0.1	0.025	0.025
						Standard Deviation	0.008	0.016	0	0	0.024	0.037	0.024	0.029	0.021	0	0.024	0.008	0.008	0.008	0.008	0.008	0.008	0	0.016	0	0	0	0	0.024	0.024	0	0	0.024	0	0	0.072	0.072	0.072	0.024	0	0	0	0.024	0	0	0	0	0	0
						Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
						Number of Guideline Exceedances (Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ADE CONSULTING GROUP

ADE_WCX-02-10878
KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 1 - BEVERLY GROVE PARK (BGP),
COMMERCIAL INDUSTRIAL

							PAH																						Phenols															
							Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (lower bound)*	Benzo(a)pyrene TEQ (medium bound)*	Benzo(a)pyrene TEQ (upper bound)*	Benzo(b&j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Benzo(a)pyrene TEQ (Calculated)	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAH (Sum of Common 16 PAHs - Lab Reported)	1-Methylnaphthalene	2-Methylnaphthalene	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,6-Dichlorophenol	2,3,4,6 & 2,3,5,6-Tetrachlorophenol	2-Chlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2-Methylphenol	2-Nitrophenol	3- & 4- Methylphenol	4-Nitrophenol	Cresols (Sum of total)	Phenol
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	TEQ	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
						EQL	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1		0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.1	0.1	0.5	0.2	0.5	0.5	1	0.5	0.5	0.5	0.5	2	0.5	0.5	1	1	1.5	0.5
		WCX - Kingsgrove - Commercial/ Industrial EIL/ESL									1.4													370																					
		WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures												40													4000										660							25000	240000
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number																																							
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																																													
Golder	BGP	LDS-BH-6088	LDS-BH-6088/0.5	0.5	9/05/2016	SE152059-1	<0.1	<0.1	0.1	0.3	0.3	-	-	0.4	0.3	0.1	0.2	0.3	<0.1	0.4	0.8	0.1	<0.1	<0.1	0.8	0.7	4.4	0.3	0.3	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-BH-6092	LDS-BH-6092/0.05	0.05	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	0.1	0.1	-	-	<0.3	0.1	<0.1	<0.1	0.1	<0.1	<0.2	0.2	<0.1	<0.1	<0.1	<0.1	0.2	<0.8	<0.1	<0.1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-BH-6095A	LDS-BH-6095A/0.05	0.05	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	0.3	0.2	-	-	0.4	0.2	0.1	0.2	0.3	<0.1	0.4	0.5	<0.1	0.1	<0.1	0.2	0.5	2.6	<0.1	<0.1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-BH-6095A	QCA288	0.05	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-BH-6095A	QCB288	0.05	10/05/2016	ES1610286	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<2	<0.5	-	<0.5	<0.5	<1	-	-	<0.5
Golder	BGP	LDS-TP-6086	LDS-TP-6086/0.05	0.05	9/05/2016	SE152059-1	<0.1	<0.1	0.1	1	0.8	-	-	1.2	0.9	0.4	0.5	0.6	<0.1	1.2	1.7	<0.1	0.5	<0.1	0.5	1.6	8.6	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6086	LDS-TP-6086/0.5	0.5	9/05/2016	SE152059-1	<0.1	<0.1	0.1	0.6	0.5	-	-	0.8	0.5	0.3	0.3	0.4	<0.1	0.7	1	<0.1	0.4	<0.1	0.5	0.9	5.3	<0.1	<0.1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-TP-6087	LDS-TP-6087/0.05	0.05	6/05/2016	SE151971-1	<0.1	<0.1	<0.1	0.1	0.1	-	-	<0.3	0.1	<0.1	0.1	0.1	<0.1	0.2	0.3	<0.1	<0.1	<0.1	<0.1	0.3	1.2	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6087	LDS-TP-6087/0.5	0.5	6/05/2016	SE151971-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-TP-6089	LDS-TP-6089/0.05	0.05	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	0.2	0.2	-	-	0.4	0.2	0.1	0.1	0.2	<0.1	0.3	0.3	<0.1	0.1	<0.1	0.1	0.3	1.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6089	LDS-TP-6089/1.4	0.4	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	0.2	0.2	-	-	0.3	0.2	0.1	0.1	0.2	<0.1	0.3	0.3	<0.1	0.1	<0.1	0.2	0.3	1.7	<0.1	<0.1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-TP-6090	LDS-TP-6090/0.05	0.05	6/05/2016	SE151971-1	<0.1	<0.1	0.1	1.3	0.6	-	-	1	0.8	0.3	0.4	1	<0.1	1	1.6	<0.1	0.3	<0.1	0.2	1.6	8.2	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6090	LDS-TP-6090/0.5	0.5	6/05/2016	SE151971-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-TP-6091	LDS-TP-6091/0.05	0.05	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	0.2	0.1	-	<0.2	<0.3	0.1	0.1	<0.1	0.1	<0.1	<0.2	0.4	<0.1	0.1	<0.1	0.1	0.4	1.4	<0.1	<0.1	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6091	QCA294	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6091	LDS-TP-6091/0.5	0.5	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	0.2	<0.1	<0.1	<0.1	<0.1	0.2	<0.8	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-TP-6093	LDS-TP-6093/0.05	0.05	17/05/2016	SE152442-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6093	QCA299	0.05	17/05/2016	SE152442-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6093	QCB299	0.05	17/05/2016	ES1611002	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6093	LDS-TP-6093/0.5	0.5	17/05/2016	SE152442-1	<0.1	<0.1	<0.1	0.1	0.2	-	0.3	0.3	0.2	0.1	0.1	0.1	<0.1	0.3	0.2	<0.1	0.1	<0.1	<0.1	0.2	1.4	<0.1	<0.1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-TP-6094	LDS-TP-6094/0.05	0.05	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	0.2	0.2	-	0.3	0.3	0.1	0.2	0.1	0.1	<0.1	0.3	0.4	<0.1	0.2	<0.1	<0.1	0.4	1.9	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6094	LDS-TP-6094/0.5	0.5	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	0.3	<0.1	<0.1	<0.1	<0.1	0.2	<0.8	<0.1	<0.1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-TP-6096	LDS-TP-6096/0.05	0.05	17/05/2016	SE152442-1	<0.1	<0.1	<0.1	<0.1	0.1	-	<0.2	<0.3	0.1	<0.1	<0.1	<0.1	<0.1	<0.2	0.2	<0.1	<0.1	<0.1	<0.1	0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6096	QCA305	0.05	17/05/2016	SE152442-1	<0.1	<0.1	<0.1	0.2	0.2	-	0.3	0.4	0.2	<0.1	0.1	0.2	<0.1	0.3	0.3	<0.1	<0.1	<0.1	0.1	0.3	1.5	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6096	QCB305	0.05	17/05/2016	ES1611002	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6096	LDS-TP-6096/0.5	0.5	17/05/2016	SE152442-1	<0.1	<0.1	0.2	0.4	0.4	-	0.5	0.6	0.4	0.2	0.2	0.4	<0.1	0.5	1	<0.1	0.1	<0.1	0.7	0.9	4.8	<0.1	<0.1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-TP-6097	LDS-TP-6097/0.05	0.05	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6097	LDS-TP-6097/0.5	0.5	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	0.1	0.1	-	-	<0.3	0.1	<0.1	<0.1	<0.1	<0.1	<0.2	0.2	<0.1	<0.1	<0.1	<0.1	0.2	<0.8	<0.1	<0.1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-TP-6097	QCA286	0.5	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	0.1	<0.1	-	-	<0.3	0.1	<0.1	<0.1	<0.1	<0.1	<0.2	0.2	<0.1	<0.1	<0.1	<0.1	0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6097	QCB286	0.5	9/05/2016	ES1610163	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6130	LDS-TP-6130/0.05	0.05	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	0.2	<0.1	<0.1	<0.1	<0.1	0.2	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6131	LDS-TP-6131/0.05	0.05	6/05/2016	SE151971-1	<0.1	0.2	0.3	1.2	0.9	-	-	1.3	0.9	0.3	0.4	1.6	0.1	1.3	2.5	<0.1	0.4	<0.1	1.1	3.8	14	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6132	LDS-TP-6132/0.05	0.05	6/05/2016	SE151971-1	<0.1	<0.1	<0.1	0.1	0.1	-	-	<0.3	0.1	<0.1	0.1	0.1	<0.1	0.2	0.3	<0.1	<0.1	<0.1	0.1	0.3	1.2	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6133	LDS-TP-6133/0.05	0.05	16/05/2016	SE152404-1	<0.1	<0.1	0.2	0.9	0.4	-	0.7	0.7	0.5	0.4	0.3	0.4	<0.1	0.7	1.8	<0.1	0.4	<0.1	0.5	1.4	7.2	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6134	LDS-TP-6134/0.05	0.05	16/05/2016	SE152404-1	<0.1	<0.1	0.2	0.4	0.2	-	0.4	0.4	0.2	0.2	0.2	0.3	<0.1	0.4	0.6	<0.1	0.2	<0.1	0.3	0.6	3.3	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6135	LDS-TP-6135/0.05	0.05	6/05/2016	SE151971-1	<0.1	<0.1	<0.1	0.1	0.1	-	-	<0.3	0.1	<0.1	<0.1	0.1	<0.1	0.2	0.4	<0.1	<0.1	<0.1	0.2	0.3	1.5	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6136	LDS-TP-6136/0.05	0.05	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	0.3	0.2	-	0.4	0.4	0.2	0.1	0.1	0.1	0.1	0.4	0.4	<0.1	0.2	<0.1	0.1	0.3	2.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6137	LDS-TP-6137/0.05	0.05	17/05/2016	SE152442-1	<0.1	<0.1	<0.1	0.1	0.2	-	0.2	<0.3	0.2	0.1	<0.1	0.1	<0.1	0.2	0.2	<0.1	<0.1	<0.1	<0.1	0.2	1.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6138	LDS-TP-6138/0.05	0.05	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	0.1	0.2	-	-	0.3	0.2	0.2	0.1	0.2	<0.1	0.3	0.2	<0.1	0.1	<0.1	<0.1	0.2	1.5	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6139	LDS-TP-6139/0.05	0.05	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	0.2	0.2	-	-	0.4	0.3	0.2	0.1	0.2	<0.1	0.4	0.4	<0.1	0.2	<0.1	0.1	0.4	2.2	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6140	LDS-TP-6140/0.05	0.05	17/05/2016	SE152442-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6141	LDS-TP-6141/0.05	0.05	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	0.2	0.2	-	-	0.3	0.2	<0.1	0.1	0.2	<0.1	0.3	0.4	<0.1	0.1	<0.1	0.2	0.4	2	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6142	LDS-TP-6142/0.05	0.05	17/05/2016	SE152442-1	<0.1	<0.1	<0.1	0.1	0.2	-	0.2	<0.3	0.2	<0.1	<0.1	0.1	<0.1	0.2	0.3	<0.1	<0.1	<0.1	0.1	0.2	1.2	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6143	LDS-TP-6143/0.05	0.05	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	0.2	0.2	-	0.3	0.3	0.1	0.1	0.1	0.1	<0.1	0.3	0.4	<0.1	0.2	<0.1	<0.1	0.4	1.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6144	LDS-TP-6144/0.05	0.05	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6144	QCA292	0.05	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6144	QCB292	0.05	16/05/2016	ES1611008	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-1007	LDS-BH1007-0.4-0.5	0.4-0.5	12/11/2015	SE146148-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-1007	LDS-BH1007-0.9-1.0	0.9-1	12/11/2015	SE146148-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-BH-1011	LDS-BH1011-0.1-0.2	0.1-0.2	12/11/2015	SE146148-1	<0.1	0.4	0.3	2.2	2.3	-	-	3.1	2.7	0.7	0.9	1.7	0.1	3.1	3.1	<0.1	0.7	<0.1 - 0.3	1.5	3.9	21	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-BH-1011	LDS-BH1011-0.9-1.0	0.9-1	12/11/2015	SE146148-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-1212	LDS-TP-1212_0.5-0.7	0.5-0.7	16/11/2015	SE146143-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	0.1	<0.1	-	0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.8	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-TP-1212	QCA200		16/11/2015	SE146143-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-TP-1212	QCB200	0.5-0.7	16/11/2015	ES1536626	<0.5	<0.5	0.5	1.3	1.1	1.4	1.6	2	1.1	<0.5	<0.5	1.2	<0.5	-	3.5	<0.5	<0.5	<0.5	2.3	3	14	-	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<2	<0.5	-	<0.5	<0.5	<1	-	-	<0.5

ADE_WCX-02-10878
KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 1 - BEVERLY GROVE PARK (BGP),
COMMERCIAL INDUSTRIAL

Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (lower bound)*	Benzo(a)pyrene TEQ (medium bound)*	Benzo(a)pyrene TEQ (upper bound)*	Benzo(b)&(j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Benzo(a)pyrene TEQ (Calculated)	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAH (Sum of Common 16 PAHs - Lab Reported)	1-Methylnaphthalene	2-Methylnaphthalene	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,6-Dichlorophenol	2,3,4,6 & 2,3,5,6-Tetrachlorophenol	2-Chlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2-Methylphenol	2-Nitrophenol	3- & 4- Methylphenol	4-Nitrophenol	Cresols (Sum of total)	Phenol
							PAH																							Phenols															
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	TEQ	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
						EQL	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1		0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.1	0.1	0.5	0.2	0.5	0.5	1	0.5	0.5	0.5	0.5	2	0.5	0.5	1	1	1.5	0.5
		WCX - Kingsgrove - Commercial/ Industrial EIL/ESL									1.4													370																					
		WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures												40													4000										660							25000	240000
Samples collected from outside the boundaries of the RAP/ADE's Scope (i.e. ≥0.5 m BGL)																																													
AECOM	BGP	WCXBH005	WCXBH005_0.5-0.6	0.5-0.6	19/09/2014	ES1421296005	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-																
AECOM	BGP	WCXBH005	WCXBH005_4.5-4.95	4.5-4.95	22/09/2014	ES1421863011	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-																
AECOM	BGP	WCXBH006	WCXBH006_1.0-1.1	1-1.1	19/09/2014	ES1421296009	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-																
AECOM	BGP	WCXBH006	WCXBH006_1.5-1.95	1.5-1.95	24/09/2014	ES1421863012	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.1	<0.5	<0.5																
AECOM	BGP	WCXBH006	WCXBH006_4.5-4.95	4.5-4.95	24/09/2014	ES1421863014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																
Golder	BGP	LDS-BH-6086A	LDS-BH-6086A/2	2	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6086A	LDS-BH-6086A/3	3	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6086A	LDS-BH-6086A/4	4	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-BH-6087A	LDS-BH-6087A/3	3	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-BH-6088	LDS-BH-6088/2.0	2	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-BH-6089A	LDS-BH-6089A/2	2	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	0.2	<0.1	<0.1	<0.1	<0.1	0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6089A	LDS-BH-6089A/3	3	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-BH-6090A	LDS-BH-6090A/2	2	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6090A	LDS-BH-6090A/3	3	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6090A	QCA287	3	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6090A	QCB287	3	10/05/2016	ES1610286	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6090A	LDS-BH-6090A/4	4	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-BH-6091A	LDS-BH-6091A/3.0	3	13/05/2016	SE152209-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-BH-6092	LDS-BH-6092/2	2	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-BH-6093A	LDS-BH-6093A/2.0	2	13/05/2016	SE152209-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6093A	LDS-BH-6093A/3.0	3	13/05/2016	SE152209-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6093A	LDS-BH-6093A/4.0	4	13/05/2016	SE152209-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-BH-6094A	LDS-BH-6094A/3.0	3	13/05/2016	SE152209-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-BH-6095A	LDS-BH-6095A/1.5	1.5	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-BH-6097A	LDS-BH-6097A/2	2	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6097A	LDS-BH-6097A/3	3	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-BH-6131A	LDS-BH-6131A/2	2	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	0.1	<0.1	<0.2	0.2	<0.1	<0.1	<0.1	<0.1	0.2	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6131A	LDS-BH-6131A/3	3	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6131A	LDS-BH-6131A/4	4	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/2.0	2	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	0.1	0.1	-	-	<0.3	0.2	<0.1	<0.1	0.1	<0.1	0.2	0.3	<0.1	<0.1	<0.1	<0.1	0.2	1.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/3.0	3	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/4.0	4	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/5.0	5	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/6.0	6	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6134A	LDS-BH-6134A/2.0	2	13/05/2016	SE152209-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6134A	LDS-BH-6134A/3.0	3	13/05/2016	SE152209-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/2.0	2	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/3.0	3	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/4.0	4	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/5.0	5	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/6.0	6	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6137A	LDS-BH-6137A/2.0	2	13/05/2016	SE152209-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6137A	LDS-BH-6137A/3.0	3	13/05/2016	SE152209-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6138A	LDS-BH-6138A/2	2	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6138A	LDS-BH-6138A/3	3	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6138A	QCA213	3	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6138A	QCB213	3	10/05/2016	ES1610287	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6139A	LDS-BH-6139A/2	2	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6141A	LDS-BH-6141A/2	2	10/05/2016	SE152092-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6142A	LDS-BH-6142A/2.0	2	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6142A	LDS-BH-6142A/3.0	3	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6143A	LDS-BH-6143A/2.0	2	13/05/2016	SE152209-1	0.3	0.7	1.6	11	6.3	-	9.6	9.6	5.9	5.5	2.6	4.2	0.6	9.6	17	0.6	6	<0.1 - 0.3	7.5	15	85	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6143A	LDS-BH-6143A/3.0	3	13/05/2016	SE152209-1	<0.1	<0.1	0.2	0.6	0.6	-	0.9	0.9	0.7	0.4	0.4	0.5	<0.1	0.9	1.4	<0.1	0.5	<0.1	0.5	1.3	7.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6086	LDS-TP-6086/1.0	1	9/05/2016	SE152059-1	<0.1	<0.1	0.2	0.5	0.4	-	-	0.6	0.4	0.2	0.2	0.4	<0.1	0.6	1.1	<0.1	0.3	<0.1	0.6	1	5.2	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6087	LDS-TP-6087/1.0	1	6/05/2016	SE151971-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6089	LDS-TP-6089/1.0	1	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	0.1	0.1	-	-	<0.3	0.1	<0.1	<0.1	0.1	<0.1	0.2	0.2	<0.1	<0.1	<0.1	<0.1	0.2	0.9	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6090	LDS-TP-6090/1.0	1	6/05/2016	SE151971-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6091	LDS-TP-6091/1.0	1	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	0.2	<0.1	<0.1	<0.1	<0.1	0.2	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6091	LDS-TP-6091/1.4	1.4	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	0.3	<0.1	<0.1	<0.1	<0.1	0.2	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6093	LDS-TP-6093/1.0	1	17/05/2016	SE152442-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6094	LDS-TP-6094/1.0	1	16/05/2016	SE152404-1	0.2	<0.1	0.6	1.8	0.9	-	1.3	1.3	0.8	0.5	0.5	0.7	0.1	1.3	3.2	0.3	0.6	<0.1	2.6	2.7	15	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6094	LDS-TP-6094/1.4	1.4	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6096	LDS-TP-6096/1.0	1	17/05/2016	SE152442-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6096	LDS-TP-6096/1.4	1.4	17/05/2016	SE152442-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6097	LDS-TP-6097/1.0	1	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6097	LDS-TP-6097/1.4	1.4	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6130	LDS-TP-6130/1.0	1	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6130	LDS-TP-6130/1.4	1.4	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6131	LDS-TP-6131/1.0	1	6/05/2016	SE151971-1	<0.1	<0.1	<0.1	0.2	0.2	-	-	0.3	0.2	<0.1	0.1	0.2	<0.1	0.3	0.4	<0.1	0.1	<0.1	0.2	0.4	1.9	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6132	LDS-TP-6132/1.0	1	6/05/2016	SE151971-1	<0.1	<0.1	0.1	1.4	0.8	-	-	1.2	0.9	0.4	0.4	1	<0.1	1.2	1.7	<0.1	0.4	<0.1	0.3	2	9.4	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6133	LDS-TP-6133/1.0	1	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	0.2	<0.1	<0.1	<0.1	<0.1	0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6133	LDS-TP-6133/1.4	1.4	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6134	LDS-TP-6134/1.0	1	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	0.3	0.2	-	0.3	0.3	0.2	0.1	0.1	0.2	<0.1	0.3	0.3	<0.1	0.1	<0.1	0.2	0.4	2.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6134	QCA297	1	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6134	QCB297	1	16/05/2016	ES1611008	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6135	LDS-TP-6135/1.0	1	6/05/2016	SE151971-1	<0.1	<0.1	<0.1	0.1	0.1	-	-	<0.3	0.1	<0.1	<0.1	0.2	<0.1	0.2	0.3	<0.1	<0.1	<0.1	<0.1	0.4	1.3	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6136	LDS-TP-6136/1.0	1	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	0.2	0.2	-	0.3	0.3	0.1	0.1	0.1	0.1	<0.1	0.3	0.3	<0.1	0.1	<0.1	<0.1	0.4	1.7	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6136	LDS-TP-6136/1.4	1.4	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6137	LDS-TP-6137/1.0	1	17/05/2016	SE152442-1	0.4	<0.1	2.2	3.5	2.4	-	3.6	3.6	3.1	1.7	1.7	2.1	0.2	3.6	11	0.5	1.5	<0.1	7.9	8.4	47	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6138	LDS-TP-6138/1.0	1	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	0.4	0.3	-	-	0.5	0.3	0.3	0.2	0.5	<0.1	0.5	0.7	<0.1	0.4	<0.1	0.2	0.6	3.9	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6139	LDS-TP-6139/1.0	1	9/05/2016	SE152059-1	<0.1	<0.1	0.2	1.7	1.2	-	-	2.1	2	1.5	1	1.7	0.2	2.1	3.6	<0.1	1.8	<0.1	1	3.1	19	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6140	LDS-TP-6140/1.0	1	17/05/2016	SE152442-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6140	LDS-TP-6140/1.4	1.4	17/05/2016	SE152442-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6141	LDS-TP-6141/1.0	1	9/05/2016	SE152059-1	<0.1	<0.1	0.1	0.5	0.5	-	-	0.7	0.6	0.2	0.2	0.4	<0.1	0.7	0.9	<0.1	0.2	<0.1	0.4	0.7	4.7	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6142	LDS-TP-6142/1.0	1	17/05/2016	SE152442-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	0.1	<0.1	<0.1	<0.1	<0.1	<0.2	0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6143	LDS-TP-6143/1.0	1	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	0.1	0.2	-	0.4	0.4	0.3	0.2	0.1	0.2	<0.1	0.4	0.5	<0.1	0.2	<0.1	0.2	0.6	2.6	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6143	QCA293	1	16/05/2016	SE152404-1	<0.1	0.2	0.3	0.7	0.6	-	0.9	0.9	0.5	0.3	0.4	0.6	<0.1	0.9	1.2	<0.1	0.4	<0.1 - 0.5	1	1.3	8.5	0.2	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6143	QCB293	1	16/05/2016	ES1611008	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6144	LDS-TP-6144/1.0	1	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	0.2	<0.1	<0.1	<0.1	0.2	0.2	<0.8	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6144	LDS-TP-6144/1.4	1.4	16/05/2016	SE152404-1	<0.1	<0.1	<0.1	0.1	<0.1	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	0.2	<0.1	<0.1	<0.1	0.1	0.2	<0.8	0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-1007	LDS-BH1007-1.4-1.5	1.4-1.5	12/11/2015	SE146148-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-BH-1011	LD5-BH011-002-3-3.45	3-3.4	13/11/2015	SE145985-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-1011	LDS-BH1011-1.4-1.5	1.4-1.5	12/11/2015	SE146148-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-TP-1212	LDS-TP-1212_1.7-2.0	1.7-2	16/11/2015	SE146143-1	<0.1	<0.1	<0.1	0.4	0.4	-	0.6	0.6	0.5	0.2	0.2	0.3	<0.1	-	0.5	<0.1	0.2	<0.1	0.3	0.7	3.7	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	BGP	LDS-TP-1212	LDS-TP-1212_2.8-3.0	2.8-3	16/11/2015	SE146143-1	<0.1	<0.1	<0.1	0.4	0.5	-	0.7	0.8	0.7	0.2	0.2	0.4	<0.1	-	0.8	<0.1	0.2	<0.1	0.2	1.2	5.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Statistical Summary						Number of Results	144	144	144	144	144	14	74	144	144	144	144	144	144	126	144	144	144	144	144	144	144	131	131	34	36	34	34	32	34	34	34	34	32	34	34	34	32	32	34
						Number of Detects	3	4	19	54	49	1	34	50	51	35	38	49	7	42	66	4	35	3	38	66	48	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
						Minimum Concentrations	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
						Minimum Detect	0.2	0.2	0.1	0.1	0.1	1.4	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	ND	0.1	0.1	0.8	0.1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
						Maximum Concentration	<0.5	0.7	2.2	11	6.3	1.4	9.6	9.6	5.9	5.5	2.6	4.2	0.6	9.6	17	0.6	6	0.5	7.9	15	85	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<2	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
						Maximum Detect	0.4	0.7	2.2	11	6.3	1.4	9.6	9.6	5.9	5.5	2.6	4.2	0.6	9.6	17	0.6	6	0.5	7.9	15	85	0.3	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
						Average Concentration	0.075	0.078	0.11	0.31	0.24	0.33	0.48	0.48	0.25	0.17	0.15	0.22	0.077	0.36	0.55	0.078	0.18	0.073	0.29	0.52	2.7	0.055	0.055	0.25	0.19	0.25	0.25	0.5	0.25	0.96	0.29	0.25	1	0.25	0.25	0.5	0.5	0.75	0.25
						Median Concentration	0.05	0.05	0.05	0.05	0.05	0.25	0.1	0.15	0.05	0.05	0.05	0.05	0.05	0.1	0.2	0.05	0.05	0.05	0.05	0.1	0.4	0.05	0.05	0.25	0.25	0.25	0.25	0.5	0.25	1	0.25	0.25	1	0.25	0.25	0.5	0.5	0.75	0.25
						Standard Deviation	0.069	0.085	0.23	1	0.61	0.31	1.2	0.94	0.63	0.49	0.28	0.47	0.075	0.97	1.8	0.084	0.54	0.063	0.95	1.5	8.6	0.031	0.035	0	0.074	0	0	0	0	0.18	0.18	0	0	0	0	0	0	0	0
						Number of Guideline Exceedances	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
						Number of Guideline Exceedances (Detects Only)	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ADE CONSULTING GROUP

ADE_WCX-02-10878
KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 1 - BEVERLY GROVE PARK (BGP), COMMERCIAL INDUSTRIAL

Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number	Aroclor 1016	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	Aroclor 1221	Aroclor 1262	PCB (Sum of Total-Lab Reported)
							Polychlorinated Biphenyls									
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
						EQL	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
		WCX - Kingsgrove - Commercial/ Industrial EIL/ESL														
		WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures														7
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																
Golder	BGP	LDS-BH-6088	LDS-BH-6088/0.5	0.5	9/05/2016	SE152059-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	BGP	LDS-BH-6092	LDS-BH-6092/0.05	0.05	10/05/2016	SE152092-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	BGP	LDS-BH-6095A	LDS-BH-6095A/0.05	0.05	10/05/2016	SE152092-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	BGP	LDS-BH-6095A	QCA288	0.05	10/05/2016	SE152092-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	BGP	LDS-BH-6095A	QCB288	0.05	10/05/2016	ES1610286	-	-	-	-	-	-	-	-	-	<0.1
Golder	BGP	LDS-TP-6086	LDS-TP-6086/0.05	0.05	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6086	LDS-TP-6086/0.5	0.5	9/05/2016	SE152059-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	BGP	LDS-TP-6087	LDS-TP-6087/0.05	0.05	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6087	LDS-TP-6087/0.5	0.5	6/05/2016	SE151971-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	BGP	LDS-TP-6089	LDS-TP-6089/0.05	0.05	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6089	LDS-TP-6089/1.4	0.4	9/05/2016	SE152059-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	BGP	LDS-TP-6090	LDS-TP-6090/0.05	0.05	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6090	LDS-TP-6090/0.5	0.5	6/05/2016	SE151971-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	BGP	LDS-TP-6091	LDS-TP-6091/0.05	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6091	QCA294	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6091	LDS-TP-6091/0.5	0.5	16/05/2016	SE152404-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	BGP	LDS-TP-6093	LDS-TP-6093/0.05	0.05	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6093	QCA299	0.05	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6093	QCB299	0.05	17/05/2016	ES1611002	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6093	LDS-TP-6093/0.5	0.5	17/05/2016	SE152442-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	BGP	LDS-TP-6094	LDS-TP-6094/0.05	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6094	LDS-TP-6094/0.5	0.5	16/05/2016	SE152404-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	BGP	LDS-TP-6096	LDS-TP-6096/0.05	0.05	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6096	QCA305	0.05	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6096	QCB305	0.05	17/05/2016	ES1611002	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6096	LDS-TP-6096/0.5	0.5	17/05/2016	SE152442-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	BGP	LDS-TP-6097	LDS-TP-6097/0.05	0.05	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6097	LDS-TP-6097/0.5	0.5	9/05/2016	SE152059-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	BGP	LDS-TP-6097	QCA286	0.5	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6097	QCB286	0.5	9/05/2016	ES1610163	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6130	LDS-TP-6130/0.05	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6131	LDS-TP-6131/0.05	0.05	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6132	LDS-TP-6132/0.05	0.05	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6133	LDS-TP-6133/0.05	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6134	LDS-TP-6134/0.05	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6135	LDS-TP-6135/0.05	0.05	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6136	LDS-TP-6136/0.05	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6137	LDS-TP-6137/0.05	0.05	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6138	LDS-TP-6138/0.05	0.05	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6139	LDS-TP-6139/0.05	0.05	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6140	LDS-TP-6140/0.05	0.05	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6141	LDS-TP-6141/0.05	0.05	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6142	LDS-TP-6142/0.05	0.05	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6143	LDS-TP-6143/0.05	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6144	LDS-TP-6144/0.05	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6144	QCA292	0.05	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6144	QCB292	0.05	16/05/2016	ES1611008	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-1007	LDS-BH1007-0.4-0.5	0.4-0.5	12/11/2015	SE146148-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-1007	LDS-BH1007-0.9-1.0	0.9-1	12/11/2015	SE146148-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	BGP	LDS-BH-1011	LDS-BH1011-0.1-0.2	0.1-0.2	12/11/2015	SE146148-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	BGP	LDS-BH-1011	LDS-BH1011-0.9-1.0	0.9-1	12/11/2015	SE146148-1	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-1212	LDS-TP-1212_0.5-0.7	0.5-0.7	16/11/2015	SE146143-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	BGP	LDS-TP-1212	QCA200		16/11/2015	SE146143-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	BGP	LDS-TP-1212	QCB200	0.5-0.7	16/11/2015	ES1536626	-	-	-	-	-	-	-	-	-	-

Field_ID	2,4,5-Trichlorophenoxy Acetic Acid	2,4-D	2,4-Dichlorprop	2,6-D	2-Methyl-4-chlorophenoxyacetic acid	2-Methyl-4-Chlorophenoxy Butanoic Acid	4-(2,4-Dichlorophenoxy) butyric acid (2,4-DB)	4-Chlorophenoxyacetic acid	Actril	Bromoxynil	Clopyralid	Dicamba	Dinoseb	Fenoprop	Fluroxypyr	Mecoprop	Picloram	Triclopyr	Glyphosate
	Acid Herbicides																		Glyphosate
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.02	0.02	0.02	0.2	0.02	0.02	0.02	0.02	0.5	0.2	0.02	0.02	0.2	0.02	0.02	0.02	0.02	0.02	0.5
WCX - Kingsgrove - Commercial/ Industrial EIL/ESL																			
WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures	5000	9000			5000	5000										5000			
LDS-BH-6088/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5
LDS-BH-6092/0.05	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
LDS-BH-6095A/0.05	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5
QCA288	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5
QCB288	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.02	<0.02	-	-	<0.02	0.02	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.5
LDS-TP-6086/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6086/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5
LDS-TP-6087/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6087/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5
LDS-TP-6089/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6089/1.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5
LDS-TP-6090/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6090/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5
LDS-TP-6091/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA294	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	-
LDS-TP-6091/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5
LDS-TP-6093/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA299	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB299	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6093/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5
LDS-TP-6094/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6094/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5
LDS-TP-6096/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA305	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB305	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6096/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5
LDS-TP-6097/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6097/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5
QCA286	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB286	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6130/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6131/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6132/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6133/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6134/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6135/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6136/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6137/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6138/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6139/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6140/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6141/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6142/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6143/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6144/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA292	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB292	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1007-0.4-0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1007-0.9-1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1011-0.1-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1011-0.9-1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-1212_0.5-0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Field_ID	Atrazine	Cyanazine	Hexazinone	Metribuzin	Prometryn	Propazine	Simazine	Terbutryn	Terbutylazine	pH (Field)	pH (Field ox)	pH Difference	Reaction Rate
	Triazines												
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH Units	pH Units	pH Units	-
EQL	0.05	0.5	1	0.5	0.5	0.5	0.05	0.5	0.5	0	0	-10	0
WCX - Kingsgrove - Commercial/ Industrial EIL/ESL													
WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures	2500												
LDS-BH-6088/0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-
LDS-BH-6092/0.05	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6095A/0.05	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-
QCA288	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-
QCB288	<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-
LDS-TP-6086/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6086/0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-
LDS-TP-6087/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6087/0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-
LDS-TP-6089/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6089/1.4	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-
LDS-TP-6090/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6090/0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-
LDS-TP-6091/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA294	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-
LDS-TP-6091/0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-
LDS-TP-6093/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA299	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB299	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6093/0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-
LDS-TP-6094/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6094/0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-
LDS-TP-6096/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA305	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB305	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6096/0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-
LDS-TP-6097/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6097/0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-
QCA286	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB286	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6130/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6131/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6132/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6133/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6134/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6135/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6136/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6137/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6138/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6139/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6140/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6141/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6142/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6143/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6144/0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA292	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB292	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1007-0.4-0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1007-0.9-1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1011-0.1-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1011-0.9-1.0	-	-	-	-	-	-	-	-	-	4.3	4.1	0.2	x
LDS-TP-1212_0.5-0.7	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA200	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB200	-	-	-	-	-	-	-	-	-	-	-	-	-

ADE CONSULTING GROUP

ADE_WCX-02-10878
KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 1 - BEVERLY GROVE PARK (BGP), COMMERCIAL INDUSTRIAL

							Polychlorinated Biphenyls										Acid Herbicides																		Glyphosate	Triazines												
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number	Aroclor 1016	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	Aroclor 1221	Aroclor 1262	PCB (Sum of Total-Lab Reported)	2,4,5-Trichlorophenoxy Acetic Acid	2,4-D	2,4-Dichlorprop	2,6-D	2-Methyl-4-chlorophenoxyacetic acid	2-Methyl-4-Chlorophenoxy Butanoic Acid	4-(2,4-Dichlorophenoxy) butyric acid (2,4-DB)	4-Chlorophenoxyacetic acid	Actril	Bromoxynil	Clopyralid	Dicamba	Dinoseb	Fenoprop	Fluroxypyr	Mecoprop	Picloram	Triclopyr	Glyphosate	Atrazine	Cyanazine	Hexazinone	Metribuzin	Prometryn	Propazine	Simazine	Terbutryn	Terbutylazine	pH (Field)	pH (Field ox)	pH Difference	Reaction Rate
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH Units	pH Units	pH Units	-
						EQL	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.02	0.02	0.02	0.2	0.02	0.02	0.02	0.02	0.5	0.2	0.02	0.02	0.2	0.02	0.02	0.02	0.02	0.02	0.5	0.05	0.5	1	0.5	0.5	0.5	0.05	0.5	0.5	0	0	-10	0
		WCX - Kingsgrove - Commercial/ Industrial EIL/ESL																																														
		WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures														7	5000	9000			5000	5000										5000				2500												
Samples collected from outside the boundaries of the RAP/ADE's Scope (i.e. ≥0.5 m BGL)																																																
AECOM	BGP	WCXBH005	WCXBH005_0.5-0.6	0.5-0.6	19/09/2014	ES1421296005	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AECOM	BGP	WCXBH005	WCXBH005_4.5-4.95	4.5-4.95	22/09/2014	ES1421863011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AECOM	BGP	WCXBH006	WCXBH006_1.0-1.1	1-1.1	19/09/2014	ES1421296009	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AECOM	BGP	WCXBH006	WCXBH006_1.5-1.95	1.5-1.95	24/09/2014	ES1421863012	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AECOM	BGP	WCXBH006	WCXBH006_4.5-4.95	4.5-4.95	24/09/2014	ES1421863014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6086A	LDS-BH-6086A/2	2	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6086A	LDS-BH-6086A/3	3	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6086A	LDS-BH-6086A/4	4	10/05/2016	SE152092-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6087A	LDS-BH-6087A/3	3	10/05/2016	SE152092-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6088	LDS-BH-6088/2.0	2	9/05/2016	SE152059-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6089A	LDS-BH-6089A/2	2	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6089A	LDS-BH-6089A/3	3	10/05/2016	SE152092-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6090A	LDS-BH-6090A/2	2	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6090A	LDS-BH-6090A/3	3	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6090A	QCA287	3	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6090A	QCB287	3	10/05/2016	ES1610286	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6090A	LDS-BH-6090A/4	4	10/05/2016	SE152092-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6091A	LDS-BH-6091A/3.0	3	13/05/2016	SE152209-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6092	LDS-BH-6092/2	2	10/05/2016	SE152092-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6093A	LDS-BH-6093A/2.0	2	13/05/2016	SE152209-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6093A	LDS-BH-6093A/3.0	3	13/05/2016	SE152209-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6093A	LDS-BH-6093A/4.0	4	13/05/2016	SE152209-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6094A	LDS-BH-6094A/3.0	3	13/05/2016	SE152209-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6095A	LDS-BH-6095A/1.5	1.5	10/05/2016	SE152092-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6097A	LDS-BH-6097A/2	2	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6097A	LDS-BH-6097A/3	3	10/05/2016	SE152092-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6131A	LDS-BH-6131A/2	2	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6131A	LDS-BH-6131A/3	3	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6131A	LDS-BH-6131A/4	4	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/2.0	2	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/3.0	3	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/4.0	4	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/5.0	5	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6132A	LDS-BH-6132A/6.0	6	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6134A	LDS-BH-6134A/2.0	2	13/05/2016	SE152209-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6134A	LDS-BH-6134A/3.0	3	13/05/2016	SE152209-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/2.0	2	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/3.0	3	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/4.0	4	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/5.0	5	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6135A	LDS-BH-6135A/6.0	6	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6137A	LDS-BH-6137A/2.0	2	13/05/2016	SE152209-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6137A	LDS-BH-6137A/3.0	3	13/05/2016	SE152209-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6138A	LDS-BH-6138A/2	2	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6138A	LDS-BH-6138A/3	3	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6138A	QCA213	3	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6138A	QCB213	3	10/05/2016	ES1610287	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6139A	LDS-BH-6139A/2	2	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6141A	LDS-BH-6141A/2	2	10/05/2016	SE152092-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6142A	LDS-BH-6142A/2.0	2	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6142A	LDS-BH-6142A/3.0	3	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6143A	LDS-BH-6143A/2.0	2	13/05/2016	SE152209-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-6143A	LDS-BH-6143A/3.0	3	13/05/2016	SE152209-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6086	LDS-TP-6086/1.0	1	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6087	LDS-TP-6087/1.0	1	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6089	LDS-TP-6089/1.0	1	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6090	LDS-TP-6090/1.0	1	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6091	LDS-TP-6091/1.0	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6091	LDS-TP-6091/1.4	1.4	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6093	LDS-TP-6093/1.0	1	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6094	LDS-TP-6094/1.0	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6094	LDS-TP-6094/1.4	1.4	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6096	LDS-TP-6096/1.0	1	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6096	LDS-TP-6096/1.4	1.4	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6097	LDS-TP-6097/1.0	1	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6097	LDS-TP-6097/1.4	1.4	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6130	LDS-TP-6130/1.0	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6130	LDS-TP-6130/1.4	1.4	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6131	LDS-TP-6131/1.0	1	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6132	LDS-TP-6132/1.0	1	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6133	LDS-TP-6133/1.0	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6133	LDS-TP-6133/1.4	1.4	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6134	LDS-TP-6134/1.0	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6134	QCA297	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6134	QCB297	1	16/05/2016	ES1611008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6135	LDS-TP-6135/1.0	1	6/05/2016	SE151971-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6136	LDS-TP-6136/1.0	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6136	LDS-TP-6136/1.4	1.4	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6137	LDS-TP-6137/1.0	1	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6138	LDS-TP-6138/1.0	1	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6139	LDS-TP-6139/1.0	1	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6140	LDS-TP-6140/1.0	1	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6140	LDS-TP-6140/1.4	1.4	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6141	LDS-TP-6141/1.0	1	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6142	LDS-TP-6142/1.0	1	17/05/2016	SE152442-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6143	LDS-TP-6143/1.0	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6143	QCA293	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6143	QCB293	1	16/05/2016	ES1611008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6144	LDS-TP-6144/1.0	1	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-6144	LDS-TP-6144/1.4	1.4	16/05/2016	SE152404-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-1007	LDS-BH1007-1.4-1.5	1.4-1.5	12/11/2015	SE146148-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-1011	LDS-BH011-002-3-3.45	3-3.4	13/11/2015	SE145985-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-BH-1011	LDS-BH1011-1.4-1.5	1.4-1.5	12/11/2015	SE146148-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-1212	LDS-TP-1212_1.7-2.0	1.7-2	16/11/2015	SE146143-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	BGP	LDS-TP-1212	LDS-TP-1212_2.8-3.0	2.8-3	16/11/2015	SE146143-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			Statistical Summary																																													
						Number of Results	32	32	32	32	32	32	32	32	32	36	15	15	15	14	15	15	15	15	14	14	15	15	14	15	15	15	15	15	15	15	13	13	13	13	13	14	13	13	1	1	1	0
						Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0
						Minimum Concentrations	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.02	<0.02	<0.02	<0.2	<0.02	<0.02	<0.02	<0.02	<0.5	<0.2	<0.02	0.02	<0.2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.5	<0.05	<0.5	<1	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	4.3	4.1	0.2	#####
						Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.3	4.1	0.2	ND
						Maximum Concentration	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	4.3	4.1	0.2	0
						Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.3	4.1	0.2	ND
						Average Concentration	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.45	0.1	0.094	0.094	0.1	0.094	0.22	0.094	0.22	0.25	0.1	0.1	0.1	0.11	0.12	0.1	0.1	0.23	0.1	0.25	0.24	0.25	0.5	0.25	0.25	0.25	0.23	0.25	0.25				
						Median Concentration	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.1	0.1	0.1	0.1	0.1	0.25	0.1	0.25	0.25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.25	0.1	0.25	0.25	0.25	0.5	0.25	0.25	0.25	0.25	0.25	0.25	4.3	4.1	0.2	
						Standard Deviation	0	0	0	0	0	0	0	0	0	0.14	0.047	0.023	0.023	0	0.023	0.071	0.023	0.071	0	0	0.047	0.045	0.04	0.11	0.047	0.047	0.062	0.047	0	0.058	0	0	0	0	0	0.06	0	0				
						Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
						Number of Guideline Exceedances (Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

							Heavy Metals																	
							Antimony	Arsenic	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Tin	Vanadium	Zinc
						Output unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
						EQL	3	3	0.5	5	0.3	0.3	0.5	0.5	1	1	0.01	1	0.5	3	3	0.5	0.5
WCX - Kingsgrove - Commercial/ Industrial EIL/ESL								160				950		320	1800								840
WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures								3000	500	300000	900	3600	4000	240000	1500	60000	730		6000	10000			400000
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time																			
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																								
Golder	NNM	LDS-TP-6001	LDS-TP-6001/0.5	0.5	25/02/2016		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6001	LDS-TP-6001/C2		25/02/2016		<3	5	0.6	<5	0.5	12	6.2	18	31	240	0.05	<1	6.7	<3	<3	32	47
Golder	NNM	LDS-TP-6002	LDS-TP-6002/1	1	25/02/2016		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6002	LDS-TP-6002/C2		25/02/2016		<3	4	1	<5	0.4	11	4.7	15	35	160	0.07	<1	5.8	<3	<3	27	42
Golder	NNM	LDS-TP-6003	LDS-TP-6003/0.2	0.2	25/02/2016		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6003	LDS-TP-6003/C2		25/02/2016		<3	3	0.6	<5	0.3	9.6	4.5	16	33	130	0.06	<1	5.2	<3	<3	26	41
Golder	NNM	LDS-TP-6004	LDS-TP-6004/0.2	0.2	25/02/2016		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6004	LDS-TP-6004/C2		25/02/2016		<3	5	0.6	<5	0.5	14	5.5	18	34	140	0.09	<1	6.6	<3	<3	34	45
Golder	NNM	LDS-TP-6005	LDS-TP-6005/1.4	1.4	25/02/2016		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6005	LDS-TP-6005/C2		25/02/2016		<3	4	<0.5	<5	0.4	11	5.4	16	48	130	0.05	<1	8	<3	<3	31	43
Golder	NNM	LDS-TP-6006	LDS-TP-6006/0	0	25/02/2016		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6006	LDS-TP-6006/C2		25/02/2016		<3	5	0.6	<5	0.4	14	6.6	15	27	170	0.06	<1	8	<3	<3	34	48
Golder	NNM	LDS-TP-6007	LDS-TP-6007/0.5	0.5	26/02/2016		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6007	LDS-TP-6007/C2		26/02/2016		<3	4	0.6	<5	0.5	14	7.1	21	45	210	0.07	<1	9.8	<3	<3	29	66
Golder	NNM	LDS-TP-6008	LDS-TP-6008/1	1	26/02/2016		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6008	LDS-TP-6008/C2		26/02/2016		<3	4	0.7	<5	0.4	12	5.1	16	38	160	0.08	<1	6	<3	<3	31	52
Golder	NNM	LDS-TP-6009	LDS-TP-6009/0	0	26/02/2016		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6009	LDS-TP-6009/C2		26/02/2016		<3	6	0.7	<5	0.4	11	5.7	21	24	140	0.05	<1	6.5	<3	<3	36	44
Golder	NNM	LDS-TP-6010	LDS-TP-6010/1.4	1.4	26/02/2016		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6010	LDS-TP-6010/C2		26/02/2016		<3	4	0.5	<5	0.4	10	10	18	28	300	0.03	<1	8.9	<3	<3	27	47
Golder	NNM	LDS-TP-6011	LDS-TP-6011/0.2	0.2	26/02/2016		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6011	LDS-TP-6011/C2		26/02/2016		<3	4	0.5	<5	0.5	15	8	23	44	280	0.11	<1	12	<3	<3	29	67
Golder	NNM	LDS-TP-6012	LDS-TP-6012/1	1	26/02/2016		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6012	LDS-TP-6012/C2		26/02/2016		<3	4	0.6	<5	0.4	12	9.3	18	22	420	0.03	<1	13	<3	<3	29	43
ADE	NNM	ADE-TP1-N	ADE-TP1-N-A	0.5	12/08/2016		-	5	-	-	<0.3	15	-	18	41	-	<0.2	-	35	-	-	-	140
ADE	NNM	ADE-TP1-N	ADE-TP1-N-B	2.8	12/08/2016		-	3	-	-	<0.3	9	-	13	15	-	<0.2	-	20	-	-	-	84
ADE	NNM	ADE-TP1-N	ADE-TP1-N-C	5.8	12/08/2016		-	8	-	-	<0.3	9	-	21	30	-	<0.2	-	28	-	-	-	103
ADE	NNM	ADE-TP1-N	ADE-TP1-N-D	9.0	12/08/2016		-	2	-	-	<0.3	<5	-	13	12	-	<0.2	-	<10	-	-	-	47
ADE	NNM	ADE-TP2-N	ADE-TP2-N-A	0.5	15/08/2016		-	4	-	-	<0.3	13	-	9	42	-	<0.2	-	12	-	-	-	51
ADE	NNM	ADE-TP2-N	ADE-TP2-N-B	11.2	15/08/2016		-	4	-	-	<0.3	9	-	19	20	-	<0.2	-	19	-	-	-	80
ADE	NNM	ADE-TP3-N	ADE-TP3-N-A	0.5	16/08/2016		-	8	-	-	<0.3	15	-	28	45	-	<0.2	-	10	-	-	-	40
ADE	NNM	ADE-TP3-N	ADE-TP3-N-B	9.0	16/08/2016		-	12	-	-	<0.3	17	-	11	26	-	<0.2	-	<10	-	-	-	14
ADE	NNM	ADE-TP-3-N	ADE-TP-3-N-C	10.0	16/08/2016		-	8	-	-	<0.3	11	-	18	26	-	<0.2	-	<10	-	-	-	30
ADE	NNM	ADE-TP4-N	ADE-TP4-N-A	0.6	16/08/2016		-	9	-	-	<0.3	14	-	16	42	-	<0.2	-	<10	-	-	-	46
ADE	NNM	ADE-TP4-N	ADE-TP4-N-B	8.5	16/08/2016		-	3	-	-	<0.3	8	-	21	27	-	<0.2	-	30	-	-	-	66
ADE	NNM	ADE-TP4-N	ADE-TP4-N-C	11.2	16/08/2016		-	11	-	-	<0.3	10	-	<5	<10	-	<0.2	-	<10	-	-	-	<5
ADE	NNM	ADE-TP5-N	ADE-TP5-N-A	0.5	17/08/2016		-	6	-	-	<0.3	16	-	17	47	-	<0.2	-	<10	-	-	-	51
ADE	NNM	ADE-TP5-N	ADE-TP5-N-B	9.2	17/08/2016		-	6	-	-	<0.3	10	-	10	15	-	<0.2	-	<10	-	-	-	14
ADE	NNM	ADE-TP5-N	ADE-TP5-N-C	12.0	17/08/2016		-	6	-	-	<0.3	11	-	10	11	-	0.66	-	<10	-	-	-	<5
ADE	NNM	ADE-TP6-N	ADE-TP6-N-A	0.5	17/08/2016		-	6	-	-	<0.3	10	-	21	33	-	<0.2	-	<10	-	-	-	35
ADE	NNM	ADE-TP6-N	ADE-TP6-N-B	9.3	17/08/2016		-	7	-	-	<0.3	15	-	39	36	-	<0.2	-	<10	-	-	-	87
Statistical Summary						Number of Results	12	29	12	12	29	29	12	29	29	12	29	12	29	12	12	12	29
						Number of Detects	0	29	11	0	12	28	12	28	28	12	13	0	19	0	0	12	27
						Minimum Concentration	<3	2	<0.5	<5	<0.3	<5	4.5	<5	<10	130	0.03	<1	5.2	<3	<3	26	<5
						Minimum Detect	ND	2	0.5	ND	0.3	7.8682	4.5	9.3239437	10.82	130	0.03	ND	5.2	ND	ND	26	13.780564
						Maximum Concentration	<3	11.828	1	<5	0.5	17.226	10	39.414783	48	420	0.66	<1	35.317	<3	<3	36	14.05187
						Maximum Detect	ND	11.828	1	ND	0.5	17.226	10	39.414783	48	420	0.66	ND	35.317	ND	ND	36	14.05187
						Average Concentration	1.5	5.5	0.6	2.5	0.26	12	6.5	17	30	207	0.1	0.5	10	1.5	1.5	30	51
						Median Concentration	1.5	5	0.6	2.5	0.15	11	5.95	18	31	165	0.1	0.5	6.6	1.5	1.5	30	46.551859
						Standard Deviation	0	2.4	0.17	0	0.14	3	1.8	6.5	12	89	0.11	0	8.3	0	0	3.1	29
						Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
						Number of Guideline Exceedances (Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ADE_WCX-02-10878
KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 3 - NORTHERN NOISE MOUND (NNM)
COMMERCIAL/INDUSTRIAL

					MAH							TPH Group - Waste Classification						TRH - HSL								
					Benzene	Toluene	Ethylbenzene	Xylenes (m & p)	Xylene (o)	Xylenes (Sum of total) (Lab Reported)	Total BTEX	TRH C6 - C9 Fraction	TRH C10 - C14 Fraction	TRH C15 - C28 Fraction	TRH C29 - C36 Fraction	TRH>C10 - C36 (Sum of total) (Lab Reported)	TRH C6 - C10 Fraction F1	TRH C6 - C10 Fraction Less BTEX F1	TRH >C10 - C16 Fraction F2	TRH >C10 - C16 Fraction Less Naphthalene F2	TRH >C16 - C34 Fraction F3	TRH >C34 - C40 Fraction F4	TRH C37 - C40 Fraction	TRH>C10 - C40 (Sum of total) (Lab Reported)	
				output_unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				EQL	0.1	0.1	0.1	0.2	0.1	0.3	0.2	10	20	45	45	50	10	10	25	25	90	100	100	50	
WCX - Kingsgrove - Commercial/ Industrial EIL/ESL					75	135	165			95								215		170	1700	3300			
WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures					3					230								260		1000	5000	10000			
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time																					
Samples collected from within the boundaries of the RAP/ ADE's Scope (i.e. ±0.5 m BGL)																										
Golder	NNM	LDS-TP-6001	LDS-TP-6001/0.5	0.5	25/02/2016	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
Golder	NNM	LDS-TP-6001	LDS-TP-6001/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6002	LDS-TP-6002/1	1	25/02/2016	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
Golder	NNM	LDS-TP-6002	LDS-TP-6002/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6003	LDS-TP-6003/0.2	0.2	25/02/2016	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
Golder	NNM	LDS-TP-6003	LDS-TP-6003/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6004	LDS-TP-6004/0.2	0.2	25/02/2016	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
Golder	NNM	LDS-TP-6004	LDS-TP-6004/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6005	LDS-TP-6005/1.4	1.4	25/02/2016	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
Golder	NNM	LDS-TP-6005	LDS-TP-6005/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6006	LDS-TP-6006/0	0	25/02/2016	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
Golder	NNM	LDS-TP-6006	LDS-TP-6006/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6007	LDS-TP-6007/0.5	0.5	26/02/2016	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
Golder	NNM	LDS-TP-6007	LDS-TP-6007/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6008	LDS-TP-6008/1	1	26/02/2016	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
Golder	NNM	LDS-TP-6008	LDS-TP-6008/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6009	LDS-TP-6009/0	0	26/02/2016	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
Golder	NNM	LDS-TP-6009	LDS-TP-6009/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6010	LDS-TP-6010/1.4	1.4	26/02/2016	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
Golder	NNM	LDS-TP-6010	LDS-TP-6010/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6011	LDS-TP-6011/0.2	0.2	26/02/2016	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
Golder	NNM	LDS-TP-6011	LDS-TP-6011/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6012	LDS-TP-6012/1	1	26/02/2016	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
Golder	NNM	LDS-TP-6012	LDS-TP-6012/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP1-N	ADE-TP1-N-A	0.5	12/08/2016	<0.5	<0.5	<1	<2	<1	-	-	<35	<50	<100	<100	<285	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP1-N	ADE-TP1-N-B	2.8	12/08/2016	<0.5	<0.5	<1	<2	<1	-	-	<35	<50	<100	<100	<285	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP1-N	ADE-TP1-N-C	5.8	12/08/2016	<0.5	<0.5	<1	<2	<1	-	-	<35	<50	<100	<100	<285	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP1-N	ADE-TP1-N-D	9.0	12/08/2016	<0.5	<0.5	<1	<2	<1	-	-	<35	<50	<100	<100	<285	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP2-N	ADE-TP2-N-A	0.5	15/08/2016	<0.5	<0.5	<1	<2	<1	-	-	<35	<50	<100	<100	<285	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP2-N	ADE-TP2-N-B	11.2	15/08/2016	<0.5	<0.5	<1	<2	<1	-	-	<35	<50	<100	<100	<285	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP3-N	ADE-TP3-N-A	0.5	16/08/2016	<0.5	<0.5	<1	<2	<1	-	-	<35	<50	<100	<100	<285	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP3-N	ADE-TP3-N-B	9.0	16/08/2016	<0.5	<0.5	<1	<2	<1	-	-	<35	<50	<100	<100	<285	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP3-N	ADE-TP-3-N-C	10.0	16/08/2016	<0.5	<0.5	<1	<2	<1	-	-	<35	<50	<100	<100	<285	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP4-N	ADE-TP4-N-A	0.6	16/08/2016	<0.5	<0.5	<1	<2	<1	-	-	<35	<50	<100	<100	<285	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP4-N	ADE-TP4-N-B	8.5	16/08/2016	<0.5	<0.5	<1	<2	<1	-	-	<35	<50	<100	<100	<285	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP4-N	ADE-TP4-N-C	11.2	16/08/2016	<0.5	<0.5	<1	<2	<1	-	-	<35	<50	<100	<100	<285	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP5-N	ADE-TP5-N-A	0.5	17/08/2016	<0.5	<0.5	<1	<2	<1	-	-	<35	<50	<100	<100	<285	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP5-N	ADE-TP5-N-B	9.2	17/08/2016	<0.5	<0.5	<1	<2	<1	-	-	<35	<50	<100	<100	<285	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP5-N	ADE-TP5-N-C	12.0	17/08/2016	<0.5	<0.5	<1	<2	<1	-	-	<35	<50	<100	<100	<285	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP6-N	ADE-TP6-N-A	0.5	17/08/2016	<0.5	<0.5	<1	<2	<1	-	-	<35	<50	<100	<100	<285	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP6-N	ADE-TP6-N-B	9.3	17/08/2016	<0.5	<0.5	<1	<2	<1	-	-	<35	<50	<100	<100	<285	-	-	-	-	-	-	-	-
Statistical Summary				Number of Results		29	29	29	29	29	12	12	29	29	29	29	29	12	12	12	12	12	12	12	12
				Number of Detects		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				Minimum Concentration		<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
				Minimum Detect		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
				Maximum Concentration		<0.5	<0.5	<1	<2	<1	<0.3	<0.6	<35	<50	<100	<100	<285	<25	<25	<25	<25	<90	<120	<100	<210
				Maximum Detect		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
				Average Concentration		0.17	0.17	0.31	0.63	0.31	0.15	0.3	14	19	39	39	106	13	13	13	13	45	60	50	105
				Median Concentration		0.25	0.25	0.5	1	0.5	0.15	0.3	17.5	25	50	50	142.5	12.5	12.5	12.5	12.5	45	60	50	105
				Standard Deviation		0.1	0.1	0.23	0.45	0.23	0	0	3.8	7.5	14	14	44	0	0	0	0	0	0	0	0
				Number of Guideline Exceedances		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				Number of Guideline Exceedances (Detects Only)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ADE_WCX-02-10878
KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 3 - NORTHERN NOISE MOUND (NNM)
COMMERCIAL/INDUSTRIAL

Organochlorine Pesticides

Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Chlordane (Sum of total) (Calculated)	2,4-DDT	a-BHC	Aldrin	Aldrin & Dieldrin (Sum of total) (Lab Reported)	Aldrin & Dieldrin (Sum of total) (Calculated)	b-BHC	Chlordane (Sum of total)	cis-Chlordane	gamma-Chlordane	trans-Chlordane	d-BHC	DDD	DDE	DDT	DDT+DDE+DDD (Sum of total) (Lab Reported)	DDT+DDE+DDD (Sum of total) (Calculated)	Dieldrin	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endosulfan I & II (Sum of Total) (Calculated)	Endrin	Endrin aldehyde	Endrin ketone	g-BHC	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Isodrin	Methoxychlor	Mirex	o,p-DDD	o,p-DDE	trans-Nonachlor
					output unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
					EQL		0.1	0.05	0.05	0.05		0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.05	0.1	0.05		0.05	0.05	0.05	0.05	0.05		0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1
WCX - Kingsgrove - Commercial/ Industrial EIL/ESL																				640																					
WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures										45			530								3600			2000					100						80						
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																																									
Golder	NNM	LDS-TP-6001	LDS-TP-6001/0.5	0.5	25/02/2016	0[#1]	<0.1	<0.1	<0.1	-	0[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	NNM	LDS-TP-6001	LDS-TP-6001/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6002	LDS-TP-6002/1	1	25/02/2016	0[#1]	<0.1	<0.1	<0.1	-	0[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	NNM	LDS-TP-6002	LDS-TP-6002/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6003	LDS-TP-6003/0.2	0.2	25/02/2016	0[#1]	<0.1	<0.1	<0.1	-	0[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	NNM	LDS-TP-6003	LDS-TP-6003/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6004	LDS-TP-6004/0.2	0.2	25/02/2016	0[#1]	<0.1	<0.1	<0.1	-	0[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	NNM	LDS-TP-6004	LDS-TP-6004/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6005	LDS-TP-6005/1.4	1.4	25/02/2016	0[#1]	<0.1	<0.1	<0.1	-	0[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	NNM	LDS-TP-6005	LDS-TP-6005/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6006	LDS-TP-6006/0	0	25/02/2016	0[#1]	<0.1	<0.1	<0.1	-	0[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	NNM	LDS-TP-6006	LDS-TP-6006/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6007	LDS-TP-6007/0.5	0.5	26/02/2016	0[#1]	<0.1	<0.1	<0.1	-	0[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	NNM	LDS-TP-6007	LDS-TP-6007/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6008	LDS-TP-6008/1	1	26/02/2016	0[#1]	<0.1	<0.1	<0.1	-	0[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	NNM	LDS-TP-6008	LDS-TP-6008/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6009	LDS-TP-6009/0	0	26/02/2016	0[#1]	<0.1	<0.1	<0.1	-	0[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	NNM	LDS-TP-6009	LDS-TP-6009/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6010	LDS-TP-6010/1.4	1.4	26/02/2016	0[#1]	<0.1	<0.1	<0.1	-	0[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	NNM	LDS-TP-6010	LDS-TP-6010/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6011	LDS-TP-6011/0.2	0.2	26/02/2016	0[#1]	<0.1	<0.1	<0.1	-	0[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	NNM	LDS-TP-6011	LDS-TP-6011/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6012	LDS-TP-6012/1	1	26/02/2016	0[#1]	<0.1	<0.1	<0.1	-	0[#2]	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	NNM	LDS-TP-6012	LDS-TP-6012/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP1-N	ADE-TP1-N-A	0.5	12/08/2016	-	<0.1	<0.1	<0.1	<0.2	-	<0.1	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	<0.1	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-
ADE	NNM	ADE-TP1-N	ADE-TP1-N-B	2.8	12/08/2016	-	<0.1	<0.1	<0.1	<0.2	-	<0.1	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	<0.1	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-
ADE	NNM	ADE-TP1-N	ADE-TP1-N-C	5.8	12/08/2016	-	<0.1	<0.1	<0.1	<0.2	-	<0.1	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	<0.1	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-
ADE	NNM	ADE-TP1-N	ADE-TP1-N-D	9.0	12/08/2016	-	<0.1	<0.1	<0.1	<0.2	-	<0.1	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	<0.1	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-
ADE	NNM	ADE-TP2-N	ADE-TP2-N-A	0.5	15/08/2016	-	<0.1	<0.1	<0.1	<0.2	-	<0.1	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	<0.1	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-
ADE	NNM	ADE-TP2-N	ADE-TP2-N-B	11.2	15/08/2016	-	<0.1	<0.1	<0.1	<0.2	-	<0.1	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	<0.1	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-
ADE	NNM	ADE-TP3-N	ADE-TP3-N-A	0.5	16/08/2016	-	<0.1	<0.1	<0.1	<0.2	-	<0.1	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	<0.1	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-
ADE	NNM	ADE-TP3-N	ADE-TP3-N-B	9.0	16/08/2016	-	<0.1	<0.1	<0.1	<0.2	-	<0.1	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	<0.1	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-
ADE	NNM	ADE-TP3-N	ADE-TP-3-N-C	10.0	16/08/2016	-	<0.1	<0.1	<0.1	<0.2	-	<0.1	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	<0.1	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-
ADE	NNM	ADE-TP4-N	ADE-TP4-N-A	0.6	16/08/2016	-	<0.1	<0.1	<0.1	<0.2	-	<0.1	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	<0.1	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-
ADE	NNM	ADE-TP4-N	ADE-TP4-N-B	8.5	16/08/2016	-	<0.1	<0.1	<0.1	<0.2	-	<0.1	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	<0.1	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-
ADE	NNM	ADE-TP4-N	ADE-TP4-N-C	11.2	16/08/2016	-	<0.1	<0.1	<0.1	<0.2	-	<0.1	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	<0.1	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-
ADE	NNM	ADE-TP5-N	ADE-TP5-N-A	0.5	17/08/2016	-	<0.1	<0.1	<0.1	<0.2	-	<0.1	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	<0.1	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-
ADE	NNM	ADE-TP5-N	ADE-TP5-N-B	9.2	17/08/2016	-	<0.1	<0.1	<0.1	<0.2	-	<0.1	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	<0.1	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-
ADE	NNM	ADE-TP5-N	ADE-TP5-N-C	12.0	17/08/2016	-	<0.1	<0.1	<0.1	<0.2	-	<0.1	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	<0.1	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-
ADE	NNM	ADE-TP6-N	ADE-TP6-N-A	0.5	17/08/2016	-	<0.1	<0.1	<0.1	<0.2	-	<0.1	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	<0.1	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-
ADE	NNM	ADE-TP6-N	ADE-TP6-N-B	9.3	17/08/2016	-	<0.1	<0.1	<0.1	<0.2	-	<0.1	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	-	<0.1	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-
Statistical Summary			Number of Results			12	29	29	29	17	12	29	17	29	12	17	29	29	29	29	17	0	29	0	29	29	29	0	29	29	29	29	29	29	29	12	29	12	12	12	12
			Number of Detects			12	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Minimum Concentration			<0	<0.1	<0.1	<0.1	-	<0	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.2	<0.2	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
			Minimum Detect			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
			Maximum Concentration			0	<0.1	<0.1	<0.1	<0.2	0	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	0	<0.2	0	<0.2	<0.2	<0.1	0	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
			Maximum Detect			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
			Average Concentration			0	0.05	0.05	0.05	0.1	0	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.15		0.071		0.1	0.1	0.05		0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
			Median Concentration			0	0.05	0.05	0.05	0.1	0	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.15		0.05		0.1	0.1	0.05		0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
			Standard Deviation			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0.025		0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0
			Number of Guideline Exceedances			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Number of Guideline Exceedances (Detects Only)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

						Organophosphorous Pesticides																								
						Azinphos-methyl	Bromophos-ethyl	Carbophenothion	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Demeton-s-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenamiphos	Fenitrothion	Fenthion	Malathion	Methidathion	Parathion-methyl	Monocrotophos	Parathion	Pirimiphos-ethyl	Prothiofos
					output unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
					EQL	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.05	0.05	0.5	0.2	0.2	0.2	0.05	0.05
WCX - Kingsgrove - Commercial/ Industrial EIL/ESL																												
WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures										2000																		
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time																							
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																												
Golder	NNM	LDS-TP-6001	LDS-TP-6001/0.5	0.5	25/02/2016	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	NNM	LDS-TP-6001	LDS-TP-6001/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6002	LDS-TP-6002/1	1	25/02/2016	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	NNM	LDS-TP-6002	LDS-TP-6002/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6003	LDS-TP-6003/0.2	0.2	25/02/2016	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	NNM	LDS-TP-6003	LDS-TP-6003/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6004	LDS-TP-6004/0.2	0.2	25/02/2016	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	NNM	LDS-TP-6004	LDS-TP-6004/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6005	LDS-TP-6005/1.4	1.4	25/02/2016	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	NNM	LDS-TP-6005	LDS-TP-6005/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6006	LDS-TP-6006/0	0	25/02/2016	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	NNM	LDS-TP-6006	LDS-TP-6006/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6007	LDS-TP-6007/0.5	0.5	26/02/2016	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	NNM	LDS-TP-6007	LDS-TP-6007/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6008	LDS-TP-6008/1	1	26/02/2016	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	NNM	LDS-TP-6008	LDS-TP-6008/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6009	LDS-TP-6009/0	0	26/02/2016	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	NNM	LDS-TP-6009	LDS-TP-6009/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6010	LDS-TP-6010/1.4	1.4	26/02/2016	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	NNM	LDS-TP-6010	LDS-TP-6010/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6011	LDS-TP-6011/0.2	0.2	26/02/2016	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	NNM	LDS-TP-6011	LDS-TP-6011/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6012	LDS-TP-6012/1	1	26/02/2016	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
Golder	NNM	LDS-TP-6012	LDS-TP-6012/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP1-N	ADE-TP1-N-A	0.5	12/08/2016	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP1-N	ADE-TP1-N-B	2.8	12/08/2016	-	-	-	-	<0.1	<0.1	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP1-N	ADE-TP1-N-C	5.8	12/08/2016	-	-	-	-	<0.1	<0.1	-	<0.3	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP1-N	ADE-TP1-N-D	9.0	12/08/2016	-	-	-	-	<0.1	<0.1	-	<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP2-N	ADE-TP2-N-A	0.5	15/08/2016	-	-	-	-	<0.1	<0.1	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP2-N	ADE-TP2-N-B	11.2	15/08/2016	-	-	-	-	<0.1	<0.1	-	<0.6	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP3-N	ADE-TP3-N-A	0.5	16/08/2016	-	-	-	-	<0.1	<0.1	-	<0.7	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP3-N	ADE-TP3-N-B	9.0	16/08/2016	-	-	-	-	<0.1	<0.1	-	<0.8	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP3-N	ADE-TP-3-N-C	10.0	16/08/2016	-	-	-	-	<0.1	<0.1	-	<0.9	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP4-N	ADE-TP4-N-A	0.6	16/08/2016	-	-	-	-	<0.1	<0.1	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP4-N	ADE-TP4-N-B	8.5	16/08/2016	-	-	-	-	<0.1	<0.1	-	<0.11	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP4-N	ADE-TP4-N-C	11.2	16/08/2016	-	-	-	-	<0.1	<0.1	-	<0.12	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP5-N	ADE-TP5-N-A	0.5	17/08/2016	-	-	-	-	<0.1	<0.1	-	<0.13	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP5-N	ADE-TP5-N-B	9.2	17/08/2016	-	-	-	-	<0.1	<0.1	-	<0.14	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP5-N	ADE-TP5-N-C	12.0	17/08/2016	-	-	-	-	<0.1	<0.1	-	<0.15	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP6-N	ADE-TP6-N-A	0.5	17/08/2016	-	-	-	-	<0.1	<0.1	-	<0.16	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP6-N	ADE-TP6-N-B	9.3	17/08/2016	-	-	-	-	<0.1	<0.1	-	<0.17	-	-	-	-	-	-	-	-	-	-	-	-	-
Statistical Summary					Number of Results	12	12	0	0	29	17	0	29	12	12	12	0	12	0	12	12	0	0	12	0	0
					Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Minimum Concentration	<0.2	<0.2	-	-	<0.1	-	-	<0.1	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-
					Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
					Maximum Concentration	<0.2	<0.2	0	0	<0.2	<0.1	0	<0.9	<0.5	<0.5	<0.2	0	<0.2	0	<0.2	<0.5	0	0	<0.2	0	0
					Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
					Average Concentration	0.1	0.1			0.071	0.05		0.2	0.25	0.25	0.1		0.1		0.1	0.25			0.1		
					Median Concentration	0.1	0.1			0.05	0.05		0.25	0.25	0.25	0.1		0.1		0.1	0.25			0.1		
					Standard Deviation	0	0			0.025	0		0.11	0	0	0		0		0	0			0		
					Numbr of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Number of Guideline Exceedances (Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ADE CONSULTING GROUP

Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	PAH: Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (lower bound)*	Benzo(a)pyrene TEQ (medium bound)*	Benzo(a)pyrene TEQ (upper bound)*	Benzo(b)&(j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene
					output unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
					EQL	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.1	0.1	0.1	0.1
WCX - Kingsgrove - Commercial/ Industrial EIL/ESL										1.4							
WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures													40				
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																	
Golder	NNM	LDS-TP-6001	LDS-TP-6001/0.5	0.5	25/02/2016	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1
Golder	NNM	LDS-TP-6001	LDS-TP-6001/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6002	LDS-TP-6002/1	1	25/02/2016	<0.1	<0.1	<0.1	0.1	0.2	0.2	0.3	0.3	0.2	<0.1	0.1	0.2
Golder	NNM	LDS-TP-6002	LDS-TP-6002/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6003	LDS-TP-6003/0.2	0.2	25/02/2016	<0.1	<0.1	<0.1	0.2	0.3	0.3	0.4	0.4	0.3	0.1	0.1	0.2
Golder	NNM	LDS-TP-6003	LDS-TP-6003/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6004	LDS-TP-6004/0.2	0.2	25/02/2016	<0.1	<0.1	0.1	0.3	0.3	0.4	0.4	0.5	0.4	0.1	0.2	0.3
Golder	NNM	LDS-TP-6004	LDS-TP-6004/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6005	LDS-TP-6005/1.4	1.4	25/02/2016	<0.1	<0.1	<0.1	<0.1	0.1	<0.2	0.2	<0.3	0.1	<0.1	<0.1	0.1
Golder	NNM	LDS-TP-6005	LDS-TP-6005/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6006	LDS-TP-6006/0	0	25/02/2016	<0.1	<0.1	<0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.1
Golder	NNM	LDS-TP-6006	LDS-TP-6006/C2		25/02/2016	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6007	LDS-TP-6007/0.5	0.5	26/02/2016	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.3	0.1	<0.1	<0.1	<0.1
Golder	NNM	LDS-TP-6007	LDS-TP-6007/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6008	LDS-TP-6008/1	1	26/02/2016	<0.1	<0.1	<0.1	0.2	0.2	0.2	0.3	0.3	0.2	<0.1	<0.1	0.2
Golder	NNM	LDS-TP-6008	LDS-TP-6008/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6009	LDS-TP-6009/0	0	26/02/2016	<0.1	<0.1	<0.1	0.5	0.4	0.6	0.6	0.7	0.4	0.2	0.3	0.4
Golder	NNM	LDS-TP-6009	LDS-TP-6009/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6010	LDS-TP-6010/1.4	1.4	26/02/2016	<0.1	<0.1	<0.1	0.2	0.2	0.2	0.3	0.3	0.2	<0.1	0.1	0.2
Golder	NNM	LDS-TP-6010	LDS-TP-6010/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6011	LDS-TP-6011/0.2	0.2	26/02/2016	<0.1	<0.1	<0.1	0.2	0.2	0.3	0.4	0.4	0.3	0.1	0.1	0.2
Golder	NNM	LDS-TP-6011	LDS-TP-6011/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-
Golder	NNM	LDS-TP-6012	LDS-TP-6012/1	1	26/02/2016	<0.1	<0.1	<0.1	0.3	0.3	0.4	0.4	0.5	0.3	0.1	0.2	0.3
Golder	NNM	LDS-TP-6012	LDS-TP-6012/C2		26/02/2016	-	-	-	-	-	-	-	-	-	-	-	-
ADE	NNM	ADE-TP1-N	ADE-TP1-N-A	0.5	12/08/2016	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3
ADE	NNM	ADE-TP1-N	ADE-TP1-N-B	2.8	12/08/2016	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3
ADE	NNM	ADE-TP1-N	ADE-TP1-N-C	5.8	12/08/2016	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3
ADE	NNM	ADE-TP1-N	ADE-TP1-N-D	9.0	12/08/2016	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3
ADE	NNM	ADE-TP2-N	ADE-TP2-N-A	0.5	15/08/2016	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3
ADE	NNM	ADE-TP2-N	ADE-TP2-N-B	11.2	15/08/2016	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3
ADE	NNM	ADE-TP3-N	ADE-TP3-N-A	0.5	16/08/2016	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3
ADE	NNM	ADE-TP3-N	ADE-TP3-N-B	9.0	16/08/2016	<0.3	<0.3	<0.3	0.6	0.6	-	-	1.1	0.6	0.4	<0.3	0.6
ADE	NNM	ADE-TP3-N	ADE-TP-3-N-C	10.0	16/08/2016	<0.3	<0.3	<0.3	0.5	0.6	-	-	1	0.6	0.4	<0.3	0.4
ADE	NNM	ADE-TP4-N	ADE-TP4-N-A	0.6	16/08/2016	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.3	<0.3	<0.3	<0.3	<0.3
ADE	NNM	ADE-TP4-N	ADE-TP4-N-B	8.5	16/08/2016	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.3	<0.3	<0.3	<0.3	<0.3
ADE	NNM	ADE-TP4-N	ADE-TP4-N-C	11.2	16/08/2016	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.3	<0.3	<0.3	<0.3	<0.3
ADE	NNM	ADE-TP5-N	ADE-TP5-N-A	0.5	17/08/2016	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.3	<0.3	<0.3	<0.3	<0.3
ADE	NNM	ADE-TP5-N	ADE-TP5-N-B	9.2	17/08/2016	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.3	<0.3	<0.3	<0.3	<0.3
ADE	NNM	ADE-TP5-N	ADE-TP5-N-C	12.0	17/08/2016	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.3	<0.3	<0.3	<0.3	<0.3
ADE	NNM	ADE-TP6-N	ADE-TP6-N-A	0.5	17/08/2016	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.3	<0.3	<0.3	<0.3	<0.3
ADE	NNM	ADE-TP6-N	ADE-TP6-N-B	9.3	17/08/2016	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.3	<0.3	<0.3	<0.3	<0.3
		Statistical Summary	Number of Results			29	29	29	29	29	12	12	29	29	29	29	29
			Number of Detects			0	0	1	11	12	9	10	11	13	8	8	12
			Minimum Concentration			<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1
			Minimum Detect			ND	ND	0.1	0.1	0.1	0.2	0.2	0.3	0.1	0.1	0.1	0.1
			Maximum Concentration			<0.3	<0.3	<0.3	0.6	0.6	0.6	0.6	1.1	0.6	0.4	0.3	0.6
			Maximum Detect			ND	ND	0.1	0.6	0.6	0.6	0.6	1.1	0.6	0.4	0.3	0.6
			Average Concentration			0.11	0.11	0.11	0.19	0.21	0.26	0.32	0.34	0.21	0.14	0.14	0.19
			Median Concentration			0.15	0.15	0.15	0.15	0.15	0.2	0.3	0.3	0.15	0.15	0.15	0.15
			Standard Deviation			0.05	0.05	0.049	0.13	0.13	0.15	0.14	0.24	0.13	0.084	0.052	0.11
			Number of Guideline Exceedances			0	0	0	0	0	0	0	0	0	0	0	0
			Number of Guideline Exceedances (Detects Only)			0	0	0	0	0	0	0	0	0	0	0	0

Field_ID	PAH: Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAH (Sum of Common 16 PAHs - Lab Reported)	1-Methylnaphthalene	2-Methylnaphthalene	Polychlorinated Biphenyls: Aroclor 1016	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	Aroclor 1221	Aroclor 1262	PCB (Sum of Total-Lab Reported)
output unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
WCX - Kingsgrove - Commercial/ Industrial EIL/ESL					370															
WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures								4000												7
LDS-TP-6001/0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-6001/C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6002/1	<0.1	0.2	<0.1	0.1	<0.1	0.1	0.3	1.5	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-6002/C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6003/0.2	<0.1	0.4	<0.1	0.1	<0.1	0.2	0.5	2.5	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-6003/C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6004/0.2	<0.1	0.7	<0.1	0.1	<0.1	0.4	0.7	3.6	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-6004/C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6005/1.4	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.3	0.9	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-6005/C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6006/0	<0.1	0.2	<0.1	0.1	<0.1	<0.1	0.3	1.4	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-6006/C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6007/0.5	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.8	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-6007/C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6008/1	<0.1	0.3	<0.1	0.1	<0.1	0.1	0.3	1.7	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-6008/C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6009/0	<0.1	0.8	<0.1	0.2	<0.1	0.2	1	4.4	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-6009/C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6010/1.4	<0.1	0.3	<0.1	<0.1	<0.1	0.2	0.4	1.7	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-6010/C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6011/0.2	<0.1	0.4	<0.1	0.1	<0.1	0.2	0.5	2.2	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-6011/C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6012/1	<0.1	0.6	<0.1	0.1	<0.1	0.2	0.7	3	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-6012/C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE-TP1-N-A	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	-	-	-	<0.6
ADE-TP1-N-B	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	-	-	-	<0.6
ADE-TP1-N-C	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	-	-	-	<0.6
ADE-TP1-N-D	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	-	-	-	<0.6
ADE-TP2-N-A	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	-	-	-	<0.6
ADE-TP2-N-B	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	-	-	-	<0.6
ADE-TP3-N-A	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	-	-	-	<0.6
ADE-TP3-N-B	<0.3	1.4	<0.3	0.3	<0.3	0.4	1.3	8.2	-	-	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	-	-	-	<0.6
ADE-TP-3-N-C	<0.3	1.1	<0.3	<0.3	<0.3	<0.3	1.1	7.2	-	-	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	-	-	-	<0.6
ADE-TP4-N-A	<0.3	0.3	<0.3	<0.3	<0.3	<0.3	0.3	4.9	-	-	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	-	-	-	<0.6
ADE-TP4-N-B	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	-	-	-	<0.6
ADE-TP4-N-C	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	-	-	-	<0.6
ADE-TP5-N-A	<0.3	0.4	<0.3	<0.3	<0.3	<0.3	0.4	5.1	-	-	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	-	-	-	<0.6
ADE-TP5-N-B	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	-	-	-	<0.6
ADE-TP5-N-C	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	-	-	-	<0.6
ADE-TP6-N-A	<0.3	0.5	<0.3	<0.3	<0.3	<0.3	0.5	5.1	-	-	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	-	-	-	<0.6
ADE-TP6-N-B	<0.3	0.4	<0.3	<0.3	<0.3	<0.3	0.4	5	-	-	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	-	-	-	<0.6
Number of Results	29	29	29	29	29	29	29	29	12	12	29	29	29	29	29	29	12	12	12	29
Number of Detects	0	17	0	9	0	9	17	16	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6
Minimum Detect	ND	0.1	ND	0.1	ND	0.1	0.1	0.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.3	1.4	<0.3	0.3	<0.3	0.4	1.3	8.2	<0.1	<0.1	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.2	<0.2	<0.2	<1
Maximum Detect	ND	1.4	ND	0.3	ND	0.4	1.3	8.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration	0.11	0.34	0.11	0.13	0.11	0.16	0.37	3	0.05	0.05	0.22	0.22	0.22	0.22	0.22	0.22	0.1	0.1	0.1	0.38
Median Concentration	0.15	0.2	0.15	0.15	0.15	0.15	0.3	2.4	0.05	0.05	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.3
Standard Deviation	0.05	0.31	0.05	0.051	0.05	0.08	0.32	1.8	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Field_ID	Acid Sulfate Soils Screening: pH (Field)	pH (Field ox)	pH Difference	Reaction Rate	Other: Electrical Conductivity @ 25°C	pH (Lab)	Sulphur (as S)	Total Organic Carbon (%)	Moisture	Foreign Materials: Plastic	Bitumen	Paint	Paper	Cloth	Wood	Rubber	Vegetable Matter	Total Type 3 Foreign Materials
output unit	pH_Units	pH_Units	pH Units	-	uS/cm	pH	mg/kg	%	%	%	%	%	%	%	%	%	%	%
EQL	0	0	-10	1	1	0	100	0.02	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
LDS-TP-6001/0.5	7.3	6.8	0.6	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-
LDS-TP-6001/C2	-	-	-	-	75	7.4	-	1.3	17	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.07
LDS-TP-6002/1	7.3	6.5	0.8	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-
LDS-TP-6002/C2	-	-	-	-	38	7.1	-	1	13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.07
LDS-TP-6003/0.2	6.5	4	2.5	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-
LDS-TP-6003/C2	-	-	-	-	34	7.2	-	0.83	4.6	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.07
LDS-TP-6004/0.2	7.4	5.8	1.6	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-
LDS-TP-6004/C2	-	-	-	-	74	7.6	-	1.1	13	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.07
LDS-TP-6005/1.4	8	7.5	0.5	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-
LDS-TP-6005/C2	-	-	-	-	160	8.1	-	0.9	3.9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.07
LDS-TP-6006/0	6.8	4.9	1.9	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-
LDS-TP-6006/C2	-	-	-	-	210	8.3	-	1.3	16	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.07
LDS-TP-6007/0.5	8.2	7.5	0.7	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-
LDS-TP-6007/C2	-	-	-	-	160	8.1	-	1.2	15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.07
LDS-TP-6008/1	7.8	6.4	1.4	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-
LDS-TP-6008/C2	-	-	-	-	79	7.4	-	1.4	14	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.07
LDS-TP-6009/0	6.8	4.2	2.6	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-
LDS-TP-6009/C2	-	-	-	-	200	8.2	-	1.3	21	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.07
LDS-TP-6010/1.4	8.1	6.9	1.2	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-
LDS-TP-6010/C2	-	-	-	-	85	8	-	0.96	6.4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.14	<0.07
LDS-TP-6011/0.2	7.1	5	2.1	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-
LDS-TP-6011/C2	-	-	-	-	160	8.1	-	1.2	10	0.02	<0.01	<0.01	<0.01	<0.01	0.31	<0.01	<0.01	0.33
LDS-TP-6012/1	8.2	8.3	-0.1	-	-	-	-	-	8.3	-	-	-	-	-	-	-	-	-
LDS-TP-6012/C2	-	-	-	-	150	8.6	-	0.82	15	0.12	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	0.11	0.15
ADE-TP1-N-A	-	-	-	-	0	9.0	-	-	0.2	-	-	-	-	-	-	-	-	<0.01
ADE-TP1-N-B	-	-	-	-	200	8.3	-	-	0.1	-	-	-	-	-	-	-	-	<0.01
ADE-TP1-N-C	-	-	-	-	100	6.1	-	-	0.2	-	-	-	-	-	-	-	-	<0.01
ADE-TP1-N-D	-	-	-	-	0	8.8	-	-	0.2	-	-	-	-	-	-	-	-	<0.01
ADE-TP2-N-A	-	-	-	-	200	8.4	-	-	0.1	-	-	-	-	-	-	-	-	<0.01
ADE-TP2-N-B	-	-	-	-	100	8.8	-	-	0.1	-	-	-	-	-	-	-	-	<0.01
ADE-TP3-N-A	-	-	-	-	0	7.8	-	-	0.1	-	-	-	-	-	-	-	-	<0.01
ADE-TP3-N-B	-	-	-	-	250	7.0	-	-	0.1	-	-	-	-	-	-	-	-	<0.01
ADE-TP-3-N-C	-	-	-	-	30	7.3	-	-	0.2	-	-	-	-	-	-	-	-	<0.01
ADE-TP4-N-A	-	-	-	-	20	7.5	-	-	0.2	-	-	-	-	-	-	-	-	<0.01
ADE-TP4-N-B	-	-	-	-	50	8.9	-	-	0.1	-	-	-	-	-	-	-	-	<0.01
ADE-TP4-N-C	-	-	-	-	0	5.5	-	-	0.2	-	-	-	-	-	-	-	-	<0.01
ADE-TP5-N-A	-	-	-	-	40	7.5	-	-	0.1	-	-	-	-	-	-	-	-	<0.01
ADE-TP5-N-B	-	-	-	-	380	7.7	-	-	0.1	-	-	-	-	-	-	-	-	<0.01
ADE-TP5-N-C	-	-	-	-	110	6.7	-	-	0.2	-	-	-	-	-	-	-	-	<0.01
ADE-TP6-N-A	-	-	-	-	70	8.6	-	-	0.1	-	-	-	-	-	-	-	-	<0.01
ADE-TP6-N-B	-	-	-	-	30	8.4	-	-	0.1	-	-	-	-	-	-	-	-	0.01
Number of Results	12	12	12	0	29	29	0	12	41	12	12	12	12	12	12	12	12	29
Number of Detects	12	12	12	0	29	29	0	12	41	6	0	0	0	0	2	0	8	3
Minimum Concentration	6.5	4	-0.1	-	0	5.52333	-	0.82	0.09743	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Minimum Detect	6.5	4	ND	ND	20	5.52333	ND	0.82	0.09743	0.02	ND	ND	ND	ND	0.02	ND	0.01	0.01
Maximum Concentration	8.2	8.3	2.6	0	380	9.03333	0	1.4	22	0.12	<0.01	<0.01	<0.01	<0.01	0.31	<0.01	0.14	0.33
Maximum Detect	8.2	8.3	2.6	ND	380	9.03333	ND	1.4	22	0.12	ND	ND	ND	ND	0.31	ND	0.14	0.33
Average Concentration	7.5	6.2	1.3		104	7.8		1.1	7.6	0.026	0.005	0.005	0.005	0.005	0.032	0.005	0.036	0.032
Median Concentration	7.35	6.45	1.3		79	8		1.15	8.3	0.0125	0.005	0.005	0.005	0.005	0.005	0.005	0.02	0.005
Standard Deviation	0.59	1.4	0.85		91	0.83		0.2	7.1	0.034	0	0	0	0	0.088	0	0.044	0.064
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ADE_WCX-02-10878
KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 4 - NORTHERN NOISE MOUND (NNM)
ASBESTOS
COMMERCIAL/INDUSTRIAL

							Asbestos								
							Asbestos in soil (>7mm ACM)	Asbestos in soil (<2mm AF/FA)	Asbestos in soil (<7mm AF/FA)	Asbestos in soil (>2mm to <7mm AF/FA)	Weight Asbestos in soil (>7mm ACM)	Weight Asbestos in soil (<2mm AF/FA)	Weight Asbestos in soil (>2mm to <7mm AF/FA)	Asbestos (1-Detect or <1-Non-Detect)	Mass of test sample
						output unit	%w/w	%w/w	%w/w	%w/w	g	g	g	No	g
						EQL	0.01	0.001	0.001	0.001	0.01	0.0001	0.0001	0	0.01
			WCX - Kingsgrove - Commercial/Industrial HIL/HSL assuming				**0.05**		**0.001**						
Consultant	**Area**	**Location_Code**	**Field_ID**	**Depth**	**Sampled_Date_Time**	**Matrix_Type**									
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)															
Golder	NNM	LDS-TP-6001	LDS-TP-6001/C1	0.0-1.5	25/02/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	493
Golder	NNM	LDS-TP-6002	LDS-TP-6002/C1	0.0-1.5	25/02/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	497
Golder	NNM	LDS-TP-6003	LDS-TP-6003/0.1F	0.1	25/02/2016	OTHER	-	-	-	-	-	-	-	1 #2	-
Golder	NNM	LDS-TP-6003	LDS-TP-6003/0.5F	0.5	25/02/2016	OTHER	-	-	-	-	-	-	-	1 #2	-
Golder	NNM	LDS-TP-6003	LDS-TP-6003/C1	0.0-1.5	25/02/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	463
Golder	NNM	LDS-TP-6004	LDS-TP-6004/C1	0.0-1.5	25/02/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	569
Golder	NNM	LDS-TP-6005	LDS-TP-6005/0.1F	0.	25/02/2016	OTHER	-	-	-	-	-	-	-	1 #2	-
Golder	NNM	LDS-TP-6005	LDS-TP-6005/C1	0.0-1.5	25/02/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	615
Golder	NNM	LDS-TP-6006	LDS-TP-6006/0.2F	0.2	25/02/2016	OTHER	-	-	-	-	-	-	-	1 #2	-
Golder	NNM	LDS-TP-6006	LDS-TP-6006/C1	0.0-1.5	25/02/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	620
Golder	NNM	LDS-TP-6007	LDS-TP-6007/0.5F	0.5	26/02/2016	OTHER	-	-	-	-	-	-	-	1 #2	-
Golder	NNM	LDS-TP-6007	LDS-TP-6007/C1	0.0-1.5	26/02/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	554
Golder	NNM	LDS-TP-6008	LDS-TP-6008/C1	0.0-1.5	26/02/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	582
Golder	NNM	LDS-TP-6009	LDS-TP-6009/0.5F	0.5	26/02/2016	OTHER	-	-	-	-	-	-	-	1 #2	-
Golder	NNM	LDS-TP-6009	LDS-TP-6009/C1	0.0-1.5	26/02/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	502
Golder	NNM	LDS-TP-6010	LDS-TP-6010/0.5F	0.5	26/02/2016	OTHER	-	-	-	-	-	-	-	1 #2	-
Golder	NNM	LDS-TP-6010	LDS-TP-6010/1.5F	1.5	26/02/2016	OTHER	-	-	-	-	-	-	-	1 #2	-
Golder	NNM	LDS-TP-6010	LDS-TP-6010/C1	0.0-1.5	26/02/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	562
Golder	NNM	LDS-TP-6011	LDS-TP-6011/0.1F	0.1	26/02/2016	OTHER	-	-	-	-	-	-	-	1 #2	-
Golder	NNM	LDS-TP-6011	LDS-TP-6011/C1	0.0-1.5	26/02/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	647
Golder	NNM	LDS-TP-6012	LDS-TP-6012/C1	0.0-1.5	26/02/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	649
ADE	NNM	TP1-N-NEPM1	10721-Asb66	0.5	12/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	528
ADE	NNM	TP1-N-Asb1	10721-Asb70	0.5	12/08/2016	OTHER	-	-	-	-	-	-	-	1 #2	-
ADE	NNM	TP1-N-NEPM2	10721-Asb67	2.8	12/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	537
ADE	NNM	TP1-N-NEPM3	10721-Asb68	5.8	12/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	574
ADE	NNM	TP1-N-NEPM4	10721-Asb69	9.0	12/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	552
ADE	NNM	TP2-N-NEPM1	10721-Asb-71	0.6	15/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	537
ADE	NNM	TP2-N-NEPM2	10721-Asb72	11.2	15/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	577
ADE	NNM	TP3-N-NEPM1	10721-Asb55	0.5	16/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	576
ADE	NNM	TP3-N-NEPM2	10721-Asb56	9.0	16/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	612
ADE	NNM	TP3-N-NEPM3	10721-Asb57	10.0	16/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	550
ADE	NNM	TP4-N-NEPM1	10721-Asb58	0.6	16/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	508
ADE	NNM	TP4-N-NEPM2	10721-Asb59	8.5	16/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	572
ADE	NNM	TP4-N-NEPM3	10721-Asb60	11.2	16/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	532
ADE	NNM	TP5-N-NEPM1	10721-Asb61	0.5	17/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	571
ADE	NNM	TP5-N-NEPM2	10721-Asb62	9.2	17/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	587
ADE	NNM	TP5-N-NEPM3	10721-Asb63	12.0	17/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	549
ADE	NNM	TP6-N-NEPM1	10721-Asb64	0.5	17/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	571
ADE	NNM	TP6-N-NEPM2	10721-Asb65	9.3	17/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	501
Statistical Summary						Number of Results	29	29	29	29	29	29	29	39	29
						Number of Detects	0	0	0	0	0	0	0	10	29
						Minimum Concentration	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	463
						Minimum Detect	ND	ND	ND	ND	ND	ND	ND	1	463
						Maximum Concentration	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	1	649
						Maximum Detect	ND	ND	ND	ND	ND	ND	ND	1	649
						Average Concentration	0.005	0.0005	0.0005	0.0005	0.005	0.00005	0.00005	0.63	558
						Median Concentration	0.005	0.0005	0.0005	0.0005	0.005	0.00005	0.00005	0.5	562
						Standard Deviation	0	0	0	0	0	0	0	0.22	45
						Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0
						Number of Guideline Exceedances (Detects Only)	0	0	0	0	0	0	0	0	0

Notes to Table
#1 Asbestos Detected, Yes
#2 Fibre Type CRY,AMO
#3 Fibre Type CRY

ADE_WCX-02-10878
KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 5 - SOUTHERN NOISE MOUND (SNM)
COMMERCIAL/INDUSTRIAL

Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number	Antimony	Arsenic	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Tin	Vanadium	Zinc
							Heavy Metals																
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
						EQL	3	3	0.5	5	0.3	0.3	0.5	0.5	1	1	0.01	1	0.5	3	3	0.5	0.5
		WCX - Kingsgrove - Commercial/ Industrial EIL/ESL						160				950		320	1800				330				840
		WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures						3000	500	######	900	3600	4000	240,000	1500	60,000	730		6000	10,000			400,000
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																							
Golder	SNM	LDS-BH-1022	LDS-BH1022-0.1-0.2	0.1-0.2	10/11/2015	SE146148-1	-	3	-	-	<0.3	11	-	14	15	-	0.02	-	5.8	-	-	-	66
Golder	SNM	LDS-BH-1022	QC106A	0.1-0.2	10/11/2015	SE146148-1	-	4	-	-	<0.3	11	-	18	18	-	0.02	-	7.4	-	-	-	91
Golder	SNM	LDS-BH-1022	QC106B	0.1-0.2	10/11/2015	ES1536198	-	5	-	-	<1	11	-	19	18	-	<0.1	-	6	-	-	-	93
Golder	SNM	LDS-TP-1219	LDS-TP-1219_0.0-0.2	0-0.2	16/11/2015	SE146143-1	-	7	-	-	0.4	19	-	21	56	-	0.06	-	8.1	-	-	-	67
Golder	SNM	LDS-TP-1221	LDS-TP-1221_0.2-0.4	0.2-0.4	16/11/2015	SE146143-1	-	<3	-	-	<0.3	7.5	-	10	19	-	0.01	-	5.5	-	-	-	35
Golder	SNM	LDS-TP-1221	LDS-TP-1221_0.9-1.1	0.9-1.1	16/11/2015	SE146143-1	-	<3	-	-	<0.3	14	-	26	16	-	0.01	-	12	-	-	-	44
Golder	SNM	LDS-TP-6018	LDS-TP-6018/C2	0.00-1.50	1/03/2016	SE149790 R0	<3	5	1	<5	0.3	9.2	4.6	10	17	100	0.02	<1	5.6	<3	<3	31	29
Golder	SNM	LDS-TP-6019	LDS-TP-6019/C2	0.00-1.50	1/03/2016	SE149790 R0	<3	5	0.6	<5	0.5	13	9.9	25	42	240	0.09	<1	12	<3	<3	35	82
Golder	SNM	LDS-TP-6020	LDS-TP-6020/0.2	0.2	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-6020	LDS-TP-6020/C2	0.00-1.50	1/03/2016	SE149790 R0	<3	5	0.5	<5	1.2	13	5.8	41	50	160	0.08	<1	10	<3	7	32	93
Golder	SNM	LDS-BH-6066	LDS-BH-6066/0.0	0	2/05/2016	SE151782-1	-	<3	-	-	<0.3	7.8	-	47	14	-	0.01	-	6	-	-	-	36
Golder	SNM	LDS-BH-6067	LDS-BH-6067/0.5	0.5	29/04/2016	SE151708-1	-	4	-	-	<0.3	8.2	-	16	28	-	0.05	-	5.6	-	-	-	40
Golder	SNM	LDS-BH-6068	LDS-BH-6068/0.0	0	28/04/2016	SE151708-1	-	<3	-	-	<0.3	10	-	8.4	15	-	<0.01	-	7.5	-	-	-	34
Golder	SNM	LDS-BH-6069	LDS-BH-6069/0.5	0.5	2/05/2016	SE151782-1	-	4	-	-	0.4	7.1	-	24	15	-	0.03	-	21	-	-	-	81
Golder	SNM	LDS-BH-6070	LDS-BH-6070/0.5	0.5	28/04/2016	SE151708-1	-	6	-	-	0.4	14	-	13	20	-	0.01	-	2.4	-	-	-	16
Golder	SNM	LDS-BH-6072	LDS-BH-6072/0.5	0.5	9/05/2016	SE152059-1	-	8	-	-	0.6	17	-	23	54	-	0.06	-	7.5	-	-	-	69
Golder	SNM	LDS-BH-6073	LDS-BH-6073/0.5	0.5	28/04/2016	SE151708-1	-	9	-	-	0.3	9.8	-	13	27	-	0.02	-	7.1	-	-	-	48
Golder	SNM	LDS-BH-6074	LDS-BH-6074/0.5	0.5	29/04/2016	SE151708-1	-	6	-	-	0.5	11	-	14	18	-	<0.01	-	2.6	-	-	-	17
Golder	SNM	LDS-BH-6074	QCA279	0.5	29/04/2016	SE151708-1	-	7	-	-	0.4	11	-	13	19	-	<0.01	-	3.8	-	-	-	22
Golder	SNM	LDS-BH-6074	QCB 279	0.5	29/04/2016	ES1609306	-	7	-	-	<1	15	-	14	18	-	<0.1	-	3	-	-	-	14
Golder	SNM	LDS-BH-6075	LDS-BH-6075/0.5	0.5	28/04/2016	SE151708-1	-	<3	-	-	<0.3	8.4	-	15	32	-	0.04	-	6.9	-	-	-	55
Golder	SNM	LDS-BH-6075	QCA276	0.5	28/04/2016	SE151708-1	-	8	-	-	0.4	10	-	16	45	-	0.03	-	6.8	-	-	-	65
Golder	SNM	LDS-BH-6075	QCB 276	0.5	28/04/2016	ES1609306	-	<5	-	-	<1	9	-	13	33	-	<0.1	-	8	-	-	-	62
Golder	SNM	LDS-BH-6076	LDS-BH-6076/0.5	0.5	9/05/2016	SE152059-1	-	3	-	-	<0.3	6.3	-	24	33	-	0.09	-	12	-	-	-	68
Golder	SNM	LDS-BH-6077	LDS-BH-6077/0.0	0	29/04/2016	SE151708-1	-	6	-	-	0.6	14	-	26	45	-	0.08	-	9.3	-	-	-	70
Golder	SNM	LDS-BH-6078A	LDS-BH-6078/0.5	0.5	2/05/2016	SE151782-1	-	4	-	-	<0.3	9.7	-	24	21	-	0.03	-	13	-	-	-	55
Samples collected from outside the boundaries of the RAP/ADE's Scope (i.e. ≥0.5 m BGL)																							
AECOM	SNM	WCXBH004	WCXBH004_0.5-0.6	0.5-0.6	19/09/2014	ES1421296002	-	<5	-	-	<1	8	-	9	13	-	<0.1	-	7	-	-	-	26
AECOM	SNM	WCXBH004	WCXBH004_3.0-3.45	3-3.45	19/09/2014	ES1421296014	-	<5	-	-	<1	8	-	<5	<5	-	<0.1	-	3	-	-	-	<5
AECOM	SNM	WCXBH007	WCXBH007_0.5-0.6	0.5-0.6	19/09/2014	ES1421296011	-	<5	-	-	<1	8	-	47	14	-	<0.1	-	6	-	-	-	33
AECOM	SNM	WCXBH007	WCXBH007_11.95-12.4	11.95-12.4	23/09/2014	ES1421863009	-	<5	-	-	<1	11	-	6	14	-	<0.1	-	3	-	-	-	9
AECOM	SNM	WCXBH007	WCXBH007_4.5-4.95	4.5-4.95	23/09/2014	ES1421863004	-	7	-	-	<1	12	-	42	54	-	<0.1	-	8	-	-	-	60
AECOM	SNM	WCXBH007	WCXBH007_6.5-6.95	6.5-6.95	23/09/2014	ES1421863006	-	7	-	-	2	22	-	33	49	-	<0.1	-	38	-	-	-	85
Golder	SNM	LDS-BH-1022	LDS-BH1022-1.4-1.5	1.4-1.5	10/11/2015	SE146148-1	-	7	-	-	0.7	16	-	25	35	-	0.06	-	13	-	-	-	69
Golder	SNM	LDS-BH-1022	LDS-BH1022-5.4-5.5	5.4-5.5	10/11/2015	SE146148-1	-	4	-	-	0.3	12	-	16	27	-	0.03	-	7.5	-	-	-	53
Golder	SNM	LDS-BH-1023	LDS-BH1023-1	1-1.1	24/11/2015	SE146435-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-1023	LDS-BH1023-2	2	24/11/2015	SE146435-1	-	5	-	-	0.3	4.3	-	16	11	-	<0.01	-	1.3	-	-	-	13
Golder	SNM	LDS-BH-1023	QCA300-1	2	24/11/2015	SE146435-1	-	9	-	-	0.5	6.3	-	12	15	-	<0.01	-	2.9	-	-	-	18
Golder	SNM	LDS-BH-1023	QCB300-1	2	24/11/2015	ES1537405	-	7	-	-	<1	9	-	13	14	-	<0.1	-	4	-	-	-	21
Golder	SNM	LDS-BH-1023	LDS-BH1023-3	3	24/11/2015	SE146434-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-1023	LDS-BH1023-4	4	24/11/2015	SE146435-1	-	4	-	-	0.4	11	-	30	78	-	0.04	-	14	-	-	-	85
Golder	SNM	LDS-BH-1023	LDS-BH1023-6	6	24/11/2015	SE146435-1	-	12	-	-	0.9	27	-	16	46	-	<0.01	-	8.9	-	-	-	37
Golder	SNM	LDS-TP-1219	LDS-TP-1219_1.8-2.0	1.8-2	16/11/2015	SE146143-1	-	5	-	-	0.3	12	-	26	30	-	0.08	-	13	-	-	-	71
Golder	SNM	LDS-TP-1219	LDS-TP-1219_2.7-3.0	2.7-3	16/11/2015	SE146143-1	-	3	-	-	<0.3	9.6	-	10	19	-	0.02	-	5.4	-	-	-	33
Golder	SNM	LDS-TP-1221	LDS-TP-1221_2.8-3.0	2.8-3	16/11/2015	SE146143-1	-	3	-	-	1.3	9.6	-	19	15	-	0.03	-	8.2	-	-	-	42
Golder	SNM	LDS-TP-1221	QCA201		16/11/2015	SE146143-1	-	<3	-	-	<0.3	9.8	-	16	15	-	0.01	-	8.1	-	-	-	38
Golder	SNM	LDS-TP-6018	LDS-TP-6018/1	1	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-6018	LDS-TP-6018/1	1	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-6019	LDS-TP-6019/1.4	1.4	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6066	LDS-BH-6066/3.0	3	9/05/2016	SE152059-1	-	4	-	-	<0.3	10	-	40	250	-	0.43	-	7.9	-	-	-	120
Golder	SNM	LDS-BH-6067	LDS-BH-6067/5.0	5	29/04/2016	SE151708-1	-	<3	-	-	<0.3	4.9	-	2.6	7	-	0.01	-	2.3	-	-	-	19
Golder	SNM	LDS-BH-6068	LDS-BH-6068/1.0	1	28/04/2016	SE151708-1	-	4	-	-	<0.3	11	-	9.2	12	-	0.01	-	2	-	-	-	6
Golder	SNM	LDS-BH-6069	LDS-BH-6069/3.0	3	9/05/2016	SE152059-1	-	12	-	-	0.7	21	-	25	54	-	0.14	-	7.7	-	-	-	110
Golder	SNM	LDS-BH-6070	LDS-BH-6070/4.0	4	28/04/2016	SE151708-1	-	6	-	-	0.6	15	-	21	30	-	0.27	-	7	-	-	-	66
Golder	SNM	LDS-BH-6072	LDS-BH-6072/3.0	3	9/05/2016	SE152059-1	-	6	-	-	0.6	13	-	31	75	-	0.28	-	9.8	-	-	-	120
Golder	SNM	LDS-BH-6073	LDS-BH-6073/2.0	2	28/04/2016	SE151708-1	-	4	-	-	<0.3	9.8	-	5.9	6	-	<0.01	-	4	-	-	-	6.5
Golder	SNM	LDS-BH-6074	LDS-BH-6074/2.0	2	29/04/2016	SE151708-1	-	5	-	-	0.5	11	-	22	88	-	0.08	-	8.8	-	-	-	120
Golder	SNM	LDS-BH-6075	LDS-BH-6075/1.5	1.5	28/04/2016	SE151708-1	-	<3	-	-	<0.3	7.7	-	7.2	12	-	0.02	-	7	-	-	-	35
Golder	SNM	LDS-BH-6076	LDS-BH-6076/3.0	3	9/05/2016	SE152059-1	-	6	-	-	0.7	18	-	69	270	-	0.2	-	18	-	-	-	310
Golder	SNM	LDS-BH-6077	LDS-BH-6077/4.8	4.8	29/04/2016	SE151708-1	-	9	-	-	0.6	9.2	-	25	82	-	0.1	-	4.7	-	-	-	95
Golder	SNM	LDS-BH-6078A	LDS-BH-6078/3.0	3	9/05/2016	SE152059-1	-	11	-	-	0.6	17	-	8.7	40	-	0.04	-	2.8	-	-	-	32
			Statistical Summary			Number of Results	3	54	3	3	54	54	3	54	54	3	54	3	54	3	3	3	54
						Number of Detects	0	41	3	0	28	54	3	53	53	3	37	0	54	0	1	3	53
						Minimum Concentration	<3	<3	0.5	<5	<0.3	4.3	4.6	2.6	<5	100	<0.01	<1	1.3	<3	<3	31	<5
						Minimum Detect	ND	3	0.5	ND	0.3	4.3	4.6	2.6	6	100	0.01	ND	1.3	ND	7	31	6
						Maximum Concentration	0	12	0	0	2	27	0	69	270	0	0.43	0	38	0	0	0	310
						Maximum Detect	ND	12	1	ND	2	27	9.9	69	270	240	0.43	ND	38	ND	7	35	310
						Average Concentration	1.5	5	0.7	2.5	0.45	11	6.8	20	38	167	0.058	0.5	7.9	1.5	3.3	33	57
						Median Concentration	1.5	5	0.6	2.5	0.4	11	5.8	16	20.5	160	0.04	0.5	7.05	1.5	1.5	32	50.5
						Standard Deviation	0	2.7	0.26	0	0.33	4.3	2.8	13	48	70	0.077	0	5.7	0	3.2	2.1	47
						Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
						Number of Guideline Exceedances (Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Field_ID	Benzene	Toluene	Ethylbenzene	Xylenes (m & p)	Xylene (o)	Xylenes (Sum of total) (Lab Reported)	Total BTEX	TRH C6 - C9 Fraction	TRH C10 - C14 Fraction	TRH C15 - C28 Fraction	TRH C29 - C36 Fraction	TRH+C10 - C36 (Sum of total) (Lab Reported)	TRH C6 - C10 Fraction F1	TRH C6 - C10 Fraction Less BTEX F1	TRH >C10 - C16 Fraction F2	TRH >C10 - C16 Fraction Less Naphthalene F2_	TRH >C16 - C34 Fraction F3	TRH >C34 - C40 Fraction F4	TRH C37 - C40 Fraction	TRH+C10 - C40 (Sum of total) (Lab Reported)
	MAH							TPH Group - Waste Classification					TRH - HSL							
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.1	0.1	0.1	0.2	0.1	0.3	0.2	10	20	45	45	50	10	10	25	25	90	100	100	50
WCX - Kingsgrove - Commercial/ Industrial EIL/ESL	75	135	165			95								215		170	1700	3300		
WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures	3					230								260		1000	5000	10000		
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																				
LDS-BH1022-0.1-0.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QC106A	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QC106B	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	-	<50
LDS-TP-1219_0.0-0.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-1221_0.2-0.4	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-1221_0.9-1.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6018/C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6019/C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6020/0.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6020/C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6066/0.0	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	110	110	<25	<25	<25	<25	<90	180	120	230
LDS-BH-6067/0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH-6068/0.0	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH-6069/0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH-6070/0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH-6072/0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH-6073/0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH-6074/0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCA279	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCB 279	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	-	<50
LDS-BH-6075/0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	78	54	150	<25	<25	<25	<25	100	<120	<100	<210
QCA276	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCB 276	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	-	<50
LDS-BH-6076/0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH-6077/0.0	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH-6078/0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
Samples collected from outside the boundaries of the RAP/ADE's Scope (i.e. ≥0.5 m BGL)																				
WCXBH004_0.5-0.6	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	-	<50
WCXBH004_3.0-3.45	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	-	<50
WCXBH007_0.5-0.6	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	-	<50
WCXBH007_11.95-12.4	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<10	<50	<100	<100	<50	<10	<10	<50	<50	140	<100	-	140
WCXBH007_4.5-4.95	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<10	<50	<100	<100	<50	<10	<10	<50	<50	100	<100	-	100
WCXBH007_6.5-6.95	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	-	<50
LDS-BH1022-1.4-1.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH1022-5.4-5.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH1023-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1023-2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCA300-1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCB300-1	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	-	<50
LDS-BH1023-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1023-4	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH1023-6	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-1219_1.8-2.0	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-1219_2.7-3.0	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-1221_2.8-3.0	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
QCA201	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6018/1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6018/1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-TP-6019/1.4	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	53	92	150	<25	<25	<25	<25	130	<120	<100	<210
LDS-BH-6066/3.0	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	110	48	160	<25	<25	<25	<25	150	<120	<100	<210
LDS-BH-6067/5.0	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH-6068/1.0	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH-6069/3.0	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH-6070/4.0	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH-6072/3.0	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	83	57	140	<25	<25	<25	<25	130	<120	<100	<210
LDS-BH-6073/2.0	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH-6074/2.0	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	45	70	120	<25	<25	<25	<25	100	<120	<100	<210
LDS-BH-6075/1.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH-6076/3.0	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
LDS-BH-6077/4.8	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	61	50	110	<25	<25	<25	<25	100	<120	<100	<210
LDS-BH-6078/3.0	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210
Number of Results	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	45	55
Number of Detects	0	0	0	0	0	0	0	0	0	6	7	7	0	0	0	0	8	1	1	3
Minimum Concentration	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.2	<10	<20	<45	<45	<50	<10	<10	<25	<25	<90	<100	<100	<50
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	45	48	110	ND	ND	ND	ND	100	180	120	100
Maximum Concentration	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<20	<50	110	110	160	<25	<25	<50	<50	150	180	120	230
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	110	110	160	ND	ND	ND	ND	150	180	120	230
Average Concentration	0.059	0.086	0.086	0.13	0.086	0.17	0.26	9.1	13	33	33	60	11	11	15	15	56	60	52	96
Median Concentration	0.05	0.05	0.05	0.1	0.05	0.15	0.3	10	10	22.5	22.5	55	12.5	12.5	12.5	12.5	45	60	50	105
Standard Deviation	0.019	0.078	0.078	0.058	0.078	0.039	0.078	1.9	5.8	19	19	32	2.9	2.9	4.9	4.9	27	17	10	34
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ADE CONSULTING GROUP

ADE_WCX-02-10878
KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 5 - SOUTHERN NOISE MOUND (SNM)
COMMERCIAL/INDUSTRIAL

Organochlorine Pesticides

Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number	Chlordane (Sum of total) (Calculated)	2,4-DDT	a-BHC	Aldrin	Aldrin & Dieldrin (Sum of total) (Lab Reported)	Aldrin & Dieldrin (Sum of total) (Calculated)	b-BHC	Chlordane (Sum of total)	cis-Chlordane	gamma-Chlordane	trans-Chlordane	d-BHC	DDD	DDE	DDT	DDT+DDE+DDD (Sum of total) (Lab Reported)	DDT+DDE+DDD (Sum of total) (Calculated)	Dieldrin	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endosulfan I & II (Sum of Total) (Calculated)	Endrin	Endrin aldehyde	Endrin ketone	g-BHC	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Isodrin	Methoxychlor	Mirex	o,p-DDD	o,p-DDE	trans-Nonachlor
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
						EQL		0.1	0.05	0.05	0.05		0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.05	0.1	0.05		0.05	0.05	0.05	0.05	0.05		0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1
		WCX - Kingsgrove - Commercial/ Industrial EIL/ESL																			640																					
		WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures									45			530								3600			2000					100				50		80						
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																																										
Golder	SNM	LDS-BH-1022	LDS-BH1022-0.1-0.2	0.1-0.2	10/11/2015	SE146148-1	0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-1022	QC106A	0.1-0.2	10/11/2015	SE146148-1	0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-1022	QC106B	0.1-0.2	10/11/2015	ES1536198	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-1219	LDS-TP-1219_0.0-0.2	0-0.2	16/11/2015	SE146143-1	0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-TP-1221	LDS-TP-1221_0.2-0.4	0.2-0.4	16/11/2015	SE146143-1	0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-TP-1221	LDS-TP-1221_0.9-1.1	0.9-1.1	16/11/2015	SE146143-1	0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-TP-6018	LDS-TP-6018/C2	0.00-1.50	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-6019	LDS-TP-6019/C2	0.00-1.50	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-6020	LDS-TP-6020/0.2	0.2	1/03/2016	SE149790 R0	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-TP-6020	LDS-TP-6020/C2	0.00-1.50	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6066	LDS-BH-6066/0.0	0	2/05/2016	SE151782-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6067	LDS-BH-6067/0.5	0.5	29/04/2016	SE151708-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6068	LDS-BH-6068/0.0	0	28/04/2016	SE151708-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6069	LDS-BH-6069/0.5	0.5	2/05/2016	SE151782-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6070	LDS-BH-6070/0.5	0.5	28/04/2016	SE151708-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6072	LDS-BH-6072/0.5	0.5	9/05/2016	SE152059-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6073	LDS-BH-6073/0.5	0.5	28/04/2016	SE151708-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6074	LDS-BH-6074/0.5	0.5	29/04/2016	SE151708-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6074	QCA279	0.5	29/04/2016	SE151708-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6074	QCB 279	0.5	29/04/2016	ES1609306	n#1	-	<0.05	<0.05	<0.05	n#2	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	n#2	<0.05	<0.05	<0.05	<0.05	<0.05	n#2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.2	-	-	-	-
Golder	SNM	LDS-BH-6075	LDS-BH-6075/0.5	0.5	28/04/2016	SE151708-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6075	QCA276	0.5	28/04/2016	SE151708-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6075	QCB 276	0.5	28/04/2016	ES1609306	n#1	-	<0.05	<0.05	<0.05	n#2	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	n#2	<0.05	<0.05	<0.05	<0.05	<0.05	n#2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.2	-	-	-	-
Golder	SNM	LDS-BH-6076	LDS-BH-6076/0.5	0.5	9/05/2016	SE152059-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6077	LDS-BH-6077/0.0	0	29/04/2016	SE151708-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6078A	LDS-BH-6078/0.5	0.5	2/05/2016	SE151782-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Samples collected from outside the boundaries of the RAP/ADE's Scope (i.e. ≥0.5 m BGL)																																										
AECOM	SNM	WCXBH004	WCXBH004_0.5-0.6	0.5-0.6	19/09/2014	ES1421296002	n#1	-	<0.05	<0.05	<0.05	n#2	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	n#2	<0.05	<0.05	<0.05	<0.05	<0.05	n#2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.2	-	-	-	-
AECOM	SNM	WCXBH004	WCXBH004_3.0-3.45	3-3.45	19/09/2014	ES1421296014																																				
AECOM	SNM	WCXBH007	WCXBH007_0.5-0.6	0.5-0.6	19/09/2014	ES1421296011	n#1	-	<0.05	<0.05	<0.05	n#2	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	n#2	<0.05	<0.05	<0.05	<0.05	<0.05	n#2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.2	-	-	-	-
AECOM	SNM	WCXBH007	WCXBH007_11.95-12.4	11.95-12.4	23/09/2014	ES1421863009																																				
AECOM	SNM	WCXBH007	WCXBH007_4.5-4.95	4.5-4.95	23/09/2014	ES1421863004	n#1	-	<0.5	<0.5	<0.5	n#2	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	n#2	<0.5	<0.5	<0.5	<0.5	<0.5	n#2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	-	-	-	-
AECOM	SNM	WCXBH007	WCXBH007_6.5-6.95	6.5-6.95	23/09/2014	ES1421863006																																				
Golder	SNM	LDS-BH-1022	LDS-BH1022-1.4-1.5	1.4-1.5	10/11/2015	SE146148-1	0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-1022	LDS-BH1022-5.4-5.5	5.4-5.5	10/11/2015	SE146148-1	0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-1023	LDS-BH1023-1	1-1.1	24/11/2015	SE146435-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-1023	LDS-BH1023-2	2	24/11/2015	SE146435-1	0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-1023	QCA300-1	2	24/11/2015	SE146435-1	0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-1023	QCB300-1	2	24/11/2015	ES1537405	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-1023	LDS-BH1023-3	3	24/11/2015	SE146434-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-1023	LDS-BH1023-4	4	24/11/2015	SE146435-1	0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-1023	LDS-BH1023-6	6	24/11/2015	SE146435-1	0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-TP-1219	LDS-TP-1219_1.8-2.0	1.8-2	16/11/2015	SE146143-1	0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-TP-1219	LDS-TP-1219_2.7-3.0	2.7-3	16/11/2015	SE146143-1	0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-TP-1221	LDS-TP-1221_2.8-3.0	2.8-3	16/11/2015	SE146143-1	0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-TP-1221	QCA201		16/11/2015	SE146143-1	0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-TP-6018	LDS-TP-6018/1	1	1/03/2016	SE149790 R0	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-TP-6018	LDS-TP-6018/1	1	1/03/2016	SE149790 R0	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-TP-6019	LDS-TP-6019/1.4	1.4	1/03/2016	SE149790 R0	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6066	LDS-BH-6066/3.0	3	9/05/2016	SE152059-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6067	LDS-BH-6067/5.0	5	29/04/2016	SE151708-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6068	LDS-BH-6068/1.0	1	28/04/2016	SE151708-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6069	LDS-BH-6069/3.0	3	9/05/2016	SE152059-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6070	LDS-BH-6070/4.0	4	28/04/2016	SE151708-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6072	LDS-BH-6072/3.0	3	9/05/2016	SE152059-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6073	LDS-BH-6073/2.0	2	28/04/2016	SE151708-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6074	LDS-BH-6074/2.0	2	29/04/2016	SE151708-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6075	LDS-BH-6075/1.5	1.5	28/04/2016	SE151708-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6076	LDS-BH-6076/3.0	3	9/05/2016	SE152059-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6077	LDS-BH-6077/4.8	4.8	29/04/2016	SE151708-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Golder	SNM	LDS-BH-6078A	LDS-BH-6078/3.0	3	9/05/2016	SE152059-1	n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
			Statistical Summary		Number of Results		50	45	50	50	5	50	50	5	50	45	5	50	50	50	50	5	50	50	5	50	50	50	50	50	50	50	50	50	50	50	45	50	45	45	45	45
					Number of Detects		50	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0
					Minimum Concentration		<0	<0.1	<0.05	<0.05	<0.05	<0	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0	<0.05	<0.05	<0.05	<0.05	<0.05	<0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
					Minimum Detect		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
					Maximum Concentration		0	<0.1	<0.5	<0.5	<0.5	0	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	0	<0.5	<0.5	<0.5	<0.5	<0.5	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1
					Maximum Detect		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
					Average Concentration		0	0.05	0.052	0.052	0.07	0	0.052	0.07	0.052	0.05	0.07	0.052	0.052	0.052	0.055	0.07	0	0.097	0.07	0.097	0.097	0.052	0	0.097	0.052	0.052	0.052	0.052	0.052	0.052	0.05	0.055	0.05	0.05	0.05	0.05
					Median Concentration		0	0.05	0.05	0.05	0.025	0	0.05	0.025	0.05	0.05	0.025	0.05	0.05	0.05	0.05	0.025	0	0.1	0.025	0.1	0.1	0.05	0	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
					Standard Deviation		0	0	0.029	0.029	0.1	0	0.029	0.1	0.029	0	0.1	0.029	0.029	0.029	0.015	0.1	0	0.03	0.1	0.03	0.03	0.029	0	0.03	0.029	0.029	0.029	0.029	0.029	0.029	0	0.015	0	0	0	0
					Number of Guideline Exceedances		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Number of Guideline Exceedances (Detects Only)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

						Organophosphorous Pesticides																									
						Azinphos-methyl	Bromophos-ethyl	Carbophenothion	Chlorfenvinphos	Chlorpyriphos	Chlorpyriphos-methyl	Demeton-s-methyl	Diazinon	Dichlorvos	Dimethoate	Dimethoate	Ethion	Fenamiphos	Fenitrothion	Fenthion	Fenthion	Malathion	Methidathion	Parathion-methyl	Monocrotophos	Parathion	Pirimphos-ethyl	Prothiofos	
			EQL			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
						0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.05	0.05	0.5	0.2	0.2	0.2	0.2	0.05	0.05	
		WCX - Kingsgrove - Commercial/ Industrial EIL/ESL																											
		WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures								2000																			
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number																									
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																															
Golder	SNM	LDS-BH-1022	LDS-BH1022-0.1-0.2	0.1-0.2	10/11/2015	SE146148-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-1022	QC 306A	0.1-0.2	10/11/2015	SE146148-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-1022	QC 306B	0.1-0.2	10/11/2015	ES1536198	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Golder	SNM	LDS-TP-1219	LDS-TP-1219_0.0-0.2	0-0.2	16/11/2015	SE146143-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-TP-1221	LDS-TP-1221_0.2-0.4	0.2-0.4	16/11/2015	SE146143-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-TP-1221	LDS-TP-1221_0.9-1.1	0.9-1.1	16/11/2015	SE146143-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-TP-6018	LDS-TP-6018/C2	0.00-1.50	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Golder	SNM	LDS-TP-6019	LDS-TP-6019/C2	0.00-1.50	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Golder	SNM	LDS-TP-6020	LDS-TP-6020/0.2	0.2	1/03/2016	SE149790 R0	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-TP-6020	LDS-TP-6020/C2	0.00-1.50	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Golder	SNM	LDS-BH-6066	LDS-BH-6066/0.0	0	2/05/2016	SE151782-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6067	LDS-BH-6067/0.5	0.5	29/04/2016	SE151708-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6068	LDS-BH-6068/0.0	0	28/04/2016	SE151708-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6069	LDS-BH-6069/0.5	0.5	2/05/2016	SE151782-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6070	LDS-BH-6070/0.5	0.5	28/04/2016	SE151708-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6072	LDS-BH-6072/0.5	0.5	9/05/2016	SE152099-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6073	LDS-BH-6073/0.5	0.5	28/04/2016	SE151708-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6074	LDS-BH-6074/0.5	0.5	29/04/2016	SE151708-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6074	QC A279	0.5	29/04/2016	SE151708-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6074	QC B279	0.5	29/04/2016	ES1609106	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	-	<0.2	<0.2	<0.2	<0.05	<0.05	
Golder	SNM	LDS-BH-6075	LDS-BH-6075/0.5	0.5	28/04/2016	SE151708-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6075	QC A276	0.5	28/04/2016	SE151708-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6075	QC B276	0.5	28/04/2016	ES1609106	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	-	<0.2	<0.2	<0.2	<0.05	<0.05	
Golder	SNM	LDS-BH-6076	LDS-BH-6076/0.5	0.5	9/05/2016	SE152099-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6077	LDS-BH-6077/0.0	0	29/04/2016	SE151708-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6078A	LDS-BH-6078/0.5	0.5	2/05/2016	SE151782-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Samples collected from outside the boundaries of the RAP/ADE's Scope (i.e. ≥0.5 m BGL)																															
AECOM	SNM	WCXBH004	WCXBH004_0.5-0.6	0.5-0.6	19/09/2014	ES1421296002	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	-	<0.2	<0.2	<0.2	<0.05	<0.05	
AECOM	SNM	WCXBH004	WCXBH004_3.0-3.45	3-3.45	19/09/2014	ES1421296014																									
AECOM	SNM	WCXBH007	WCXBH007_0.5-0.6	0.5-0.6	19/09/2014	ES1421296013	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	-	<0.2	<0.2	<0.2	<0.05	<0.05	
AECOM	SNM	WCXBH007	WCXBH007_11.95-12.4	11.95-12.4	23/09/2014	ES1421863009																									
AECOM	SNM	WCXBH007	WCXBH007_4.5-4.95	4.5-4.95	23/09/2014	ES1421863004	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.2	<0.2	<0.2	<0.5	<0.5	
AECOM	SNM	WCXBH007	WCXBH007_6.5-6.95	6.5-6.95	23/09/2014	ES1421863006																									
Golder	SNM	LDS-BH-1022	LDS-BH-1022-1.4-1.5	1.4-1.5	10/11/2015	SE146148-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-1022	LDS-BH1022-5.4-5.5	5.4-5.5	10/11/2015	SE146148-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-1023	LDS-BH1023-1	1-1.1	24/11/2015	SE146435-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Golder	SNM	LDS-BH-1023	LDS-BH1023-2	2	24/11/2015	SE146435-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-1023	QC A300-1	2	24/11/2015	SE146435-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-1023	QC B300-1	2	24/11/2015	ES1537405	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Golder	SNM	LDS-BH-1023	LDS-BH1023-3	3	24/11/2015	SE146434-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Golder	SNM	LDS-BH-1023	LDS-BH1023-4	4	24/11/2015	SE146435-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-1023	LDS-BH1023-6	6	24/11/2015	SE146435-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-TP-1219	LDS-TP-1219_1.8-2.0	1.8-2	16/11/2015	SE146143-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-TP-1219	LDS-TP-1219_2.7-3.0	2.7-3	16/11/2015	SE146143-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-TP-1221	LDS-TP-1221_2.8-3.0	2.8-3	16/11/2015	SE146143-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-TP-1221	QC A201		16/11/2015	SE146143-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-TP-6018	LDS-TP-6018/1	1	1/03/2016	SE149790 R0	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-TP-6018	LDS-TP-6018/1	1	1/03/2016	SE149790 R0	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-TP-6019	LDS-TP-6019/1.4	1.4	1/03/2016	SE149790 R0	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6066	LDS-BH-6066/3.0	3	9/05/2016	SE152099-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6067	LDS-BH-6067/5.0	5	29/04/2016	SE151708-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6068	LDS-BH-6068/1.0	1	28/04/2016	SE151708-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6069	LDS-BH-6069/3.0	3	9/05/2016	SE152099-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6070	LDS-BH-6070/4.0	4	28/04/2016	SE151708-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6072	LDS-BH-6072/3.0	3	9/05/2016	SE152099-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6073	LDS-BH-6073/2.0	2	28/04/2016	SE151708-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6074	LDS-BH-6074/2.0	2	29/04/2016	SE151708-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6075	LDS-BH-6075/1.5	1.5	28/04/2016	SE151708-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6076	LDS-BH-6076/3.0	3	9/05/2016	SE152099-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6077	LDS-BH-6077/4.8	4.8	29/04/2016	SE151708-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Golder	SNM	LDS-BH-6078A	LDS-BH-6078/3.0	3	9/05/2016	SE152099-1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-	
Statistical Summary																															
Number of Results						90	90	5	5	90	5	5	90	90	90	90	5	45	5	90	45	5	5	90	5	5					
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Minimum Concentration						<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.05	<0.05					
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND					
Maximum Concentration						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.5	<0.5					
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND					
Average Concentration						0.097	0.097	0.07	0.07	0.097	0.07	0.07	0.23	0.23	0.23	0.097	0.07	0.1	0.07	0.097	0.025	0.1	0.1	0.1	0.1	0.07					
Median Concentration						0.1	0.1	0.025	0.025	0.1	0.025	0.025	0.25	0.25	0.25	0.1	0.025	0.1	0.025	0.1	0.025	0.1	0.25	0.1	0.1	0.025					
Standard Deviation						0.03	0.03	0.1	0.1	0.03	0.1	0.1	0.062	0.062	0.062	0.03	0.1	0	0.1	0.03	0	0	0	0	0.1	0.1					
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Number of Guideline Exceedances (Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					

