Health Infrastructure

Phase 1 and Phase 2 Environmental Site Assessment

Summer Hill Ambulance Station
74-75 Carlton Crescent
Summer Hill, NSW 2130

30 November 2018

52961/110780 (Rev 2)

JBS&G

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Executive Summary

JBS&G Australia Pty Ltd (JBS&G) was engaged by Health Infrastructure NSW (HI, the Client) to conduct a combined Phase 1 and Phase 2 Environmental Site Assessment (ESA) of the Summer Hill Ambulance Station property located at 74-75 Carlton Crescent, Summer Hill NSW (the site). The site is formally identified as Lot 2 in DP717782, with a total area of approximately 2,730 m^2. The site location and site layout are presented on **Figure 1** and **Figure 2** respectively.

It is understood that the site is being prepared for divestment, with consideration required of the potential for future redevelopment under a mixed land use scenario including one additional basement level across at least part of the site. The site is zoned B2 Local Centre under the Ashfield Local Environmental Plan (LEP) Ashfield (2013[1]).

Previous environmental work was completed at the site in 2016 including a waste classification and underground storage tank (UST) scanning assessment, as discussed in **Section 3.8**. Previous work in addition to WorkSafe NSW dangerous goods storage licence records indicate the presence of four USTs in use at the site for the storage of diesel and petrol fuel and waste oil in addition to the potential for a fifth decommissioned UST to remain, all located at the rear of the site.

The scope of work comprised a desktop review, detailed site investigation including implementation of nine soil sampling locations, six soil vapour sampling locations and five groundwater sampling locations, subsequent laboratory analysis of representative samples for contaminants of potential concern and preparation of an ESA report presenting the outcomes of the investigation.

Based on the findings of this assessment and subject to the limitations in **Section 13**, the following conclusions are provided:

- The site is understood to have utilised for commercial and industrial purposes from 1920s until the 1980s. Part of the site has been used as an ambulance facility since the 1930s.
- A range of shallow fill materials were observed across the site at depths ranging from 0.6 to 1.4m bgs. No major anthropogenic inclusions were observed within the fill material. Natural soils underlying the fill material comprised a damp, homogeneous, pale brown/grey, high plasticity clay. Weathered shale was encountered below the residual clay at BH01 to BH05 at depths ranging from 1.4 to 3.0 m bgs.
- Minor hydrocarbon odours and staining were observed in natural material from 0.8 to 1.4 m in BH01 (targeting UST SE corner), in fill material from 0.15 to 0.7 m in BH07 (refusal at 0.7 m on obstruction within fill, targeting fuel line) and in fill material from 0.4 - 0.6 m at BH08 (targeting fuel line). No other staining or odours were observed during the subsurface investigation activities. A maximum PID result of 19.2 ppm was recorded during field screen for volatile contaminants at BH01 0.9-1.0. PID results across the remainder of the site were generally less than 5 ppm and mostly 0 ppm, consistent with the lack of observed gross odours and volatile hydrocarbon impacts.
- Concentrations of lead and carcinogenic PAHs as B(a)P TEQ in some representative fill material samples exceeded health site assessment criteria.
- Concentrations of copper, lead, B(a)P and TRH in some representative soil samples exceeded ecological site assessment criteria.

[1] *'Ashfield Local Environmental Plan 2013 – 0150_COM_LZN_001_010_20161012'*, Ashfield City Council, Accessed 5 May 2017, http://www.legislation.nsw.gov.au/maps/39a7336e-b42c-4f49-b9ec-5cfbaaa13275/0150_COM_LZN_001_010_20161012.pdf, Ashfield (2013);

- A single small (5 by 5 cm) fragment of bonded ACM was observed within fill sample BH07 0.3-0.4. In addition, a fragment of bonded ACM was identified on the ground surface in the crawl space cavity on the north-western portion of the site. No ACM was observed in drilling spoil at the remaining sample locations at the site. Trace level asbestos (less than the limit of reporting and LOR) was noted to be present within BH07 AQ 0.3-0.5 as loose fibre bundles of chrysotile asbestos with a raw weight of 0.0013 g, being equivalent to 0.00022 %w/w, which is less than the LOR of 0.001 %w/w. Another fragment of bonded ACM was identified on the ground surface within the crawl space within the north-western portion of the site The ACM material at the site is capped below concrete under current site buildings, thereby eliminating the inhalation pathway. As such, the material is considered to not present a current exposure risk to site users in the absence of ground disturbance activities.
- The identified ACM, whilst not a concern from a contaminated land assessment perspective, will require management from a WHS perspective during future activities that may result in ground disturbance in this area of the site and as such conditions should be noted on a site Asbestos Register.
- Targeted assessment of potential impacts associated with existing and suspected former UST infrastructure at the site has identified minor soil impacts in the vicinity of several USTs/bowers, occurring at levels less than the adopted health and ecological assessment criteria. No gross soil or groundwater contamination from VOCs, TRH and BTEX were identified associated with the USTs at the site. There were no significant indicators of contaminant migration associated with the existing UST facilities, however some limited impacts may occur in the immediate vicinity of the facilities that may be encountered during works to decommission and remove the infrastructure in accordance with the requirements of the UPSS Regulation (2014).
- Concentrations of all other COPCs assessed in representative soil samples were less than the site assessment criteria.
- Concentrations of COPCs at groundwater sampling locations were generally less than the site assessment criteria. Minor exceedances of zinc are considered not to represent a potential unacceptable risk to human and/or ecological receptors within or downgradient of the site.
- Concentrations of COPCs in representative soil vapour samples were less than the relevant site assessment criteria suitable for the proposed development scenario and below the LOR and are considered not to pose an unacceptable risk to site receptors.
- Aesthetic issues pertaining to stained/odorous soils associated with USTs as well as bonded ACM in soils were identified.
- No chemical mixtures or offsite migration risks were identified.
- On this basis, it is considered that the site can be made suitable for the proposed mixed land use scenario subject to implementation of an appropriate RAP to address the identified small scale heavy metal, PAH, aesthetic and UST infrastructure issues.
- Dependent upon the lateral and vertical extent of proposed basements at the site, it is likely that the majority of, or all the impacted soils may be removed from the site during this process given the shallow nature of fill material at the site. The USTs would require formal removal and validation.

The following recommendations are provided:

- A RAP should be prepared subsequent to identification of a firm redevelopment scenario to document the procedures and standards to be followed in order to address the identified soil impacts and removal of USTs, such that the identified impact is remediated / managed in a manner as to make the site suitable for the proposed land use;
- The existing AMP and Asbestos Register should be updated to include the findings of this report; and
- The USTs at the site should be managed in accordance with the requirements of the UPSS Regulation (2014).

1. Introduction

1.1 Background

JBS&G Australia Pty Ltd (JBS&G) was engaged by Health Infrastructure NSW (HI, the Client) to conduct a combined Phase 1 and Phase 2 Environmental Site Assessment (ESA) of the Summer Hill Ambulance Station property located at 74-75 Carlton Crescent, Summer Hill NSW (the site). The site is formally identified as Lot 2 in DP717782, with a total area of approximately 2,730 m^2. The site location and site layout are presented on **Figure 1** and **Figure 2** respectively.

It is understood that the site is being prepared for divestment, with consideration required of the potential for future redevelopment under a mixed land use scenario including one additional basement level across at least part of the site. The site is zoned B2 Local Centre under the Ashfield Local Environmental Plan (LEP) Ashfield (2013[2]).

Previous environmental assessment work was completed at the site by others in 2016 including a waste classification and underground storage tank (UST) scanning assessment, as discussed in **Section 3.8**.

The investigation has been developed in accordance with NEPC (2013)[3], guidelines made or approved by the NSW Environment Protection Authority (EPA) and relevant Australian Standards.

1.2 Objective

The objective of the investigation was to characterise potential contamination at the site and to draw conclusions regarding the suitability of the land for a mixed land use scenario, or make recommendations to enable such conclusions for the site.

1.3 Scope of Works

The scope of work for the assessment comprised:

- Desktop review of readily available relevant background and historical information including:
  - Site conditions and environmental setting;
  - s.149 certificate(s) obtained from council;
  - current and historical land title records;
  - historical aerial photographs;
  - heritage records held by the Department of Planning;
  - Dangerous Goods / Hazardous Chemicals database search by SafeWork NSW;
  - records of environmental incidents or former environmental licenses as held by the EPA;
  - Loose Fill Asbestos Insulation Register;
  - James Hardie Legacy Contamination Register;
- Review of any available previous environmental assessments or audits;
- A detailed site inspection;
- Soil sampling at nine locations;

[2] *'Ashfield Local Environmental Plan 2013 – 0150_COM_LZN_001_010_20161012'*, Ashfield City Council, Accessed 5 May 2017, http://www.legislation.nsw.gov.au/maps/39a7336e-b42c-4f49-b9ec-5cfbaaa13275/0150_COM_LZN_001_010_20161012.pdf, Ashfield (2013);

[3] *National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No. 1),* National Environment Protection Council, 2013 (NEPC 2013).

- Installation, development and sampling of five groundwater monitoring wells;
- Installation and sampling of six sub-slab soil vapour probes;
- Laboratory analysis of representative soil, soil vapour and groundwater samples; and
- Preparation of this combined Phase 1 and Phase 2 ESA report in general accordance with relevant EPA guidelines.

This ESA was undertaken concurrently with a JBS&G Hazardous Buildings Material Survey (HMS, JBS&G 2017), which has been reported separately.

2. Site Conditions and Surrounding Environment

2.1 Site Identification

The location of the site shown on **Figure 1**. The layout of the site and approximate site boundary are shown on **Figure 2**. The site details are summarised in **Table 2.1**.

Table 2.1: Summary Site Details

Site Address	74-75 Carlton Crescent, Summer Hill, NSW 2130
Lot / DP	Lot 2 in DP717782
Local Government Authority	Inner West Council (formerly Ashfield Council)
Site Owner	Health Administration Corporation
Site Area	Approximately 2,730 m^2
Approximate Geographical Coordinates (MGA 56)	Easting: 327721 Northing: 6248433
Zoning	B2 – Local Centre
Previous Land-use	Commercial / industrial
Current Land-use	Summer Hill Ambulance Station
Proposed Land-use	Mixed-use scenario with additional basement level

2.2 Site Description

A detailed site inspection was undertaken on 26 May 2017 by Nicola Wells, one of JBS&G's trained and experienced field scientists. A photographic log of the site inspection and subsequent sampling programs is presented in **Appendix B**. Site features are presented on **Figure 2**.

At the time of the inspection, the site comprised an active ambulance station in an approximately rectangular lot, with a curtailed south-western corner. The majority of the site was covered by the four adjoining ambulance facility buildings and associated concrete slabs. The western most part of the site comprised a driveway with slim garden bed (< 0.5 m in width). The southern portion of the site comprised an on-grade concrete carpark. Stormwater drainage was present within the southern portion of the site.

Four underground storage tanks (USTs) were identified in the southern portion of the site. A diesel UST was located in the south-western corner of the site. Two petrol USTs were located in the central southern site area. Bowsers for each of the USTs were located to north of the USTs, at the southern side of the nearby building. Near to the eastern site boundary was a fourth UST, which holds waste oil. An oil separator was also located in the central portion of the southern buildings. A 500L above ground oil storage tank was located within a car parking space in the central southern portion of the buildings at the site.

The north-western ambulance building comprised a two-storey brick heritage building including offices and the ambulance dispatch bay. Access for vehicles from the south was via a secure gate off Hardie Avenue. Access for vehicles from the north off Carlton Crescent was via a secure gate located on the western side of the buildings. Access to the upper floors / maintenance garage in the eastern building was via a concrete ramp. A crawl space was identified below the north-west building. The rear of the western building comprised ambulance parking and supply areas. A variety of building debris and rubbish was observed within the crawl space. Bonded asbestos containing material (ACM) was identified on the surface of the crawl space soils.

The north-eastern building comprised a three storey, split level building. The street level (first floor) comprised an ambulance workshop where repairs and mechanical works are undertaken on the vehicles. Two above ground vehicle hoists were observed. Above this (second floor) were some additional offices. Below the street level in the northern portion of the site was a sub-floor void. Further to the south, a ground floor was present which comprised offices and storage rooms. No significant staining was observed inside the workshop areas or on the painted concrete floors.

Small flammable goods stores were identified within the buildings. There were bunded, lockable and in good condition with no observable staining on the concrete at these locations.

Hazardous building materials including ACM and lead paint were identified within the buildings as documented in the concurrent *Hazardous Materials Survey* (JBS&G 2017).

Some very minor staining was apparent on the concrete pavements at both bowsers. No odours were associated with the bowsers.

The site was well secured within fencing, other buildings or secure gates bordering the property.

2.3 Surrounding Land-use

The surrounding land-uses of the site are detailed below.

North – Carlton Crescent, with T2 Inner West and South Railway Line and T1 Western Railway Line further afield. Residential properties are located to the north of the railway lines.

East – A commercial / industrial building was located at 72 Carlton Crescent. Current occupants included lawyers, design firms, furniture store and a Pilates studio. A panel beater and painting automotive business was located in an industrial style property at 70 Carlton Crescent, further to the east of the site.

South – Public walkway, with a shopping centre and supermarket beyond this. Hardie Avenue and a council carpark are located to the south-east of the site.

West – Public open space (Summer Hill Park / Darrell Jackson Gardens) including tennis courts, basketball court, skate ramp and grassed areas.

2.4 Topography

The site is located within an area of gentle rolling hillslopes with gentle regional falls towards the east and ultimately Hawthorne Canal.

The site slopes to the south from an approximate elevation of 23 m Australian Height Datum (AHD) on Carlton Crescent to an approximate elevation of 19 m AHD near Hardie Avenue, based on review of the LTS Lockley topographical survey (19 June 2017) of the site.

2.5 Geology and Soil

According to the Sydney 1:100 000 Geological Sheet 9130 (1983), the site is underlain by a Triassic Period geological formation, Ashfield Shale of the Wianamatta group, comprising of black to dark-grey shale and laminite.

Review of eSPADE[4] indicated that the site soils comprise residual Blacktown soils, shallow to moderately deep hard setting mottled texture contrast soils, red and brown podzolic soils on crests, grading to yellow podzolic soils on lower slopes and drainage lines.

Investigations encountered fill material across the site to a maximum depth of approximately 1.4 metres below ground surface (m bgs) overlying residual clay soils and weathered shale. Observations of depths of fill materials are presented in the bore logs included in **Appendix C**.

2.6 Acid Sulfate Soils

Review of the Liverpool 1:25 000 Acid Sulfate Soil Risk Map[5] indicates the site is located in an area with no known occurrence of acid sulfate soils. This classification relates to site where Acid Sulfate

[4] http://www.environment.nsw.gov.au/eSpade2Webapp# Department of Environment and Heritage, NSW Government. Accessed 10/09/2017

[5] Liverpool 1:25 000 Acid Sulfate Soil Risk Map – Edition Two, Department of Land and Water Conservation, December 1997.

Soil (ASS) or Potential Acid Sulfate Soil (PASS) conditions are not known or not likely to occur. On this basis, no further consideration of ASS management is required.

2.7 Hydrology

The site almost entirely comprises building rooftops, concrete slabs or asphalt with very minimal landscaped zones along the western boundary of the site. On this basis, almost all rainwater is expected to be captured within the rainwater infrastructure on the site and is expected to enter the regional stormwater system located at the south of the site. The regional stormwater system runs to the south-east, towards Hardie Avenue, before heading south along Hardie Avenue (WMAwater 2014[6]).

The nearest surface water receptor is Hawthorne Canal, located approximately 750 m to the east of the site. This creek flows in a northerly direction prior to confluence with Iron Cove Creek approximately 2.4 km to the north-east of the site.

2.8 Hydrogeology

No registered groundwater bores were present within 500m of the site on the NSW Office of Water Groundwater Database[7]. Records of the groundwater search are provided in **Appendix D.**

It is anticipated that on a regional scale groundwater would move generally to the east following the regional topography toward Hawthorne Canal, discharging to Iron Cove Creek and ultimately Parramatta River.

Given the relatively shallow bedrock underlying the site, it is anticipated groundwater in the vicinity of the site would be resident in cracks and deformities within the shale bedrock. As such, groundwater movement is expected to be low in volume and of a saline nature given the low permeability of the shale and its marine depictional environment.

2.9 Meteorology

Mean monthly temperature range from 17.5 degrees Celsius to 27.8 degrees Celsius. Mean monthly average rainfall ranges from 46.8 mm to 109.3 mm.

Data from Canterbury Racecourse AWS Meteorological Station[8] approximately 3 kilometres from the site.

[6] *Hawthorne Canal Flood Study Final Report (Ashfield Council)*, WMAwater Pty Ltd, October 2014 (WMAwater 2014).
[7] http://allwaterdata.water.nsw.gov.au/water.stm. Accessed 11/9/2017.
[8] http://www.bom.gov.au/climate/averages/tables/cw_066194.shtml. Accessed 11/9/2017.

3. Site History

3.1 Aerial Photograph

Historical aerial photographs are provided in **Appendix E** and discussed below.

1930 – The eastern portion of the site appeared vacant (i.e., no buildings or structures). A building appeared to be have been present in the north-west portion of the site with a separately fenced yard occupying the south-west.

1943 – The building in the north-western portion of the site was readily discernible. A saw-tooth building had been constructed in the eastern portion of the site and extended to the adjacent property in the east. Residential style properties appeared to be located to the west and south.

1961 – An extension of the eastern building to the south was apparent. Otherwise, the site remained generally consistent with the 1943 aerial. A number of residential style properties to the west appeared to have been demolished. A new addition was apparent to the rear of the saw-tooth building adjacent to the eastern portion of the site.

1970 – The site appeared generally consistent with the 1961 aerial photograph. Some residential style properties located to the south of the site appeared to have been demolished with construction of a road / car-park apparent. The remaining residences to the west of the site had been demolished and the area comprise vacant grassed open space.

1978 – The site and surroundings were generally consistent with the 1970 photograph, noting the carpark area to the south of the site had been expanded as a result of the demolition of former buildings.

1986 – Substantial renovation and extension of both buildings at the site was apparent. Renovated or extended areas were identifiable by the green roof. The site layout appeared to be generally consistent the current day layout. The former carpark to the south has been replaced by a commercial / warehouse style building. A concreted sports area and tennis courts had been constructed to the west of the site.

1998 – The site and surroundings were generally consistent with the 1986 photograph.

2005 – The site and surroundings were generally consistent with the 1998 photograph.

3.2 Historical Land Titles

Historical land title records are summarised in **Table 3.1** below and full records provided in **Appendix F**.

Date Acquired / Duration Held	Registered Proprietor(s) and Occupations
Part 1 on Cadastre (Appendix F)	
14.11.1924 (1924 to 1927)	Rosina Reynolds (Widow)
17.10.1927 (1927 to 1949)	Albert Edward Reynolds (Boot Merchant) Florence Lilian Reynolds (Married Woman) (Transmission Application not investigated)
01.09.1949 (1949 to 1954)	John Patton (Manufacturer)
17.12.1954 (1954 to 1987)	Council of the Municipality of Ashfield
29.06.1987	# Health Administration Corporation

(1987 to date)	
Part 2 on Cadastre (Appendix F)	
27.04.1923 (1923 to 1926)	William Albert Travers (Marine Engineer) George James Rochester (Fish Merchant) William Laudenbach (Gem Merchant) George Sydney Rolfe Porter (Clerk) Herbert Wallace Taylor (Fitter) John William Cordin (Grocer) Cuthbert William Robson (Solicitor)
30.04.1926 (1926 to 1983)	New South Wales Ambulance Transport Service Board
28.11.1983 (1983 to date)	# Health Administration Corporation
Part 2A on Cadastre (Appendix F)	
05.11.1895 (1895 to 1926)	Ellen Adeline McQuillan (Married Woman)
10.06.1926 (1926 to 1935)	John Henry Fraser (Agent)
05.12.1935 (1935 to 1983)	New South Wales Ambulance Transport Service Board
28.11.1983 (1983 to date)	# Health Administration Corporation
Part 3 on Cadastre (Appendix F)	
05.11.1895 (1895 to 1926)	Ellen Adeline McQuillan (Married Woman)
10.06.1926 (1926 to 1937)	John Henry Fraser (Agent)
27.01.1937 (1937 to 1945)	Grace Bros Limited Now Grace Bros Pty Limited
17.07.1945 (1945 to 1980)	Feather and White Pty Limited
07.03.1980 (1980 to date)	# Health Commission of New South Wales Now # Health Administration Corporation
Leases	
08.09.1937 to 27.09.1945	Feather and White Pty Limited

3.3 EPA Records

Search of the NSW Environmental Protection Authority (EPA) database was undertaken on 18 September 2017 (**Appendix G**) for the site and immediate surroundings. The search consisted of the:

- NSW EPA Protection of the Environment Act public register of licence, applications and notices (maintained under Section 308 of the Protection of the Environment Operations Act 1997 (POEO Act));

- NSW EPA contaminated land public register of record of notices (under Section 58 of the Contaminated Land Management Act 1997 (CLM Act)); and
- NSW contaminated sites notified to the EPA (under Section 60 of the CLM Act).

Results of the searches are discussed below.

POEO

No prevention, clean-up or prohibitions notices and no transfer, variation, suspension, surrender or revocation of an environment protection licences (EPL) has been issued under the POEO Act for the site and adjacent properties. Six records are noted for the suburb of Summer Hill, associated with a former flour mill located at 2 Smith Street, Summer Hill, as presented within **Appendix G.** EPL 2024 for the aforementioned property was surrendered in July 2009. Given the distance of the property and nature of the licence, it is considered unlikely to pose a contamination risk to the site.

Section 58

No notices have been issued under the CLM Act for the site and immediate surroundings. A single site within former Ashfield Council has had a notice under Section 58 of the CLM Act being a 7-Eleven Service Station located at 25-35 Parramatta Road, Haberfield.

Based on the distance from the site (approximately 300 m), and hydrogeological downgradient position of the property (i.e., near to Hawthorne Canal), the property is considered unlikely to pose a contamination risk to the site.

Section 60

The site or adjacent properties are not on the list of NSW contaminated sites notified to the EPA.

James Hardie Legacy Register

The site or adjacent properties are not on the list of potential former James Hardie asbestos disposal sites as documented in *Regulation Project, James Hardie Asbestos Waste Contamination Legacy, Summary Project* Report, Environmental Climate Change and Water, April 2010.

3.4 Council Records

A full copy of the Section 149 (2) and (5) planning certificate is provided in **Appendix H.** A summary of the information with respect to contamination is as follows:

- The site is zoned B2 – Local Centre.
- The site is located within a heritage conservation area.
- Within Section 149 (2) there was no matters specified with regards to contamination:
  - The land is not known by council to be significantly contaminated land;
  - The land is not the subject of a management order;
  - The land is not subject of an approved voluntary management proposal;
  - The land is not subject to an ongoing maintenance order; and
  - The land is not subject of a site audit statement.
- The land is affected by flood related development controls.
- Within Section 149 (5) there was no matters specified with regards to contamination.

3.5 Fair Trading NSW Properties Affected by Loose Fill Asbestos Insulation

A search of the Fair Trading NSW Loose-fill Asbestos Insulation Register (LFAI register[9]) for the site address (**Appendix I**) has indicated the site is not currently registered as being affected by the presence of LFAI.

3.6 Heritage Register

Results of searches on the NSW[10] and Australian[11] heritage registers are provided in **Appendix J.** The site is listed under s. 170 of NSW state agency heritage register. The site is not listed under any national heritage registers or under the NSW State Heritage Register.

3.7 Dangerous Goods Records

A copy of the SafeWork NSW Storage of Hazardous Chemicals search is provided in **Appendix K.**

A search of the Storage of Hazardous Chemicals database by SafeWork NSW indicated that there were records under licence 35/004742 for three underground storage tanks pertaining to the site:

- Depot 1 / C9371, an unleaded petrol UST of 11,900 L;
- Depot 2 / C9372, a leaded petrol UST of 11,900 L;
- Depot 3 / C9373, a petrol UST of 11,900 L. This UST is understood to have been converted to diesel as of 2002.

The first UST on the records was noted to be installed in 1983, with two additional USTs noted on the 1995 records.

An abandoned UST was located in the southern portion of the site, situated between the current active USTs, as documented in **Appendix J** and presented on **Figure 2**.

A waste oil UST was observed to be present in south-eastern corner of the site, as presented on **Figure 2**. This is not required to be licensed and so is not recorded on the documentation search.

3.8 Previous Reports

Two previous environmental reports were provided by the client for review. The reports provided were as follows:

- *Waste Classification Assessment, Proposed Re-Development, 74 & 75 Carlton Crescent, Summer Hill NSW,* Environmental Investigation Services, 26 June 2015 (EIS 2015).
- *Underground Storage Tank Investigation Report, 74-75 Carlton Crescent, Summer Hill*, Land & Groundwater Consulting Pty Ltd, 9 May 2016 (LGC 2016).