							PAH																								
							Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (lower bound)*	Benzo(a)pyrene TEQ (medium bound)*	Benzo(a)pyrene TEQ (upper bound)*	Benzo(b)&(j)fluoranthene	Benzo(b+j)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Benzo(g,h,i)perylene TEQ (Calculated)	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	PAH (Sum of Common 16 PAHs - Lab Reported)	1-Methylnaphthalene	2-Methylnaphthalene
				EQL			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	TEQ	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
							0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1		0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.1	0.1
				WCX - Kingsgrove - Commercial/ Industrial EIL/ESL							*1.4*													*370*					
				WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures											40												4000		
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number																							
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																													
Golder	SNM	LDS-BH-1022	LDS-BH1022-0.1-0.2	0.1-0.2	10/11/2015	SE146148-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.8	<0.1	<0.1
Golder	SNM	LDS-BH-1022	QC106A	0.1-0.2	10/11/2015	SE146148-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-BH-1022	QC1068	0.1-0.2	10/11/2015	ES1536198	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-
Golder	SNM	LDS-TP-1219	LDS-TP-1219_0.0-0.2	0-0.2	16/11/2015	SE146143-1	<0.1	<0.1	<0.1	0.2	0.3	-	-	0.4	0.4	0.3	<0.1	0.1	0.2	<0.1	-	0.4	<0.1	<0.1	0.3	0.4	2.6	<0.1	<0.1
Golder	SNM	LDS-TP-1221	LDS-TP-1221_0.2-0.4	0.2-0.4	16/11/2015	SE146143-1	<0.1	<0.1	<0.1	0.1	0.2	-	-	0.3	0.3	0.2	<0.1	<0.1	<0.1	<0.1	-	0.1	<0.1	<0.1	<0.1	<0.1	0.1	1.1	<0.1	<0.1
Golder	SNM	LDS-TP-1221	LDS-TP-1221_0.9-1.1	0.9-1.1	16/11/2015	SE146143-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-TP-6018	LDS-TP-6018/C2	0.00-1.30	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-6019	LDS-TP-6019/C2	0.00-1.30	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-6020	LDS-TP-6020/0.2	0.2	1/03/2016	SE149790 R0	<0.1	<0.1	<0.1	0.2	0.3	0.4	0.4	0.5	0.3	0.2	0.2	0.3	<0.1	-	0.4	<0.1	0.2	<0.1	0.2	0.5	2.8	<0.1	<0.1
Golder	SNM	LDS-TP-6020	LDS-TP-6020/C2	0.00-1.30	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6066	LDS-BH-6066/0.0	0	2/05/2016	SE151782-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-BH-6067	LDS-BH-6067/0.5	0.5	29/04/2016	SE151708-1	<0.1	<0.1	<0.1	0.2	0.2	-	-	0.4	0.3	0.1	<0.1	0.2	<0.1	0.3	0.4	<0.1	0.1	<0.1	0.2	0.4	2.2	<0.1	<0.1
Golder	SNM	LDS-BH-6068	LDS-BH-6068/0.0	0	28/04/2016	SE151708-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-BH-6069	LDS-BH-6069/0.5	0.5	2/05/2016	SE151782-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-BH-6070	LDS-BH-6070/0.5	0.5	28/04/2016	SE151708-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-BH-6072	LDS-BH-6072/0.5	0.5	9/05/2016	SE152059-1	<0.1	<0.1	0.2	0.5	0.4	-	-	0.6	0.5	0.1	0.2	0.4	<0.1	0.5	1.3	<0.1	0.2	<0.1	0.7	1.1	5.5	<0.1	<0.1
Golder	SNM	LDS-BH-6073	LDS-BH-6073/0.5	0.5	28/04/2016	SE151708-1	<0.1	<0.1	<0.1	<0.1	0.1	-	-	<0.3	0.1	<0.1	<0.1	0.1	<0.1	0.2	0.2	<0.1	0.1	<0.1	<0.1	0.2	0.9	<0.1	<0.1
Golder	SNM	LDS-BH-6074	LDS-BH-6074/0.5	0.5	29/04/2016	SE151708-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-BH-6074	QCA279	0.5	29/04/2016	SE151708-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-BH-6074	QCB 279	0.5	29/04/2016	ES1609306	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-
Golder	SNM	LDS-BH-6075	LDS-BH-6075/0.5	0.5	28/04/2016	SE151708-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-BH-6075	QCA276	0.5	28/04/2016	SE151708-1	<0.1	<0.1	<0.1	0.1	0.1	-	-	<0.3	0.2	<0.1	<0.1	0.1	<0.1	0.2	0.2	<0.1	0.1	<0.1	<0.1	0.3	1.2	<0.1	<0.1
Golder	SNM	LDS-BH-6075	QCB 276	0.5	28/04/2016	ES1609306	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Golder	SNM	LDS-BH-6076	LDS-BH-6076/0.5	0.5	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	0.4	0.3	-	-	0.5	0.4	0.2	0.2	0.3	<0.1	0.5	0.7	<0.1	0.2	<0.1	0.2	0.7	3.5	<0.1	<0.1
Golder	SNM	LDS-BH-6077	LDS-BH-6077/0.0	0	29/04/2016	SE151708-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	0.1	<0.1	<0.1	<0.1	<0.1	<0.2	0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.8	<0.1	<0.1
Golder	SNM	LDS-BH-6078A	LDS-BH-6078/0.5	0.5	2/05/2016	SE151782-1	<0.1	<0.1	<0.1	<0.1	0.1	-	-	<0.3	0.2	<0.1	<0.1	0.1	<0.1	<0.2	0.2	<0.1	<0.1	<0.1	<0.1	0.2	<0.8	<0.1	<0.1
Samples collected from outside the boundaries of the RAP/ADE's Scope (i.e. ≥0.5 m BGL)																													
AECOM	SNM	WCXBH004	WCXBH004_0.5-0.6	0.5-0.6	19/09/2014	ES1421296002	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-
AECOM	SNM	WCXBH004	WCXBH004_3.0-3.45	3-3.45	19/09/2014	ES1421296014	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-
AECOM	SNM	WCXBH007	WCXBH007_0.5-0.6	0.5-0.6	19/09/2014	ES1421296011	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-
AECOM	SNM	WCXBH007	WCXBH007_11.95-12.4	11.95-12.4	23/09/2014	ES1423863009	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-
AECOM	SNM	WCXBH007	WCXBH007_4.5-4.95	4.5-4.95	23/09/2014	ES1421863004	0.7	0.5	2.2	2.6	2.8	-	-	3.9	-	1	-	2.9	<0.5	3.8	7.2	1.6	1	2	6.6	6.4	41.5	<0.5	<0.5
AECOM	SNM	WCXBH007	WCXBH007_6.5-6.95	6.5-6.95	23/09/2014	ES1421863006	<0.5	<0.5	<0.5	1.1	1.2	-	-	1.8	1.5	0.7	0.6	1.1	<0.5	1.8	1.9	<0.5	0.6	<0.5	0.6	1.8	11.1	-	-
Golder	SNM	LDS-BH-1022	LDS-BH1022-1.4-1.5	1.4-1.5	10/11/2015	SE146148-1	<0.1	<0.1	<0.1	0.4	0.5	-	-	0.7	0.5	0.2	0.2	0.3	<0.1	0.7	0.5	<0.1	0.2	<0.1	0.3	0.6	4	<0.1	<0.1
Golder	SNM	LDS-BH-1022	LDS-BH1022-5.4-5.5	5.4-5.5	10/11/2015	SE146148-1	<0.1	<0.1	<0.1	0.2	0.2	-	-	0.4	0.3	<0.1	<0.1	0.2	<0.1	0.3	0.4	<0.1	<0.1	<0.1	0.4	0.4	2.5	<0.1	<0.1
Golder	SNM	LDS-BH-1023	LDS-BH1023-1	1-1.1	24/11/2015	SE146435-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-1023	LDS-BH1023-2	2	24/11/2015	SE146435-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-BH-1023	QCA300-1	2	24/11/2015	SE146435-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-BH-1023	QCB 300-1	2	24/11/2015	ES1537405	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-
Golder	SNM	LDS-BH-1023	LDS-BH1023-3	3	24/11/2015	SE146434-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-1023	LDS-BH1023-4	4	24/11/2015	SE146435-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-BH-1023	LDS-BH1023-6	6	24/11/2015	SE146435-1	<0.1	<0.1	<0.1	0.2	0.4	-	-	0.6	0.4	0.3	0.2	0.3	<0.1	0.5	0.6	<0.1	0.2	<0.1	0.2	0.6	3.4	<0.1	<0.1
Golder	SNM	LDS-TP-1219	LDS-TP-1219_1.8-2.0	1.8-2	16/11/2015	SE146143-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-TP-1219	LDS-TP-1219_2.7-3.0	2.7-3	16/11/2015	SE146143-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-TP-1221	LDS-TP-1221_2.8-3.0	2.8-3	16/11/2015	SE146143-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-TP-1221	QCA201		16/11/2015	SE146143-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-TP-6018	LDS-TP-6018/1	1	1/03/2016	SE149790 R0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-TP-6018	LDS-TP-6018/1	1	1/03/2016	SE149790 R0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-TP-6019	LDS-TP-6019/1.4	1.4	1/03/2016	SE149790 R0	<0.1	<0.1	<0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.1	<0.1	-	0.2	<0.1	0.1	<0.1	0.3	1.4	<0.1	<0.1
Golder	SNM	LDS-BH-6066	LDS-BH-6066/3.0	3	9/05/2016	SE152059-1	0.2	0.3	0.6	1.8	2.8	-	-	3.9	3.5	1.3	1.1	2.4	0.3	3.9	3.6	0.2	1.7	<0.1 - 0.2	2.3	3.4	26	0.1	0.1
Golder	SNM	LDS-BH-6067	LDS-BH-6067/5.0	5	29/04/2016	SE151708-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-BH-6068	LDS-BH-6068/1.0	1	28/04/2016	SE151708-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-BH-6069	LDS-BH-6069/3.0	3	9/05/2016	SE152059-1	<0.1	<0.1	0.1	0.4	0.4	-	-	0.6	0.4	0.1	0.2	0.4	<0.1	0.5	0.9	<0.1	0.2	<0.1	0.4	0.8	4.2	<0.1	<0.1
Golder	SNM	LDS-BH-6070	LDS-BH-6070/4.0	4	28/04/2016	SE151708-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-BH-6072	LDS-BH-6072/3.0	3	9/05/2016	SE152059-1	<0.1	<0.1	0.1	0.5	0.5	-	-	0.8	0.6	0.2	0.2	0.5	<0.1	0.7	1.2	<0.1	0.3	<0.1	0.5	1.1	5.7	<0.1	<0.1
Golder	SNM	LDS-BH-6073	LDS-BH-6073/2.0	2	28/04/2016	SE151708-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-BH-6074	LDS-BH-6074/2.0	2	29/04/2016	SE151708-1	<0.1	<0.1	<0.1	0.2	0.2	-	-	0.3	0.2	0.1	<0.1	0.1	<0.1	0.3	0.3	<0.1	0.1	<0.1	<0.1	0.3	1.5	<0.1	<0.1
Golder	SNM	LDS-BH-6075	LDS-BH-6075/1.5	1.5	28/04/2016	SE151708-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM	LDS-BH-6076	LDS-BH-6076/3.0	3	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	0.2	0.1	-	-	<0.3	0.2	<0.1	<0.1	0.1	<0.1	0.2	0.3	<0.1	<0.1	<0.1	0.1	0.3	1.4	<0.1	<0.1
Golder	SNM	LDS-BH-6077	LDS-BH-6077/4.8	4.8	29/04/2016	SE151708-1	<0.1	0.1	0.2	0.8	1	-	-	1.4	1.3	0.4	0.3	0.7	<0.1	1.3	1.7	<0.1	0.8	<0.1 -0.1	0.7	1.6	9.6	<0.1	<0.1
Golder	SNM	LDS-BH-6078A	LDS-BH-6078/3.0	3	9/05/2016	SE152059-1	<0.1	<0.1	<0.1	0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	0.1	<0.1	<0.2	0.2	<0.1	<0.1	<0.1	0.1	0.2	0.8	<0.1	<0.1
Statistical Summary																													
Number of Results							55	55	55	55	55	13	20	55	55	55	55	55	55	36	55	55	55	55	55	55	46	46	
Number of Detects							2	3	6	20	21	3	13	25	23	14	13	21	1	16	23	2	16	3	16	24	22	1	1
Minimum Concentration							<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1
Minimum Detect							0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.1	0.1	0.1	0.1	0.3	0.2	0.1	0.2	0.1	2	0.1	0.1	0.8	0.1	0.1
Maximum Concentration							0.7	0.5	2.2	2.6	2.8	<0.5	0.6	3.9	3.5	1.3	1.1	2.9	<0.5	3.9	7.2	1.6	1.7	2	6.6	6.4	41.5	<0.5	<0.5
Maximum Detect							0.7	0.5	2.2	2.6	2.8	0.4	0.6	3.9	3.5	1.3	1.1	2.9	0.3	3.9	7.2	1.6	1.7	2	6.6	6.4	41.5	0.1	0.1
Average Concentration							0.097	0.096	0.14	0.25	0.28	0.23	0.36	0.57	0.28	0.36	0.14	0.36	0.091	0.49	0.48	0.11	0.38	0.32	0.32	0.46	2.6	0.091	0.055
Median Concentration							0.05	0.05	0.05	0.1	0.1	0.25	0.4	0.15	0.15	0.05	0.05	0.1	0.05	0.1	0.2	0.05	0.05	0.05	0.05	0.2	0.4	0.05	0.05
Standard Deviation							0.11	0.097	0.3	0.44	0.54	0.078	0.23	0.78	0.52	0.23	0.17	0.51	0.083	0.9	1.1	0.22	0.28	0.27	0.93	0.99	6.7	0.03	0.03
Number of Guideline Exceedances							0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)							0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ADE CONSULTING GROUP

KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 5 - SOUTHERN NOISE MOUND (SNM)
COMMERCIAL/INDUSTRIAL

Phenols

Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,6-Dichlorophenol	2,3,4,6 & 2,3,5,6-Tetrachlorophenol	2-Chlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2-Methylphenol	2-Nitrophenol	3- & 4- Methylphenol	4-Nitrophenol	Cresols (Sum of total)	Phenol
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
						EQL	0.5	0.2	0.5	0.5	1	0.5	0.5	0.5	0.5	2	0.5	0.5	1	1	1.5	0.5
		WCX - Kingsgrove - Commercial/ Industrial EIL/ESL																				
		WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures												660							25000	240000
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																						
Golder	SNM	LDS-BH-1022	LDS-BH1022-0.1-0.2	0.1-0.2	10/11/2015	SE146148-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-1022	QC106A	0.1-0.2	10/11/2015	SE146148-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-1022	QC106B	0.1-0.2	10/11/2015	ES1536198	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<2	<0.5	-	<0.5	<0.5	<1	-	-	<0.5
Golder	SNM	LDS-TP-1219	LDS-TP-1219_0.0-0.2	0-0.2	16/11/2015	SE146143-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-TP-1221	LDS-TP-1221_0.2-0.4	0.2-0.4	16/11/2015	SE146143-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-TP-1221	LDS-TP-1221_0.9-1.1	0.9-1.1	16/11/2015	SE146143-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-TP-6018	LDS-TP-6018/C2	0.00-1.50	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-6019	LDS-TP-6019/C2	0.00-1.50	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-6020	LDS-TP-6020/0.2	0.2	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-6020	LDS-TP-6020/C2	0.00-1.50	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6066	LDS-BH-6066/0.0	0	2/05/2016	SE151782-1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6067	LDS-BH-6067/0.5	0.5	29/04/2016	SE151708-1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6068	LDS-BH-6068/0.0	0	28/04/2016	SE151708-1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6069	LDS-BH-6069/0.5	0.5	2/05/2016	SE151782-1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6070	LDS-BH-6070/0.5	0.5	28/04/2016	SE151708-1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6072	LDS-BH-6072/0.5	0.5	9/05/2016	SE152059-1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6073	LDS-BH-6073/0.5	0.5	28/04/2016	SE151708-1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6074	LDS-BH-6074/0.5	0.5	29/04/2016	SE151708-1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6074	QCA279	0.5	29/04/2016	SE151708-1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6074	QCB 279	0.5	29/04/2016	ES1609306	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<2	<0.5	-	<0.5	<0.5	<1	-	-	<0.5
Golder	SNM	LDS-BH-6075	LDS-BH-6075/0.5	0.5	28/04/2016	SE151708-1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6075	QCA276	0.5	28/04/2016	SE151708-1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6075	QCB 276	0.5	28/04/2016	ES1609306	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<2	<0.5	-	<0.5	<0.5	<1	-	-	<0.5
Golder	SNM	LDS-BH-6076	LDS-BH-6076/0.5	0.5	9/05/2016	SE152059-1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6077	LDS-BH-6077/0.0	0	29/04/2016	SE151708-1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6078A	LDS-BH-6078/0.5	0.5	2/05/2016	SE151782-1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Samples collected from outside the boundaries of the RAP/ADE's Scope (i.e. ≥0.5 m BGL)																						
AECOM	SNM	WCXBH004	WCXBH004_0.5-0.6	0.5-0.6	19/09/2014	ES1421296002	-	-	-	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5	<1	-	-	<0.5
AECOM	SNM	WCXBH004	WCXBH004_3.0-3.45	3-3.45	19/09/2014	ES1421296014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
AECOM	SNM	WCXBH007	WCXBH007_0.5-0.6	0.5-0.6	19/09/2014	ES1421296011	-	-	-	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5	<1	-	-	<0.5
AECOM	SNM	WCXBH007	WCXBH007_11.95-12.4	11.95-12.4	23/09/2014	ES1421863009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
AECOM	SNM	WCXBH007	WCXBH007_4.5-4.95	4.5-4.95	23/09/2014	ES1421863004	-	-	-	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-	<0.5
AECOM	SNM	WCXBH007	WCXBH007_6.5-6.95	6.5-6.95	23/09/2014	ES1421863006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Golder	SNM	LDS-BH-1022	LDS-BH1022-1.4-1.5	1.4-1.5	10/11/2015	SE146148-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-1022	LDS-BH1022-5.4-5.5	5.4-5.5	10/11/2015	SE146148-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-1023	LDS-BH1023-1	1-1.1	24/11/2015	SE146435-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-1023	LDS-BH1023-2	2	24/11/2015	SE146435-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-1023	QCA300-1	2	24/11/2015	SE146435-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-1023	QCB300-1	2	24/11/2015	ES1537405	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<2	<0.5	-	<0.5	<0.5	<1	-	-	<0.5
Golder	SNM	LDS-BH-1023	LDS-BH1023-3	3	24/11/2015	SE146434-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-1023	LDS-BH1023-4	4	24/11/2015	SE146435-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-1023	LDS-BH1023-6	6	24/11/2015	SE146435-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-TP-1219	LDS-TP-1219_1.8-2.0	1.8-2	16/11/2015	SE146143-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-TP-1219	LDS-TP-1219_2.7-3.0	2.7-3	16/11/2015	SE146143-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-TP-1221	LDS-TP-1221_2.8-3.0	2.8-3	16/11/2015	SE146143-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-TP-1221	QCA201		16/11/2015	SE146143-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-TP-6018	LDS-TP-6018/1	1	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-6018	LDS-TP-6018/1	1	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-6019	LDS-TP-6019/1.4	1.4	1/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6066	LDS-BH-6066/3.0	3	9/05/2016	SE152059-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6067	LDS-BH-6067/5.0	5	29/04/2016	SE151708-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6068	LDS-BH-6068/1.0	1	28/04/2016	SE151708-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6069	LDS-BH-6069/3.0	3	9/05/2016	SE152059-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6070	LDS-BH-6070/4.0	4	28/04/2016	SE151708-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6072	LDS-BH-6072/3.0	3	9/05/2016	SE152059-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6073	LDS-BH-6073/2.0	2	28/04/2016	SE151708-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6074	LDS-BH-6074/2.0	2	29/04/2016	SE151708-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6075	LDS-BH-6075/1.5	1.5	28/04/2016	SE151708-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6076	LDS-BH-6076/3.0	3	9/05/2016	SE152059-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6077	LDS-BH-6077/4.8	4.8	29/04/2016	SE151708-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM	LDS-BH-6078A	LDS-BH-6078/3.0	3	9/05/2016	SE152059-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
			Statistical Summary		Number of Results		45	45	45	45	41	45	45	48	48	41	48	48	48	41	41	48
					Number of Detects		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Minimum Concentration		<0.5	<0.2	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<1	<1.5	<0.5
					Minimum Detect		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
					Maximum Concentration		<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<2	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
					Maximum Detect		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
					Average Concentration		0.25	0.2	0.25	0.25	0.5	0.25	0.93	0.31	0.25	1	0.25	0.25	0.49	0.5	0.75	0.25
					Median Concentration		0.25	0.25	0.25	0.25	0.5	0.25	1	0.25	0.25	1	0.25	0.25	0.5	0.5	0.75	0.25
					Standard Deviation		0	0.07	0	0	0	0	0.22	0.21	0	0	0	0	0.036	0	0	0
					Number of Guideline Exceedances		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Number of Guideline Exceedances (Detects Only)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Polychlorinated Biphenyls

Field_ID	Aroclor 1016	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	Aroclor 1221	Aroclor 1262	PCB (Sum of Total-Lab Reported)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
WCX - Kingsgrove - Commercial/ Industrial EIL/ESL										
WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures										7
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)										
LDS-BH1022-0.1-0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
QC106A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
QC106B	-	-	-	-	-	-	-	-	-	-
LDS-TP-1219_0.0-0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-1221_0.2-0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-1221_0.9-1.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-6018/C2	-	-	-	-	-	-	-	-	-	-
LDS-TP-6019/C2	-	-	-	-	-	-	-	-	-	-
LDS-TP-6020/0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-6020/C2	-	-	-	-	-	-	-	-	-	-
LDS-BH-6066/0.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6067/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6068/0.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6069/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6070/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6072/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6073/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6074/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
QCA279	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
QCB 279	-	-	-	-	-	-	-	-	-	<0.1
LDS-BH-6075/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
QCA276	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
QCB 276	-	-	-	-	-	-	-	-	-	<0.1
LDS-BH-6076/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6077/0.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6078/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Samples collected from outside the boundaries of the RAP/ADE's Scope (i.e. ≥0.5 m BGL)										
WCXBH004_0.5-0.6	-	-	-	-	-	-	-	-	-	<1
WCXBH004_3.0-3.45	-	-	-	-	-	-	-	-	-	-
WCXBH007_0.5-0.6	-	-	-	-	-	-	-	-	-	<1
WCXBH007_11.95-12.4	-	-	-	-	-	-	-	-	-	-
WCXBH007_4.5-4.95	-	-	-	-	-	-	-	-	-	<1
WCXBH007_6.5-6.95	-	-	-	-	-	-	-	-	-	-
LDS-BH1022-1.4-1.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH1022-5.4-5.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH1023-1	-	-	-	-	-	-	-	-	-	-
LDS-BH1023-2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
QCA300-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
QCB300-1	-	-	-	-	-	-	-	-	-	-
LDS-BH1023-3	-	-	-	-	-	-	-	-	-	-
LDS-BH1023-4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH1023-6	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-1219_1.8-2.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-1219_2.7-3.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-1221_2.8-3.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
QCA201	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-6018/1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-6018/1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-TP-6019/1.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6066/3.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6067/5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6068/1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6069/3.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6070/4.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6072/3.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6073/2.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6074/2.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6075/1.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6076/3.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6077/4.8	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
LDS-BH-6078/3.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Number of Results	45	45	45	45	45	45	45	45	45	50
Number of Detects	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.48
Median Concentration	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5
Standard Deviation	0	0	0	0	0	0	0	0	0	0.089
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)	0	0	0	0	0	0	0	0	0	0

Acid Herbicides

Field_ID	2,4,5-Trichlorophenoxy Acetic Acid	2,4-D	2,4-Dichlorprop	2,6-D	2-Methyl-4-chlorophenoxyacetic acid	2-Methyl-4-Chlorophenoxy Butanoic Acid	4-(2,4-Dichlorophenoxy) butyric acid (2,4-DB)	4-Chlorophenoxyacetic acid	Actril	Bromoxynil	Clopyralid	Dicamba	Dinoseb	Fenoprop	Fluroxypyr	Mecoprop	Picloram	Triclopyr
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.02	0.02	0.02	0.2	0.02	0.02	0.02	0.02	0.5	0.2	0.02	0.02	0.2	0.02	0.02	0.02	0.02	0.02
WCX - Kingsgrove - Commercial/ Industrial EIL/ESL																		
WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures	5000	9000			5000	5000										5000		
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																		
LDS-BH1022-0.1-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC106A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC106B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-1219_0.0-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-1221_0.2-0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-1221_0.9-1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6018/C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6019/C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6020/0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6020/C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6066/0.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
LDS-BH-6067/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
LDS-BH-6068/0.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
LDS-BH-6069/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
LDS-BH-6070/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
LDS-BH-6072/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
LDS-BH-6073/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
LDS-BH-6074/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
QCA279	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
QCB 279	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.02	<0.02	-	-	<0.02	<0.02	-	<0.02	<0.02	<0.02	<0.02	<0.02
LDS-BH-6075/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
QCA276	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
QCB 276	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.02	<0.02	-	-	<0.02	<0.02	-	<0.02	<0.02	<0.02	<0.02	<0.02
LDS-BH-6076/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
LDS-BH-6077/0.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
LDS-BH-6078/0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
Samples collected from outside the boundaries of the RAP/ADE's Scope (i.e. ≥0.5 m BGL)																		
WCXBH004_0.5-0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WCXBH004_3.0-3.45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WCXBH007_0.5-0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WCXBH007_11.95-12.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WCXBH007_4.5-4.95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WCXBH007_6.5-6.95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1022-1.4-1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1022-5.4-5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1023-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1023-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA300-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCB300-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1023-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1023-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH1023-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-1219_1.8-2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-1219_2.7-3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-1221_2.8-3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCA201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6018/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6018/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-TP-6019/1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6066/3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6067/5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6068/1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6069/3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6070/4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6072/3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6073/2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6074/2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6075/1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6076/3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6077/4.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDS-BH-6078/3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Results	16	16	16	14	16	16	16	16	14	14	16	16	14	16	16	16	16	16
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.02	<0.02	<0.02	<0.2	<0.02	<0.02	<0.02	<0.02	<0.5	<0.2	<0.02	<0.02	<0.2	<0.02	<0.02	<0.02	<0.02	<0.02
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration	0.089	0.089	0.089	0.1	0.089	0.22	0.089	0.22	0.25	0.1	0.089	0.089	0.1	0.089	0.089	0.089	0.22	0.089
Median Concentration	0.1	0.1	0.1	0.1	0.1	0.25	0.1	0.25	0.25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.25	0.1
Standard Deviation	0.031	0.031	0.031	0	0.031	0.082	0.031	0.082	0	0	0.031	0.031	0	0.031	0.031	0.031	0.082	0.031
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

						Glyphosate	Triazines								Acid Sulfate Soils Screening				Other					Foreign Materials									
						Glyphosate	Atrazine	Cyanazine	Hexazinone	Metribuzin	Prometryn	Propazine	Simazine	Terbuthryn	Terbutylazine	pH (Field)	pH (Field ox)	pH Difference	Reaction Rate	Electrical Conductivity @ 25°C	pH (Lab)	Sulphur (as S)	Total Organic Carbon (%)	Moisture	Plastic	Bitumen	Paint	Paper	Cloth	Wood	Rubber	Vegetable Matter	% Total Type 3 Foreign Materials
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH_Units	pH_Units	pH Units	-	uS/cm	pH	mg/kg	%	%	%	%	%	%	%	%	%	%	%	%
					EQL	0.5	0.05	0.5	1	0.5	0.5	0.5	0.05	0.5	0.5	0	0	-10	1	1	0	100	0.02	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
		WCX - Kingsgrove - Commercial/ Industrial EIL/ESL																															
		WCX - Kingsgrove - Commercial/ Industrial HIL/ HSL assuming typical fuel mixtures					2500																										
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number																											
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ±0.5 m BGL)																																	
Golder	SNM	LDS-BH-3022	LDS-BH1022-0.1-0.2	0.1-0.2	10/11/2015	SE146148-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-3022	QC106A	0.1-0.2	10/11/2015	SE146148-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-3022	QC1068	0.1-0.2	10/11/2015	ES1536398	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-1219	LDS-TP-1219_0.0-0.2	0-0.2	16/11/2015	SE146143-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-1221	LDS-TP-1221_0.2-0.4	0.2-0.4	16/11/2015	SE146143-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-1221	LDS-TP-1221_0.9-1.1	0.9-1.1	16/11/2015	SE146143-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-6018	LDS-TP-6018_C.1	0.00-1.50	1/03/2016	SE149790R0	-	-	-	-	-	-	-	-	-	-	-	-	-	430	8.1	-	0.28	13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.07
Golder	SNM	LDS-TP-6019	LDS-TP-6019_C.2	0.00-1.50	1/03/2016	SE149790R0	-	-	-	-	-	-	-	-	-	-	-	-	-	330	8.1	-	1.2	17	<0.01	<0.01	<0.01	<0.01	<0.01	1.92	<0.01	<0.01	1.9
Golder	SNM	LDS-TP-6020	LDS-TP-6020_0.2	0.2	1/03/2016	SE149790R0	-	-	-	-	-	-	-	-	-	7.5	5.2	2.3	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-6020	LDS-TP-6020_C.1	0.00-1.50	1/03/2016	SE149790R0	-	-	-	-	-	-	-	-	-	-	-	-	-	180	8.3	-	1.3	17	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.07
Golder	SNM	LDS-BH-6066	LDS-BH-6066/0.0	0	2/05/2016	SE151782-1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6067	LDS-BH-6067/0.5	0.5	29/04/2016	SE151708-1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6068	LDS-BH-6068/0.0	0	28/04/2016	SE151708-1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6069	LDS-BH-6069/0.5	0.5	2/05/2016	SE151782-1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6070	LDS-BH-6070/0.5	0.5	28/04/2016	SE151708-1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6072	LDS-BH-6072/0.5	0.5	9/05/2016	SE152059-1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6073	LDS-BH-6073/0.5	0.5	28/04/2016	SE151708-1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6074	LDS-BH-6074/0.5	0.5	29/04/2016	SE151708-1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6074	QCA279	0.5	29/04/2016	SE151708-1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6074	QCB 279	0.5	29/04/2016	ES1609306	<0.5	<0.05	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6075	LDS-BH-6075/0.5	0.5	28/04/2016	SE151708-1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6075	QCA276	0.5	28/04/2016	SE151708-1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6075	QCB 276	0.5	28/04/2016	ES1609306	<0.5	<0.05	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6076	LDS-BH-6076/0.5	0.5	9/05/2016	SE152059-1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6077	LDS-BH-6077/0.0	0	29/04/2016	SE151708-1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6078A	LDS-BH-6078/0.5	0.5	2/05/2016	SE151782-1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samples collected from outside the boundaries of the RAP/ADE's Scope (i.e. ±0.5 m BGL)																																	
AECOM	SNM	WCXBH004	WCXBH004_0.5-0.6	0.5-0.6	19/09/2014	ES1421290002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AECOM	SNM	WCXBH004	WCXBH004_3.0-3.45	3-3.45	19/09/2014	ES1421290014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AECOM	SNM	WCXBH007	WCXBH007_0.5-0.6	0.5-0.6	19/09/2014	ES1421290011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AECOM	SNM	WCXBH007	WCXBH007_11.95-12.4	11.95-12.4	23/09/2014	ES1421863009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AECOM	SNM	WCXBH007	WCXBH007_4.5-4.95	4.5-4.95	23/09/2014	ES1421863004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AECOM	SNM	WCXBH007	WCXBH007_6.5-6.95	6.5-6.95	23/09/2014	ES1421863006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-3022	LDS-BH1022-1.4-1.5	1.4-1.5	10/11/2015	SE146148-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-3022	LDS-BH1022-5.4-5.5	5.4-5.5	10/11/2015	SE146148-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-3023	LDS-BH1023-1	1-1.1	24/11/2015	SE146435-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-3023	LDS-BH1023-2	2	24/11/2015	SE146435-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-3023	QCA3001	2	24/11/2015	SE146435-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-3023	QCB3001	2	24/11/2015	ES1537405	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-3023	LDS-BH1023-3	3	24/11/2015	SE146434-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-3023	LDS-BH1023-4	4	24/11/2015	SE146435-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-3023	LDS-BH1023-6	6	24/11/2015	SE146435-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-1219	LDS-TP-1219_1.8-2.0	1.8-2	16/11/2015	SE146143-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-1219	LDS-TP-1219_2.7-3.0	2.7-3	16/11/2015	SE146143-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-1221	LDS-TP-1221_2.8-3.0	2.8-3	16/11/2015	SE146143-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-1221	QCA201		16/11/2015	SE146143-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-6018	LDS-TP-6018/1	1	1/03/2016	SE149790R0	-	-	-	-	-	-	-	-	-	6.6	2.5	4.1	-	-	-	-	-	17	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-6018	LDS-TP-6018/1	1	1/03/2016	SE149790R0	-	-	-	-	-	-	-	-	-	6.6	2.5	4.1	-	-	-	-	-	17	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-TP-6019	LDS-TP-6019/1.4	1.4	1/03/2016	SE149790R0	-	-	-	-	-	-	-	-	-	7.4	4	3.5	-	-	-	-	-	23	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6066	LDS-BH-6066/3.0	3	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6067	LDS-BH-6067/1.0	5	29/04/2016	SE151708-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6068	LDS-BH-6068/1.0	1	28/04/2016	SE151708-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6069	LDS-BH-6069/3.0	3	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6070	LDS-BH-6070/4.0	4	28/04/2016	SE151708-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6072	LDS-BH-6072/3.0	3	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6073	LDS-BH-6073/2.0	2	28/04/2016	SE151708-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6074	LDS-BH-6074/2.0	2	29/04/2016	SE151708-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6075	LDS-BH-6075/1.5	1.5	28/04/2016	SE151708-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6076	LDS-BH-6076/3.0	3	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6077	LDS-BH-6077/4.8	4.8	29/04/2016	SE151708-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM	LDS-BH-6078A	LDS-BH-6078/1.0	3	9/05/2016	SE152059-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistical Summary

Number of Results						16	16	14	14	14	14	14	16	14	14	4	4	4	0	3	3	0	3	7	3	3	3	3	3	3	3	3	55
Number of Detects						0	0	0	0	0	0	0	0	0	0	4	4	4	0	3	3	0	3	7	0	0	0	0	1	0	0	53
Minimum Concentration						<0.5	<0.05	<0.5	<1	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	6.6	2.5	2.3		180	8.1	-	0.28	11	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.07
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.6	2.5	2.3	ND	180	8.1	N D	0.28	11	ND	ND	ND	ND	ND	1.92	ND	ND	1.9
Maximum Concentration						<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	7.4	4	4.1	0	0	0	0	0	23	0	0	0	0	0	0	0	0	0
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.5	5.2	4.1	ND	430	8.3	N D	1.3	23	ND	ND	ND	ND	ND	1.92	ND	ND	1.9
Average Concentration						0.25	0.22	0.25	0.5	0.25	0.25	0.25	0.22	0.25	0.25	7	3.6	3.5		313	8.2		0.93	16	0.005	0.005	0.005	0.005	0.005	0.64	0.005	0.005	0.66
Median Concentration						0.25	0.25	0.25	0.5	0.25	0.25	0.25	0.25	0.25	0.25	7	3.25	3.8		330	8.1		1.2	17	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.035
Standard Deviation						0	0.077	0	0	0	0	0	0.077	0	0	0.49	1.3	0.85		126	0.12		0.56	3.8	0	0	0	0	0	1.1	0	0	1.1
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

							Asbestos								
							Asbestos in soil (>7mm ACM)	Asbestos in soil (<2mm AF/FA)	Asbestos in soil (<7mm AF/FA)	Asbestos in soil (>2mm to <7mm AF/FA)	Weight Asbestos in soil (>7mm ACM)	Weight Asbestos in soil (<2mm AF/FA)	Weight Asbestos in soil (>2mm to <7mm AF/FA)	Asbestos (1-Detect or <1-Non-Detect)	Sample weight (dry)
						output unit	%w/w	%w/w	%w/w	%w/w	g	g	g	No	g
						EQL	0.01	0.001	0.001	0.001	0.01	0.0001	0.0001	0	1
		WCX - Kingsgrove - Commercial/Industrial - HSL					0.05		0.001						
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Matrix_Type									
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)															
Golder	SNM	LDS-TP-1221	LDS-TP-1221_0.2-0.4	0.2-0.4	16/11/2015	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	710
Golder	SNM	LDS-BH-6066	LDS-BH-6066/0.0	0	2/05/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	608
Golder	SNM	LDS-BH-6067	LDS-BH-6067/0.5	0.5	29/04/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	528
Golder	SNM	LDS-BH-6068	LDS-BH-6068/0.0	0	28/04/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	720
Golder	SNM	LDS-BH-6069	LDS-BH-6069/0.5	0.5	2/05/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	572
Golder	SNM	LDS-BH-6070	LDS-BH-6070/0.5	0.5	28/04/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	346
Golder	SNM	LDS-BH-6072	LDS-BH-6072/0.5	0.5	9/05/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	178
Golder	SNM	LDS-BH-6073	LDS-BH-6073/0.0	0	28/04/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	597
Golder	SNM	LDS-BH-6074	LDS-BH-6074/0.5	0.5	29/04/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	454
Golder	SNM	LDS-BH-6075	LDS-BH-6075/0.0	0	28/04/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	502
Golder	SNM	LDS-BH-6076	LDS-BH-6076/0.5	0.5	9/05/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	270
Golder	SNM	LDS-BH-6077	LDS-BH-6077/0.0	0	29/04/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	535
Golder	SNM	LDS-BH-6078A	LDS-BH-6078/0.5	0.5	2/05/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	387
Golder	SNM	LDS-TP-6018	LDS-TP-6018/C1	0.0-1.5	1/03/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	519
Golder	SNM	LDS-TP-6019	LDS-TP-6019/C1	0.0-1.5	1/03/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	585
Golder	SNM	LDS-TP-6020	LDS-TP-6020/0.2F	0.2	1/03/2016	OTHER	-	-	-	-	-	-	-	1 [#2]	-
Golder	SNM	LDS-TP-6020	LDS-TP-6020/C1	-	1/03/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	530
Samples collected from outside the boundaries of the RAP/ADE's Scope (i.e. ≥0.5 m BGL)															
Golder	SNM	LDS-BH-1023	LDS-BH1023-1	1-1.1	24/11/2015	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	1140
Golder	SNM	LDS-TP-1219	LDS-TP-1219_2.7-3.0	2.7-3	16/11/2015	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	883
AECOM	SNM	BH004	WCXBH004_0.5-0.6	0.5-0.6	19/09/2014	SOIL	<0.1	-	<0.0004	-	<0.01	-	<0.001	<1	355
AECOM	SNM	BH007	WCXBH007_0.5-0.6	0.5-0.6	19/09/2014	SOIL	<0.1	-	<0.0004	-	<0.01	-	<0.001	<1	459
			Statistical Summary			Number of Results	20	18	20	18	20	18	20	21	20
						Number of Detects	0	0	0	0	0	0	0	1	20
						Minimum Concentration	<0.01	<0.001	<0.0004	<0.001	<0.01	<0.0001	<0.0001	<1	178
						Minimum Detect	ND	ND	ND	ND	ND	ND	ND	1	178
						Maximum Concentration	<0.1	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.001	1	1140
						Maximum Detect	ND	ND	ND	ND	ND	ND	ND	1	1140
						Average Concentration	0.0095	0.0005	0.00047	0.0005	0.005	0.00005	0.000095	0.52	544
						Median Concentration	0.005	0.0005	0.0005	0.0005	0.005	0.00005	0.00005	0.5	529
						Standard Deviation	0.014	0	0.000092	0	0	0	0.00014	0.11	213
						Number of Guideline Exceedances	2	0	0	0	0	0	0	0	0
						Number of Guideline Exceedances (Detects Only)	0	0	0	0	0	0	0	0	0

Notes to Table

#1 Asbestos Detected, Yes
#2 Fibre Type CRY,AMO
#3 Fibre Type CRY

ADE_WCX-02-10878
KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 7 - SOUTHERN NOISE MOUND BERM
COMMERCIAL/INDUSTRIAL

WCX-STAGE 2
ADE PROJECT:WCX-02-10878

						Heavy Metals																				MAH						TPH Group - Waste Classification					TRH - HSL									
						Antimony	Arsenic	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Tin	Vanadium	Zinc	Benzene	Toluene	Ethylbenzene	Xylenes (m & p)	Xylene (o)	Xylenes (Sum of total) (Lab Reported)	Total BTEX	TRH C6 - C9 Fraction	TRH C10 - C14 Fraction	TRH C15 - C28 Fraction	TRH C29 - C36 Fraction	TRH>C10 - C36 (Sum of total) (Lab Reported)	TRH C6 - C10 Fraction F1	TRH >C10 - C16 Fraction F2	TRH >C16 - C34 Fraction F3	TRH >C34 - C40 Fraction F4	TRH C37 - C40 Fraction	TRH>C10 - C40 (Sum of total) (Lab Reported)	TRH C6 - C10 Fraction F1	TRH >C10 - C16 Fraction Less BTEX F1	TRH >C10 - C16 Fraction F2	TRH >C16 - C34 Fraction Less Naphthalene F2	TRH >C16 - C34 Fraction F3	TRH >C34 - C40 Fraction F4	TRH C37 - C40 Fraction	TRH>C10 - C40 (Sum of total) (Lab Reported)
						m g/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			EQL			3	3	0.5	5	0.3	0.3	0.5	0.5	1	1	0.01	1	0.5	3	3	0.5	0.5	0.1	0.1	0.1	0.2	0.1	0.3	0.2	10	20	45	45	50	10	10	25	25	90	100	100	50							
			WCX - Kingsgrove - Commercial/ Industrial EIL/ESL				160				950		320	1800				330				840	75	135	165			95							215		170	1700	3300								
			WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures				3000	500	300000	900	3600	4000	240000	1500	60000	730		6000	10000			400000	3					230							260		1000	5000	10000								
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number																																									
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																																														
Golder	SNM-B	LDS-BH-6071	LDS-BH-6071/0.0	0	29/04/2016	SE151708-1	-	5	-	-	0.4	11	-	26	41	-	0.07	-	11	-	-	-	74	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-BH-6071	LDS-BH-6071/3.0	3	29/04/2016	SE151708-1	-	4	-	-	0.6	12	-	24	34	-	0.05	-	16	-	-	-	72	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-BH-6082	LDS-BH-6082/1.3	1.3	29/04/2016	SE151708-1	-	7	-	-	0.5	14	-	21	33	-	0.05	-	11	-	-	-	61	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-BH-6082	LDS-BH-6082/5.0	5	29/04/2016	SE151708-1	-	4	-	-	0.4	11	-	19	37	-	0.09	-	6.3	-	-	-	100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-TP-6013	LDS-TP-6013/0.2	0.2	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-TP-6013	LDS-TP-6013/C2	0.0-1.5	01/03/2016	SE149790 R0	<3	5	0.7	<5	0.4	12	5	21	41	140	0.05	<1	6.5	<3	9	30	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	LDS-TP-6014/0.5	0.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-TP-6014	LDS-TP-6014/C2	0.0-1.5	01/03/2016	SE149790 R0	<3	6	0.8	<5	0.6	14	6.6	21	52	220	0.06	<1	7.1	<3	4	39	77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCA/C2	-	01/03/2016	SE149790 R0	<3	4	0.6	<5	0.8	20	8.1	27	48	230	0.06	<1	6.2	<3	<3	28	95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCA302	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-TP-6014	QCB/C2	-	01/03/2016	SE149790 R0	<5	7	<1	<50	<1	12	6	25	54	215	<0.1	<2	9	<5	9	31	86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCB302	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	-	<50							
Golder	SNM-B	LDS-TP-6015	LDS-TP-6015/0.5	0.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	210	<45	210	<25	<25	<25	<25	230	<120	<100	<210							
Golder	SNM-B	LDS-TP-6015	LDS-TP-6015/C2	0.0-1.5	01/03/2016	SE149790 R0	<3	5	0.6	<5	0.4	11	10	22	36	230	0.03	<1	11	<3	<3	30	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6016	LDS-TP-6016/0.2	0.2	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-TP-6016	LDS-TP-6016/C2	0.0-1.5	01/03/2016	SE149790 R0	<3	4	0.5	<5	0.4	13	6.2	24	30	240	0.04	<1	8.2	<3	<3	33	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6017	LDS-TP-6017/1	1	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-TP-6017	LDS-TP-6017/C2	0.0-1.5	01/03/2016	SE149790 R0	<3	6	0.6	<5	0.5	13	5.2	19	40	130	0.05	<1	7.6	<3	<3	38	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-0.8-1.0	0.8-1	18/12/2015	SE147355-1	-	4	-	-	0.4	11	-	19	33	-	0.06	-	8.1	-	-	-	55	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-BH-1048	QCA212	0.8-1	18/12/2015	SE147355-1	-	4	-	-	0.7	11	-	20	40	-	0.07	-	7.9	-	-	-	60	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-1.5-1.9	1.5-1.9	18/12/2015	SE147355-1	-	4	-	-	0.3	10	-	21	27	-	0.89	-	14	-	-	-	45	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-10.5-11	10.5-11	18/12/2015	SE147355-1	-	<3	-	-	<0.3	8	-	6.1	11	-	<0.01	-	6.6	-	-	-	32	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-7.5-7.9	7.5-7.9	18/12/2015	SE147355-1	-	4	-	-	<0.3	11	-	11	19	-	0.01	-	5.2	-	-	-	26	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-0.5-0.7	0.5-0.7	16/12/2015	SE147354-1	-	5	-	-	0.6	18	-	38	96	-	0.18	-	12	-	-	-	130	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-3.0-3.6	3-3.6	16/12/2015	SE147354-1	-	6	-	-	0.4	12	-	23	39	-	0.02	-	3.7	-	-	-	53	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-BH-1016	QCA210	3-3.6	16/12/2015	SE147354-1	-	<3	-	-	<0.3	6.3	-	14	14	-	0.03	-	4.5	-	-	-	32	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-6.0-6.6	6-6.6	16/12/2015	SE147354-1	-	5	-	-	0.5	14	-	28	1100	-	0.1	-	8.1	-	-	-	69	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-6.0-6.6	6-6.6	16/12/2015	SE147354A-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-7.5-8.0	7.5-8	16/12/2015	SE147354-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-10.5-11.0	10.5-11	16/12/2015	SE147354-1	-	<3	-	-	0.3	8.6	-	13	21	-	0.03	-	6	-	-	-	40	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<20	<20	<45	<45	<110	<25	<25	<25	<25	<90	<120	<100	<210							
Golder	SNM-B	LDS-BH-1016	QCB211	10.5-11	16/12/2016	ES1539310	-	<5	-	-	<1	8	-	18	62	-	<0.1	-	8	-	-	-	77	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	-	<50							
ADE	SNM-B	ADE-TP2	10721-TP2-A	0.5	10/08/2016	WCX-02-10721-6	-	6	-	-	<0.3	37	-	<5	32	-	<0.2	-	<10	-	-	-	27	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP2	10721-TP2-B	2.0	10/08/2016	WCX-02-10721-6	-	8	-	-	<0.3	11	-	14	48	-	<0.2	-	<10	-	-	-	75	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP2	10721-TP2-C	4.6	10/08/2016	WCX-02-10721-6	-	10	-	-	<0.3	10	-	56	110	-	0.2	-	20	-	-	-	340	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP2	10721-TP2-D	13	10/08/2016	WCX-02-10721-6	-	<2	-	-	<0.3	7	-	<5	46	-	<0.2	-	<10	-	-	-	<5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP3	10721-TP3-A	0.5	09/08/2016	WCX-02-10721-4	-	12	-	-	<0.3	19	-	30	110	-	<0.2	-	<10	-	-	-	77	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP3	10721-TP3-B	4.0	10/08/2016	WCX-02-10721-5	-	8	-	-	<0.3	13	-	20	46	-	<0.2	-	<10	-	-	-	65	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP3	10721-TP3-C	5.5	10/08/2016	WCX-02-10721-5	-	4	-	-	<0.3	9	-	15	23	-	<0.2	-	<10	-	-	-	29	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP3	10721-TP3-D	8.0	10/08/2016	WCX-02-10721-5	-	10	-	-	2.4	37	-	36	71	-	<0.2	-	<10	-	-	-	81	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP4	10721-TP4-A	0.5	09/08/2016	WCX-02-10721-4	-	4	-	-	<0.3	20	-	27	35	-	<0.2	-	<10	-	-	-	50	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP4	10721-TP4-B	2.5	09/08/2016	WCX-02-10721-4	-	13	-	-	<0.3	20	-	74	420	-	<0.2	-	<10	-	-	-	210	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP4	10721-TP4-C	4.0	09/08/2016	WCX-02-10721-4	-	7	-	-	1.1	29	-	110	150	-	<0.2	-	<10	-	-	-	220	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP4	10721-TP4-D	5.5	09/08/2016	WCX-02-10721-4	-	4	-	-	<0.3	22	-	34	43	-	<0.2	-	<10	-	-	-	220	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP5	10721-TP5-A	0.3	01/08/2016	WCX-02-10721-1	-	6	-	-	<0.3	23	-	92	100	-	1.6	-	<10	-	-	-	180	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP5	10721-TP5-B	3.0	02/08/2016	WCX-02-10721-2	-	34	-	-	<0.3	8	-	30	31	-	0.4	-	<10	-	-	-	71	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP6	10721-TP6-A	0.5	01/08/2016	WCX-02-10721-1	-	5	-	-	<0.3	11	-	23	41	-	<0.2	-	11	-	-	-	85	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP6	10721-TP6-B	1.8	01/08/2016	WCX-02-10721-1	-	6	-	-	<0.3	12	-	12	28	-	<0.2	-	<10	-	-	-	32	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP7	10721-TP7-A	0.5	01/08/2016	WCX-02-10721-1	-	7	-	-	<0.3	13	-	20	20	-	<0.2	-	20	-	-	-	98	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP7	10721-TP7-B	2.1	01/08/2016	WCX-02-10721-1	-	9	-	-	<0.3	15	-	16	35	-	<0.2	-	<10	-	-	-	66	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP8	10721-TP8-A	0.7	01/08/2016	WCX-02-10721-1	-	8	-	-	<0.3	18	-	18	30	-	<0.2	-	11	-	-	-	49	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP9	10721-TP9-A	0.7	10/08/2016	WCX-02-10721-5	-	5	-	-	<0.3	15	-	20	39	-	<0.2	-	<10	-	-	-	53	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP9	10721-TP9-B	2.2	10/08/2016	WCX-02-10721-5	-	10	-	-	<0.3	10	-	10	27	-	<0.2	-	<10	-	-	-	11	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP9	10721-TP9-B	2.2	10/08/2016	WCX-02-10721-5	-	10	-	-	<0.3	10	-	10	27	-	<0.2	-	<10	-	-	-	11	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP10	10721-TP10-A	0.5	11/08/2016	WCX-02-10721-7	-	2	-	-	1.1	33	-	42	83	-	0.5	-	19	-	-	-	77	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP10	10721-TP10-B	3.0	11/08/2016	WCX-02-10721-7	-	3	-	-	<0.3	30	-	14	840	-	<0.2	-	14	-	-	-	140	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	AQDE-TP11	10721-TP11-A	0.4	11/08/2016	WCX-02-10721-7	-	5	-	-	<0.3	12	-	9	210	-	<0.2	-	10	-	-	-	66	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP11	10721-TP11-B	2.8	11/08/2016	WCX-02-10721-7	-	2	-	-	<0.3	10	-	48	600	-	<0.2	-	<10	-	-	-	180	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP12	10721-TP12-A	0.5	11/08/2016	WCX-02-10721-7	-	9	-	-	<0.3	6	-	8	19	-	<0.2	-	15.3	-	-	-	48	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
ADE	SNM-B	ADE-TP12	10721-TP12-B	3.5	11/08/2016	WCX-02-10721-7	-	5	-	-	<0.3	8	-	6	21	-	<0.2	-	17	-	-	-	49	<0.5	<0.5	<1	<2	<1	<3	<5	-	-	-	-	-	<35	<35	<50	<50	<100	<100	-	<285							
			Statistical Summary			Number of Results	7	50	7	7	50	50	7	50	50	7	50	7	50	7	7	7	50	50	50	50	50	50	50	50	22	22	22	22	22	50	50	50	50	50	50	20	50							
						Number of Detects	0	45	6	0	20	50	7	48	50	7	23	0	31	0	3	7	49	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0							
						Minimum Concentration	<3	<2	0.5	<5	<0.3	6	5	<5	11	130	<0.01	<1	3.7	<3	<3	28	<5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.2	<10	<20	<45	<45	<50	<10	<10	<50	<50	<100	<100	-	<50							
						Minimum Detect	ND	2	0.5	ND	0.3	6	5	6	11	130	0.01	ND	3.7	ND	4	28	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	210	ND	210	ND	210	ND	ND	ND	ND	230	ND	ND	ND							
						Maximum Concentration	<5	34	<1	<50	2.4	37	10	110	1100	240	1.6	<2	62	<5	9	39	340	<0.5	<0.5	<1	<2	<1	<3	<5	<20	<50	210	<100	210	<35	<35	<50	<50	230	<120	<100	<285							
						Maximum Detect	ND	34	0.8	ND	2.4	37	10	110	1100	240	1.6	ND	62	ND	9	39	340	ND	ND	ND	ND	ND	ND	ND	ND	ND	210	ND	210	ND	ND	ND	ND	230	ND	ND	ND							
						Average Concentration	1.6	6.2	0.61	5.7	0.36	15	6.7	25	104	201	0.14	0.57	9.4	1.6	4	33	81	0.15	0.17	0.29	0.55	0.29	0.81	1.3	9.5	11	34	25	59	15	15	20	20	52	54	50	123							
						Median Concentration	1.5	5	0.6	2.5	0.15	12	6.2	20.5	39.5	220	0.1	0.5	6.55	1.5	1.5	31	65.5	0.1	0.25	0.25	0.25	0.25	0.25	0.3	10	10	22.5	22.5	55	17.5	17.5	25	25	50	50	50	142.5							
						Standard Deviation	0.38	4.9	0.11	8.5	0.38	7.5	1.8	20	206	46	0.25	0.19	8.8	0.38	3.5	4.2	63	0.096	0.099	0.21	0.44	0.21	0.67	1.1	1.5	4.4	40	8.1	35	3.2	3.2	6.2	6.2	26	4.9	0	27							
						Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
						Number of Guideline Exceedances (Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							

								Organochlorine Pesticides																										
								Chlordane (Sum of total) (Calculated)	2,4-DDT	a-BHC	Aldrin	Aldrin & Dieldrin (Sum of total) (Lab Reported)	Aldrin & Dieldrin (Sum of total) (Calculated)	b-BHC	Chlordane (Sum of total)	cis-Chlordane	gamma-Chlordane	trans-Chlordane	d-BHC	DDD	DDE	DDT	DDT+DDE+DDD (Sum of total) (Lab Reported)	DDT+DDE+DDD (Sum of total) (Calculated)	Dieldrin	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endosulfan I & II (Sum of Total) (Calculated)	Endrin	Endrin aldehyde	Endrin ketone	g-BHC
						EQL	mg/kg	0.1	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
								0.05	0.05	0.05	0.05		0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.1	0.05			0.05	0.05	0.05	0.05	0.05		0.05	0.05	0.05	0.05
		WCX - Kingsgrove - Commercial/ Industrial EIL/ESL																			6.40														
		WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures										45			530								3600				2000					100			
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number																													
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																																			
Golder	SNM-B	LDS-BH-6071	LDS-BH-6071/0.0	0	29/04/2016	SE151708-1		n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-BH-6071	LDS-BH-6071/3.0	3	29/04/2016	SE151708-1		n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-BH-6082	LDS-BH-6082/1.3	1.3	29/04/2016	SE151708-1		n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-BH-6082	LDS-BH-6082/5.0	5	29/04/2016	SE151708-1		n#1	<0.1	<0.1	<0.1	-	n#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	n#2	<0.2	-	<0.2	<0.2	<0.1	n#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-TP-6013	LDS-TP-6013/0.2	0.2	01/03/2016	SE149790 R0		0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-TP-6013	LDS-TP-6013/C2	0.0-1.5	01/03/2016	SE149790 R0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	LDS-TP-6014/0.5	0.5	01/03/2016	SE149790 R0		0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-TP-6014	LDS-TP-6014/C2	0.0-1.5	01/03/2016	SE149790 R0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCA/C2	-	01/03/2016	SE149790 R0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCA302	-	01/03/2016	SE149790 R0		0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-TP-6014	QCB/C2	-	01/03/2016	SE149790 R0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCB302	-	01/03/2016	SE149790 R0		0#1	-	<0.05	<0.05	<0.05	0#2	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	0#2	<0.05	<0.05	<0.05	<0.05	<0.05	0#2	<0.05	<0.05	<0.05	<0.05
Golder	SNM-B	LDS-TP-6015	LDS-TP-6015/0.5	0.5	01/03/2016	SE149790 R0		0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-TP-6015	LDS-TP-6015/C2	0.0-1.5	01/03/2016	SE149790 R0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6016	LDS-TP-6016/0.2	0.2	01/03/2016	SE149790 R0		0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-TP-6016	LDS-TP-6016/C2	0.0-1.5	01/03/2016	SE149790 R0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6017	LDS-TP-6017/1	1	01/03/2016	SE149790 R0		0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-TP-6017	LDS-TP-6017/C2	0.0-1.5	01/03/2016	SE149790 R0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-0.8-1.0	0.8-1	18/12/2015	SE147355-1		0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-BH-1048	QCA2 12	0.8-1	18/12/2015	SE147355-1		0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-1.5-1.9	1.5-1.9	18/12/2015	SE147355-1		0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-10.5-11	10.5-11	18/12/2015	SE147355-1		0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-7.5-7.9	7.5-7.9	18/12/2015	SE147355-1		0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-0.5-0.7	0.5-0.7	16/12/2015	SE147354-1		0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-3.0-3.6	3-3.6	16/12/2015	SE147354-1		0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-BH-1016	QCA 210	3-3.6	16/12/2015	SE147354-1		0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-6.0-6.6	6-6.6	16/12/2015	SE147354-1		0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-6.0-6.6	6-6.6	16/12/2015	SE147354A-1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-7.5-8.0	7.5-8	16/12/2015	SE147354-1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-10.5-11.0	10.5-11	16/12/2015	SE147354-1		0#1	<0.1	<0.1	<0.1	-	0#2	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	0#2	<0.2	-	<0.2	<0.2	<0.1	0#2	<0.2	<0.1	<0.1	<0.1
Golder	SNM-B	LDS-BH-1016	QCB211	10.5-11	16/12/2016	ES1539310		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP2	10721-TP2-A	0.5	10/08/2016	WCX-02-10721-6		-	-	<0.1	-	<0.2	-	<0.1	<0.1	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP2	10721-TP2-B	2.0	10/08/2016	WCX-02-10721-6		-	-	<0.1	-	<0.2	-	<0.1	<0.1	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP2	10721-TP2-C	4.6	10/08/2016	WCX-02-10721-6		-	-	<0.1	-	<0.2	-	<0.1	<0.1	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP2	10721-TP2-D	13	10/08/2016	WCX-02-10721-6		-	-	<0.1	-	<0.2	-	<0.1	<0.1	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP3	10721-TP3-A	0.5	09/08/2016	WCX-02-10721-4		-	-	<0.1	-	<0.2	-	<0.1	<0.1	-	-	<0.1	<0.1	-	-	+	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP3	10721-TP3-B	4.0	10/08/2016	WCX-02-10721-5		-	-	<0.1	-	<0.2	-	<0.1	<0.1	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP3	10721-TP3-C	5.5	10/08/2016	WCX-02-10721-5		-	-	<0.1	-	<0.2	-	<0.1	<0.1	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP3	10721-TP3-D	8.0	10/08/2016	WCX-02-10721-5		-	-	<0.1	-	<0.2	-	<0.1	<0.1	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP4	10721-TP4-A	0.5	09/08/2016	WCX-02-10721-4		-	-	<0.1	-	<0.2	-	<0.1	<0.1	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP4	10721-TP4-B	2.5	09/08/2016	WCX-02-10721-4		-	-	<0.1	-	<0.2	-	<0.1	<0.1	-	-	<0.1	<0.1	-	-	+	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP4	10721-TP4-C	4.0	09/08/2016	WCX-02-10721-4		-	-	<0.1	-	<0.2	-	<0.1	0.3	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP4	10721-TP4-D	5.5	09/08/2016	WCX-02-10721-4		-	-	<0.1	-	<0.2	-	<0.1	<0.1	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP5	10721-TP5-A	0.3	01/08/2016	WCX-02-10721-1		-	-	<0.1	-	<0.2	-	<0.1	<0.1	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP5	10721-TP5-B	3.0	02/08/2016	WCX-02-10721-2		-	-	<0.1	-	<0.2	-	<0.1	<0.1	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP6	10721-TP6-A	0.5	01/08/2016	WCX-02-10721-1		-	-	<0.1	-	<0.2	-	<0.1	<0.1	-	-	<0.1	<0.1	-	-	+	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP6	10721-TP6-B	1.8	01/08/2016	WCX-02-10721-1		-	-	<0.1	-	<0.2	-	<0.1	<0.1	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP7	10721-TP7-A	0.5	01/08/2016	WCX-02-10721-1		-	-	<0.1	-	<0.2	-	<0.1	<0.1	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP7	10721-TP7-B	2.1	01/08/2016	WCX-02-10721-1		-	-	<0.1	-	<0.2	-	<0.1	<0.1	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP8	10721-TP8-A	0.7	01/08/2016	WCX-02-10721-1		-	-	<0.1	-	<0.2	-	<0.1	<0.2	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP9	10721-TP9-A	0.7	10/08/2016	WCX-02-10721-5		-	-	<0.1	-	<0.2	-	<0.1	<0.2	-	-	<0.1	<0.1	-	-	+	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP9	10721-TP9-B	2.2	10/08/2016	WCX-02-10721-5		-	-	<0.1	-	<0.2	-	<0.1	<0.2	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP9	10721-TP9-B	2.2	10/08/2016	WCX-02-10721-5		-	-	<0.1	-	<0.2	-	<0.1	<0.2	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP10	10721-TP10-A	0.5	11/08/2016	WCX-02-10721-7		-	-	<0.1	-	<0.2	-	<0.1	<0.2	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP10	10721-TP10-B	3.0	11/08/2016	WCX-02-10721-7		-	-	<0.1	-	<0.2	-	<0.1	<0.2	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	AQDE-TP11	10721-TP11-A	0.4	11/08/2016	WCX-02-10721-7		-	-	<0.1	-	<0.2	-	<0.1	<0.2	-	-	<0.1	<0.1	-	-	+	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP11	10721-TP11-B	2.8	11/08/2016	WCX-02-10721-7		-	-	<0.1	-	<0.2	-	<0.1	<0.2	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP12	10721-TP12-A	0.5	11/08/2016	WCX-02-10721-7		-	-	<0.1	-	<0.2	-	<0.1	<0.2	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
ADE	SNM-B	ADE-TP12	10721-TP12-B	3.5	11/08/2016	WCX-02-10721-7		-	-	<0.1	-	<0.2	-	<0.1	<0.2	-	-	<0.1	<0.1	-	-	-	<0.3	-	-	<0.4	-	-	<0.1	-	<0.2	<0.1	<0.1	<0.1
Statistical Summary						Number of Results		21	20	49	21	29	21	49	29	21	20	29	49	21	21	21	29	21	21	29	21	21	49	21	49	49	49	49
						Number of Detects		21	0	0	0	0	21	0	1	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	0	0	0	0
						Minimum Concentration		<0	<0.1	<0.05	<0.05	<0.05	<0	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0	<0.05	<0.05	<0.05	<0.05	<0.05	<0	<0.05	<0.05	<0.05	<0.05
						Minimum Detect		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
						Maximum Concentration		0	<0.1	<0.1	<0.1	<0.2	0	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	0	<0.2	<0.4	<0.2	<0.2	<0.1	0	<0.2	<0.1	<0.1	<0.1
						Maximum Detect		ND	ND	ND	ND	ND	ND	ND	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
						Average Concentration		0	0.05	0.049	0.049	0.097	0	0.049	0.075	0.049	0.05	0.049	0.049	0.049	0.049	0.052	0.15	0	0.096	0.19	0.096	0.096	0.049	0	0.098	0.049	0.049	0.049
						Median Concentration		0	0.05	0.05	0.05	0.1	0	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.15	0	0.1	0.2	0.1	0.1	0.05	0	0.1	0.05	0.05	0.05
						Standard Deviation		0	0	0.0036	0.0055	0.014	0	0.0036	0.05	0.0055	0	0.0046	0.0036	0.0055	0.0055	0.011	0.023	0	0.016	0.032	0.016	0.016	0.0036	0	0.011	0.0036	0.0036	0.0036
						Number of Guideline Exceedances		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
						Number of Guideline Exceedances (Detects Only)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

							Organophosphorous Pesticides																															
							Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Jodrin	Methoxychlor	Mirex	o,p-DDD	o,p-DDE	trans-Nonachlor	Azinphos-methyl	Bromophos-ethyl	Carbophenothion	Chlorfenvinphos	Chlorpyriphos	Chlorpyriphos-methyl	Demeton-s-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenamiphos	Fenitrothion	Fenthion	Malathion	Methidathion	Parathion-methyl	Monocrotophos	Parathion	Pirimiphos-ethyl	Prothiofos		
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
						EQL	0.05	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.05	0.05	0.5	0.2	0.2	0.2	0.05	0.05		
		WCX - Kingsgrove - Commercial/ Industrial EIL/ESL					50		80											2000																	
		WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures																																		
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number																														
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																																				
Golder	SNMI-B	LDS-BH-6071	LDS-BH-6071/0.0	0	29/04/2016	SE151708-1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-BH-6071	LDS-BH-6071/3.0	3	29/04/2016	SE151708-1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-BH-6082	LDS-BH-6082/1.3	1.3	29/04/2016	SE151708-1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-BH-6082	LDS-BH-6082/5.0	5	29/04/2016	SE151708-1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-TP-6013	LDS-TP-6013/0.2	0.2	01/03/2016	SE149790 R0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-TP-6013	LDS-TP-6013/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Golder	SNMI-B	LDS-TP-6014	LDS-TP-6014/0.5	0.5	01/03/2016	SE149790 R0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-TP-6014	LDS-TP-6014/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Golder	SNMI-B	LDS-TP-6014	QCA/C2	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Golder	SNMI-B	LDS-TP-6014	QCA302	-	01/03/2016	SE149790 R0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-TP-6014	QCB/C2	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Golder	SNMI-B	LDS-TP-6014	QCB302	-	01/03/2016	SE149790 R0	<0.05	<0.05	<0.05	-	<0.2	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	<0.2	<0.2	<0.2	<0.05	<0.05		
Golder	SNMI-B	LDS-TP-6015	LDS-TP-6015/0.5	0.5	01/03/2016	SE149790 R0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-TP-6015	LDS-TP-6015/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Golder	SNMI-B	LDS-TP-6016	LDS-TP-6016/0.2	0.2	01/03/2016	SE149790 R0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-TP-6016	LDS-TP-6016/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Golder	SNMI-B	LDS-TP-6017	LDS-TP-6017/1	1	01/03/2016	SE149790 R0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	-	<0.2	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-TP-6017	LDS-TP-6017/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Golder	SNMI-B	LDS-BH-1048	LDS-BH-1048-0.8-1.0	0.8-1	18/12/2015	SE147355-1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-BH-1048	QCA212	0.8-1	18/12/2015	SE147355-1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-BH-1048	LDS-BH-1048-1.5-1.9	1.5-1.9	18/12/2015	SE147355-1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-BH-1048	LDS-BH-1048-10.5-11	10.5-11	18/12/2015	SE147355-1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-BH-1048	LDS-BH-1048-7.5-7.9	7.5-7.9	18/12/2015	SE147355-1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-BH-1016	LDS-BH-1016-0.5-0.7	0.5-0.7	16/12/2015	SE147354-1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-BH-1016	LDS-BH-1016-3.0-3.6	3-3.6	16/12/2015	SE147354-1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-BH-1016	QCA210	3-3.6	16/12/2015	SE147354-1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-BH-1016	LDS-BH-1016-6.0-6.6	6-6.6	16/12/2015	SE147354-1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-BH-1016	LDS-BH-1016-6.0-6.6	6-6.6	16/12/2015	SE147354A-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Golder	SNMI-B	LDS-BH-1016	LDS-BH-1016-7.5-8.0	7.5-8	16/12/2015	SE147354-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Golder	SNMI-B	LDS-BH-1016	LDS-BH-1016-10.5-11.0	10.5-11	16/12/2015	SE147354-1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	-	<0.2	-	-	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	<0.2	<0.5	-	-	<0.2	-	-		
Golder	SNMI-B	LDS-BH-1016	QCB211	10.5-11	16/12/2016	ES1539310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
ADE	SNMI-B	ADE-TP2	10721-TP2-A	0.5	10/08/2016	WCX-02-10721-6	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP2	10721-TP2-B	2.0	10/08/2016	WCX-02-10721-6	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP2	10721-TP2-C	4.6	10/08/2016	WCX-02-10721-6	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP2	10721-TP2-D	13	10/08/2016	WCX-02-10721-6	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP3	10721-TP3-A	0.5	09/08/2016	WCX-02-10721-4	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP3	10721-TP3-B	4.0	10/08/2016	WCX-02-10721-5	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.2	-	-	-	-	-	-	-	<0.2	-	-	-	<0.2		
ADE	SNMI-B	ADE-TP3	10721-TP3-C	5.5	10/08/2016	WCX-02-10721-5	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.3	-	-	-	-	-	-	-	<0.3	-	-	-	<0.3		
ADE	SNMI-B	ADE-TP3	10721-TP3-D	8.0	10/08/2016	WCX-02-10721-5	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.4	-	-	-	-	-	-	-	<0.4	-	-	-	<0.4		
ADE	SNMI-B	ADE-TP4	10721-TP4-A	0.5	09/08/2016	WCX-02-10721-4	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP4	10721-TP4-B	2.5	09/08/2016	WCX-02-10721-4	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP4	10721-TP4-C	4.0	09/08/2016	WCX-02-10721-4	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP4	10721-TP4-D	5.5	09/08/2016	WCX-02-10721-4	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP5	10721-TP5-A	0.3	01/08/2016	WCX-02-10721-1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP5	10721-TP5-B	3.0	02/08/2016	WCX-02-10721-2	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP6	10721-TP6-A	0.5	01/08/2016	WCX-02-10721-1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP6	10721-TP6-B	1.8	01/08/2016	WCX-02-10721-1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP7	10721-TP7-A	0.5	01/08/2016	WCX-02-10721-1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP7	10721-TP7-B	2.1	01/08/2016	WCX-02-10721-1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP8	10721-TP8-A	0.7	01/08/2016	WCX-02-10721-1	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP9	10721-TP9-A	0.7	10/08/2016	WCX-02-10721-5	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP9	10721-TP9-B	2.2	10/08/2016	WCX-02-10721-5	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP9	10721-TP9-B	2.2	10/08/2016	WCX-02-10721-5	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP10	10721-TP10-A	0.5	11/08/2016	WCX-02-10721-7	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP10	10721-TP10-B	3.0	11/08/2016	WCX-02-10721-7	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	AQDE-TP11	10721-TP11-A	0.4	11/08/2016	WCX-02-10721-7	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP11	10721-TP11-B	2.8	11/08/2016	WCX-02-10721-7	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP12	10721-TP12-A	0.5	11/08/2016	WCX-02-10721-7	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
ADE	SNMI-B	ADE-TP12	10721-TP12-B	3.5	11/08/2016	WCX-02-10721-7	<0.1	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1		
			Statistical Summary		Number of Results		49	49	49	20	49	20	20	20	20	21	21	1	1	49	29	1	49	21	21	21	11	10	1	21	20	29	1	21	1	29		
					Number of Detects		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
					Minimum Concentration		<0.05	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	-	-	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	-	<0.2	-	<0.05	<0.5	<0.1	-	<0.2	-	<0.05		
					Minimum Detect		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
					Maximum Concentration		<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.05	<0.05	<0.2	<0.1	<0.05	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.05	<0.2	<0.5	<0.4	<0.2	<0.2	<0.05	<0.4		
					Maximum Detect		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
					Average Concentration		0.049	0.049	0.049	0.05	0.051	0.05	0.05	0.05	0.05	0.096	0.096			0.07	0.049		0.14	0.24	0.24	0.096	0.093	0.1		0.096	0.25	0.062		0.1		0.059			
					Median Concentration		0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.025	0.025	0.05	0.05	0.025	0.05	0.25	0.25	0.1	0.1	0.1	0.025	0.1	0.25	0.05	0.1	0.1	0.025	0.05		
					Standard Deviation		0.0036	0.0036	0.0036	0	0.0071	0	0	0	0	0.016	0.016			0.026	0.0046		0.098	0.049	0.049	0.016	0.023	0		0.016	0	0.034		0		0.034		
					Number of Guideline Exceedances		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
					Number of Guideline Exceedances (Detects Only)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