3.8.1 Waste Classification (EIS 2015)

EIS (2015) completed a waste classification in conjunction with a geo-technical assessment in 2015. Five borehole locations were sampled. These locations do not appear to have been targeted for environmental purposes and did not sufficiently characterise identified areas of environmental concern (AECs) as discussed in **Section 4**. Extracted figures, tables, logs and laboratory documentation is provided in **Appendix L**. EIS (2015) data has been re-analysed in this report for site suitability purposes and is included within **Table A** and discussed in **Section 8**.

[9] http://www.fairtrading.nsw.gov.au/ftw/Tenants_and_home_owners/Loose_fill_asbestos_insulation/Public_register_of_affected_properties.page?#Accessing_the_LFAI_Register.

[10] http://www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx.

[11] http://www.environment.gov.au/cgi-bin/ahdb/search.pl.

3.8.2 UST Investigation (LGC 2016)

LGC conducted an UST investigation that comprised a site inspection and completion of a ground penetrating radar (GPR) survey to confirm the location and footprint of four (4) USTs to assist with proposed development works at the site. No soil, soil vapour or groundwater sampling was undertaken. It was concluded that 4 active USTs and two bowsers were present at the site.

Based on the report text it appears that indications of existing facilities were identified and the GRP used to confirm the lateral extent of each UST at the reported location. No survey appears to have been completed across the balance of the site, including in the vicinity of the reportedly decommissioned UST to the east of the diesel UST (#4).

3.9 Integrity Assessment

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

4. Conceptual Site Model (CSM)

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

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

- Known and potential sources of contamination and contaminants of concern including the mechanism(s) of contamination;
- Potentially affected media (soil, sediment and ambient air);
- Potential receptors; and
- Potential and complete exposure pathways.

4.1 AECs & COPCs

The identified areas of environmental concern (AECs) and associated contaminants of potential concern (COPCs) for the site are presented in **Table 4.1**.

Table 4.1: AECs & COPCs

AECs	COPCs
Fill of unknown origin across the site used to create current site levels.	Heavy metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn), polycyclic aromatic hydrocarbons (PAHs), organochlorine pesticides (OCPs), polychlorinated biphenyls (PCBs), total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene and xylenes (BTEX) and asbestos.
Current and former petroleum infrastructure (USTs, fuel lines and bowers) at the site.	Lead, TRH/BTEX, PAHs and VOCs
Use of site as garage / maintenance for ambulance vehicles, including storage and disposal of lubricants, degreasers and fuel.	Lead, TRH/BTEX, PAHs and VOCs
Hazardous building materials associated with current and former site improvements.	Asbestos, lead and PCBs

4.2 Potentially Impacted Media

Soils, soil vapour and/or groundwater are considered to be potentially impacted media at the site given the presence of four active USTs and potentially, a formerly decommissioned UST at the site.

Fill material is considered to be a potentially impacted medium based upon the age of the site, likely filling of the site and previous demolition and construction works. Fill and natural media may be impacted from leaks or spills from the USTs and workshop areas.

Based on the potential leachability of some COPCs and AECs (such as the USTs) and the anticipated disturbed/filled nature of the site, natural soils are considered to be potentially impacted media. As with the natural soils, the potential for groundwater impact will depend on the actual nature, occurrence and characteristic of impact within the overlying fill materials and, potentially, the natural soils. However, it is noted that the anticipated fill material is likely underlain by low permeability Blacktown Soils that potentially limit vertical migration of leachable COPCs. Similar to groundwater, should soil impacts be identified, the potential for soil vapour as a contaminated media may require further consideration.

Given ground slopes in the vicinity of the site, the nearby commercial facilities (smash repairers shop) is considered to be located cross gradient to the site and so is unlikely to represent a contamination migration risk to the site.

4.3 Potential Receptors

Potential human and ecological receptors or on near the site include:

- Site occupants / workers and visitors including those within a future multi-storey mixed use development with below ground/basement level facilities;
- Construction / maintenance workers, including subsurface excavation/maintenance works;
- Flora and fauna on the site.

Potential human and ecological receptors have also been identified beyond the site boundary in nearby areas, inclusive of occupants/visitors to residential and/or commercial developments adjoining the site users of public open space and road reserves/walkways adjacent to the site and the brackish environment of Hawthorne Canal. It is anticipated that exposures for human receptors would be limited to the off-site migration of contaminant vapours, whilst off-site migration to Hawthorne Canal would be via off-site migration of groundwater.

4.4 Potential Exposure Pathways

Based on the COPCs identified in soil, groundwater and soil vapour, the potential exposure pathways for the site include:

- Oral and dermal pathways from impacted soils and groundwater (either through beneficial groundwater re-use or made accessible via excavation).
- Inhalation of airborne contaminants (including airborne asbestos fibres).
- Inhalation of vapours migrating from impacted soils and groundwater.
- Contaminant uptake via vegetation (flora) or bioaccumulation within fauna.

Future human receptors on the site will potentially be exposed to soil and groundwater contaminants by oral, dermal and inhalation pathways. Direct contact pathways (oral and dermal) will generally only be relevant for construction and future intrusive/excavation worker exposure across the majority of the site, subject to construction of a future basement. However, should proposed landscaping occur beyond the building/basement footprint, there is the possibility of direct contact with near surface soils for future site occupants/users. Should basement excavations extend to competent (sandstone) bedrock, there may also be the potential for direct contact to future site users, should constructed retention not be required from a structural/geotechnical viewpoint.

Potential inhalation pathways within the site are considered to occur where vapours associated with the groundwater contaminant plume may infiltrate the basement levels, potential retail/commercial space and the overlying residential apartments and accumulate. The actual occurrence of inhalation exposure will require further consideration during future development design based on identified potential contamination issues as may be identified.

4.5 Potential for Migration

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

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

The potential contaminants of concern identified as part of the site history review and site inspection are in solid (e.g. asbestos, metals), liquid (e.g. TRH/BTEX) or vapour form. In the event of significant soil and/or groundwater contamination, there is the potential for soil vapour impacts, including off-site migration.

There is the potential for contaminants to migrate and impact groundwater given the liquid nature of the COPCS associated with USTs, and to migrate offsite via groundwater.

There is a limited potential for contaminants to migrate via surface water runoff given the sealed nature of the site. Localised spills from bowsers/re-fuelling if not appropriately managed may runoff into the local stormwater system.

4.6 Preferential Pathways

For the purpose of this assessment, preferential pathways have been identified as natural and/or man-made pathways that result in the preferential migration of COPC as either liquids or gasses.

Man-made preferential pathways are present on the site, generally associated with fill materials present beneath the current ground surface, underground storage tank excavation pits and existing/former services trenches at the site, including drainage lines, stormwater pits and telecommunications conduits. Generally higher permeability backfill, or the reduced compaction requirements overlying these services result in the services trenches becoming preferential pathways for contaminant migration and as such it is anticipated that contaminants in liquid and/or vapour form may be associated with these areas.

Preferential pathways may also be created during future development works as a result of installation of new services and lift shafts connecting basement levels to upper sections of the building that may result in the migration of vapours to upper levels of the multi-storey building, etc.

Man-made preferential pathways are also anticipated to occur nearby to the site within the adjoining road reserves.

5. Sampling and Analysis Plan

5.1 Data Quality Objectives

Data quality objectives (DQOs) were developed for the contamination assessment, as discussed in the following sections.

5.1.1 State the Problem

The site is proposed to be divested and an ESA is required to characterise potential contamination at the site and to draw conclusions regarding the suitability of the land for a mixed land use scenario, or make recommendations to enable such conclusions for the site.

The preliminary desk top assessment of potential site contamination concerns as documented in previous sections has identified a range of potential areas of concern and associated contaminants of concern associated with historical and current site uses. As such, a site characterisation investigation of site conditions is required to facilitate a data set to enable decisions with regard to whether the site is considered to be suitable, or can be made suitable for the proposed uses.

Information on potential site contamination conditions inferred from the desktop review and observations made during the site inspection resulted in the development of the conceptual site model presented in **Section 4.**

5.1.2 Identify the Decision

The following specific decisions are required to be made as part of these investigations:

- Are there any unacceptable risks to likely future receptors from impacted soil?
- Are there any unacceptable risks to likely future receptors from impacted groundwater?
- Are there any unacceptable risks to likely future receptors from soil vapour?
- Are there any issues relating to local area background soil concentrations that exceed the appropriate soil criteria?
- Are there any impacts of chemical mixtures?
- Are there any significant aesthetic concerns from impacted soils present at the site?
- Is there any evidence of, or potential for, migration of contaminants from the site?
- Is a site management strategy required?

5.1.3 Identify Inputs to the Decision

Inputs required to address the decisions will be:

- Potential AECs and COPCs as identified by site history review and detailed site inspection;
- Soil environmental data collected by soil sampling and analysis;
- Soil criteria based on the mixed land use;
- Groundwater environmental data as collected by groundwater sampling of newly installed wells;
- Groundwater criteria based on the mixed land use and potential receptors;
- Soil vapour data collected by soil vapour sampling and analysis;
- Soil vapour criteria based on mixed land use;

- Confirmation that data generated by field measurements and sample analysis are of a sufficient quality to allow reliable comparison to assessment criteria as undertaken by assessment of quality assurance / quality control (QA/QC) as per the data quality indicators established in **Section 5.1.6.**
- Specifically, sufficient data needs to be collected from each potentially impacted media in the identified AEC at the site for the associated COPC as identified in **Table 4.1.**

5.1.4 Define the Study Boundaries

The lateral extent of the study comprised the full extent of the lot, as presented on **Figure 2**.

The vertical extent of the study comprised:

- Soil – approximately 0.3 m into the natural soil or to a maximum of 7 m depth, whichever was shallower;
- Groundwater – monitoring wells were installed to depths of approximately 2 m below the depth of encountered seepage or prior refusal on shale bedrock; and
- Soil Vapour – sub-slab soil vapour sampling was completed directly below the depth of the slabs.

The current study does not include assessment of temporal changes in identified COPCs which was beyond the scope of this investigation. Therefore, results were reflective of conditions at the time of the assessment.

5.1.5 Develop a Decision Rule

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

Table 5.1: Summary of Decision Rules

Decision Required to be Made	Decision Rule
Are there any unacceptable risks to likely future receptors from impacted soil?	Soil analytical data was compared against appropriate criteria. Statistical analyses of the data in accordance with relevant guidance documents were undertaken, if appropriate, to facilitate the decisions. The following statistical criteria were adopted with respect to soils: Either: the reported concentrations were all below the site criteria; Or: the 95% upper confidence limit (UCL) of the average concentration for each analyte was below the adopted site criterion; no single analyte concentration exceeded 250% of the adopted site criterion; and the standard deviation of the results was less than 50% of the site criterion. If the statistical criteria stated above were satisfied, the decision was No. If the statistical criteria were not satisfied, the decision was Yes.
Are there any unacceptable risks to likely future receptors from impacted groundwater?	Groundwater analytical data was compared against appropriate criteria to evaluate the following occurrences: The concentration of the contaminant in groundwater was, or will foreseeably be, less than the appropriate criteria and will remain that way; OR, there is not separate-phase contamination of groundwater. If the criteria stated above were satisfied, the answer to the decision was No. If the criteria were not satisfied, the answer to the decision was Yes.
Are there any unacceptable risks to likely future receptors from soil vapour?	Are there contaminants potentially in soil vapour beneath the site that may migrate to surface and accumulate in confined areas during development or future use of the site, based on consideration of appropriate guidance and qualitative assessment of risks? If yes to vapours, the decision is Yes.

Decision Required to be Made	Decision Rule
	Otherwise, the decision is No
Are there any issues relating to the local area background soil concentrations that exceed appropriate soil criteria?	Analytical data in natural soil samples were compared to the background levels for urban areas of NSW as described in NEPC 2013. Where concentrations were less than the background levels, the answer to the decision was No. Otherwise the answer to the decision was Yes.
Are there any impacts from chemical mixtures?	Are there more than one group of contaminants present which increase the risk of harm? If there was, the decision was Yes. Otherwise, the decision was No.
Are there any significant aesthetic concerns from impacted soils present at the site?	Were significant odour, staining, discolouration or other aesthetic issues identified during the soil assessment? If yes, the decision was Yes. Otherwise, the decision was No.
Is there any evidence of, or potential for, migration of contaminants from the site?	Based on the assessment results including soil and groundwater analytical data, was there any evidence of, or potential for, migration of contaminants from the site? If there was potential for unacceptable contaminant concentrations to migrate, the decision was Yes. Otherwise, the decision was No.
Is a site management strategy required?	Was the answer to any of the decisions Yes? If yes, a site management strategy was required. If no, a site management strategy was not required.

5.1.6 Specify Limits of Decision Error

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

Specific limits with respect to the limits of decision error adopted for this project have been implemented in accordance with the appropriate guidance from NEPC (2013), ANZECC/ARMCANZ (2000)[12], DEC (2007)[13], appropriate indicators of data quality (DQIs used to assess quality assurance / quality control) and standard JBS&G procedures for field sampling and handling.

To assess the usability of the data prior to making decisions, the data will be assessed against pre-determined Data Quality Indicators (DQIs).

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

- **Precision** - measures the reproducibility of measurements under a given set of conditions. The precision of the laboratory data and sampling techniques is assessed by calculating the Relative Percent Difference (RPD) of duplicate samples.
- **Accuracy** - measures the bias in a measurement system. The accuracy of the laboratory data that are generated during this study is a measure of the closeness of the analytical results obtained by a method to the 'true' value. Accuracy is assessed by reference to the analytical

[12] Australian and New Zealand Guidelines for Fresh and Marine Water Quality Volume 1 2000, *Australian and New Zealand Environment and Conservation Council* (ANZECC/ARMCANZ 2000).

[13] Guidelines for the Assessment and Management of Groundwater Contamination 2007, *Department of Environmental and Conservation* (DEC 2007).

results of laboratory control samples, laboratory spikes and analyses against reference standards.

- **Representativeness** – expresses the degree which sample data accurately and precisely represent a characteristic of a population or an environmental condition. Representativeness is achieved by collecting samples on a representative basis across the site, and by using an adequate number of sample locations to characterise the site to the required accuracy.
- **Comparability** - expresses the confidence with which one data set can be compared with another. This is achieved through maintaining a level of consistency in techniques used to collect samples; ensuring analysing laboratories use consistent analysis techniques and reporting methods.
- **Completeness** – is defined as the percentage of measurements made which are judged to be valid measurements. The completeness goal is set at there being sufficient valid data generated during the study.
- **Sensitivity** - expresses the appropriateness of the chosen field and laboratory methods, including the limits of reporting, in producing reliable data in relation to the adopted site assessment criteria.

Table 5.2: Summary of Quality Assurance / Quality Control Program

Data Quality Indicator	Frequency	Data Quality Criteria
Precision		
Blind duplicates (intra laboratory)	1 / 20 samples	<50% RPD[2]
Blind triplicates (inter laboratory)[1]	1 / 20 samples	<50% RPD[2]
Laboratory Duplicates[1]	1 / 20 samples	<50% RPD[2]
Accuracy		
Surrogate spikes[1]	All organic samples	70-130%
Laboratory control samples[1]	1 per lab batch	70-130%
Matrix spikes[1]	1 per lab batch	70-130%
Representativeness		
Sampling appropriate for media and analytes	-	-
Samples extracted and analysed within holding times.	-	organics (14 days), inorganics (6 months)
Trip spike[1]	1 per sampling batch	70-130% recovery
Trip blank[1]	1 per sampling batch	<LOR
Rinsate[1]	1 per sampling batch with reusable sampling equipment	<LOR
Laboratory Blanks[1]	1 per analytical method	<LOR
Method blank (soil vapour only)	1 per lab batch	<LOR
Comparability		
Standard operating procedures for sample collection & handling	All samples	All samples
Standard analytical methods used for all analyses	All samples	All samples
Consistent field conditions, sampling staff and laboratory analysis	All samples	All samples
Limits of reporting appropriate and consistent	All samples	All samples

Data Quality Indicator	Frequency	Data Quality Criteria
Completeness		
Sample description and COCs completed and appropriate	All samples	All samples
Appropriate documentation	All samples	All samples
Satisfactory frequency and result for QC samples	All QA/QC samples	-
Data from critical samples is considered valid	-	Critical samples valid
Sensitivity		
Field and analytical methods and limits of recovery appropriate for media and adopted site assessment criteria	All samples	LOR < adopted site criteria (where possible)

1 - For soil and groundwater only
2 - Relative percent difference (RPD)

If any of the DQIs were not met, further assessment was necessary to determine whether the non-conformance significantly affected the usefulness of the data. Corrective actions, where required, may have included requesting further information from samplers and/or analytical laboratories, downgrading of the quality of the data or alternatively, re-collection of the data.

A qualitative assessment of compliance with standard procures and appropriate sample collection methods was completed during the DQI compliance assessment.

5.1.7 Optimise the Design for Obtaining Data

For a site of approximately 3,000 m^2 EPA (1995)[14] recommends a minimum sampling density of 9 evenly spaced sample locations. Based on the divestment nature of the site assessment, seven soil locations were advanced on a generally systematic (grid) basis, targeted towards existing data gap and the USTs. Combined with the EIS (2016) sampling locations, the total number of soil sampling locations satisfies EPA sampling guidelines.

Five groundwater monitoring wells were installed at the site. One up-gradient well (northern western of the site) and four wells downgradient of current or former USTs were installed to evaluate potential for groundwater impacts migrating on or off-site. This groundwater program was considered sufficient to target AECs with sufficient density to characterise site conditions.

Six soil vapour sample locations were installed at the site, generally targeting potential sources of volatile COPCs. This sampling density, in addition with the known site history, soil and groundwater sampling programs was considered sufficient to appropriately characterise potential soil vapour contamination risks at the site.

The soil and soil vapour sample locations are presented on **Figure 3**. Groundwater sampling locations are presented on **Figure 5**.

5.2 Investigation Methodology

5.2.1 Soil Sampling Methodology

Soil samples were collected during the site investigation works using a GeoProbe® drill rig fitted with push tubes and solid flight augers. Push tubes were advanced first to enable collection of undisturbed samples for volatile contaminants. Subsequent to this, 150 mm solid flight augers were advanced to enable inspection of a greater volume of fill and collect 500 mL asbestos soil samples. Sample locations were extended to depths of 0.3 m, as a minimum, into the natural soils or prior refusal.

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

Samples were obtained directly from the push tubes wearing fresh disposable nitrile gloves for each sample. Disturbance of the soil sample was minimised where possible during sample collection and placement with laboratory supplied sample containers to reduce the potential for release of volatile organic contaminants.

Visual inspection of drilling spoil was undertaken at each location for the presence of discolouration, ACM or other indications of potentially contaminated materials. Where identified, the observations were recorded on field logs, which are presented in **Appendix C**.

During site works, sufficient sample material was collected to allow for field testing and laboratory analyses. Additional samples were collected from any soil horizons which exhibited staining, odours, seepage, discolouration, or other physical evidence of potential contamination.

Soil samples destined for laboratory analysis were immediately transferred to laboratory supplied sample jars and sealed with a Teflon-lined screw closure or placed into asbestos sample bags. The sample containers were then placed in a pre-cooled insulated box for sample preservation prior to and during shipment to the testing laboratory. Preservation of the primary soil and QA/QC samples obtained during this investigation was completed in accordance with recognised protocols (NEPC 2013).

The samples were transported under standard JBS&G chain-of-custody protocols to the National Association of Testing Authority (NATA) registered laboratories, Eurofins|mgt Pty Ltd (Eurofins) and Envirolab Services Pty Ltd (Envirolab).

Not all samples collected were analysed. Selected samples were analysed in accordance with the analytical schedule (**Section 6.3**). However, all samples remain at the primary laboratory for a period of two months. This allows for future analysis to be completed in the event that further information is required to characterise site conditions, provided that proposed analytes remain within analytical holding times.

5.2.2 Soil Sampling Decontamination

Prior to the commencement of sampling activities, non-disposable sampling equipment, including sampling trowel/knife were all cleaned with a high pressure water/detergent spray and brush, rinsed with water and then air dried. The equipment was then inspected to ensure that no soil, oil, debris or other contaminants were apparent on the equipment prior to the commencement of works. Sampling equipment was subsequently decontaminated using the above process between each sampling location. New gloves and new disposable push tube sleeves were used for each sampling event.

5.2.3 Soil Field PID Screening

Samples collected during the JBS&G sampling event were screened on site using a photo-ionisation detector (PID) to assess the potential presence of VOCs including petroleum hydrocarbons. Samples obtained for PID screening were placed in a sealed plastic bag for a period of approximately five minutes to equilibrate, prior to a PID being attached to the bag. Readings were then monitored for a period of approximately one minute or until values stabilise and the stabilised/highest reading were recorded on the borehole logs. PID screening results were recorded on the bore logs included as **Appendix C**. PID calibration records are included in **Appendix M**.

5.2.4 Soil Duplicate / Triplicate Preparation

Field soil duplicate and triplicate samples were obtained during sampling using the above sampling methods. The collected samples were then divided laterally into three samples and placed in three clean glass jars, plastic jars or sample bags as appropriate. Each sample was then labelled with a primary, duplicate or triplicate sample identification before being placed in the same chilled esky for transport to the laboratory.

5.2.5 Groundwater Sampling Methodology

The groundwater monitoring wells were installed through fill and natural soil profile, with the screen interval within the natural soil profile. A record of subsurface conditions encountered during drilling was documented on well installation logs, which are included in **Appendix C.**

Wells were installed by a drill rig equipped with solid flight augers. Boreholes were advanced to 2 m below groundwater or refusal on shale bedrock by this drilling method. Groundwater was estimated at a depth of approximately 5 m bgs based on the desktop review and site observations during drilling.

Monitoring wells were constructed using Class 18 UPVC (50mm) screen and casing, with appropriate gravel packs, bentonite seals, lockable well caps, and drive-over gatic covers.

Where water was encountered the wells were developed soon after installation using a steel bailer to generate a good connection to the aquifer and remove sediment disturbed during well installation. During development, the bores were rapidly purged and then allowed to recharge. This process was repeated three to four times during the development of the wells.

5.2.6 Groundwater Sampling Methodology

The newly installed monitoring wells were sampled six days after installation using the following procedure:

- Prior to sampling, groundwater levels were gauged with an interface probe to assess standing groundwater levels (SWLs) and the potential presence of light non-aqueous phase liquid (LNAPL) within the groundwater well;
- Low flow pumping was undertaken with a peristaltic pump using new disposable silicone tubing and disposable low density polyethylene (LDPE) tubing for sampling at each monitoring well to remove standing, static water. The LDPE tubing was lowered to a maximum depth of two-thirds of the wetted screen length of the monitoring well prior to the commencement of purging;
- Purging of groundwater was then undertaken generally at a rate of 0.1 L to 0.5 L/minute whilst attempting to minimise drawdown.
- Measurement of field parameters including pH, conductivity, oxygen and temperature was completed at a frequency of once every two to five minutes dependent on the purging rate, using a multi-parameter probe/meter and a flow cell;
- During the development, purging and sampling, features such as discolouration, staining, odours and other indications of contamination were noted;
- Groundwater samples were obtained using the low-flow peristaltic pump when three consecutive readings of field parameters met the following criteria: pH ± 0.5; Dissolved oxygen ± 10% or 0.1 mg/L; Electrical conductivity ± 3 %; and Redox potential ± 10 mV (Vic EPA April 2000 Groundwater Sampling Guidelines);
- Collected groundwater samples were immediately transferred to sample containers of appropriate composition, which had been pre-treated in a manner appropriate for the laboratory analysis. Groundwater samples were obtained in a manner that ensures no headspace remained in the bottles, and where appropriate were filtered in the field prior to preservation;
- Each of the sample bottles were labelled with the project ID, date, sampler's initials and unique monitoring well ID (or QC sample name), using permanent ink marker on labels affixed to the sides of the bottles by the laboratory. In addition, the sample ID (i.e., the

monitoring well ID) were also replicated on the lid of the bottles/vials in the event that the labels were detached from the bottles during transport;

- All bottles were placed directly into a pre-chilled ice chest, for transport to the testing laboratories; and
- Chain of custody documentation were completed for each batch of samples relinquished to the laboratory and included: sample ID; number of bottles/vials; media type (i.e., water); project ID; name; date of sampling and relinquishment.

5.2.7 Groundwater Sampling Equipment Decontamination

At the completion of sampling at each location, single use sampling equipment was disposed of and re-useable equipment including the interface probe were decontaminated as follows:

- Pressure spray with Decon 90 detergent and potable water mix; and
- Pressure spray rinse with potable water and air drying.

Rinsate samples, trip spikes and trip blanks were appropriately preserved and stored with the samples prior to transport to the laboratory for chemical analysis. Decontamination records are provided in **Appendix M**.

5.2.8 Soil Vapour Sampling Methodology

The vapour assessment activities comprised sub-slab soil vapour sampling. The methodology was developed with consideration of the guidance on vapour sampling methods outlined in CRCCARE (2013[15]).

The sub-slab vapour locations were completed as follows:

- 10 mm diameter core holes were cut through the existing pavement floors.
- 6 mm teflon tubing with a stainless steel tip was installed within the hole to the depth of the sub-slab area and sealed in place with air drying clay before the sampling works are to commence. Sand was placed within the hole to a depth of approximately half the slab thickness with the remained of the slab thickness sealed with air drying clay.
- The sample locations were left to equilibrate for a period of at least 30 minutes prior to the commencement of purging and sampling.
- An MX6 iBrid meter was used to purge each probe. Gas readings were monitored until oxygen and PID readings stabilised.
- Following this a leak detection evaluation was completed via placement of an isopropyl alcohol soaked rag over the top of the backfilled borehole to assess the potential occurrence of leaks whilst the gas detector was purging the sample point. No leaks were detected and therefore re-installation was not required.
- A personal sampling pump was calibrated to a flow rate of generally 50 ml/min (+/- 10 %) for use in sampling. A SKC carbon sorbent tube was connected to the soil vapour probe once it had been purged via use of a multi-port valve. The sampling pump were then connected to the carbon tube outlet and turned on. Where required due to time constraints, an increased flow rate of 100 mL/min was adopted, with a suitability reduced sample run time of 60 minutes.

[15] *Technical Report No.23 Petroleum Hydrocarbon Vapour Intrusion Assessment*. Australia Guidance, July 2013, CRC for Contamination Assessment and Remediation of the Environment (CRCCARE 2013)

- The sampling pump was set to run for 120 minutes (approximately 6L soil vapour sample volume). The purged condition of the probe was maintained by use of the multi-port valve.
- At the completion of the sampling period, the pump was switched off and the carbon tube removed from the vapour probe. The sampling pump flow rate was checked and the identified sampling rate recorded and caps returned to the carbon tubes.
- The carbon tubes were forwarded to the NATA accredited laboratory for analysis using the 8260 method. The laboratory was instructed to evaluate the potential presence of 2-propanol (i.e. Isopropyl alcohol) as may be present due to a leak in the vapour well during the sampling event.
- Upon completion of the sampling new installed sampling points were removed and sealed with a cement grout.

Samples were analysed in accordance with the laboratory schedule (refer to **Table 5.3**). Sample locations are shown on **Figure 3**. During development, purging and sampling, gas properties were noted on field forms, as summarised on **Table E.**

5.3 Laboratory Analysis

JBS&G contracted a NATA certified laboratory (Eurofins | mgt) for the required analysis to which the primary and duplicate samples were submitted. Triplicates samples were submitted to a secondary NATA accredited laboratory (Envirolab Services Pty Ltd). Laboratory analysis of samples was conducted as summarised in **Table 5.3**. Duplicate and triplicate samples were collected at rate of 1 per 20 primary samples.

Table 5.3: Sampling and Analytical Program

Sample Media	No. Sample Locations	Analyses (exc. QA/QC)
Soil	9	Heavy metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn) – 15 samples TRH - 14 PAH – 15 samples PCBs – 7 samples OCPs – 8 samples VOCs – 14 samples Phenols – 9 samples Asbestos – 10 samples (500 mL) NEPC 2013 soil classification – 2 samples ASLP / TCLP (metals and/or PAHs) - 4
Groundwater	5	Heavy metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn) – 5 samples Low level PAH – 5 samples OCPs/PCBs – 5 samples TRH/BTEX – 5 samples VOCs – 5 samples Methyl-tert-butyl-ethyl (MTBE) – 5 samples Phenols – 5 samples
Soil Vapour	6	VOCS (8260) – 6 samples Volatile TRH – 6 samples Isopropanol – 6 samples

6. Assessment Criteria

6.1 Regulatory Guidelines

Development of site assessment criteria and the associated scope of investigation was undertaken with consideration to aspects of the following guidelines, as relevant:

- *National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No. 1),* National Environment Protection Council (NEPC 2013);
- *Contaminated Sites: Sampling Design Guidelines*, NSW EPA, 1995 (EPA 1995);
- *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites*, NSW OEH, 2011 (OEH 2011);
- *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme*, 3rd Edition, NSW EPA, 2017 (EPA 2017);
- *Contaminated Sites: Guidelines on Duty to Report Contamination under the Contaminated Land Management Act 1997,* NSW EPA 2015, (EPA 2015).
- *Australian and New Zealand guidelines for fresh and marine water quality,* Australian and New Zealand Environment and Conservation Council, 2000 (ANZECC/ARMCANZ 2000);
- *Guidelines for Managing Risks in Recreational Water,* National Health and Medical Research Council, 2008 (NHRMC 2008);
- *Australian Drinking Water Guidelines Paper 6 National Water Quality Management Strategy.* National Health and Medical Research Council (NHMRC) 2011 (NHMRC 2011); and
- *CRCCARE Health Screening Levels for Petroleum Hydrocarbons in Soil and Groundwater*, 2011, Friebel and Nadebaum (CRCCARE 2011).

6.2 Soil Assessment Criteria

As per the decision process for assessment of urban development site (EPA 2017), a set of health and ecological assessment thresholds derived from NEPC (2013) or other EPA approved guidelines was used for evaluation of site contamination data collected for this assessment. The site is currently used for a commercial / industrial land use. It is understood that one or more potential purchasers may seek to redevelop the site for mixed uses, including the installation of one additional basement levels across at least part of the site. On this basis, mixed use/high density residential land use criteria were adopted as the site assessment criteria. The site assessment criteria are presented on **Table A** and summarised as follows:

- Health based investigation levels (HILs) for residential land use with minimal opportunities for soil access (HIL B);
- Health screening levels (HSLs) Residential land use level, clay (HSL B);
- HSLs for direct contact for intrusive maintenance workers;
- Management limits for TRH fractions for residential land use with minimal opportunities for soil access, fine soils;
- HSLs for asbestos in soil for residential land use with minimal opportunities for soil access (HSL B);
- Ecological investigation levels (EILs) urban residential areas and public open space, site specific; and
- Ecological screening levels (ESLs) urban residential areas and public open space, fine soils.

EILs were calculated via the summing of ambient background concentrations (ABC) and added contaminant limits (ACL), based on soil characteristics of the site, as presented in **Table A**. ABCs were based on Olszowy et al (1995)[16].

Where no criteria are present for a contaminant, the laboratory limit of reporting (LOR) has been used as an initial screening criteria.

6.3 Groundwater Assessment Criteria

The adopted groundwater assessment criteria are presented in the groundwater analytical summary table (**Table B**) and summarised below:

- Marine waters groundwater investigation levels, slightly to moderately disturbed systems (Table 1C, NEPM 2013);
- Drinking water groundwater investigation levels (Table 1C, NEPM 2013); and
- Groundwater HSLs for vapour intrusion, HSL A & HSL B, low – high density residential, clay, 2 to <4 m (Table 1A(4), NEPM 2013).

Where no criteria are present for a contaminant, the laboratory limit of reporting (LOR) has been used as an initial screening criteria.

6.4 Soil Vapour Assessment Criteria

The following soil vapour criteria (refer **Table F**) has been adopted for the site based on the land use scenario:

- HSL-A/B and HSL-D for petroleum hydrocarbons, clay as provided in the NEPM (2013); and
- Interim soil vapour HIL A/B and HIL D as provided in the NEPM (2013) for chlorinated hydrocarbons.

[16] *Trace element concentrations in soils from rural and urban areas of Australia*, H Olszowy, P Torr, P Imray, Department of Human Services and Health, Environmental Protection Agency, published 1995 (Olszowy *et* al. 1995)

7. Quality Assurance/Quality Control

7.1 QA/QC Results

The QA/QC results are summarised in **Table 7.1** and discussed in **Section 7.2** below. Relevant QA/QC data is presented in **Appendix N**.

Table 7.1: QA/QC Results Summary

Data Quality Indicator	Results	DQI Met?
Precision		
Blind duplicates (intra laboratory)	Sampling rate greater than 1 in 20. RPDs = 0-167%	Partial[1]
Blind triplicates (inter laboratory)	Sampling rate greater than 1 in 20. RPDs = 0-102%	Partial[1]
Laboratory duplicates	0-67% RPD Laboratory samples were analysed at a rate greater than 1 in 20 samples.	Partial [1]
Accuracy		
Surrogate spikes	51-148% Surrogate spikes were completed for all organic sample analyses	Partial[1]
Laboratory control samples	31-<130% Laboratory control samples completed for each batch	Partial[1]
Matrix spikes	31-<130%. One matrix spike was completed for each batch	Partial[1]
Representativeness		
Sampling appropriate for media and analytes	All sampling was conducted in accordance with JBS&G procedures	Yes
Samples extracted and analysed within holding times.	All samples were extracted and analysed within holding times	Yes
Trip spike	70-106% One per sampling event when sampling for volatile or semi-volatile COPC	Yes
Trip blank	<LOR One per sampling event when sampling for volatile or semi-volatile COPC	Yes
Rinsate blank	<LOR except for dichloromethane. One per sampling event with reusable equipment.	Partial[1]
Laboratory Blanks	<LOR except for iodomethane One per laboratory method	Partial[1]
Method blank (soil vapour only)	<LOR One completed per sampling event and associated laboratory batch	Yes
Comparability		
Standard operating procedures for sample collection & handling	Field staff used same standard operating procedures throughout works	Yes
Standard analytical methods used for all analyses	Standard analytical methods were used	Yes
Consistent field conditions, sampling staff and laboratory analysis	Sampling was conducted using standard operating procedures in the same conditions throughout the	Yes

Data Quality Indicator	Results	DQI Met?
	works. The laboratory remained consistent throughout the investigation.	
Limits of reporting appropriate and consistent	Limits of reporting were consistent and generally appropriate. LORs of soil vapour analytes cis-1,2-dichloroethene, trichloroethene, and vinyl chloride exceeded the HIL B criterion.	Partial[1]
Completeness		
Sample description and COCs completed and appropriate	All borehole logs, soil vapour and groundwater sampling sheets and COCs were completed appropriately.	Yes
Appropriate documentation	Field documentation was appropriately completed.	Yes
Satisfactory frequency and result for QC samples	All frequency and results for QA/QC were satisfactory	Yes
Data from critical samples is considered valid	Data from critical samples is considered valid.	Yes
Sensitivity		
Field and analytical methods and limits of recovery appropriate for media and adopted site assessment criteria	Appropriate laboratory analysis methods and detection limits were considered to have been achieved to the extent practicable during the field and laboratory phases of this investigation with exception to LORs of soil vapour analytes cis-1,2-dichloroethene, trichloroethene and vinyl chloride, which exceeded the HIL B criterion.	Partial[1]

Notes: 1 See discussion of DQI exceedances

7.2 QA/QC Discussion

7.2.1 Precision

Soil Blind Duplicates (intra laboratory)

Soil blind duplicate RPDs were reported within the acceptable limits with the exception of heavy metals (arsenic, chromium, lead and mercury), a number of individual PAH compounds and medium to heavy chain TRH Fractions, ranging from 50 to 167%. Refer to **Appendix M** for detail RPDs information.

Soil Blind Triplicates (inter laboratory)

Soil blind triplicates RPDs were reported within the acceptable limits for all COPCs with exception to a range of heavy metals and PAHs, ranging from 50 to 102%.

The elevated RPDs for the duplicate and triplicate soil samples are considered to be the result of heterogeneity of the fill material in the soil samples collected. The elevated RPDs results are not considered to influence the outcome of the investigation as levels of COPCs were all below the site assessment criteria.

Water Blind Duplicates (intra laboratory)

Water blind duplicate RPDs were reported within the acceptable limits.

Water Blind Triplicates (inter laboratory)

Water blind triplicate RPDs were reported within the acceptable limits.

Soil Vapour Blind Duplicates (intra laboratory)

Soil vapour blind duplicate RPDs were reported within the acceptable limits.

Laboratory Duplicates

Laboratory duplicates RPDs were reported within the acceptable limits with exception to fluoranthene (57%) and pyrene (67%). The elevated RPDs for the laboratory duplicate soil samples are considered to be the result of heterogeneity of the fill material in the soil samples collected.

7.2.2 Accuracy

Surrogate Spikes

The surrogate spikes samples have been reported for analysis of all organic constituents for soil, soil vapour and water samples. Fifty-two surrogate spike samples reported with >30% variation ranging from 51% to 148%. Given that most organic COPCs were reported below the LOR and all volatile COPCs were reported below the site assessment criteria, this is not considered to influence the outcome of the investigation. Furthermore, field screening (PID) and observations (odour, staining and sheen) did not indicate the presence of significant volatile contaminants. Additionally, the recovery percentages were generally within the NATA accredited lab method acceptance range for surrogate spike recoveries, which are 50-150%.

Laboratory Control Samples

Laboratory control samples have been reported for analysis of all constituents for the analytical batches. Nine laboratory control sample results were reported below the data quality objective range of 70 to 130% for phenols, ranging from 31 to 64%. All nine laboratory control samples fall within the laboratory acceptable limits of 30-130% for phenols. Given that the recoveries fall within the acceptable laboratory range and that phenols were reported below the LOR, the exceptions to the JBS&G acceptable range are considered not to affect the overall reliability or accuracy of the data.

Matrix Spikes

Seven matrix spike recoveries for phenols were reported outside the JBS&G acceptable range of 70 – 130% with reported recoveries ranging from 31 to 64%. The recovery percentages for the phenol matrix spikes were within the NATA accredited lab method acceptance range for phenol matrix spike recoveries, which are 30-130%. No other matrix spikes were outside of the JBS&G acceptable range of 70 – 130%.

As all reported phenol results were below the LOR and the spike results all within the lab acceptable range, the exceptions to the JBS&G acceptable range are considered not to affect the overall reliability or accuracy of the data.

7.2.3 Representativeness

Sampling appropriate for media and analytes

All soil, groundwater and soil vapour sampling works completed during the investigation were conducted in accordance with JBS&G standard operating procedures. Push tubes were used to collect undisturbed samples to enable assessment of volatile COPCs. In addition, solid flight augers with 150mm diameter were advanced for the purposes of visual inspection of fill conditions and the collection of 500mL asbestos soil samples, which is considered appropriate for the assessment of asbestos.

Groundwater was sampled using a low flow technique, which is considered appropriate for the potential site contaminants, including volatile compounds.

Soil vapour was sampled using a sub-slab, carbon tube method, which is considered appropriate for the potential site contaminants, including volatile compounds.

All samples were collected wearing a new pair of disposable nitrile gloves. Where possible, disturbance of the sample was minimised during placement into the laboratory supplied sample container and during shipment.

Samples extracted and analysed within holding times

All analyses have been undertaken within holding times.

Trip spikes

Two trip spikes were submitted with the soil and groundwater samples collected during the assessment. Trip spike recoveries were within the JBS&G acceptable limit of 70-130%, with a reported range of 70 to 106%.

Trip blanks

A single trip blank was submitted each of the soil, groundwater and soil vapour sampling events. There were no reported concentrations of BTEX (soil and groundwater) or VOC (soil vapour) compounds above the laboratory LOR.

Rinsate Blanks

Rinsate blanks were submitted with the soil samples collected during the assessment. Reported concentrations of all COPCs were <LOR with the exception of dichloromethane, which was reported below the LOR in soil samples. Dichloromethane is a common laboratory contaminant due to its use during extractions.

Laboratory Blanks

Reported concentrations of analytes were <LOR in laboratory blank samples except for iodomethane, which was reported a concentration of 0.001 mg/L within a method blank. This minor exceedance is not considered to affect the representatives of the data set.

Method Blank

A method blank sample was submitted with soil vapour characterisation samples collected during the assessment. All reported concentrations of VOCs and TRH C_6 – C_{10} fractions were below the laboratory LOR, achieving the nominated DQIs. A method blank was submitted with each lab batch.

7.2.4 Comparability

Experienced JBS&G personnel undertook all sampling in accordance with standard JBS&G sampling methods.

Eurofins, the primary laboratory, and Envirolab, the secondary laboratory were NATA accredited for all analytical methods used. The laboratories used similar analytical methods and the analytical data was considered to be comparable between the laboratories as indicated by the results of inter-laboratory duplicate analyses. Where different LORs were adopted by the laboratories, the primary laboratory typically had a lower LOR than the secondary laboratory, and as such, consideration of the data set was not impacted.

7.2.5 Completeness

Samples were generally transported under full chain of custody (COC) documentation. The COC documentation was generally completed correctly and the selected analyses were correctly conducted.

All field documentation was completed appropriately and were correct.

The frequency of analysis and result for all QC samples are appropriate.

7.2.6 Sensitivity

The adopted analytical methods generally provided suitable LORs with respect to the adopted site assessment criteria, with exception to LORs of soil vapour analytes cis-1,2-dichloroethene, trichloroethene and vinyl chloride, which exceeded the HIL B criterion.

At the time of field work the site was being assessed for a commercial/industrial land use and as such, the DQI development identified suitable sampling methodology to achieve results of suitable sensitivity for a commercial/industrial land use.

Reassessment of the data one year subsequent to the initial investigation works for a more sensitive land use scenario (mixed use including high density residential) required adoption of soil vapour criteria with thresholds lower than the adopted methodology LOR.

7.3 QA/QC Conclusion

The field sampling and handling procedures produced QA/QC results which indicate that the soil, groundwater and soil vapour data are of an acceptable quality and suitable for use in site characterisation.

The NATA certified laboratory results sheets indicate that the project laboratory was generally achieving levels of performance within its recommended control limits during the period when the samples from this program were analysed.

The non-conformances described in **Section 7.2** are considered to be minor in nature and acceptable given the consistency of the data, many results falling within the NATA accredited method acceptance range, and results significantly below the adopted site assessment criteria.

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

8. Soil Results

8.1 Soil Field Observations

A total of nine sample locations were advanced. Soil sample locations are presented on **Figure 3** and bore logs are provided in **Appendix C**. Soil criteria exceedances are presented on **Figure 4**.

Concrete pavements of 0.13 to 0.25 m thick were encountered at the ground surface at all sampling locations.

A range of fill materials were encountered at the completed sample locations. Fill materials included:

- Gravelly sand (road base), heterogenous, damp, brown;
- Silty sand, dark brown heterogeneous, damp, with inclusions of clay and gravel; and
- Silty clay, brown, heterogenous, damp, medium plasticity with inclusions of gravel and occasional ash.

No major anthropogenic inclusions were observed within the fill material. Fill material was observed to depths ranging from 0.6 m bgs to 1.4 m bgs. Natural material was not reached within BH07 (>0.7 m) or BH09 (>0.3 m) due to refusal on obstructions within fill whilst hand augering. Natural soils underlying the fill material comprised a damp, homogeneous, pale brown/grey, high plasticity clay. Weathered shale was encountered below the residual clay at BH01 to BH05 at depths ranging from 1.4 to 3.0 m bgs.

Minor hydrocarbon odours and staining were observed in natural material from 0.8 to 1.4 m in BH01 (targeting UST SE corner), in fill material from 0.15 to 0.7 m in BH07 (refusal at 0.7 m on obstruction within fill, targeting fuel line) and in fill material from 0.4 -0.6 m at BH08 (targeting fuel line). No other staining or odours were observed.

A maximum PID results of 19.2 ppm was recorded during field screen for volatile contaminants at BH01 0.9-1.0. PID results across the remainder of the site were generally less than 5 ppm and mostly 0 ppm, consistent with the lack of observed gross odours and staining.

A single small (5 by 5 cm) fragment of bonded ACM was observed within fill sample BH07 0.3-0.4. In addition, a fragment of bonded ACM was identified on the ground surface in the crawl space cavity on the north-western portion of the site. No ACM was observed in drilling spoil at the remaining sample locations at the site.

8.2 Soil Analytical Results

Summarised soil analytical results are presented in **Table A** and discussed in the following sections. Laboratory documentation is provided in **Appendix O**.

8.2.1 Metals

The concentrations of the heavy metals in the soil samples selected for analysis were less than the site assessment criteria with exception to:

- Arsenic in BH02 0.6-0.7 (210 mg/kg), which exceeds the EIL criterion of 100 mg/kg;
- Copper in EIS BH4 0.17-0.2 (1400 mg/kg), which exceeds the EIL criterion of 240 mg/kg;
- Lead in BH05 0.25-0.35 (3100 mg/kg), which exceeds the EIL (1100 mg/kg) and HIL (1500 mg/kg) criteria; and
- Zinc in EIS BH2 0.8-1.0 (1200 mg/kg) and EIS BH4 0.17-0.2 (980 mg/kg), which exceeds the EIL criterion of 860 mg/kg.

Statistical analysis of the arsenic population data set for the criteria exceedance indicated no individual analyte concentrations exceeded 250% of the adopted site criterion, the standard

deviation for each data set was less than 50% of the relevant criterion, and the 95% UCL value was reported at 58.41 mg/kg, less than the adopted EIL criterion of 100 mg/kg. On this basis, arsenic concentrations as a population were considered to have met the ecological health criterion.

Statistical analysis of the zinc population data set for the criteria exceedance indicated no individual analyte concentrations exceeded 250% of the adopted site criterion, the standard deviation for each data set was less than 50% of the relevant criterion, and the 95% UCL value was reported at 421.3 mg/kg, less than the adopted EIL criterion of 860 mg/kg. On this basis, zinc concentrations as a population were considered to have met the ecological health criterion.

The concentration of copper and lead exceedances were both greater than 250% of the adopted site criteria, thereby not satisfying the DQI decision rules.

8.2.2 PAHs

The concentrations of PAHs in the soil samples selected for analyses were less than the site assessment criteria with exception to:

- B(a)P in BH02_0.6-0.7 (1.1 mg/kg), BH05 0.25-0.35 (34 mg/kg), BH05 0.4-0.5 (1.6 mg/kg), BH08_0.4-0.5 (1 mg/kg), EIS BH2 0.8-1.0 (0.88 mg/kg), EIS BH3 0.1-0.2 (4 mg/kg) and QA20170804, duplicate of BH09 0.2-0.3 (2.8 mg/kg), which exceed the ESL criterion (0.7 mg/kg); and
- Carcinogenic PAHs as B(a)P TEQ in BH05 0.25-0.35 (55.2 mg/kg), EIS BH3 0.1-0.2 (5.8 mg/kg) and QA20170804, duplicate of BH09 0.2-0.3 (5.48 mg/kg) which exceed the HIL criterion (4 mg/kg).

Statistical analysis of the B(a)P population data set indicated that the standard deviation for the data set exceeded 50% of the relevant criteria, thereby not satisfying the DQI decision rules.

Statistical analysis of the Carcinogenic PAHs as B(a)P TEQ population data set with BH05 0.25-0.35 (55.2 mg/kg) considered as a hotspot (and not included in the data set) indicated that the 95% upper confidence limit (UCL) of the average concentration was above the adopted site criterion, thereby not satisfying the DQI decision rules.

8.2.3 Asbestos

The concentration of all forms of asbestos in the soil samples selected for analyses were all less than the site assessment criteria and below the LOR. Trace level asbestos (less than the limit of reporting and LOR) was noted to be present within BH07 AQ 0.3-0.5 as loose fibre bundles of chrysotile asbestos with a raw weight of 0.0013 g, being equivalent to 0.00022 %w/w, which is less than the LOR of 0.001 %w/w.

8.2.4 TRH

The concentrations of TRH in the soil samples selected for analysis were less than the site assessment criteria with the exception >C_{16}-C_{34} TRH fraction in BH05 0.25-0.35 (1500 mg/kg), which exceeded the adopted ESL criterion of 1300 mg/kg.

It is noted that minor detections of mid to heavy end TRH fractions were reported in samples BH01 0.9-1.0, BH05 0.4-0.5, BH07 0.5-0.6 and BH08 0.4-0.5 at concentrations below the adopted health and ecological criterion.

8.2.5 BTEX

The concentration of BTEX in the soil samples selected for analyses were all below the LOR with exception of BH07 0.3-0.4 and BH07 0.5-0.6. The reported concentrations in the BH07 samples were all less than the adopted site assessment criteria.

8.2.6 OCPs

The concentration of OCPs in the soil samples selected for analyses were all less than the site assessment criteria.

8.2.7 PCBs

The concentration of PCBs in the soil samples selected for analyses were all less than the site assessment criteria and below the LOR.

8.2.8 Phenols

The concentration of phenols in the soil samples selected for analyses were all less than the site assessment criteria and below the LOR.

8.2.9 VOCs

The concentration of VOCs in the soil samples selected for analyses were all less than the site assessment criteria and below the LOR with exception of 1,2,4-trimethyl benzene and 1,3,5-trimethlybenze in samples BH07 0.3-0.4 and BH07 0.5-0.6, where were reported above the LOR.