							PAH																							
							Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (lower bound)*	Benzo(a)pyrene TEQ (medium bound)*	Benzo(a)pyrene TEQ (upper bound)*	Benzo(b&j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Benzo(a)pyrene TEQ (Calculated)	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAH (Sum of Common 16 PAHs - Lab Reported)	1-Methylnaphthalene	2-Methylnaphthalene
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	TEQ	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
					EQL		0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1		0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.1	0.1
			WCX - Kingsgrove - Commercial/ Industrial EIL/ESL								*1.4*													*370*					
			WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures																								4000		
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number																								
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																														
Golder	SNM-B	LDS-BH-6071	LDS-BH-6071/0.0	0	29/04/2016	SE151708-1	<0.1	<0.1	<0.1	0.2	0.2	-	-	0.3	0.3	0.1	<0.1	0.2	<0.1	0.3	0.3	<0.1	0.2	<0.1	0.1	0.3	1.9	<0.1	<0.1
Golder	SNM-B	LDS-BH-6071	LDS-BH-6071/3.0	3	29/04/2016	SE151708-1	<0.1	<0.1	<0.1	0.1	0.1	-	-	<0.3	0.2	<0.1	<0.1	0.1	<0.1	0.2	0.2	<0.1	0.1	<0.1	<0.1	0.2	1.2	<0.1	<0.1
Golder	SNM-B	LDS-BH-6082	LDS-BH-6082/1.3	1.3	29/04/2016	SE151708-1	<0.1	<0.1	<0.1	0.2	0.3	-	-	0.4	0.3	0.1	0.1	0.2	<0.1	0.4	0.4	<0.1	0.2	<0.1	0.1	0.4	2.4	<0.1	<0.1
Golder	SNM-B	LDS-BH-6082	LDS-BH-6082/5.0	5	29/04/2016	SE151708-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM-B	LDS-TP-6013	LDS-TP-6013/0.2	0.2	01/03/2016	SE149790 R0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.8	<0.1	<0.1	
Golder	SNM-B	LDS-TP-6013	LDS-TP-6013/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	LDS-TP-6014/0.5	0.5	01/03/2016	SE149790 R0	<0.1	<0.1	<0.1	<0.1	0.1	<0.2	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	-	0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.8	<0.1	<0.1
Golder	SNM-B	LDS-TP-6014	LDS-TP-6014/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCA/C2	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCA302	-	01/03/2016	SE149790 R0	<0.1	<0.1	0.1	0.4	0.4	0.5	0.6	0.6	0.5	0.3	0.2	0.4	<0.1	-	0.7	<0.1	0.3	<0.1	0.3	0.9	4.4	<0.1	<0.1
Golder	SNM-B	LDS-TP-6014	QCB/C2	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCB302	-	01/03/2016	SE149790 R0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-
Golder	SNM-B	LDS-TP-6015	LDS-TP-6015/0.5	0.5	01/03/2016	SE149790 R0	0.6	4.1	5	7.3	5.5	8.2	8.2	8.2	5	2.3	3.8	5.5	0.7	-	19	4.4	2.5	<0.1 - 0.5	21	23	110	1.3	1.1
Golder	SNM-B	LDS-TP-6015	LDS-TP-6015/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6016	LDS-TP-6016/0.2	0.2	01/03/2016	SE149790 R0	<0.1	<0.1	<0.1	0.2	0.2	0.3	0.4	0.4	0.3	0.2	0.2	0.3	<0.1	-	0.6	<0.1	0.2	<0.1	0.2	0.6	2.8	<0.1	<0.1
Golder	SNM-B	LDS-TP-6016	LDS-TP-6016/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6017	LDS-TP-6017/1	1	01/03/2016	SE149790 R0	<0.1	<0.1	<0.1	0.2	0.2	0.3	0.4	0.4	0.3	0.2	0.2	0.2	<0.1	-	0.5	<0.1	0.2	<0.1	0.2	0.5	2.6	<0.1	<0.1
Golder	SNM-B	LDS-TP-6017	LDS-TP-6017/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-0.8-1.0	0.8-1	18/12/2015	SE147355-1	<0.1	<0.1	<0.1	0.3	0.3	-	-	0.5	0.4	0.3	0.2	0.3	<0.1	0.5	0.8	<0.1	0.3	<0.1	0.3	0.6	3.7	<0.1	<0.1
Golder	SNM-B	LDS-BH-1048	QCA212	0.8-1	18/12/2015	SE147355-1	<0.1	<0.1	<0.1	<0.1	0.1	-	-	<0.3	0.1	0.2	0.1	0.1	<0.1	0.2	0.2	<0.1	0.2	<0.1	<0.1	0.2	1.2	<0.1	<0.1
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-1.5-1.9	1.5-1.9	18/12/2015	SE147355-1	<0.1	<0.1	0.1	0.8	1.4	-	-	2.2	1.2	1.5	1	0.9	0.3	2.2	1.3	<0.1	1.5	<0.1	0.3	1.3	12	<0.1	<0.1
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-10.5-11	10.5-11	18/12/2015	SE147355-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-7.5-7.9	7.5-7.9	18/12/2015	SE147355-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	0.1	<0.1	<0.2	0.2	<0.1	<0.1	<0.1	<0.1	0.2	<0.8	<0.1	<0.1
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-0.5-0.7	0.5-0.7	16/12/2015	SE147354-1	<0.1	<0.1	<0.1	0.3	0.3	-	-	0.6	0.4	0.6	0.3	0.5	0.1	0.6	0.9	<0.1	0.5	<0.1	0.4	0.8	5.1	<0.1	<0.1
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-3.0-3.6	3-3.6	16/12/2015	SE147354-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM-B	LDS-BH-1016	QCA 210	3-3.6	16/12/2015	SE147354-1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8	<0.1	<0.1
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-6.0-6.6	6-6.6	16/12/2015	SE147354-1	<0.1	<0.1	<0.1	0.2	0.4	-	-	0.6	0.4	0.5	0.3	0.3	<0.1	0.5	0.6	<0.1	0.4	<0.1	0.2	0.5	3.8	<0.1	<0.1
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-6.0-6.6	6-6.6	16/12/2015	SE147354A-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-7.5-8.0	7.5-8	16/12/2015	SE147354-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-10.5-11.0	10.5-11	16/12/2015	SE147354-1	<0.1	<0.1	<0.1	0.1	0.2	-	-	0.3	0.2	0.2	0.1	0.2	<0.1	0.3	0.4	<0.1	0.2	<0.1	0.2	0.3	2	<0.1	<0.1
Golder	SNM-B	LDS-BH-1016	QCB211	10.5-11	16/12/2016	ES1539310	<0.5	<0.5	<0.5	0.9	1	1.3	1.6	1.8	1.2	0.8	0.5	0.9	<0.5	-	1.7	<0.5	0.6	<0.5	0.8	1.8	10.2	-	-
ADE	SNM-B	ADE-TP2	10721-TP2-A	0.5	10/08/2016	WCX-02-10721-6	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3	<0.3	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-
ADE	SNM-B	ADE-TP2	10721-TP2-B	2.0	10/08/2016	WCX-02-10721-6	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3	<0.3	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-
ADE	SNM-B	ADE-TP2	10721-TP2-C	4.6	10/08/2016	WCX-02-10721-6	<0.3	<0.3	<0.3	0.4	<0.3	-	-	0.89	0.6	<0.3	<0.3	0.4	<0.3	-	0.6	<0.3	<0.3	<0.3	<0.3	0.6	<4.8	-	-
ADE	SNM-B	ADE-TP2	10721-TP2-D	13	10/08/2016	WCX-02-10721-6	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3	<0.3	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-
ADE	SNM-B	ADE-TP3	10721-TP3-A	0.5	09/08/2016	WCX-02-10721-4	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3	<0.3	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-
ADE	SNM-B	ADE-TP3	10721-TP3-B	4.0	10/08/2016	WCX-02-10721-5	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3	<0.3	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-
ADE	SNM-B	ADE-TP3	10721-TP3-C	5.5	10/08/2016	WCX-02-10721-5	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3	<0.3	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-
ADE	SNM-B	ADE-TP3	10721-TP3-D	8.0	10/08/2016	WCX-02-10721-5	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3	<0.3	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-
ADE	SNM-B	ADE-TP4	10721-TP4-A	0.5	09/08/2016	WCX-02-10721-4	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3	<0.3	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-
ADE	SNM-B	ADE-TP4	10721-TP4-B	2.5	09/08/2016	WCX-02-10721-4	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	0.7	0.3	<0.3	<0.3	<0.3	<0.3	-	0.5	<0.3	<0.3	<0.3	<0.3	0.5	5.3	-	-
ADE	SNM-B	ADE-TP4	10721-TP4-C	4.0	09/08/2016	WCX-02-10721-4	<0.3	<0.3	<0.3	0.3	0.4	-	-	0.9	0.5	0.3	<0.3	0.33	<0.3	-	0.7	<0.3	0.3	<0.3	<0.3	0.7	6	-	-
ADE	SNM-B	ADE-TP4	10721-TP4-D	5.5	09/08/2016	WCX-02-10721-4	<0.3	<0.3	<0.3	0.4	0.5	-	-	0.9	0.5	0.4	<0.3	0.34	<0.3	-	0.8	<0.3	0.4	<0.3	<0.3	0.8	6.4	-	-
ADE	SNM-B	ADE-TP5	10721-TP5-A	0.3	01/08/2016	WCX-02-10721-1	<0.3	<0.3	<0.3	0.3	0.4	-	-	0.9	0.5	<0.3	<0.3	0.32	<0.3	-	0.8	<0.3	<0.3	<0.3	<0.3	0.8	6.2	-	-
ADE	SNM-B	ADE-TP5	10721-TP5-B	3.0	02/08/2016	WCX-02-10721-2	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	0.7	<0.3	<0.3	<0.3	<0.3	<0.3	-	0.4	<0.3	<0.3	<0.3	<0.3	0.4	5	-	-
ADE	SNM-B	ADE-TP6	10721-TP6-A	0.5	01/08/2016	WCX-02-10721-1	<0.3	<0.3	<0.3	0.8	0.8	-	-	1.4	0.9	0.5	0.4	0.74	<0.3	-	2.4	<0.3	0.5	<0.3	1.0	2.1	12.6	-	-
ADE	SNM-B	ADE-TP6	10721-TP6-B	1.8	01/08/2016	WCX-02-10721-1	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3	<0.3	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-
ADE	SNM-B	ADE-TP7	10721-TP7-A	0.5	01/08/2016	WCX-02-10721-1	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	0.7	<0.3	<0.3	<0.3	<0.3	<0.3	-	0.6	<0.3	<0.3	<0.3	<0.3	0.6	5.3	-	-
ADE	SNM-B	ADE-TP7	10721-TP7-B	2.1	01/08/2016	WCX-02-10721-1	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3	<0.3	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-
ADE	SNM-B	ADE-TP8	10721-TP8-A	0.7	01/08/2016	WCX-02-10721-1	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	0.7	<0.3	<0.3	<0.3	<0.3	<0.3	-	0.6	<0.3	<0.3	<0.3	<0.3	0.5	5.3	-	-
ADE	SNM-B	ADE-TP9	10721-TP9-A	0.7	10/08/2016	WCX-02-10721-5	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3	<0.3	-	0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-
ADE	SNM-B	ADE-TP9	10721-TP9-B	2.2	10/08/2016	WCX-02-10721-5	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3	<0.3	-	0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-
ADE	SNM-B	ADE-TP9	10721-TP9-B	2.2	10/08/2016	WCX-02-10721-5	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3	<0.3	-	0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-
ADE	SNM-B	ADE-TP10	10721-TP10-A	0.5	11/08/2016	WCX-02-10721-7	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	0.8	0.4	<0.3	<0.3	<0.3	<0.3	-	0.5	<0.3	<0.3	<0.3	<0.3	0.5	5.2	-	-
ADE	SNM-B	ADE-TP10	10721-TP10-B	3.0	11/08/2016	WCX-02-10721-7	<0.3	<0.3	<0.3	<0.3	0.3	-	-	0.8	0.4	<0.3	<0.3	0.3	<0.3	-	0.6	<0.3	<0.3	<0.3	<0.3	0.5	5.5	-	-
ADE	SNM-B	AQDE-TP11	10721-TP11-A	0.4	11/08/2016	WCX-02-10721-7	<0.3	<0.3	1.6	5.2	5.4	-	-	7.7	7.5	4.2	2.6	5.5	0.6	-	15.4	<0.3	<0.3	<0.3	1.6	12.4	63.5	-	-
ADE	SNM-B	ADE-TP11	10721-TP11-B	2.8	11/08/2016	WCX-02-10721-7	<0.3	<0.3	<0.3	1	1.6	-	-	2.4	1.9	1.2	0.7	1.2	0.3	-	1.7	<0.3	<0.3	<0.3	0.3	1.8	13.4	-	-
ADE	SNM-B	ADE-TP12	10721-TP12-A	0.5	11/08/2016	WCX-02-10721-7	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3	<0.3	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-
ADE	SNM-B	ADE-TP12	10721-TP12-B	3.5	11/08/2016	WCX-02-10721-7	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.7	<0.3	<0.3	<0.3	<0.3	<0.3	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<4.8	-	-
Statistical Summary																														
Number of Results							50	50	50	50	50	8	8	50	50	50	50	50	50	15	50	50	50	50	50	50	50	20	19
Number of Detects							1	1	4	19	24	5	6	26	24	18	15	23	5	10	32	1	17	1	16	29	26	1	1
Minimum Concentration							<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Minimum Detect							0.6	4.1	0.1	0.1	0.1	0.3	0.4	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	4.4	0.1	ND	0.1	0.2	1.2	1.3	1.1
Maximum Concentration							0.6	4.1	5	7.3	5.5	8.2	8.2	8.2	7.5	4.2	3.8	5.5	0.7	2.2	19	4.4	2.5	0.5	21	23	110	1.3	1.1
Maximum Detect							0.6	4.1	5	7.3	5.5	8.2	8.2	8.2	7.5	4.2	3.8	5.5	0.7	2.2	19	4.4	2.5	0.5	21	23	110	1.3	1.1
Average Concentration							0.13	0.2	0.24	0.46	0.48	1.4	1.5	0.87	0.55	0.36	0.3	0.46	0.15	0.39	1.2	0.2	0.26	0.12	0.63	1.1	6.9	0.11	0.11
Median Concentration							0.15	0.15	0.15	0.15	0.15	0.3	0.5	0.35	0.15	0.15	0.15	0.15	0.15	0.2	0.4	0.15	0.15	0.15	0.15	0.3	2.4	0.05	0.05
Standard Deviation							0.088	0.57	0.72	1.2	1.1	2.8	2.7	1.5	1.2	0.68	0.63	1.1	0.12	0.53	3.4	0.61	0.39	0.06	3	3.6	17	0.28	0.24
Number of Guideline Exceedances							0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)							0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

							Phenols																	
							2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,6-Dichlorophenol	3,4,5,6 & 2,3,5,6-Tetrachlorophenol	2-Chlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	3-Methylphenol	2-Nitrophenol	3- & 4- Methylphenol	4-Nitrophenol	Cresols (Sum of total)	Phenol
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
						EQL	0.5	0.2	0.5	0.5	1	0.5	0.5	0.5	0.5	2	0.5	0.5	1	1	1.5	0.5
		WCX - Kingsgrove - Commercial/ Industrial EII/ESL																						
		WCX - Kingsgrove - Commercial / Industrial HIL/HSL assuming typical fuel mixtures												660							25000	240000
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number																		
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																								
Golder	SNM-B	LDS-BH-6071	LDS-BH-6071/0.0	0	29/04/2016	SE151708-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM-B	LDS-BH-6071	LDS-BH-6071/3.0	3	29/04/2016	SE151708-1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM-B	LDS-BH-6082	LDS-BH-6082/1.3	1.3	29/04/2016	SE151708-1	<0.5	<0.2	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM-B	LDS-BH-6082	LDS-BH-6082/5.0	5	29/04/2016	SE151708-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM-B	LDS-TP-6013	LDS-TP-6013/0.2	0.2	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6013	LDS-TP-6013/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	LDS-TP-6014/0.5	0.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	LDS-TP-6014/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCA/C2	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCA302	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCB/C2	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCB302	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6015	LDS-TP-6015/0.5	0.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6015	LDS-TP-6015/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6016	LDS-TP-6016/0.2	0.2	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6016	LDS-TP-6016/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6017	LDS-TP-6017/1	1	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6017	LDS-TP-6017/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-0.8-1.0	0.8-1	18/12/2015	SE147355-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM-B	LDS-BH-1048	QCA212	0.8-1	18/12/2015	SE147355-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-1.5-1.9	1.5-1.9	18/12/2015	SE147355-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-10.5-11	10.5-11	18/12/2015	SE147355-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-7.5-7.9	7.5-7.9	18/12/2015	SE147355-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-0.5-0.7	0.5-0.7	16/12/2015	SE147354-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-3.0-3.6	3-3.6	16/12/2015	SE147354-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM-B	LDS-BH-1016	QCA210	3-3.6	16/12/2015	SE147354-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-6.0-6.6	6-6.6	16/12/2015	SE147354-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-6.0-6.6	6-6.6	16/12/2015	SE147354A-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-7.5-8.0	7.5-8	16/12/2015	SE147354-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-10.5-11.0	10.5-11	16/12/2015	SE147354-1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Golder	SNM-B	LDS-BH-1016	QCB211	10.5-11	16/12/2016	ES1539310	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<2	<0.5	-	<0.5	<0.5	<1	-	-	<0.5
ADE	SNM-B	ADE-TP2	10721-TP2-A	0.5	10/08/2016	WCX-02-10721-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP2	10721-TP2-B	2.0	10/08/2016	WCX-02-10721-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP2	10721-TP2-C	4.6	10/08/2016	WCX-02-10721-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP2	10721-TP2-D	13	10/08/2016	WCX-02-10721-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP3	10721-TP3-A	0.5	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP3	10721-TP3-B	4.0	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP3	10721-TP3-C	5.5	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP3	10721-TP3-D	8.0	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP4	10721-TP4-A	0.5	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP4	10721-TP4-B	2.5	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP4	10721-TP4-C	4.0	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP4	10721-TP4-D	5.5	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP5	10721-TP5-A	0.3	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP5	10721-TP5-B	3.0	02/08/2016	WCX-02-10721-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP6	10721-TP6-A	0.5	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP6	10721-TP6-B	1.8	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP7	10721-TP7-A	0.5	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP7	10721-TP7-B	2.1	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP8	10721-TP8-A	0.7	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP9	10721-TP9-A	0.7	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP9	10721-TP9-B	2.2	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP9	10721-TP9-B	2.2	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP10	10721-TP10-A	0.5	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP10	10721-TP10-B	3.0	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	AQDE-TP11	10721-TP11-A	0.4	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP11	10721-TP11-B	2.8	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP12	10721-TP12-A	0.5	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP12	10721-TP12-B	3.5	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statistical Summary																								
Number of Results							15	15	15	15	14	15	15	15	15	14	15	15	15	14	14	15
Number of Detects							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration							<0.5	<0.2	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Minimum Detect							ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration							<0.5	<0.5	<0.5	<0.5	<1	<0.5	<2	<2	<0.5	<2	<0.5	<0.5	<1	<1	<1.5	<0.5
Maximum Detect							ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration							0.25	0.23	0.25	0.25	0.5	0.25	0.95	0.3	0.25	1	0.25	0.25	0.5	0.5	0.75	0.25
Median Concentration							0.25	0.25	0.25	0.25	0.5	0.25	1	0.25	0.25	1	0.25	0.25	0.5	0.5	0.75	0.25
Standard Deviation							0	0.053	0	0	0	0	0.19	0.19	0	0	0	0	0	0	0	0
Number of Guideline Exceedances							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

							Polychlorinated Biphenyls									
							Aroclor 1016	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	Aroclor 1221	Aroclor 1262	PCB (Sum of Total-Lab Reported)
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
						EQL	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
		WCX - Kingsgrove - Commercial/ Industrial EIL/ESL														
		WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures														7
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number										
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																
Golder	SNM-B	LDS-BH-6071	LDS-BH-6071/0.0	0	29/04/2016	SE151708-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-BH-6071	LDS-BH-6071/3.0	3	29/04/2016	SE151708-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-BH-6082	LDS-BH-6082/1.3	1.3	29/04/2016	SE151708-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-BH-6082	LDS-BH-6082/5.0	5	29/04/2016	SE151708-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-TP-6013	LDS-TP-6013/0.2	0.2	01/03/2016	SE149790 R0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-TP-6013	LDS-TP-6013/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	LDS-TP-6014/0.5	0.5	01/03/2016	SE149790 R0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-TP-6014	LDS-TP-6014/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCA/C2	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCA302	-	01/03/2016	SE149790 R0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-TP-6014	QCB/C2	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCB302	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	<0.1
Golder	SNM-B	LDS-TP-6015	LDS-TP-6015/0.5	0.5	01/03/2016	SE149790 R0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-TP-6015	LDS-TP-6015/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6016	LDS-TP-6016/0.2	0.2	01/03/2016	SE149790 R0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-TP-6016	LDS-TP-6016/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6017	LDS-TP-6017/1	1	01/03/2016	SE149790 R0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-TP-6017	LDS-TP-6017/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-0.8-1.0	0.8-1	18/12/2015	SE147355-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-BH-1048	QCA212	0.8-1	18/12/2015	SE147355-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-1.5-1.9	1.5-1.9	18/12/2015	SE147355-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-10.5-11	10.5-11	18/12/2015	SE147355-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-7.5-7.9	7.5-7.9	18/12/2015	SE147355-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-0.5-0.7	0.5-0.7	16/12/2015	SE147354-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-3.0-3.6	3-3.6	16/12/2015	SE147354-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-BH-1016	QCA210	3-3.6	16/12/2015	SE147354-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-6.0-6.6	6-6.6	16/12/2015	SE147354-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-6.0-6.6	6-6.6	16/12/2015	SE147354A-1	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-7.5-8.0	7.5-8	16/12/2015	SE147354-1	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-10.5-11.0	10.5-11	16/12/2015	SE147354-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Golder	SNM-B	LDS-BH-1016	QCB211	10.5-11	16/12/2016	ES1539310	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP2	10721-TP2-A	0.5	10/08/2016	WCX-02-10721-6	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP2	10721-TP2-B	2.0	10/08/2016	WCX-02-10721-6	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP2	10721-TP2-C	4.6	10/08/2016	WCX-02-10721-6	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP2	10721-TP2-D	13	10/08/2016	WCX-02-10721-6	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP3	10721-TP3-A	0.5	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP3	10721-TP3-B	4.0	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP3	10721-TP3-C	5.5	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP3	10721-TP3-D	8.0	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP4	10721-TP4-A	0.5	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP4	10721-TP4-B	2.5	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP4	10721-TP4-C	4.0	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP4	10721-TP4-D	5.5	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP5	10721-TP5-A	0.3	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP5	10721-TP5-B	3.0	02/08/2016	WCX-02-10721-2	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP6	10721-TP6-A	0.5	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP6	10721-TP6-B	1.8	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP7	10721-TP7-A	0.5	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP7	10721-TP7-B	2.1	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP8	10721-TP8-A	0.7	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP9	10721-TP9-A	0.7	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP9	10721-TP9-B	2.2	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP9	10721-TP9-B	2.2	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP10	10721-TP10-A	0.5	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP10	10721-TP10-B	3.0	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	AQDE-TP1.1	10721-TP11-A	0.4	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP11	10721-TP11-B	2.8	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP12	10721-TP12-A	0.5	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	<0.6
ADE	SNM-B	ADE-TP12	10721-TP12-B	3.5	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	<0.6

Statistical Summary										
Number of Results	20	20	20	20	20	20	20	20	20	49
Number of Detects	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.38
Median Concentration	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
Standard Deviation	0	0	0	0	0	0	0	0	0	0.11
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)	0	0	0	0	0	0	0	0	0	0

							Acid Herbicides																					Glyphosate
							2,4,5-Trichlorophenoxy Acetic Acid	2,4-D	2,4-Dichlorprop	2,6-D	2-Methyl-4-chlorophenoxyacetic acid	2-Methyl-4-Chlorophenoxy Butanoic Acid	4-(2,4-Dichlorophenoxy) butyric acid (2,4-DB)	4-Chlorophenoxyacetic acid	Aci nfl	Bromoxynil	Clopyralid	Dicamba	Dinoseb	Fenoprop	fluroxypyr	Mecoprop	Picloram	Triclopyr	Glyphosate
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
					EQL		0.02	0.02	0.02	0.2	0.02	0.02	0.02	0.02	0.5	0.2	0.02	0.02	0.2	0.02	0.02	0.02	0.02	0.02	0.5
		WCX - Kingsgrove - Commercial / Industrial EIL/ESL																							
		WCX - Kingsgrove - Commercial / Industrial HIL/HSL assuming typical fuel mixtures					5000	9000			5000	5000										5000			
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number																			
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																									
Golder	SNM-B	LDS-BH-6071	LDS-BH-6071/0.0	0	29/04/2016	SE151708-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-6071	LDS-BH-6071/3.0	3	29/04/2016	SE151708-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5
Golder	SNM-B	LDS-BH-6082	LDS-BH-6082/1.3	1.3	29/04/2016	SE151708-1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5
Golder	SNM-B	LDS-BH-6082	LDS-BH-6082/5.0	5	29/04/2016	SE151708-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6013	LDS-TP-6013/0.2	0.2	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6013	LDS-TP-6013/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	LDS-TP-6014/0.5	0.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	LDS-TP-6014/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCA/C2	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCA302	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCB/C2	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCB302	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6015	LDS-TP-6015/0.5	0.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6015	LDS-TP-6015/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6016	LDS-TP-6016/0.2	0.2	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6016	LDS-TP-6016/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6017	LDS-TP-6017/1	1	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6017	LDS-TP-6017/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-0.8-1.0	0.8-1	18/12/2015	SE147355-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1048	QCA212	0.8-1	18/12/2015	SE147355-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-1.5-1.9	1.5-1.9	18/12/2015	SE147355-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-10.5-11	10.5-11	18/12/2015	SE147355-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-7.5-7.9	7.5-7.9	18/12/2015	SE147355-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-0.5-0.7	0.5-0.7	16/12/2015	SE147354-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-3.0-3.6	3-3.6	16/12/2015	SE147354-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	QCA210	3-3.6	16/12/2015	SE147354-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-6.0-6.6	6-6.6	16/12/2015	SE147354-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-6.0-6.6	6-6.6	16/12/2015	SE147354A-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-7.5-8.0	7.5-8	16/12/2015	SE147354-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-10.5-11.0	10.5-11	16/12/2015	SE147354-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	QCB211	10.5-11	16/12/2016	ES1539310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP2	10721-TP2-A	0.5	10/08/2016	WCX-02-10721-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP2	10721-TP2-B	2.0	10/08/2016	WCX-02-10721-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP2	10721-TP2-C	4.6	10/08/2016	WCX-02-10721-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP2	10721-TP2-D	13	10/08/2016	WCX-02-10721-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP3	10721-TP3-A	0.5	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP3	10721-TP3-B	4.0	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP3	10721-TP3-C	5.5	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP3	10721-TP3-D	8.0	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP4	10721-TP4-A	0.5	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP4	10721-TP4-B	2.5	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP4	10721-TP4-C	4.0	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP4	10721-TP4-D	5.5	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP5	10721-TP5-A	0.3	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP5	10721-TP5-B	3.0	02/08/2016	WCX-02-10721-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP6	10721-TP6-A	0.5	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP6	10721-TP6-B	1.8	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP7	10721-TP7-A	0.5	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP7	10721-TP7-B	2.1	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP8	10721-TP8-A	0.7	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP9	10721-TP9-A	0.7	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP9	10721-TP9-B	2.2	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP9	10721-TP9-B	2.2	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP10	10721-TP10-A	0.5	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP10	10721-TP10-B	3.0	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	AQDE-TP11	10721-TP11-A	0.4	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP11	10721-TP11-B	2.8	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP12	10721-TP12-A	0.5	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP12	10721-TP12-B	3.5	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statistical Summary																									
Number of Results							2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration							<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5
Minimum Detect							ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration							<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5
Maximum Detect							ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration																									
Median Concentration							0.1	0.1	0.1	0.1	0.1	0.25	0.1	0.25	0.25	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.25	0.1	0.25
Standard Deviation																									
Number of Guideline Exceedances							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

							Triazines									Acid Sulfate Soils Screening				Other					Foreign Materials									
							Atrazine	Cyanazine	Hexazinone	Metribuzin	Prometryn	Propazine	Simazine	Terbutryn	Terbuthylazine	pH (Field)	pH (Field ox)	pH Difference	Reaction Rate	Electrical Conductivity	pH (Lab)	Sulphur (as S)	Total Organic Carbon (%)	%Moisture	%Plastic	%Bitumen	%Paint	%Paper	%Cloth	%Wood	%Rubber	%Vegetable Matter	%Total Type 3 Foreign Materials
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH_Units	pH_Units	pH Units	-	uS/cm	pH	mg/kg	%C	%	%	%	%	%	%	%	%	%	%
						EQL	0.05	0.5	1	0.5	0.5	0.5	0.05	0.5	0.5	0	0	-10	1	1	0	100	0.02	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
		WCX - Kingsgrove - Commercial/ Industrial EIL/ESL																															
		WCX - Kingsgrove - Commercial/ Industrial HIL/HSL assuming typical fuel mixtures					2500																										
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Lab_Report_Number																											
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)																																	
Golder	SNM-B	LDS-BH-6071	LDS-BH-6071/0.0	0	29/04/2016	SE151708-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-6071	LDS-BH-6071/3.0	3	29/04/2016	SE151708-1	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-6082	LDS-BH-6082/1.3	1.3	29/04/2016	SE151708-1	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-6082	LDS-BH-6082/5.0	5	29/04/2016	SE151708-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6013	LDS-TP-6013/0.2	0.2	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	7	4.9	2.1	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6013	LDS-TP-6013/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	140	7.8	-	1.3	16	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.07
Golder	SNM-B	LDS-TP-6014	LDS-TP-6014/0.5	0.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	7.4	5.8	1.7	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	LDS-TP-6014/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	60	7.6	-	1.5	16	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.15
Golder	SNM-B	LDS-TP-6014	QCA/C2	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	59	7.5	-	1.3	12	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCA302	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	7.4	5.5	2	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCB/C2	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	59	7.5	400	1.11	13.2	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6014	QCB302	-	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	7.8	5.1	-	2	-	-	-	-	13.8	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6015	LDS-TP-6015/0.5	0.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	7	5.3	1.7	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6015	LDS-TP-6015/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	51	7.5	-	1.8	16	<0.01	<0.01	<0.01	<0.01	<0.01	0.11	<0.01	0.03	0.11	
Golder	SNM-B	LDS-TP-6016	LDS-TP-6016/0.2	0.2	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	7.9	7.6	0.3	-	-	-	-	-	26	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6016	LDS-TP-6016/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	150	8.7	-	1	17	0.14	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	0.18		
Golder	SNM-B	LDS-TP-6017	LDS-TP-6017/1	1	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	7.3	5.4	1.8	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-TP-6017	LDS-TP-6017/C2	0.0-1.5	01/03/2016	SE149790 R0	-	-	-	-	-	-	-	-	-	-	-	-	-	46	7.7	-	0.93	15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.07
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-0.8-1.0	0.8-1	18/12/2015	SE147355-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1048	QCA212	0.8-1	18/12/2015	SE147355-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-1.5-1.9	1.5-1.9	18/12/2015	SE147355-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-10.5-11	10.5-11	18/12/2015	SE147355-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-7.5-7.9	7.5-7.9	18/12/2015	SE147355-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-0.5-0.7	0.5-0.7	16/12/2015	SE147354-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-3.0-3.6	3-3.6	16/12/2015	SE147354-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	QCA210	3-3.6	16/12/2015	SE147354-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-6.0-6.6	6-6.6	16/12/2015	SE147354-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-6.0-6.6	6-6.6	16/12/2015	SE147354A-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-7.5-8.0	7.5-8	16/12/2015	SE147354-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-10.5-11.0	10.5-11	16/12/2015	SE147354-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golder	SNM-B	LDS-BH-1016	QCB211	10.5-11	16/12/2016	ES1539310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ADE	SNM-B	ADE-TP2	10721-TP2-A	0.5	10/08/2016	WCX-02-10721-6	-	-	-	-	-	-	-	-	-	-	-	-	-	10	8.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP2	10721-TP2-B	2.0	10/08/2016	WCX-02-10721-6	-	-	-	-	-	-	-	-	-	-	-	-	-	108	7.7	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP2	10721-TP2-C	4.6	10/08/2016	WCX-02-10721-6	-	-	-	-	-	-	-	-	-	-	-	-	-	57	7	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP2	10721-TP2-D	13	10/08/2016	WCX-02-10721-6	-	-	-	-	-	-	-	-	-	-	-	-	-	38	8.3	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP3	10721-TP3-A	0.5	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	-	-	-	-	15.87	6.773	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP3	10721-TP3-B	4.0	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	-	-	-	-	70.4	7.777	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP3	10721-TP3-C	5.5	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	-	-	-	-	128.5	7.53	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP3	10721-TP3-D	8.0	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	-	-	-	-	146.1	8.173	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP4	10721-TP4-A	0.5	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	-	-	-	-	33.4	7.153	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP4	10721-TP4-B	2.5	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	-	-	-	-	179.4	7.567	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP4	10721-TP4-C	4.0	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	-	-	-	-	292	8.037	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP4	10721-TP4-D	5.5	09/08/2016	WCX-02-10721-4	-	-	-	-	-	-	-	-	-	-	-	-	-	237.6	7.757	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP5	10721-TP5-A	0.3	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	-	-	-	-	46.4	6.99	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP5	10721-TP5-B	3.0	02/08/2016	WCX-02-10721-2	-	-	-	-	-	-	-	-	-	-	-	-	-	224	7.033	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP6	10721-TP6-A	0.5	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	-	-	-	-	38.1	7.53	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP6	10721-TP6-B	1.8	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	-	-	-	-	36.4	5.173	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP7	10721-TP7-A	0.5	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	-	-	-	-	62.7	8.147	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP7	10721-TP7-B	2.1	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	-	-	-	-	146.1	6.063	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP8	10721-TP8-A	0.7	01/08/2016	WCX-02-10721-1	-	-	-	-	-	-	-	-	-	-	-	-	-	76.4	8.69	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP9	10721-TP9-A	0.7	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	-	-	-	-	65.5	8.63	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP9	10721-TP9-B	2.2	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	-	-	-	-	280.3	4.57	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP9	10721-TP9-B	2.2	10/08/2016	WCX-02-10721-5	-	-	-	-	-	-	-	-	-	-	-	-	-	280.3	4.57	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP10	10721-TP10-A	0.5	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	-	-	-	-	40	7.8	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP10	10721-TP10-B	3.0	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	-	-	-	-	345	5.8	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	AQDE-TP11	10721-TP11-A	0.4	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	-	-	-	-	7	5.4	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP11	10721-TP11-B	2.8	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	-	-	-	-	201	8.2	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP12	10721-TP12-A	0.5	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	-	-	-	-	28	8	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
ADE	SNM-B	ADE-TP12	10721-TP12-B	3.5	11/08/2016	WCX-02-10721-7	-	-	-	-	-	-	-	-	-	-	-	-	-	65	8.9	-	-	-	-	-	-	-	-	-	-	-	-	<0.01
			Statistical Summary		Number of Results		2	2	2	2	2	2	2	2	2	7	7	6	1	35	35	1	7	14	5	5	5	5	5	5	5	5	33	
					Number of Detects		0	0	0	0	0	0	0	0	0	7	7	6	1	35	35	1	7	14	2	0	0	0	0	2	0	2	3	
					Minimum Concentration		<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	7	4.9	0.3	2	7	4.57	400	0.93	12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
					Minimum Detect		ND	ND	ND	ND	ND	ND	ND	ND	ND	7	4.9	0.3	2	7	4.57	400	0.93	12	0.14	ND	ND	ND	ND	0.04	ND	0.01	0.11	
					Maximum Concentration		<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	7.9	7.6	2.1	2	345	8.9	400	1.8	26	0.15	<0.01	<0.01	<0.01	<0.01	0.11	<0.01	0.03	0.18	
					Maximum Detect		ND	ND	ND	ND	ND	ND	ND	ND	ND	7.9	7.6	2.1	2	345	8.9	400	1.8	26	0.15	ND	ND	ND	ND	0.11	ND	0.03	0.18	
					Average Concentration											7.4	5.7	1.6		109	7.4		1.3	16	0.061	0.005	0.005	0.005	0.033	0.005	0.011	0.02		
					Median Concentration		0.25	0.25	0.5	0.25	0.25	0.25	0.25	0.25	0.25	7.4	5.4	1.75	2	65	7.6	400	1.3	16	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
					Standard Deviation											0.35	0.9	0.66		92	1.1		0.3	3.6	0.077	0	0	0	0	0.046	0	0.011	0.042	
					Number of Guideline Exceedances		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					Number of Guideline Exceedances (Detects Only)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

ADE_WCX-02-10878
KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 8 - SOUTHERN NOISE MOUND BERM
ASBESTOS
COMMERCIAL/INDUSTRIAL

							Asbestos								
							Asbestos in soil (>7mm ACM)	Asbestos in soil (<2mm AF/FA)	Asbestos in soil (<7mm AF/FA)	Asbestos in soil (>2mm to <7mm AF/FA)	Weight Asbestos in soil (>7mm ACM)	Weight Asbestos in soil (<2mm AF/FA)	Weight Asbestos in soil (>2mm to <7mm AF/FA)	Asbestos (1-Detect or <1-Non-Detect)	Mass of test sample
						output unit	%w/w	%w/w	%w/w	%w/w	g	g	g	No	g
						EQL	0.01	0.001	0.001	0.001	0.01	0.0001	0.0001	0	0.01
			WCX - Kingsgrove - Commercial/Industrial HIL/HSL assuming typical fuel				**0.05**		**0.001**						
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Matrix_Type									
Samples collected from within the boundaries of the RAP/ADE's Scope (i.e. ≤0.5 m BGL)															
Golder	SNM-B	LDS-BH-1048	LDS-BH-1048-0.8-1.0	0.8-1	18/12/2015	SOIL	<0.01	<0.001	**0.002**	**0.002**	<0.01	<0.0001	**0.02**	1 [#3]	1062
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-0.5-0.7	0.5-0.7	16/12/2015	SOIL	<0.01	<0.001	**0.078**	**0.078**	<0.01	**<0.0001**	**1.04**	1 [#3]	1333
Golder	SNM-B	LDS-BH-1016	LDS-BH-1016-7.5-8.0	7.5-8	16/12/2015	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	1014
Golder	SNM-B	LDS-BH-6071	LDS-BH-6071/0.0	0	29/04/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	684
Golder	SNM-B	LDS-BH-6082	LDS-BH-6082/1.3	1.3	29/04/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	501
Golder	SNM-B	LDS-TP-6013	LDS-TP-6013/1.0F	1.0	01/03/2016	OTHER	-	-	-	-	-	-	-	1 [#2]	-
Golder	SNM-B	LDS-TP-6013	LDS-TP-6013/C1	0.0-1.5	01/03/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	602
Golder	SNM-B	LDS-TP-6014	LDS-TP-6014/0.5F	0.5	01/03/2016	OTHER	-	-	-	-	-	-	-	1 [#2]	-
Golder	SNM-B	LDS-TP-6014	LDS-TP-6014/C1	0.0-1.5	01/03/2016	SOIL	**0.17**	<0.001	<0.001	<0.001	6.01	<0.0001	<0.0001	<1	533
Golder	SNM-B	LDS-TP-6014	QCA305	0.0-1.5	01/03/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	470
Golder	SNM-B	LDS-TP-6014	QCB305	0.0-1.5	01/03/2016	SOIL	-	-	-	-	-	-	-	<1	36.7
Golder	SNM-B	LDS-TP-6015	LDS-TP-6015/1.0F	1.0	01/03/2016	OTHER	-	-	-	-	-	-	-	1 [#2]	-
Golder	SNM-B	LDS-TP-6015	LDS-TP-6015/C1	0.0-1.5	01/03/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	493
Golder	SNM-B	LDS-TP-6016	LDS-TP-6016/1.4F	1.4	01/03/2016	OTHER	-	-	-	-	-	-	-	1 [#2]	-
Golder	SNM-B	LDS-TP-6016	LDS-TP-6016/C1	0.0-1.5	01/03/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	548
Golder	SNM-B	LDS-TP-6017	LDS-TP-6017/0.1F	0.1	01/03/2016	OTHER	-	-	-	-	-	-	-	1 [#2]	-
Golder	SNM-B	LDS-TP-6017	LDS-TP-6017/1.1F	1.1	01/03/2016	OTHER	-	-	-	-	-	-	-	1 [#2]	-
Golder	SNM-B	LDS-TP-6017	LDS-TP-6017/C1	0.0-1.5	01/03/2016	SOIL	<0.01	<0.001	**0.004**	0.004	<0.01	<0.0001	0.0215	1 [#3]	520
ADE	SNM-B	ADE-TP2	TP2-NEPM1 (10721-Asb40)	0.5	10/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	566
ADE	SNM-B	ADE-TP2	TP2-NEPM2 (10721-Asb41)	2.0	10/08/2016	SOIL	0.014	<0.001	<0.001	<0.001	0.44	<0.0001	<0.0001	1 [#3]	488
ADE	SNM-B	ADE-TP2	TP2-NEPM3 (10721-Asb42)	4.6	10/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	399
ADE	SNM-B	ADE-TP2	TP2-NEPM4 (10721-Asb43)	13	10/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	451
ADE	SNM-B	ADE-TP3	TP3-Asb1 (10721-Asb17)	0.5	08/08/2016	SOIL	-	-	-	-	-	-	-	<1	99
ADE	SNM-B	ADE-TP3	TP3-Asb2 (10721-Asb18)	0.5	08/08/2016	OTHER	-	-	-	-	-	-	-	1 [#3]	-
ADE	SNM-B	ADE-TP3	TP3-Asb3 (10721-Asb19)	0.5	08/08/2016	OTHER	-	-	-	-	-	-	-	1 [#3]	-
ADE	SNM-B	ADE-TP3	TP3-Asb4 (10721-Asb20)	4.0	08/08/2016	SOIL	-	-	-	-	-	-	-	<1	127
ADE	SNM-B	ADE-TP3	TP3-Asb5 (10721-Asb21)	4.0	08/08/2016	OTHER	-	-	-	-	-	-	-	1 [#3]	-
ADE	SNM-B	ADE-TP3	TP3-Asb6 (10721-Asb22)	5.5	08/08/2016	SOIL	-	-	-	-	-	-	-	<1	104
ADE	SNM-B	ADE-TP3	TP3-Asb7 (10721-Asb23)	8.0	08/08/2016	SOIL	-	-	-	-	-	-	-	<1	107
ADE	SNM-B	ADE-TP3	TP3-Asb8 (10721-Asb24)	8.0	08/08/2016	OTHER	-	-	-	-	-	-	-	1 [#3]	-
ADE	SNM-B	ADE-TP3	TP3-Asb9 (10721-Asb25)	8.0	08/08/2016	OTHER	-	-	-	-	-	-	-	1 [#3]	-
ADE	SNM-B	ADE-TP3	TP3-NEPM1 (10721-Asb34)	0.5	08/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	595
ADE	SNM-B	ADE-TP3	TP3-NEPM2 (10721-Asb35)	4.0	08/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	617
ADE	SNM-B	ADE-TP3	TP3-NEPM3 (10721-Asb36)	5.5	08/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	607
ADE	SNM-B	ADE-TP3	TP3-NEPM4 (10721-Asb37)	8.0	08/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	519
ADE	SNM-B	ADE-TP4	TP4-Asb1 (10721-Asb11)	0.5	08/08/2016	SOIL	-	-	-	-	-	-	-	<1	92
ADE	SNM-B	ADE-TP4	TP4-Asb2 (10721-Asb12)	2.5	08/08/2016	SOIL	-	-	-	-	-	-	-	<1	101
ADE	SNM-B	ADE-TP4	TP4-Asb3 (10721-Asb13)	4.0	08/08/2016	SOIL	-	-	-	-	-	-	-	1 [#3]	94
ADE	SNM-B	ADE-TP4	TP4-Asb4 (10721-Asb14)	5.5	08/08/2016	SOIL	-	-	-	-	-	-	-	<1	99

ADE_WCX-02-10878
KINGSGROVE CONTRUCTION COMPOUND RAP
TABLE 8 - SOUTHERN NOISE MOUND BERM
ASBESTOS
COMMERCIAL/INDUSTRIAL

							Asbestos								
							Asbestos in soil (>7mm ACM)	Asbestos in soil (<2mm AF/FA)	Asbestos in soil (<7mm AF/FA)	Asbestos in soil (>2mm to <7mm AF/FA)	Weight Asbestos in soil (>7mm ACM)	Weight Asbestos in soil (<2mm AF/FA)	Weight Asbestos in soil (>2mm to <7mm AF/FA)	Asbestos (1-Detect or <1-Non-Detect)	Mass of test sample
						output unit	%w/w	%w/w	%w/w	%w/w	g	g	g	No	g
						EQL	0.01	0.001	0.001	0.001	0.01	0.0001	0.0001	0	0.01
			WCX - Kingsgrove - Commercial/Industrial HIL/HSL assuming typical fuel				0.05		0.001						
Consultant	Area	Location_Code	Field_ID	Depth	Sampled_Date_Time	Matrix_Type									
ADE	SNM-B	ADE-TP4	TP4-Asb5 (10721-Asb15)	4.0	08/08/2016	OTHER	-	-	-	-	-	-	-	1 #3	-
ADE	SNM-B	ADE-TP4	TP4-Asb6 (10721-Asb16)	5.5	08/08/2016	OTHER	-	-	-	-	-	-	-	1 #2	-
ADE	SNM-B	ADE-TP4	TP4-NEPM1 (10721-Asb30)	0.5	08/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	561
ADE	SNM-B	ADE-TP4	TP4-NEPM2 (10721-Asb31)	2.5	08/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	520
ADE	SNM-B	ADE-TP4	TP4-NEPM3 (10721-Asb32)	4.0	08/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	623
ADE	SNM-B	ADE-TP4	TP4-NEPM4 (10721-Asb33)	5.5	08/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	520
ADE	SNM-B	ADE-TP5	TP5-Asb1 (10721-Asb1)	0.3	01/08/2016	SOIL	-	-	-	-	-	-	-	<1	100
ADE	SNM-B	ADE-TP5	TP5-Asb2 (10721-Asb8)	3.0	01/08/2016	SOIL	-	-	-	-	-	-	-	<1	90
ADE	SNM-B	ADE-TP5	TP5-Asb3 (10721-Asb9)	0.3	01/08/2016	OTHER	-	-	-	-	-	-	-	1 #3	-
ADE	SNM-B	ADE-TP5	TP5-Asb4 (10721-Asb10)	0.3	01/08/2016	OTHER	-	-	-	-	-	-	-	1 #2	-
ADE	SNM-B	ADE-TP5	TP5-NEPM1 (10721-Asb28)	0.3	01/08/216	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	580
ADE	SNM-B	ADE-TP5	TP5-NEPM2 (10721-Asb29)	3.0	01/08/216	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	517
ADE	SNM-B	ADE-TP6	TP6-Asb1 (10721-Asb2)	0.5	01/08/2016	SOIL	-	-	-	-	-	-	-	<1	75
ADE	SNM-B	ADE-TP6	TP6-Asb2 (10721-Asb3)	2.0	01/08/2016	SOIL	-	-	-	-	-	-	-	<1	87
ADE	SNM-B	ADE-TP6	TP6-NEPM1 (10721-Asb50)	0.5	01/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	626
ADE	SNM-B	ADE-TP6	TP6-NEPM2 (10721-Asb51)	2.0	01/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	637
ADE	SNM-B	ADE-TP7	TP7-Asb1 (10721-Asb4)	0.5	01/08/2016	SOIL	-	-	-	-	-	-	-	<1	130
ADE	SNM-B	ADE-TP7	TP7-Asb2 (10721-Asb5)	2.1	01/08/2016	SOIL	-	-	-	-	-	-	-	<1	116
ADE	SNM-B	ADE-TP7	TP7-NEPM1 (10721-Asb52)	0.5	01/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	504
ADE	SNM-B	ADE-TP7	TP7-NEPM2 (10721-Asb53)	2.1	01/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	623
ADE	SNM-B	ADE-TP8	TP8-Asb1 (10721-Asb6)	0.7	29/06/2016	SOIL	-	-	-	-	-	-	-	<1	72
ADE	SNM-B	ADE-TP8	TP8-NEPM1 (10721-Asb54)	0.7	29/07/2015	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	563
ADE	SNM-B	ADE-TP9	TP9-Asb1 (10721-Asb7)	0.5	09/08/2016	SOIL	-	-	-	-	-	-	-	<1	74
ADE	SNM-B	ADE-TP9	TP9-Asb1 (10721-Asb26)	0.7	09/08/2016	SOIL	-	-	-	-	-	-	-	<1	134
ADE	SNM-B	ADE-TP9	TP9-Asb2 (10721-Asb27)	2.2	09/08/2016	SOIL	-	-	-	-	-	-	-	<1	100
ADE	SNM-B	ADE-TP9	TP9-NEPM1 (10721-Asb38)	0.5	09/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	548
ADE	SNM-B	ADE-TP9	TP9-NEPM2 (10721-Asb39)	2.0	09/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	594
ADE	SNM-B	ADE-TP10	TP10-NEPM1 (10721-Asb44)	0.4	11/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	574
ADE	SNM-B	ADE-TP10	TP10-NEPM2 (10721-Asb45)	3.0	11/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	554
ADE	SNM-B	ADE-TP11	TP11-NEPM1 (10721-Asb46)	0.4	11/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	555
ADE	SNM-B	ADE-TP11	TP11-NEPM2 (10721-Asb47)	2.8	11/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	587
ADE	SNM-B	ADE-TP12	TP12-NEPM1 (10721-Asb48)	0.5	11/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	549
ADE	SNM-B	ADE-TP12	TP12-NEPM2 (10721-Asb49)	3.5	11/08/2016	SOIL	<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	631
		Statistical Summary	Number of Results				38	38	38	38	38	38	38	72	57
			Number of Detects				2	0	3	3	2	0	3	20	57
			Minimum Concentration				<0.01	<0.001	<0.001	<0.001	<0.01	<0.0001	<0.0001	<1	36.7
			Minimum Detect				0.014	ND	0.002	0.002	0.44	ND	0.02	1	36.7
			Maximum Concentration				0.17	<0.001	0.078	0.078	6.01	<0.0001	1.04	1	1333
			Maximum Detect				0.17	ND	0.078	0.078	6.01	ND	1.04	1	1333
			Maximum Concentration				0.01	0.0005	0.0027	0.0027	0.17	0.00005	0.029	0.64	433
			Median Concentration				0.005	0.0005	0.0005	0.0005	0.005	0.00005	0.00005	0.5	520
			Standard Deviation				0.027	0	0.013	0.013	0.97	0	0.17	0.23	279
			Number of Guideline Exceedances				1	0	3	0	0	0	0	0	0
			Number of Guideline Exceedances (Detects Only)				1	0	3	0	0	0	0	0	0

Notes to Table
#1 Asbestos Detected, Yes
#2 Fibre Type CRY,AMO
#3 Fibre Type CRY

Appendix IV - Supporting Documents

WestConnex

Australian Government
BUILDING OUR FUTURE

NSW GOVERNMENT

Sustainability Strategy

September 2015

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WestConnex Overview

WestConnex is a crucial part of the NSW Government's integrated transport solution including public transport and road infrastructure to keep Sydney moving.

WestConnex will provide relief to the hundreds of thousands of road users struggling in traffic congestion every day and help return local streets to local residents.

WestConnex will be delivered through a series of projects, in three stages, over 10 years:

- Stage 1: M4 Widening & M4 East – Parramatta to Haberfield
- Stage 2: New M5 – Beverly Hills to St Peters
- Stage 3: M4–M5 Link– Haberfield to St Peters.

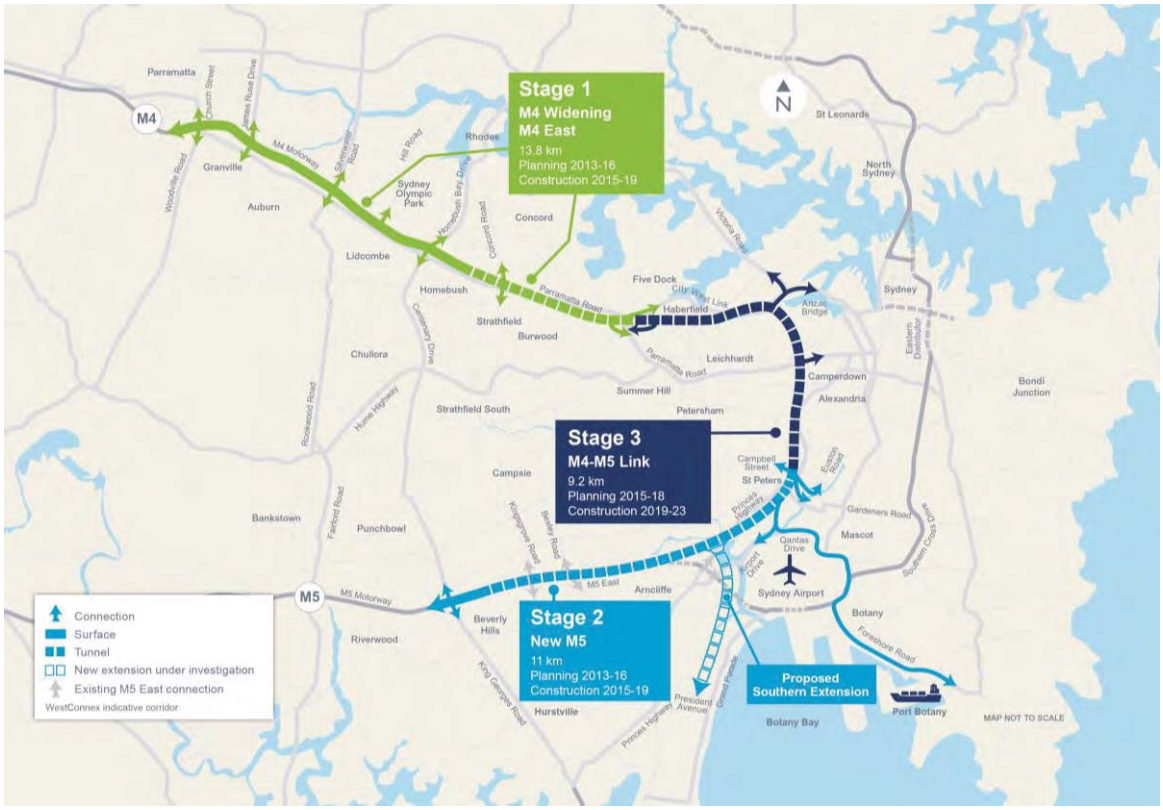

Figure 1: WestConnex motorway and proposed southern and northern extensions.

Apart from the existing surface sections of the M4 and M5, WestConnex will largely be constructed in an underground tunnel. This minimises the need for property acquisition and disruption to local communities along the route.

Stage 1 is being delivered as two projects, with the M4 Widening due to be completed in 2017 and the M4 East in 2019.

The Stage 2 New M5 has been accelerated as a result of a loan agreement with the Australian Government, and is scheduled for completion in 2019 subject to planning approval.

Stage 3 will join the M4 and M5 from Haberfield to St Peters with two new tunnels, and is currently scheduled for completion in 2023. Stage 3 will be built via Rozelle, providing connections to Victoria

Road and the ANZAC Bridge. It will also include enabling works for the future Western Harbour Tunnel.

As shown in Figure 1, the Government is assessing and considering a 'Southern Extension' to WestConnex. This Extension from the New M5 would create a new route from Sydney's south on the F6 corridor into WestConnex. The extension was identified as a strategic priority in *Rebuilding NSW: State Infrastructure Strategy 2014*.

Key Benefits

WestConnex will transform Sydney by making it easier for the movement of people and goods between employment hubs, such as the CBD, airport and Port and the Greater Western Sydney suburbs and growth centres.

Sydneysiders use the NSW road system for more than 90 per cent of their daily transport needs. WestConnex will ensure the city's major roads are better connected and more reliable, and will return local roads to local communities.

Better for drivers:

- cut up to 30 minutes off an average peak hour trip between Liverpool and South Sydney
- save motorists a combined 110,000 hours per day through reduced congestion
- reduced vehicle maintenance costs for motorists
- cut up to 40 minutes off a typical journey from Parramatta to Sydney Airport and bypass up to 52 traffic lights
- tunnels that are wider, taller and less steep than the current M5 East.

Better for business:

- create 10,000 jobs during the construction phase, including 500 apprenticeships/traineeships
- providing a high-quality connection from the Port Botany and Airport precincts to the M4 and M5
- deliver more than $20 billion in economic benefits to NSW
- efficient distribution of freight, taking heavy vehicles off the local road network
- provide the environment for 25,000 new jobs and 25,000 residences to be created over the next 20 years.

Better for local communities:

- build road tunnels underground to reduce the impact on the surface and communities
- enable dedicated lanes for public transport on Parramatta Road
- facilitate development of new homes and businesses
- reduce local council spending on road maintenance, allowing it to be redirected to other community benefits
- reconnect suburbs on either side of Parramatta Road
- remove trucks from surface roads and put them in underground tunnels returning local streets to local communities.

WestConnex Sustainability Strategy

Sustainability definitions

Sustainable development was first defined as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (Brundtland, 1987).

In 1992 the Australian Government defined *Ecologically Sustainable Development* as 'using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased' (Australian Government, 1992).

Infrastructure sustainability has been defined by the Infrastructure Sustainability Council of Australia (ISCA) as 'infrastructure that is designed, constructed and operated to optimise environmental, social and economic outcomes over the long term' (ISCA, 2012).

Strategy purpose

The WestConnex Sustainability Strategy (Strategy) describes how sustainability will be integrated into the planning, construction and operation of WestConnex. The Strategy defines WestConnex's sustainability vision, commitments, guiding principles, objectives and overarching targets across a range of sustainability themes.

The scale of WestConnex requires staged delivery of discrete projects by a variety of planning, design and construction (D&C) teams over many years. This Strategy aims to help ensure that sustainability is consistently applied across all teams and projects.

To facilitate transparency and continual improvement, the Strategy also outlines ongoing sustainability management, knowledge sharing and reporting requirements.

Development of the Strategy

This strategy has been developed as a live working document. Due to the staged nature of WestConnex, and the various projects within each of the three stages, it is envisioned that WestConnex's overarching sustainability objectives and targets direct the objectives and targets of each project, which will be progressively set and refined as WestConnex progresses.

The Strategy has been informed by benchmarking studies on how sustainability has been/is being integrated into a number of large infrastructure projects (including: North West Rail Link; CBD and South East Light Rail; Melbourne's East West Link; London Olympics; Perth Metro Area Express; Gateway WA Perth Airport and Freight Access Project; CrossRail; and NorthConnex) and broader Government sustainability instruments (discussed under *Alignment with Government instruments*).

Sustainability drivers

WestConnex Environment and Sustainability Policy

The WestConnex Environment and Sustainability Policy (next page) articulates the sustainability vision and commitments and describes how these will be met throughout the project's design, construction and operational stages.

To facilitate continual improvement the Policy will be reviewed annually by WestConnex management and updated as required.

Alignment with Government instruments

WestConnex's sustainability objectives and targets have been developed to align with:

- Federal Government instruments, including:
  - *Australian Jobs Act (2013)*
  - *National Greenhouse and Energy Reporting (NGER) Act (2007)*
- NSW Government instruments, including:
  - *NSW Environmental Planning and Assessment Act (1979) (EP&A Act);*
  - NSW 2021: A Plan to Make NSW Number One (2011) (NSW 2021);
  - NSW Long Term Transport Master Plan (2012);
  - NSW Government Resource Efficiency Policy (2014);
  - NSW Waste Avoidance and Resource Recovery Strategy 2014-21(2014);
  - NSW Government Training Management Guidelines (2009);
  - Aboriginal Participation in Construction Guidelines (2007);
  - Aboriginal Participation in Construction Policy (2015);
- Transport for NSW's (TfNSW's) instruments, including:
  - Transport Environment and Sustainability Policy Framework (2013);
  - Sydney's Cycling Future, Cycling for everyday transport (2013);
  - Sydney's Walking Future, Connecting people and places (2013)
- RMS's instruments, including:
  - RMS Sustainability Strategy (2015, Draft);
  - RMS Technical Guide: Climate Change Adaptation for the State Road Network (2015, Draft);
  - Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (2011).

A summary of the NSW Government instruments listed above is provided in Appendix A.

WestConnex Environment and Sustainability Policy

Transport WestConnex Delivery Authority Board

WestConnex Delivery Authority (WDA) is committed to:

- Sustainability leadership and continual improvement
- Enhancing the environmental, social and economic outcomes of WestConnex now and in the future
- Ensuring balanced consideration of the whole-of-life environmental, social and economic costs and benefits during decision making
- Proactively minimising adverse environmental, social and economic impacts

Vision

WestConnex will be a sustainable, high quality and transformational project for the people of Sydney and NSW. Exhibiting innovative design excellence, it will be sensitively integrated into the natural and built environment, help build communities and contribute to the future liveability of Sydney.

These commitments will be met by:

Leadership and continual improvement

- Establishing sustainability objectives and targets
- Embedding sustainability requirements within contracts and procurement criteria
- Encouraging innovation and setting high environmental and sustainability standards for WDA's delivery partners (designers, contractors, sub-contractors and suppliers). Including achieving a Design and As-Built Infrastructure Sustainability (IS) 'Excellent' Rating.
- WDA, together with their delivery partners taking joint responsibility for leading and integrating sustainability within their respective organisations
- Continual improvement:
  - Monitoring and assessing performance against the sustainability objectives and targets
  - Implementing corrective actions where appropriate
  - Publicly reporting on progress, sharing knowledge and building on lessons learnt

Proactive management

- Providing adequate resources and personnel to deliver the sustainability objectives
- Ongoing assessment and proactive management of the whole-of-life environmental, social and economic risks and opportunities (including those related to future proofing for climate change and long-term growth)
- Using resources (energy, water, materials) efficiently, avoiding and reducing waste and pollution

Connecting communities and promoting liveability

- Providing a safe and accessible motorway integrated into the urban environment and transport system
- Protecting and promoting cultural heritage, community health and wellbeing
- Establishing positive relationships with the community through ongoing and open engagement

Creating jobs

- Providing local training, education, apprenticeships and employment opportunities

Partnerships and shared responsibility

- Partnering with stakeholders (e.g. industry, supply chain, educational institutions) to achieve objectives and enhance the broader industry's environmental and sustainability performance
- All staff involved in delivery of WestConnex having a shared responsibility to actively contribute towards the achievement of this policy

Implementation

WestConnex's sustainability framework (Figure 2) shows how sustainability objectives and targets are implemented through the project's contractual requirements, tender evaluation criteria and Sustainability Management Plans. The figure also shows the relationship between WestConnex's sustainability vision, commitments, TfNSW's guiding principles and the broader Government sustainability instruments.

For each project the selected contractor will develop a Sustainability Management Plan detailing the processes and methodologies for implementing sustainability initiatives into their design, procurement and construction processes and achieving the sustainability targets and objectives. Each contractor will regularly their report progress towards achievement of the sustainability objectives and targets to WestConnex. A Sustainability Management Plan will be prepared and implemented by the Operation and Maintenance Contractor.

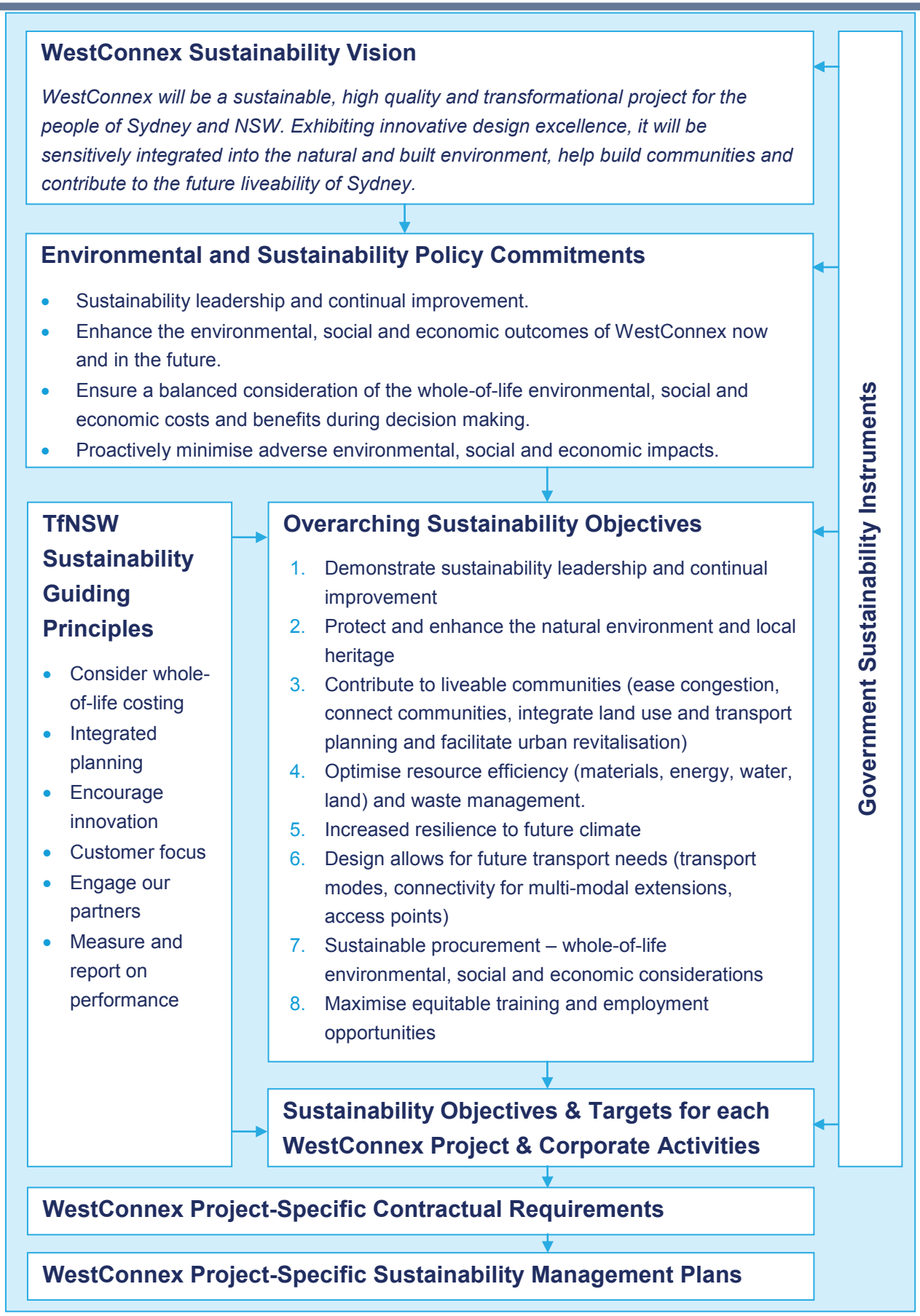

Figure 2: WestConnex's Sustainability Framework

Sustainability objectives and targets

The sustainability objectives and targets for WestConnex are shown in the following table. The NSW Government instruments which relate to each target are listed in parenthesis. Operational and maintenance targets will be revised and this section updated as the projects progress.

WestConnex Sustainability Objectives & Targets: Design & Construction Stage

Objective 1: Demonstrate sustainability leadership and continual improvement

Targets:

1.1 Achieve an Infrastructure Sustainability (IS) rating of *Excellent* for the design and construction phases. (*NSW 2021, NSW Long Term Transport Master Plan, RMS Sustainability Strategy*)

1.2 Prepare quarterly project progress reports and an annual *WestConnex Sustainability Report*. Annual review of the *WestConnex Sustainability Report* and *WestConnex Environment and Sustainability Policy* by Senior Management. (*Transport Environment and Sustainability Policy Framework*)

1.3 Share sustainability knowledge and lessons learnt across the WestConnex projects and stages. Participate in sustainability workshops during design and construction phases and document lessons learnt. (*Transport Environment and Sustainability Policy Framework*)

1.4 Appoint a sustainability representative with relevant experience to drive the achievement of sustainability outcomes. (*Transport Environment and Sustainability Policy Framework*)

Objective 2: Protect and enhance the natural environment and local heritage

Targets:

2.1 No serious pollution incidents occur during construction. (*NSW 2021, Transport Environment and Sustainability Policy Framework, RMS Sustainability Strategy*)

2.2 Proactively manage any impacts to flora and fauna in accordance with the RTA's Biodiversity Guidelines. (*Transport Environment and Sustainability Policy Framework, RMS Sustainability Strategy, Biodiversity Guidelines*)

2.3 Heritage items are avoided where possible and proactively managed during construction. (*Transport Environment and Sustainability Policy Framework, RMS Sustainability Strategy*)

Objective 3: Contribute to liveable communities (ease congestion, connect communities, integrate land use and transport planning and facilitate urban revitalisation)

Targets:

3.1 Motorway designed to reduce road congestion and travel times. (*NSW 2021, NSW Long Term Transport Master Plan*)

3.2 Ensure appropriate air quality outcomes. WestConnex's tunnel ventilation systems will be designed and operated to comply with best-practice criteria for in-tunnel and ambient air quality. (*NSW 2021, RMS Sustainability Strategy*)

3.3 Maintain, relocate or improve pedestrian and cycle paths and connections. (*NSW 2021, NSW Long*

Term Transport Master Plan, Sydney's Walking Future, Sydney's Cycling Future)

3.4 Create/enhance public open space. (*NSW Long Term Transport Master Plan*)

Objective 4: Optimise resource efficiency (materials, energy, water, land) and waste management

Targets: Materials

4.1 Identify and implement opportunities to reduce material use and maximize the use of materials with low embodied environmental impact. (*NSW 2021, NSW Long Term Transport Master Plan, Transport Environment and Sustainability Policy Framework, RMS Sustainability Strategy*)

4.2 Maximise the use of timber products from either reused/recycled timber or from sustainably managed forests that have obtained Forest Management Certification. (*NSW 2021, Transport Environment and Sustainability Policy Framework, RMS Sustainability Strategy*)

[Current target: source 100% of all timber from either reused/recycled timber or from sustainably managed forests]

4.3 Optimise the amount of cement replacement material used in concrete. (*NSW 2021, Transport Environment and Sustainability Policy Framework, RMS Sustainability Strategy*)

4.4 Optimise the amount of recycled material used in road base and sub base. (*NSW 2021, Transport Environment and Sustainability Policy Framework, RMS Sustainability Strategy*)

Targets: Energy and carbon

4.5 Prepare an Energy Efficiency and Greenhouse Gas Emissions Strategy, detailing processes and methods to improve energy efficiency and reduce greenhouse gas emissions. (*NSW Long Term Transport Master Plan, Government Resource Efficiency Policy, Transport Environment and Sustainability Policy Framework, RMS Sustainability Strategy*)

4.6 Percentage of energy sourced from renewable energy generated onsite and/or accredited GreenPower (GreenPower is an Australian government accreditation program). (*NSW Long Term Transport Master Plan, Government Resource Efficiency Policy, Transport Environment and Sustainability Policy Framework, RMS Sustainability Strategy*)

Current target: minimum of 6% of energy sourced from renewable energy generated onsite and/or accredited GreenPower

4.7 Optimise the design and operation of the motorway to minimise energy used by vehicles using the motorway. (*RMS Sustainability Strategy*)

Targets: Water

4.8 Undertake a Water Balance Study and identify opportunities to reduce water use (in particular potable water use) and reuse water (e.g. stormwater, groundwater) during construction and operation. (*Transport Environment and Sustainability Policy Framework, RMS Sustainability Strategy*)

4.9 Reuse, recycle/reclaim water (e.g. stormwater, wastewater, tunnel inflow water) generated/collected. (*Transport Environment and Sustainability Policy Framework, RMS Sustainability Strategy*)

Targets: Land

4.10 Minimise the project's surface land footprint and acquisition of properties.

4.11 Identify contaminated sites within the project's construction footprint and remediate to a standard for post construction use (as applicable).