9. Groundwater Results

Groundwater analytical data is summarised in **Table B.** Groundwater gauging and groundwater quality parameter results are summarised in **Table C.** Laboratory reports and chain of custody documentation are included in **Appendix O**. Survey data of the monitoring wells is provided in **Appendix P**. Field records of the groundwater monitoring event are provided in **Appendix Q**. The locations of groundwater monitoring wells are shown on **Figure 5.** Groundwater criteria exceedances are presented on **Figure G.**

9.1 Groundwater Field Observations

Standing water levels at the time of the GME were observed between 2.269 m below top of casing (m BTOC) and 3.345 m BTOC. The calculated m Australian Height Datum (AHD) of groundwater at five wells was reported as follows:

- MW01 (south eastern downgradient well) = 16.395m AHD.
- MW02 (southern downgradient well) = 17.076 m AHD.
- MW03 (southern downgradient well) = 17.835 m AHD.
- MW04 (southern downgradient well) = 17.673 m AHD.
- MW05 (north-western upgradient well) = 20.017 m AHD.

Based on this result and the local topographical setting, the direction of groundwater flow at the site is posited to be generally to the south east, consistent with the topographical setting of the site and local stormwater system gradient.

Groundwater was observed to be brown in colour, ranging from low to moderate turbidity. No phase separated hydrocarbons (PSH) or odours were noted in the wells. A minor sheen was observed on groundwater within MW02 and MW03.

Field parameters of dissolved oxygen (DO), electrical conductivity (EC), pH, reduction-oxidation potential (redox) and temperature were recorded at all existing/accessible monitoring wells which were sampled. Field parameters are summarised in the following:

- DO values ranged from 0.15 to 0.4 ppm;
- EC values ranged from 0.61 to 1.75 dS/cm;
- pH ranged from 5.13 and 5.99;
- Uncorrected redox potential ranged from 49 to 111 mV; and
- Temperature ranged between 19.6 and 21.3°C.

Groundwater at the site is considered to be neutral to slightly acidic with low levels of dissolved oxygen. Uncorrected redox potential was generally low as consistent with low levels of dissolved oxygen.

9.2 Groundwater Analytical Results

9.2.1 Heavy Metals

The reported concentration of zinc across all groundwater samples ranged from 0.016 mg/L to 0.026 mg/L, which exceed the marine water criteria of 0.008 mg/L in four samples, albeit by less than one order of magnitude.

The concentrations of all other heavy metals in groundwater samples selected for analysis were less than the site assessment criteria.

9.2.2 PAHs

The concentrations of PAHs in the groundwater samples selected for analyses were all less than the site assessment criteria and below the LOR.

9.2.3 TRH

The concentration of TRH in the groundwater samples selected for analyses were all less than the site assessment criteria and below the LOR.

9.2.4 BTEX

The concentration of BTEX in the groundwater samples selected for analyses were all less than the site assessment criteria and below the LOR.

9.2.5 OCPs

The concentration of OCPs in the groundwater samples selected for analyses were all below the LOR.

9.2.6 PCBs

The concentration of PCBs in the groundwater samples selected for analyses were all below the LOR.

9.2.7 VOCs

The concentration of VOCs in the groundwater samples selected for analyses were all less than the site assessment criteria and below the LOR, except for dichloromethane, which was reported with concentrations ranging from 0.018 mg/L to 0.027 mg/L.

Dichloromethane is a common laboratory contaminant due to its use during extractions and was also detected within the rinsate for the soil sample laboratory batch. Given the lack of all other VOCs reported in soil, groundwater and soil vapour, it is considered the elevated dichloromethane concentrations are due to laboratory cross contamination. On this basis, the elevated dichloromethane results are not considered further with regards to site suitability.

10. Soil Vapour Results

Soil vapour analytical data is summarised in **Table D.** Laboratory reports and chain of custody documentation are included in **Appendix O**. Soil vapour sample location are shown on **Figure 3.**

10.1 Field Observations

The assessment works comprised installation of six targeted sub-slab soil vapour points, sample collection, and subsequent laboratory analysis for VOCs, TRH, BTEX and leak detection (isobutylene).

During purging, oxygen levels were found to range from 5 % to 21.5 %, PID results ranged from 0.0 to 5.6 ppm, CO_2 ranged from 0 % to 7.9 %, methane and LEL were all 0 %, as shown in **Table E.**

The pavement (concrete and/or asphalt) generally ranged in thickness from approximately 0.1 m to 0.25 m and was noted to be in good condition.

10.2 Analytical Results

10.2.1 VOCs

All concentrations of VOCs, including BTEX, were below the adopted laboratory LOR and assessment criteria with the exception of the laboratory LOR for cis-1,2-dichloroethene, trichloroethene and vinyl chloride that exceeded the adopted criteria (refer **Section 7.2.6** for discussion on elevated LORs).

10.2.2 Volatile TRH

All concentrations of volatile TRH were below the adopted assessment criteria and the laboratory LOR.

10.2.3 Leak Detection (Isopropyl Alcohol)

All concentrations of isopropyl alcohol were below the adopted assessment criteria and the laboratory LOR.

11. Discussion

11.1 Are there any unacceptable risks to likely future receptors from impacted soil?

Concentrations of COPCs in soil samples analysed were reported below the health site assessment criteria except for lead (3100 mg/kg) and carcinogenic PAHs as B(a)P TEQ (55.2 mg/kg) in one fill sample BH05_0.25-0.35, and carcinogenic PAHs as B(a)P TEQ in two additional fill samples, EIS BH3 0.1-0.2 (5.8 mg/kg) and QA20170804, duplicate of BH09 0.2-0.3 (5.48 mg/kg). The elevated heavy metal and carcinogenic PAHs as B(a)P TEQ pose a potentially unacceptable risk to future site receptors based on the proposed mixed land use scenario and require management and/or remediation.

The site is currently capped by concrete slabs and/or asphalt which eliminate the direct contact, inhalation and ingestion pathways for heavy metal and PAH COPCs for standard site activities (i.e., day to day works above the ground surface). On this basis, there is not considered to be an unacceptable risk to human receptors in the current condition of the site provided the ground surface of the site remains capped by concrete and/or asphalt.

The ecological exceedances in soil identified for heavy metals (copper and lead) are considered to potentially represent an unacceptable risk to ecological receptors based on the proposed mixed land use scenario. Should the impacted material be retained below concrete and/or asphalt, receptor pathways via flora root uptake and faunal ingestion or bioaccumulation are considered to be incomplete, and therefore the risk would be mitigated. Should such material be proposed to be retained within future landscaped areas, further consideration would be required to establish whether specific management/remediation would be required.

Recent guidance on terrestrial ecological risk from B(a)P in soils (CRC CARE 2017[17]) has recommend that soil quality guidelines (SQG) for B(a)P of 20 mg/kg be adopted for ecological protection at urban residential and public open space land use sites. The SQG is based on 100% bioavailability of B(a)P in the soils and a fresh source of B(a)P contamination. The highest B(a)P readings at the site were all below 20 mg/kg, except for BH05 0.25-0.35 (34 mg/kg), which is located upgradient of known current and former wells. This portion of the site appeared to have last been developed prior to 1986 (based on review of aerials photographs), thus indicating an aged source of B(a)P and likely decreased bioavailability of B(a)P based on the inclusions of clay within the fill material at this location. On this basis, the elevated B(a)P in soil concentrations at the site are considered not to pose an unacceptable ecological risk, with exception to BH05 0.25-0.35 (34 mg/kg). As above, should material in this area of the site be proposed to retained within landscaped areas, further consideration would be required to identify potential management/remediation requirements, subject to specific bioavailability studies.

Concentrations of mid to heavy end petroleum hydrocarbon compounds (>C16-C34 TRH fraction) in BH05 0.25-0.35 (1500 mg/kg), marginally exceeded the ESL criterion of 1300 mg/kg. The material will require remediation/management given the co-occurrence of lead and PAH impact at this sample location. Volatile contaminant concentrations in soil samples were reported to be below the site assessment criteria (for mixed land use) and therefore do not present an unacceptable risk to human site receptors with regard to the future potential land use(s).

A single fragment of bonded ACM was observed in fill materials at BH07_0.3-0.4 during sampling and trace level asbestos was reported by the laboratory in soil sample BH07 AQ 0.3-0.5. The concentration of asbestos in soil reported by the laboratory was less than the LOR and HSL. The

[17] *Technical Report No.39, Risk-based management and remediation guidance for benzo(a)pyrene,* Cooperative Research Centre for Contamination Assessment and Remediation of the Environment, March 2017 (CRC CARE 2017).

bonded ACM identified was in good condition and located beneath an existing concrete slab. Likewise, the bonded ACM observed within the restricted access crawl space is below a concrete slab. The ACM material at the site is capped below concrete under current site buildings, thereby eliminating the inhalation pathway. As such, the material is considered to not present a current exposure risk to site users in the absence of ground disturbance activities.

The identified ACM, whilst not a concern from a contaminated land assessment perspective, will require management from a WHS perspective during future activities that may result in ground disturbance in this area of the site and as such conditions should be noted on a site Asbestos Register.

1,2,4-trimethylbenzene was reported above the LOR in samples BH07 0.3-0.4 and BH07 0.5-0.6 at concentrations of 7.6 and 15 mg/kg, respectively. US EPA Region 9 Screening Levels (May 2018) report a screening level of 300 mg/kg for 1,2,4-trimethylbenzene in a residential soil setting. 1,3,5-trimethlybenze was reported above the LOR in samples BH07 0.3-0.4 and BH07 0.5-0.6 at a concentration of 3 mg/kg. US EPA Region 9 Screening Levels (May 2018) report a screening level of 270mg/kg for 1,3,5-trimethlybenze in a residential soil setting. Given the reported maximum concentrations of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene at the site are greater than one order of magnitude below US EPA screening levels, neither contaminant is considered to pose an unacceptable risk to receptors at the site.

Dependent upon the lateral and vertical extent of proposed basements at the site, it is likely that the majority of, or all the impacted soils may be removed from the site during this process given the shallow nature of fill material at the site. The USTs would require formal removal and validation.

11.2 Are there any unacceptable risks to likely future receptors from impacted groundwater?

The presence of zinc slightly above groundwater assessment criteria is considered typical of a built up urban environment within the geological setting of the site. Concentrations of zinc within soil samples analysed were well below soil assessment criteria and the underlying residual clays and shale are of low permeability, thus it is unlikely that significant vertical migration from metals within soils at the site substantially contributes to elevated heavy metals concentrations within groundwater. Furthermore, the site is covered by roofs, concrete slabs and/or asphalt, thereby greatly reducing surface water infiltration into fill materials below the site. To this extent, the zinc exceedances are considered not to represent a potential unacceptable risk to future onsite receptors or onsite or offsite environmental receptors.

All other COPCs in groundwater samples analysed were reported below the site assessment criteria and/or the LOR. Detections of dichloromethane were considered to be a laboratory contaminant and were present at concentrations below the site assessment criteria.

Based on this, there are considered not to be unacceptable risks to future receptors from groundwater at the site.

11.3 Are there any unacceptable risks to likely future receptors from impacted soil vapour?

Where basement carparks or commercial/industrial land use are proposed on the ground floor of a mixed use development, it is appropriate to consider commercial/industrial HILs and HSLs for soil vapour in preference to the most sensitive land use proposed for the site (residential). Reported concentrations of VOCs and volatile TRH fractions in soil vapour samples were all below the adopted commercial/industrial assessment criteria and the LOR.

Furthermore, reported concentrations of VOCs and volatile TRH were generally below the high density residential criteria, with exception to cis-1,2-dichloroethene, trichloroethene, and vinyl chloride, where the LOR exceeded the site assessment criteria under a high density land use scenario (refer to discussion in **Section 7.2.6**).

Targeted assessment of potential impacts associated with existing and suspected former UST infrastructure at the site has identified minor soil impacts in the vicinity of several USTs/bowers, occurring at levels less than the adopted health and ecological assessment criteria. As such, no gross soil, soil vapour or groundwater contamination from VOCs, TRH and BTEX were identified associated with the USTs at the site.

On this basis, there is considered not to be an unacceptable risk from soil vapour at the site.

11.4 Are there any issues relating to local area background soil concentrations?

A total of five natural soil samples were collected for analysis during the site sampling works, including targeting of impact associated with the USTs. Heavy metals were reported within background ranges as per Olszowy et al. (1995). In addition, all other COPCs were reported below the LOR. On this basis, there are not considered to be any issues relating to local area background soil concentrations.

11.5 Are there any impacts from chemical mixtures?

There were no soil, soil vapour or groundwater conditions identified with significant concentrations of contaminants that may pose an unacceptable chemical mixture contamination risk at the site with respect to future site users.

11.6 Are there any aesthetic concerns?

Some minor hydrocarbons staining was observed on pavement surfaces in the vicinity of the bowsers and within soil at sampling locations: BH01 0.8-1.4 (targeting UST SE corner); BH07 0.15-0.7 (refusal at 0.7 m on obstruction within fill, targeting fuel line); and, BH08 0.4-0.6 (targeting fuel line).

Staining/odours in soil is potentially of aesthetic concern based on the proposed mixed land use. Should pavements be removed and a more sensitive land use setting be proposed in areas of stained and/or odorous soils, it is anticipated management of exposed soils would be necessary to resolve aesthetic considerations and the potential for localised impacted material in the immediate vicinity of the USTs and bowser plinths.

No ACM was observed within accessible surface soils (or at depth) based on the current paved nature of the site. Should pavements be removed, the presence of ACM on the ground surface within the sub-floor cavity would be considered to be an aesthetic concern and would require management. There should be no visible ACM within accessible surface soils (top 100 mm) of the site.

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

The potential for migration of contaminants from the site is considered to be low based upon the absence of significant soil and/or groundwater contamination and sealed nature of the surface of the site minimising vertical migration of contaminants via water infiltration.

Whilst there were no significant indicators of contaminant migration associated with the existing UST facilities, ongoing management of these should occur as per the requirements of the UPSS Regulation 2014[18], inclusive of on-going monitoring or decommissioning of the infrastructure if they are no longer needed.

Given the fuel facilities remain a contamination source, they will require removal (as per the UPSS regulation) to ensure the site is considered suitable for the proposed use. Whilst no significant gross impact has been identified, allowance should be included for addressing small scale issues as may occur in the immediate vicinity of the facilities that will be uncovered during future decommissioning works.

[18] *Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2014* (UPSS Reg 2014)

11.8 Is a site management strategy required?

Based on the scope of works completed and the limitations presented in **Section 12**, whilst no significant or gross contamination impacts associated with the former and current use of the site have been identified during the assessment activities, there are a number of smaller scale issues that will require to be addressed such that the site can be considered suitable for future use.

Requirements to address the identified fill material impacted with heavy metals and PAHs, asbestos containing material and removal of the USTs should be outlined in a remedial action plan (RAP) prepared for the site once a firm development concept is developed. The RAP should address the following remedial actions / management strategy issues:

- Heavy metal and PAH impacted soils;
- Aesthetic issues (ACM and stained/odorous soils); and
- Removal and validation of UST infrastructure.

Based on the identification of minor bonded ACM and trace level asbestos within soils at the site, the existing asbestos management plan (AMP) at the site should be revised to document requirements for the management of minor asbestos in soil impacts during sub-surface maintenance works below the existing site ground surface (concrete slabs and asphalt). In addition, the site Asbestos Register should be updated to reflect the identified of asbestos during this assessment.

12. Conclusions & Recommendations

12.1 Conclusions

Based on the findings of this assessment and subject to the limitations in **Section 13**, the following conclusions are provided:

- The site is understood to have utilised for commercial and industrial purposes from 1920s until the 1980s. Part of the site has been used as an ambulance facility since the 1930s.
- A range of shallow fill materials were observed across the site at depths ranging from 0.6 to 1.4m bgs. No major anthropogenic inclusions were observed within the fill material. Natural soils underlying the fill material comprised a damp, homogeneous, pale brown/grey, high plasticity clay. Weathered shale was encountered below the residual clay at BH01 to BH05 at depths ranging from 1.4 to 3.0 m bgs.
- Minor hydrocarbon odours and staining were observed in natural material from 0.8 to 1.4 m in BH01 (targeting UST SE corner), in fill material from 0.15 to 0.7 m in BH07 (refusal at 0.7 m on obstruction within fill, targeting fuel line) and in fill material from 0.4 - 0.6 m at BH08 (targeting fuel line). No other staining or odours were observed during the subsurface investigation activities. A maximum PID result of 19.2 ppm was recorded during field screen for volatile contaminants at BH01 0.9-1.0. PID results across the remainder of the site were generally less than 5 ppm and mostly 0 ppm, consistent with the lack of observed gross odours and volatile hydrocarbon impacts.
- Concentrations of lead and carcinogenic PAHs as B(a)P TEQ in some representative fill material samples exceeded health site assessment criteria.
- Concentrations of copper, lead, B(a)P and TRH in some representative soil samples exceeded ecological site assessment criteria.
- A single small (5 by 5 cm) fragment of bonded ACM was observed within fill sample BH07 0.3-0.4. In addition, a fragment of bonded ACM was identified on the ground surface in the crawl space cavity on the north-western portion of the site. No ACM was observed in drilling spoil at the remaining sample locations at the site. Trace level asbestos (less than the limit of reporting and LOR) was noted to be present within BH07 AQ 0.3-0.5 as loose fibre bundles of chrysotile asbestos with a raw weight of 0.0013 g, being equivalent to 0.00022 %w/w, which is less than the LOR of 0.001 %w/w. Another fragment of bonded ACM was identified on the ground surface within the crawl space within the north-western portion of the site The ACM material at the site is capped below concrete under current site buildings, thereby eliminating the inhalation pathway. As such, the material is considered to not present a current exposure risk to site users in the absence of ground disturbance activities.
- The identified ACM, whilst not a concern from a contaminated land assessment perspective, will require management from a WHS perspective during future activities that may result in ground disturbance in this area of the site and as such conditions should be noted on a site Asbestos Register.
- Targeted assessment of potential impacts associated with existing and suspected former UST infrastructure at the site has identified minor soil impacts in the vicinity of several USTs/bowers, occurring at levels less than the adopted health and ecological assessment criteria. No gross soil or groundwater contamination from VOCs, TRH and BTEX were identified associated with the USTs at the site. There were no significant indicators of contaminant migration associated with the existing UST facilities, however some limited impacts may occur in the immediate vicinity of the facilities that may be encountered

during works to decommission and remove the infrastructure in accordance with the requirements of the UPSS Regulation (2014).

- Concentrations of all other COPCs assessed in representative soil samples were less than the site assessment criteria.
- Concentrations of COPCs at groundwater sampling locations were generally less than the site assessment criteria. Minor exceedances of zinc are considered not to represent a potential unacceptable risk to human and/or ecological receptors within or downgradient of the site.
- Concentrations of COPCs in representative soil vapour samples were less than the relevant site assessment criteria suitable for the proposed development scenario and below the LOR and are considered not to pose an unacceptable risk to site receptors.
- Aesthetic issues pertaining to stained/odorous soils associated with USTs as well as bonded ACM in soils were identified.
- No chemical mixtures or offsite migration risks were identified.
- On this basis, it is considered that the site can be made suitable for the proposed mixed land use scenario subject to implementation of an appropriate RAP to address the identified small scale heavy metal, PAH, aesthetic and UST infrastructure issues.
- Dependent upon the lateral and vertical extent of proposed basements at the site, it is likely that the majority of, or all the impacted soils may be removed from the site during this process given the shallow nature of fill material at the site. The USTs would require formal removal and validation.

12.2 Recommendations

The following recommendations are provided:

- A RAP should be prepared subsequent to identification of a firm redevelopment scenario to document the procedures and standards to be followed in order to address the identified soil impacts and removal of USTs, such that the identified impact is remediated / managed in a manner as to make the site suitable for the proposed land use;
- The existing AMP and Asbestos Register should be updated to include the findings of this report; and
- The USTs at the site should be managed in accordance with the requirements of the UPSS Regulation (2014).

13. Limitations

This report has been prepared for use by the client and Iglu No.210 Pty Ltd who have commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties.

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

JBS&G accepts no liability for use or interpretation by any person or body other than the client who commissioned the works and Iglu No.210 Pty Ltd. This report should not be reproduced without prior approval by the client and Iglu No.210 Pty Ltd, or amended in any way without prior approval by JBS&G, and should not be relied upon by other parties, who should make their own enquires.

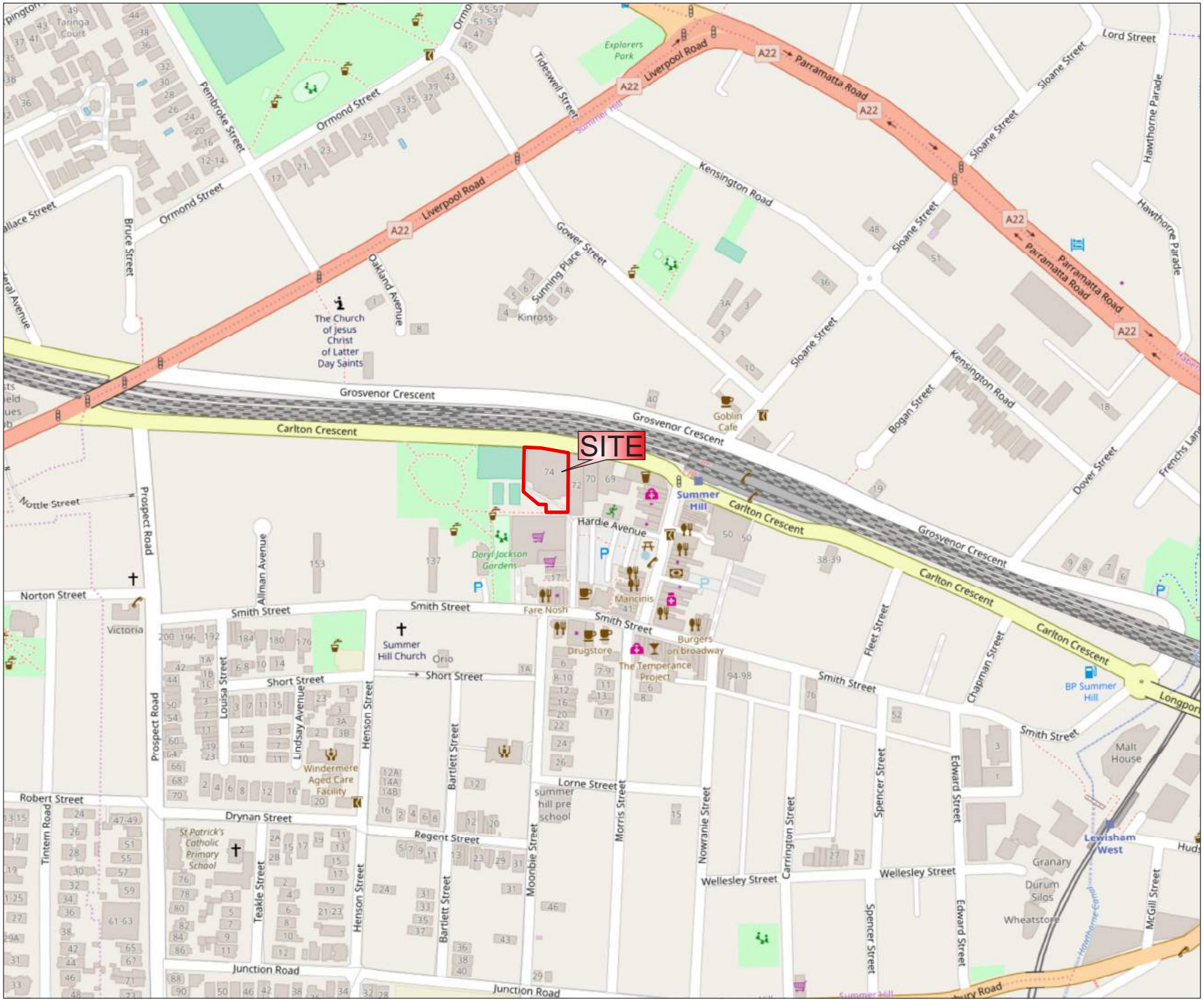
Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the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

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

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

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

Figures



Legend:

Approximate Site Boundary

JBS&G

Job No: 52961

Client: Health Infrastructure

Version: R01 Rev 1	Date: 18-Jul-2018
Drawn By: BC	Checked By: NW

Scale 1:5,500

0 60 120

metres

Coor. Sys. GDA 1994 MGA Zone 56

74-75 Carlton Crescent
Summer Hill, NSW

SITE LOCATION

FIGURE 1

File Name: 52961_01
Reference: © OpenStreetMap (and) contributors, CC-BY-SA

Legend:

- Approximate Site Boundary
- Inferred Bowser Location
- Inferred UST Location

JBS&G

Job No: 52961

Client: Health Infrastructure

Version: R01 Rev 1	Date: 18-Jul-2018
Drawn By: AV	Checked By: NW

Scale 1:500

0 6 12

metres

Coor. Sys. GDA 1994 MGA Zone 56

74-75 Carlton Crescent
Summer Hill, NSW

SITE LAYOUT

FIGURE 2

File Name: 52961_02
Reference: Near Maps - http://www.nearmap.com.au/. Imagery 06-05-2017.

Legend:

- Approximate Site Boundary
- Inferred UST Location
- EIS 2015 Borehole
- Inferred Bowser Location

JBS&G Samples

- Borehole
- Soil Vapour

JBS&G

Job No: 52961

Client: Health Infrastructure

Version: R01 Rev 1	Date: 18-Jul-2018
Drawn By: BC	Checked By: NW

Scale 1:500

0 6 12

metres

Coor. Sys. GDA 1994 MGA Zone 56

74-75 Carlton Crescent
Summer Hill, NSW

SOIL AND SOIL VAPOUR SAMPLING LOCATIONS

FIGURE 3

File Name: 52961_03
Reference: Near Maps - http://www.nearmap.com.au/. Imagery 06-05-2017.

BH05	Depth (m BGS)	Concentration (mg/kg)	Criteria
Analyte			
Lead	0.25-0.35	3100	EIL and HIL
B(a)P		34	ESL
Carcinogenic PAHs B(a)P TEQ		55.2	HIL
C16-C34 TRH Fraction		1500	ESL
B(a)P	0.4-0.5	16	ESL

BH09	Depth (m BGS)	Concentration (mg/kg)	Criteria
Analyte			
B(a)P	0.2-0.3	2.8	ESL
Carcinogenic PAHs B(a)P TEQ		5.48	HIL

EIS BH03	Depth (m BGS)	Concentration (mg/kg)	Criteria
Analyte			
B(a)P	0.1-0.2	4	ESL
Carcinogenic PAHs B(a)P TEQ		5.8	HIL

BH08	Depth (m BGS)	Concentration (mg/kg)	Criteria
Analyte			
B(a)P	0.4-0.5	1	ESL

BH04	Depth (m BGS)	Concentration (mg/kg)	Criteria
Analyte			
Copper	0.17-0.2	1400	EIL

EIS BH04	Depth (m BGS)	Concentration (mg/kg)	Criteria
Analyte			
Zinc	0.17-0.2	980	EIL

EIS BH02	Depth (m BGS)	Concentration (mg/kg)	Criteria
Analyte			
Zinc	0.8-1.0	1200	EIL
B(a)P		0.88	ESL

BH02	Depth (m BGS)	Concentration (mg/kg)	Criteria
Analyte			
Arsenic	0.6-0.7	210	EIL
B(a)P		1.1	ESL

Legend:

- Approximate Site Boundary
- Inferred UST Location
- EIS 2015 Borehole
- Inferred Bowser Location

JBS&G Samples

- Borehole
- Soil Vapour

Job No: 52961

Client: Health Infrastructure

Version: R01 Rev 1	Date: 18-Jul-2018
Drawn By: AV	Checked By: NW

Scale 1:500

0 6 12

metres

Coor. Sys. GDA 1994 MGA Zone 56

74-75 Carlton Crescent
Summer Hill, NSW

SOIL EXCEEDANCES

FIGURE 4

File Name: 52961_04
Reference: Near Maps - http://www.nearmap.com.au/. Imagery 06-05-2017.

Legend:

- Approximate Site Boundary
- Inferred Bowser Location
- Groundwater Well
- Inferred Groundwater Flow Direction
- Inferred UST Location

JBS&G

Job No: 52961

Client: Health Infrastructure

Version: R01 Rev 1	Date: 18-Jul-2018
Drawn By: AV	Checked By: NW

Scale 1:500

0 6 12

metres

Coor. Sys. GDA 1994 MGA Zone 56

74-75 Carlton Crescent
Summer Hill, NSW

GROUNDWATER SAMPLING LOCATIONS

FIGURE 5

File Name: 52961_05
Reference: Near Maps - http://www.nearmap.com.au/. Imagery 06-05-2017.

MW04	Concentration (mg/L)	Criteria
Analyte		
Zinc	0.026	Marine Water

MW03	Concentration (mg/L)	Criteria
Analyte		
Zinc	0.017	Marine Water

MW02	Concentration (mg/L)	Criteria
Analyte		
Zinc	0.027	Marine Water

MW01	Concentration (mg/L)	Criteria
Analyte		
Zinc	0.016	Marine Water

Legend:

- Approximate Site Boundary
- Groundwater Well
- Inferred Bowser Location
- Inferred UST Location

JBS&G

Job No: 52961

Client: Health Infrastructure

Version: R01 Rev 1 | Date: 18-Jul-2018

Drawn By: AV | Checked By: NW

Scale 1:500

0 6 12

metres

Coor. Sys. GDA 1994 MGA Zone 56

74-75 Carlton Crescent
Summer Hill, NSW

GROUNDWATER EXCEEDANCES

FIGURE 6

File Name: 52961_06
Reference: Near Maps - http://www.nearmap.com.au/. Imagery 06-05-2017.

Appendix A Summary Tables

Table A: Soil Analytical Table
Project Number: 52961
Project Name: Summer Hill Ambulance Station

				Metals & Metalloids										TPHs (NEPC 1999)					TRHs (NEPC 2013)								BTEX					
				Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Iron	Iron (%)	Lead	Mercury (Inorganic)	Nickel	Zinc	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Total)	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	>C10-C40 Fraction (Total)	>C10-C16 less Naphthalene (F2)	C6-C10 Fraction	C6-C10 less BTEX (F1)	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene (Total)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				2.00	0.40	1.00	1.00	20.00	0.01	1.00	0.10	1.00	1.00	20.00	20.00	50.00	50.00	50.00	50.00	100.00	100.00		50.00	20.00	20.00	0.10	0.10	0.10	0.10	0.20	0.30
NEPM 2013 EIL - Urban Residential (generic)				100		500	240			1100		280	860																		
NEPM 2013 ESL Urban Residential and Public Open Space, Fine Soil																				1300	5600		120		180	65	125	105			45
NEPM 2013 HSL Asbestos in Soil - Bonded ACM - Residential - HSL B																															
NEPM 2013 HSL Asbestos in Soil - FA & AF - HSL																															
NEPM 2013 Mgnt Limits - Residential, Parkland and Public Open Space, Fine																			1000	3500	10000			800							
NEPM 2013 Soil HIL B				500	150	500	30000			1200	120	1200	60000										280		50	0.7	NL	480			110
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Clay 0 to <1m																							NL		90	1	NL	NL			310
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Clay 1 to <2m																															
Smaple Name	**Sampling Round**	**Sample Date**	**Lab Report**																													
BH01_0.4-0.5	JBS&G 2017	2017/08/03	557460	-	-	-	-	63,000	6.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01_0.9-1.0	JBS&G 2017	2017/08/03	557460	10	<0.4	21	11	-	-	31	<0.1	<5	79	<20	<20	570	400	970	<50	900	210	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
BH01_2.9-3.0	JBS&G 2017	2017/08/03	557460	<2	<0.4	<5	6.2	-	-	22	<0.1	<5	<5	<20	<20	<50	<50	<50	<50	<100	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
BH01_AQ_0.3-0.8	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.6-0.7	JBS&G 2017	2017/08/03	557460	210	<0.4	37	34	-	-	710	2.3	6.2	200	<20	<20	56	<50	56	<50	<100	<100	-	<50	<20	<20	-	-	-	-	-	-
BH02_0.9-1.0	JBS&G 2017	2017/08/03	559156	10	<0.4	27	8.5	-	-	25	<0.1	<5	6.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_2.9-3.0	JBS&G 2017	2017/08/03	557460	4.7	<0.4	24	12	-	-	17	<0.1	<5	9.8	<20	<20	<50	<50	<50	<50	<100	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
BH02_AQ_0.6-0.7	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_2.9-3.0	JBS&G 2017	2017/08/03	557460	2.8	<0.4	13	11	-	-	19	<0.1	<5	6.1	<20	<20	<50	<50	<50	<50	<100	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
BH03_AQ_0.3-0.5	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_0.9-1.0	JBS&G 2017	2017/08/03	557460	-	-	-	-	32,000	3.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_2.9-3.0	JBS&G 2017	2017/08/03	557460	2.3	<0.4	21	18	-	-	21	<0.1	<5	7.8	<20	<20	<50	<50	<50	<50	<100	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
BH04_AQ_0.3-1.4	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.25-0.35	JBS&G 2017	2017/08/03	557460	22	<0.4	19	68	-	-	3100	0.9	19	170	<20	<20	740	760	1500	<50	1500	240	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
BH05_0.4-0.5	JBS&G 2017	2017/08/03	557460	10	<0.4	23	21	-	-	490	0.2	5.7	130	<20	<20	81	<50	81	<50	110	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
BH05_0.9-1.0	JBS&G 2017	2017/08/03	559156	10	<0.4	21	15	-	-	40	<0.1	<5	11	<20	<20	<50	<50	<50	<50	<100	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
BH05_2.9-3.0	JBS&G 2017	2017/08/03	559156	12	<0.4	8.5	18	-	-	51	<0.1	<5	11	<20	<20	<50	<50	<50	<50	<100	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
BH05_AQ_0.25-0.4	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_AQ_0.4-0.8	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_0.8-0.9	JBS&G 2017	2017/08/04	557460	40	<0.4	29	15	-	-	34	<0.1	6.2	47	<20	<20	<50	<50	<50	<50	<100	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
BH06_AQ_0.3-0.6	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07_0.3-0.4	JBS&G 2017	2017/08/03	559156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	0.5	0.5	0.7	5	5.7
BH07_0.5-0.6	JBS&G 2017	2017/08/04	557460	14	<0.4	15	41	-	-	82	0.3	110	81	26	60	<50	<50	60	<50	<100	<100	-	<50	44	33	<0.1	0.6	0.4	0.9	8.7	9.6
BH07_AQ_0.3-0.5	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08_0.4-0.5	JBS&G 2017	2017/08/04	557460	11	<0.4	29	27	-	-	160	0.2	14	69	<20	<20	66	<50	66	<50	110	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
BH08_AQ_0.4-0.6	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_0.2-0.3	JBS&G 2017	2017/08/04	557460	3	<0.4	8.9	55	-	-	42	<0.1	25	290	<20	<20	60	<50	60	<50	<100	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
BH09_AQ_0.2-0.3	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH1 0.17-0.18	EIS 2015	2015/05/26	-	<4	<0.4	61	22	-	-	6	<0.1	60	74	-	-	-	-	-	<50	<100	<100	-	<50	<25	<25	<0.2	<1	<0.5	<1	<2	<3
EIS BH1 0.8-1.0	EIS 2015	2015/05/26	-	9	<0.4	19	12	-	-	18	<0.1	6	38	-	-	-	-	-	<50	<100	<100	-	<50	<25	<25	<0.2	<1	<0.5	<1	<2	<3
EIS BH2 0.13-0.2	EIS 2015	2015/05/26	-	7	<0.4	42	22	-	-	31	<0.1	32	48	-	-	-	-	-	<50	<100	<100	-	<50	<25	<25	<0.2	<1	<0.5	<1	<2	<3
EIS BH2 0.8-1.0	EIS 2015	2015/05/26	-	32	4	31	150	-	-	470	0.3	26	1200	-	-	-	-	-	<50	<100	<100	-	<50	<25	<25	<0.2	<1	<0.5	<1	<2	<3
EIS BH3 0.1-0.2	EIS 2015	2015/05/26	-	11	0.4	19	48	-	-	220	0.2	7	120	-	-	-	-	-	<50	<100	<100	-	<50	<25	<25	<0.2	<1	<0.5	<1	<2	<3
EIS BH3 0.5-0.95	EIS 2015	2015/05/26	-	9	<0.4	24	7	-	-	25	<0.1	4	9	-	-	-	-	-	<50	<100	<100	-	<50	<25	<25	<0.2	<1	<0.5	<1	<2	<3
EIS BH4 0.17-0.2	EIS 2015	2015/05/26	-	52	1	31	1400	-	-	390	0.2	36	980	-	-	-	-	-	<50	<100	<100	-	<50	<25	<25	<0.2	<1	<0.5	<1	<2	<3
EIS BH4 1.5-1.95	EIS 2015	2015/05/26	-	9	<0.4	18	11	-	-	17	<0.1	1	3	-	-	-	-	-	<50	<100	<100	-	<50	<25	<25	<0.2	<1	<0.5	<1	<2	<3
QA20170804	JBS&G 2017	2017/08/04	557460	6.3	<0.4	17	61	-	-	180	0.2	22	310	<20	<20	180	61	241	<50	230	<100	-	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
QC20170804	JBS&G 2017	2017/04/08	172940	5	<0.4	11	45	-	-	130	0.2	14	210	<25	<50	<100	<100	-	<50	<100	<100	<50	<50	<25	<25	<0.2	<1	<0.5	<1	<2	<1
Statistical Summary																																
Number of Results				25	25	25	25	2	2	25	25	25	25	16	16	16	16	15	24	24	24	1	24	24	24	24	24	24	24	24	24
Number of Detects				23	3	24	25	2	2	25	10	17	24	1	1	7	3	8	0	5	2	0	0	1	1	0	2	2	2	2	2
Minimum Concentration				<2	<0.4	<5	6.2	32000	3.2	6	<0.1	1	3	<20	<20	<50	<50	<50	<50	<100	<100	<50	<50	<20	<20	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
Minimum Detect				2.3	0.4	8.5	6.2	32000	3.2	6	0.2	1	3	26	60	56	61	56	ND	110	210	ND	ND	44	33	ND	0.5	0.4	0.7	5	5.7
Maximum Concentration				210	4	61	1400	63000	6.3	3100	2.3	110	1200	26	60	740	760	1500	<50	1500	240	<50	<50	44	33	<0.2	<1	0.5	<1	8.7	9.6
Maximum Detect				210	4	61	1400	63000	6.3	3100	2.3	110	1200	26	60	740	760	1500	ND	1500	240	ND	ND	44	33	ND	0.6	0.5	0.9	8.7	9.6
Average Concentration				20	0.39	23	86			253	0.23	17	165	11	14	125	98	214	25	158	65		25	12	12	0.069	0.26	0.16	0.28	1	1.2
Median Concentration				10	0.2	21	21	47500	4.75	40	0.05	6.2	69	10	10	37.5	25	56	25	50	50	25	25	10	10	0.05	0.05	0.05	0.05	0.1	0.15
Standard Deviation				41	0.77	12	276			621	0.47	24	294	4	13	213	200	430	0	335	50		0	6.9	4.7	0.025	0.23	0.13	0.27	1.9	2.1
Number of Guideline Exceedances				1	0	0	1	0	0	1	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)				1	0	0	1	0	0	1	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

Table A: Soil Analytical Table
Project Number: 52961
Project Name: Summer Hill Ambulance Station

				Polycyclic Aromatic Hydrocarbons																							
				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)*	Carcinogenic PAHs as B(a)P TEQ	Benzo(b,j)fluoranthene	Benzo(b,k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	Total Positive PAHs
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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				0.10	0.10	0.10	0.10	0.05	0.50		0.50		0.50		0.10	0.50	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.50	
NEPM 2013 EIL - Urban Residential (generic)																						170				
NEPM 2013 ESL Urban Residential and Public Open Space, Fine Soil								0.7																		
NEPM 2013 HSL Asbestos in Soil - Bonded ACM - Residential - HSL B																										
NEPM 2013 HSL Asbestos in Soil - FA & AF - HSL																										
NEPM 2013 Mgnt Limits - Residential, Parkland and Public Open Space, Fine																										
NEPM 2013 Soil HIL B										4		4													400	
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Clay 0 to <1m																						5				
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Clay 1 to <2m																						NL				
Smaple Name	**Sampling Round**	**Sample Date**	**Lab Report**																								
BH01_0.4-0.5	JBS&G 2017	2017/08/03	557460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01_0.9-1.0	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	1.2	<1.21	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH01_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	1.2	<1.21	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH01_AQ_0.3-0.8	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.6-0.7	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	0.6	1.1	1.4	-	1.9	1.631	1	-	0.5	0.8	1.1	<0.5	1.7	<0.5	<0.5	<0.5	<0.5	1.8	8.6	-
BH02_0.9-1.0	JBS&G 2017	2017/08/03	559156	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	1.2	<1.21	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH02_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	1.2	<1.21	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH02_AQ_0.6-0.7	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	1.2	<1.21	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH03_AQ_0.3-0.5	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_0.9-1.0	JBS&G 2017	2017/08/03	557460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	1.2	<1.21	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH04_AQ_0.3-1.4	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.25-0.35	JBS&G 2017	2017/08/03	557460	<0.5	2.6	5.4	29	34	55	-	55	55.2	33	-	23	32	27	9.3	40	0.9	20	<0.5 - 1.1	23	43	323.3	-
BH05_0.4-0.5	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	1.6	1.6	2.9	-	2.9	2.868	1.4	-	2.1	1.5	1.7	0.6	2.6	<0.5	1.8	<0.5	1.4	2.7	19	-
BH05_0.9-1.0	JBS&G 2017	2017/08/03	559156	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	1.2	<1.21	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH05_2.9-3.0	JBS&G 2017	2017/08/03	559156	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	1.2	<1.21	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	0.6	1.2	-
BH05_AQ_0.25-0.4	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_AQ_0.4-0.8	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_0.8-0.9	JBS&G 2017	2017/08/04	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	1.2	<1.21	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH06_AQ_0.3-0.6	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07_0.3-0.4	JBS&G 2017	2017/08/03	559156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07_0.5-0.6	JBS&G 2017	2017/08/04	557460	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	0.7	1.2	0.6785	<0.5	-	<0.5	0.6	0.6	<0.5	0.9	<0.5	<0.5	1.7 - 2.7	<0.5	1	6.4	-
BH07_AQ_0.3-0.5	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08_0.4-0.5	JBS&G 2017	2017/08/04	557460	<0.5	<0.5	<0.5	0.9	1	1.4	1.7	1.9	1.684	0.9	-	1.3	1	1.1	<0.5	1.5	<0.5	1.3	<0.5	<0.5	1.5	10.5	-
BH08_AQ_0.4-0.6	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_0.2-0.3	JBS&G 2017	2017/08/04	557460	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	0.6	1.2	0.6435	<0.5	-	<0.5	<0.5	0.6	<0.5	0.9	<0.5	<0.5	<0.5	0.8	0.9	3.8	-
BH09_AQ_0.2-0.3	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH1 0.17-0.18	EIS 2015	2015/05/26	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<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
EIS BH1 0.8-1.0	EIS 2015	2015/05/26	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<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
EIS BH2 0.13-0.2	EIS 2015	2015/05/26	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<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
EIS BH2 0.8-1.0	EIS 2015	2015/05/26	-	<0.1	<0.1	0.2	0.7	0.88	1.2	1.2	1.3	-	-	1	0.6	-	0.8	<0.1	1.7	<0.1	0.5	<0.1	0.7	1.7	-	9.2
EIS BH3 0.1-0.2	EIS 2015	2015/05/26	-	<0.1	<0.1	0.8	3.5	4	5.8	5.8	5.8	-	-	6.1	2.4	-	3.3	0.5	7.1	0.2	2.4	<0.1	3.2	6.9	-	41
EIS BH3 0.5-0.95	EIS 2015	2015/05/26	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<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
EIS BH4 0.17-0.2	EIS 2015	2015/05/26	-	<0.1	<0.1	<0.1	0.3	0.4	0.6	0.6	0.7	-	-	0.8	0.3	-	0.4	<0.1	0.6	<0.1	0.3	<0.1	0.2	0.6	-	3.9
EIS BH4 1.5-1.95	EIS 2015	2015/05/26	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<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
QA20170804	JBS&G 2017	2017/08/04	557460	<0.5	<0.5	1.3	3.4	2.8	5.5	5.5	5.5	5.486	2.5	-	3.2	2.3	3.4	1.5	6.9	<0.5	3	<0.5	5.5	6.7	42.5	-
QC20170804	JBS&G 2017	2017/04/08	172940	<0.1	0.2	0.2	0.7	0.6	0.9	0.9	0.9	0.772	-	-	0.5	-	0.7	<0.1	1.4	<0.1	0.4	<0.1	0.5	1.4	-	7.6
Statistical Summary																											
Number of Results				25	25	25	25	25	25	13	25	17	16	8	25	16	25	25	25	25	25	25	25	25	16	9	
Number of Detects				0	2	5	11	9	9	8	20	8	5	3	9	6	11	4	12	2	8	2	8	12	8	9	
Minimum Concentration				<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.5	<0.5	0.644	<0.5	<0.5	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	0	
Minimum Detect				ND	0.2	0.2	0.3	0.4	0.6	0.6	0.7	0.644	0.9	0.8	0.3	0.6	0.4	0.5	0.6	0.2	0.3	1.7	0.2	0.6	1.2	3.9	
Maximum Concentration				<0.5	2.6	5.4	29	34	55	5.8	55	55.2	33	6.1	23	32	27	9.3	40	0.9	20	2.7	23	43	323.3	41	
Maximum Detect				ND	2.6	5.4	29	34	55	5.8	55	55.2	33	6.1	23	32	27	9.3	40	0.9	20	2.7	23	43	323.3	41	
Average Concentration				0.18	0.28	0.47	1.8	2	3.1	1.4	3.6	4.4	2.6	1.1	1.5	2.5	1.7	0.62	2.7	0.21	1.3	0.27	1.5	2.8	26	6.9	
Median Concentration				0.25	0.25	0.25	0.25	0.25	0.25	0.6	1.2	0.605	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.725	0	
Standard Deviation				0.098	0.49	1.1	5.7	6.7	11	1.9	11	13	8.1	2	4.6	7.9	5.3	1.8	8	0.17	4	0.42	4.6	8.6	80	13	
Number of Guideline Exceedances				0	0	0	0	7	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Number of Guideline Exceedances(Detects Only)				0	0	0	0	7	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Table A: Soil Analytical Table
Project Number: 52961
Project Name: Summer Hill Ambulance Station

				Chlorinated Alkanes																		Chlorinated Alkenes											
				1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane	1,1-dichloroethene	1,1-dichloropropene	2-chlorotoluene	3-chloropropene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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				0.50	0.50	0.50	0.50	0.50	0.50		0.50	0.50	0.50		0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50			0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
NEPM 2013 EIL - Urban Residential (generic)																																	
NEPM 2013 ESL Urban Residential and Public Open Space, Fine Soil																																	
NEPM 2013 HSL Asbestos in Soil - Bonded ACM - Residential - HSL B																																	
NEPM 2013 HSL Asbestos in Soil - FA & AF - HSL																																	
NEPM 2013 Mgnt Limits - Residential, Parkland and Public Open Space, Fine																																	
NEPM 2013 Soil HIL B																																	
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Clay 0 to <1m																																	
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Clay 1 to <2m																																	
Smaple Name	**Sampling Round**	**Sample Date**	**Lab Report**																															
BH01_0.4-0.5	JBS&G 2017	2017/08/03	557460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01_0.9-1.0	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH01_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH01_AQ_0.3-0.8	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.6-0.7	JBS&G 2017	2017/08/03	557460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.9-1.0	JBS&G 2017	2017/08/03	559156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH02_AQ_0.6-0.7	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH03_AQ_0.3-0.5	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_0.9-1.0	JBS&G 2017	2017/08/03	557460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH04_AQ_0.3-1.4	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.25-0.35	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH05_0.4-0.5	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	1.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH05_0.9-1.0	JBS&G 2017	2017/08/03	559156	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH05_2.9-3.0	JBS&G 2017	2017/08/03	559156	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH05_AQ_0.25-0.4	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_AQ_0.4-0.8	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_0.8-0.9	JBS&G 2017	2017/08/04	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH06_AQ_0.3-0.6	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07_0.3-0.4	JBS&G 2017	2017/08/03	559156	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH07_0.5-0.6	JBS&G 2017	2017/08/04	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH07_AQ_0.3-0.5	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08_0.4-0.5	JBS&G 2017	2017/08/04	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH08_AQ_0.4-0.6	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_0.2-0.3	JBS&G 2017	2017/08/04	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH09_AQ_0.2-0.3	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH1 0.17-0.18	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH1 0.8-1.0	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH2 0.13-0.2	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH2 0.8-1.0	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH3 0.1-0.2	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH3 0.5-0.95	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH4 0.17-0.2	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH4 1.5-1.95	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA20170804	JBS&G 2017	2017/08/04	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC20170804	JBS&G 2017	2017/04/08	172940	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1
Statistical Summary																																	
Number of Results				16	16	16	16	16	16	1	16	16	16	1	16	16	16	16	16	15	16	16	1	1	15	16	16	16	16	16	16	16	16
Number of Detects				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Minimum Detect				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.5	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
Maximum Detect				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration				0.27	0.27	0.27	0.27	0.27	0.27		0.27	0.27	0.27		0.27	0.27	0.27	0.27	0.27	0.41	0.27	0.27			0.25	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27
Median Concentration				0.25	0.25	0.25	0.25	0.25	0.25	0.5	0.25	0.25	0.25	0.5	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.5	0.5	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Standard Deviation				0.063	0.063	0.063	0.063	0.063	0.063		0.063	0.063	0.063		0.063	0.063	0.063	0.063	0.063	0.36	0.063	0.063			0	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063
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
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