Targets: Waste & Spoil

4.12 Reuse/recycle usable spoil (uncontaminated surplus excavated material). (*NSW Waste Avoidance and Resource Recovery Strategy 2014-21, Transport Environment and Sustainability Policy Framework*)

Current target: reuse/recycle a minimum of 80% of usable spoil

4.13 Reuse/recycle construction and demolition waste (uncontaminated). (*NSW Waste Avoidance and Resource Recovery Strategy 2014-21, Transport Environment and Sustainability Policy Framework*)

Current target: reuse/recycle a minimum of 80% of construction and demolition waste

4.14 Implement packaging take-back arrangements with suppliers. (*NSW Waste Avoidance and Resource Recovery Strategy 2014-21*)

Objective 5: Increased resilience to future climate

Targets:

5.1 Undertake a climate change risk assessment. (*NSW 2021, NSW Long Term Transport Master Plan, Transport Environment and Sustainability Policy Framework, RMS Sustainability Strategy*)

5.2 Identify and implement adaptation measures to mitigate all high and extreme residual risks. (*NSW 2021, NSW Long Term Transport Master Plan, Transport Environment and Sustainability Policy Framework, RMS Sustainability Strategy*)

Objective 6: Design allows for future transport needs (transport modes, connectivity for multi-modal, extensions, access points)

Targets:

6.1 Preserve opportunities for public transport (for example, light rail and/or rapid bus lanes) along Parramatta Road. (*NSW Long Term Transport Master Plan*)

6.2 Land preserved for future safe pedestrian and cyclist connectivity (as applicable). (*NSW Long Term Transport Master Plan, Sydney's Walking Future, Sydney's Cycling Future*)

6.3 Design allows for future extensions to the road network and access points. (*NSW 2021*)

Objective 7: Sustainable procurement – whole-of-life environmental, social and economic considerations

Targets:

7.1 Incorporate sustainability criteria into project contracts and tender evaluation criteria. (*NSW Long Term Transport Master Plan, Transport Environment and Sustainability Policy Framework, RMS Sustainability Strategy*)

7.2 Prepare and implement an Australian Industry Participation Plan. (*Australian Jobs Act*)

Objective 8: Maximise equitable training and employment opportunities

Targets:

8.1 As per the NSW Premier's statement in February 2015, 500 apprentices/trainees will be employed on the WestConnex motorway project as a whole. (*NSW 2021, NSW Long Term Transport Master Plan*)

Current targets: To meet the 500 apprenticeships/traineeships target, the current project specific targets are:

a) M4 East Project: employ the equivalent of 115 apprentices/trainees for 18 months during D&C

b) The New M5 Project: employ the equivalent of 155 apprentices/trainees for 18 months during D&C

c) M4-M5 Link Project: to be confirmed

8.2 Maximise employment and training opportunities for: young people, Aboriginal and Torres Strait Islanders, disadvantaged groups, long-term unemployed and and people who live in Greater Western Sydney and along the project's alignment. (*NSW 2021, NSW Long Term Transport Master Plan*)

8.3 Provide structured training to a percentage of the construction workforce. (*NSW Government Training Management Guidelines*)

Current target: Provide structured training to 20% of the construction workforce

8.4 Provide initiatives to improve Aboriginal and Torres Strait Islander participation in construction and provide opportunities to Aboriginal and Torres Strait Islander enterprises. (*Aboriginal Participation in Construction Guidelines, Aboriginal Participation in Construction Policy*)

Management and governance

Sustainability leadership and continual improvement

Objective 1: Demonstrate sustainability leadership and continual improvement

Better Design

WestConnex is working with the private sector to encourage innovation. The final design of the M4 East, New M5 and M4-M5 Link projects will incorporate the best ideas for meeting the transport objectives while also providing outstanding community and environmental outcomes.

WestConnex will assess the designs proposed by the contractors tendering for each WestConnex project based on a range of criteria including environmental and social impacts/risks, quality, durability, whole of life costs, and program delivery.

Sustainability rating

The Infrastructure Sustainability (IS) rating scheme provides a third party assurance review of a project's sustainability performance (environmental, social and economic, impacts and opportunities evaluated).

IS is administered by the Infrastructure Sustainability Council of Australia (ISCA). ISCA is a member-based, not-for-profit industry (public and private) council. The M4 Widening, M4 East, New M5 and M4-M5 Link projects must achieve an Infrastructure Sustainability (IS) rating of ***Excellent***.

Sustainability reporting and review

WestConnex will prepare an annual *WestConnex Sustainability Report* to communicate progress towards meeting sustainability commitments, objectives and targets. WestConnex will undertake an annual review of the *WestConnex Sustainability Report* and publish the report's executive summary on the WestConnex website. WestConnex will also review and update the *WestConnex Environment and Sustainability Policy* as required.

During D&C, lead contractors are required to provide a quarterly sustainability report (using the *WestConnex Standard Reporting Template*) and an annual sustainability report to WestConnex. These reports will be used by WestConnex to inform the annual WestConnex Sustainability Report.

To drive continuous improvement during D&C, the lead contractor is also required to review sustainability performance regularly and strengthen targets / implement corrective actions (as required).

Knowledge sharing

Each WestConnex lead contractor is required to appoint a Sustainability Representative with relevant experience to drive the achievement of sustainability outcomes. The WestConnex Sustainability Representative and the Contractor's Sustainability Representatives would participate in regular

Sustainability Workshops. The workshops would provide an opportunity to share lessons learnt across the WestConnex projects and identify areas where collaboration may be appropriate. The workshops would be chaired by the WestConnex Sustainability Representative.

In addition it is proposed that knowledge would also be shared with the construction and transport industry more broadly through case studies, articles and presentations.

Future transport needs

Objective 6: Design allows for future transport needs (transport modes, extensions, access points)

WestConnex has been developed as a result of a comprehensive review of NSW's long-term transport infrastructure needs, encompassing all transport modes, including walking, cycling, light rail, rail, ferries, buses, and roads. Consequently a mandatory requirement for the project is to enable future walking, cycling and public transport infrastructure needs, such as preserving opportunities for public transport (for example, light rail and/or rapid bus lanes) along Parramatta Road. WestConnex will enable significant change to the NSW future transport system by allowing existing road space and transport operations to be reconfigured to improve journeys by all transport modes. WestConnex is also being designed to allow for and link into proposed future transport extensions, such as the northern and southern extensions.

In developing the business case, WestConnex was measured against key transport planning principles including: 'serves key market and customer needs'; and 'future proofs long term growth and change, by allowing for future extensions, connections and access points…'.

Sustainable procurement

Objective 7: Sustainable procurement - whole of life environmental, social and economic considerations

Sustainable procurement is defined as '*a process whereby organisations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organisation, but also to society and the economy, whilst minimising damage to the environment*' (Australasian Procurement and Construction Council (APCC) 2007, Australian and New Zealand Government Framework for Sustainable Procurement).

Due to the scale of the WestConnex project, procurement provides an opportunity for WestConnex to reduce adverse impacts and achieve positive social, environmental and economic outcomes through influencing project contractors, sub-contractors and construction material suppliers.

Figure three provides examples of the key considerations in sustainable procurement decisions.

Figure 3: Key considerations in sustainable procurement

Source: Department of Sustainability, Environment, Water, Population and Communities (DSEWPAC), 2013, Sustainable Procurement Guide for the Australian Government)

An Australian Industry Participation Plan has been prepared and will be implemented for WestConnex (in accordance with the requirements of the *Australian Jobs Act*). The Plan details how Australian entities will have full, fair and reasonable opportunity to bid for the supply of key goods and services (during construction and initial operation).

Climate change adaptation

Objective 5: Increased resilience to future climate

'*Our transport infrastructure must be able to withstand the predicted impacts of a changing climate*' (NSW Long Term Transport Master Plan, 2012, p310).

Increasing the resilience of WestConnex, a long-term transport asset with a 100 year design life, to the projected future climate is recognised as a key challenge for WestConnex and the NSW Government.

Key climate change parameters identified for consideration in major road projects are rainfall and runoff, flooding, sea level rise, storm surge, wind speed, increased temperatures, heatwaves and bushfires.

A climate change risk assessment is to be prepared for each project (in accordance with the Australian Standard *AS 5334-2013 Climate change adaptation for settlements and infrastructure - A risk based approach* and the *Draft RMS Technical Guide: Climate Change Adaptation for the State Road Network*) to understand the vulnerability of WestConnex to direct (such as flooding) and indirect (such as power outages) climate change risks, so adaptation measures can be identified/implemented. Decisions must be made which balance the capital cost of adaptation measures with longer term ongoing operational costs and benefits, including maintenance/repair/road closure or delays/safety. Operational requirements (such as reliability of service, durability, maintainability and road user safety) would be considered when assessing the costs and benefits of adaptation measures to be implemented.

Resource Efficiency

Objective 2: Protect and enhance the natural environment and local heritage.
Objective 4: Optimise resource efficiency (materials, energy, water, land) and waste management.

Resource efficiency: achieving the desired outcome (a safe, reliable, durable and integrated motorway) whilst using fewer resources (construction materials, energy, water, land) and minimising waste and detrimental environmental impacts (including impacts to ecosystems services such as clean air and unpolluted water) over the life of the asset.

Energy and Carbon

WestConnex's major energy use and greenhouse gas emission sources include:

- construction stage:
  - tunnel excavation equipment and spoil transport
  - energy and carbon embodied in construction materials
- operational life
  - operation of tunnel ventilation, water management and lighting/signage systems
  - vehicles driving on the motorway

To reduce whole of life energy use and greenhouse gas emissions the M4 East and New M5 project D&C Contractors are required to develop and implement an *Energy Efficiency and Greenhouse Gas Emissions Strategy and Management Plan*. These requirements will be extended to WestConnex Stage 3 and extension projects.

Construction

Opportunities to improve the construction stage energy efficiency include: selecting fuel efficient equipment; avoiding vehicle idling; and minimizing the double handling and travel distance of spoil.

A percentage of energy (the current target is 6 per cent) will be sourced from renewable energy generated onsite and/or accredited GreenPower during WestConnex construction and operation. GreenPower is an Australian government accreditation program that enables energy providers to purchase renewable energy on behalf of customers. By purchasing GreenPower the project can contribute to diversifying the state's energy resources.

Operation

Improving operational energy efficiency and reducing greenhouse gas emissions would reduce WestConnex's ongoing operating costs and environmental impacts.

Greenhouse gas emissions would be generated by customer vehicles using the motorway during its operational life. The motorway design, the road grades and pavement surface material directly influence the fuel used by vehicles on the motorway. The WestConnex tunnel grades have been

limited to reduce vehicle emissions and maximise fuel efficiency. In addition, reducing congestion and stop-start driving reduces vehicle fuel consumption.

Tunnel ventilation and water management systems represent the largest energy consuming activities for a road tunnel. The WestConnex tunnels have been designed to be wider and taller than other existing tunnels (for example the M5 East tunnel). The increased tunnel cross section reduces the amount of energy required to operate the tunnel ventilation systems over the life of the project. It is noted that in the longer term, as more electric and hybrid vehicles use WestConnex, the need for tunnel ventilation may be reduced.

Water

Water, especially potable water, is a vital limited resource. As the population increases and climate changes the importance of minimising water use and maximising water reuse will continue to escalate.

To optimise water efficiency the M4 East and New M5 project D&C Contractors are required to undertake a water balance study and must demonstrate that opportunities to reduce water use and reuse water during construction and operation have been identified and analysed. These requirements will be extended to WestConnex Stage 3 and extension projects.

By optimising water efficiency the projects can become more resilient to future water shortages and contribute to securing Sydney's water resources.

During construction groundwater would flow into the excavated tunnels/pits. This water would need to be collected and transported to treatment plants prior to onsite/offsite reuse or stormwater discharge. It is anticipated that water treatment plants would be required to treat groundwater inflows, general construction water and any surface water runoff which flows into the tunnels. Construction water reuse opportunities may include water for dust suppression, material production and road compaction.

The tunnels will be lined to prevent groundwater inflow during operation. However groundwater would still need to be collected and transported to treatment plant/s prior to reuse, discharged to stormwater, or used for groundwater recharge. The treated water quality (for both the construction and operational stages) would be determined in consultation with the NSW Environment Protection Authority.

There are a number of opportunities along the WestConnex project corridor where water could be reused within the urban landscape, for example the irrigation of green-corridors/areas.

Materials

Large volumes of materials would be used to construct the motorway, including:

- general select fill material (spoil generated onsite may be suitable)
- pavement road base and sub-base (recycled aggregates and spoil may be suitable)
- concrete (recycled aggregate, cement replacement materials and non-potable water may be suitable)
- pre-cast concrete (e.g. pipes, culverts containing recycled materials may be suitable)
- steel reinforcement (containing recycled steel may be suitable)

Wherever possible, local sources of materials should be preferred in order to minimise haulage distances and support local suppliers. WestConnex's Australian Industry Participation Plan describes

how Australian suppliers are provided with full, fair and reasonable opportunity to bid for the supply of key goods and services required during the project's construction and initial operation stages.

Roads and Maritime Services has undertaken detailed in-field testing on the use of recycled materials within road pavements. The revised Roads and Maritime Services road specifications provide confidence that a higher proportion of recycled materials can be used without impacting on the engineered life of road pavements, promoting more efficient resource use and creating a market for the use of recycled road materials. The following table lists the maximum percentage permitted of recycled material in unbound or modified base or sub-base as constituent materials.

Table 1: Recycled materials permitted in road base and sub base

Recycled material	Maximum percentage permitted in unbound or modified base or sub base as constituent materials (Source: Roads and Maritime Material Specification 3051)
Iron Slag	100%
Crushed concrete	100%
Brick	20% (formerly 5%)
Recycled asphalt	40% (formerly 5%)
Power Station ash	10% (formerly zero percent)
Crushed glass fines	10% (formerly 5%)

Recycled materials can also be used in new road elements, such as medium strips, road barriers, noise walls, pedestrian and cycle paths.

Waste

WestConnex is committed to minimising waste generation and following a waste hierarchy (below).

- **Avoid**: Maximise conservation of resources
- **Reduce**: Reduce the generation of waste
- **Reuse**: Reuse materials (preference for reuse within the project or WestConnex)
- **Recycle**: Recycle materials (preference for use of recycled materials within the project or WestConnex)
- **Landfill disposal**.

The M4 East and New M5 D&C Contractors are required to reduce waste generation by implementing packaging take-back arrangements with suppliers and maximising the reuse/recycling of uncontaminated construction and demolition waste (the current target is to reuse/recycle 80% of uncontaminated construction and demolition waste). These requirements will be extended to WestConnex Stage 3 and extension projects.

Spoil

Large quantities of spoil material will be generated as a result of the WestConnex project tunnelling and from a number of other projects being constructed at the same time.

WestConnex is committed to the beneficial reuse of usable (i.e. not contaminated) spoil whilst minimising the community and environmental impacts associated with spoil transport. The M4 East and New M5 D&C Contractors are required to maximise the reuse/recycling of uncontaminated spoil (the current target is to reuse/recycle 80% of uncontaminated spoil). These requirements will be extended to WestConnex Stage 3 and extension projects.

The *WestConnex Spoil Strategy* provides further information on spoil removal options and beneficial reuse opportunities for the WestConnex motorway.

The following diagram illustrates the beneficial spoil reuse hierarchy which should be used to influence spoil management decisions for the project.

- Reuse within project (e.g. embankments, artificial topsoil)
- Reuse for environmental benefit (e.g. flood mitigation, coastal protection)
- Reuse on other projects (e.g. embankments, land reclamation, roadbase)
- Land restoration of quarries, mines, etc.
- Landfill capping and/or cover material.

Land

Land in the WestConnex corridor has high environmental, social and economic value. Apart from the existing surface sections of the M4 and M5, WestConnex will be constructed in underground tunnels. This minimises the need for property acquisition and disruption to communities along the route.

WestConnex and the contractors selected to deliver (design and construct) the projects will find innovative ways to reduce the impact on the surface when preparing project designs. In addition the scale and location of the project presents opportunities to remediate contaminated land and provide green space for the community.

Alexandria Landfill Remediation

The St Peters Interchange will be located on the Alexandria Landfill site in an industrial area. Most of the site is a former brick pit, and is currently used as a landfill and waste transfer facility. By constructing the interchange in an existing industrial area, the impact on both local traffic and existing residential areas will be minimised. In addition, WestConnex will stabilise and remediate parts of the old landfill site, leaving a positive legacy for the community.

Protect and enhance the natural environment and local heritage

Objective 2: Protect and enhance the natural environment and local heritage.

The environmental assessment for each WestConnex motorway project will detail the existing environment and potential impacts expected to occur during the construction and operation stages. WestConnex and its contractors will employ a range of measures to protect the natural environment and local heritage and mitigate/offset potential impacts. These measures will be detailed within each WestConnex project's Environmental Impact Statement which will be made publicly available via the NSW Government Department of Planning and Environment's website (http://majorprojects.planning.nsw.gov.au/) as they are released. The community is invited to provide feedback on each EIS.

Ecology

Flora and fauna species listed as threatened under the Commonwealth *Environment Protection and Biodiversity Conservation Act (EPBC Act)* and/or the N*SW Threatened Species Conservation Act 1995* (TSC Act) may be impacted by WestConnex.

As part of the environmental approvals process, assessments of the terrestrial and aquatic ecology directly and indirectly impacted by the project would be undertaken. Appropriate measures to mitigate and manage detrimental impacts would be developed and implemented to protect and encourage the recovery of threatened species, populations and communities listed under the TSC Act and EPBC Act.

Biodiversity impacts associated with the construction of the motorway will be offset in accordance with the *Biodiversity Guidelines* and the Biodiversity Management Hierarchy *(RTA Biodiversity Guidelines, 2011)* would be followed, which aims to:

1. avoid and minimise impacts first
2. mitigate impacts where avoidance is not possible. Examples of options for mitigation are provided in the RTA's *Biodiversity Guidelines*
3. offset where residual impacts cannot be avoided.

Heritage

During the design stage a number of significant heritage items have been avoided where possible, such as the State heritage significant Yasmar Reserve site on Parramatta Road, Haberfield. Any direct or indirect impacts to heritage items (Indigenous and European) will be identified and assessed through the environmental assessment process. Measures will be proposed and implemented to avoid or mitigate impacts. WestConnex may present opportunities to educate and increase awareness about indigenous and European heritage values. The projects may also present opportunities to conserve, enhance and interpret the significance of heritage listed items.

Liveable Communities

Objective 3: Contribute to liveable communities (ease congestion, connect communities, integrate land use and transport planning and facilitate urban revitalisation).

Ease congestion

The motorway has been designed to reduce road congestion and travel times. WestConnex will transform Sydney by making it easier for the movement of people and goods between employment hubs, such as the CBD, airport and port and the Greater Western Sydney suburbs and growth centres that house millions of people.

Sydneysiders use our road system for more than 90 per cent of their daily transport needs. WestConnex will ensure the city's major road arteries are better connected and more reliable and return local roads to local communities.

The following provides some of the key benefits for drivers, businesses and the local community associated with reduced congestion:

Better for drivers:

- cut up to 30 minutes off an average peak hour trip between Liverpool and South Sydney
- save motorists a combined 110,000 hours per day through reduced congestion
- reduced vehicle maintenance costs for motorists
- cut up to 40 minutes off a typical journey from Parramatta to Sydney Airport and bypass up to 52 traffic lights
- tunnels that are wider, taller and less steep than the current M5 East

Better for business:

- providing a high-quality connection from the Port Botany and Airport precincts to the M4 and M5.
- efficient distribution of freight, taking heavy vehicles off the local road network

Better for local communities:

- enable dedicated lanes for public transport on Parramatta Road
- remove trucks from surface roads and put them in underground tunnels returning local streets to local communities.

Connecting communities, health, wellbeing and safety

WestConnex will provide long term benefits to community health and wellbeing by connecting communities and easing congestion via reduced travel times and improved access to social infrastructure (e.g. health, recreational).

Legacy initiatives may be implemented which target specific community needs, for example enhancing public open space, cycle paths, walkways, etc.

WestConnex Cycling Strategy

A safe and connected network of bicycle paths is an important part of Sydney's integrated transport system. WestConnex are collaborating with cycling planning representatives from Roads and Maritime Services, Transport for New South Wales, City of Botany Bay, City of Sydney and Marrickville councils to consider and discuss cycle path and access opportunities. WestConnex has prepared the WestConnex Cycling Strategy in line with the NSW Government's bicycle strategy, Sydney's Cycling Future, and Roads and Maritime Services' NSW bicycle guidelines.

WestConnex tunnels are being designed to maintain driver concentration and enhance the in-tunnel driver experience and include features such as public art and lighting. .

Air Quality

WestConnex is committed to ensuring appropriate air quality outcomes. WestConnex's tunnel ventilation systems will be designed and operated to comply with best-practice criteria for in-tunnel and ambient air quality.

Air quality modelling will be undertaken to assess the impacts of the construction and operation of the motorway as part of the EIS process. In addition WestConnex has been proactively consulting with the NSW Department of Health, Department of Planning and Environment, NSW Environmental Protection Authority and international air quality specialists to understand issues and ensure the tunnel ventilation system is designed and operated to comply with best-practice criteria for in-tunnel and ambient air quality.

As part of the EIS process an assessment of human health impacts will be undertaken for the M4 East, M4-M5 Link and New M5 projects as well as the cumulative WestConnex tunnel projects. The Advisory Committee on Tunnel Air Quality found in its Initial Report on Tunnel Air Quality (July 2014, available on the website of the NSW Chief Scientist and Engineer http://www.chiefscientist.nsw.gov.au/reports) that:

- cleaner fuels and cleaner vehicles are predicted to continue to reduce total emissions from the vehicle fleet in the Greater Metropolitan Region of NSW
- well-designed stacks have no discernable impact on local air quality

Each tunnel project (M4 East, New M5, Stage 3 and extension projects) will be required to develop an Air Quality Management Plan as a condition of approval. The management plans will detail

WestConnex's approach to ensuring operation of the project will comply with best practice criteria for in-tunnel and ambient air quality. All Sydney road tunnels have management plans which involve 24 hour a day tunnel air quality monitoring and compliance with independent pre-determined guidelines for in-tunnel air quality. The Air Quality Management Plans will be influenced by factors such as the final design of the route, the length of each section of tunnel and the location of ventilation outlets.

Urban design

An overarching *WestConnex Urban Design Framework (framework)* has been developed by Roads and Maritime Services' Centre for Urban Design. The framework follows Roads and Maritime Services' urban design policy as set out in *Beyond the Pavement*.

The framework has been developed to create a project that best benefits both the road users and the community:

- leading edge environmental responsiveness
- connectivity and legibility
- place making
- livability and urban renewal
- memorable identity and a safe, pleasant experience
- a new quality benchmark.

Skills and Employment

Objective 8: Maximise equitable training and employment opportunities

As the largest transport project in Australia, WestConnex will create up to 10,000 direct and indirect jobs and provide training, education and employment opportunities (including hundreds of apprenticeships/traineeships). This will equip thousands of employees with transferable knowledge, skills and experience that contributes to sustainable employment.

WestConnex has developed a skills and employment framework which focuses on creating skills and employment opportunities for priority groups including young people, Aboriginal and Torres Strait Islanders, disadvantaged groups, the long-term unemployed and people who live in Greater Western Sydney and along WestConnex's alignment.

WestConnex has proposed a number of skills and employment priorities for WestConnex including:

- maximising employment and training opportunities for:
  - young people
  - Aboriginal and Torres Strait Islanders
  - disadvantaged groups
  - long-term unemployed
  - locals and residents of Western Sydney
- delivering a NSW skills legacy through up-skilling and re-skilling
- promoting Australian, local, indigenous and small and medium enterprise suppliers.

WestConnex and the NSW Government are committed to ensuring WestConnex construction projects leave a positive skills and employment legacy for NSW.

To achieve this WestConnex and the NSW Government will:

- maximise the employment of apprentices/trainees. As per the NSW Premier's statement in February 2015, 500 apprenticeships/traineeships will be employed on the WestConnex Motorway
- set minimum contractual requirements for apprenticeships/traineeships on a project-by-project basis
- provide WestConnex construction workers with transferable skills for their future, by ensuring the construction contractors provide structured training to at least 20 per cent of the workforce
- encourage contractors to provide skills and employment opportunities to young people, Aboriginal and Torres Strait Islanders, disadvantaged groups, the long-term unemployed and people who live in Greater Western Sydney and along the project's alignment
- encourage D&C contractors to engage Australian, local, indigenous and small and medium enterprise suppliers.

Shared ownership and delivery

There are many existing apprenticeship initiatives, support services, programs and funding opportunities provided by NSW Government (e.g. State Training Services within the Department of Education and Communities), NGOs and registered training providers (e.g. TAFE NSW).

It is proposed that WestConnex and WestConnex project contractors partner with existing Government and not-for-profit stakeholders to share the ownership and delivery of WestConnex skills and employment legacy. It is proposed that WestConnex drive this process and that initiatives are provided under a WestConnex banner but delivered by the most appropriate existing stakeholder/s.

Aboriginal Participation

WestConnex support and encourage employment and business opportunities for Aboriginal and Torres Strait Islander people and enterprises on all WestConnex projects.

The Aboriginal Participation in Construction Policy (2015) commenced in May 2015 and will replace the Aboriginal Participation in Construction Guidelines (2007).

The M4 Widening, M4 East and New M5 projects are required to comply with the Aboriginal Participation in Construction Guidelines (applicable policy at the time of project procurement). In accordance with the Guidelines, each construction contractor for the M4 Widening, M4 East and New M5 projects will prepare and implement an Aboriginal Participation Plan (Plan) for construction. Participation targets and Key Performance Indicators will be set by the Contractor and included within the Plan. Once construction is complete a Contractor Performance Report will be prepared to provide information on how the Plan was implemented.

The Stage 3 and extension projects (and all WestConnex construction projects with tenders issued on/after 1 January 2015) will comply with the Aboriginal Participation in Construction Policy. Under the Policy a percentage of the total estimated value of the contract (termed *targeted project spend*) must be directed to Aboriginal related employment and education activities, procurement of goods or services from recognised Aboriginal businesses or other programs. The targeted project spend is currently 1.5 per cent of the total estimated value of the contract. This target becomes mandatory for projects signed on/after 1 July 2016. In accordance with the Policy, the project Aboriginal Participation Plan and Progress Report (to be completed by the Contractor) will be published on the internet by the NSW Procurement Board.

Appendix A – Summary of Government instruments

Summary of Federal Government instruments

The following provides a summary of the Federal Government instruments.

Australian Jobs Act

Under the *Australian Jobs Act (2013)*, WestConnex is required to prepare and implement an Australian Industry Participation Plan. The Plan outlines how the project will provide full, fair and reasonable opportunity to Australian Industry to supply goods and services to the project.

National Greenhouse and Energy Reporting (NGER) Act

The NGER Act (2007) is the national framework for reporting and publishing company information about greenhouse gas emissions, energy production, energy consumption and other information specified under NGER legislation. The Act aims to: inform policy-making and the Australian public; help meet Australia's international reporting obligations; avoid duplication of similar reporting requirements in the states and territories.

Summary of NSW Government instruments

The following provides a summary of the NSW Government instruments.

NSW Environmental Planning and Assessment Act

The EP&A Act (1979) requires consideration of Ecological Sustainable Development and 'requires the effective integration of economic and environmental considerations in decision-making processes. Ecologically sustainable development can be achieved through the implementation of the following principles and programs' – the precautionary principle, inter-generational equity, conservation of biological diversity and ecological integrity, and improved valuation, pricing and incentive mechanisms.

NSW 2021: A Plan to Make NSW Number One

NSW 2021: A Plan to Make NSW Number One (NSW 2021) is the NSW Government's 10 year strategic business plan. It emphasises delivery of an efficient and effective transport system including road infrastructure to relieve congestion, reduce travel times, improve road safety and enhance and expand capacity on key road corridors. These outcomes will contribute to both the national and state economies as well as reducing the costs of doing business for many large and small businesses and services. WestConnex will help achieve the following goals identified in NSW 2021:

- Goal 1 – Improve the performance of the NSW economy
- Goal 4 – Increase the competitiveness of doing business in NSW
- Goal 5 – Place downward pressure on the cost of living

- Goal 7 – Reduce travel times
- Goal 10 – Improve road safety
- Goal 19 – Invest in critical infrastructure.

In addition, the implementation of this Strategy and environmental management measures will help WestConnex contribute to the achievement of the following NSW 2021 goals:

- Goal 6 – Strengthen the NSW skill base
- Goal 22 – Protect the natural environment
- Goal 28 – Ensure NSW is ready to deal with major emergencies and natural disasters.

NSW Long Term Transport Master Plan

The NSW Long Term Transport Master Plan (2012) (Plan) is the guiding transport planning and policy document supporting NSW 2021. The Plan provides a framework for delivering an integrated, modern transport system by identifying NSW's transport actions and investment priorities for the next 20 years.

Under the Plan, WestConnex is identified as a critical link in Sydney's motorway network and an immediate priority for the NSW Government.

The Plan states that 'promoting sustainability and protecting the environment in our transport planning, decisions and projects' is a state wide challenge that must be addressed. The Plan focuses on achieving the following environmental and sustainability objectives:

- enhancing environmental and sustainability outcomes
- minimising damage to our environment
- adapting our transport infrastructure to be resilient (to climate change and natural disasters)
- maintaining Sydney's air quality
- reducing emissions and managing energy use.

In addition the Plan includes the following relevant specific environmental and sustainability 'actions':

- develop and promote Transport Infrastructure Sustainable Design Guidance (includes trialing the IS rating tool)
- incorporate sustainability principles in procurement policy
- consider the air quality impacts of transport projects
- assess transport climate resilience
- mitigate noise from road projects.

NSW Government Resource Efficiency Policy

The NSW Government Resource Efficiency Policy (2014) (Policy) aims to drive resource efficiency, with a focus on energy, water and waste, and reducing harmful air emissions. The Policy aims to ensure NSW Government agencies:

- meet the challenge of rising costs for energy, water, clean air and waste management
- use purchasing power to drive down the cost of resource-efficient technologies and services
- show leadership by incorporating resource efficiency in decision-making.

The policy includes specific measures, targets and minimum standards to drive resource efficiency.

NSW Waste Avoidance and Resource Recovery Strategy 2014-21

The NSW Waste Avoidance and Resource Recovery Strategy 2014-21 (2014) (Strategy) provides a framework for waste management and aligns with the NSW Government's waste reforms in NSW 2021. The Strategy includes the following six key result areas: avoid and reduce waste generation, increase recycling, divert more waste from landfill, manage problem wastes better (including asbestos), reduce litter, and reduce illegal dumping.

NSW Government Training Management Guidelines

The NSW Training Management Guidelines (2009) aim to facilitate the achievement of improved training management on government construction projects, and make training and skills development a part of the culture of enterprises in the construction industry. Under the Guidelines the following training and apprentice requirements must be met by government construction contractors:

- at least 20 per cent of the total project workforce is participating in structured training.
- apprentices are employed to undertake 20 per cent of the trade work involved in the contract. Covers apprentices and trainees registered under the NSW Apprenticeship and Traineeship Act 2001.

Aboriginal Participation in Construction Guidelines

The Aboriginal Participation in Construction Guidelines (2007) (Guidelines) are 'aimed at supporting and encouraging more employment and business opportunities for Aboriginal people on government construction projects'. Under the Guidelines project specific Aboriginal participation targets and KPIs are set by Contractors. A plan must be prepared and progress monitored and reported on.

Aboriginal Participation in Construction Policy

The Aboriginal Participation in Construction Policy (2015) (Policy) commenced 1 May 2015 and will replace the Aboriginal Participation in Construction Guidelines. The Policy aims to 'increase the employment and education opportunities for Aboriginal people within the construction industry'.

Under the Policy a percentage of the total estimated value of the contract (termed 'targeted project spend') must be directed to Aboriginal related employment and education activities, procurement of goods or services from recognised Aboriginal businesses or other programs. An Aboriginal Participation Plan must be prepared and published shortly after contract award. A Participation Report must be prepared and published (once construction is 90 per cent complete) describing how the Plan was implemented.

Transport Environment and Sustainability Policy Framework

The *TfNSW Environment and Sustainability Policy Framework* (TfNSW Framework) was developed to establish a collective and coordinated approach to deliver the NSW Government's environmental and sustainability agenda across the transport sector. The TfNSW Framework includes objectives, targets,

measures and action plans to deliver positive environmental outcomes. The TfNSW Framework has been developed to align with the State Plan 2021 and Transport Master Plan.

The TfNSW sustainability aspiration is 'to provide a world class sustainable transport system that meets customer expectations and optimises economic development for NSW' (TfNSW Framework, 2013). The WestConnex sustainability vision is consistent with this aspiration.

The TfNSW sustainability guiding principles (listed in the following section) were used to guide the development of the WestConnex sustainability strategy.

Guiding principles

TfNSW has developed the following six sustainability principles to guide and support decision making during the delivery of transport infrastructure within NSW:

- **Consider whole of life costing**

When comparing investment decisions, Transport will consider the potential future costs such as operating costs, environmental and social costs as well as the initial capital expenditure in the assessment of the best option. This will ensure the true cost of the asset over its life time is fully considered.

- **Integrated planning**

Transport will work with its partners to develop integrated transport services and infrastructure that meet the existing and future requirements of its customers

- **Encourage innovation**

Transport will work with its partners to drive continual improvement in the environmental performance of transport infrastructure and services during the planning, design, building and operating. This will help to ensure we maintain best practice and deliver value for money.

- **Customer focus**

Transport will consider the needs and expectations of its customers in the planning, design, building and operation of transport services and infrastructure. The customer is at the centre of our decision making.

- **Engage our partners**

The successful delivery of transport services and infrastructure is dependent on the performance of Transport's partners. Transport aims to develop strong and trusted relationships with its partners to ensure transport services and infrastructure meets the expectations of its stakeholders – value for money, innovation and environmental performance.

- **Measure and report on performance**

To drive continual improve in transport services and infrastructure, Transport will measure and report its progress against the sustainability indicators and targets. It will report internally to its Executive bi-annually and to its external stakeholders on a regular basis.

Sydney's Cycling Future, Cycling for everyday transport

Sydney's Cycling Future, Cycling for everyday transport (2013) outlines how the NSW Government will 'improve the bicycle network and make sure that the needs of bike riders are built into the planning of new transport and infrastructure projects.'

Sydney's Cycling Future provides the strategic and policy context, articulating:

- ‘[ensuring] that the needs of bike riders are built into the planning of new transport and infrastructure projects
- Deliver bicycle infrastructure through major transport and development projects.’

To this end, WestConnex aims to:

- investigate new cycling opportunities within and adjacent to the infrastructure footprint (where new infrastructure is being constructed)
- investigate opportunities for enhanced cycling facilities (where there is a substantial reduction in traffic as a result of the new infrastructure)
- relocate the cycling to provide long-term enhancement (where existing cycling facilities, or access to them, are directly affected during- or post-construction).

Sydney’s Walking Future, Connecting people and places

The goal of *Sydney’s Walking Future, Connecting people and places* (2013) is to ‘get people in Sydney walking more through actions that make it a more convenient, better connected and safer mode of transport.’ Sydney’s Walking Future states ‘When designing WestConnex, we will focus on enabling safe access across Parramatta Road to connect communities on either side. We will also look at creating attractive walking spaces next to Parramatta Road as part of our work there, to encourage urban renewal in the area.’

Roads and Maritime Services Sustainability Strategy (2015, Draft)

The Roads and Maritime Services Sustainability Strategy (Draft as at September 2015) has been developed to align with the State Plan 2021, Master Plan and TfNSW Framework. The Roads and Maritime Sustainability Strategy aims to:

- ‘contribute to a more sustainable transport system in NSW
- reduce the environmental footprint of Roads and Maritime’s own activities
- minimise the resources we use in building and maintaining our road and maritime infrastructure
- reduce the environmental impacts associated with the goods and services the RTA purchases’.

Roads and Maritime Services Technical Guide: Climate Change Adaptation for the State Road Network (2015, Draft)

The Roads and Maritime Services Technical Guide: Climate Change Adaptation for the State Road Network is to be used during the planning and design of State Road Infrastructure to address adaptation to the potential impacts of climate change.

Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects

The *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (2011) describe best practice biodiversity management measures to help minimise impacts on biodiversity during construction projects and maintenance works. The Guidelines aim to: improve biodiversity outcomes

by minimising potential impacts on flora, fauna and habitats; and assist projects to meet statutory obligations under NSW and Commonwealth environmental legislation and policies.

The Guidelines were developed in consultation with the NSW Office of Environment and Heritage (OEH), NSW Department of Primary Industries (DPI) (Fisheries), biodiversity specialists and RTA (now RMS) staff.

WestConnex New M5

CPB CONTRACTORS | DRAGADOS | SAMSUNG C&T

Construction Spoil Management Plan

Project Name: WestConnex New M5

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Document Approval

Rev.	Date	Prepared by	Reviewed by	Recommended by	Approved by	Remarks
00	16/05/2016	[redacted]	[redacted]	[redacted]	[redacted]	
01	24/05/2016	[redacted]	[redacted]	[redacted]	[redacted]	
Signature:						

Details of Revision Amendments

Document Control

The Project Director is responsible for ensuring that this Plan is reviewed and approved. The Support Services Director and the Construction Manager Project Wide are responsible for updating this Plan to reflect changes to the Project, legal and other requirements, as required.

Amendments

Any revisions or amendments must be approved by the Project Director before being distributed or implemented.

Revision Details

Revision	Details
00	Issue for internal review
01	Issue for consultation and review by key stakeholders

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Overview

1. Structure of this Plan

This Spoil Management Plan should be read in conjunction with the following Plans:

- Project Management Plan
- Construction Environmental Management Plan
- Traffic Management and Safety Plan
- Sustainability Plan

This Plan has the following structure:

Part A: Overview	This section clearly defines: • Purpose, scope and objectives of this Plan • Project specific requirements • Overall Methodology
Part B: Implementation Plan	This section outlines the key aspects for managing spoil on the Project including: • Expectations • How they will be met • Responsibilities • Associated deliverables
Part C: Appendices	A list of appendices providing additional detail that supports this Plan including: • Roles and Responsibilities

2. Overview

2.1. Purpose and Scope

CPB Dragados and Samsung Joint Venture (CDS-JV) has been contracted by Sydney Motorway Corporation (SMC) to design and construct the New M5 - Beverley Hills to St Peters and the Local Road Upgrade Works.

This Construction Spoil Management Plan (CSMP, the Plan) is required in accordance with conditions B56 and D51 of the Minister's Conditions of Approval (CoA) which state:

B56 *"The handling of spoil generated during construction of the project is to be conducted in accordance with the Spoil Management Plan required under condition D51".*

D51 *"Prior to commencement of any tunnelling works, the Proponent shall prepare and implement a Spoil Management Plan for the SSI. The Plan is to be developed in consultation the relevant Council(s), for the approval of the Secretary. The Spoil Management Plan shall incorporate detailed information on the handling and transport of spoil generated during construction of the SSI, and provide information regarding each of the broad parameters specified in the documents listed in conditions A2(b) and A2(c).*

The Spoil Management Plan is to be prepared separate to, but consistent with, the Construction Traffic and Access Management Plan required under condition D68(a)".

This Plan is established in accordance with the Project Management System based on CPB's 'The Way We Operate' framework and incorporates key elements from Dragados and Samsung Management Systems. It integrates CDS-JV Design Management requirements tailored to ensure compliance with Contract requirements.

The Support Services Director and the Construction Manager Project Wide, with advice and input from their senior Project staff are responsible for this Plan.

2.2. Compliance Matrix Table

The following Compliance Matrices identify specific contractual requirements and how they are satisfied within this Plan or the wider Project Management System as required by SWTC, Appendix C.1 Project Plan Requirements.

Table 1: Compliance Matrix

Information Requirements			Reference
SWTC, Appendix C.1 Project Plan Requirements			
5(a)		The Design Plan must identify how the Project Company will comply with the design requirements of the Deed	This Plan
5(b)		As a minimum, the Design Plan must identify the processes for each of the following requirements to be achieved:	
	(i)	compliance with design standards	Part B, Element 1
	(ii)	general functional and performance requirements and fitness for purpose	Part B, Element 1
	(iii)	urban design and landscape requirements of the Deed	Part C, Appendix A
	(iv)	design optimisation having regard to whole of life cost	Part B, Element 4
	(v)	the durability requirements of the Deed	Part B, Element 4 Part C, Appendix A
	(vi)	safety in design requirements having regard to Work Health and safety in the construction and operation phase	Part B, Element 5

Information Requirements			Reference
SWTC, Appendix C.1 Project Plan Requirements			
			Part C, Appendix J
	(vi-i)	maintainability of design, including access arrangements for maintenance which avoid or minimise, disruption to normal traffic operations	Part B, Element 4
	(vi-ii)	minimum operating conditions necessary to enable the tunnel to safely remain open to traffic in the event of partial system or equipment failures	Part B, Element 5
	(vii)	interfaces with the TMC and systems	Part A
	(viii)	RMS communication requirements and design reviews	Part B, Element 3
	(ix)	design programming requirements	Part B, Element 8
	(x)	design safety audits requirements	Part B, Element 5
	(xi)	risk assessment and design risk mitigation requirements	Part B, Element 5
	(xii)	preparation of Design Documentation for the construction of all elements of the Project Works and the Temporary Works	Part B, Element 4
	(xiii)	specified performance requirements	Part B, Element 1
	(xiv)	interfaces with other Project Plans	Part A
	(xv)	as built information requirements	Part B, Element 1
	(xvi)	geotechnical modelling requirements, including foundation, ground condition and existing infrastructure predictions	Part B, Element 1
	(xvii)	survey requirements	Part B, Element 1
	(xviii)	design life requirements	Part B, Element 1
	(xix)	environmental performance requirements	Part B, Element 1
	(xx)	traffic design requirements	Part B, Element 1
	(xxi)	geotechnical investigation requirements	Part B, Element 1
	(xxii)	services adjustments	Part B, Element 1
	(xxiii)	Toll Collection System and motorway management and control systems	Part B, Element 1
	(xxiv)	contamination	Part B, Element 1
	(xxv)	approvals	Part B, Element 4
5(c)		The Design Plan must provide details of the predicted effects of the Project Company's Work and the O&M Work on the ground conditions and on existing infrastructure	Part B, Element 4
5(d)		The Design Plan must provide details of the monitoring plan to verify the effects of the Project Company's Work and the O&M Work	Part B, Element 4
5(e)		The Design Plan must provide details of the processes that will be implemented by the Project Plan to ensure Safety in Design is considered in all aspects of the Project Company's Work and the O&M	Part B, Element 4

Information Requirements			Reference
SWTC, Appendix C.1 Project Plan Requirements			
		Work	Part C, Appendix J
5(f)		The Design Plan must provide details of the processes that will be implemented by the Project Plan to ensure the Design Documentation is verified during its development	Part B, Element 4
5(g)		The Design Plan must demonstrate how the Independent Certifier and other stakeholders will be provided with access to Design Documentation as it is developed	Part B, Element 4
5(h)		The Design Plan must: (i) be submitted to RMS within 20 Business Days after the date of the Deed (ii) contain, as a minimum, the contents specified for the Design Plan in the Scope of Works and Technical Criteria	Part A
5(i)		The Design Plan must be further developed and updated for the design of new elements not covered by the existing Design Plan	Part A
5(j)		The Initial Design Plan is Appendix E.10 to the Scope of Works and Technical Criteria	Noted

2.3. Information Required

As required by CoA D51 this document is structured to follow the broad parameters outlined in Table 24-6 of Volume 1C of the Environmental Impact Statement (EIS) identified in Table 2.

Table 2: Spoil Management Plan broad parameters from the EIS

Parameter	Plan response	Relevant section
Spoil generation	3.2 million cubic metres (surplus spoil)	Section 3 Spoil Production
Spoil generation locations	Indicative volumes of spoil that would be generated at the construction compounds would include: • Kingsgrove North (C1), Kingsgrove South (C2) and Commercial Road (C3) construction compounds - about 500,000 cubic metres • Bexley Road North (C4) and South (C5) construction compounds - about 750,000 cubic metres • Arncliffe construction compound (C7) - about 1,025,000 cubic metres • Canal Road compound (C8) - about 880,000 cubic metres • Campbell Road compound (C9) - about 90,000 cubic metres • Burrows Road (C11) and Campbell Road bridge construction compounds (C12) - about 12,000 cubic metres	Section 3 Spoil Production

Parameter	Plan response	Relevant section
	• Sydney Park construction compound (C14) - about 1,000 cubic metres.	
Spoil management hierarchy	Spoil would be managed following the hierarchy of avoidance, minimisation, reuse, recycling and finally disposal.	Section 5 Spoil Reduction, Reuse and Disposal
On-site management	Spoil would be transported from the tunnel face to the surface by truck or conveyor belt. Spoil would be stored and processed at construction site compounds. Environmental and workplace health and safety mitigation and management measures would be applied.	Section 6 Spoil on-site management
Spoil testing and classification	Spoil testing would be limited to initial testing to confirm the excavated material is VENM. VENM would be reused where possible.	Section 4 Material types
Spoil category	Spoil would generally fall into one of the following categories. According to which it would be classified, stored and transported separately: • VENM. including material such as clay, gravel, sand, soil or rock fines excavated from non-contaminated areas, and which do not contain sulfidic ores or soils, or any other wastes • Excavated natural material (ENM) (naturally occurring rick and soil such as sandstone clay and soil containing at least 98 per cent by weight natural material, and which does not meet the definition of VENM, and which does not contain processed materials, asbestos, acid sulphate soils or sulfidic ores, and which is therefore kept separate from VENM) • General solid waste • Potentially some contaminated materials. In order to determine which category spoil falls into, it may be necessary to conduct a soil analysis.	Section 4 Material types
Potential spoil reuse locations	Potential spoil reuse locations would be consulted with during detailed design. Identified potential spoil reuse locations include: • Boral CSR Brick Pit, Townson Road, Schofields – capacity of around 550,000 cubic metres. Licensed to receive wastes onsite (types of waste not restricted in Environment Protection Licence 2014) • Defence Housing Australia Schofields Aerodrome, Quakers Road, Quakers Hill – capacity of around 500,000 cubic metres. Further consultation would be required with Defence Housing Australia to confirm whether this site can receive such wastes • Austral Bricks, 738-780 Wallgrove Road, Horsley Park - capacity of around 3,000,000 cubic metres. Environment Protection Licence 546 allows the receipt of wastes onsite if those wastes are covered	Section 7 Spoil Disposal Locations

Parameter	Plan response	Relevant section
	by a current resource recovery exemption under clause 51A of the Protection of the Environment Operations (Waste) Regulation 2005, and is also licensed to receive and apply wastes to land where this does not require licensing under the Act. Resource recovery exemptions relevant to the types of spoil generated by the project include those for excavated natural materials and excavated public road materials • Sakkara Riverstone West (North West Growth Centre development), Brandon Road, Riverstone - capacity of around 3,500,000 cubic metres. Further consultation would be required with this developer to confirm whether this site can receive such wastes • Kurnell Landfill Company - capacity of around 7,000,000 cubic metres. This site can receive virgin excavated materials, building and demolition wastes, and asphalt wastes only. Cannot receive contaminated wastes.	
Spoil transport	Spoil would be transported from construction compounds by road using trucks.	Section 8 Spoil transport

2.4. Consistency with Traffic Management and Access Management Plan

The Spoil Management Plan has been developed in accordance with CoA D51. This document is considered consistent with the Traffic and Access Management Sub-Plan (TAMP) as the haul routes proposed for spoil haulage in this plan are also presented within the TAMP. The TAMP (CoA D68(a)) is a sub-plan of the Construction Environment Management Plan (CoA D67). The following points illustrate this consistency:

- Spoil haulage routes to be followed by WestConnex trucks are presented in section 6.21 Development of Haul and Delivery Routes and Appendix H of the TAMP and also included in Appendix B of this Spoil Management Plan;
- Heavy vehicle haulage routes generally follow arterial roads and are documented in the TAMP
- Disposal and reuse locations are as identified in the Environmental Impact Statement (EIS).

2.5. Objectives

The Objective of the Plan is to:

- Minimise spoil removal and associated impacts on stakeholders, community and the environment.
- Maximise the beneficial reuse of spoil material from the Project.
- Address the Project wide objective to provide certainty of delivery by managing spoil in a manner that avoids impacts on construction activities and timing.
- Be safe, timely and achieve ‘value for money’.
- Respectful of traffic demands.
- Spoil is managed in an orderly and logical manner.
- Compliant with the Project Deed, authority requirements and relevant codes and standards.
- Meet the sustainability objectives, targets and requirements as detailed in the Sustainability Management Plan.

Spoil is defined as 'rock' or 'other than rock' (OTR) resulting from construction excavation and tunnelling activities. This Plan addresses and details the following issues:

- Excavation, handling, haulage, disposal and reuse methodology, including on-site storage and stockpiling arrangements;
- Processes and procedures that will be used for the management of spoil, including those for Virgin Excavated Natural Material (VENM), Excavated Natural Material (ENM), contaminated and unsuitable material;
- Measures that are proposed to both reduce spoil quantities and maximise the beneficial reuse of spoil that will be generated during the performance of the works;
- Nominated quantities for reuse of spoil within the construction site, for beneficial reuse of spoil off site and for spoil disposal; and
- Processes and procedures for the management of the environmental and social impacts of spoil transfer and reuse.

2.6. Further Development

The Plan will be further developed and revised during its use on the Project to address:

- Changes or improvements in Project processes.
- Changes in law.
- Comments and feedback by SMC, IC the O&M Operator.
- Change in technology.
- Continuous improvement evaluation of Environmental Management performance against Environmental Policies, Objectives and Targets.

2.7. Project Management Systems

CPB Dragados Samsung Joint Venture (CDS-JV) is committed to providing its services in a manner that meets or exceeds the expectation of the Sydney Motorway Corporation (SMC) and all applicable regulatory authorities. To achieve this outcome, the Project team apply the CDS-JV Management System illustrated in Figure 1 to plan, implement and control processes.

The CDS-JV Management System is based on the requirements of the CPB Contractors Management System and has incorporated key elements from the Dragados and Samsung Management Systems. It has been specifically tailored to ensure compliance with Contract requirements

Figure 1: CDS-JV Management System – 'The Way We Operate'

'The Way We Operate' guides the way the overall Project will be managed to meet client and other stakeholder requirements.

In addition:

- Policies define the minimum mandatory requirements that CDS-JV expects all levels of the Project to comply with.

- This Plan outlines how the Project will be managed and is supported by a suite of functional Management Plans, Sub-Plans, Policies, Protocols, Strategies and Procedures that specify how to undertake and control specific activities. Where appropriate and approved by the CDS-JV Steering Committee, Project specific Procedures may be produced to reflect specific Project circumstances
- Tools are types of documents such as forms and checklists that are required to be completed as part of a Procedure. Knowledge documents are reference material to provide context or more information relating to a Procedure.
- Business Applications are the software tools used to manage our business and operations
- Policies, procedures and supporting tools and knowledge are located in a central, on-line repository which is accessible by all Project personnel.

3. Spoil Production

The Project will generate approximately 3.2 million cubic metres of surplus spoil. The majority will be generated from excavation of the tunnels, shafts and surface works.

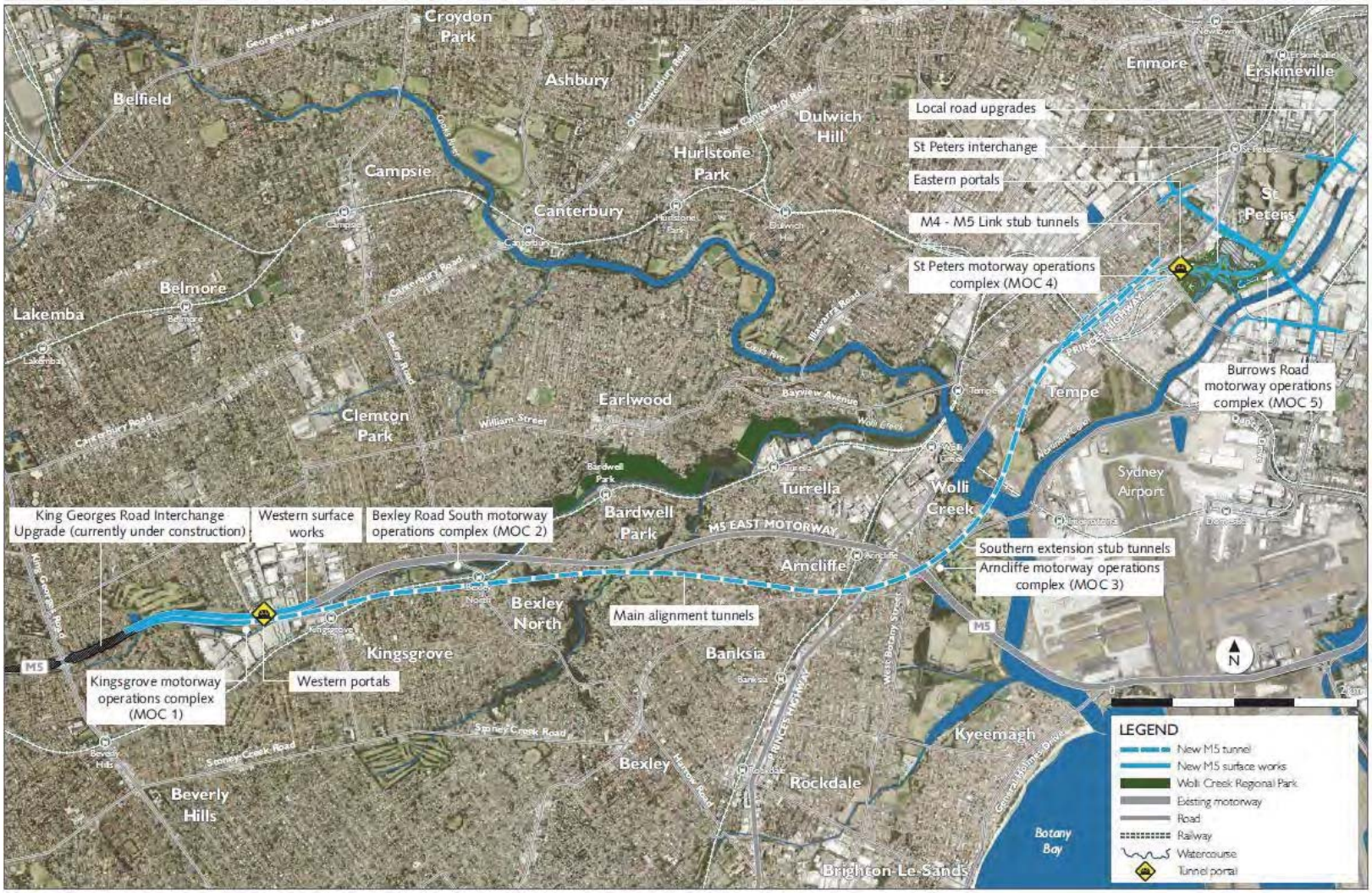
The majority of excavated material will be uncontaminated crushed sandstone and shale material, classified as Virgin Excavated Natural Material (VENM). Some Excavated Natural Material (ENM) is also expected.

The estimated quantities of spoil to be generated at the main locations (subject to detailed design) are detailed in Table 3.

Table 3: Anticipated Spoil Generation

Construction Compound	Spoil volume - surface works (cubic metres)	Spoil volume – tunnelling (cubic metres)	Spoil volume – total (cubic metres)
Kingsgrove North (C1)	237,130	100,540	337,670
Kingsgrove South (C2)	117,830	0	117,830
Commercial Road (C3)	0	43,088	43,088
Bexley Road North (C4)	0	450,937	450,937
Bexley Road South (C5)	0	300,624	300,624
Bexley Road East (C6)	0	0	0
Arncliffe (C7)	-	975,635	1,025,635
Canal Road (C8)	50,000	787,660	877,660
Campbell Road (C9)	90,000	0	90,000
Landfill Closure(C10)	90,000	0	0
Burrows Road (C11)	0	0	6,000
Campbell Road Bridge (C12)	6,000	0	6,000
Gardeners Road Bridge (C13)	6,000	0	0
Sydney Park (C14)	1,000	0	1,000
Total Spoil	**597,960**	**2,658,484**	**3,256,444**

Figure 2: Project Overview



4. Material Types

Topsoil occurs between approximately 50-300mm of natural ground surface. Topsoil reuse shall be maximised on site to minimise the import of external topsoil for revegetation and landscaping purposes where ever practicable.

The material below the topsoil is considered to be spoil and is defined as any earthen material that is surplus to requirements or unsuitable for reuse within the Project works.

4.1. Classification

Topsoil and spoil will be sampled, analysed and characterised in accordance with the *Waste Classification Guidelines: Part 1 Classifying Waste (EPA 2014)* as required by the Construction Waste and Resources Management Plan (CWRMP).

Further information regarding the classification of VENM and ENM and other resource recovery exemptions are provided below.

4.1.1. VENM

The majority of tunnel spoil excavated is expected to be classified as VENM and will be classified in accordance with the Waste Classification Guidelines: Part 1 Classifying Waste (EPA 2014).

Virgin excavated natural material means natural material (such as clay, gravel, sand, soil or rock fines):

- *That has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial, mining or agricultural activities*
- *That does not contain sulfidic ores or soils, or any other waste,*

and includes excavated natural material that meets such criteria for virgin excavated natural material as may be approved from time to time by a public notice published in the NSW Government Gazette.

CSJ, the generator of the VENM, or its Environmental Consultant will consider the following four questions when classifying material as VENM:

1. Are manufactured chemicals or process residues present?
2. Are sulfidic ores or soil present?
3. Are naturally occurring asbestos soils present?
4. Is there any other waste present?

If material meets the definition of VENM it can be reused on or offsite without prior testing. However, if there is any doubt as to whether the material is VENM, CSJ will sample and test the material as per the excavated natural material resource recovery exemption to confirm that the material is free of contaminants.

4.1.2. ENM

If spoil is unable to be classified as VENM it will be sampled, and tested to determine whether it meets the ENM classification criteria in accordance with the *Protection of the Environment Operations (Waste) Regulation 2014* (the Regulation) current general resource recovery exemption, The excavated natural material exemption 2014.

Excavated natural material (ENM) means naturally occurring rock or soil (including but not limited to materials such as sandstone, shale, clay and soil) that has:

a) Been excavated from the ground, and
b) Contains at least 98% by weight natural material, and
c) Does not meet the definition of Virgin Excavated Natural Material in the Act

ENM does not include material that has been processed or contains acid sulphate soils or potentially acid sulphate soils.

4.1.3. General solid waste or other classifications

Spoil not classified as either VENM or ENM due to contamination from either construction material or other sources shall be characterised in accordance with the Waste Classification Guidelines: Part 1 Classifying Waste (EPA 2014) as required by the WRMP. This may include classification as General Solid Waste (Non putrescible), Hazardous Waste or Special Waste.

4.1.1.1 Special Waste

Special Waste is a class of waste that has unique regulatory requirements. The potential environmental impacts of special waste need to be managed to minimise the risk or harm to the environment or human health.

Special waste means any of the following:

- Clinical and related waste
- Asbestos waste
- Waste tyres
- Anything classified as special waste under an EPA gazettal notice.

4.1.1.2 Hazardous Waste

The following waste types (other than special waste or liquid waste) have been pre-classified by the EPA as 'hazardous waste':

- containers, having previously contained a substance of Class 1, 3, 4, 5 or 8 within the meaning of the Transport of Dangerous Goods Code, or a substance to which Division 6.1 of the Transport of Dangerous Goods Code applies, from which residues have not been removed by washing2 or vacuuming
- coal tar or coal tar pitch waste (being the tarry residue from the heating, processing or burning of coal or coke) comprising of more than 1% (by weight) of coal tar or coal tar pitch waste
- lead-acid or nickel-cadmium batteries (being waste generated or separately collected by activities carried out for business, commercial or community services purposes)
- lead paint waste arising otherwise than from residential premises or educational or child care institutions
- any mixture of the wastes referred to above.

4.1.1.3 General Solid Waste (Non putrescible)

General Solid Waste (Non putrescible) is any waste that is not classified as special waste, liquid waste, hazardous waste, restricted solid waste or general solid waste (putrescible).

4.1.1.4 Waste Classification Process Steps

The WRMP identifies six classes of waste: Special, Liquid, Hazardous, Restricted Solid, General Solid (putrescible) and General Solid (non-putrescible), and describes a six step process to classifying waste. That process is summarised below:

Step 1: Is it 'Special Waste'?

Establish if the waste should be classified as special waste. Special wastes are: clinical and related waste, asbestos waste, waste tyres. Definitions are provided in the guidelines.

Note: The transportation and management of asbestos waste must be managed in accordance with Part 7 of the 2014 Waste Regulation and special requirements pertaining to clinical and related waste are stipulated in section 113 of the 2014 Waste Regulation.

Step 2: If not special, is it 'Liquid Waste'?

If it is established that the waste is not special waste it must be decided whether it is 'liquid waste'. Liquid waste means any waste that: has an angle of repose of less than 5° above horizontal becomes free-flowing at or below 60° Celsius or when it is transported is generally not capable of being picked up by a spade or shovel.

Liquid wastes are sub-classified into:

- Sewer and stormwater effluent.
- Trackable liquid waste according to 2014 Waste Regulation, Schedule 1, Waste to which waste tracking requirements apply.
- Non-trackable liquid waste.

Step 3: If not liquid, has the waste already been pre-classified by the NSW EPA?

The EPA has pre-classified several commonly generated wastes in the categories of hazardous, general solid waste (putrescibles) and general solid waste (non-putrescibles). If a waste is listed as 'pre-classified', no further assessment is required.

Step 4: If not pre-classified, is the waste hazardous?

If the waste is not special waste (other than asbestos waste), liquid waste or pre-classified, establish if it has certain hazardous characteristics and can therefore be classified as hazardous waste.

Hazardous waste includes items such as explosives, flammable solids, substances liable to spontaneous combustion, oxidizing agents, toxic substances and corrosive substances.

Step 5: If the waste does not have hazardous characteristics, undertake chemical assessment to determine classification.

If the waste does not possess hazardous characteristics, it needs to be chemically assessed to determine whether it is hazardous, restricted solid or general solid waste (putrescible and non-putrescible). If the waste is not chemically assessed, it must be treated as hazardous.

Waste is assessed by comparing Specific Contaminant Concentrations (SCC) of each chemical contaminant, and where required the leachable concentration using the Toxicity Characteristics Leaching Procedure (TCLP), against Contaminant Thresholds (CT).

Step 6: Is the general solid waste putrescible or non-putrescible?

If the waste is assessed as general solid waste, a further assessment is required to determine whether the waste is putrescible or non-putrescible. The assessment determines whether the waste is capable of significant biological transformation.

Contamination due diligence assessment has been undertaken as part of the EIS and possible contaminated material may be present in the upper soil layers at the Kingsgrove north and south sites, Bexley north and south sites, Arncliffe site, Canal Road site, Landfill Closure site, Campbell Road site and Gardeners Road site. Spoil generated from these sites will be sampled, analysed and characterised in accordance with Section 5.1 of the CWRMP. Disposal locations for these materials will be determined by the classification and the materials will be disposed of at an approved waste management facility.

Material characterised as contaminated that has not been previously identified, shall be managed in accordance with the Unexpected Discovery of Contaminated Land Procedure or Acid Sulfate Soil Procedure within the Construction Soil and Water Quality Sub Plan (CSWQSP), including the preparation of a remediation action plan (RAP), where appropriate. Waste materials will be managed and disposed in accordance with the CWRMP.

4.1.1.5 Resource recovery exemptions

The 2014 Waste Regulation enables the EPA to issue 'resource recovery exemptions' which allow for the beneficial reuse of wastes via land application or for use as a fuel. These Regulations enable a project to comply with the principle of 'wastes to resources for beneficial reuse' (where the wastes are fit for beneficial reuse). During the project, materials may be encountered that do not meet the VENM or ENM classification but is also not contaminated material. In these circumstances the Project will check for existing resource recovery exemptions such as:

- The excavated public road material exemption 2014 (EPA);
- The reclaimed asphalt pavement exemption 2014 EPA);
- The recovered aggregate exemption 2014 (EPA); and
- Raw mulch material exemption 2014 (EPA).

Should the existing resource recovery exemptions not be appropriate, the Project will consider application for a site specific exemption established through consultation with the EPA.

5. Spoil Reduction, Reuse and Disposal

The Spoil Management Hierarchy has been developed to meet the objectives and principles of the *NSW Waste Avoidance and Resource Recovery Act 2001* and the *NSW Waste Avoidance and Resource Recovery Strategy 2007.*

5.1. NSW Waste Avoidance and Resource Recovery Act 2001

The NSW Waste Avoidance and Resource Recovery Act 2001 (the Act) includes the majority of NSW's overarching objectives and guiding principles to encourage beneficial reuse and resource recovery. Implementation of a waste hierarchy in accordance with the principle of Environmentally Sustainable Development (ESD) is identified as a main objective of the Act, along with objectives to minimise the consumption of natural resources and waste generation. The NSW Environment Protection Authority (EPA) defines ESD as including the following:

- The precautionary principle;
- Inter-generational equity;
- Conservation of biological diversity and ecological integrity; and
- Improved valuation, pricing and incentive mechanisms.

The *NSW Waste Avoidance and Resource Recovery Strategy 2007* include an extensive list of principles broadly focused on ESD, economic analysis, and community and industry involvement.

5.2. Spoil Reduction

To reduce spoil quantities, the design has optimised the tunnel cross section area by using road headers rather than tunnel boring machines (TBM). A 16 metre diameter TBM has a cross sectional area of 201 square metres, compared with a 107 square metre profile for a road header. This measure reduces the volume of material requiring disposal by 94 cubic metres per lineal metre of tunnel. Over two 8.7 kilometre tunnels the total reduction is estimated to be 1,635,000 cubic metres.

Innovative design will place all the tunnel conduits behind the tunnel reflective linings or within the concrete barriers eliminating trenching below the pavement. This will reduce spoil by a further estimated 52,000 cubic metres.

Use of an electronic guidance system on the road headers will reduce over break by around 100mm. This equates to a further reduction in spoil of 42,000 cubic metres.

The total estimated reduction in spoil is estimated to be 1,729,000 cubic metres, which equates to a reduction of 270,000 truck movements.

It is unlikely that the spoil volume will be further reduced during the delivery phase of the project; however, if future design or construction methodology development provides any opportunities to reduce spoil generation such opportunities will be implemented.

5.3. Spoil Management Hierarchy

The Plan for management of spoil material from the WestConnex Project shall be guided by the hierarchy in Table 4.

It should be noted that beneficial reuse of spoil described in this document is considered to be any approved or appropriate offsite and onsite reuse.

Table 4: Spoil Management Hierarchy

Rank	Options	Example of Options	Potential for option to be used on WestConnex
1	Avoid and reduce spoil generation	• Reduce the amount of spoil being generated through design and construction methodology.	Limited
2	Reuse within the Project	• Reuse in the Project to fill embankments and mounds within short haulage distance of source. • Restoration of any pre-existing contaminated sites within the Project boundaries. • Reuse as a feed product in construction materials (e.g. concrete).	Preferred
3	Reuse for environmental works	• Reuse in native vegetation rehabilitation Projects. • Coastal systems conservation Projects. • Rising water table/salinity remediation Projects. • Reuse in flood mitigation works.	Limited
4	Reuse on other development Projects	• Reuse for fill embankments and mounds on Projects within an economic transport distance from site. • Reuse sand for manufacturing concrete and reuse shale for manufacturing bricks/ tiles.	Potential
5	Reuse for land restoration	• Reuse for land reclamation or remediation works • Reuse to fill disused facilities, e.g. mines and quarries, to enable ecological rehabilitation or other ecologically beneficial end use.	Potential
6	Reuse for landfill management	• Reuse to cap completed landfill cells. • Reuse in daily covering of landfill waste.	Limited
7	Dispose offsite as waste	• Disposal of excess spoil as waste at an approved facility licenced to receive the material.	Potential but not preferred

5.4. Reuse of Spoil

The recycling or reuse of waste and spoil is an aspect of the Infrastructure Sustainability reporting that the Project is required to comply with. The target is to re-use or recycle 80% of usable spoil generated on the project with the remaining spoil to be disposed of as waste at an approved facility, licensed to receive the material. Further information on targets, reporting and compliance is detailed further in the CWRSP and Sustainability Plan.

During construction where space constraints permit, topsoil will be stripped and if required for later reuse at that site or during landscaping work, stockpiled in a suitable area.

5.4.1. Reuse within the Project

All VENM will be beneficially reused at the nominated reuse sites. Given the nature of the construction activities, opportunities to reuse this material on-site as fill for works associated with the tunnel are limited to back filling for services, surface works at the Western, Northern and Eastern portals, and remediation works at the temporary shaft and decline locations throughout the project footprint.

The Project has estimated the quantities of beneficially reusable material from each extraction point as shown in Table 5 below.

Table 5: Reusable Material

	Surface Works Spoil			Tunnel Spoil			
Extraction point	**Surface works spoil produced**	**Reuse on site**	**Offsite reuse / disposal**	**Tunnel excavation spoil produced**	**Reused on site**	**Offsite reuse / disposal**	**Total offsite reuse / disposal**
Kingsgrove North (C1)	237,130	0	237,130	100,540	0	100,540	337,670
Kingsgrove South (C2)	117,830	0	117,830	0	0	0	117,830
Commercial Road (C3)	0	0	0	43,088	0	43,088	43,088
Bexley Road North (C4)	0	0	0	450,937	0	450,937	450,937
Bexley Road South (C5)	0	0	0	300,624	0	300,624	300,624
Bexley Road East (C6)	0	0	0	0	0	0	0
Arncliffe (C7)	50,000	0	50,000	975,635	120,000	855,635	905,635
Canal Road (C8)	90,000	0	90,000	787,660	60,000	717,660	907,660
Campbell Road (C9)	90,000	0	90,000	0	0	0	90,000
Landfill Closure(C10)	0	0	0	0	0	0	0
Burrows Road (C11)	6,000	0	6,000	0	0	0	6,000
Campbell Road Bridge (C12)	6,000	0	6,000	0	0	0	6,000
Gardeners Road Bridge (C13)	0	0	0	0	0	0	0
Sydney Park (C14)	1,000	0	1,000	0	0	0	1,000
Total Spoil	**597,960**	**0**	**597,960**	**2,658,484**	**180,000**	**2,478,484**	**3,076,444**

5.4.2. Reuse in development works/land restoration

Table 6 details possible reuse locations for development works and land restoration.

6. Spoil On-site Management

Spoil from tunnel construction will predominantly be temporarily stockpiled at six locations, being the Kingsgrove North tunnel site, Kingsgrove South tunnel site, Bexley North tunnel site, Bexley South tunnel site, Arncliffe tunnel site and the Canal Road tunnel site. Smaller temporary stockpiles shall be established for related surface works. These sites represent a combination of shaft and/or decline tunnels:

- Kingsgrove North (one shaft)
- Kingsgrove South (one shaft)
- Bexley Road North (one shaft)
- Bexley Road South (one shaft)
- Arncliffe (one decline tunnel)
- Canal Road (one decline tunnel)

6.1. Tunnel Spoil Stockpiles

Stockpiling of spoil at the tunnel shaft and decline locations will occur within acoustic sheds. Stockpiling from the dive structures will occur within close proximity of the dive structure. The sheds will have the capacity to store at least one day's spoil production.

Stockpile sites shall have ready access to the road network or direct access to the construction corridor. Ongoing spoil stockpile management within the acoustic sheds shall take into account the following principles:

- Manage stockpiles to minimise wind and/or water erosion; and
- Manage spoil unloading and loading to minimise noise, vibration, and dust.

6.2. Spoil stockpiles at temporary decline excavations

Suitable measures will be implemented to manage dust and runoff in accordance with the requirements of the Construction Environmental Management Plan (CEMP).

The location of the stockpile at each decline has been chosen with the following objectives:

- Provide separation between the haul, dump and return cycle of the off highway dumpers and the highway tippers;
- Minimise the haul distance from the excavation to the stockpile; and
- Remain clear of areas required for the establishment of site infrastructure associated with the tunnelling operation.

6.3. Other Spoil Stockpile Locations

Temporary stockpile sites for spoil other than tunnel construction and spoil within ancillary facilities will be established and managed in accordance with the following criteria:

- Located 5 metres away from areas of concentrated water flow;
- Located at least 10m away from 1st Order Watercourse;
- Have ready access to Project or road network;
- Located on relatively level land;
- Located to minimise the need for heavy vehicles on local streets and/or through residential areas;
- Not unreasonably affect the land use of adjacent properties;
- Located so that the erosion and sediment control measures can be installed and will operate effectively ;

- Located above the 20 ARI flood level unless a contingency plan to manage flooding is implemented;
- On land not requiring removal of threatened species beyond those already impacted by the Project;
- On land not requiring removal of EECs beyond those already impacted by the Project or within the tree protection zone (in accordance with AS 4970) of EEC;
- On land not requiring removal of roosting habitat for listed threatened fauna species beyond those already impacted by the Project;
- Provides sufficient area for the storage of raw materials to minimise, to minimise to the greatest extent practical, the number of deliveries required outside construction hours;
- Positioned in areas for minimal visual and light spill impacts to nearest residence.
- Positioned in areas were minimal noise and vibration impacts to the nearest residence.
- Located in areas that will not impact on heritage sites (beyond those already impacted by the Project); and
- Located within the approved Project boundary.

6.4. Stockpile Management

Stockpile Management practices for temporary stockpile sites related to works other than tunnel construction will be in accordance with the SWQMP and take into account the following general principles:

- Materials will not be stockpiled within the tree protection zone (in accordance with AS 4970) of trees or native vegetation to be retained, and never pushed up around the base of trees. Trees are not to be flooded or soils caused to be waterlogged as a result of stockpile development.
- Contaminated materials will be stockpiled separately to other materials and identified with signage.
- Erosion and Sediment Control Plans (ESCP) will be prepared and implemented in advance of stockpiling.
- The ESCP will detail soil and water management measures consistent with Managing Urban Stormwater - Soils and Construction Vols 1 and 2, 4th Edition (Landcom, 2004) to minimise soil erosion and the discharge of sediment and other pollutants to land and/or waters.
- Erosion and sedimentation controls will be erected between the site and any drainage lines or down-slope areas.
- A diversion bund will be installed on the uphill side of the stockpile to divert water around the site, unless run on water is ‘dirty’ construction water. Where this occurs ‘dirty’ run on water shall be diverted to erosion and sediment controls.
- Erosion and sediment control structures shall remain installed and maintained until sufficient stabilisation is achieved as per the Blue Book.
- Separating ‘clean’ run-on water from ‘dirty’ (e.g. turbid) construction area run-off.
- Temporary sediment basins. It is noted that some small and/or flat sites might not warrant construction of a sediment basin. This includes sites with <2,500 square metres of disturbed area, or those with an average annual soil loss from the total area of land disturbance that is less than 150 cubic metres per year.
- Maximising the diversion of turbid construction runoff into detention/sediment basins.
- Controlling run-off during the construction of stockpiles (e.g. fill shaping and the construction of temporary dykes and batter drains).
- Diverting stockpile run-off through sediment traps and into pits and the stormwater drainage system as soon as practical to reduce surface flow lengths and velocities.

- Controls will be installed around all stockpiles that are in place for more than 10 days in order to prevent wind and water erosion. These controls will be in accordance with the Erosion and Sediment control plan and may include stabilisation with cover crop or similar appropriate controls as per the site ESCP.
- Dust management measures (including for vehicle movements associated with stockpiling activities) will be implemented in accordance with the requirements of the Construction Air Quality Management Plan (AQMP).

7. Spoil Disposal and Reuse Locations

As considerable quantities of spoil will be generated in a relatively short period of time, it is necessary to identify a number of potential spoil disposal and reuse locations. Some of these locations have been described in the EIS.

As detailed in CoA A9, spoil disposal and reuse sites are required to have Planning Approval to lawfully receive spoil from the Project. These Planning Approvals issued under the *Environmental Planning and Assessment Act 1979* will be obtained by the operators of the sites and be in place prior to spoil being received. The current statuses of approvals for the proposed locations are provided in Table 6.

Due to the number of concurrent major infrastructure Projects under construction at the present time, not all disposal sites have been secured and disposal sites may change over the life of the project. The Project is engaged with industry to secure acceptable sites identified within and outside the EIS. The proposed known locations for spoil disposal and reuse are shown in Figures 3 and 4 and further details provided in Table 6.

- If additional spoil disposal and reuse locations are identified which are not in Table 6, CDS-JV will: Check that appropriate approvals are in place for the receiving site,
- Agree to commercial terms with the site operator and/ or owner; and
- Ensure that relevant CoA, environmental, community and traffic impacts are managed under the approved CEMP, sub plans and Traffic Management and Safety Plan (TMSP), including haulage routes.

Final disposal and reuse locations, potentially including those not identified in this Strategy, will be utilised subject to the Projects' Environment and Sustainability Manager checking that appropriate approvals being in place, commercial terms being agreed to and relevant Conditions of Approval, environmental, community and traffic impacts being managed under the approved CEMP, sub plans and Traffic Management and Safety Plan (TMSP) as required.

Major changes would be forwarded to the Secretary of DP&E for approval.

Figure 3: Proposed Locations for Spoil Disposal

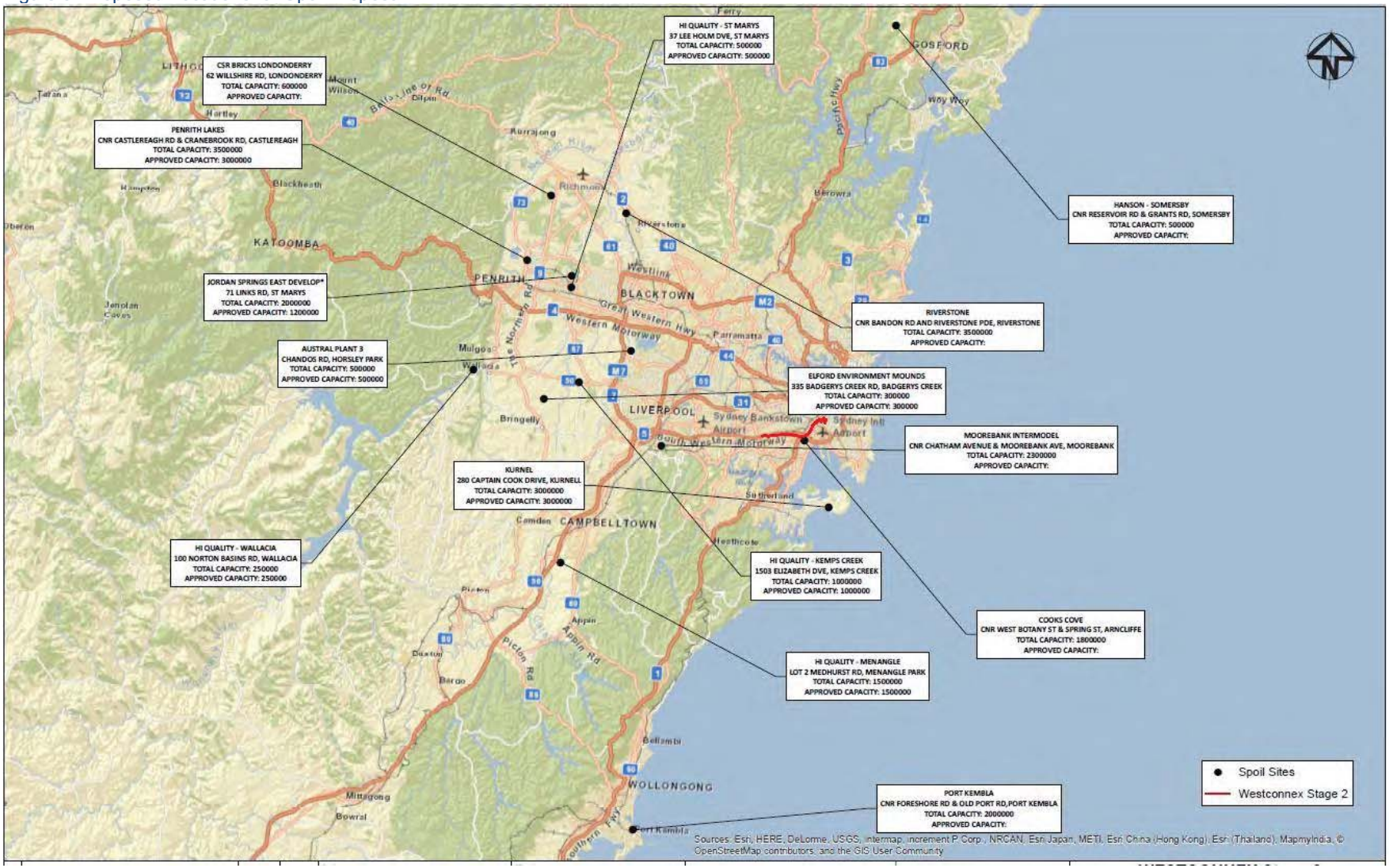


Figure 4: Proposed Locations for Spoil Disposal

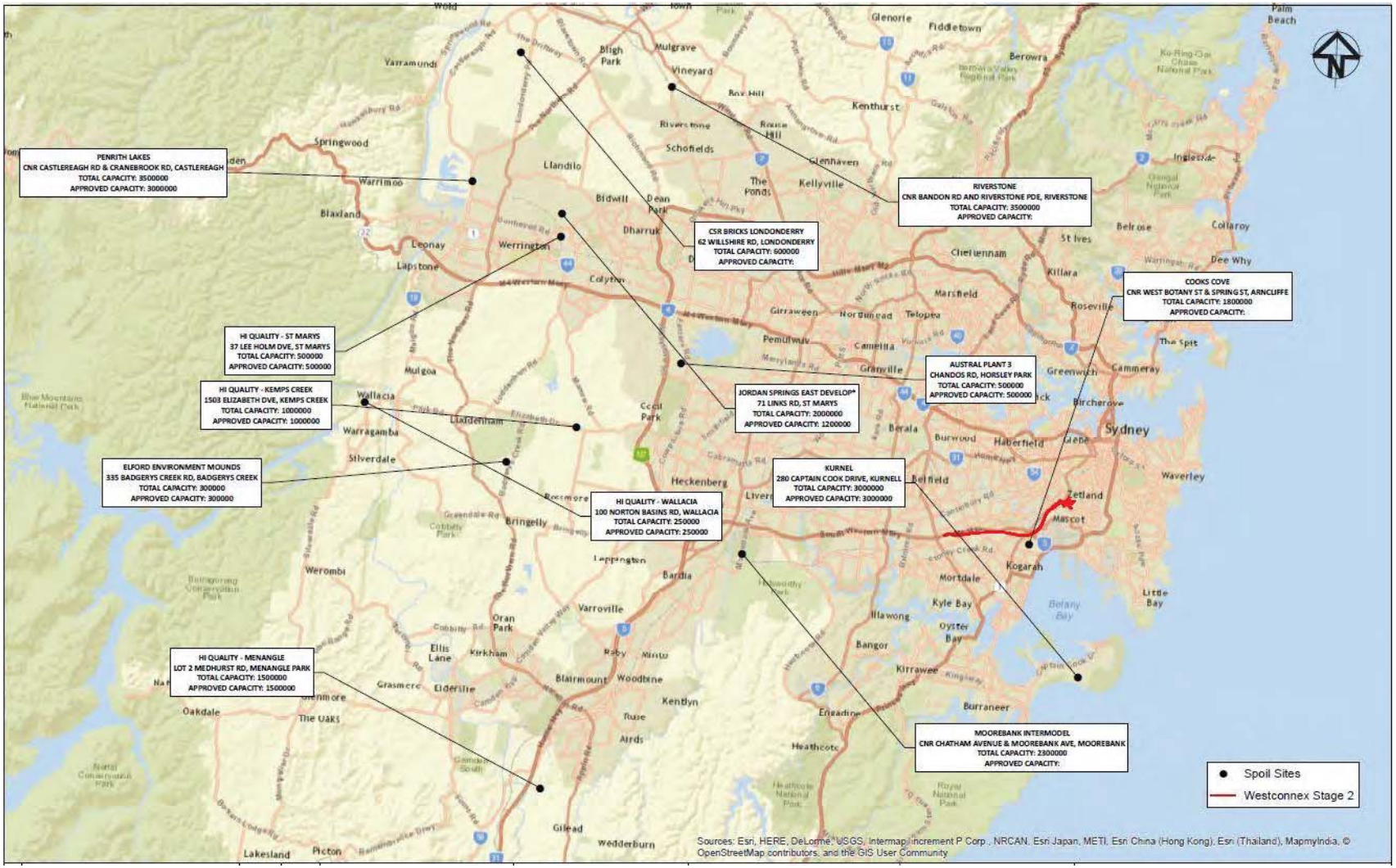


Table 6: Proposed Locations for Spoil Disposal

Site	Location	Primary Access Via	Owner	Status of Development Approval	Purpose	Material Type	Hours of Operation	Quantity of Material Required (m3)
ADI, St Mary's	74 Links Road, St Mary's	M7/M4	Lend Lease	Development Application submitted and pending approval from Penrith Council	Filling for residential development	VENM/ENM	07:00-18:00 Mon to Fri 07:00-17:00 Sat	2,000,000
Kurnell Land Reclamation	280 Captain Cook Drive, Kurnell NSW	A36	Besmaw Pty Ltd	Development Application Approved	Filling for residential property development	VENM/PASS	24 hours, 7 days per week	3,000,000
Moorebank Intermodal	Moorebank Avenue, Moorebank	A6/M5	Southern Intermodal Transport Alliance	Development Application submitted and pending approval.	Filling of hardstand area for Railway to Road Transport intermodal	VENM/ENM/GSWR	06:00-22:00 Mon-Sat Pending approval	2,300,000
Austral Bricks	Chandos St, Horsley Park NSW	M4	Austral Bricks	Development Application approved	Filling for quarry rehabilitation	VENM/ENM	07:00-18:00 Mon-Sat	500,000
Penrith Lakes Scheme	Castlereagh Road, Cranebrook	M7/M4	Penrith Lakes Development Corporation	Development Consent granted	Filling for rehabilitation of quarry	VENM	06:00-21:00 Mon-Sat	3,000,000 +
Somersby Sand Quarry	Reservoir Road, Somersby NSW	M1	Hanson	Awaiting approval of development application	Storage of material for later crushing and screening into quarry products	VENM/ENM	Subject to DA approval	500,000
Sakkara Development	Riverstone Parade, Riverstone NSW	M4	Sakkara	Awaiting approval of development application	Filling for residential property development	VENM/ENM	Subject to DA approval	3,500,000
Badgerys Creek	Badgerys Creek Road, Badgerys Creek	M7/M4	Elford Group	Development Application approved	Rehabilitation activities, Bundwall construction	VENM/ENM	Subject to DA approval	600,000

8. Spoil Transport

Spoil will be transported by registered road trucks. Spoil transport routes are identified in the TMSP and have been selected to minimise impacts to sensitive receivers, the travelling public, and the local community whilst meeting compliance with road traffic rules in relation to vehicle length and weight limits. The transport routes shall predominantly utilise the M5 and M7 Motorways where practicable and in accordance with road and traffic safety requirements. Routes identified represent access for sites where spoil disposal and reuse is known and utilises the arterial road network to the greatest extent practicable and align with Annexure H of the TMSP.

The spoil transport route from Kingsgrove North Site has not yet been determined and will be included in a later revision of this construction spoil management plan.

Where practicable tunnel spoil will be weighed by calibrated loader scales, weigh bridge or axle weigh in motion devices depending on available space and site logistics. For those sites having an axle weigh in motion device trucks will be fitted with automatic sensors which will log the weight of the material and the truck details. This information will be fed into a spoil tracking system.

The Environmental and Sustainability Manager will ensure that a spoil tracking system will be developed as a component of the waste register required as part of the CWRMP. This will document all spoil leaving site in terms of when, truck registration, characterisation and location of disposal. Fields that will be included in the system are as follows:

1. Date:
2. Docket Number
3. Haulage Company
4. Material Classification
5. Quantity in Tonnes
6. Truck Identification Number
7. Location of Spoil Generation Site
8. Location of Spoil Receival Site

The tracking system will be implemented when spoil disposal commences.

The Project aims to maximise haulage movements during standard construction hours, thereby minimising potential noise impacts from night time spoil activities. It should be noted however that night time spoil movements, as described in the EIS and as permitted by CoA D13, are highly likely to still be required throughout construction. The Project will program its night time spoil haulage on public roads with the aim to minimise any increase in road traffic noise levels by maximising haulage during day and evening periods. Mitigation measures described in Section 6 of the CNVMP will also be implemented.

Where night haulage is proposed, the Project will use a noise and vibration impact assessment to identify the noise impacts of varying frequency of truck movements against different periods of the night to assist in the implementation of the above commitments. The Environmental Representative (ER) will review the various haulage scenarios and resultant predictions in accordance with Section 5 of the CNVMP prior to their use. Approvals to haul spoil outside of standard hours will be put in place in accordance with the Out of Hours Works Protocol.

In accordance with condition CoA D26, the Contractor will place within its spoil haulage contracts provisions to deal with unsatisfactory noise performance for the vehicles and/or the operators, and specify non-tonal movement alarms in place of reversing beepers or alternatives such as reversing cameras and proximity alarms, or a combination of these, where tonal alarms are not mandated by legislation.

Initial and ongoing training will be carried out with construction vehicle contractors in order to make them aware of the requirements of the CEMP, contract requirements and in accordance with condition CoA D27 the non-use of compression brakes for construction vehicles associated with the SSI during construction.

Appendices

Appendix A: Glossary of Terms

Abbreviation	Definition
CEMP	Construction Environmental Management Plan
CoA	Minister's Conditions of Approval
CSWQSP	Construction Soil and Water Quality Sub Plan
CWRSP	Construction Waste and Resource Sub Plan
DA	Development Application
EIS	Environmental Impact Statement
ENM	Excavated Natural Material
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
ESD	Ecologically Sustainable Development
CDS-JV	CPB Dragados Samsung Joint Venture
OTR	Other than rock
POEO Act	*Protection of the Environment Operations Act 1997*
SCC	Specific Contaminant Concentration
CSMP	Construction Spoil Management Plan
SPIR	Submissions and Preferred Infrastructure Report
SSI	Means the State Significant Infrastructure as generally described in Schedule 1 (SSI 6788)
SWTC	Scope of Works and Technical Criteria
TAMP	Construction Access and Management Sub-Plan
TCLP	Toxicity Characteristics Leaching Procedure
TMSP	Traffic Management and Safety Plan
VENM	Virgin Excavated Natural Material
WARR Act	*Waste Avoidance and Resource Recovery Act 2001*

Appendix B: Likely Construction Vehicle Routes (includes haul, deliveries, light and heavy vehicles)

Final routes would be provided as part of the planning approval process

The layouts at the time of issue of this document are as follows:

Figure	Title	Page #
Figure B1:	Overview of All Vehicle Routes	Page 29
Figure B2:	Kingsgrove North	Page 30
Figure B3:	Kingsgrove South	Page 31
Figure B4:	Bexley Road North	Page 32
Figure B5:	Bexley Road South	Page 33
Figure B6:	Bexley Road East	Page 34
Figure B7:	Kogarah (Golf Course)	Page 35
Figure B8:	Canal Road	Page 36
Figure B9:	Campbell Road	Page 37
Figure B10:	Burrows Road	Page 38
Figure B11:	Burrows Road Bridge	Page 39
Figure B12:	Bourke Road	Page 40
Figure B13:	Euston Road	Page 41

Figure B1: Overview of All Vehicle Routes.
(Site specific routes on following pages).

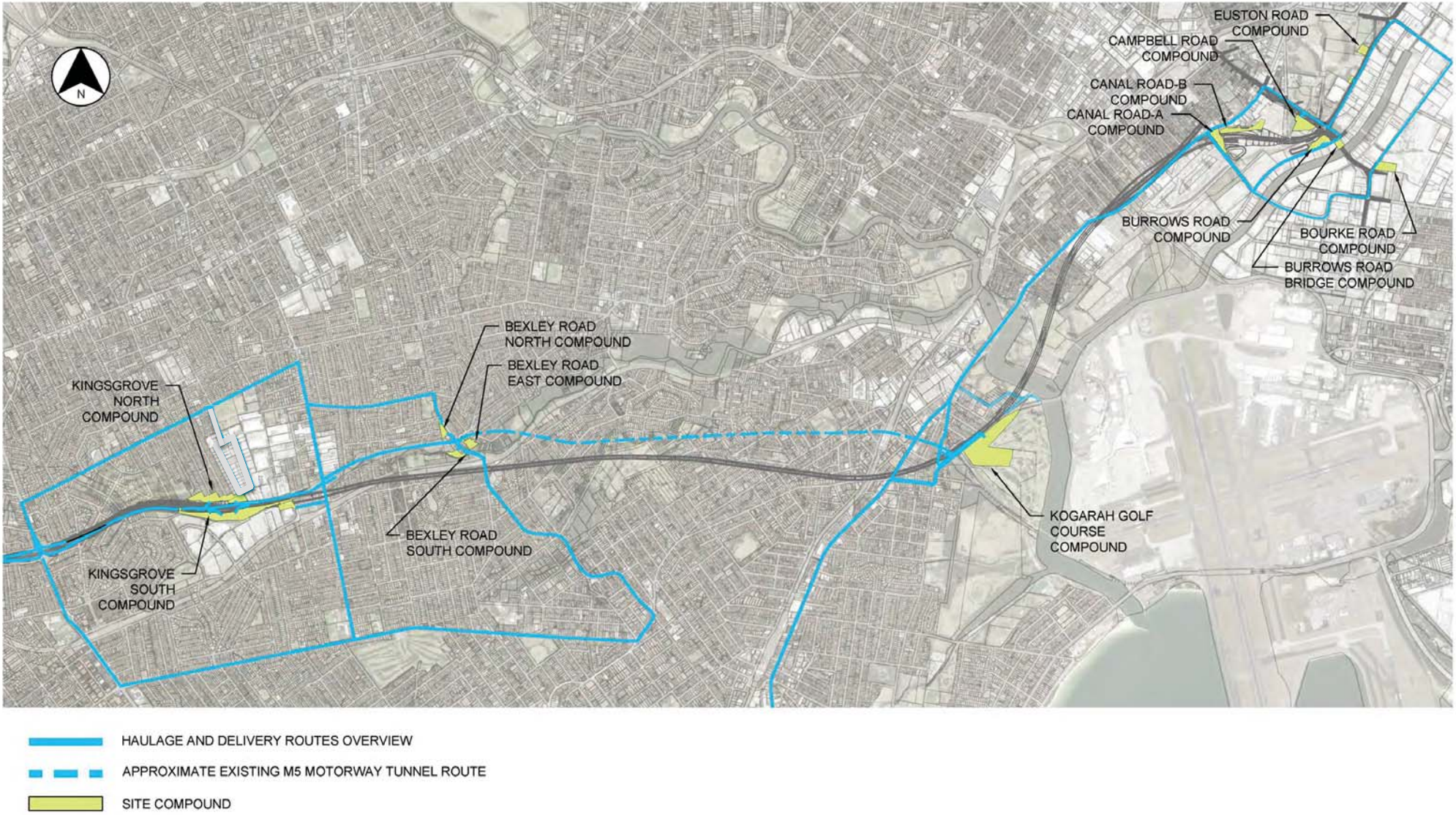


Figure B2: Kingsgrove North

The spoil haulage route from this location is currently under review and when finalised will be included in a later revision of this plan.

Figure B3: Kingsgrove South

Figure B4: Bexley Road North

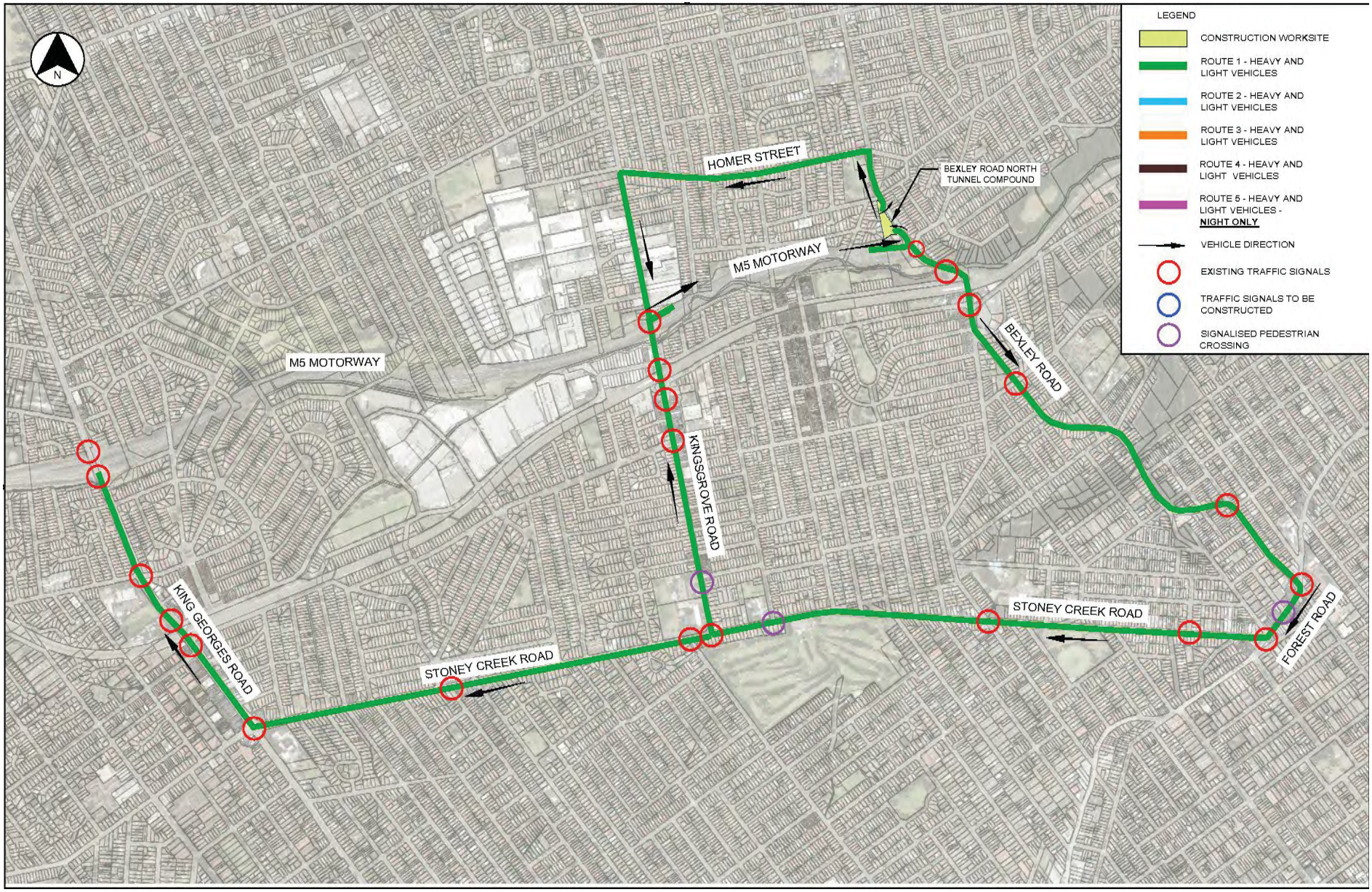


Figure B5: Bexley Road South

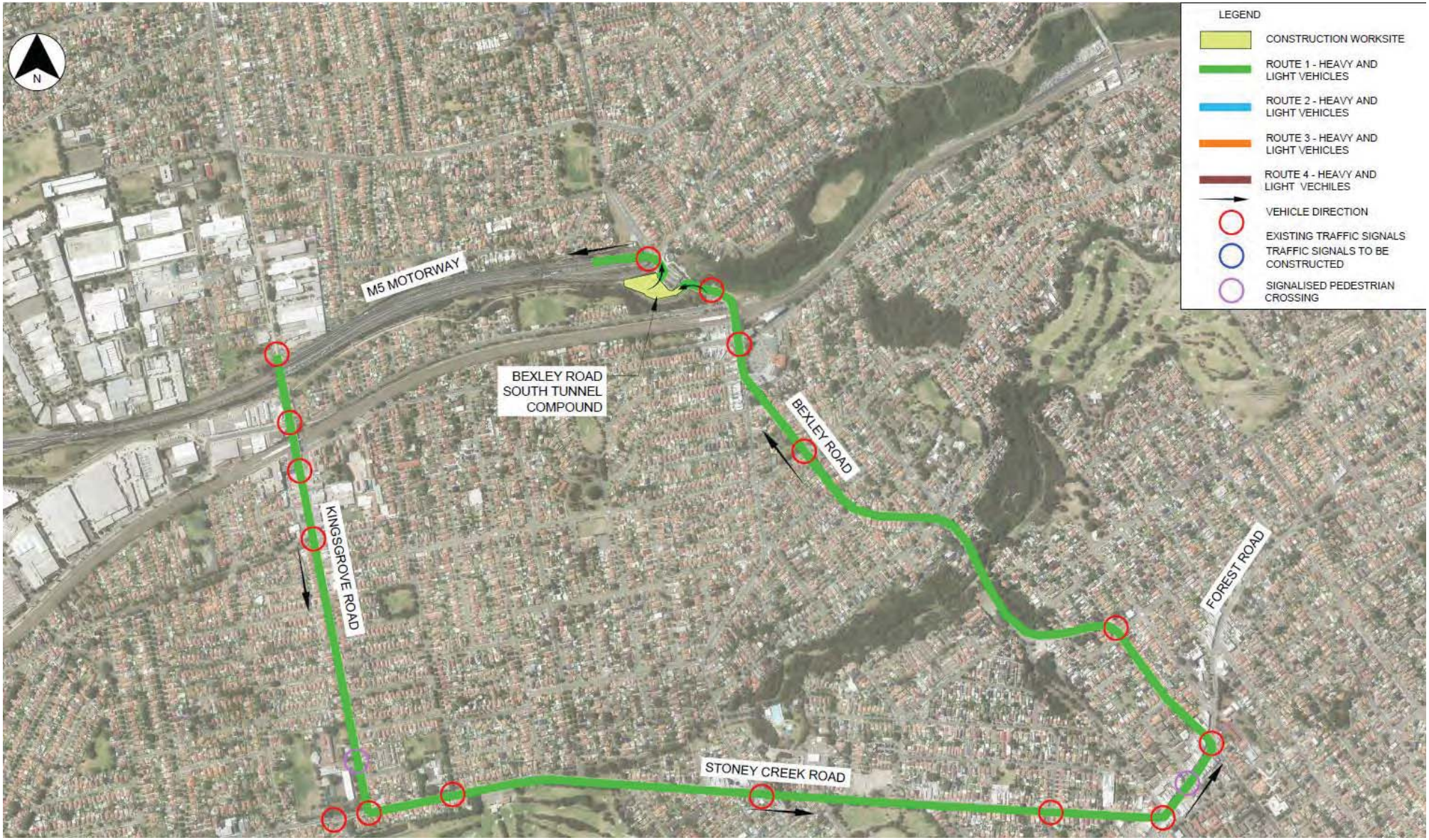


Figure B6: Bexley Road East

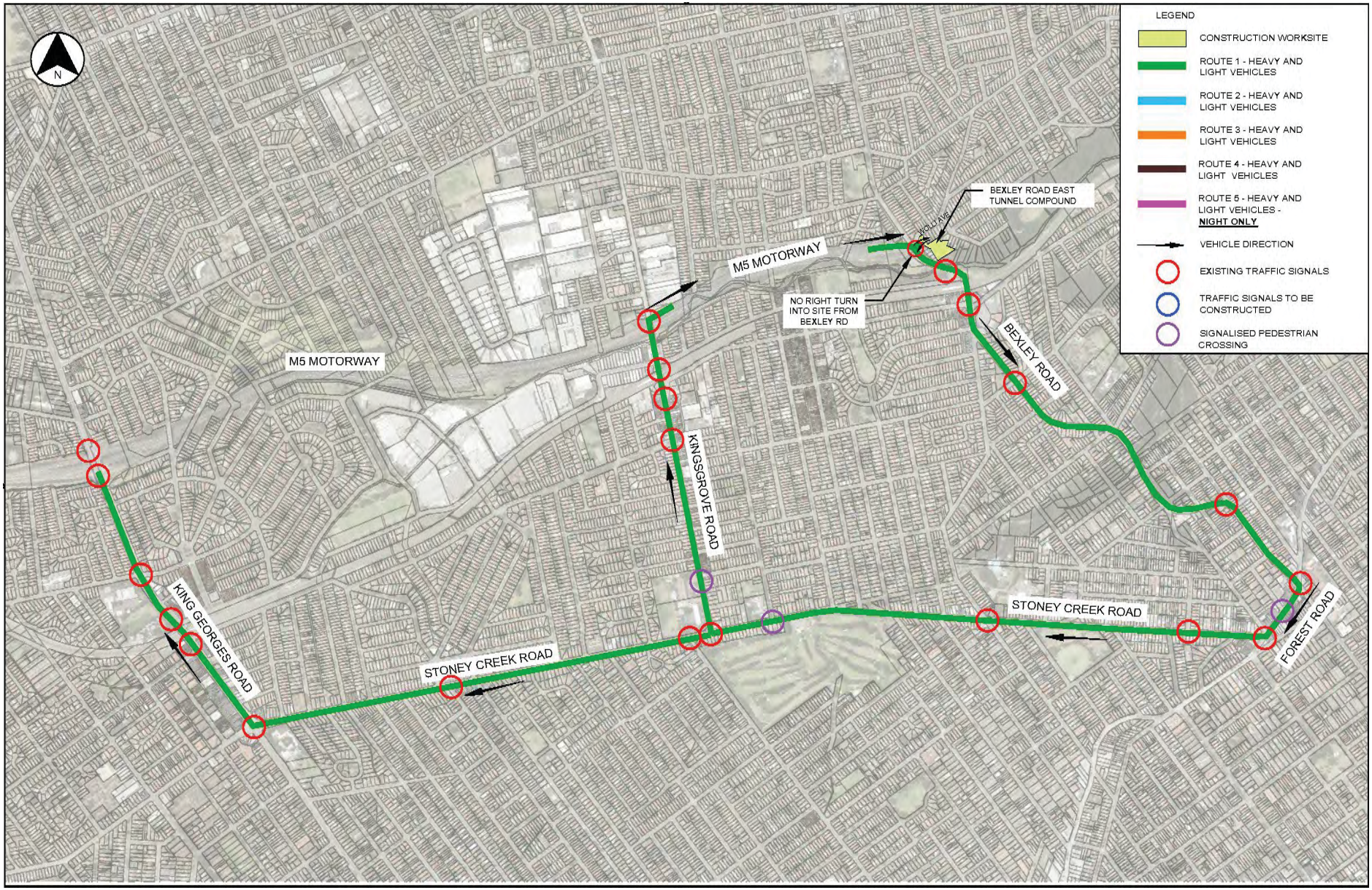


Figure B7: Kogarah (Golf Course)

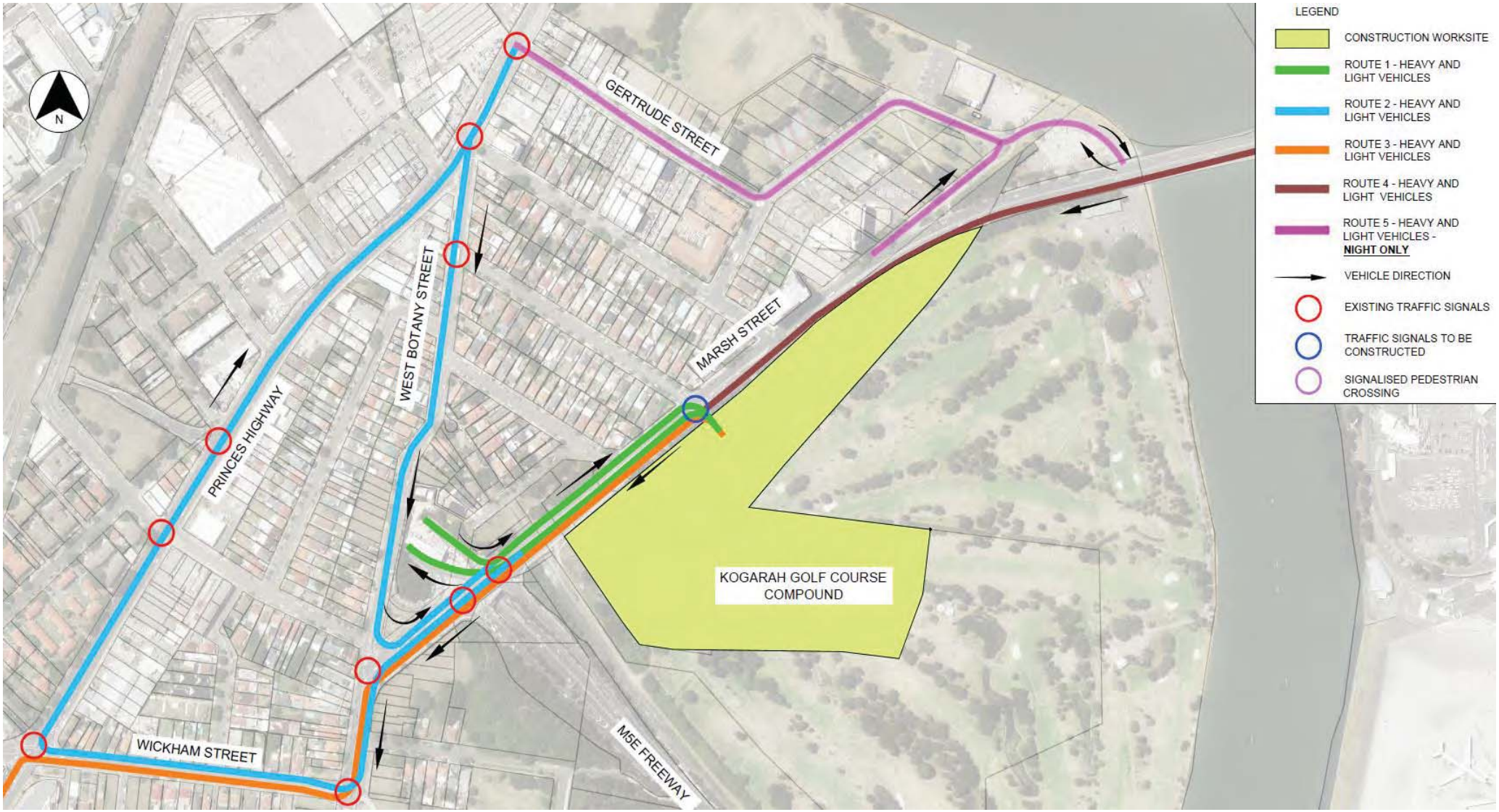


Figure B8: Canal Road

Figure B9: Campbell Road

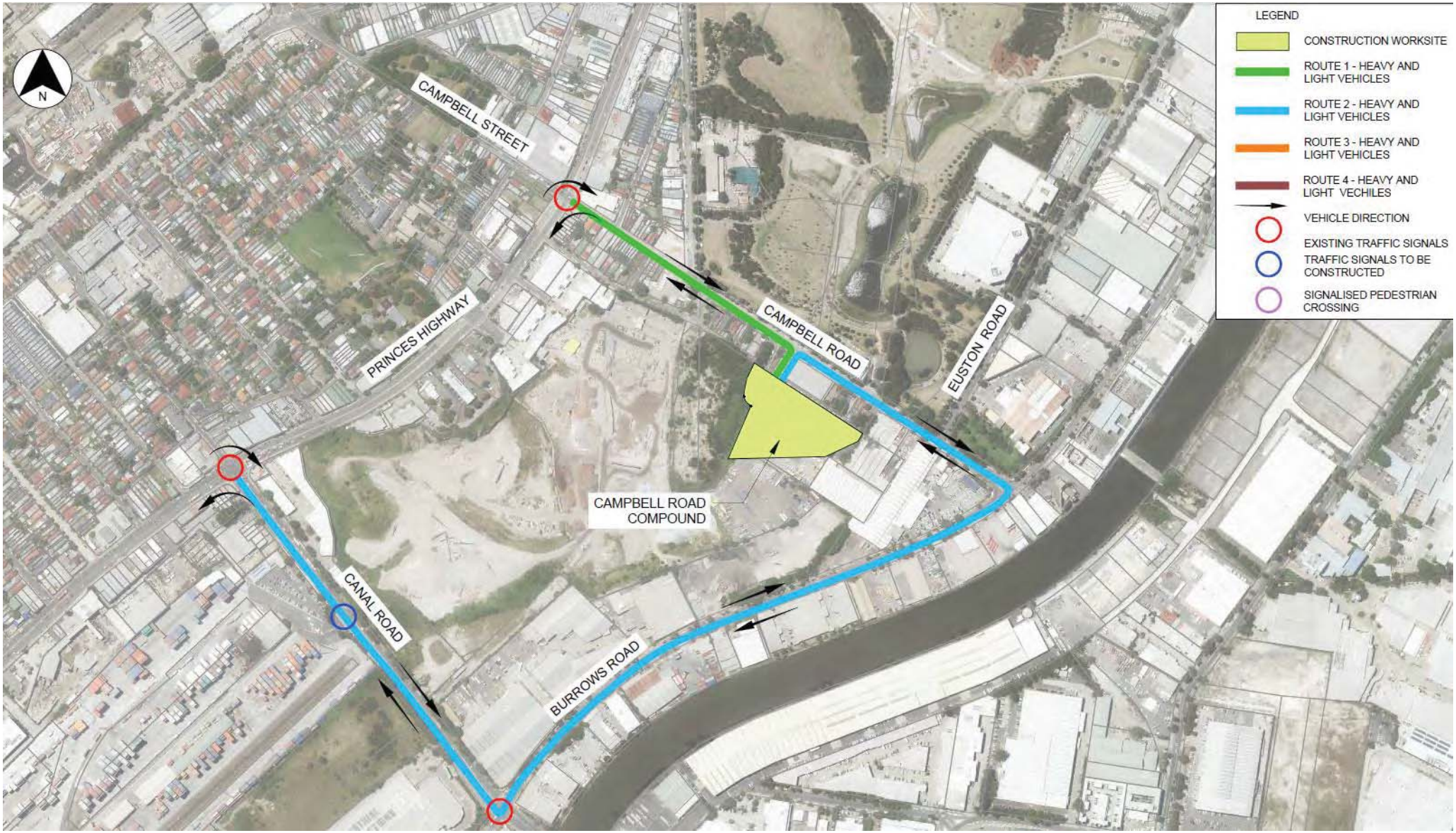


Figure B10: Burrows Road

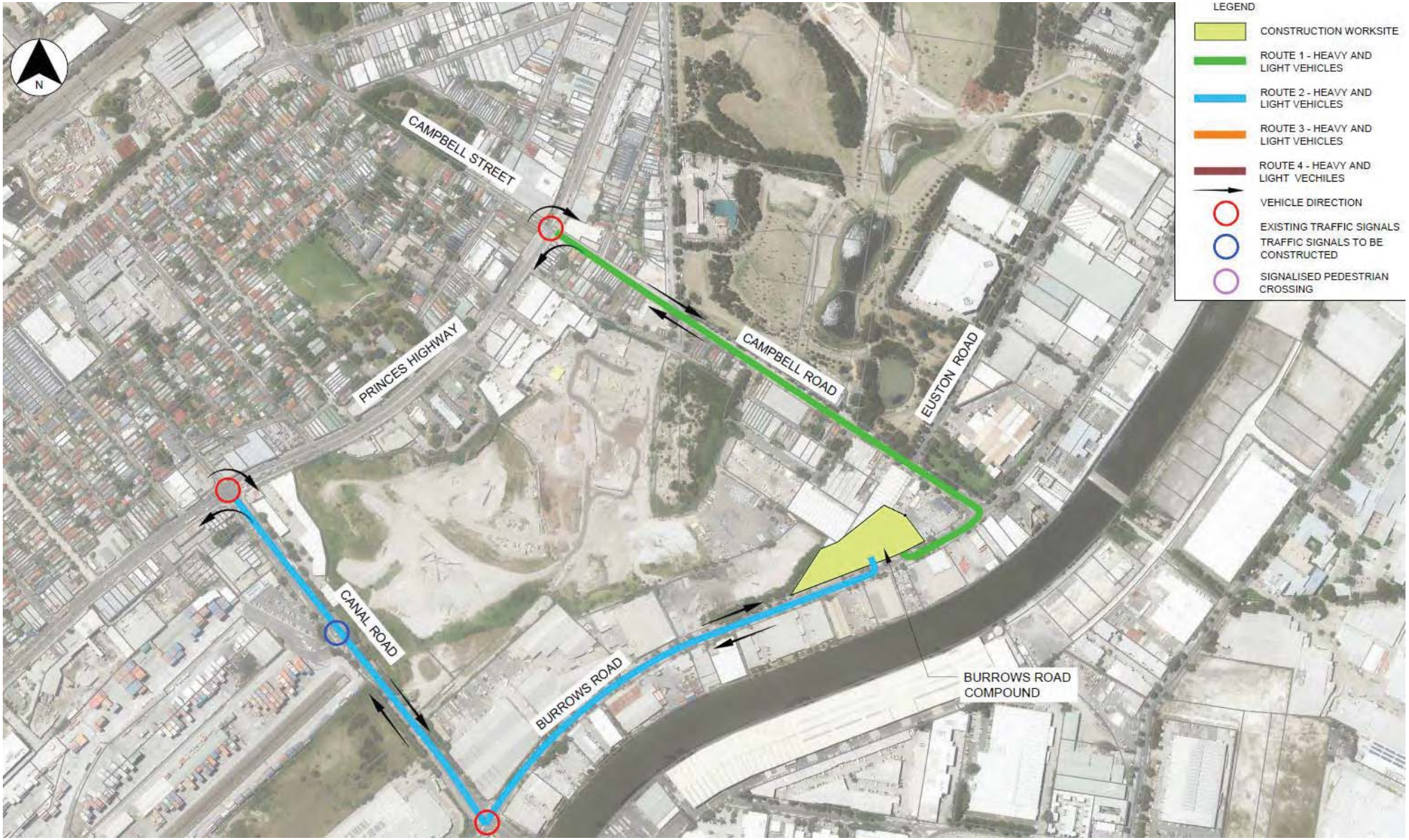


Figure B11: Burrows Road Bridge

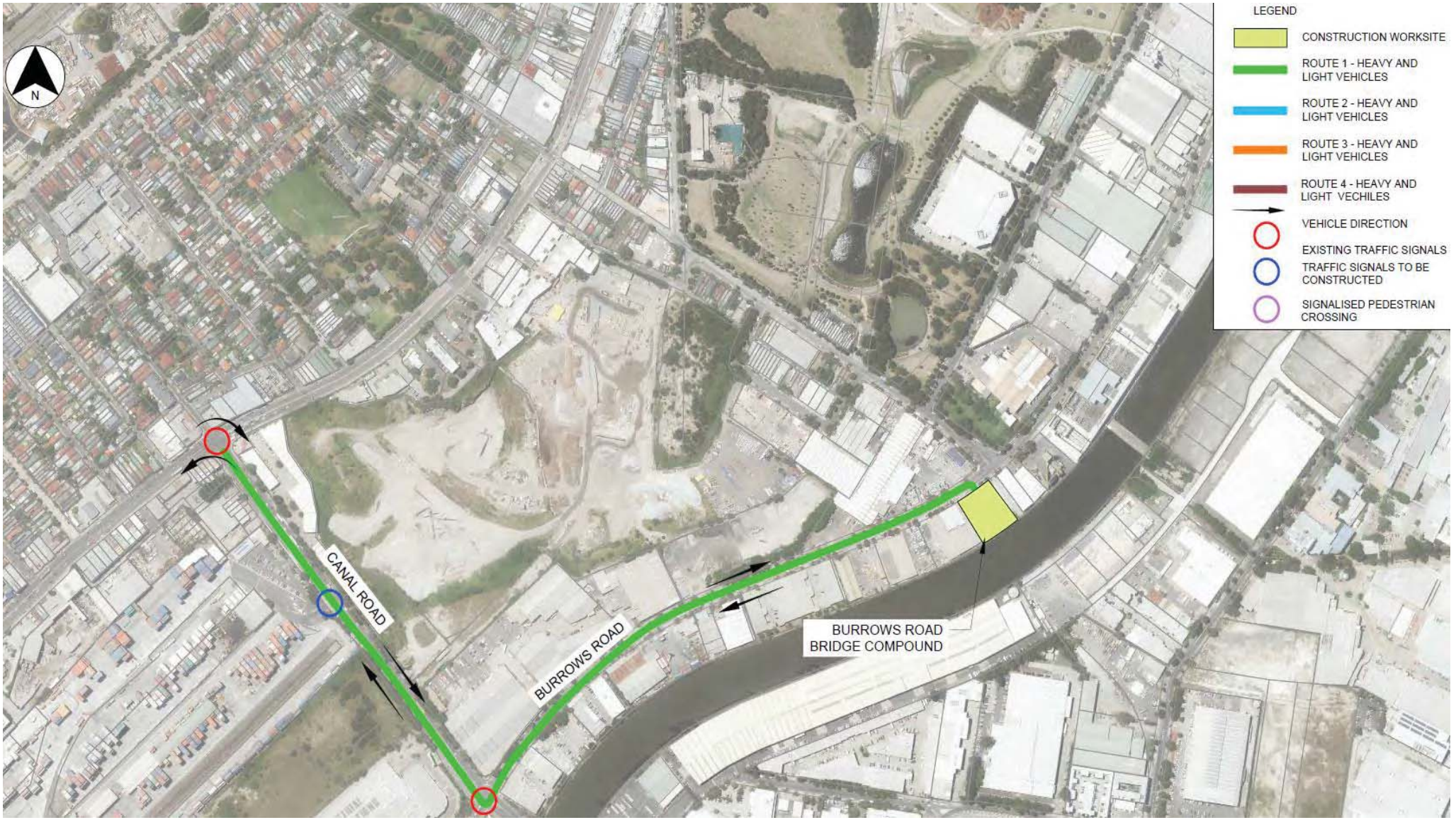


Figure B12: Bourke Road

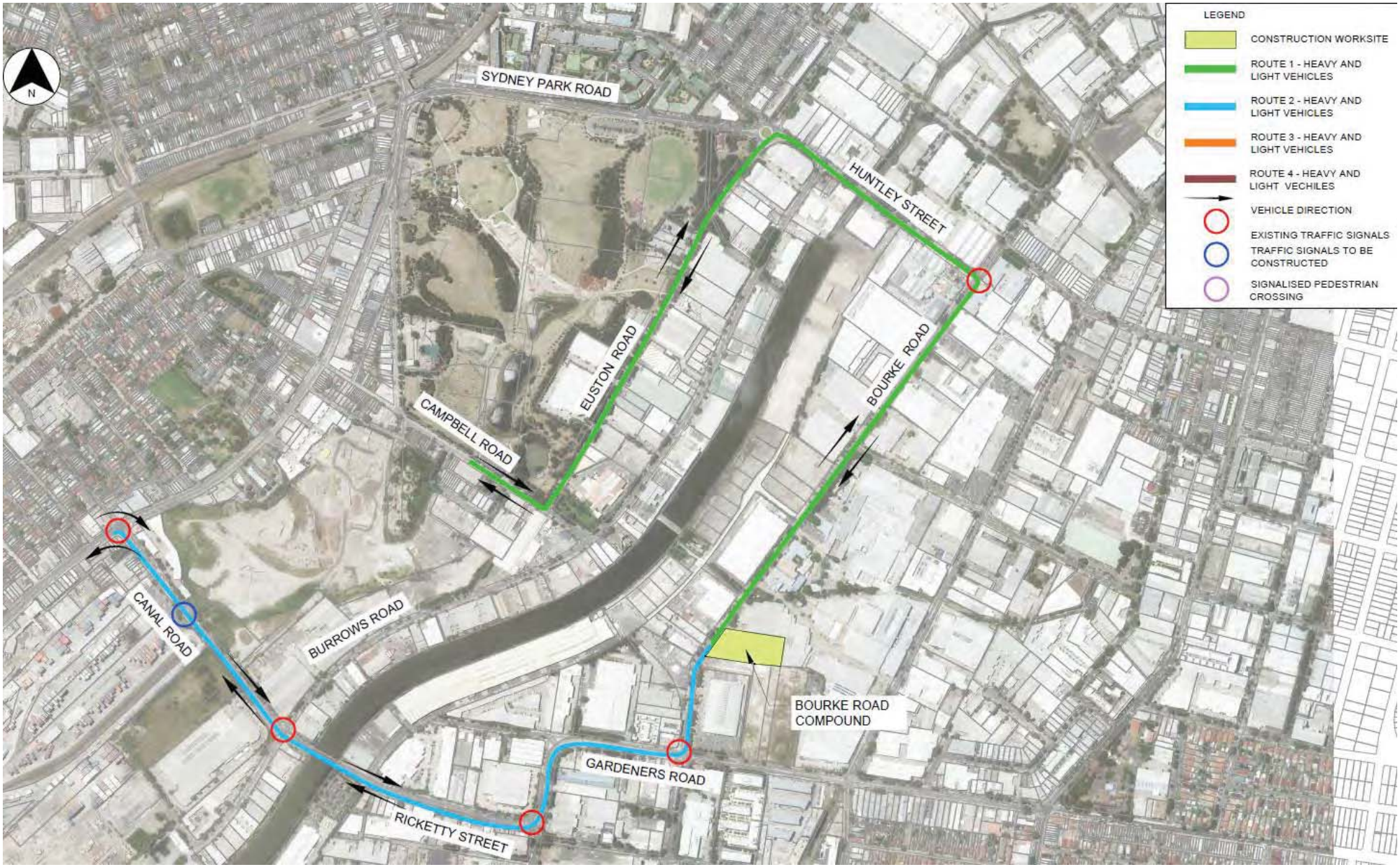


Figure B13: Euston

WestConnex New M5

CPB CONTRACTORS | DRAGADOS | SAMSUNG C&T

Construction Environmental Management Plan

Project Name: WestConnex New M5

Project number:	15.7020.2597
Document number:	M5N-ES-PLN-PWD-0001
Revision date:	6/07/2016
Revision:	04

Document Approval

Rev.	Date	Prepared by	Reviewed by	Recommended by	Approved by	Remarks
00	11/01/16	CDS-JV				
01	21/03/16	CDS-JV				
02	27/04/16	CDS-JV				
03	25/05/16	CDS-JV				
04	6/07/16	CDS-JV				
Signature:						

Details of Revision Amendments

Document Control

The Project Director is responsible for ensuring that this Plan is reviewed and approved. The Support Services Director is responsible for updating this Plan to reflect changes to the environmental legal and other requirements, as required.

Amendments

Any revisions or amendments must be approved by the Project Director before being distributed or implemented.

Revision Details

Revision	Details
00	First draft prepared for consultation and review by WCX M5 AT, RMS and DP&E prior to Infrastructure Approval
01	Second draft prepared for consultation and review by DP&E prior to Infrastructure Approval
02	Third draft prepared for consultation and review by key stakeholders
03	Issued for DP&E approval
04	Updated to address DP&E comments

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Part A: Overview

1. Structure of this Plan

This Construction Environmental Management Plan (CEMP) forms part of the Project Management System (PMS). It is part of a suite of Plans that together outline how the WestConnex New M5 (the Project) will be managed to ensure an integrated approach to meeting Project requirements.

In addition to the Project Management Plan other Project Plans that interface with the Construction Environmental Management Plan include:

- Construction Plan
- Design Plan
- Quality Plan
- Project WHS Management Plan

The Plan has the following structure:

Part A: Overview	This section clearly defines: • Project Overview • Purpose and Scope of the CEMP • Project Description • Environmental Requirements • Objectives and Targets • Structure the Environmental Management System • Summary of the Significant Environmental Hazards, specific client requirements, compliance requirements and Project environmental performance targets
Part B: Implementation	This section outlines in detail the key aspects for environmental management on the Project including: • Expectations • How they will be met • Responsibilities • Associated deliverables
Part C: Environmental Sub-Plans	• This section contains the Environmental Sub-Plans developed by the Project to manage Significant Environmental Hazards and other potential major impacts upon the environment and community
Part D: Appendices	This section provides information supporting the CEMP including: • Appendix A: Project Environmental Policy • Appendix B: Environmental Roles and Responsibilities • Appendix C: Environmental Obligations Register • Appendix D: Environmental Risk Register • Appendix E: Auditing and Reporting • Appendix F: RMS Environmental Incident Classification and Reporting Procedure • Appendix G: Glossary of Terms

2. Project Overview

2.1 Background

WestConnex is one of the NSW Government's key infrastructure projects which aims to ease congestion, create jobs and connect communities. The 33 km motorway linking Sydney's west and south-west with the Sydney Central Business District, Sydney Airport and Port Botany is being delivered by Sydney Motorway Corporation (SMC, formerly WestConnex Delivery Authority) as a series of separate projects.

The WestConnex New M5 project (the Project) is the Stage 2 component of the WestConnex scheme. The Project will run from the existing M5 East corridor at Beverly Hills via tunnel to St Peters, providing improved access to the airport, south Sydney and Port Botany precincts. The CPB

Contractors Dragados Samsung Joint Venture (CDS-JV) will deliver the design and construction of the Project for the Project Company (WCX M5 AT).

The Project will deliver approximately nine kilometres of two-lane twin tunnels with capacity to operate three lanes in the future, motorway to motorway connections to the King Georges Road Interchange Upgrade at Beverly Hills, and a new interchange at St Peters.

On 20 November 2015, the project was declared by the Minister for Planning to be State Significant Infrastructure (SSI) and critical State Significant Infrastructure (critical SSI), under sections 115U(4) and 115V of the Environmental Planning and Assessment Act 1979 (EP&A Act) and clause 16 of the State Environmental Planning Policy (State and Regional Development) 2011.

An Environmental Impact Statement (EIS) (AECOM 2015) was prepared and placed on public exhibition from 27 November 2015 to 29 January 2016. Submissions were received from government, agencies, organisations and the public in repose to the project. A Submissions and Preferred Infrastructure Report was prepared by SMC in response to submissions received during the exhibition period. The Project was approved by the Minister for Planning on 20 April 2016.

2.2 Purpose and Scope

The purpose of this CEMP is to provide a structured approach to the management of environmental issues during construction of the Project.

This Construction Environmental Management Plan (CEMP) outlines how CDS-JV will achieve environmental outcomes on the New M5 project (SSI-6788). This is achieved through the application of the CDS-JV Environmental Management System (EMS), based on the CPB Contractors EMS and 'The Way We Operate' framework. The CEMP is the key document that integrates Environmental requirements with WCX M5 AT and CDS-JV Project requirements.

The CEMP has been prepared in accordance with Roads and Maritime Services Specification D&C G36 – Environmental Protection (Roads and Maritime, 2014) and the Guideline for the Preparation of Environmental Management Plans (DIPNR, 2004).

Implementation of the CEMP will:

- Identify the environmental obligations attached to the Project and the hazards and risks associated with the Works
- Assist in the prevention of unauthorised environmental harm
- Fulfill environmental requirements, including complying with relevant permits and approvals
- Comply with all relevant environmental legislation
- Minimise negative impacts on the community that relate to the Project's environmental impacts
- Identify and implement feasible opportunities to reduce the environmental impact of the Project that are beyond compliance requirements
- Fulfill CPB Contractors' EMS requirements enabling continued certification to ISO14001 and contribution to CDS-JVs' overall Project Plans.

Implementing this CEMP and sub plans effectively will ensure that the Project meets regulatory and policy requirements in a systematic manner and continually improves its performance. The purpose of the CEMP and sub plans is also to ensure appropriate environmental management measures and controls are implemented during the construction phase to ensure environmental impacts are minimised or avoided.

2.3 Project Description

2.3.1 General features

An overview of the project at completion is shown in Figure 1. The project comprises the following key features:

- Twin motorway tunnels between the existing M5 East Motorway (between King Georges Road and Bexley Road) and St Peters. Each tunnel would be around nine kilometres in length and would be configured as follows:

- Between the western portals and Arncliffe, the tunnels would be built to be three lanes wide but marked for two lanes as part of the project. Any change from two lanes to three lanes would be subject to future environmental assessment and approval
- Between Arncliffe and St Peters, the tunnels would be built to be five lanes wide but marked for two lanes as part of the project. Any change from two lanes to any of three, four or five lanes would be subject to future environmental assessment and approval

- Tunnel stubs to allow for a future connection to the M4-M5 Link and a future connection to southern Sydney via a future Southern extension
- Surface road widening works along the M5 East Motorway between east of King Georges Road and the new tunnel portals
- A new road interchange at St Peters, which would initially provide road connections from the main alignment tunnels to Campbell Road and Euston Road, St Peters
- Two new road bridges across Alexandra Canal which would connect St Peters interchange with Gardeners Road and Bourke Road, Mascot
- Closure and remediation of the Alexandria Landfill site, to enable the construction and operation of the new St Peters interchange
- Works to enhance and upgrade local roads near the St Peters interchange
- Ancillary infrastructure and operational facilities for electronic tolling, signage (including electronic signage), ventilation structures and systems, fire and life safety systems, and emergency evacuation and smoke extraction infrastructure
- A motorway control centre that would include operation and maintenance facilities
- New service utilities and modifications to existing service utilities
- Temporary construction facilities and temporary works to facilitate the construction of the project (refer Section 2.3.4 below)
- Infrastructure to introduce tolling on the existing M5 East Motorway
- Surface road upgrade works within the corridor of the M5 East Motorway.

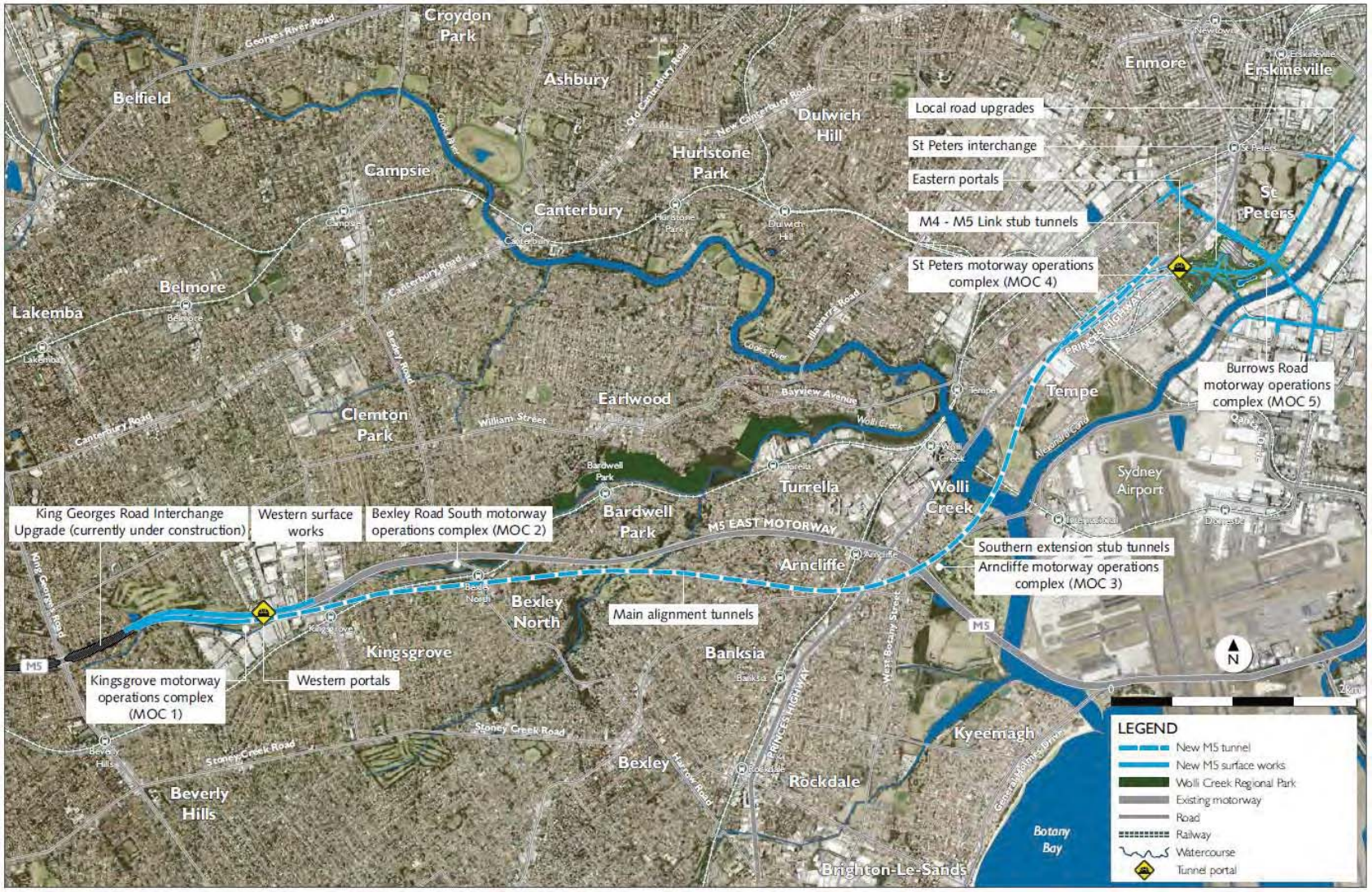
2.3.2 Construction staging

The project is proposed to be staged in accordance with CoA A10. The stages are described in detail in the Staging Report submitted to DP&E on 27 June 2016 and can be summarized as:

- Stage 1: Establishment of construction compounds C1 to C11
- Stage 2: Establishment of construction compounds C12 to C14 and commencement of surface construction activities
- Stage 3: Commencement of mainline tunneling activities using roadheaders and continuation of remaining surface construction activities.