Table A: Soil Analytical Table
Project Number: 52961
Project Name: Summer Hill Ambulance Station

				Trihalomethanes				Monocyclic Aromatic Hydrocarbons										Miscellaneous Hydrocarbons							Chlorinated Benzenes						
				Bromodichloromethane	Chloroform	Dibromochloromethane	Tribromomethane	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	4-isopropyl toluene	Bromobenzene	Isopropylbenzene	n-butyl benzene	n-propyl benzene	sec-butyl benzene	Styrene	Tert-butyl benzene	1,2-dibromoethane	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Bromomethane	Cyclohexane	Dibromomethane	Iodomethane	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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				0.50	0.50	0.50	0.50	0.50	0.50		0.50	0.50				0.50		0.50	0.50	0.50	0.50		0.50	0.50			0.50	0.50	0.50	0.50	0.05
NEPM 2013 EIL - Urban Residential (generic)																															
NEPM 2013 ESL Urban Residential and Public Open Space, Fine Soil																															
NEPM 2013 HSL Asbestos in Soil - Bonded ACM - Residential - HSL B																															
NEPM 2013 HSL Asbestos in Soil - FA & AF - HSL																															
NEPM 2013 Mgnt Limits - Residential, Parkland and Public Open Space, Fine																															
NEPM 2013 Soil HIL B																															15
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Clay 0 to <1m																															
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Clay 1 to <2m																															
Smaple Name	**Sampling Round**	**Sample Date**	**Lab Report**																												
BH01_0.4-0.5	JBS&G 2017	2017/08/03	557460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01_0.9-1.0	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.05
BH01_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	-
BH01_AQ_0.3-0.8	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.6-0.7	JBS&G 2017	2017/08/03	557460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.9-1.0	JBS&G 2017	2017/08/03	559156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	-
BH02_AQ_0.6-0.7	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	-
BH03_AQ_0.3-0.5	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_0.9-1.0	JBS&G 2017	2017/08/03	557460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	-
BH04_AQ_0.3-1.4	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.25-0.35	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.05
BH05_0.4-0.5	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.05
BH05_0.9-1.0	JBS&G 2017	2017/08/03	559156	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.05
BH05_2.9-3.0	JBS&G 2017	2017/08/03	559156	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	-
BH05_AQ_0.25-0.4	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_AQ_0.4-0.8	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_0.8-0.9	JBS&G 2017	2017/08/04	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.05
BH06_AQ_0.3-0.6	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07_0.3-0.4	JBS&G 2017	2017/08/03	559156	<0.5	<0.5	<0.5	<0.5	7.6	3	-	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	-
BH07_0.5-0.6	JBS&G 2017	2017/08/04	557460	<0.5	<0.5	<0.5	<0.5	15	3	-	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.05
BH07_AQ_0.3-0.5	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08_0.4-0.5	JBS&G 2017	2017/08/04	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.05
BH08_AQ_0.4-0.6	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_0.2-0.3	JBS&G 2017	2017/08/04	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.05
BH09_AQ_0.2-0.3	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH1 0.17-0.18	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH1 0.8-1.0	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH2 0.13-0.2	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH2 0.8-1.0	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH3 0.1-0.2	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH3 0.5-0.95	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH4 0.17-0.2	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH4 1.5-1.95	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA20170804	JBS&G 2017	2017/08/04	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.05
QC20170804	JBS&G 2017	2017/04/08	172940	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<0.1
Statistical Summary																															
Number of Results				16	16	16	16	16	16	1	16	16	1	1	1	16	1	16	15	15	16	1	16	15	1	1	16	16	16	16	10
Number of Detects				0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1	<1	<1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.05
Minimum Detect				ND	ND	ND	ND	7.6	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration				<1	<1	<1	<1	15	3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<0.1
Maximum Detect				ND	ND	ND	ND	15	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration				0.27	0.27	0.27	0.27	1.6	0.61		0.27	0.27				0.27		0.27	0.25	0.25	0.27		0.27	0.25			0.27	0.27	0.27	0.27	0.028
Median Concentration				0.25	0.25	0.25	0.25	0.25	0.25	0.5	0.25	0.25	0.5	0.5	0.5	0.25	0.5	0.25	0.25	0.25	0.25	0.5	0.25	0.25	0.5	0.5	0.25	0.25	0.25	0.25	0.025
Standard Deviation				0.063	0.063	0.063	0.063	4	0.94		0.063	0.063				0.063		0.063	0	0	0.063		0.063	0			0.063	0.063	0.063	0.063	0.0079
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

Table A: Soil Analytical Table
Project Number: 52961
Project Name: Summer Hill Ambulance Station

				Solvents	Polychlorinated Biphenyls								Phenols																			
				2-Propanone (Acetone)	Arodor 1016	Arodor 1221	Arodor 1232	Arodor 1242	Arodor 1248	Arodor 1254	Arodor 1260	PCBs (Total)	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2,6-dichlorophenol	2-chlorophenol	2-Methylphenol	2-nitrophenol	3- & 4-Methylphenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Chloro-3-Methylphenol	4-nitrophenol	Phenol	Phenols (Total)	Total Halogenated Phenol	Total Non-Halogenated Phenol	Total Tetrachlorophenols
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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				0.50	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	1.00	1.00	0.50	0.50	5.00	0.50	0.50	0.20	1.00	0.40	5.00	20.00	1.00	5.00	0.50		1.00	20.00	1.00
NEPM 2013 EIL - Urban Residential (generic)																																
NEPM 2013 ESL Urban Residential and Public Open Space, Fine Soil																																
NEPM 2013 HSL Asbestos in Soil - Bonded ACM - Residential - HSL B																																
NEPM 2013 HSL Asbestos in Soil - FA & AF - HSL																																
NEPM 2013 Mgnt Limits - Residential, Parkland and Public Open Space, Fine																																
NEPM 2013 Soil HIL B												1															45000					
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Clay 0 to <1m																																
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Clay 1 to <2m																																
Smaple Name	**Sampling Round**	**Sample Date**	**Lab Report**																														
BH01_0.4-0.5	JBS&G 2017	2017/08/03	557460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01_0.9-1.0	JBS&G 2017	2017/08/03	557460	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<20	<1
BH01_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01_AQ_0.3-0.8	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.6-0.7	JBS&G 2017	2017/08/03	557460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.9-1.0	JBS&G 2017	2017/08/03	559156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	-	-	-	-	-	-	-	-	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<20	<1
BH02_AQ_0.6-0.7	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	-	-	-	-	-	-	-	-	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<20	<1
BH03_AQ_0.3-0.5	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_0.9-1.0	JBS&G 2017	2017/08/03	557460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	-	-	-	-	-	-	-	-	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<20	<1
BH04_AQ_0.3-1.4	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.25-0.35	JBS&G 2017	2017/08/03	557460	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<20	<1
BH05_0.4-0.5	JBS&G 2017	2017/08/03	557460	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<20	<1
BH05_0.9-1.0	JBS&G 2017	2017/08/03	559156	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_2.9-3.0	JBS&G 2017	2017/08/03	559156	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_AQ_0.25-0.4	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_AQ_0.4-0.8	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_0.8-0.9	JBS&G 2017	2017/08/04	557460	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<20	<1
BH06_AQ_0.3-0.6	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07_0.3-0.4	JBS&G 2017	2017/08/03	559156	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07_0.5-0.6	JBS&G 2017	2017/08/04	557460	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<20	<1
BH07_AQ_0.3-0.5	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08_0.4-0.5	JBS&G 2017	2017/08/04	557460	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08_AQ_0.4-0.6	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_0.2-0.3	JBS&G 2017	2017/08/04	557460	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<20	<1
BH09_AQ_0.2-0.3	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH1 0.17-0.18	EIS 2015	2015/05/26	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH1 0.8-1.0	EIS 2015	2015/05/26	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH2 0.13-0.2	EIS 2015	2015/05/26	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH2 0.8-1.0	EIS 2015	2015/05/26	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH3 0.1-0.2	EIS 2015	2015/05/26	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH3 0.5-0.95	EIS 2015	2015/05/26	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH4 0.17-0.2	EIS 2015	2015/05/26	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH4 1.5-1.95	EIS 2015	2015/05/26	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA20170804	JBS&G 2017	2017/08/04	557460	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<20	<1
QC20170804	JBS&G 2017	2017/04/08	172940	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
Statistical Summary																																
Number of Results				15	17	17	17	17	17	17	17	17	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	1	10	10	10
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
Minimum Concentration				<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<5	<1	<20	<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
Maximum Concentration				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<5	<1	<20	<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
Average Concentration				0.27	0.088	0.088	0.088	0.088	0.088	0.088	0.088	0.088	0.5	0.5	0.25	0.25	2.5	0.25	0.25	0.1	0.5	0.2	2.5	10	0.5	2.5	0.25		0.5	10	0.5
Median Concentration				0.25	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.5	0.5	0.25	0.25	2.5	0.25	0.25	0.1	0.5	0.2	2.5	10	0.5	2.5	0.25	2.5	0.5	10	0.5
Standard Deviation				0.065	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0	0	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
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

Table A: Soil Analytical Table
Project Number: 52961
Project Name: Summer Hill Ambulance Station

				Sulfur Compounds	Organochlorine Pesticides																										
				Carbon disulfide	4,4-DDE	Aldrin	Aldrin + Dieldrin (Sum of Total)	alpha-BHC	alpha-Chlordane	beta-BHC	Dieldrin	DDD	DDT	DDT+DDE+DDD (Sum of Total)	Chlordane	delta-BHC	Endosulfan alpha	Endosulfan beta	gamma-Chlordane	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Lindane	Methoxychlor	Pentachlorophenol	Toxaphene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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				0.50	0.05	0.05	0.05	0.05		0.05	0.05	0.05	0.05	0.05	0.10	0.05	0.05	0.05		0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	1.00	1.00
NEPM 2013 EIL - Urban Residential (generic)													180																
NEPM 2013 ESL Urban Residential and Public Open Space, Fine Soil																													
NEPM 2013 HSL Asbestos in Soil - Bonded ACM - Residential - HSL B																													
NEPM 2013 HSL Asbestos in Soil - FA & AF - HSL																													
NEPM 2013 Mgnt Limits - Residential, Parkland and Public Open Space, Fine																													
NEPM 2013 Soil HIL B							10							600	90						20			10			500	130	30
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Clay 0 to <1m																													
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Clay 1 to <2m																													
Smaple Name	**Sampling Round**	**Sample Date**	**Lab Report**																												
BH01_0.4-0.5	JBS&G 2017	2017/08/03	557460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01_0.9-1.0	JBS&G 2017	2017/08/03	557460	<0.5	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<1
BH01_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01_AQ_0.3-0.8	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.6-0.7	JBS&G 2017	2017/08/03	557460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.9-1.0	JBS&G 2017	2017/08/03	559156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
BH02_AQ_0.6-0.7	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
BH03_AQ_0.3-0.5	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_0.9-1.0	JBS&G 2017	2017/08/03	557460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_2.9-3.0	JBS&G 2017	2017/08/03	557460	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
BH04_AQ_0.3-1.4	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.25-0.35	JBS&G 2017	2017/08/03	557460	<0.5	<0.05	<0.05	0.28	<0.05	-	<0.05	0.28	<0.05	<0.05	<0.05	17	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	2.8	2	<0.05	<0.05	<1	<1
BH05_0.4-0.5	JBS&G 2017	2017/08/03	557460	<0.5	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	0.09	0.06	<0.05	<0.05	<1	<1
BH05_0.9-1.0	JBS&G 2017	2017/08/03	559156	<0.5	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<1
BH05_2.9-3.0	JBS&G 2017	2017/08/03	559156	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_AQ_0.25-0.4	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_AQ_0.4-0.8	JBS&G 2017	2017/08/03	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_0.8-0.9	JBS&G 2017	2017/08/04	557460	<0.5	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<1
BH06_AQ_0.3-0.6	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07_0.3-0.4	JBS&G 2017	2017/08/03	559156	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07_0.5-0.6	JBS&G 2017	2017/08/04	557460	<0.5	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<1
BH07_AQ_0.3-0.5	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08_0.4-0.5	JBS&G 2017	2017/08/04	557460	<0.5	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	1.1	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<1
BH08_AQ_0.4-0.6	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_0.2-0.3	JBS&G 2017	2017/08/04	557460	<0.5	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<1
BH09_AQ_0.2-0.3	JBS&G 2017	2017/08/04	557530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH1 0.17-0.18	EIS 2015	2015/05/26	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	<0.1	<0.1	<0.1
EIS BH1 0.8-1.0	EIS 2015	2015/05/26	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EIS BH2 0.13-0.2	EIS 2015	2015/05/26	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EIS BH2 0.8-1.0	EIS 2015	2015/05/26	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EIS BH3 0.1-0.2	EIS 2015	2015/05/26	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1
EIS BH3 0.5-0.95	EIS 2015	2015/05/26	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EIS BH4 0.17-0.2	EIS 2015	2015/05/26	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EIS BH4 1.5-1.95	EIS 2015	2015/05/26	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
QA20170804	JBS&G 2017	2017/08/04	557460	<0.5	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1	<1
QC20170804	JBS&G 2017	2017/04/08	172940	-	<0.1	<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	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	-
Statistical Summary																													
Number of Results				15	18	18	18	18	9	18	18	18	18	18	17	18	18	18	1	18	18	18	17	18	18	18	18	18	17
Number of Detects				0	0	0	1	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	4	3	0	0	0	0
Minimum Concentration				<0.5	<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	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1
Minimum Detect				ND	ND	ND	0.28	ND	ND	ND	0.28	ND	ND	ND	1.1	ND	ND	ND	ND	ND	ND	ND	ND	0.09	0.06	ND	ND	ND	ND
Maximum Concentration				<0.5	<0.1	<0.1	0.28	<0.1	<0.1	<0.1	0.28	<0.1	<0.1	<0.1	17	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	2.8	2	<0.1	<0.1	<1	<1
Maximum Detect				ND	ND	ND	0.28	ND	ND	ND	0.28	ND	ND	ND	17	ND	ND	ND	ND	ND	ND	ND	ND	2.8	2	ND	ND	ND	ND
Average Concentration				0.25	0.038	0.038	0.054	0.038	0.05	0.038	0.052	0.038	0.038	0.038	1.1	0.038	0.038	0.038		0.038	0.038	0.038	0.037	0.22	0.15	0.038	0.038	0.3	0.29
Median Concentration				0.25	0.0375	0.0375	0.05	0.0375	0.05	0.0375	0.05	0.0375	0.0375	0.0375	0.05	0.0375	0.0375	0.0375	0.05	0.0375	0.0375	0.0375	0.025	0.05	0.05	0.0375	0.0375	0.5	0.5
Standard Deviation				0	0.013	0.013	0.059	0.013	0	0.013	0.058	0.013	0.013	0.013	4.1	0.013	0.013	0.013		0.013	0.013	0.013	0.013	0.65	0.46	0.013	0.013	0.23	0.23
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

Table A: Soil Analytical Table
Project Number: 52961
Project Name: Summer Hill Ambulance Station

	Herbicides	Ionic Balance			Asbestos										Asbestos	Asbestos - Trace Analysis						Other	
	Dinoseb	Cation Exchange Capacity	EC 1:5 soil:water	pH_Lab	Approx. Sample Mass	Asbestos from ACM in Soil	Asbestos from FA & AF in Soil	Mass ACM	Mass Asbestos in ACM	Mass FA	Mass Asbestos in FA	Mass AF	Mass Asbestos in AF	Mass Asbestos in FA & AF	Asbestos Reported Result	ACM - Comment	AF - Comment	FA - Comment	Organic Fibres - Comment	Respirable Fibres - Comment	Synthetic Fibres - Comment	% Clay	% Moisture 103oC
	mg/kg	meq/100g	µS/cm	ph Units	g	%w/w	%w/w	g	g	g	g	g	g	g	Comment	Comment	Comment	Comment	Comment	Comment	Comment	%	%
EQL	20.00	0.05	10.00	0.10																		1.00	1.00
NEPM 2013 EIL - Urban Residential (generic)																							
NEPM 2013 ESL Urban Residential and Public Open Space, Fine Soil																							
NEPM 2013 HSL Asbestos in Soil - Bonded ACM - Residential - HSL B						0.04																	
NEPM 2013 HSL Asbestos in Soil - FA & AF - HSL							0.001																
NEPM 2013 Mgnt Limits - Residential, Parkland and Public Open Space, Fine																							
NEPM 2013 Soil HIL B																							
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Clay 0 to <1m																							
NEPM 2013 Soil HSL A & HSL B for Vapour Intrusion - Clay 1 to <2m																							
Smaple Name	**Sampling Round**	**Sample Date**	**Lab Report**																				
BH01_0.4-0.5	JBS&G 2017	2017/08/03	557460	-	23	110	8.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	16
BH01_0.9-1.0	JBS&G 2017	2017/08/03	557460	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21
BH01_2.9-3.0	JBS&G 2017	2017/08/03	557460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
BH01_AQ_0.3-0.8	JBS&G 2017	2017/08/03	557530	-	-	-	-	615	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	-	-
BH02_0.6-0.7	JBS&G 2017	2017/08/03	557460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
BH02_0.9-1.0	JBS&G 2017	2017/08/03	559156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
BH02_2.9-3.0	JBS&G 2017	2017/08/03	557460	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21
BH02_AQ_0.6-0.7	JBS&G 2017	2017/08/03	557530	-	-	-	-	556	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	-	-
BH03_2.9-3.0	JBS&G 2017	2017/08/03	557460	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21
BH03_AQ_0.3-0.5	JBS&G 2017	2017/08/03	557530	-	-	-	-	576	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	-	-
BH04_0.9-1.0	JBS&G 2017	2017/08/03	557460	-	20	150	7.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	20
BH04_2.9-3.0	JBS&G 2017	2017/08/03	557460	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19
BH04_AQ_0.3-1.4	JBS&G 2017	2017/08/03	557530	-	-	-	-	662	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	-	-
BH05_0.25-0.35	JBS&G 2017	2017/08/03	557460	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
BH05_0.4-0.5	JBS&G 2017	2017/08/03	557460	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
BH05_0.9-1.0	JBS&G 2017	2017/08/03	559156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
BH05_2.9-3.0	JBS&G 2017	2017/08/03	559156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
BH05_AQ_0.25-0.4	JBS&G 2017	2017/08/03	557530	-	-	-	-	731	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	-	-
BH05_AQ_0.4-0.8	JBS&G 2017	2017/08/03	557530	-	-	-	-	488	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	-	-
BH06_0.8-0.9	JBS&G 2017	2017/08/04	557460	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
BH06_AQ_0.3-0.6	JBS&G 2017	2017/08/04	557530	-	-	-	-	607	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	-	-
BH07_0.3-0.4	JBS&G 2017	2017/08/03	559156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
BH07_0.5-0.6	JBS&G 2017	2017/08/04	557460	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19
BH07_AQ_0.3-0.5	JBS&G 2017	2017/08/04	557530	-	-	-	-	600	0	0.0002	0	0	0	0	0.0013	0.0013	0.0013	1	1	1	1	1	1	1	-	-
BH08_0.4-0.5	JBS&G 2017	2017/08/04	557460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21
BH08_AQ_0.4-0.6	JBS&G 2017	2017/08/04	557530	-	-	-	-	618	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	-	-
BH09_0.2-0.3	JBS&G 2017	2017/08/04	557460	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
BH09_AQ_0.2-0.3	JBS&G 2017	2017/08/04	557530	-	-	-	-	594	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	-	-
EIS BH1 0.17-0.18	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH1 0.8-1.0	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH2 0.13-0.2	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH2 0.8-1.0	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH3 0.1-0.2	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH3 0.5-0.95	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH4 0.17-0.2	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EIS BH4 1.5-1.95	EIS 2015	2015/05/26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA20170804	JBS&G 2017	2017/08/04	557460	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
QC20170804	JBS&G 2017	2017/04/08	172940	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.5
Statistical Summary																										
Number of Results				10	2	2	2	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	2	20
Number of Detects				0	2	2	2	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	2	20
Minimum Concentration				<20	20	110	7.1	488	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	11	8.5
Minimum Detect				ND	20	110	7.1	488	ND	0.0002	ND	ND	ND	ND	0.0013	0.0013	0.0013	1	1	1	1	1	1	1	11	8.5
Maximum Concentration				<20	23	150	8.8	731	0	0.0002	0	0	0	0	0.0013	0.0013	0.0013	1	1	1	1	1	1	1	25	23
Maximum Detect				ND	23	150	8.8	731	ND	0.0002	ND	ND	ND	ND	0.0013	0.0013	0.0013	1	1	1	1	1	1	1	25	23
Average Concentration				10				605	0	0.00002	0	0	0	0	0.00013	0.00013	0.00013	1	1	1	1	1	1	1		18
Median Concentration				10	21.5	130	7.95	603.5	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	18	19
Standard Deviation				0				64	0	0.000063	0	0	0	0	0.00041	0.00041	0.00041	0	0	0	0	0	0	0		4.3
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
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

Table B: Groundwater Analytical Summary
Project Number: 52961
Project Name: Summer Hill Ambulance Station

					Metals & Metalloids							Chlorinated Alkanes																Chlorinated Alkenes										
					Arsenic (Total) (Filtered)	Cadmium (Filtered)	Chromium (Total) (Filtered)	Copper (Filtered)	Lead (Filtered)	Mercury (Inorganic) (Filtered)	Nickel (Filtered)	Zinc (Filtered)	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane	1,1-dichloroethene	1,1-dichloropropene	2-chlorotoluene	3-chloropropene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEPM 2013 GIL - Drinking Water					0.01	0.002		2	0.01	0.001	0.02									0.003					0.003				0.004		0.03			0.00	0.00	0.00	0.00	0.05				0.0003
NEPM 2013 GIL - Marine Waters						0.0007		0.0013	0.0044	0.0001	0.007	0.015				1.9																								
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Clay 2 to <4m																																								
NHMRC (2011) (as amended Feb 2016 Health) Factor 10 Applied to Recreational					0.1	0.02		20	0.1	0.01	0.2									0.03					0.03				0.04		0.3							0.5			0.2	0.003
WHO 2008 - Petroleum Products in Drinking Water																																								
Sample Name	**Location**	**WellCode**	**Sample Date**	**Lab Report**																																					
MW01		MW01	11/08/2017	558341	0.002	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.003	0.016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	0.02	<0.001	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW02		MW02	11/08/2017	558341	0.002	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.006	0.027	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	0.022	<0.001	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW03		MW03	11/08/2017	558341	0.003	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.004	0.017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	0.018	<0.001	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW04		MW04	11/08/2017	558341	0.005	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.004	0.026	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	0.024	<0.001	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW05		MW05	11/08/2017	558341	0.004	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.001	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	0.027	<0.001	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
QA20170811		MW05	11/08/2017	558341	0.004	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.001	0.008	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	0.021	<0.001	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
QC20170811		MW05	8/11/2017	173315	0.004	<0.0001	<0.001	<0.001	<0.001	<0.00005	0.001	0.008	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.01	<0.01	-	<0.01	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
Statistical Summary																																								
Number of Results					7	7	7	7	7	7	7	7	7	7	7	7	7	7	1	7	7	7	1	7	7	7	7	7	6	7	7	1	1	6	7	7	7	7	7	7	7
Number of Detects					7	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration					0.002	<0.0001	<0.001	<0.001	<0.001	<0.00005	0.001	0.008	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.018	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Minimum Detect					0.002	ND	ND	ND	ND	ND	0.001	0.008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration					0.005	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.006	0.027	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.01	<0.01	0.027	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
Maximum Detect					0.005	ND	ND	ND	ND	ND	0.006	0.027	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.027	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration					0.0034	0.000093	0.0005	0.0005	0.0005	0.000046	0.0029	0.016	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005		0.0005	0.0005	0.0005		0.0005	0.0005	0.0011	0.0011	0.0011	0.022	0.0011	0.0005			0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0011
Median Concentration					0.004	0.0001	0.0005	0.0005	0.0005	0.00005	0.003	0.016	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0215	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Standard Deviation					0.0011	0.000019	0	0	0	0.0000094	0.002	0.008	0	0	0	0	0	0		0	0	0		0	0	0.0017	0.0017	0.0017	0.0032	0.0017	0			0	0	0	0	0	0	0	0	0.0017
Number of Guideline Exceedances					0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	7
Number of Guideline Exceedances(Detects Only)					0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0

Table B: Groundwater Analytical Summary
Project Number: 52961
Project Name: Summer Hill Ambulance Station

	Trihalomethanes				TPHs (NEPC 1999)					TRHs (NEPC 2013)						BTEX					
	Bromodichloromethane	Chloroform	Dibromochloromethane	Tribromomethane	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Total)	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	>C10-C16 less Naphthalene (F2)	C6-C10 Fraction	C6-C10 less BTEX (F1)	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene (Total)
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.00	0.00	0.00	0.00	0.01	0.05	0.10	0.10	0.10	0.05	0.10	0.10	0.05	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00
NEPM 2013 GIL - Drinking Water	0.25	0.25	0.25	0.25												0.001	0.3	0.8			0.6
NEPM 2013 GIL - Marine Waters																0.5					
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Clay 2 to <4m													NL		NL	5	NL	NL			NL
NHMRC (2011) (as amended Feb 2016 Health) Factor 10 Applied to Recreational	2.5	2.5	2.5	2.5		0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9			0.01	3	8			6
WHO 2008 - Petroleum Products in Drinking Water						0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09			0.01	0.3	0.7	0.5		
Sample Name **Location** **WellCode** **Sample Date** **Lab Report**																					
MW01		MW01	11/08/2017	558341	<0.001	<0.005	<0.001	<0.001	<0.02	<0.05	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.05	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003
MW02		MW02	11/08/2017	558341	<0.001	<0.005	<0.001	<0.001	<0.02	<0.05	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.05	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003
MW03		MW03	11/08/2017	558341	<0.001	<0.005	<0.001	<0.001	<0.02	<0.05	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.05	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003
MW04		MW04	11/08/2017	558341	<0.001	<0.005	<0.001	<0.001	<0.02	<0.05	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.05	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003
MW05		MW05	11/08/2017	558341	<0.001	<0.005	<0.001	<0.001	<0.02	<0.05	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.05	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003
QA20170811		MW05	11/08/2017	558341	<0.001	<0.005	<0.001	<0.001	<0.02	<0.05	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.05	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003
QC20170811		MW05	8/11/2017	173315	<0.001	<0.001	<0.001	<0.001	<0.01	<0.05	<0.1	<0.1	-	<0.05	<0.1	<0.1	-	<0.01	-	<0.001	<0.001	<0.001	<0.001	<0.002	-
Statistical Summary																					
Number of Results	7	7	7	7	7	7	7	7	6	7	7	7	6	7	6	7	7	7	7	7	6
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	<0.001	<0.001	<0.001	<0.001	<0.01	<0.05	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.05	<0.01	<0.02	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003
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	<0.001	<0.005	<0.001	<0.001	<0.02	<0.05	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.05	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003
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	0.0005	0.0022	0.0005	0.0005	0.0093	0.025	0.05	0.05	0.05	0.025	0.05	0.05	0.025	0.0093	0.01	0.0005	0.0005	0.0005	0.0005	0.001	0.0015
Median Concentration	0.0005	0.0025	0.0005	0.0005	0.01	0.025	0.05	0.05	0.05	0.025	0.05	0.05	0.025	0.01	0.01	0.0005	0.0005	0.0005	0.0005	0.001	0.0015
Standard Deviation	0	0.00076	0	0	0.0019	0	0	0	0	0	0	0	0	0.0019	0	0	0	0	0	0	0
Number of Guideline Exceedances	0	0	0	0	0	0	7	7	6	0	7	7	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

Table B: Groundwater Analytical Summary
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					Polycyclic Aromatic Hydrocarbons																	Monocyclic Aromatic Hydrocarbons									
					Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (WHO)	Benzo(b,j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	Total Positive PAHs	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	4-isopropyl toluene	Bromobenzene	Isopropylbenzene	n-butyl benzene	n-propyl benzene	sec-butyl benzene	Styrene	Tert-butyl benzene
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL					0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00				0.00	
NEPM 2013 GIL - Drinking Water									0.00001																						0.03	
NEPM 2013 GIL - Marine Waters																			0.05													
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Clay 2 to <4m																			999999													
NHMRC (2011) (as amended Feb 2016 Health) Factor 10 Applied to Recreational									0.0001																						0.3	
WHO 2008 - Petroleum Products in Drinking Water									0.0007																							
Sample Name	**Location**	**WellCode**	**Sample Date**	**Lab Report**																													
MW01		MW01	11/08/2017	558341	<0.00005	<0.00005	<0.00005	<0.00005	<0.00001	-	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	-	<0.001	<0.001	-	<0.001	<0.001	-	-	-	<0.001	-
MW02		MW02	11/08/2017	558341	<0.00005	<0.00005	<0.00005	<0.00005	<0.00001	-	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	-	<0.001	<0.001	-	<0.001	<0.001	-	-	-	<0.001	-
MW03		MW03	11/08/2017	558341	<0.00005	<0.00005	<0.00005	<0.00005	<0.00001	-	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	-	<0.001	<0.001	-	<0.001	<0.001	-	-	-	<0.001	-
MW04		MW04	11/08/2017	558341	<0.00005	<0.00005	<0.00005	<0.00005	<0.00001	-	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	-	<0.001	<0.001	-	<0.001	<0.001	-	-	-	<0.001	-
MW05		MW05	11/08/2017	558341	<0.00005	<0.00005	<0.00005	<0.00005	<0.00001	-	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	-	<0.001	<0.001	-	<0.001	<0.001	-	-	-	<0.001	-
QA20170811		MW05	11/08/2017	558341	<0.00005	<0.00005	<0.00005	<0.00005	<0.00001	-	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	-	<0.001	<0.001	-	<0.001	<0.001	-	-	-	<0.001	-
QC20170811		MW05	8/11/2017	173315	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	-	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	-	0	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Statistical Summary																																	
Number of Results					7	7	7	7	7	1	6	7	6	7	7	7	7	7	7	7	7	6	1	7	7	1	7	7	1	1	1	7	1
Number of Detects					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	0	0	0	0
Minimum Concentration					<0.00005	<0.00005	<0.00005	<0.00005	<0.00001	<0.0005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
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
Maximum Concentration					<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.00005	0	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
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
Average Concentration					0.000029	0.000029	0.000029	0.000029	0.000011		0.000025	0.000029	0.000025	0.000029	0.000029	0.000029	0.000029	0.000029	0.000036	0.000029	0.000029	0.000025		0.0005	0.0005		0.0005	0.0005				0.0005	
Median Concentration					0.000025	0.000025	0.000025	0.000025	0.000005	0.00025	0.000025	0.000025	0.000025	0.000025	0.000025	0.000025	0.000025	0.000025	0.000025	0.000025	0.000025	0.000025	0	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Standard Deviation					0.0000094	0.0000094	0.0000094	0.0000094	0.000017		0	0.0000094	0	0.0000094	0.0000094	0.0000094	0.0000094	0.0000094	0.000028	0.0000094	0.0000094	0		0	0		0	0				0	
Number of Guideline Exceedances					0	0	0	0	1	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

Table B: Groundwater Analytical Summary
Project Number: 52961
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					Miscellaneous Hydrocarbons							Chlorinated Benzenes							Solvents		Polychlorinated Biphenyls							
					1,2-dibromoethane	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Bromomethane	Cyclohexane	Dibromomethane	Iodomethane	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene	2-Propanone (Acetone)	MTBE	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Total)
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL					0.00	0.00	0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEPM 2013 GIL - Drinking Water								0.001				0.03	0.03	1.5		0.04	0.3											
NEPM 2013 GIL - Marine Waters													0.02															
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Clay 2 to <4m																												
NHMRC (2011) (as amended Feb 2016 Health) Factor 10 Applied to Recreational					0.01			0.01						15		0.4	3											
WHO 2008 - Petroleum Products in Drinking Water																												
Sample Name	**Location**	**WellCode**	**Sample Date**	**Lab Report**																								
MW01		MW01	11/08/2017	558341	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.0001	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW02		MW02	11/08/2017	558341	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.0001	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW03		MW03	11/08/2017	558341	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.0001	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW04		MW04	11/08/2017	558341	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.0001	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW05		MW05	11/08/2017	558341	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.0001	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
QA20170811		MW05	11/08/2017	558341	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.0001	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
QC20170811		MW05	8/11/2017	173315	<0.001	-	-	<0.01	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0002	-	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	-
Statistical Summary																												
Number of Results					7	6	6	7	1	7	6	1	1	7	7	7	7	7	6	7	7	7	7	7	7	7	7	6
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
Minimum Concentration					<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0001	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
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
Maximum Concentration					<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0002	<1	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001
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
Average Concentration					0.0005	0.0005	0.0005	0.0011		0.0005	0.0005			0.0005	0.0005	0.0005	0.0005	0.000057	0.5	0.0005	0.00057	0.00057	0.00057	0.00057	0.00057	0.00057	0.00057	0.0005
Median Concentration					0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.00005	0.5	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Standard Deviation					0	0	0	0.0017		0	0			0	0	0	0	0.000019	0	0	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0
Number of Guideline Exceedances					0	0	0	1	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

Table B: Groundwater Analytical Summary
Project Number: 52961
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					Phenols																		Organic Sulfur Compounds
					2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2,6-dichlorophenol	2-chlorophenol	2-Methylphenol	2-nitrophenol	3- &4-Methylphenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Chloro-3-Methylphenol	4-nitrophenol	Phenol	Phenols (Total)	Total Halogenated Phenol	Total Non-Halogenated Phenol	Total Tetrachlorophenols	Carbon disulfide
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL					0.01	0.01	0.00	0.00	0.03	0.00	0.00	0.00	0.01	0.01	0.03	0.10	0.01	0.03	0.00		0.01	0.10	0.03	0.00
NEPM 2013 GIL - Drinking Water						0.02	0.2				0.3													
NEPM 2013 GIL - Marine Waters																			0.4					
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Clay 2 to <4m																								
NHMRC (2011) (as amended Feb 2016 Health) Factor 10 Applied to Recreational						0.2	2				3													
WHO 2008 - Petroleum Products in Drinking Water																								
Sample Name	**Location**	**WellCode**	**Sample Date**	**Lab Report**																				
MW01		MW01	11/08/2017	558341	<0.01	<0.01	<0.003	<0.003	<0.03	<0.003	<0.003	<0.003	<0.01	<0.006	<0.03	<0.1	<0.01	<0.03	<0.003	-	<0.01	<0.1	<0.03	<0.001
MW02		MW02	11/08/2017	558341	<0.01	<0.01	<0.003	<0.003	<0.03	<0.003	<0.003	<0.003	<0.01	<0.006	<0.03	<0.1	<0.01	<0.03	<0.003	-	<0.01	<0.1	<0.03	<0.001
MW03		MW03	11/08/2017	558341	<0.01	<0.01	<0.003	<0.003	<0.03	<0.003	<0.003	<0.003	<0.01	<0.006	<0.03	<0.1	<0.01	<0.03	<0.003	-	<0.01	<0.1	<0.03	<0.001
MW04		MW04	11/08/2017	558341	<0.01	<0.01	<0.003	<0.003	<0.03	<0.003	<0.003	<0.003	<0.01	<0.006	<0.03	<0.1	<0.01	<0.03	<0.003	-	<0.01	<0.1	<0.03	<0.001
MW05		MW05	11/08/2017	558341	<0.01	<0.01	<0.003	<0.003	<0.03	<0.003	<0.003	<0.003	<0.01	<0.006	<0.03	<0.1	<0.01	<0.03	<0.003	-	<0.01	<0.1	<0.03	<0.001
QA20170811		MW05	11/08/2017	558341	<0.01	<0.01	<0.003	<0.003	<0.03	<0.003	<0.003	<0.003	<0.01	<0.006	<0.03	<0.1	<0.01	<0.03	<0.003	-	<0.01	<0.1	<0.03	<0.001
QC20170811		MW05	8/11/2017	173315	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-
Statistical Summary																								
Number of Results					6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	1	6	6	6	6
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					<0.01	<0.01	<0.003	<0.003	<0.03	<0.003	<0.003	<0.003	<0.01	<0.006	<0.03	<0.1	<0.01	<0.03	<0.003	<0.05	<0.01	<0.1	<0.03	<0.001
Minimum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration					<0.01	<0.01	<0.003	<0.003	<0.03	<0.003	<0.003	<0.003	<0.01	<0.006	<0.03	<0.1	<0.01	<0.03	<0.003	<0.05	<0.01	<0.1	<0.03	<0.001
Maximum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration					0.005	0.005	0.0015	0.0015	0.015	0.0015	0.0015	0.0015	0.005	0.003	0.015	0.05	0.005	0.015	0.0015		0.005	0.05	0.015	0.0005
Median Concentration					0.005	0.005	0.0015	0.0015	0.015	0.0015	0.0015	0.0015	0.005	0.003	0.015	0.05	0.005	0.015	0.0015	0.025	0.005	0.05	0.015	0.0005
Standard Deviation					0	0	0	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
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

Table B: Groundwater Analytical Summary
Project Number: 52961
Project Name: Summer Hill Ambulance Station

				Organochlorine Pesticides																									Herbicides	EPA VIC - IWRG621
				4,4-DDE	Aldrin	Aldrin + Dieldrin (Sum of Total)	alpha-BHC	alpha-Chlordane	beta-BHC	Dieldrin	DDD	DDT	DDT+DDE+DDD (Sum of Total)	Chlordane	delta-BHC	Endosulfan alpha	Endosulfan beta	gamma-Chlordane	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Lindane	Methoxychlor	Pentachlorophenol	Toxaphene	Dinoseb	Chlorinated Hydrocarbons EPAVic
				µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L
EQL				0.10	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.10	5.00
NEPM 2013 GIL - Drinking Water						0.0003						0.009		0.002										0.0003	0.01		0.01			
NEPM 2013 GIL - Marine Waters																				0.000004							0.011			
NEPM 2013 Groundwater HSL A & HSL B for Vapour Intrusion - Clay 2 to <4m																														
NHMRC (2011) (as amended Feb 2016 Health) Factor 10 Applied to Recreational						0.003						0.09		0.02									0.003		0.1	3	0.1			
WHO 2008 - Petroleum Products in Drinking Water																														
Sample Name	**Location**	**WellCode**	**Sample Date**	**Lab Report**																										
MW01		MW01	11/08/2017	558341	<0.1	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.01	<0.01	<0.1	20
MW02		MW02	11/08/2017	558341	<0.1	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.01	<0.01	<0.1	22
MW03		MW03	11/08/2017	558341	<0.1	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.01	<0.01	<0.1	18
MW04		MW04	11/08/2017	558341	<0.1	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.01	<0.01	<0.1	24
MW05		MW05	11/08/2017	558341	<0.1	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.01	<0.01	<0.1	27
QA20170811		MW05	11/08/2017	558341	<0.1	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.01	<0.01	<0.1	21
QC20170811		MW05	8/11/2017	173315	<0.2	<0.0002	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.0002	<0.0002	<0.0002	-	-	-	-
Statistical Summary																														
Number of Results				7	7	6	7	1	7	7	7	7	6	6	7	7	7	1	7	7	7	6	7	7	7	7	6	6	6	6
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	6
Minimum Concentration				<0.1	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.01	<0.01	<0.1	18
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	18
Maximum Concentration				<0.2	<0.0002	<0.0001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0001	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.01	<0.01	<0.1	27
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	27
Average Concentration				0.057	0.000057	0.00005	0.000057		0.000057	0.000057	0.000057	0.000057	0.00005	0.0005	0.000057	0.000057	0.000057		0.000057	0.000057	0.000057	0.00005	0.000057	0.000057	0.000057	0.000057	0.005	0.005	0.05	22
Median Concentration				0.05	0.00005	0.00005	0.00005	0.0001	0.00005	0.00005	0.00005	0.00005	0.00005	0.0005	0.00005	0.00005	0.00005	0.0001	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.005	0.005	0.05	21.5
Standard Deviation				0.019	0.000019	0	0.000019		0.000019	0.000019	0.000019	0.000019	0	0	0.000019	0.000019	0.000019		0.000019	0.000019	0.000019	0	0.000019	0.000019	0.000019	0.000019	0	0	0	3.2
Number of Guideline Exceedances				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	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

Table C: Groundwater Gauging and Quality Paramaters
Project Number: 52961
Project Name: 74-75 Carlton Crescent, Summer Hill NSW

Well ID	Date Measured	TOC	Depth to Water	Standing Water Level	Dissolved Oxygen	Electrical Conductivity	TDS	Redox Potential	pH	Temperature	Comments				
		m AHD	m BTOC	m AHD	(ppm)	(dS/cm)	(ppm)	(mV)		(oC)	Odour	Colour	Turbidity	Sheen	Other
MW01	2017/08/10	19.74	3.345	16.395	0.24	1.54	0.92	57	5.99	19.6	None observed	Brown	Low	None observed	-
MW02	2017/08/10	19.90	2.824	17.076	0.19	1.75	1.05	49	5.90	20.9	None observed	Brown	Low	Minor sheen observed	-
MW03	2017/08/10	20.41	2.575	17.835	0.15	1.56	0.94	67	5.77	20.4	None observed	Brown	Moderate	Minor sheen observed	-
MW04	2017/08/10	20.48	2.807	17.673	0.19	1.69	1.01	53	5.88	21.3	None observed	Brown	Moderate	None observed	-
MW05	2017/08/10	22.29	2.269	20.017	0.4	0.61	0.37	111	5.13	20.5	None observed	Grey	Low	None observed	QA20170811/ QC20170811 collected QC01/QC01A

Notes:
ID = identification
mg/L = milligrams per litre
L = litres
uS/cm = microsiemen per centimetre
mV = millivolts
^{o}C = degrees Celsius
TDS = based on 0.6 conversion factor from electrical conductivity

Table D: Soil Vapour Analytical Summary
Project Number: 52961
Project Name: Summer Hill Ambulance Station

		Organic Alcohols	Chlorinated Alkanes														Chlorinated Alkenes									
		Isopropyl alcohol	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Carbon tetrachloride	Trichlorofluoromethane	1,1-dichloroethene	1,1-dichloropropene	2-chlorotoluene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride
		mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3
EQL		10.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
NEPM 2013 HIL Commercial/Industrial D Indoor Air (Attenuation Factor 0.1)				23																	0.03		0.8		0.008	0.01
NEPM 2013 HIL Commercial/Industrial D Soil Vapour				230																	0.3		8		0.08	0.1
NEPM 2013 HIL Residential B Indoor Air (Attenuation Factor 0.1)				6																	0.008		0.2		0.002	0.003
NEPM 2013 HIL Residential B Soil Vapour				60																	0.08		2		0.02	0.03
NEPM 2013 Soil Vapour HSL A & HSL B - Clay 0 to <1m																										
NEPM 2013 Soil Vapour HSL D - Clay 0 to <1m																										
Sample Name	**Sample Date**	**Monitoring Round**	**Lab Report**																							
QC_110817SV_BACK	2017/08/11	JBS&G 2017	558483	<1.6	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
QC_110817SV_FRONT	2017/08/11	JBS&G 2017	558483	<1.6	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
SV01_BACK	2017/08/11	JBS&G 2017	558483	<1.6	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
SV01_FRONT	2017/08/11	JBS&G 2017	558483	<1.6	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
SV02_BACK	2017/08/11	JBS&G 2017	558483	<1.6	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
SV02_FRONT	2017/08/11	JBS&G 2017	558483	<1.6	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
SV03_BACK	2017/08/11	JBS&G 2017	558483	<1.6	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
SV03_FRONT	2017/08/11	JBS&G 2017	558483	<1.6	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
SV04_BACK	2017/08/11	JBS&G 2017	558483	<1.6	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
SV04_FRONT	2017/08/11	JBS&G 2017	558483	<1.6	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
SV05_BACK	2017/08/11	JBS&G 2017	558483	<1.6	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
SV05_FRONT	2017/08/11	JBS&G 2017	558483	<1.6	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
SV06_BACK	2017/08/11	JBS&G 2017	558483	<1.6	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
SV06_FRONT	2017/08/11	JBS&G 2017	558483	<1.6	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Statistical Summary																										
Number of Results		14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
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
Minimum Concentration		<1.6	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
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
Maximum Concentration		<1.6	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
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
Average Concentration		0.8	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Median Concentration		0.8	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Standard Deviation		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	14	0	0	0	14	14
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

Table D: Soil Vapour Analytical Summary
Project Number: 52961
Project Name: Summer Hill Ambulance Station

	Trihalomethanes				TRHs (NEPC 2013		BTEX				PAHs	Monocyclic Aromatic Hydrocarbons									aneous Hydroc		Chlorinated Benzenes						Misce
	Bromodichloromethane	Chloroform	Dibromochloromethane	Tribromomethane	>C10-C16 Fraction	C6-C10 Fraction	Benzene	Ethylbenzene	Toluene	Xylene (Total)	Naphthalene	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	4-isopropyl toluene	Isopropylbenzene	n-butyl benzene	n-propyl benzene	sec-butyl benzene	Styrene	Tert-butyl benzene	1,2-dibromoethane	Dibromomethane	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobutadiene
	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3
EQL	0.50	0.50	0.50	0.50	10.00	10.00	0.50	0.50	0.50	1.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	5.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
NEPM 2013 HIL Commercial/Industrial D Indoor Air (Attenuation Factor 0.1)																													
NEPM 2013 HIL Commercial/Industrial D Soil Vapour																													
NEPM 2013 HIL Residential B Indoor Air (Attenuation Factor 0.1)																													
NEPM 2013 HIL Residential B Soil Vapour																													
NEPM 2013 Soil Vapour HSL A & HSL B - Clay 0 to <1m							1	420	1600	280	1																		
NEPM 2013 Soil Vapour HSL D - Clay 0 to <1m							5	1800	6500	1200	4																		

Sample Name	Sample Date	Monitoring Round	Lab Report																											
QC_110817SV_BACK	2017/08/11	JBS&G 2017	558483	<0.08	<0.08	<0.08	<0.08	<1.6	<1.6	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.8	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.5
QC_110817SV_FRONT	2017/08/11	JBS&G 2017	558483	<0.08	<0.08	<0.08	<0.08	<1.6	<1.6	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.8	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.5
SV01_BACK	2017/08/11	JBS&G 2017	558483	<0.08	<0.08	<0.08	<0.08	<1.6	<1.6	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.8	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.5
SV01_FRONT	2017/08/11	JBS&G 2017	558483	<0.08	<0.08	<0.08	<0.08	<1.6	<1.6	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.8	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.5
SV02_BACK	2017/08/11	JBS&G 2017	558483	<0.08	<0.08	<0.08	<0.08	<1.6	<1.6	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.8	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.5
SV02_FRONT	2017/08/11	JBS&G 2017	558483	<0.08	<0.08	<0.08	<0.08	<1.6	<1.6	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.8	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.5
SV03_BACK	2017/08/11	JBS&G 2017	558483	<0.08	<0.08	<0.08	<0.08	<1.6	<1.6	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.8	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.5
SV03_FRONT	2017/08/11	JBS&G 2017	558483	<0.08	<0.08	<0.08	<0.08	<1.6	<1.6	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.8	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.5
SV04_BACK	2017/08/11	JBS&G 2017	558483	<0.08	<0.08	<0.08	<0.08	<1.6	<1.6	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.8	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.5
SV04_FRONT	2017/08/11	JBS&G 2017	558483	<0.08	<0.08	<0.08	<0.08	<1.6	<1.6	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.8	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.5
SV05_BACK	2017/08/11	JBS&G 2017	558483	<0.08	<0.08	<0.08	<0.08	<1.6	<1.6	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.8	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.5
SV05_FRONT	2017/08/11	JBS&G 2017	558483	<0.08	<0.08	<0.08	<0.08	<1.6	<1.6	<0.08	<0.08	<0.08	<0.24	<0.8	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.8	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.5
SV06_BACK	2017/08/11	JBS&G 2017	558483	<0.08	<0.08	<0.08	<0.08	<1.6	<1.6	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.8	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.5
SV06_FRONT	2017/08/11	JBS&G 2017	558483	<0.08	<0.08	<0.08	<0.08	<1.6	<1.6	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.8	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.5

Statistical Summary

Number of Results	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
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	<0.08	<0.08	<0.08	<0.08	<1.6	<1.6	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.8	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.5
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
Maximum Concentration	<0.08	<0.08	<0.08	<0.08	<1.6	<1.6	<0.08	<0.08	<0.08	<0.24	<0.8	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.8	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<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	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration	0.04	0.04	0.04	0.04	0.8	0.8	0.04	0.04	0.04	0.12	0.066	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.4	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.25
Median Concentration	0.04	0.04	0.04	0.04	0.8	0.8	0.04	0.04	0.04	0.12	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.4	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.25
Standard Deviation	0	0	0	0	0	0	0	0	0	0	0.096	0	0	0	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
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