Stage 1 will include demolition and site establishment (as defined under the SSI approval) of construction compounds C1 to C11. Stage 2 will include establishment of construction compounds C12 to C14, as well as commencement of construction (as defined under the SSI approval) for surface works. Stage 3 will include mainline tunneling activities including roadheader excavation, tunnel fit-out and commissioning activities. Actual timing for each stage will depend on the approvals required for each stage as outlined in the Staging Report.

Figure 1: New M5 Project Overview



2.3.3 Construction activities and sequence

Key construction activities of the project are described in Table 1. The list is not exhaustive and some of these activities may be undertaken prior to construction as part of establishment works prior to the CEMP being approved. Establishment works will be those activities which do not constitute 'construction' as defined in the project approval (SSI 6788).

Table 1: Indicative construction activities

Component	Typical activities
Construction set-up and preparatory works	
Site establishment and establishment of construction compounds	Demolition of existing buildings Establishment of construction compound fencing and hoardings Vegetation clearance Installation of sediment and erosion control measures Installation of site offices and crib rooms Construction of hardstands Construction of access roads, site entry and exit points and security Set up of spoil sheds and support equipment as required Set up of construction monitoring equipment Construction traffic works, including Relocation of utilities.
Alexandria Landfill closure	
Alexandria Landfill Closure	Construction of access roads, site entry and exit points and enabling works Foundation preparatory works Bulk earthworks (St Peters interchange cut to fill) Bulk earthworks (imported fill and engineered fill) Cut foundation treatment Capping installation Establishment of leachate collection, treatment pumping station Construction and establishment of groundwater seepage cut-off wall Landscaping.
Tunnel construction and fit out	
Tunnel construction	Construction of shafts and / or declines Installation and operation of roadheaders Spoil stockpiling and removal Controlled blasting of the bench and cross passages Controlled blasting and / or rockbreaking of the main alignment tunnels and cross passages Installation of shotcrete lining Installation of waterproof membrane, where required Installation of final lining and architectural treatments Construction of the concrete floor Installation of drainage and utility infrastructure Final finishes and line marking.

Component	Typical activities
Portal construction	Construction of the cut and cover structures Bulk excavation with the cut and cover and the dive structure Spoil stockpiling and removal Installation of the drainage and utility infrastructure Installation of road base, lighting, new jersey barriers Final asphalting layer installed Sign installation and construction of the toll gantries Linemarking, traffic switches to tie in with existing road network landscaping and noise walls.
Mechanical and electrical systems	Installation of fire and life safety systems, tunnel ventilation facilities, operational tunnel lighting, signage, power reticulation through the tunnel, communication systems, and control and operational management control systems and infrastructure Commissioning of mechanical and electrical systems, including emergency procedures.
Surface works – roads	
Local road upgrades	Removal of existing road pavements, as required Installation of the drainage and utility infrastructure Installation of road base, lighting, kerb and guttering, verges, medians, and new jersey barriers Earthworks and excavation Spoil stockpiling and removal Installation of final asphalting layer Sign installation and street lighting Line-marking, traffic switches to tie in with existing road network landscaping.
St Peters Interchange and portal	Bulk excavation and material disposal Foundation works to pavements including piling Structural and flexible pavement construction to St Peters interchange Construction of the St Peters interchange bridges Construction of the Campbell Road pedestrian and cycle bridge Construction of bridges over Alexandra Canal Construction of retaining walls and landscaping.
Surface works – operational infrastructure	
Tolling facilities construction	Construction of toll gantries Construction of technical shelters Installation of communications and power Commissioning of toll operations.
Operational facilities construction	Construction of ventilation system facilities, including emergency smoke extraction facilities Construction of the motorway control centre and backup facility Construction of permanent access roads to operational facilities Construction of drainage and water treatment facilities, including water treatment plant Construction of motorway operations complexes Establishment of noise barriers Installation of roadside furniture and lighting.

Component	Typical activities
Commissioning and demobilisation	
Testing and commissioning	Testing of plant and equipment Commissioning of the project.
Finishing work and demobilisation	Removal of construction facilities Landscaping Rehabilitation of affected areas Post-construction condition surveys Removal of construction environmental controls Removal of construction ancillary facility related traffic signage.

An indicative program is provided in Table 2 below.

Table 2: Indicative construction program

	2016				2017				2018				2019			
Site establishment																
Landfill closure works																
Construction of western surface works																
Tunnel construction																
Construction of St Peters Interchange																
Portal construction																
Construction of local road upgrades																
Construction of permanent operational facilities																
Mechanical and electrical fit-out																
Establishment of tolling facilities																
Demobilisation and rehabiliation																

2.3.4 Ancillary facilities

The WestConnex New M5 EIS (AECOM 2015) identifies 14 temporary ancillary facilities required for the project. The EIS provides an assessment of the characteristics, likely activities and potential impacts at each site.

Detailed design has identified that all of these sites will be required to support construction of the project. An overview of the location of the ancillary facilities proposed for the project is provided in Figure 1: New M5 Project Overview of Ancillary Facilities. Five of the 14 facilities are to become permanent facilities to assist the motorway and tunnel operation. A summary of the primary uses of the facilities during construction and operation of the project are listed in Table 3.

The establishment of each ancillary facility has been addressed by the Ancillary Facilities Management Plan M5N-ES-PLN-PWD-0026 (AFMP). During construction of the project, the ancillary facilities will be managed in accordance with this CEMP and sub-plans.

Figure 2: Location of Ancillary Facilities

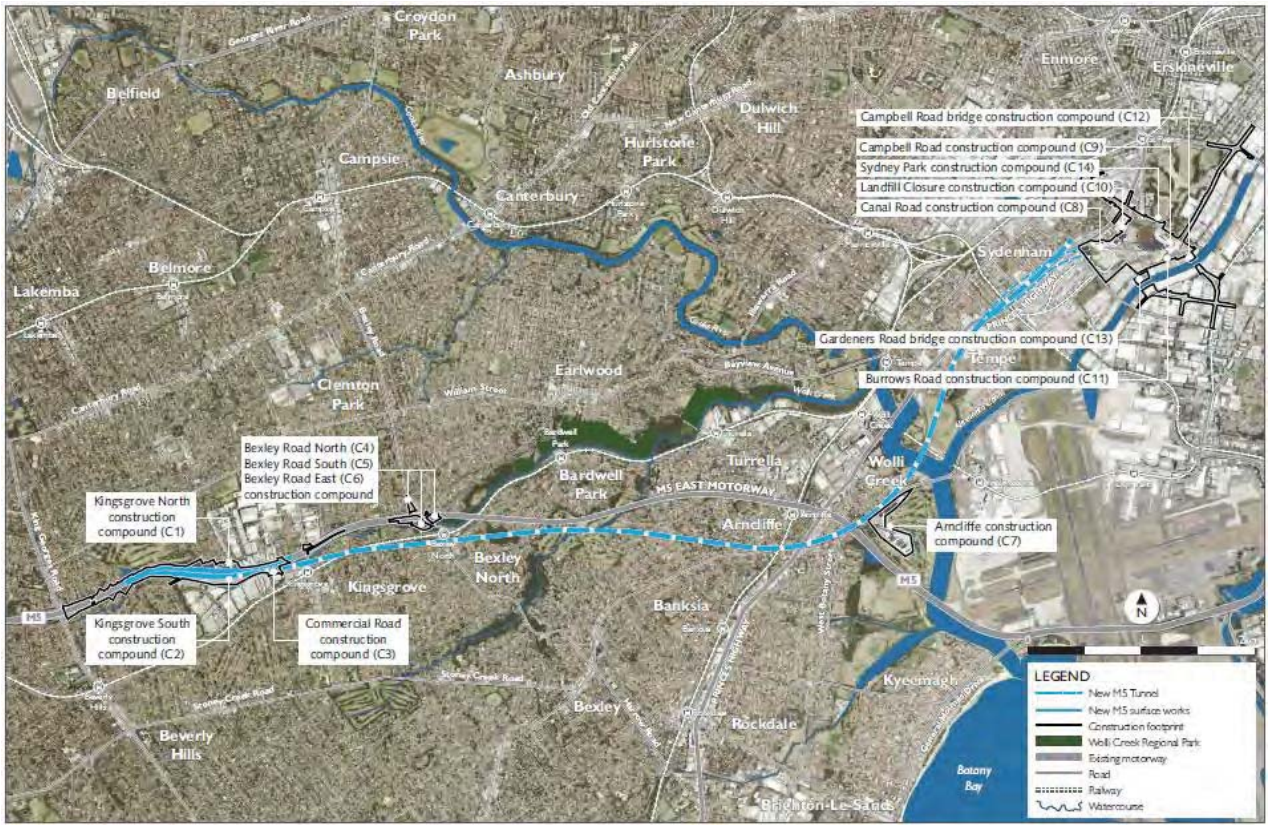


Table 3: Ancillary facilities and key uses proposed during construction and operation

Construction Area	Ancillary Facility	Primary use during Project construction	Primary use during Project operation
Kingsgrove	Kingsgrove North (C1)	Civil sites: cut and cover, spoil management and removal, and surface works support. Tunnel site: shaft excavation and tunnel support site.	None
	Kingsgrove South (C2)	Civil sites: spoil management and removal, and surface works support.	Kingsgrove motorway operations complex (MOC1) – ventilation and maintenance facility, emergency response system, storage and offices
	Commercial Road (C3)	Tunnel site: shaft excavation and tunnel support site.	None
Bexley	Bexley Road North (C4)	Civil sites: declines, spoil management and removal. Tunnel site: shaft excavation and tunnel support site.	None
	Bexley Road South (C5)	Civil sites: declines, spoil management and removal. Tunnel site: shaft excavation and tunnel support site.	Bexley Road South motorway operations complex (MOC2) - emergency smoke extraction facility

Construction Area	Ancillary Facility	Primary use during Project construction	Primary use during Project operation
	Bexley Road East (C6)	Support site to Bexley Road North (C4) and Bexley Road South (C5) construction compounds.	None
Arncliffe	Arncliffe (C7)	Civil sites: declines, spoil management and removal, establish Green and Golden Frog habitat and surface works support. Tunnel site: ventilation shaft excavation and tunnel support site.	Arncliffe motorway operations complex (MOC3) – ventilation (air injection facility) and emergency smoke extraction facility, water treatment plant
St Peters	Canal Road (C8)	Civil sites: decline, dive structures, cut and cover, spoil management and removal, and surface works support Tunnel site: ventilation shaft excavation and tunnel support site	St Peters motorway operations complex (MOC4) – ventilation facility Eastern portals
	Campbell Road (C9)	Civil sites: on and off ramps, bridge structures, tie-ins, carriageways, and surface works support	St Peters Interchange
	Landfill Closure (C10)	Civil sites: enabling and landfill closure works, support site to closure Alexandria Landfill	St Peters Interchange (open space)
	Burrows Road (C11)	Surface works support site	Burrows Road motorway operations complex (MOC5) – motorway control centre
Civil East (St Peters)	Campbell Road bridge (C12)	Civil sites: bridge structures, tie-ins, and surface works support	Campbell Road Bridge
	Gardeners Road bridge (C13)	Civil sites: bridge structures, tie-ins, and surface works support	Gardeners Road Bridge
	Sydney Park (C14)	Civil sites: bridge structures and surface works support	None

2.3.5 Summary of resources, roles, responsibilities and authority

The key environmental management roles and responsibilities for the construction phase of the project are described in Table 4. The structure of these roles is shown in Figure 3. For further detail on roles and responsibilities, refer to Appendix B: Environmental Roles and Responsibilities.

Figure 3: Summary Organisation Chart

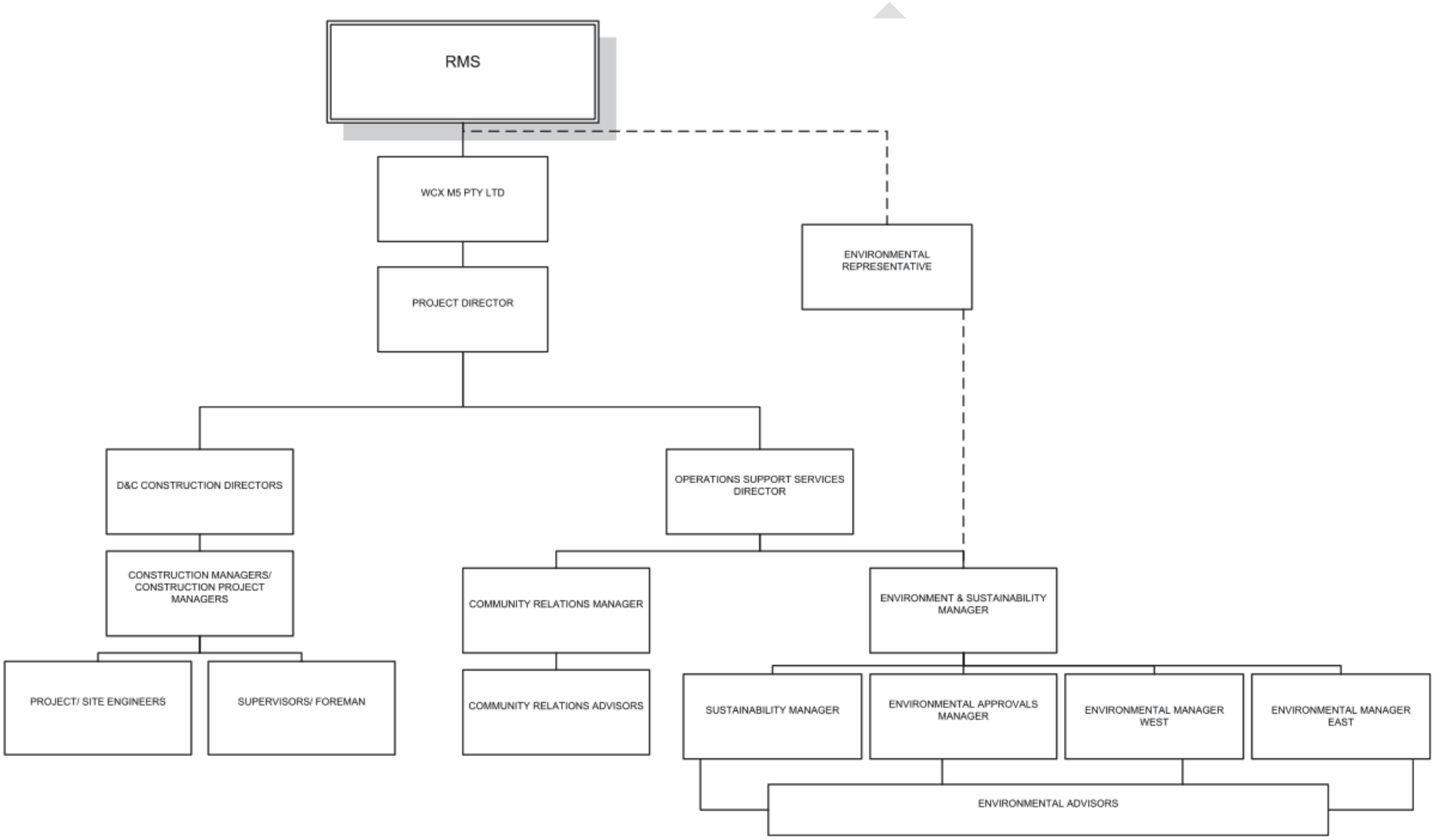


Table 4: Key roles and responsibilities relevant to environmental management

Role	Responsibilities
CDS-JV Project Director	The environmental responsibilities of the CDS-JV Project Director include, but are not limited to: • Be an emergency contact and available to be contacted by EPA and RMS Representative on a 24 hour basis; • Endorse and support the project's Environmental Policy and this CEMP; and • Provide environmental leadership and ensure adequate resources are provided to effectively implement this construction environmental management plan.
CDS-JV Support Services Director	The environmental responsibilities of the CDS-JV Support Services Director include, but are not limited to: • Provide environmental oversight, direction and leadership regarding the environmental management of the project.
CDS-JV Environment and Sustainability Manager	The environmental responsibilities of the CDS-JV Environment and Sustainability Manager include, but are not limited to: • Be an emergency contact and available to be contacted by EPA and RMS Representative on a 24 hour basis; • Notify WCX M5 AT, Environmental Representative and agencies as required in response to environmental incidents and potential incidents; • Act as the main point of contact for the Environmental Representative, RMS Environmental Representative and approval authorities. • Identify and maintain a register of relevant legal, CDS-JV EMS requirements and other requirements; • Obtain all necessary approvals prior to commencing relevant works; • Ensure the project induction includes appropriate training regarding the requirements of this CEMP; • Ensure identified risks are analysed and evaluated according to agreed criteria. • Regularly review identified risks and controls and maintain a risk register; • Ensure regular inspections, observations, monitoring and audits are conducted to check the effectiveness of controls and that compliance is maintained; • Identify, assess and leverage opportunities to achieve sustainability outcomes; • Review subcontractors' performance and compliance with CDS-JV environmental requirements; • Enter and close out all incidents in the HSE Reporting System (Synergy); • Identify and implement corrective and preventative actions after incidents and share lessons learned within the CDS-JV team or other projects, as applicable; and • Provide input to the monthly project progress report.
CDS-JV Environment Advisor	The environmental responsibilities of the CDS-JV Environment Advisor include, but are not limited to: • Assist the CDS-JV Environment and Sustainability Manager to implement, maintain and review this CEMP and associated documents; • Act as the first source of environmental advice and information for the CDS-JV design and construction teams; • Conduct regular inspections and monitoring in accordance with this CEMP and sub-plans; • Respond to incidents and manage investigations as directed by the Environment and Sustainability Manager; • Assist in the development and/or delivery of environmental training and awareness, e.g. project inductions, toolbox talks, pre-start, etc.; • Undertake inspections, observations, monitoring and audits as required; and • Maintain regular communication with the Environment and Sustainability Manager regarding environmental performance and conformance.

Lab ID	PQL (mg/kg)	10721-C24	10721-C25	10721-C26	10721-C27	10721-C28	10721-C29
Sample Name		10721-TP10A	10721-TP10B	10721-TP11A	10721-TP11B	10721-TP12A	10721-TP12B
TRH							
>C6-C10	35	<35	<35	<35	<35	<35	<35
>C10-C16	50	<50	<50	<50	<50	<50	<50
>C16-C34	100	<100	<100	120	<100	<100	<100
>C34-C40	100	<100	<100	<100	<100	<100	<100
BTEX							
Benzene	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	1	<1	<1	<1	<1	<1	<1
m, p- Xylene(s)	2	<2	<2	<2	<2	<2	<2
o-Xylene	1	<1	<1	<1	<1	<1	<1
Fluorobenzene	surr.	101%	103%	100%	96%	105%	94%
Metals							
Arsenic	2	2.2	3.2	4.9	2.3	9.3	5.2
Cadmium	0.3	1.1	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium	5	33	30	12	9.5	5.9	7.9
Copper	5	42	14	9.3	48	8.3	5.6
Lead	10	83	840	210	600	19	21
Mercury	0.2	0.5	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	10	19	14	10	<10	15	17
Zinc	5	77	140	66	180	48	49
Moisture	%	9%	14%	14%	16%	15%	11%
pH (average for 3 measurements)		7.8	5.8	7.4	8.2	8.0	8.9
EC	[dS/m]	0.040	0.345	0.007	0.201	0.028	0.065

Lab ID	PQL (mg/kg)	Batch Blank 1	Batch Blank spike 1	Batch Matrix spike 1	Batch Duplicate 1-Value 1	Batch Duplicate 1-Value 2	Batch Duplicate 1
Sample Name							
PAH							
Acenaphthene	0.3	<0.3	86%	86%	<0.3	<0.3	ACCEPT
Acenaphthylene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Anthracene	0.3	<0.3	93%	89%	<0.3	<0.3	ACCEPT
Benzo[a]anthracene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Benzo[a]pyrene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Benzo[b]fluoranthene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Benzo[g,h,i]perylene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Benzo[k]fluoranthene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Chrysene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Dibenzo[a,h]anthracene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Fluoranthene	0.3	<0.3	90%	88%	<0.3	<0.3	ACCEPT
Fluorene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Indeno(1,2,3-cd)pyrene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Naphthalene	0.3	<0.3	87%	85%	<0.3	<0.3	ACCEPT
Phenanthrene	0.3	<0.3	93%	90%	<0.3	<0.3	ACCEPT
Pyrene	0.3	<0.3	89%	88%	<0.3	<0.3	ACCEPT
p-Terphenyl-d14	surr.		103%	100%	94%	91%	
OCPs							
aldrin	0.1	<0.1	84%	81%	<0.1	<0.1	ACCEPT
a-BHC	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
b-BHC	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
d-BHC	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
g-BHC (lindane)	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
cis-chlordane	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
trans-chlordane	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
4,4'-DDD	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
4,4'-DDE	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
4,4'-DDT	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
dieldrin	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
endosulfan I	0.2	<0.2	NT	NT	<0.2	<0.2	ACCEPT
endosulfan II	0.2	<0.2	NT	NT	<0.2	<0.2	ACCEPT
endosulfan sulfate	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
endrin	0.2	<0.2	75%	73%	<0.2	<0.2	ACCEPT
endrin aldehyde	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
endrin ketone	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
heptachlor	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
heptachlor epoxide	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
hexachlorobenzene	0.1	<0.1	80%	77%	<0.1	<0.1	ACCEPT
methoxychlor	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
TCMX	surr.		85%	83%	80%	78%	
OPPs							
chlorpyrifos	0.1	<0.1	75%	81%	<0.1	<0.1	ACCEPT
chlorpyrifos methyl	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
diazinon	0.1	<0.1	90%	87%	<0.1	<0.1	ACCEPT
fenchlorphos	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
methyl parathion	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
prophos	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
tributylphosphorotrithioite	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
PCB							
Total PCB		<0.6	NT	NT	<0.6	<0.6	ACCEPT
2-fluorobiphenyl	surr.		80%	78%	78%	76%	

Lab ID	PQL (mg/kg)	Batch Blank 1	Batch Blank spike 1	Batch Matrix spike 1	Batch Duplicate 1-Value 1	Batch Duplicate 1-Value 2	Batch Duplicate 1
Sample Name							
TRH							
>C6-C10	35	<35	NT	NT	<35	<35	ACCEPT
>C10-C16	50	<50	96%	98%	<50	<50	ACCEPT
>C16-C34	100	<100	NT	NT	<100	<100	ACCEPT
>C34-C40	100	<100	NT	NT	<100	<100	ACCEPT
BTEX							
Benzene	0.5	<0.5	84%	108%	<0.5	<0.5	ACCEPT
Toluene	0.5	<0.5	83%	87%	<0.5	<0.5	ACCEPT
Ethylbenzene	1	<1	83%	87%	<1	<1	ACCEPT
m, p- Xylene(s)	2	<2	83%	89%	<2	<2	ACCEPT
o-Xylene	1	<1	83%	87%	<1	<1	ACCEPT
Fluorobenzene	surr.		86%	88%	99%	94%	
Metals							
Arsenic	2	<2	93%	100%	11	9.8	ACCEPT
Cadmium	0.3	<0.3	98%	88%	<0.3	<0.3	ACCEPT
Chromium	5	<5	102%	81%	12	18	ACCEPT
Copper	5	<5	84%	107%	22	20	ACCEPT
Lead	10	<10	95%	91%	29	35	ACCEPT
Mercury	0.2	<0.2	97%	100%	<0.2	<0.2	ACCEPT
Nickel	10	<10	92%	107%	21	20	ACCEPT
Zinc	5	<5	100%	92%	57	51	ACCEPT
Moisture	%						
pH (average for 3 measurements)							
EC	[dS/m]						

Lab ID	PQL (mg/kg)	Duplicate 2-Value 1	Duplicate 2-Value 2	Duplicate 2
Sample Name				
PAH				
Acenaphthene	0.3	<0.3	<0.3	ACCEPT
Acenaphthylene	0.3	<0.3	<0.3	ACCEPT
Anthracene	0.3	<0.3	<0.3	ACCEPT
Benzo[a]anthracene	0.3	<0.3	<0.3	ACCEPT
Benzo[a]pyrene	0.3	0.3	<0.3	ACCEPT
Benzo[b]fluoranthene	0.3	0.4	<0.3	ACCEPT
Benzo[g,h,i]perylene	0.3	<0.3	<0.3	ACCEPT
Benzo[k]fluoranthene	0.3	<0.3	<0.3	ACCEPT
Chrysene	0.3	<0.3	<0.3	ACCEPT
Dibenzo[a,h]anthracene	0.3	<0.3	<0.3	ACCEPT
Fluoranthene	0.3	0.4	<0.3	ACCEPT
Fluorene	0.3	<0.3	<0.3	ACCEPT
Indeno(1,2,3-cd)pyrene	0.3	<0.3	<0.3	ACCEPT
Naphthalene	0.3	<0.3	<0.3	ACCEPT
Phenanthrene	0.3	<0.3	<0.3	ACCEPT
Pyrene	0.3	0.5	0.3	ACCEPT
p-Terphenyl-d14	surr.	90%	94%	
OCPs				
aldrin	0.1	<0.1	<0.1	ACCEPT
a-BHC	0.1	<0.1	<0.1	ACCEPT
b-BHC	0.1	<0.1	<0.1	ACCEPT
d-BHC	0.1	<0.1	<0.1	ACCEPT
g-BHC (lindane)	0.1	<0.1	<0.1	ACCEPT
cis-chlordane	0.1	<0.1	<0.1	ACCEPT
trans-chlordane	0.1	<0.1	<0.1	ACCEPT
4,4'-DDD	0.1	0.1	0.1	ACCEPT
4,4'-DDE	0.1	<0.1	<0.1	ACCEPT
4,4'-DDT	0.1	<0.1	<0.1	ACCEPT
dieldrin	0.1	<0.1	<0.1	ACCEPT
endosulfan I	0.2	<0.2	<0.2	ACCEPT
endosulfan II	0.2	<0.2	<0.2	ACCEPT
endosulfan sulfate	0.1	<0.1	<0.1	ACCEPT
endrin	0.2	<0.2	<0.2	ACCEPT
endrin aldehyde	0.1	<0.1	<0.1	ACCEPT
endrin ketone	0.1	<0.1	<0.1	ACCEPT
heptachlor	0.1	<0.1	<0.1	ACCEPT
heptachlor epoxide	0.1	<0.1	<0.1	ACCEPT
hexachlorobenzene	0.1	<0.1	<0.1	ACCEPT
methoxychlor	0.1	<0.1	<0.1	ACCEPT
TCMX	surr.	74%	80%	
OPPs				
chlorpyrifos	0.1	<0.1	<0.1	ACCEPT
chlorpyrifos methyl	0.1	<0.1	<0.1	ACCEPT
diazinon	0.1	<0.1	<0.1	ACCEPT
fenchlorphos	0.1	<0.1	<0.1	ACCEPT
methyl parathion	0.1	<0.1	<0.1	ACCEPT
prophos	0.1	<0.1	<0.1	ACCEPT
tributylphosphorotrithioite	0.1	<0.1	<0.1	ACCEPT
PCB				
Total PCB		<0.6	<0.6	ACCEPT
2-fluorobiphenyl	surr.	74%	79%	

Lab ID	PQL (mg/kg)	Duplicate 2-Value 1	Duplicate 2-Value 2	Duplicate 2
Sample Name				
TRH				
>C6-C10	35	<35	<35	ACCEPT
>C10-C16	50	<50	<50	ACCEPT
>C16-C34	100	<100	<100	ACCEPT
>C34-C40	100	<100	<100	ACCEPT
BTEX				
Benzene	0.5	<0.5	<0.5	ACCEPT
Toluene	0.5	<0.5	<0.5	ACCEPT
Ethylbenzene	1	<1	<1	ACCEPT
m, p- Xylene(s)	2	<2	<2	ACCEPT
o-Xylene	1	<1	<1	ACCEPT
Fluorobenzene	surr.	105%	101%	
Metals				
Arsenic	2	2.2	2.4	ACCEPT
Cadmium	0.3	1.1	1.1	ACCEPT
Chromium	5	33	31	ACCEPT
Copper	5	42	50	ACCEPT
Lead	10	83	110	ACCEPT
Mercury	0.2	0.5	0.6	ACCEPT
Nickel	10	19	14	ACCEPT
Zinc	5	77	90	ACCEPT
Moisture	%			
pH (average for 3 measurements)				
EC	[dS/m]			

General Comments and Glossary

Tests not covered by NATA are denoted with *.
Samples are analysed on "as received" basis.

Samples were delivered chilled	**Yes**
Samples were preserved in correct manner	**Yes**
Sample containers for volatile analysis were received with minimal headspace	**Yes**
Samples were analysed within holding time	**Yes**
Some samples have been subcontracted	**No**

1. All samples are tested in batches of 20.
2. All results for soil samples are reported per gram of dry soil, unless otherwise stated.
3. However surrogate standards are added to samples due to PAH and BTEX analysis and recoveries are calculated, samples' results are not corrected for standards recoveries.
4. Analysis of VOC in water samples are performed on unfiltered waters (as received), spiked with surrogate
5. If heterogenous or insufficient material provided LCS is used as matrix spike for QA/QC purposes.
6. Duplicate sample and matrix spike recoveries may not be prepared on smaller jobs, however, were analysed at a frequency
7. QA/QC samples shown within the report that states the word "BATCH"; Batch Blank, Matrix Spike and Duplicate were prepared on samples from outside of reported job.

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surr. (Surrogate Spike): Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

INS: Insufficient sample for this test
>: Greater than
LCS: Laboratory Control Sample
NT: Not tested
<: Less than
RPD: Relative Percent Difference
NA: Test not required
PQL: Practical Quantitation Limit

Laboratory Acceptance Criteria

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals, 60-140% for organics is acceptable. Matrix heterogeneity may result in matrix spike analyses falling outside these limits.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:
Results <10 times the PQL : No Limit
Results between 10-20 times the PQL : RPD must lie between 0-50%
Results >20 times the PQL : RPD must lie between 0-30%
Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

Accreditation No.14664.
Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
Tests not covered by NATA are denoted with *.

**Methods Number Description:

ESA-MP-01	Determination of metals by MP-AES
ESA-MP-02	Digestion of soil samples for MP-AES analysis
ESA-MP-03	Preparation of water samples for metals determination by MP-AES
ESA-MP-04	TCLP for inorganic contaminants
ESA-MP-05	Digestion of paint and dust samples for lead contect determination
ESA-MP-06	Digestion of air filters
ESA-MP-07	Digestion of swabs for determination of lead content in dust
ESA-P-ORG02	Analysis of PAHs by GC-MS
ESA-P-ORG03	Analysis of TRH and TPH by GC-FID
ESA-P-ORG04	Separatory funnel extraction of PAHs from water matrices including TCLP extracts
ESA-P-ORG05	Separatory funnel extraction of TRH and TPH from water matrices
ESA-P-ORG06	Silica gel clean up of soil and water extracts, prior analysis for STPH
ESA-P-ORG07	Extraction of BTEX and VTRX from soil matrices
ESA-P-ORG08	Analysis of soil extracts and waters by P&T GCMS
ESA-P-ORG09	Extraction of TRH from solid matrices
ESA-P-ORG14	Extraction of PCB (Aroclor) OCP OPP and PAH from soil matrices
ESA-P-ORG15	Analysis of PCB OCP OPP and PAH by GCMS
AS 1289.4.3.1	Determination of the pH value of a soil-Electrometric method
AS 1289.3.6.1	Determination of the particle size distribution of a soil - Standard method of analysis by sieving
T276	NSW RMS Test Method T 276 Foreign materials content of recycled crushed concrete
*Texture Assessment based on; Salinity Notes, Number 8, Oct 2000, ISSN 1 325-4448, "How to Texture soils & Test for Salinity"	
*ESA-P-16	Procedure for measurement of Electrical Conductivity EC
ESA-P-12	Moisture by classical in-house method; **Procedure for gravimetric moisture determination**

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Environmental and OH&S Laboratory

A division of A. D. Envirotech Australia Pty Ltd A.C.N. 093 452 950

Unit 4/10-11 Millennium Court,
Silverwater 2128
Ph: (02) 9648-6669

Analysis report: WCX-02-10721-8

Customer: A. D. Envirotech Australia Pty. Ltd.
Attention: [redacted]

Sample Log In Details

Your reference:	WCX-02-10721-8
No. of Samples:	6
Date Received:	16.08.2016
Date completed instructions received:	16.08.2016
Date of analysis:	16-22.08.2016

Report Details

Report Date:	22.08.2016
Method number:**	ESA-MP-01
	ESA-MP-02
	ESA-P-ORG03
	ESA-P-ORG07
	ESA-P-ORG08
	ESA-P-ORG09
	ESA-P-ORG14
	ESA-P-ORG15
	ESA-P-12
	AS 1289.4.3.1
	*ESA-P-16
	T276

[redacted]

[redacted]

Accreditation No.14664.

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Tests not covered by NATA are denoted with *.

Lab ID	PQL (mg/kg)	10721-C30	10721-C31	10721-C32	10721-C33	10721-C34	10721-C35
Sample Name		10721-TP1-N-A	10721-TP1-N-B	10721-TP1-N-C	10721-TP1-N-D	10721-TP2-N-A	10721-TP2-N-B
PAH							
Acenaphthene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Acenaphthylene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Anthracene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Benzo[a]anthracene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Benzo[a]pyrene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Benzo[b]fluoranthene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Benzo[g,h,i]perylene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Benzo[k]fluoranthene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chrysene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Dibenzo[a,h]anthracene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Fluoranthene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Fluorene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Indeno(1,2,3-cd)pyrene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Naphthalene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Phenanthrene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Pyrene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
p-Terphenyl-d14	surr.	98%	98%	98%	104%	96%	103%
OCPs							
aldrin	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
a-BHC	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
b-BHC	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
d-BHC	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
g-BHC (lindane)	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
cis-chlordane	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-chlordane	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDD	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDE	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDT	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
dieldrin	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
endosulfan I	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
endosulfan II	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
endosulfan sulfate	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
endrin	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
endrin aldehyde	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
endrin ketone	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
heptachlor	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
heptachlor epoxide	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
hexachlorobenzene	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
methoxychlor	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TCMX	surr.	101%	98%	99%	101%	98%	103%
OPPs							
chlorpyrifos	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
chlorpyrifos methyl	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
diazinon	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
fenchlorphos	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
methyl parathion	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
prophos	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
tributylphosphorotrithioite	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PCB							
Total PCB		<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
2-fluorobiphenyl	surr.	92%	77%	79%	90%	85%	83%

Lab ID	PQL (mg/kg)	10721-C30	10721-C31	10721-C32	10721-C33	10721-C34	10721-C35
Sample Name		10721-TP1-N-A	10721-TP1-N-B	10721-TP1-N-C	10721-TP1-N-D	10721-TP2-N-A	10721-TP2-N-B
TRH							
>C6-C10	35	<35	<35	<35	<35	<35	<35
>C10-C16	50	<50	<50	<50	<50	<50	<50
>C16-C34	100	<100	<100	<100	<100	<100	<100
>C34-C40	100	<100	<100	<100	<100	<100	<100
BTEX							
Benzene	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	1	<1	<1	<1	<1	<1	<1
m, p- Xylene(s)	2	<2	<2	<2	<2	<2	<2
o-Xylene	1	<1	<1	<1	<1	<1	<1
Fluorobenzene	surr.	107%	103%	109%	110%	108%	111%
Metals							
Arsenic	2	4.5	3.4	8.0	<2	4.3	4.3
Cadmium	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium	5	15	9.4	8.5	<5	13	8.9
Copper	5	18	13	21	13	9.3	19
Lead	10	41	15	30	12	42	20
Mercury	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	10	35	20	28	<10	12	19
Zinc	5	140	84	103	47	51	80
Moisture	%	18%	15%	18%	18%	14%	10%
pH (average for 3 measurements)		9.0	8.3	6.1	8.8	8.4	8.8
EC	[dS/m]	0.000	0.154	0.053	0.042	0.162	0.062
% of Foreign Material	%						
Rubber, Plastic, Bitumen, Paper, Cloth, Paint and Wood		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Lab ID	PQL (mg/kg)	Batch Blank 1	Batch Blank spike 1	Batch Matrix spike 1	Batch Duplicate 1-Value 1	Batch Duplicate 1-Value 2	Batch Duplicate 1
Sample Name							
PAH							
Acenaphthene	0.3	<0.3	97%	97%	<0.3	<0.3	ACCEPT
Acenaphthylene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Anthracene	0.3	<0.3	103%	102%	<0.3	<0.3	ACCEPT
Benzo[a]anthracene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Benzo[a]pyrene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Benzo[b]fluoranthene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Benzo[g,h,i]perylene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Benzo[k]fluoranthene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Chrysene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Dibenzo[a,h]anthracene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Fluoranthene	0.3	<0.3	97%	96%	<0.3	<0.3	ACCEPT
Fluorene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Indeno(1,2,3-cd)pyrene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Naphthalene	0.3	<0.3	98%	98%	<0.3	<0.3	ACCEPT
Phenanthrene	0.3	<0.3	98%	99%	<0.3	<0.3	ACCEPT
Pyrene	0.3	<0.3	97%	98%	<0.3	<0.3	ACCEPT
p-Terphenyl-d14	surr.		94%	95%	94%	100%	
OCPs							
aldrin	0.1	<0.1	99%	99%	<0.1	<0.1	ACCEPT
a-BHC	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
b-BHC	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
d-BHC	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
g-BHC (lindane)	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
cis-chlordane	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
trans-chlordane	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
4,4'-DDD	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
4,4'-DDE	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
4,4'-DDT	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
dieldrin	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
endosulfan I	0.2	<0.2	NT	NT	<0.2	<0.2	ACCEPT
endosulfan II	0.2	<0.2	NT	NT	<0.2	<0.2	ACCEPT
endosulfan sulfate	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
endrin	0.2	<0.2	85%	91%	<0.2	<0.2	ACCEPT
endrin aldehyde	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
endrin ketone	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
heptachlor	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
heptachlor epoxide	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
hexachlorobenzene	0.1	<0.1	107%	107%	<0.1	<0.1	ACCEPT
methoxychlor	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
TCMX	surr.		102%	101%	99%	106%	
OPPs							
chlorpyrifos	0.1	<0.1	100%	96%	<0.1	<0.1	ACCEPT
chlorpyrifos methyl	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
diazinon	0.1	<0.1	97%	97%	<0.1	<0.1	ACCEPT
fenchlorphos	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
methyl parathion	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
prophos	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
tributylphosphorotrithioite	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
PCB							
Total PCB		<0.6	NT	NT	<0.6	<0.6	ACCEPT
2-fluorobiphenyl	surr.		89%	87%	86%	92%	

Lab ID	PQL (mg/kg)	Batch Blank 1	Batch Blank spike 1	Batch Matrix spike 1	Batch Duplicate 1-Value 1	Batch Duplicate 1-Value 2	Batch Duplicate 1
Sample Name							
TRH							
>C6-C10	35	<35	NT	NT	<35	<35	ACCEPT
>C10-C16	50	<50	97%	103%	<50	<50	ACCEPT
>C16-C34	100	<100	NT	NT	<100	<100	ACCEPT
>C34-C40	100	<100	NT	NT	<100	<100	ACCEPT
BTEX							
Benzene	0.5	<0.5	99%	109%	<0.5	<0.5	ACCEPT
Toluene	0.5	<0.5	91%	83%	<0.5	<0.5	ACCEPT
Ethylbenzene	1	<1	90%	83%	<1	<1	ACCEPT
m, p- Xylene(s)	2	<2	89%	76%	<2	<2	ACCEPT
o-Xylene	1	<1	90%	83%	<1	<1	ACCEPT
Fluorobenzene	surr.		100%	96%	111%	109%	
Metals							
Arsenic	2	<2	107%	105%	2.9	4.9	ACCEPT
Cadmium	0.3	<0.3	108%	108%	<0.3	<0.3	ACCEPT
Chromium	5	<5	112%	90%	5.8	5.8	ACCEPT
Copper	5	<5	91%	97%	27	30	ACCEPT
Lead	10	<10	105%	85%	15	17	ACCEPT
Mercury	0.2	<0.2	122%	119%	<0.2	<0.2	ACCEPT
Nickel	10	<10	99%	101%	22	26	ACCEPT
Zinc	5	<5	107%	123%	100	130	ACCEPT
Moisture	%						
pH (average for 3 measurements)							
EC	[dS/m]						
% of Foreign Material	%						
Rubber, Plastic, Bitumen, Paper, Cloth, Paint and Wood							

Lab ID	PQL (mg/kg)	Batch Duplicate 2-Value 1	Batch Duplicate 2-Value 2	Batch Duplicate 2
Sample Name				
PAH				
Acenaphthene	0.3	<0.3	<0.3	ACCEPT
Acenaphthylene	0.3	<0.3	<0.3	ACCEPT
Anthracene	0.3	<0.3	<0.3	ACCEPT
Benzo[a]anthracene	0.3	<0.3	<0.3	ACCEPT
Benzo[a]pyrene	0.3	<0.3	<0.3	ACCEPT
Benzo[b]fluoranthene	0.3	<0.3	<0.3	ACCEPT
Benzo[g,h,i]perylene	0.3	<0.3	<0.3	ACCEPT
Benzo[k]fluoranthene	0.3	<0.3	<0.3	ACCEPT
Chrysene	0.3	<0.3	<0.3	ACCEPT
Dibenzo[a,h]anthracene	0.3	<0.3	<0.3	ACCEPT
Fluoranthene	0.3	<0.3	<0.3	ACCEPT
Fluorene	0.3	<0.3	<0.3	ACCEPT
Indeno(1,2,3-cd)pyrene	0.3	<0.3	<0.3	ACCEPT
Naphthalene	0.3	<0.3	<0.3	ACCEPT
Phenanthrene	0.3	<0.3	<0.3	ACCEPT
Pyrene	0.3	<0.3	<0.3	ACCEPT
p-Terphenyl-d14	surr.	94%	95%	
OCPs				
aldrin	0.1	<0.1	<0.1	ACCEPT
a-BHC	0.1	<0.1	<0.1	ACCEPT
b-BHC	0.1	<0.1	<0.1	ACCEPT
d-BHC	0.1	<0.1	<0.1	ACCEPT
g-BHC (lindane)	0.1	<0.1	<0.1	ACCEPT
cis-chlordane	0.1	<0.1	<0.1	ACCEPT
trans-chlordane	0.1	<0.1	<0.1	ACCEPT
4,4'-DDD	0.1	<0.1	<0.1	ACCEPT
4,4'-DDE	0.1	<0.1	<0.1	ACCEPT
4,4'-DDT	0.1	<0.1	<0.1	ACCEPT
dieldrin	0.1	<0.1	<0.1	ACCEPT
endosulfan I	0.2	<0.2	<0.2	ACCEPT
endosulfan II	0.2	<0.2	<0.2	ACCEPT
endosulfan sulfate	0.1	<0.1	<0.1	ACCEPT
endrin	0.2	<0.2	<0.2	ACCEPT
endrin aldehyde	0.1	<0.1	<0.1	ACCEPT
endrin ketone	0.1	<0.1	<0.1	ACCEPT
heptachlor	0.1	<0.1	<0.1	ACCEPT
heptachlor epoxide	0.1	<0.1	<0.1	ACCEPT
hexachlorobenzene	0.1	<0.1	<0.1	ACCEPT
methoxychlor	0.1	<0.1	<0.1	ACCEPT
TCMX	surr.	99%	96%	
OPPs				
chlorpyrifos	0.1	<0.1	<0.1	ACCEPT
chlorpyrifos methyl	0.1	<0.1	<0.1	ACCEPT
diazinon	0.1	<0.1	<0.1	ACCEPT
fenchlorphos	0.1	<0.1	<0.1	ACCEPT
methyl parathion	0.1	<0.1	<0.1	ACCEPT
prophos	0.1	<0.1	<0.1	ACCEPT
tributylphosphorotrithioite	0.1	<0.1	<0.1	ACCEPT
PCB				
Total PCB		<0.6	<0.6	ACCEPT
2-fluorobiphenyl	surr.	87%	82%	

Lab ID	PQL (mg/kg)	Batch Duplicate 2-Value 1	Batch Duplicate 2-Value 2	Batch Duplicate 2
Sample Name				
TRH				
>C6-C10	35	<35	<35	ACCEPT
>C10-C16	50	<50	<50	ACCEPT
>C16-C34	100	<100	<100	ACCEPT
>C34-C40	100	<100	<100	ACCEPT
BTEX				
Benzene	0.5	<0.5	<0.5	ACCEPT
Toluene	0.5	<0.5	<0.5	ACCEPT
Ethylbenzene	1	<1	<1	ACCEPT
m, p- Xylene(s)	2	<2	<2	ACCEPT
o-Xylene	1	<1	<1	ACCEPT
Fluorobenzene	surr.	107%	108%	
Metals				
Arsenic	2	2.7	6.4	ACCEPT
Cadmium	0.3	<0.3	1.2	ACCEPT
Chromium	5	7.1	21	ACCEPT
Copper	5	15	9.4	ACCEPT
Lead	10	33	40	ACCEPT
Mercury	0.2	<0.2	<0.2	ACCEPT
Nickel	10	<10	22	ACCEPT
Zinc	5	27	93	FAIL
Moisture	%			
pH (average for 3 measurements)				
EC	[dS/m]			
% of Foreign Material	%			
Rubber, Plastic, Bitumen, Paper, Cloth, Paint and Wood				

Comments:
FAIL caused by inhomogenous matrix

General Comments and Glossary

Tests not covered by NATA are denoted with *.
Samples are analysed on "as received" basis.

Samples were delivered chilled	**Yes**
Samples were preserved in correct manner	**Yes**
Sample containers for volatile analysis were received with minimal headspace	**Yes**
Samples were analysed within holding time	**Yes**
Some samples have been subcontracted	**No**

1. All samples are tested in batches of 20.
2. All results for soil samples are reported per gram of dry soil, unless otherwise stated.
3. However surrogate standards are added to samples due to PAH and BTEX analysis and recoveries are calculated, samples' results are not corrected for standards recoveries.
4. Analysis of VOC in water samples are performed on unfiltered waters (as received), spiked with surrogate
5. If heterogenous or insufficient material provided LCS is used as matrix spike for QA/QC purposes.
6. Duplicate sample and matrix spike recoveries may not be prepared on smaller jobs, however, were analysed at a frequency
7. QA/QC samples shown within the report that states the word "BATCH"; Batch Blank, Matrix Spike and Duplicate were prepared on samples from outside of reported job.

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surr. (Surrogate Spike): Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

INS: Insufficient sample for this test
>: Greater than
LCS: Laboratory Control Sample
NT: Not tested
<: Less than
RPD: Relative Percent Difference
NA: Test not required
PQL: Practical Quantitation Limit

Laboratory Acceptance Criteria

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals, 60-140% for organics is acceptable. Matrix heterogeneity may result in matrix spike analyses falling outside these limits.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:
Results <10 times the PQL : No Limit
Results between 10-20 times the PQL : RPD must lie between 0-50%
Results >20 times the PQL : RPD must lie between 0-30%
Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

Accreditation No.14664.
Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
Tests not covered by NATA are denoted with *.

**Methods Number Description:

ESA-MP-01	Determination of metals by MP-AES
ESA-MP-02	Digestion of soil samples for MP-AES analysis
ESA-MP-03	Preparation of water samples for metals determination by MP-AES
ESA-MP-04	TCLP for inorganic contaminants
ESA-MP-05	Digestion of paint and dust samples for lead contect determination
ESA-MP-06	Digestion of air filters
ESA-MP-07	Digestion of swabs for determination of lead content in dust
ESA-P-ORG02	Analysis of PAHs by GC-MS
ESA-P-ORG03	Analysis of TRH and TPH by GC-FID
ESA-P-ORG04	Separatory funnel extraction of PAHs from water matrices including TCLP extracts
ESA-P-ORG05	Separatory funnel extraction of TRH and TPH from water matrices
ESA-P-ORG06	Silica gel clean up of soil and water extracts, prior analysis for STPH
ESA-P-ORG07	Extraction of BTEX and VTRX from soil matrices
ESA-P-ORG08	Analysis of soil extracts and waters by P&T GCMS
ESA-P-ORG09	Extraction of TRH from solid matrices
ESA-P-ORG14	Extraction of PCB (Aroclor) OCP OPP and PAH from soil matrices
ESA-P-ORG15	Analysis of PCB OCP OPP and PAH by GCMS
AS 1289.4.3.1	Determination of the pH value of a soil-Electrometric method
AS 1289.3.6.1	Determination of the particle size distribution of a soil - Standard method of analysis by sieving
T276	NSW RTA Test Method T 276 Foreign materials content as per "The excavated natural material order 2014."
*Texture Assessment based on; Salinity Notes, Number 8, Oct 2000, ISSN 1 325-4448, "How to Texture soils & Test for Salinity"	
*ESA-P-16	Procedure for measurement of Electrical Conductivity EC
ESA-P-12	Moisture by classical in-house method; **Procedure for gravimetric moisture determination**

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Environmental and OH&S Laboratory

A division of A. D. Envirotech Australia Pty Ltd A.C.N. 093 452 950

Unit 4/10-11 Millennium Court,
Silverwater 2128
Ph: (02) 9648-6669

Analysis report: WCX-02-10721-9

Customer: A. D. Envirotech Australia Pty. Ltd.
Attention: [redacted]

Sample Log In Details

Your reference:	WCX-02-10721-9
No. of Samples:	6
Date Received:	18.08.2016
Date completed instructions received:	18.08.2016
Date of analysis:	18-24.08.2016

Report Details

Report Date:	24.08.2019
Method number:**	ESA-MP-01
	ESA-MP-02
	ESA-P-ORG03
	ESA-P-ORG07
	ESA-P-ORG08
	ESA-P-ORG09
	ESA-P-ORG14
	ESA-P-ORG15
	ESA-P-12
	AS 1289.4.3.1
	*ESA-P-16
	T276

[redacted]

[redacted]

Accreditation No.14664.

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Tests not covered by NATA are denoted with *.

Lab ID	PQL (mg/kg)	10721-C36	10721-C37	10721-C38	10721-C39	10721-C40	10721-C41
Sample Name		10721-TP3-N-A	10721-TP3-N-B	10721-TP3-N-C	10721-TP4-N-A	10721-TP4-N-B	10721-TP4-N-C
PAH							
Acenaphthene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Acenaphthylene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Anthracene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Benzo[a]anthracene	0.3	<0.3	0.6	0.5	<0.3	<0.3	<0.3
Benzo[a]pyrene	0.3	<0.3	0.6	0.5	<0.3	<0.3	<0.3
Benzo[b]fluoranthene	0.3	<0.3	0.6	0.6	<0.3	<0.3	<0.3
Benzo[g,h,i]perylene	0.3	<0.3	0.4	0.3	<0.3	<0.3	<0.3
Benzo[k]fluoranthene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chrysene	0.3	<0.3	0.6	0.4	<0.3	<0.3	<0.3
Dibenzo[a,h]anthracene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Fluoranthene	0.3	<0.3	1.4	1.1	0.3	<0.3	<0.3
Fluorene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Indeno(1,2,3-cd)pyrene	0.3	<0.3	0.3	<0.3	<0.3	<0.3	<0.3
Naphthalene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Phenanthrene	0.3	<0.3	0.4	<0.3	<0.3	<0.3	<0.3
Pyrene	0.3	<0.3	1.3	1.0	0.3	<0.3	<0.3
p-Terphenyl-d14	surr.	123%	106%	109%	115%	96%	103%
OCPs							
aldrin	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
a-BHC	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
b-BHC	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
d-BHC	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
g-BHC (lindane)	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
cis-chlordane	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-chlordane	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDD	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDE	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDT	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
dieldrin	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
endosulfan I	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
endosulfan II	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
endosulfan sulfate	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
endrin	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
endrin aldehyde	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
endrin ketone	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
heptachlor	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
heptachlor epoxide	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
hexachlorobenzene	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
methoxychlor	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TCMX	surr.	111%	99%	98%	104%	86%	92%
OPPs							
chlorpyrifos	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
chlorpyrifos methyl	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
diazinon	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
fenchlorphos	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
methyl parathion	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
prophos	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
tributylphosphorotrithioite	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PCB							
Total PCB		<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
2-fluorobiphenyl	surr.	85%	78%	75%	82%	85%	90%

Lab ID	PQL (mg/kg)	10721-C36	10721-C37	10721-C38	10721-C39	10721-C40	10721-C41
Sample Name		10721-TP3-N-A	10721-TP3-N-B	10721-TP3-N-C	10721-TP4-N-A	10721-TP4-N-B	10721-TP4-N-C
TRH							
>C6-C10	35	<35	<35	<35	<35	<35	<35
>C10-C16	50	<50	<50	<50	<50	<50	<50
>C16-C34	100	<100	<100	<100	<100	<100	<100
>C34-C40	100	<100	<100	<100	<100	<100	<100
BTEX							
Benzene	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	1	<1	<1	<1	<1	<1	<1
m, p- Xylene(s)	2	<2	<2	<2	<2	<2	<2
o-Xylene	1	<1	<1	<1	<1	<1	<1
Fluorobenzene	surr.	104%	99%	104%	106%	108%	100%
Metals							
Arsenic	2	8.3	12	7.6	8.6	2.9	11
Cadmium	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium	5	15	17	11	14	7.9	9.7
Copper	5	28	11	18	16	21	<5
Lead	10	45	26	26	42	27	<10
Mercury	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	10	10	<10	<10	<10	30	<10
Zinc	5	40	14	30	46	66	<5
Moisture	%	10%	13%	17%	16%	11%	17%
pH (average for 3 measurements)		7.8	7.0	7.3	7.5	8.9	5.5
EC	[dS/m]	0.000	0.250	0.028	0.024	0.046	0.000
% of Foreign Material	%						
Rubber, Plastic, Bitumen, Paper, Cloth, Paint and Wood		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Lab ID	PQL (mg/kg)	Blank 1	Blank spike 1	Matrix spike 1	Duplicate 1-Value 1	Duplicate 1-Value 2	Duplicate 1
Sample Name							
PAH							
Acenaphthene	0.3	<0.3	89%	92%	<0.3	<0.3	ACCEPT
Acenaphthylene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Anthracene	0.3	<0.3	101%	103%	<0.3	<0.3	ACCEPT
Benzo[a]anthracene	0.3	<0.3	NT	NT	0.6	<0.3	ACCEPT
Benzo[a]pyrene	0.3	<0.3	NT	NT	0.6	<0.3	ACCEPT
Benzo[b]fluoranthene	0.3	<0.3	NT	NT	0.6	<0.3	ACCEPT
Benzo[g,h,i]perylene	0.3	<0.3	NT	NT	0.4	<0.3	ACCEPT
Benzo[k]fluoranthene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Chrysene	0.3	<0.3	NT	NT	0.6	<0.3	ACCEPT
Dibenzo[a,h]anthracene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Fluoranthene	0.3	<0.3	98%	98%	1.4	<0.3	ACCEPT
Fluorene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Indeno(1,2,3-cd)pyrene	0.3	<0.3	NT	NT	0.3	<0.3	ACCEPT
Naphthalene	0.3	<0.3	83%	85%	<0.3	<0.3	ACCEPT
Phenanthrene	0.3	<0.3	87%	91%	0.4	<0.3	ACCEPT
Pyrene	0.3	<0.3	99%	102%	1.3	<0.3	ACCEPT
p-Terphenyl-d14	surr.		103%	106%	106%	122%	
OCPs							
aldrin	0.1	<0.1	96%	100%	<0.1	<0.1	ACCEPT
a-BHC	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
b-BHC	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
d-BHC	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
g-BHC (lindane)	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
cis-chlordane	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
trans-chlordane	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
4,4'-DDD	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
4,4'-DDE	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
4,4'-DDT	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
dieldrin	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
endosulfan I	0.2	<0.2	NT	NT	<0.2	<0.2	ACCEPT
endosulfan II	0.2	<0.2	NT	NT	<0.2	<0.2	ACCEPT
endosulfan sulfate	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
endrin	0.2	<0.2	66%	77%	<0.2	<0.2	ACCEPT
endrin aldehyde	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
endrin ketone	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
heptachlor	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
heptachlor epoxide	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
hexachlorobenzene	0.1	<0.1	97%	96%	<0.1	<0.1	ACCEPT
methoxychlor	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
TCMX	surr.		92%	95%	99%	109%	
OPPs							
chlorpyrifos	0.1	<0.1	90%	93%	<0.1	<0.1	ACCEPT
chlorpyrifos methyl	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
diazinon	0.1	<0.1	85%	90%	<0.1	<0.1	ACCEPT
fenchlorphos	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
methyl parathion	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
prophos	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
tributylphosphorotrithioite	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
PCB							
Total PCB		<0.6	NT	NT	<0.6	<0.6	ACCEPT
2-fluorobiphenyl	surr.		87%	93%	78%	80%	

Lab ID	PQL (mg/kg)	Blank 1	Blank spike 1	Matrix spike 1	Duplicate 1-Value 1	Duplicate 1-Value 2	Duplicate 1
Sample Name							
TRH							
>C6-C10	35	<35	NT	NT	<35	<35	ACCEPT
>C10-C16	50	<50	103%	110%	<50	<50	ACCEPT
>C16-C34	100	<100	NT	NT	<100	<100	ACCEPT
>C34-C40	100	<100	NT	NT	<100	<100	ACCEPT
BTEX							
Benzene	0.5	<0.5	89%	85%	<0.5	<0.5	ACCEPT
Toluene	0.5	<0.5	89%	86%	<0.5	<0.5	ACCEPT
Ethylbenzene	1	<1	89%	86%	<1	<1	ACCEPT
m, p- Xylene(s)	2	<2	90%	86%	<2	<2	ACCEPT
o-Xylene	1	<1	89%	86%	<1	<1	ACCEPT
Fluorobenzene	surr.		94%	94%	99%	102%	
Metals							
Arsenic	2	<2	100%	95%	12	11	ACCEPT
Cadmium	0.3	<0.3	93%	95%	<0.3	<0.3	ACCEPT
Chromium	5	<5	88%	86%	17	18	ACCEPT
Copper	5	<5	90%	86%	11	13	ACCEPT
Lead	10	<10	89%	81%	26	25	ACCEPT
Mercury	0.2	<0.2	95%	91%	<0.2	<0.2	ACCEPT
Nickel	10	<10	84%	90%	<10	<10	ACCEPT
Zinc	5	<5	88%	100%	14	17	ACCEPT
Moisture	%						
pH (average for 3 measurements)							
EC	[dS/m]						
% of Foreign Material	%						
Rubber, Plastic, Bitumen, Paper, Cloth, Paint and Wood							

General Comments and Glossary

Tests not covered by NATA are denoted with *.
Samples are analysed on "as received" basis.

Samples were delivered chilled	**Yes**
Samples were preserved in correct manner	**Yes**
Sample containers for volatile analysis were received with minimal headspace	**Yes**
Samples were analysed within holding time	**Yes**
Some samples have been subcontracted	**No**

1. All samples are tested in batches of 20.
2. All results for soil samples are reported per gram of dry soil, unless otherwise stated.
3. However surrogate standards are added to samples due to PAH and BTEX analysis and recoveries are calculated, samples' results are not corrected for standards recoveries.
4. Analysis of VOC in water samples are performed on unfiltered waters (as received), spiked with surrogate
5. If heterogenous or insufficient material provided LCS is used as matrix spike for QA/QC purposes.
6. Duplicate sample and matrix spike recoveries may not be prepared on smaller jobs, however, were analysed at a frequency
7. QA/QC samples shown within the report that states the word "BATCH"; Batch Blank, Matrix Spike and Duplicate were prepared on samples from outside of reported job.

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surr. (Surrogate Spike): Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

INS: Insufficient sample for this test
>: Greater than
LCS: Laboratory Control Sample
NT: Not tested
<: Less than
RPD: Relative Percent Difference
NA: Test not required
PQL: Practical Quantitation Limit

Laboratory Acceptance Criteria

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals, 60-140% for organics is acceptable. Matrix heterogeneity may result in matrix spike analyses falling outside these limits.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:
Results <10 times the PQL : No Limit
Results between 10-20 times the PQL : RPD must lie between 0-50%
Results >20 times the PQL : RPD must lie between 0-30%
Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

Accreditation No.14664.
Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
Tests not covered by NATA are denoted with *.

**Methods Number Description:

ESA-MP-01	Determination of metals by MP-AES
ESA-MP-02	Digestion of soil samples for MP-AES analysis
ESA-MP-03	Preparation of water samples for metals determination by MP-AES
ESA-MP-04	TCLP for inorganic contaminants
ESA-MP-05	Digestion of paint and dust samples for lead contect determination
ESA-MP-06	Digestion of air filters
ESA-MP-07	Digestion of swabs for determination of lead content in dust
ESA-P-ORG02	Analysis of PAHs by GC-MS
ESA-P-ORG03	Analysis of TRH and TPH by GC-FID
ESA-P-ORG04	Separatory funnel extraction of PAHs from water matrices including TCLP extracts
ESA-P-ORG05	Separatory funnel extraction of TRH and TPH from water matrices
ESA-P-ORG06	Silica gel clean up of soil and water extracts, prior analysis for STPH
ESA-P-ORG07	Extraction of BTEX and VTRX from soil matrices
ESA-P-ORG08	Analysis of soil extracts and waters by P&T GCMS
ESA-P-ORG09	Extraction of TRH from solid matrices
ESA-P-ORG14	Extraction of PCB (Aroclor) OCP OPP and PAH from soil matrices
ESA-P-ORG15	Analysis of PCB OCP OPP and PAH by GCMS
AS 1289.4.3.1	Determination of the pH value of a soil-Electrometric method
AS 1289.3.6.1	Determination of the particle size distribution of a soil - Standard method of analysis by sieving
T276	NSW RTA Test Method T 276 Foreign materials content as per "The excavated natural material order 2014."
*Texture Assessment based on; Salinity Notes, Number 8, Oct 2000, ISSN 1 325-4448, "How to Texture soils & Test for Salinity"	
*ESA-P-16	Procedure for measurement of Electrical Conductivity EC
ESA-P-12	Moisture by classical in-house method; **Procedure for gravimetric moisture determination**

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Environmental and OH&S Laboratory

A division of A. D. Envirotech Australia Pty Ltd A.C.N. 093 452 950

Unit 4/10-11 Millennium Court,
Silverwater 2128
Ph: (02) 9648-6669

Analysis report: WCX-02-10721-10

Customer: A. D. Envirotech Australia Pty. Ltd.
Attention: [redacted]

Sample Log In Details

Your reference:	WCX-02-10721-10
No. of Samples:	5
Date Received:	18.08.2016
Date completed instructions received:	18.08.2016
Date of analysis:	18-24.08.2016

Report Details

Report Date:	24.08.2019
Method number:**	ESA-MP-01
	ESA-MP-02
	ESA-P-ORG03
	ESA-P-ORG07
	ESA-P-ORG08
	ESA-P-ORG09
	ESA-P-ORG14
	ESA-P-ORG15
	ESA-P-12
	AS 1289.4.3.1
	*ESA-P-16
	T276

[redacted]

[redacted]

Accreditation No.14664.

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Tests not covered by NATA are denoted with *.

Lab ID	PQL (mg/kg)	10721-C42	10721-C43	10721-C44	10721-C45	10721-C46
Sample Name		10721-TP5-N-A	10721-TP5-N-B	10721-TP5-N-C	10721-TP6-N-A	10721-TP6-N-B
PAH						
Acenaphthene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Acenaphthylene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Anthracene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Benzo[a]anthracene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Benzo[a]pyrene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Benzo[b]fluoranthene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Benzo[g,h,i]perylene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Benzo[k]fluoranthene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chrysene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Dibenzo[a,h]anthracene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Fluoranthene	0.3	0.4	<0.3	<0.3	0.5	0.4
Fluorene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Indeno(1,2,3-cd)pyrene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Naphthalene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Phenanthrene	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Pyrene	0.3	0.4	<0.3	<0.3	0.5	0.4
p-Terphenyl-d14	surr.	115%	118%	114%	116%	119%
OCPs						
aldrin	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
a-BHC	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
b-BHC	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
d-BHC	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
g-BHC (lindane)	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
cis-chlordane	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-chlordane	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDD	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDE	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDT	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
dieldrin	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
endosulfan I	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
endosulfan II	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
endosulfan sulfate	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
endrin	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
endrin aldehyde	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
endrin ketone	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
heptachlor	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
heptachlor epoxide	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
hexachlorobenzene	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
methoxychlor	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TCMX	surr.	104%	106%	100%	103%	107%
OPPs						
chlorpyrifos	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
chlorpyrifos methyl	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
diazinon	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
fenchlorphos	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
methyl parathion	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
prophos	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
tributylphosphorotrithioite	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PCB						
Total PCB		<0.6	<0.6	<0.6	<0.6	<0.6
2-fluorobiphenyl	surr.	74%	86%	81%	79%	88%

Lab ID	PQL (mg/kg)	10721-C42	10721-C43	10721-C44	10721-C45	10721-C46
Sample Name		10721-TP5-N-A	10721-TP5-N-B	10721-TP5-N-C	10721-TP6-N-A	10721-TP6-N-B
TRH						
>C6-C10	35	<35	<35	<35	<35	<35
>C10-C16	50	<50	<50	<50	<50	<50
>C16-C34	100	<100	<100	<100	<100	<100
>C34-C40	100	<100	<100	<100	<100	<100
BTEX						
Benzene	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	1	<1	<1	<1	<1	<1
m, p- Xylene(s)	2	<2	<2	<2	<2	<2
o-Xylene	1	<1	<1	<1	<1	<1
Fluorobenzene	surr.	103%	105%	108%	105%	105%
Metals						
Arsenic	2	5.5	5.8	5.9	5.8	7.1
Cadmium	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium	5	16	10	11	10	15
Copper	5	17	10	9.6	21	39
Lead	10	47	15	11	33	36
Mercury	0.2	<0.2	<0.2	0.7	<0.2	<0.2
Nickel	10	<10	<10	<10	<10	<10
Zinc	5	51	14	<5	35	87
Moisture	%	12%	13%	17%	13%	14%
pH (average for 3 measurements)		7.5	7.7	6.7	8.6	8.4
EC	[dS/m]	0.044	0.377	0.108	0.072	0.032
% of Foreign Material	%					
Rubber, Plastic, Bitumen, Paper, Cloth, Paint and Wood		0.00%	0.00%	0.00%	0.00%	0.01%

Lab ID	PQL (mg/kg)	Batch Blank 1	Batch Blank spike 1	Batch Matrix spike 1	Batch Duplicate 1-Value 1	Batch Duplicate 1-Value 2	Batch Duplicate 1
Sample Name							
PAH							
Acenaphthene	0.3	<0.3	89%	92%	<0.3	<0.3	ACCEPT
Acenaphthylene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Anthracene	0.3	<0.3	101%	103%	<0.3	<0.3	ACCEPT
Benzo[a]anthracene	0.3	<0.3	NT	NT	0.6	<0.3	ACCEPT
Benzo[a]pyrene	0.3	<0.3	NT	NT	0.6	<0.3	ACCEPT
Benzo[b]fluoranthene	0.3	<0.3	NT	NT	0.6	<0.3	ACCEPT
Benzo[g,h,i]perylene	0.3	<0.3	NT	NT	0.4	<0.3	ACCEPT
Benzo[k]fluoranthene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Chrysene	0.3	<0.3	NT	NT	0.6	<0.3	ACCEPT
Dibenzo[a,h]anthracene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Fluoranthene	0.3	<0.3	98%	98%	1.4	<0.3	ACCEPT
Fluorene	0.3	<0.3	NT	NT	<0.3	<0.3	ACCEPT
Indeno(1,2,3-cd)pyrene	0.3	<0.3	NT	NT	0.3	<0.3	ACCEPT
Naphthalene	0.3	<0.3	83%	85%	<0.3	<0.3	ACCEPT
Phenanthrene	0.3	<0.3	87%	91%	0.4	<0.3	ACCEPT
Pyrene	0.3	<0.3	99%	102%	1.3	<0.3	ACCEPT
p-Terphenyl-d14	surr.		103%	106%	106%	122%	
OCPs							
aldrin	0.1	<0.1	96%	100%	<0.1	<0.1	ACCEPT
a-BHC	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
b-BHC	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
d-BHC	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
g-BHC (lindane)	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
cis-chlordane	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
trans-chlordane	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
4,4'-DDD	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
4,4'-DDE	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
4,4'-DDT	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
dieldrin	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
endosulfan I	0.2	<0.2	NT	NT	<0.2	<0.2	ACCEPT
endosulfan II	0.2	<0.2	NT	NT	<0.2	<0.2	ACCEPT
endosulfan sulfate	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
endrin	0.2	<0.2	66%	77%	<0.2	<0.2	ACCEPT
endrin aldehyde	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
endrin ketone	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
heptachlor	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
heptachlor epoxide	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
hexachlorobenzene	0.1	<0.1	97%	96%	<0.1	<0.1	ACCEPT
methoxychlor	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
TCMX	surr.		92%	95%	99%	109%	
OPPs							
chlorpyrifos	0.1	<0.1	90%	93%	<0.1	<0.1	ACCEPT
chlorpyrifos methyl	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
diazinon	0.1	<0.1	85%	90%	<0.1	<0.1	ACCEPT
fenchlorphos	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
methyl parathion	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
prophos	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
tributylphosphorotrithioite	0.1	<0.1	NT	NT	<0.1	<0.1	ACCEPT
PCB							
Total PCB		<0.6	NT	NT	<0.6	<0.6	ACCEPT
2-fluorobiphenyl	surr.		87%	93%	78%	80%	

Lab ID	PQL (mg/kg)	Batch Blank 1	Batch Blank spike 1	Batch Matrix spike 1	Batch Duplicate 1-Value 1	Batch Duplicate 1-Value 2	Batch Duplicate 1
Sample Name							
TRH							
>C6-C10	35	<35	NT	NT	<35	<35	ACCEPT
>C10-C16	50	<50	103%	110%	<50	<50	ACCEPT
>C16-C34	100	<100	NT	NT	<100	<100	ACCEPT
>C34-C40	100	<100	NT	NT	<100	<100	ACCEPT
BTEX							
Benzene	0.5	<0.5	89%	85%	<0.5	<0.5	ACCEPT
Toluene	0.5	<0.5	89%	86%	<0.5	<0.5	ACCEPT
Ethylbenzene	1	<1	89%	86%	<1	<1	ACCEPT
m, p- Xylene(s)	2	<2	90%	86%	<2	<2	ACCEPT
o-Xylene	1	<1	89%	86%	<1	<1	ACCEPT
Fluorobenzene	surr.		94%	94%	99%	102%	
Metals							
Arsenic	2	<2	100%	95%	12	11	ACCEPT
Cadmium	0.3	<0.3	93%	95%	<0.3	<0.3	ACCEPT
Chromium	5	<5	88%	86%	17	18	ACCEPT
Copper	5	<5	90%	86%	11	13	ACCEPT
Lead	10	<10	89%	81%	26	25	ACCEPT
Mercury	0.2	<0.2	95%	91%	<0.2	<0.2	ACCEPT
Nickel	10	<10	84%	90%	<10	<10	ACCEPT
Zinc	5	<5	88%	100%	14	17	ACCEPT
Moisture	%						
pH (average for 3 measurements)							
EC	[dS/m]						
% of Foreign Material	%						
Rubber, Plastic, Bitumen, Paper, Cloth, Paint and Wood							

Lab ID	PQL (mg/kg)	Duplicate 2-Value 1	Duplicate 2-Value 2	Duplicate 2
Sample Name				
PAH				
Acenaphthene	0.3	<0.3	<0.3	ACCEPT
Acenaphthylene	0.3	<0.3	<0.3	ACCEPT
Anthracene	0.3	<0.3	<0.3	ACCEPT
Benzo[a]anthracene	0.3	<0.3	<0.3	ACCEPT
Benzo[a]pyrene	0.3	<0.3	<0.3	ACCEPT
Benzo[b]fluoranthene	0.3	<0.3	<0.3	ACCEPT
Benzo[g,h,i]perylene	0.3	<0.3	<0.3	ACCEPT
Benzo[k]fluoranthene	0.3	<0.3	<0.3	ACCEPT
Chrysene	0.3	<0.3	<0.3	ACCEPT
Dibenzo[a,h]anthracene	0.3	<0.3	<0.3	ACCEPT
Fluoranthene	0.3	0.4	0.5	ACCEPT
Fluorene	0.3	<0.3	<0.3	ACCEPT
Indeno(1,2,3-cd)pyrene	0.3	<0.3	<0.3	ACCEPT
Naphthalene	0.3	<0.3	<0.3	ACCEPT
Phenanthrene	0.3	<0.3	<0.3	ACCEPT
Pyrene	0.3	0.4	0.5	ACCEPT
p-Terphenyl-d14	surr.	119%	112%	
OCPs				
aldrin	0.1	<0.1	<0.1	ACCEPT
a-BHC	0.1	<0.1	<0.1	ACCEPT
b-BHC	0.1	<0.1	<0.1	ACCEPT
d-BHC	0.1	<0.1	<0.1	ACCEPT
g-BHC (lindane)	0.1	<0.1	<0.1	ACCEPT
cis-chlordane	0.1	<0.1	<0.1	ACCEPT
trans-chlordane	0.1	<0.1	<0.1	ACCEPT
4,4'-DDD	0.1	<0.1	<0.1	ACCEPT
4,4'-DDE	0.1	<0.1	<0.1	ACCEPT
4,4'-DDT	0.1	<0.1	<0.1	ACCEPT
dieldrin	0.1	<0.1	<0.1	ACCEPT
endosulfan I	0.2	<0.2	<0.2	ACCEPT
endosulfan II	0.2	<0.2	<0.2	ACCEPT
endosulfan sulfate	0.1	<0.1	<0.1	ACCEPT
endrin	0.2	<0.2	<0.2	ACCEPT
endrin aldehyde	0.1	<0.1	<0.1	ACCEPT
endrin ketone	0.1	<0.1	<0.1	ACCEPT
heptachlor	0.1	<0.1	<0.1	ACCEPT
heptachlor epoxide	0.1	<0.1	<0.1	ACCEPT
hexachlorobenzene	0.1	<0.1	<0.1	ACCEPT
methoxychlor	0.1	<0.1	<0.1	ACCEPT
TCMX	surr.	107%	103%	
OPPs				
chlorpyrifos	0.1	<0.1	<0.1	ACCEPT
chlorpyrifos methyl	0.1	<0.1	<0.1	ACCEPT
diazinon	0.1	<0.1	<0.1	ACCEPT
fenchlorphos	0.1	<0.1	<0.1	ACCEPT
methyl parathion	0.1	<0.1	<0.1	ACCEPT
prophos	0.1	<0.1	<0.1	ACCEPT
tributylphosphorotrithioite	0.1	<0.1	<0.1	ACCEPT
PCB				
Total PCB		<0.6	<0.6	ACCEPT
2-fluorobiphenyl	surr.	88%	78%	

Lab ID	PQL (mg/kg)	Duplicate 2-Value 1	Duplicate 2-Value 2	Duplicate 2
Sample Name				
TRH				
>C6-C10	35	<35	<35	ACCEPT
>C10-C16	50	<50	<50	ACCEPT
>C16-C34	100	<100	<100	ACCEPT
>C34-C40	100	<100	<100	ACCEPT
BTEX				
Benzene	0.5	<0.5	<0.5	ACCEPT
Toluene	0.5	<0.5	<0.5	ACCEPT
Ethylbenzene	1	<1	<1	ACCEPT
m, p- Xylene(s)	2	<2	<2	ACCEPT
o-Xylene	1	<1	<1	ACCEPT
Fluorobenzene	surr.	104%	105%	
Metals				
Arsenic	2	7.1	5.5	ACCEPT
Cadmium	0.3	<0.3	<0.3	ACCEPT
Chromium	5	15	9.3	ACCEPT
Copper	5	39	12	ACCEPT
Lead	10	36	31	ACCEPT
Mercury	0.2	<0.2	<0.2	ACCEPT
Nickel	10	<10	<10	ACCEPT
Zinc	5	87	44	FAIL
Moisture	%			
pH (average for 3 measurements)				
EC	[dS/m]			
% of Foreign Material	%			
Rubber, Plastic, Bitumen, Paper, Cloth, Paint and Wood				

Comments:
FAIL caused by inhomogenous matrix

General Comments and Glossary

Tests not covered by NATA are denoted with *.
Samples are analysed on "as received" basis.

Samples were delivered chilled	**Yes**
Samples were preserved in correct manner	**Yes**
Sample containers for volatile analysis were received with minimal headspace	**Yes**
Samples were analysed within holding time	**Yes**
Some samples have been subcontracted	**No**

1. All samples are tested in batches of 20.
2. All results for soil samples are reported per gram of dry soil, unless otherwise stated.
3. However surrogate standards are added to samples due to PAH and BTEX analysis and recoveries are calculated, samples' results are not corrected for standards recoveries.
4. Analysis of VOC in water samples are performed on unfiltered waters (as received), spiked with surrogate
5. If heterogenous or insufficient material provided LCS is used as matrix spike for QA/QC purposes.
6. Duplicate sample and matrix spike recoveries may not be prepared on smaller jobs, however, were analysed at a frequency
7. QA/QC samples shown within the report that states the word "BATCH"; Batch Blank, Matrix Spike and Duplicate were prepared on samples from outside of reported job.

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surr. (Surrogate Spike): Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

INS: Insufficient sample for this test
>: Greater than
LCS: Laboratory Control Sample
NT: Not tested
<: Less than
RPD: Relative Percent Difference
NA: Test not required
PQL: Practical Quantitation Limit

Laboratory Acceptance Criteria

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals, 60-140% for organics is acceptable. Matrix heterogeneity may result in matrix spike analyses falling outside these limits.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:
Results <10 times the PQL : No Limit
Results between 10-20 times the PQL : RPD must lie between 0-50%
Results >20 times the PQL : RPD must lie between 0-30%
Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

Accreditation No.14664.
Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
Tests not covered by NATA are denoted with *.

**Methods Number Description:

ESA-MP-01	Determination of metals by MP-AES
ESA-MP-02	Digestion of soil samples for MP-AES analysis
ESA-MP-03	Preparation of water samples for metals determination by MP-AES
ESA-MP-04	TCLP for inorganic contaminants
ESA-MP-05	Digestion of paint and dust samples for lead contect determination
ESA-MP-06	Digestion of air filters
ESA-MP-07	Digestion of swabs for determination of lead content in dust
ESA-P-ORG02	Analysis of PAHs by GC-MS
ESA-P-ORG03	Analysis of TRH and TPH by GC-FID
ESA-P-ORG04	Separatory funnel extraction of PAHs from water matrices including TCLP extracts
ESA-P-ORG05	Separatory funnel extraction of TRH and TPH from water matrices
ESA-P-ORG06	Silica gel clean up of soil and water extracts, prior analysis for STPH
ESA-P-ORG07	Extraction of BTEX and VTRX from soil matrices
ESA-P-ORG08	Analysis of soil extracts and waters by P&T GCMS
ESA-P-ORG09	Extraction of TRH from solid matrices
ESA-P-ORG14	Extraction of PCB (Aroclor) OCP OPP and PAH from soil matrices
ESA-P-ORG15	Analysis of PCB OCP OPP and PAH by GCMS
AS 1289.4.3.1	Determination of the pH value of a soil-Electrometric method
AS 1289.3.6.1	Determination of the particle size distribution of a soil - Standard method of analysis by sieving
T276	NSW RTA Test Method T 276 Foreign materials content as per "The excavated natural material order 2014."
*Texture Assessment based on; Salinity Notes, Number 8, Oct 2000, ISSN 1 325-4448, "How to Texture soils & Test for Salinity"	
*ESA-P-16	Procedure for measurement of Electrical Conductivity EC
ESA-P-12	Moisture by classical in-house method; **Procedure for gravimetric moisture determination**

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Tests not covered by NATA are denoted with *.

Environmental and OH&S Laboratory

A division of A. D. Envirotech Australia Pty Ltd
Unit 4/10-11 Millennium Court,
Silverwater 2128

A.C.N. 093 452 950

Analysis report: WCX-02-10721 ASB 1

Date Received: 02.08.2016
Date Analysed: 02.08.2016
Report Date: 03.08.2016
Client: CPBDS
Job Location: Kingsgrove Noise Mounds 'South'
Analytical method: Polarised Light Microscopy with dispersion staining (ADE method ABI)

[redacted]

[redacted]

Laboratory Sample No.	Sample Description/Matrix	Sample Dimensions (cm) unless stated otherwise	Result	Comments
10721-Asb1	Soil / TP5-Asb1	100 grams	No Chrysotile asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Amosite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Crocidolite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb2	Soil / TP6-Asb1	75 grams	No Chrysotile asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Amosite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Crocidolite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb3	Soil / TP6-Asb2	87 grams	No Chrysotile asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Amosite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Crocidolite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb4	Soil / TP7-Asb1	130 grams	No Chrysotile asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Amosite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Crocidolite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb5	Soil / TP7-Asb2	116 grams	No Chrysotile asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Amosite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Crocidolite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb6	Soil / TP8-Asb1	72 grams	No Chrysotile asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Amosite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Crocidolite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil

General Comments:

All samples are analysed as received.
Sampling performed by AD Envirotech is not covered by NATA scope.
Samples are stored for period of 3 months.
Due to the difficulty of estimating the load on the swab the test is carried out for presence or absence of asbestos only.
[1] Independent confirming technique such as infrared spectroscopy, X-ray diffraction, scanning or transmission electron microscopy is advised.

ADE CONSULTING GROUP
SOLUTIONS THROUGH INNOVATION

Environmental and OH&S Laboratory

A division of A. D. Envirotech Australia Pty Ltd
Unit 4/10-11 Millennium Court,
Silverwater 2128

A.C.N. 093 452 950

Analysis report: WCX-02-10721 ASB 2

Date Received:	01.08.2016
Date Analysed:	03.08.2016
Report Date:	03.08.2016
Client:	CPBDS
Job Location:	Kingsgrove Noise Mounds 'South'
Analytical method:	Polarised Light Microscopy with dispersion staining (ADE method ABI)

[redacted]

[redacted]

Laboratory Sample No.	Sample Description/Matrix	Sample Dimensions (cm) unless stated otherwise	Result	Comments
10721-Asb7	Soil / TP9-Asb1	74 grams	No Chrysotile asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Amosite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Crocidolite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil

General Comments:

All samples are analysed as received.
Sampling performed by AD Envirotech is not covered by NATA scope.
Samples are stored for period of 3 months.
Due to the difficulty of estimating the load on the swab the test is carried out for presence or absence of asbestos only.
[1] Independent confirming technique such as infrared spectroscopy, X-ray diffraction, scanning or transmission electron microscopy is advised.

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Environmental and OH&S Laboratory

A division of A. D. Envirotech Australia Pty Ltd
Unit 4/10-11 Millennium Court,
Silverwater 2128

A.C.N. 093 452 950

Analysis report: WCX-02-10721 ASB 3

Date Received:	02.08.2016
Date Analysed:	03.08.2016
Report Date:	05.08.2016
Client:	CPBDS
Job Location:	Kingsgrove Noise Mounds 'South'
Analytical method:	Polarised Light Microscopy with dispersion staining (ADE method ABI)

[redacted]

[redacted]

Laboratory Sample No.	Sample Description/Matrix	Sample Dimensions (cm) unless stated otherwise	Result	Comments
10721-Asb8	Soil / TP5-Asb2	90 grams	No Chrysotile asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Amosite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Crocidolite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb9	Fibre Cement / TP5-Asb3	5.8 x 4.6 x 0.5	Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb10	Fibre Cement / TP5-Asb4	4.9 x 3.2 x 0.5	Chrysotile asbestos found	Nil
			Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil

General Comments:

All samples are analysed as received.
Sampling performed by AD Envirotech is not covered by NATA scope.
Samples are stored for period of 3 months.
Due to the difficulty of estimating the load on the swab the test is carried out for presence or absence of asbestos only.
[1] Independent confirming technique such as infrared spectroscopy, X-ray diffraction, scanning or transmission electron microscopy is advised.

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Environmental and OH&S Laboratory

A division of A. D. Envirotech Australia Pty Ltd
Unit 4/10-11 Millennium Court,
Silverwater 2128

A.C.N. 093 452 950

Analysis report: WCX-02-10721 ASB 4

Date Received:	09.08.2016
Date Analysed:	11.08.2016
Report Date:	12.08.2016
Client:	CPBDS
Job Location:	Kingsgrove Noise Mounds 'South'
Analytical method:	Polarised Light Microscopy with dispersion staining (ADE method ABI)

[redacted]

[redacted]

Laboratory Sample No.	Sample Description/Matrix	Sample Dimensions (cm) unless stated otherwise	Result	Comments
10721-Asb11	Soil / TP4-Asb1	92 grams	No Chrysotile asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Amosite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Crocidolite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb12	Soil / TP4-Asb2	101 grams	No Chrysotile asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Amosite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Crocidolite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb13	Soil / TP4-Asb3	94 grams	Chrysotile asbestos found	Fibre cement fraction containing Chrysotile asbestos detected with approximate dimension of 4.0 x 2.0 x 2.0 mm. No respirable asbestos detected during the trace analysis.
			No Amosite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Crocidolite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb14	Soil / TP4-Asb4	99 grams	No Chrysotile asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Amosite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Crocidolite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb15	Fibre Cement / TP4-Asb5	4.8 x 3.5 x 0.5	Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb16	Fibre Cement / TP4-Asb6	3.8 x 3.0 x 0.6	Chrysotile asbestos found	Nil
			Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil

Laboratory Sample No.	Sample Description/Matrix	Sample Dimensions (cm) unless stated otherwise	Result	Comments
10721-Asb17	Soil / TP3-Asb1	99 grams	No Chrysotile asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Amosite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Crocidolite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb18	Fibre Cement / TP3-Asb2	5.8 x 4.7 x 0.5	Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb19	Fibre Cement / TP3-Asb3	7.7 x 5.5 x 0.5	Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil

General Comments:

All samples are analysed as received.
Sampling performed by AD Envirotech is not covered by NATA scope.
Samples are stored for period of 3 months.
Due to the difficulty of estimating the load on the swab the test is carried out for presence or absence of asbestos only.
[1] Independent confirming technique such as infrared spectroscopy, X-ray diffraction, scanning or transmission electron microscopy is advised.

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A.C.N. 093 452 950

Analysis report: WCX-02-10721 ASB 5

Date Received:	10.08.2016
Date Analysed:	12.08.2016
Report Date:	12.08.2016
Client:	CPBDS
Job Location:	Kingsgrove Noise Mounds 'South'
Analytical method:	Polarised Light Microscopy with dispersion staining (ADE method ABI)

[redacted]

[redacted]

Laboratory Sample No.	Sample Description/Matrix	Sample Dimensions (cm) unless stated otherwise	Result	Comments
10721-Asb20	Soil / TP3-Asb4	127 grams	No Chrysotile asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Amosite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Crocidolite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb21	Fibre Cement / TP3-Asb5	9.3 x 5.0 x 0.5	Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb22	Soil / TP3-Asb6	104 grams	No Chrysotile asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Amosite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Crocidolite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb23	Soil / TP3-Asb7	107 grams	No Chrysotile asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Amosite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Crocidolite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb24	Fibre Cement / TP3-Asb8	3.4 x 3.0 x 0.4	Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb25	Fibre Cement / TP3-Asb9	5.8 x 3.8 x 0.6	Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb26	Soil / TP9-Asb1	134 grams	No Chrysotile asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Amosite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Crocidolite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil

Laboratory Sample No.	Sample Description/Matrix	Sample Dimensions (cm) unless stated otherwise	Result	Comments
10721-Asb27	Soil / TP9-Asb2	100 grams	No Chrysotile asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Amosite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Crocidolite asbestos found at reporting limit of 0.1 g/kg.	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil

General Comments:

All samples are analysed as received.
Sampling performed by AD Envirotech is not covered by NATA scope.
Samples are stored for period of 3 months.
Due to the difficulty of estimating the load on the swab the test is carried out for presence or absence of asbestos only.
[1] Independent confirming technique such as infrared spectroscopy, X-ray diffraction, scanning or transmission electron microscopy is advised.

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A.C.N. 093 452 950

Analysis report: WCX-02-10721 ASB 6

Date Received: 11.08.2016
Date Analysed: 15-16.08.2016
Report Date: 16.08.2016
Client: CPBDS
Job Location: Kingsgrov Noise Mounds 'South'
Analytical method: Polarised Light Microscopy with dispersion staining (ADE method ABI)

*Asbestos identification as per "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" is not coverd by NATA scope of accreditation

[redacted]

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Laboratory Sample No.	Sample Description/Matrix	Sample Size	Result	Comments
10721-Asb28	Soil / TP5-NEPM1	500 ml (580 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb29	Soil / TP5-NEPM2	500 ml (517 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb30	Soil / TP4-NEPM1	500 ml (561 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb31	Soil / TP4-NEPM2	500 ml (520 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb32	Soil / TP4-NEPM3	500 ml (623 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb33	Soil / TP4-NEPM4	500 ml (520 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb34	Soil / TP3-NEPM1	500 ml (595 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil

Laboratory Sample No.	Sample Description/Matrix	Sample Size	Result	Comments
10721-Asb35	Soil / TP3-NEPM2	500 ml (617 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb36	Soil / TP3-NEPM3	500 ml (607 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb37	Soil / TP3-NEPM4	500 ml (519 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb38	Soil / TP9-NEPM1	500 ml (548 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb39	Soil / TP9-NEPM2	500 ml (594 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb40	Soil / TP2-NEPM1	500 ml (566 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil

Laboratory Sample No.	Sample Description/Matrix	Sample Size	Result	Comments
10721-Asb41	Soil / TP2-NEPM2	500 ml (488 g)	Chrysotile asbestos found	Fibre cement fraction containing Chrysotile asbestos detected with approximate dimension of 1.4 x 1.0 x 0.2 cm and weight of 0.44 gram. No respirable asbestos detected during the trace analysis.
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb42	Soil / TP2-NEPM3	500 ml (399 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb43	Soil / TP2-NEPM4	500 ml (451 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil

General Comments:

All samples are analysed as received.
Sampling performed by AD Envirotech is not covered by NATA scope.
Samples are stored for period of 3 months.
Due to the difficulty of estimating the load on the swab the test is carried out for presence or absence of asbestos only.
Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.01g/kg (0.001% w/w) for friable asbestos and 0.1g/kg (0.01% w/w) for bonded asbestos.
This form of analysis is outside the scope of NATA accreditation.
Note: The screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres.

Environmental and OH&S Laboratory

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Unit 4/10-11 Millennium Court,
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A.C.N. 093 452 950

Analysis report: WCX-02-10721 ASB 7

Date Received: 12.08.2016
Date Analysed: 16.08.2016
Report Date: 16.08.2016
Client: CDSJV
Job Location: Kingsgrove Noise Mounds 'South'
Analytical method: Polarised Light Microscopy with dispersion staining (ADE method ABI)

*Asbestos identification as per "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" is not coverd by NATA scope of accreditation

[redacted]

[redacted]

Laboratory Sample No.	Sample Description/Matrix	Sample Size	Result	Comments
10721-Asb44	Soil / TP10-NEPM1	500 ml (574 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb45	Soil / TP10-NEPM2	500 ml (554 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb46	Soil / TP11-NEPM1	500 ml (555 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb47	Soil / TP11-NEPM2	500 ml (587 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb48	Soil / TP12-NEPM1	500 ml (549 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb49	Soil / TP12-NEPM2	500 ml (631 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb50	Soil / TP6-NEPM1	500 ml (626 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil

Laboratory Sample No.	Sample Description/Matrix	Sample Size	Result	Comments
10721-Asb51	Soil / TP6-NEPM2	500 ml (637 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb52	Soil / TP7-NEPM1	500 ml (604 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb53	Soil / TP7-NEPM2	500 ml (623 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb54	Soil / TP8-NEPM1	500 ml (563 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil

General Comments:

All samples are analysed as received.
Sampling performed by AD Envirotech is not covered by NATA scope.
Samples are stored for period of 3 months.
Due to the difficulty of estimating the load on the swab the test is carried out for presence or absence of asbestos only.
Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.01g/kg (0.001% w/w) for friable asbestos and 0.1g/kg (0.01% w/w) for bonded asbestos.
This form of analysis is outside the scope of NATA accreditation.
Note: The screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres.

Environmental and OH&S Laboratory

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A.C.N. 093 452 950

Analysis report: WCX-02-10721 ASB 8

Date Received: 18.08.2016
Date Analysed: 22.08.2016
Report Date: 22.08.2016
Client: CDSJV
Job Location: Kingsgrove Noise Mounds 'North'
Analytical method: Polarised Light Microscopy with dispersion staining (ADE method ABI)

*Asbestos identification as per "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" is not coverd by NATA scope of accreditation

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[redacted]

Laboratory Sample No.	Sample Description/Matrix	Sample Size	Result	Comments
10721-Asb55	Soil / TP3-N-NEPM1	500 ml (576 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb56	Soil / TP3-N-NEPM2	500 ml (612 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb57	Soil / TP3-N-NEPM3	500 ml (550 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb58	Soil / TP4-N-NEPM1	501 ml (508 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb59	Soil / TP4-N-NEPM2	501 ml (572 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb60	Soil / TP4-N-NEPM3	501 ml (532 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil

General Comments:

All samples are analysed as received.
Sampling performed by AD Envirotech is not covered by NATA scope.
Samples are stored for period of 3 months.
Due to the difficulty of estimating the load on the swab the test is carried out for presence or absence of asbestos only.
Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.01g/kg (0.001% w/w) for friable asbestos and 0.1g/kg (0.01% w/w) for bonded asbestos.
This form of analysis is outside the scope of NATA accreditation.
Note: The screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres.

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A.C.N. 093 452 950

Analysis report: WCX-02-10721 ASB 9

Date Received: 18.08.2016
Date Analysed: 22.08.2016
Report Date: 22.08.2016
Client: CDSJV
Job Location: Kingsgrove Noise Mounds 'North'
Analytical method: Polarised Light Microscopy with dispersion staining (ADE method ABI)

*Asbestos identification as per "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" is not coverd by NATA scope of accreditation

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[redacted]

Laboratory Sample No.	Sample Description/Matrix	Sample Size	Result	Comments
10721-Asb61	Soil / TP5-N-NEPM1	500 ml (571 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb62	Soil / TP5-N-NEPM2	500 ml (587 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb63	Soil / TP5-N-NEPM3	500 ml (549 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb64	Soil / TP6-N-NEPM1	500 ml (571 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb65	Soil / TP6-N-NEPM2	501 ml (535 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil

General Comments:

All samples are analysed as received.
Sampling performed by AD Envirotech is not covered by NATA scope.
Samples are stored for period of 3 months.
Due to the difficulty of estimating the load on the swab the test is carried out for presence or absence of asbestos only.
Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.01g/kg (0.001% w/w) for friable asbestos and 0.1g/kg (0.01% w/w) for bonded asbestos.
This form of analysis is outside the scope of NATA accreditation.
Note: The screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres.

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SOLUTIONS THROUGH INNOVATION

Environmental and OH&S Laboratory

A division of A. D. Envirotech Australia Pty Ltd
Unit 4/10-11 Millennium Court,
Silverwater 2128

A.C.N. 093 452 950

Analysis report: WCX-02-10721 ASB 10

Date Received: 16.08.2016
Date Analysed: 19.08.2016
Report Date: 22.08.2016
Client: CDSJV
Job Location: Kingsgrove Noise Mounds 'South'
Analytical method: Polarised Light Microscopy with dispersion staining (ADE method ABI)

*Asbestos identification as per "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" is not coverd by NATA scope of accreditation

[redacted]

[redacted]

Laboratory Sample No.	Sample Description/Matrix	Sample Size	Result	Comments
10721-Asb66	Soil / TP1-N-NEPM1	500 ml (528 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb67	Soil / TP1-N-NEPM2	500 ml (537 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb68	Soil / TP1-N-NEPM3	500 ml (574 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb69	Soil / TP1-N-NEPM4	500 ml (552 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb70	Fibre Cement / TP1-N-Asb1	3 grams	Chrysotile asbestos found	Nil
			Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb71	Soil / TP2-N-NEPM1	500 ml (537 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil
10721-Asb72	Soil / TP2-N-NEPM2	500 ml (577 g)	No Chrysotile asbestos found	Nil
			No Amosite asbestos found	Nil
			No Crocidolite asbestos found	Nil
			No Synthetic Mineral Fibres found	Nil
			Organic fibres found	Nil

General Comments:

All samples are analysed as received.
Sampling performed by AD Envirotech is not covered by NATA scope.
Samples are stored for period of 3 months.
Due to the difficulty of estimating the load on the swab the test is carried out for presence or absence of asbestos only.
Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.01g/kg (0.001% w/w) for friable asbestos and 0.1g/kg (0.01% w/w) for bonded asbestos.
This form of analysis is outside the scope of NATA accreditation.
Note: The screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres.

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4/10-11 Millennium Ct
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Phone: (02) 9648 6669

AIRBORNE ASBESTOS MONITORING REPORT

Date: 02.08.2016
Reference: WCX-02-10721 / AAM1
Client: NM5
Removal Contractor: [redacted]
Job Location: Kingsgrove Noise Mounds, NSW
Analytical Method: AAM based on Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC: 3003 (2005)]

Date	Sample Code	Sample Type	Monitor Location	Airflow, L/min			Time			Factor	Count		Concentration, fibres/mL
				On	Off	Aver.	On Hr	Off Hr	Total min		Fields	Fibres	
29.07.2016	Blank	-	0	-	-	-	-	-	-	-	100	0	-
29.07.2016	A1	5	1	4.00	4.00	4.00	1411	1540	89	461	100	0	<0.01
29.07.2016	A2	5	2	4.00	4.00	4.00	1412	1542	90	461	100	0	<0.01
29.07.2016	A3	5	3	4.00	4.00	4.00	1415	1544	89	461	100	0	<0.01

Sample Type:
1 Removal Monitoring
4 Clearance Monitoring
5 Background Monitoring

Accreditation No.14664.

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Monitoring Locations:
0 Blank
1 Kingsgrove 'south' noise mound, boundary fenceline, approximately 15 m east of TP1.
2 Kingsgrove 'south' noise mound, boundary fenceline, approximately 15 m west of TP1.
3 Excavator cabin, placed behind operators seat.

Remarks:
Sample analysed as received.

Approved Counter: [redacted]

Approved Signatory:

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4/10-11 Millennium Ct
Silverwater NSW Australia 2128

Phone: (02) 9648 6669

AIRBORNE ASBESTOS MONITORING REPORT

Date: 02.08.2016
Reference: WCX-02-10721 / AAM2
Client: New MS - CPBDS
Removal Contractor: [redacted]
Job Location: Kingsgrove Noise Mounds South, NSW
Analytical Method: AAM based on Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC: 3003 (2005)]

Date	Sample Code	Sample Type	Monitor Location	Airflow, L/min			Time			Factor	Count		Concentration, fibres/mL
				On	Off	Aver.	On Hr	Off Hr	Total min		Fields	Fibres	
01.08.2016	Blank	-	0	-	-	-	-	-	-	-	100	0	-
01.08.2016	A4	5	1	1.00	1.00	1.00	0830	1500	390	461	100	0	<0.01
01.08.2016	A5	5	2	1.00	1.00	1.00	0830	1502	392	461	100	8.5	<0.01
01.08.2016	A6	5	3	1.00	1.00	1.00	0840	1503	383	461	100	0	<0.01

Sample Type:
1 Removal Monitoring
4 Clearance Monitoring
5 Background Monitoring

Accreditation No.14664.

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Monitoring Locations:
0 Blank
1 20 m east of Slot 7 on fence at 1.5 m above ground level.
2 20 m west of Slot 6 on fence at 1.5 m above ground level.
3 Inside cabin CAT 20 t Excavator.

Remarks:
Sample analysed as received.

Approved Counter: [redacted]

Approved Signatory:

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4/10-11 Millennium Ct
Silverwater NSW Australia 2128

Phone: (02) 9648 6669

AIRBORNE ASBESTOS MONITORING REPORT

Date: 03.08.2016
Reference: WCX-02-10721 / AAM3
Client: CPBDS - New MS
Removal Contractor: [redacted]
Job Location: Kingsgrove Noise Mounds, NSW
Analytical Method: AAM based on Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC: 3003 (2005)]

Date	Sample Code	Sample Type	Monitor Location	Airflow, L/min			Time			Factor	Count		Concentration, fibres/mL
				On	Off	Aver.	On Hr	Off Hr	Total min		Fields	Fibres	
02.08.2016	Blank	-	0	-	-	-	-	-	-	-	100	0	-
02.08.2016	A7	5	1	2.00	2.00	2.00	0730	1200	270	461	100	3	<0.01
02.08.2016	A8	5	2	2.00	2.00	2.00	0730	1200	270	461	100	0	<0.01
02.08.2016	A9	5	3	2.00	2.00	2.00	0730	1200	270	461	100	0.5	<0.01

Sample Type:
1 Removal Monitoring
4 Clearance Monitoring
5 Background Monitoring

Accreditation No.14664.

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Monitoring Locations:
0 Blank
1 Inside cabin.
2 Southern Noise Mounds, Slot 5 approximately 20m west of Slot 5 on fence at 1.5m above ground level.
3 Southern Noise Mounds, Slot 4 approximately 20m west of Slot 4 on fence at 1.5m above ground level.

Remarks:
Sample analysed as received.

Approved Counter:

Approved Signatory: [redacted]

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4/10-11 Millennium Ct
Silverwater NSW Australia 2128

Phone: (02) 9648 6669

AIRBORNE ASBESTOS MONITORING REPORT

Date: 10.08.2016
Reference: WCX-02-10721 / AAM4
Client: CDSJV
Removal Contractor: [redacted]
Job Location: Kingsgrove Noise Mounds (South), Kingsgrove, NSW
Analytical Method: AAM based on Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC: 3003 (2005)]

Date	Sample Code	Sample Type	Monitor Location	Airflow, L/min			Time			Factor	Count		Concentration, fibres/mL
				On	Off	Aver.	On Hr	Off Hr	Total min		Fields	Fibres	
08.08.2016	Blank	-	0	-	-	-	-	-	-	-	100	0	-
08.08.2016	A10	5	1	1.00	1.00	1.00	0800	1600	480	461	100	2	<0.01
08.08.2016	A11	5	2	1.00	1.00	1.00	0800	1600	480	461	100	2	<0.01
08.08.2016	A12	5	3	1.00	1.00	1.00	0800	1600	480	461	100	3	<0.01

Sample Type:
1 Removal Monitoring
4 Clearance Monitoring
5 Background Monitoring

Accreditation No.14664.

Accredited for compliance with ISO/IEC 17025.
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Monitoring Locations:
0 Blank
1 Inside cabin of SEG Excavation 14t.
2 20 m west of Slot 4, placed on fence at approximately 1.5 m above ground level.
3 20 m west of Slot 3, placed on fence at approximately 1.5 m above ground level.

Remarks:
Sample analysed as received.

Approved Counter:

Approved Signatory: [redacted]

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4/10-11 Millennium Ct
Silverwater NSW Australia 2128

Phone: (02) 9648 6669

AIRBORNE ASBESTOS MONITORING REPORT

Date: 11.08.2016
Reference: WCX-02-10721 / AAM5
Client: CDSJV
Removal Contractor: [redacted]
Job Location: Kingsgrove Noise Mounds, Kingsgrove, NSW
Analytical Method: AAM based on Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC: 3003 (2005)]

Date	Sample Code	Sample Type	Monitor Location	Airflow, L/min			Time			Factor	Count		Concentration, fibres/mL
				On	Off	Aver.	On Hr	Off Hr	Total min		Fields	Fibres	
09.08.2016	Blank	-	0	-	-	-	-	-	-	-	100	0	-
09.08.2016	A13	5	1	1.00	1.00	1.00	0800	1600	480	461	100	3	<0.01
09.08.2016	A14	5	2	1.00	1.00	1.00	0800	1600	480	461	100	0	<0.01
09.08.2016	A15	5	3	1.00	1.00	1.00	0800	1600	480	461	100	1	<0.01

Sample Type:
1 Removal Monitoring
4 Clearance Monitoring
5 Background Monitoring

Accreditation No.14664.

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Monitoring Locations:
0 Blank
1 Inside cabin of 14t SEG excavator (072).
2 West of Slot 3 by 20m on fence at 1.5 m above ground level.
3 East of Slot 3 by 20m on fence at 1.5 m above ground level.

Remarks:
Sample analysed as received.

Approved Counter:

Approved Signatory: [redacted]

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Phone: (02) 9648 6669

AIRBORNE ASBESTOS MONITORING REPORT

Date: 12.08.2016
Reference: WCX-02-10721 / AAM6
Client: CDSJV
Removal Contractor: [redacted]
Job Location: Kingsgrove Noise Mounds (South), Kingsgrove, NSW
Analytical Method: AAM based on Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC: 3003 (2005)]

Date	Sample Code	Sample Type	Monitor Location	Airflow, L/min			Time			Factor	Count		Concentration, fibres/mL
				On	Off	Aver.	On Hr	Off Hr	Total min		Fields	Fibres	
10.08.2016	Blank	-	0	-	-	-	-	-	-	-	100	0	-
10.08.2016	A16	5	1	1.00	1.00	1.00	0745	1630	525	461	100	1	<0.01
10.08.2016	A17	5	2	1.00	1.00	1.00	0745	1630	525	461	100	0	<0.01
10.08.2016	A18	5	3	1.00	1.00	1.00	0745	1630	525	461	100	0	<0.01

Sample Type:
1 Removal Monitoring
4 Clearance Monitoring
5 Background Monitoring

Accreditation No.14664.

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Monitoring Locations:
0 Blank
1 Inside of 14t SEG excavator cabin.
2 Slot 2, approximately 20 m west of slot 2 on fence at approximately 1.5 m above ground level.
3 Slot 2, approximately 20 m east of slot 2 on fence at approximately 1.5 m above ground level.

Remarks:
Sample analysed as received.

Approved Counter:

Approved Signatory: [redacted]

Environmental and OH&S Laboratory

A division of A. D. Envirotech Australia Pty Ltd A.C.N. 093 452 950

4/10-11 Millennium Ct
Silverwater NSW Australia 2128

Phone: (02) 9648 6669

AIRBORNE ASBESTOS MONITORING REPORT

Date: 15.08.2016
Reference: WCX-02-10721 / AAM7
Client: CDSJV
Removal Contractor: [redacted]
Job Location: Kingsgrove Noise Mounds (South), Kingsgrove, NSW
Analytical Method: AAM based on Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC: 3003 (2005)]

Date	Sample Code	Sample Type	Monitor Location	Airflow, L/min			Time			Factor	Count		Concentration, fibres/mL
				On	Off	Aver.	On Hr	Off Hr	Total min		Fields	Fibres	
11.08.2016	Blank	-	0	-	-	-	-	-	-	-	100	0	-
11.08.2016	A19	5	1	1.00	1.00	1.00	0800	1645	525	461	100	3	<0.01
11.08.2016	A20	5	2	1.00	1.00	1.00	0800	1645	525	461	100	0	<0.01
11.08.2016	A21	5	3	1.00	1.00	1.00	0800	1645	525	461	100	0	<0.01

Sample Type:
1 Removal Monitoring
4 Clearance Monitoring
5 Background Monitoring

Accreditation No.14664.

Accredited for compliance with ISO/IEC 17025.
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Monitoring Locations:
0 Blank
1 Inside SEG 14t excavator cabin.
2 East of Slot 10 by 15m placed on fence at 1.5m above ground level.
3 West of Slot 10 by 20m placed on fence at 1.5m above ground level.

Remarks:
Sample analysed as received.

Approved Counter:

Approved Signatory: [redacted]

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4/10-11 Millennium Ct
Silverwater NSW Australia 2128

Phone: (02) 9648 6669

AIRBORNE ASBESTOS MONITORING REPORT

Date: 16.08.2016
Reference: WCX-02-10721 / AAM8
Client: CDSJV
Removal Contractor: [redacted]
Job Location: Kingsgrove Noise Mounds (North), Kingsgrove, NSW
Analytical Method: AAM based on Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC: 3003 (2005)]

Date	Sample Code	Sample Type	Monitor Location	Airflow, L/min			Time			Factor	Count		Concentration, fibres/mL
				On	Off	Aver.	On Hr	Off Hr	Total min		Fields	Fibres	
15.08.2016	Blank	-	0	-	-	-	-	-	-	-	100	0	-
15.08.2016	A22	5	1	1.00	1.00	1.00	0800	1600	480	461	100	0.5	<0.01
15.08.2016	A23	5	2	1.00	1.00	1.00	0800	1600	480	461	100	2	<0.01
15.08.2016	A24	5	3	1.00	1.00	1.00	0800	1600	480	461	100	1	<0.01

Sample Type:
1 Removal Monitoring
4 Clearance Monitoring
5 Background Monitoring

Accreditation No.14664.

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Monitoring Locations:
0 Blank
1 Slot 2 (N) placed on fence approximately 20 m west of Slot 2 on fence at 1.5 m above ground level.
2 Slot 2 (N) placed on fence approximately 20 m east of Slot 2 on fence at 1.5 m above ground level.
3 Inside cabin of 30 t Kobelco excavator.

Remarks:
Sample analysed as received.

Approved Counter:

Approved Signatory:

[redacted]

Environmental and OH&S Laboratory

A division of A. D. Envirotech Australia Pty Ltd A.C.N. 093 452 950

4/10-11 Millennium Ct
Silverwater NSW Australia 2128

Phone: (02) 9648 6669

AIRBORNE ASBESTOS MONITORING REPORT

Date: 19.08.2016
Reference: WCX-02-10721 / AAM9
Client: CDSJV
Removal Contractor: [redacted]
Job Location: Kingsgrove Noise Mounds (North), Kingsgrove, NSW
Analytical Method: AAM based on Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC: 3003 (2005)]

Date	Sample Code	Sample Type	Monitor Location	Airflow, L/min			Time			Factor	Count		Concentration, fibres/mL
				On	Off	Aver.	On Hr	Off Hr	Total min		Fields	Fibres	
12.08.2016	Blank	-	0	-	-	-	-	-	-	-	100	0	-
12.08.2016	A25	5	1	1.00	1.00	1.00	0800	1600	480	461	100	0	<0.01
12.08.2016	A26	5	2	1.00	1.00	1.00	0800	1600	480	461	100	2	<0.01
12.08.2016	A27	5	3	1.00	1.00	1.00	0800	1600	480	461	100	1	<0.01
12.08.2016	A28	5	4	3.00	3.00	3.00	1200	1600	240	461	100	1	<0.01

Sample Type:
1 Removal Monitoring
4 Clearance Monitoring
5 Background Monitoring

Accreditation No.14664.

Accredited for compliance with ISO/IEC 17025.
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Monitoring Locations:
0 Blank
1 Cabin of Kobelco 30 t excavator.
2 East of Slot 1 northern noise mounds, approximately 20m, placed on fence at 1.5m above ground level.
3 West of Slot 1 northern noise mounds, approximately 20m, placed on fence at 1.5m above ground level.
4 Southern side of northern noise mounds, placed on barrier opposite Golders drill rig at approximately 1.5m above ground level.

Remarks:
Sample analysed as received.

Approved Counter:

Approved Signatory: [redacted]

Environmental and OH&S Laboratory

A division of A. D. Envirotech Australia Pty Ltd A.C.N. 093 452 950

4/10-11 Millennium Ct
Silverwater NSW Australia 2128

Phone: (02) 9648 6669

AIRBORNE ASBESTOS MONITORING REPORT

Date: 19.08.2016
Reference: WCX-02-10721 / AAM10
Client: CDSJV
Removal Contractor: [redacted]
Job Location: Kingsgrove Noise Mounds (North), Kingsgrove, NSW
Analytical Method: AAM based on Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC: 3003 (2005)]

Date	Sample Code	Sample Type	Monitor Location	Airflow, L/min			Time			Factor	Count		Concentration, fibres/mL
				On	Off	Aver.	On Hr	Off Hr	Total min		Fields	Fibres	
16.08.2016	Blank	-	0	-	-	-	-	-	-	-	100	0	-
16.08.2016	A29	5	1	1.00	1.00	1.00	0730	1630	540	461	100	0	<0.01
16.08.2016	A30	5	2	1.00	1.00	1.00	0730	1630	540	461	100	2	<0.01
16.08.2016	A31	5	3	1.00	1.00	1.00	0730	1630	540	461	100	3	<0.01

Sample Type:
1 Removal Monitoring
4 Clearance Monitoring
5 Background Monitoring

Accreditation No.14664.

Accredited for compliance with ISO/IEC 17025.
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Monitoring Locations:
0 Blank
1 Inside cabin of 30t excavator (SEG).
2 20m west of Slot 4, on fence at approximately 1.5m above ground level.
3 20m east of Slot 4, on fence at approximately 1.5m above ground level.

Remarks:
Sample analysed as received.

Approved Counter:

Approved Signatory: [redacted]

Environmental and OH&S Laboratory

A division of A. D. Envirotech Australia Pty Ltd A.C.N. 093 452 950

4/10-11 Millennium Ct
Silverwater NSW Australia 2128

Phone: (02) 9648 6669

AIRBORNE ASBESTOS MONITORING REPORT

Date: 19.08.2016
Reference: WCX-02-10721 / AAM11
Client: CDSJV
Removal Contractor: [redacted]
Job Location: Kingsgrove Noise Mounds (North), NSW
Analytical Method: AAM based on Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC: 3003 (2005)]

Date	Sample Code	Sample Type	Monitor Location	Airflow, L/min			Time			Factor	Count		Concentration, fibres/mL
				On	Off	Aver.	On Hr	Off Hr	Total min		Fields	Fibres	
17.08.2016	Blank	-	0	-	-	-	-	-	-	-	100	0	-
17.08.2016	A32	5	1	1.00	1.00	1.00	0730	1500	450	461	100	1	<0.01
17.08.2016	A33	5	2	1.00	1.00	1.00	0730	1500	450	461	100	1	<0.01
17.08.2016	A34	5	3	1.00	1.00	1.00	0730	1500	450	461	100	1	<0.01

Sample Type:
1 Removal Monitoring
4 Clearance Monitoring
5 Background Monitoring

Accreditation No.14664.

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Monitoring Locations:
0 Blank
1 Inside cabin of 30 t Kobelco excavator.
2 East of Slot 5, on fence at 1.5m above ground level.
3 West of Slot 5, on fence at 1.5m above ground level.

Remarks:
Sample analysed as received.

Approved Counter: [redacted]

Approved Signatory:

APPENDIX IV – BOREHOLE LOGS

ENVIRONMENTAL BOREHOLE / TESTPIT TP1

PROJECT NUMBER :WCX-02-10721	**DRILLING DATE** :12/08/2016	**COORDINATES**
PROJECT NAME :SLOT 1 Noise Mound Testing	**DRILLING COMPANY** :[redacted]	**COORD SYS**
CLIENT :CDSJV	**DRILLER** :[redacted]	**SURFACE ELEVATION**
ADDRESS:Northern Noise Mounds, Kingsgrove NSW	**DRILLING METHOD** :Excavator	**LOGGED BY** :[redacted]
	TOTAL DEPTH :9.3m	**CHECKED BY** :[redacted]

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	USCS	Material Description	Additional Observations
0.5	0.2	10721-TP1-N-A, 10721-TP1-N-Asb1, 10721-TP1-N-NEPM1	Y		OL	TOPSOIL:Dark brown/black silty clay loam with gravels,low-medium moisture and high organic content.	Foreign materials: Bricks,plastics,glass,tiles and cement
2.5	0.1	10721-TP1-N-B, 10721-TP1-N-ASB2, 10721-TP1-N-ASB3, 10721-TP1-N-NEPM 2	Y		CI	CLAYEY GRAVELS: Dark brown/orange mottled silty clay with gravels, medium moisture,low organic content	Foreign materials: Cement, asphalt,glass, tiles and asbestos fibre cement fragments
5.5	0.1	10721-TP1-N-C, 10721-TP1-N-ASB4, 10721-TP1-N-NEPM 3	Y		CI	CLAYEY GRAVELS: Dark brown/red and grey mottled clay,medium to heavy, high moisture, low organic content	Foreign materials: Glass,cement, bricks,asphalt, plastics and tiles
9	0.0	10721-TP1-N-D, 10721-TP1-N-ASB 5, 10721- TP1-N-NEPM 4	Y		CH	SILTY CLAY: Orange/grey mottled clay with gravels, heavy clay,high moisture,low organic content	Foreign materials: Cement and Bricks in very low %
9.5						Termination Depth at: 9.3 m	

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Northern Noise Mounds

Slot One Photographs

Soil profile between 0.0m and 0.5m below mound level.

Soil profile between 0.5m and 13.0m below mound level.

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ENVIRONMENTAL BOREHOLE / TESTPIT TP2

PROJECT NUMBER :WCX-02-10721	**DRILLING DATE** :15/08/2016	**COORDINATES**
PROJECT NAME :SLOT 2 Noise Mound Testing	**DRILLING COMPANY** : [redacted]	**COORD SYS**
CLIENT :CDSJV	**DRILLER** : [redacted]	**SURFACE ELEVATION**
ADDRESS:Northern Noise Mounds, Kingsgrove NSW	**DRILLING METHOD** :Excavator	**LOGGED BY** : [redacted]
	TOTAL DEPTH :11.2m	**CHECKED BY** : [redacted]

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	USCS	Material Description	Additional Observations
0.5	0.0	10721-TP2-N- A, 10721-TP1-N-ASB1, 10721-TP2-N-NEPM 1	Y		OL	TOPSOIL: Silty dark brown loam with gravels, medium moisture, high organic content	Foreign materials: Cement, ceramic tiles, glass,plastic and ashphalt
1					GC	CLAYEY GRAVELS: Dark brown/orange mottled clay with gravels and shale, medium moisture and low organic content	Foreign materials: Cement bricks, glass, timber,plastics and ashphalt
1.5							
2							
2.5							
3							
3.5							
4							
4.5							
5							
5.5							
6							
6.5							
7							
7.5							
8							
8.5							
9							
9.5							
10							
10.5							
11	0.2	10721-TP2-N- B, 10721-TP2-N-ASB2, 10721-TP2-N-NEPM 2	Y				
11.5						Termination Depth at:11.2 m	

Northern Noise Mounds

Slot Two Photographs

Soil profile between 0.0m and 0.5m below mound level.

Soil material potential tunnel spoil observed between 10m and 11.2m below mound level.

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ENVIRONMENTAL BOREHOLE / TESTPIT TP3

PROJECT NUMBER :WCX-02-10721
PROJECT NAME :SLOT 3 Noise Mound Testing
CLIENT :CDSJV
ADDRESS:Northern Noise Mounds, Kingsgrove NSW

DRILLING DATE 16:/08/2016
DRILLING COMPANY : [redacted]
DRILLER : [redacted]
DRILLING METHOD :Excavator
TOTAL DEPTH 9.0m

COORDINATES
COORD SYS
SURFACE ELEVATION
LOGGED BY [redacted]
CHECKED BY : [redacted]

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	USCS	Material Description	Additional Observations
0.5	0.1	10721-TP3- N-A, 10721-TP3-N-ASB1, 10721-TP3-N-NEPM 1	Y		SM	TOPSOIL: Sandy dark brown loam with gravels, medium moisture, high organic content	Foreign materials: Ceramic tiles and bricks
9	0.2	10721-TP4-N-B, 10721-TP4-N-ASB2, 10721-TP4-N-NEPM 2	Y		GC	CLAYEY GRAVELS: Silty dark brown/orange clay with gravels, medium moisture and low organic content	Foreign materials: Bricks, plastics, cement, steel,tiles,glass and ashphalt
						Termination Depth at: 9.0 m	

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Northern Noise Mounds

Slot Three Photographs

Soil profile between 0.0m and 0.5m below mound level.

Soil profile between 0.5m and 9.0m below mound level.

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ENVIRONMENTAL BOREHOLE / TESTPIT TP4

PROJECT NUMBER :WCX-02-10721	**DRILLING DATE** 16/08/2016	**COORDINATES**
PROJECT NAME :SLOT 4 Noise Mound Testing	**DRILLING COMPANY** [redacted]	**COORD SYS**
CLIENT :CDSJV	**DRILLER** [redacted]	**SURFACE ELEVATION**
ADDRESSNorthern Noise Mounds, Kingsgrove NSW	**DRILLING METHOD** :Excavator	**LOGGED BY** :[redacted]
	TOTAL DEPTH 11.2	**CHECKED BY** :[redacted]

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	USCS	Material Description	Additional Observations
0.5	0.1	10721-TP4-N- A, 10721-TP4-N-ASB1, 10721-TP4-N-NEPM 1	Y		OL	TOPSOIL: Silty dark brown clay loam with gravels, medium moisture, high organic content	Foreign materials: Cement, bricks,steel,glass and plastic
1					CI	SILTY CLAY: Dark brown silty clay with gravels and shale, medium moisture and low organic content	Foreign materials: Cement,bricks,steel pipe,glass,asphalt and ceramic tiles
1.5							
2							
2.5							
3							
3.5							
4							
4.5							
5							
5.5							
6							
6.5							
7							
7.5							
8	0.1	10721-TP4-N- B, 10721-TP4-N-ASB2, 10721-TP4-N-NEPM 2	Y				
8.5					CH	HEAVY CLAY: Red/brown/orange mottled clays with gravels, high moisture, low organic content	Foreign materials:Ceramic tiles
9							
9.5							
10							
10.5							
11	0.2	10721-TP4-N-C, 10721-TP4-N-ASB3, 10721-TP4-N-NEPM3	Y				
11.5						Termination Depth at: 11.2 m	

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Northern Noise Mounds

Slot Four Photographs

Soil profile between 0.0m and 2.5m below mound level.

Soil material potential tunnel spoil observed between 0.5m and 10.0m below mound level.

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ENVIRONMENTAL BOREHOLE / TESTPIT TP5

PROJECT NUMBER :WCX-02-10721	**DRILLING DATE** 17/08/2016	**COORDINATES**
PROJECT NAME :SLOT 6 Noise Mound Testing	**DRILLING COMPANY** [redacted]	**COORD SYS**
CLIENT :CDSJV	**DRILLER** :[redacted]	**SURFACE ELEVATION**
ADDRESS:Northern Noise Mounds, Kingsgrove NSW	**DRILLING METHOD** :Excavator	**LOGGED BY** :[redacted]
	TOTAL DEPTH :9.3	**CHECKED BY** [redacted]

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	USCS	Material Description	Additional Observations
0.5	0.1	10721-TP6- A, 10721-TP6-ASB1, 10721-TP6-NEPM 1	Y		OL	TOPSOIL: Silty dark brown clay loam with gravels, medium moisture, high organic content	Foreign materials: Glass,plastic and bricks
1 – 8.5					GC	CLAYEY GRAVELS: Dark brown/orange silty clay,high moisture,low organic content	Foreign materials: Bricks, cement,ceramic tiles, steel pipe, reo bar, ashphalt and plastic
9	0.1	10721-TP6- B, 10721-TP6-ASB2, 10721-TP6-NEPM 2	Y				
9.5 – 11.5					CH	HEAVY CLAY:Yellow/orange/grey and red mottled clay, high moisture and low organic content	No foreign materials observed
12	0.0	10721-TP5-N-C, 10721-TP5-N-ASB3, 10721-TP5-N-NEPM 3	Y				
12.5						Termination Depth at: 12.0 m	

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Northern Noise Mounds

Slot Five Photographs

Soil profile between 0.0m and 1.0m below mound level.

Soil material potential tunnel spoil observed between 1.0m and 12.0m below mound level.

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ENVIRONMENTAL BOREHOLE / TESTPIT TP6

PROJECT NUMBER :WCX-02-10721	**DRILLING DATE** :17/08/2016	**COORDINATES**
PROJECT NAME :SLOT 7 Noise Mound Testing	**DRILLING COMPANY** :[redacted]	**COORD SYS**
CLIENT :CDSJV	**DRILLER** :[redacted]	**SURFACE ELEVATION**
ADDRESS:Northern Noise Mounds, Kingsgrove NSW	**DRILLING METHOD** :Excavator	**LOGGED BY** :[redacted]
	TOTAL DEPTH :9.3	**CHECKED BY** :[redacted]

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	USCS	Material Description	Additional Observations
0.5	0.1	10721-TP6-N- A, 10721-TP6-N-ASB1, 10721-TP6-N-NEPM 1	Y		OL	TOPSOIL: Silty dark brown clay loam with gravels, medium moisture, high organic content	Foreign materials: Bricks,glass,plastic and tiles
9	0.1	10721-TP6-N- B, 10721-TP6-N-ASB2, 10721-TP6-N-NEPM 2	Y		GM	CLAYEY GRAVELS: Brown/orange sandy clays with gravels,medium moisture,low organic content	Foreign materials: Steel wire,glass,plastic,bricks,ashph tiles and timber
9.5						Termination Depth at: 9.3 m	

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Northern Noise Mounds

Slot Six Photographs

Soil profile between 0.0m and 1.0m below mound level.

Soil profile between 1.0m and 9.3m below mound level.

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ENVIRONMENTAL BOREHOLE / TESTPIT TP2

PROJECT NUMBER :WCX-02-10721	**DRILLING DATE** :10/08/2016	**COORDINATES**
PROJECT NAME :SLOT 2 Noise Mound Testing	**DRILLING COMPANY** [redacted]	**COORD SYS**
CLIENT :CDSJV	**DRILLER** [redacted]	**SURFACE ELEVATION**
ADDRESS:Southern Noise Mounds, Kingsgrove NSW	**DRILLING METHOD** :Excavator	**LOGGED BY** :[redacted]
	TOTAL DEPTH :13.0m	**CHECKED BY** :[redacted]

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	USCS	Material Description	Additional Observations
0.5	0.7	10721-TP2-A, 10721-TP2-Asb1, 10721-TP2-NEPM1	Y		OL	TOPSOIL:Dark brown/black silty clay loam with gravels,low-medium moisture and high organic content.	Foreign materials: Bricks and cement
1					GC	CLAYEY GRAVELS: Orange/brown/grey mottled silty clay with gravels, medium moisture,low organic content	Foreign materials: Cement, plastics, steel, bricks, asphalt,glass, tiles and asbestos fibre cement fragments
1.5		10721-TP2-B, 10721-TP2-ASB 2, 10721-TP2-ASB 3, 10721-TP2-NEPM 2					
2	0.5		Y				
2.5					GC	CLAYEY GRAVELS: Dark brown/black and orange mottled clay,medium to heavy, high moisture, low organic content	Foreign materials: Glass,cement, bricks,asphalt and tiles
3							
3.5							
4		10721-TP2-C, 10721-TP2-ASB 4, 10721- TP2-NEPM 3					
4.5	1.9		Y				
5					CI	SILTY CLAY: Dark brown/black silty mottled clay with gravels, medium clay,high moisture,low organic content	Foreign materials: Cement, bricks,tiles,glass,plastic and asbestos fibre cement fragments
5.5							
6							
6.5							
7							
7.5							
8							
8.5							
9							
9.5							
10							
10.5							
11							
11.5							
12							
12.5		10721-TP2-D, 10721-TP2-ASB5, 10721-TP2-NEPM 4					
13	2.0		Y				
						Termination Depth at: 13.0 m	

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Southern Noise Mounds

Slot Two Photographs

Soil profile between 0.0m and 0.5m below mound level.

Soil profile between 0.5m and 13.0m below mound level.

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ENVIRONMENTAL BOREHOLE / TESTPIT TP3

PROJECT NUMBER :WCX-02-10721	**DRILLING DATE** :08/08/2016	**COORDINATES**
PROJECT NAME :SLOT 3 Noise Mound Testing	**DRILLING COMPANY** [redacted]	**COORD SYS**
CLIENT :CDSJV	**DRILLER** [redacted]	**SURFACE ELEVATION**
ADDRESS:Southern Noise Mounds, Kingsgrove NSW	**DRILLING METHOD** :Excavator	**LOGGED BY** :[redacted]
	TOTAL DEPTH :8.0m	**CHECKED BY** :[redacted]

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	USCS	Material Description	Additional Observations
0	0.3	10721-TP3- A, 10721-TP3-ASB1, 10721-TP3-ASB2, 10721-TP3-ASB3, 10721-TP3-NEPM 1	Y		OL	TOPSOIL: Silty dark brown loam with trace gravels, medium moisture, high organic content	Foreign materials: Cement, bricks,tiles,terracotta pipe,glass,steel and asbestos fibre cement
0.5					GC	CLAYEY GRAVELS: Silty dark brown/orange clay with gravels, medium moisture and low organic content	Foreign materials: Cement bricks,tiles, glass, steel and asbestos fibre cement fragments
3.5	0.2	10721-TP3- B, 10721-TP3-ASB4, 10721-TP3-ASB5, 10721-TP3-NEPM 2	Y				
4					CH	HEAVY CLAY: Black/grey and orange mottled clays, high moisture,high plasticity and low organic materials	Foreign materials: Timber, asphalt and asbestos fibre cement fragments
5	0.2	10721-TP3-C, 10721-TP3-ASB6, 10721-TP3-NEPM 3	Y				
5.5					GC	CLAYEY GRAVELS: Grey/brown silty clay with gravels,medium moisture and low organic content	Foreign materials: Tiles, glass, bricks and asbestos fibre cement fragments
7.5	1.3	10721-TP3-D, 10721-TP3-ASB7, 10721-TP3-ASB8, 10721-TP3-ASB9, 10721-TP3-NEPM 4,	Y				
8						Termination Depth at:8.0 m	

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Southern Noise Mounds

Slot Three Photographs

Soil profile between 0.0m and 0.5m below mound level.

Soil profile between 0.5m and 8.0m below mound level.

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ENVIRONMENTAL BOREHOLE / TESTPIT TP4

PROJECT NUMBER :WCX-02-10721	**DRILLING DATE** :08/08/2016	**COORDINATES**
PROJECT NAME :SLOT 4 Noise Mound Testing	**DRILLING COMPANY** [redacted]	**COORD SYS**
CLIENT :CDSJV	**DRILLER** :[redacted]	**SURFACE ELEVATION**
ADDRESS:Southern Noise Mounds, Kingsgrove NSW	**DRILLING METHOD** :Excavator	**LOGGED BY** [redacted]
	TOTAL DEPTH :5.5m	**CHECKED BY** :[redacted]

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	USCS	Material Description	Additional Observations
0.5	0.6	10721-TP4- A, 10721-TP4-ASB1, 10721-TP4-NEPM 1	Y		OL	TOPSOIL: Silty light brown loam with trace sands, medium moisture, high organic content	Foreign materials: Cement and bricks
2.5	0.4	10721-TP4- B, 10721-TP4-ASB2, 10721-TP4-NEPM 2	Y		GC	CLAYEY GRAVELS: Silty dark brown/orange clay with gravels, medium moisture and low organic content	Foreign materials: Bricks, steel,tiles and ashphalt
4	0.7	10721-TP4-C, 10721-TP4-ASB3, 10721-TP4-ASB4, 10721-TP4-NEPM 3	Y		SC	CLAYEY SANDS: Light brown/orange sandy clay of low plasticity,low moisture and low organic content	Foreign materials: Bricks,terracotta pipe and asbestos fibre cement fragments
5.5	0.9	10721-TP4-D, 10721-TP4-ASB5, 10721-TP4-ASB6, 10721-TP4-NEPM 4,	Y		GC	CLAYEY GRAVELS: Dark brown silty clay with gravels,medium moisture and low organic content	Foreign materials: Glass, bricks and asbestos fibre cement fragments
						Termination Depth at: 5.5 m	

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Southern Noise Mounds

Slot Four Photographs

Soil profile between 0.0m and 0.5m below mound level.

Soil profile between 0.5m and 5.5m below mound level.

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ENVIRONMENTAL BOREHOLE / TESTPIT TP5

PROJECT NUMBER :WCX-02-10721	**DRILLING DATE** :01/08/2016	**COORDINATES**
PROJECT NAME :SLOT 5 Noise Mound Testing	**DRILLING COMPANY** [redacted]	**COORD SYS**
CLIENT :CDSJV	**DRILLER** :[redacted]	**SURFACE ELEVATION**
ADDRESS:Southern Noise Mounds, Kingsgrove NSW	**DRILLING METHOD** :Excavator	**LOGGED BY** :[redacted]
	TOTAL DEPTH :3.0	**CHECKED BY** [redacted]

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	USCS	Material Description	Additional Observations
0.5	0.2	10721-TP5- A, 10721-TP5-ASB1, 10721-TP5-ASB3, 10721-TP5-ASB4, 10721-TP5-NEPM 1	Y		OL	TOPSOIL: Silty dark brown clay loam with gravels, medium moisture, high organic content	Foreign materials: Cement, bricks and asbestos fibre cement fragments
3	0.4	10721-TP5- B, 10721-TP5-ASB2, 10721-TP5-NEPM 2	Y		CH	HEAVY CLAY: Red/orange clay, high moisture and low organic content	Iron stone observed
						Termination Depth at: 3.0 m	

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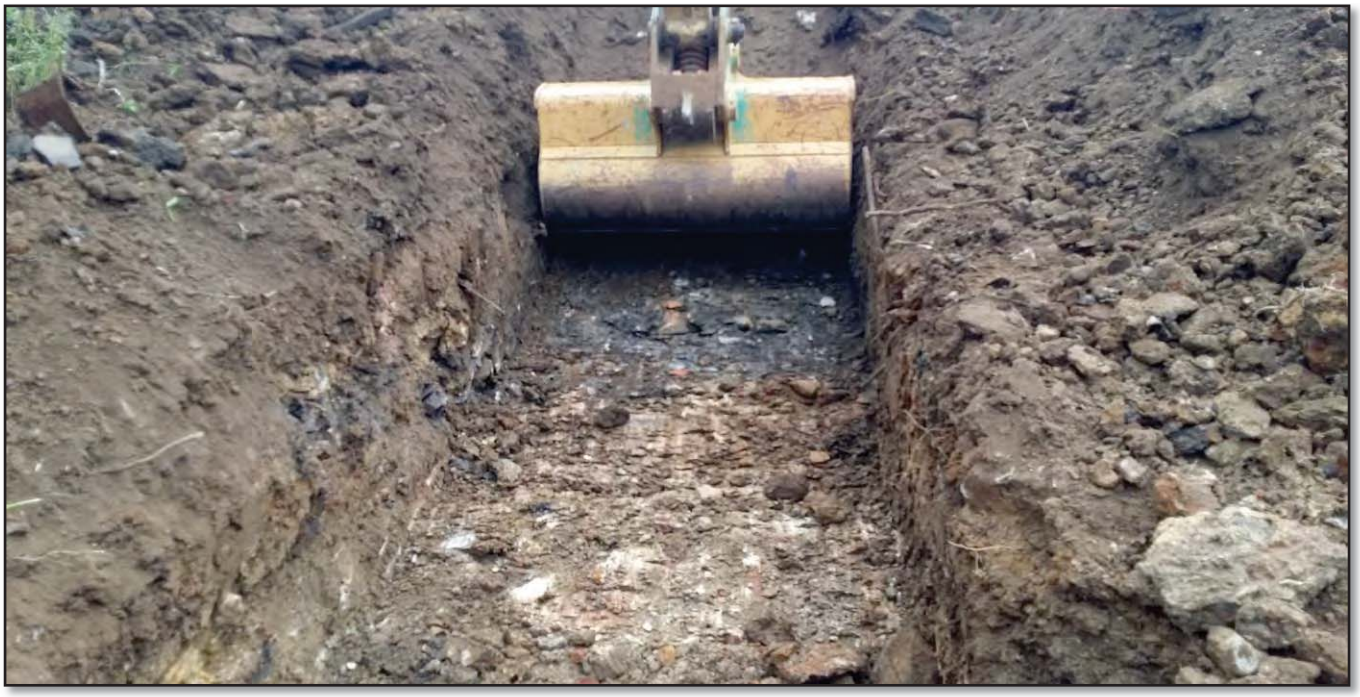
Southern Noise Mounds

Slot Five Photographs

Soil profile between 0.0m and 0.5m below mound level.



Soil profile between 0.5m and 3.0m below mound level.

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