Table E: Soil Vapour Field Measurements
Project Number: 52961
Project Name: Summer Hill Ambulance Station ESA

Well ID	Date	Time	Physcial Parameters			Flow Rate and Run Times					Observations
			O2 %	LEL %	PID	Flow Rate	Pump On	Pump Off	Run Time	Sample Volume	Comments
SV01	11/8/2017	0952	20.6	0	0	50ml/minute	1007	1207	120 minutes	6L	No odour. Concrete 150 - 200 mm thick. QC (duplicate) sample collected.
		0953	20.5	0	0						
		0954	20.5	0	0						
		0955	20.5	0	0						
		0956	20.5	0	0						
SV02	11/82017	1028	20.6	0	0	50ml/minute	1040	1240	120 minutes	6L	No odour. Concrete 150 - 200 mm thick
		1029	20.5	0	0						
		1030	20.6	0	0						
		1031	20.4	0	0						
		1032	20.4	0	0						
		1033	20.5	0	0						
		1034	20.5	0	0						
		1035	20.5	0	0						
SV03	11/82017	1225	20.9	0	0	50ml/minute	1234	1434	120 minutes	6L	No odour. Concrete 150 - 200 mm thick
		1226	18.1	0	0						
		1227	17.1	0	0						
		1228	16.8	0	0.4						
		1229	16.6	0	0.4						
		1230	16.6	0	0.4						
SV04	11/82017	1242	20.9	0	0	50ml/minute	1253	1453	120 minutes	6L	No odour. Concrete 150 - 200 mm thick
		1243	20.8	0	0.4						
		1244	20.7	0	0.8						
		1245	20.8	0	0.9						
		1246	20.8	0	0.9						
		1247	20.8	0	1						
SV05	11/82017	1259	20.8	0	0.4	50ml/minute	1306	1506	120 minutes	6L	No odour. Concrete 150 - 200 mm thick
		1300	20.7	0	0.7						
		1301	20.7	0	0.9						
		1302	20.7	0	1						
		1303	20.7	0	1						
		1304	20.7	0	1						
SV06	11/82017	1346	19	0	0.4	100ml/minute	1413	1513	60 minutes	6L	No odour. Concrete 150 - 200 mm thick
		1347	18.5	0	0.6						
		1348	18.3	0	0.7						
		1349	18.3	0	0.8						
		1350	18.2	0	0.8						
		1351	18.2	0	0.8						

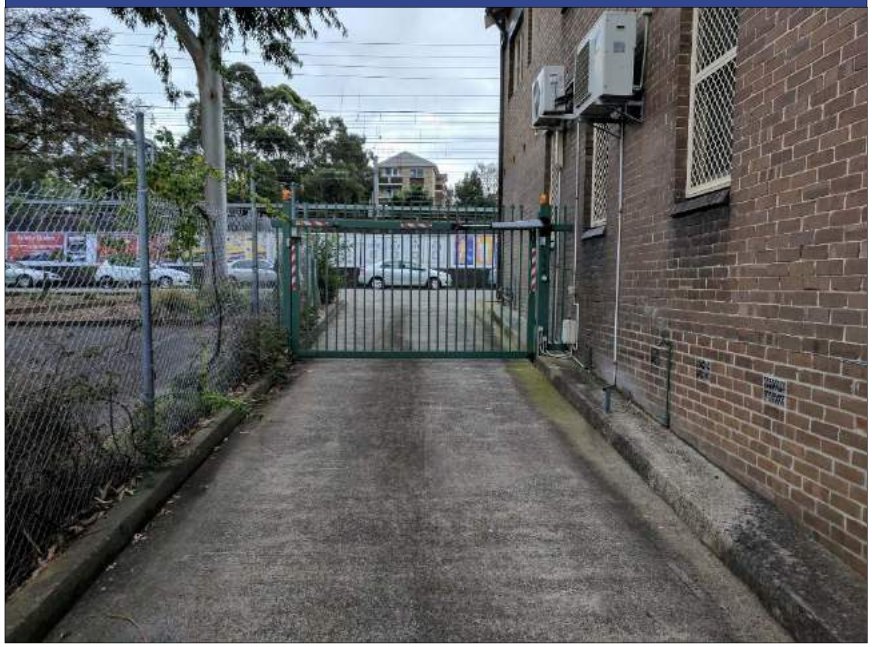
Appendix B Photographic Log

PHOTOGRAPH 1: NORTHERN FAÇADE, FROM CARLTON CRESCENT

PHOTOGRAPH 2: NORTHERN FAÇADE, FROM CARLTON CRESCENT

PHOTOGRAPH 3: SOUTH (REAR) OF SITE, FACING EAST

PHOTOGRAPH 4: WESTERN DRIVEWAY, FACING NORTH



JBS&G

Job No: 52961

Client: Health Infrastructure

Version: Rev 0	Date: 05/10/2017
Drawn By: MH	Checked By: MH

Not to Scale

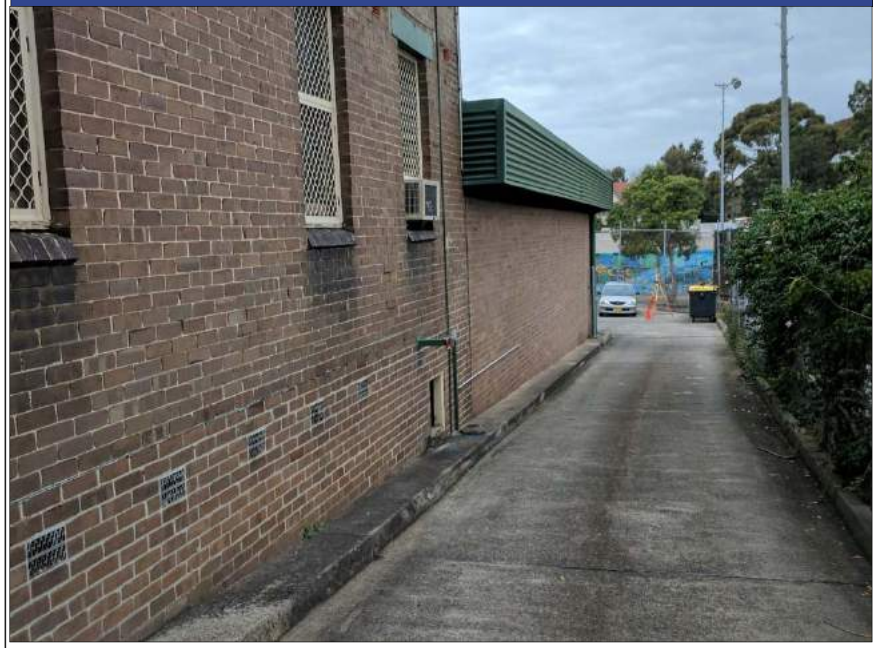
Coord. Sys n/a

Summer Hill Ambulance Station, Summer Hill, NSW

PHOTOGRAPHIC LOG

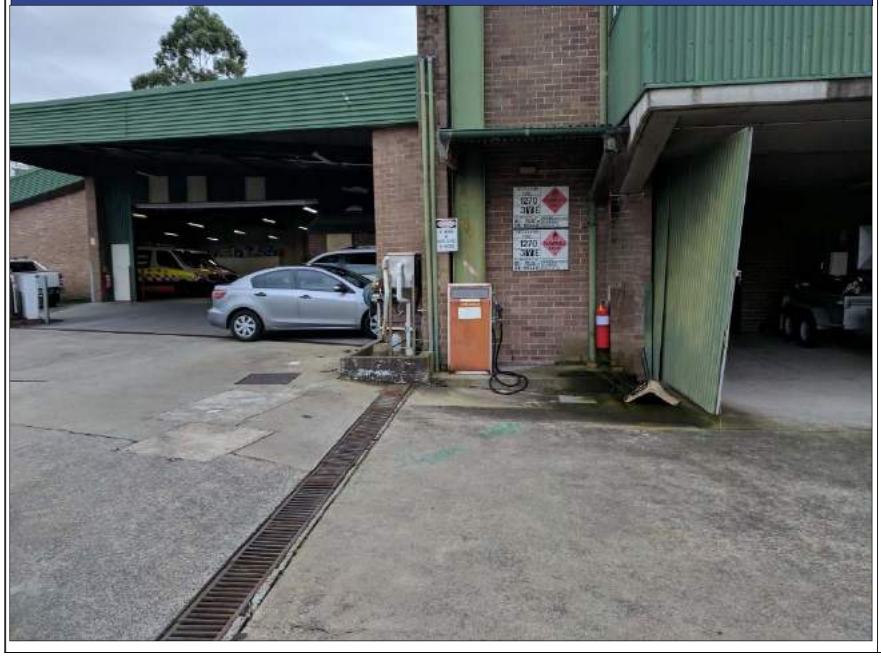
APPENDIX B

PHOTOGRAPH 5: WESTERN DRIVEWAY, FACING SOUTH



PHOTOGRAPH 6: BOWSER 1 (DIESEL)

PHOTOGRAPH 7: BOWSER 2 (UNLEADED PETROL)



PHOTOGRAPH 8: DANGEROUS GOODS STORE

JBS&G

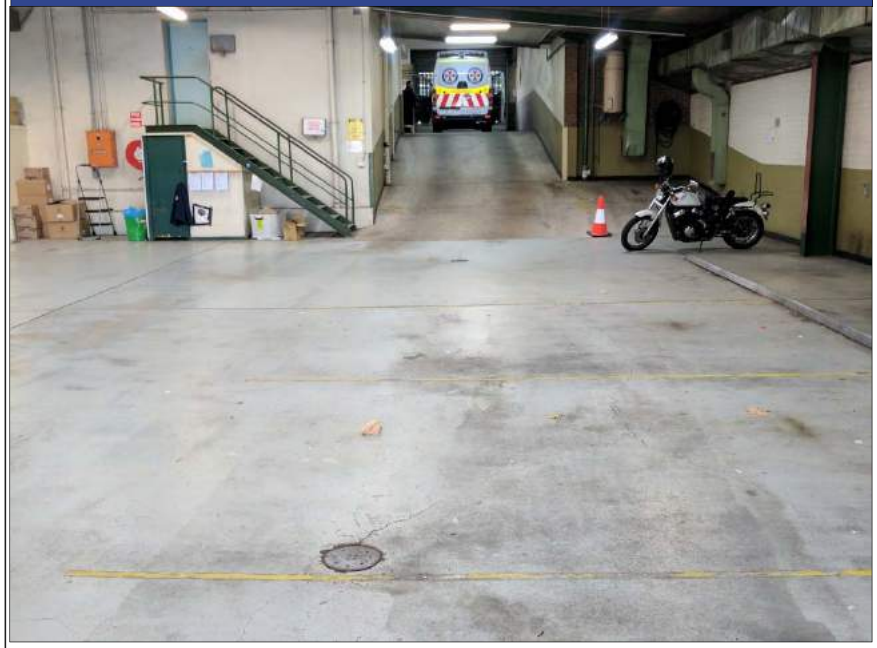
Job No: 52961	
Client: Health Infrastructure	
Version: Rev 0	Date: 05/10/2017
Drawn By: MH	Checked By: MH
Not to Scale	
Coord. Sys n/a	

Summer Hill Ambulance Station, Summer Hill, NSW

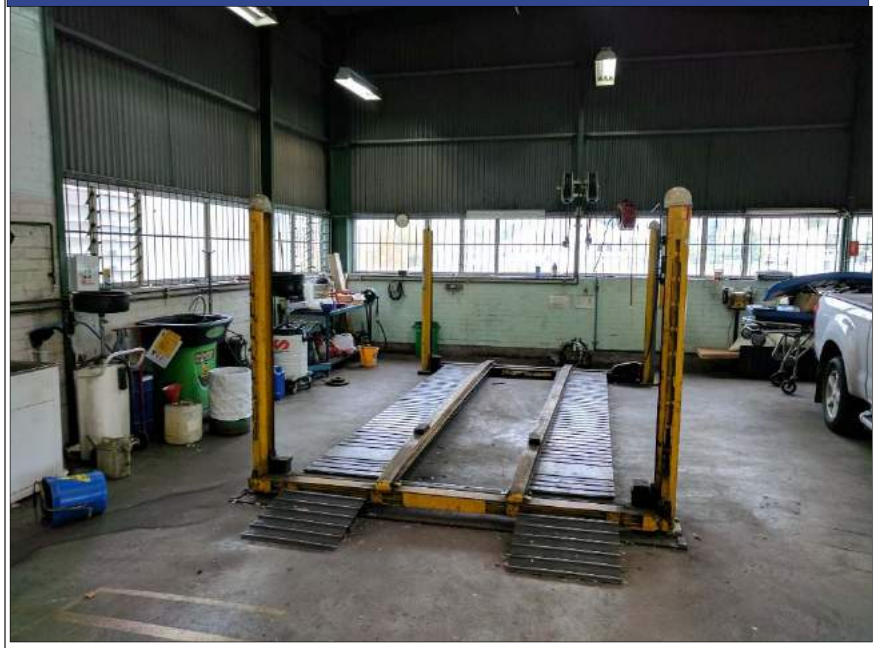
PHOTOGRAPHIC LOG

APPENDIX B

PHOTOGRAPH 9: INTERIOR



PHOTOGRAPH 10: INTERIOR



PHOTOGRAPH 11: INTERIOR

PHOTOGRAPH 12: INTERIOR

JBS&G

Job No: 52961

Client: Health Infrastructure

Version: Rev 0 | Date: 05/10/2017

Drawn By: MH | Checked By: MH

Not to Scale

Coord. Sys n/a

Summer Hill Ambulance Station, Summer Hill, NSW

PHOTOGRAPHIC LOG

APPENDIX B

Appendix C Borelogs

BH01/MW01

Project Number: 52961
Client: Health Infrastructure
Project Name: Summer Hill - ESA
Site Address: Hardie Ave, Summer Hill, NSW

Date: 3/8/2017
Logged By: N.Wells
Contractor: Terratest
Total Hole Depth (mbgs): 7
Bore Diameter (mm): 150

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area:
Reference Level: Ground Surface
Elevation (m):

Water Level Initial (mbgs): 5
Surface Finish: Roadbox
Casing / Screen Type: Class 18 PVC - 50mm
Casing Bottom Depth (mbgs): 4
Screen Bottom Depth (mbgs): 7

Method	Water (mbgs)	Well Details	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
PT						Fill	Fill - CONCRETE		
				0.13		Fill	Fill - SAND - pale brown, heterogeneous, medium grained with inclusions of gravel	BH01 0.1-0.2 PID = 5 ppm	No staining, odour, or ACM observed
				0.30		Fill	Fill - Sandy SILT - dark brown, heterogeneous, low plasticity, soft, fine grained, with inclusions of clays and gravels	BH01 0.4-0.5 PID = 6.7 ppm	No staining, odour, or ACM observed
			1	0.80		CH	CLAY - pale brown/grey, homogeneous, high pasticity, firm, damp, with trace inclusions of gravels, hydrocarbon odour	BH01 0.9-1.0 PID = 19.2 ppm	Minor grey staining, hydrocarbon odour detected, no ACM observed
				1.40		CH	CLAY - pale brown mottled red, homogeneous, high plasticity, firm, damp, with trace inclusions of ironstone, no odour	BH01 1.4-1.5 PID = 0 ppm	No staining, odour, or ACM observed
			2					BH01 1.9-2.0 PID = 0 ppm	No staining, odour, or ACM observed
				2.10		SHALE	SHALE - red brown, weathered, no odour	BH01 2.3-2.4 PID = 0 ppm	No staining, odour, or ACM observed
				2.50		CH	CLAY - grey, homogeneous, high plasticity, very stiff		
			3					BH01 2.9-3.0 PID = 0 ppm	No staining, odour, or ACM observed
				3.00		SHALE	SHALE - grey-red brown, weathered, wet at 5.0m bgs		
			4					BH01 3.4-4.0 PID = 0 ppm	No staining, odour, or ACM observed
SFA	▼		5					BH01 4.7-4.8 PID = 0 ppm	No staining, odour, or ACM observed
									Initial water intercepted at 5.0m bgs
			6					BH01 5.4-6.0 PID = 0 ppm	No staining, odour, or ACM observed
			7						
				7.00			Borehole BH01/MW01 terminated at 7m		End of Hole at 7.0m bgs in natural shale
			8						
			9						
			10						

WELL JBSG WELL.GPJ GINT STD AUSTRALIA.GDT 8/28/17

BH02/MW02

Project Number: 52961
Client: Health Infrastructure
Project Name: Summer Hill - ESA
Site Address: Hardie Ave, Summer Hill, NSW

Date: 3/8/2017
Logged By: N.Wells
Contractor: Terratest
Total Hole Depth (mbgs): 7
Bore Diameter (mm): 150

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area:
Reference Level: Ground Surface
Elevation (m):

Water Level Initial (mbgs): 4.7
Surface Finish: Roadbox
Casing / Screen Type: Class 18 PVC - 50mm
Casing Bottom Depth (mbgs): 4
Screen Bottom Depth (mbgs): 7

Method	Depth (mbgs)	Contact (mbgs)	Lithological Class	Lithological Description	Samples / Tests / Remarks	Additional Observations
PT C			Fill	Fill - CONCRETE		
		0.15	Fill	Fill - Gravelly SAND - brown, heterogeneous, medium grained, medium dense, damp, with inclusions of clay and sub-angular to angular gravels	BH02 0.15-0.25 PID = 0 ppm	No staining, odour, or ACM observed
		0.30	Fill	Fill - Sandy CLAY - brown, heterogeneous, medium plasticity, firm, with inclusions of gravels	BH02 0.4-0.5 PID = 0.1 ppm	No staining, odour, or ACM observed
		0.60	Fill	Fill - ASH - ash layer	BH02 0.6-0.7 PID = 0.1 ppm	No staining, odour, or ACM observed
		0.70	Fill	Fill - Silty CLAY - dark brown, heterogeneous, medium plasiticity, firm, damp, with trace inclusions of gravels	BH02 0.8-0.9 PID = 0 ppm	No staining, odour, or ACM observed
	1	0.90	CH	CLAY - pale brown/brown, homogeneous, high plasticity, becoming mottled pale brown at 1.5m bgs, with inclusions of ironstone at 2.5m bgs	BH02 0.9-1.0 PID = 0 ppm	No staining, odour, or ACM observed
					BH02 1.4-1.5 PID = 0 ppm	No staining, odour, or ACM observed
	2				BH02 1.9-2.0 PID = 0 ppm	No staining, odour, or ACM observed
					BH02 2.4-2.5 PID = 0 ppm	No staining, odour, or ACM observed
	3	2.90	SHALE	SHALE - red brown, weathered	BH02 2.9-3.0 PID = 0 ppm	No staining, odour, or ACM observed
		3.00	CH	CLAY - grey mottled red, homogeneous, medium-high plasticity, sitff, damp with shale at 3.9-4.0m bgs		
	4				BH02 3.9-4.0 PID = 0 ppm	No staining, odour, or ACM observed
SFA	5	4.80	SHALE	SHALE - grey, weathered, damp/moist at 5.0m bgs	BH02 4.9-5.0 PID = 0 ppm	No staining, odour, or ACM observed Initial water intercepted at 5.0m bgs
	6				BH02 5.9-6.0	No staining, odour, or ACM observed
	7	7.00		Borehole BH02/MW02 terminated at 7m		End of Hole at 7.0m bgs in natural shale
	8					
	9					
	10					

BH03/MW03

Project Number: 52961
Client: Health Infrastructure
Project Name: Summer Hill - ESA
Site Address: Hardie Ave, Summer Hill, NSW

Date: 3/8/2017
Logged By: N.Wells
Contractor: Terratest
Total Hole Depth (mbgs): 7
Bore Diameter (mm): 150

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area:
Reference Level: Ground Surface
Elevation (m):

Water Level Initial (mbgs): 5
Surface Finish: Roadbox
Casing / Screen Type: Class 18 PVC - 50mm
Casing Bottom Depth (mbgs): 4
Screen Bottom Depth (mbgs): 7

Method	Water (mbgs)	Well Details	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
PT						Fill	Fill - CONCRETE		
				0.13		Fill	Fill - Gravelly SAND - brown, heterogeneous, fine-medium grained, medium dense, damp, with inclusions of angular to sub-angular gravels	BH03 0.15-0.25 PID = 0.4 ppm	No staining, odour, or ACM observed
				0.30		Fill		BH03 0.4-0.5 PID = 0.8 ppm	No staining, odour, or ACM observed
				0.50		Fill	Fill - CLAY - pale brown, high plasticity, firm, damp, with inclusions of sandstone gravels	BH03 0.6-0.7 PID = 0.4 ppm	No staining, odour, or ACM observed
			1	0.80		CH	Fill - Silty CLAY - brown, heterogeneous, medium plasticity, firm, with inclusions of gravels and trace inclusions of ash	BH03 0.9-1.0 PID = 0.6 ppm	No staining, odour, or ACM observed
							CLAY - pale brown, homogeneous, high plasticity, moist, with inclusions of ironstone at 1.4-1.0m bgs and ironstone lense at 2.4-2.5m bgs, wet at 3.4m bgs	BH03 1.4-1.5 PID = 0 ppm	No staining, odour, or ACM observed
			2					BH03 1.9-2.0 PID = 0 ppm	No staining, odour, or ACM observed
								BH03 2.4-2.5 PID = 0 ppm	No staining, odour, or ACM observed
			3					BH03 2.9-3.0 PID = 0 ppm	No staining, odour, or ACM observed
									Initial water intercepted at 3.4m bgs
				3.50		SHALE	SHALE - clayey shale, grey, weathered, with inclusions of ironstone		
			4	3.90		SHALE	SHALE - grey, weathered, wet at 4.7m bgs	BH03 3.9-4.0 PID = 0 ppm	No staining, odour, or ACM observed
SFA	▼		5					BH03 4.8-4.9 PID = 0 ppm	Saturated Auger at 4.7m bgs
			6						
			7						
				7.00			Borehole BH03/MW03 terminated at 7m		End of Hole at 7.0m bgs in natural shale
			8						
			9						
			10						

WELL_JBSG WELL.GPJ GINT STD AUSTRALIA.GDT 8/28/17

BH04/MW04

Project Number: 52961
Client: Health Infrastructure
Project Name: Summer Hill - ESA
Site Address: Hardie Ave, Summer Hill, NSW

Date: 3/8/2017
Logged By: N.Wells
Contractor: Terratest
Total Hole Depth (mbgs): 7
Bore Diameter (mm): 150

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area:
Reference Level: Ground Surface
Elevation (m):

Water Level Initial (mbgs): 5
Surface Finish: Roadbox
Casing / Screen Type: Class 18 PVC - 50mm
Casing Bottom Depth (mbgs): 4
Screen Bottom Depth (mbgs): 7

Method	Water (mbgs)	Well Details	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
C						Fill	Fill - CONCRETE		
PT				0.15		SG	Fill - Gravelly SAND - brown, heterogeneous, medium grained, medium dense, damp, with inclusions of clay	BH04 0.15-0.25 PID = 0.3 ppm	QC1/QA1, No staining, odour, or ACM observed
				0.30		Fill	Fill - CLAY - brown, heterogeneous, high plasticity, firm, damp, with inclusions of sandstone gravels and angular to sub-angular gravels	BH04 0.4-0.5 PID = 0 ppm	No staining, odour, or ACM observed
			1					BH04 0.9-1.0 PID = 0 ppm	No staining, odour, or ACM observed
				1.40		CH	CLAY - pale brown, homogeneous, high plasticity, sitff, dry, becoming grey at 2.0m bgs, with inclusions of ironstone at 2.2m bgs	BH04 1.4-1.5 PID = 0 ppm	No staining, odour, or ACM observed
			2					BH04 1.9-2.0 PID = 0 ppm	No staining, odour, or ACM observed
								BH04 2.4-2.5 PID = 0 ppm	No staining, odour, or ACM observed
			3					BH04 2.9-3.0 PID = 0 ppm	No staining, odour, or ACM observed
				3.00		SHALE	SHALE - grey, weathered with inclusions of ironstone, becoming wet grey, damp at 5.0m bgs - saturated		
			4					BH04 3.9-4.0 PID = 0 ppm	No staining, odour, or ACM observed
SFA	▼		5					BH04 4.9-5.0 PID = 0 ppm	No staining, odour, or ACM observed Initial Water Intercepted at 5.0m bgs
								BH04 5.4-6.0	
			6						No staining, odour, or ACM observed
			7						
				7.00			Borehole BH04/MW04 terminated at 7m		End of Hole at 7.0m bgs at target depth
			8						
			9						
			10						

BH05/MW05

Project Number: 52961
Client: Health Infrastructure
Project Name: Summer Hill - ESA
Site Address: Hardie Ave, Summer Hill, NSW

Date: 3/8/2017
Logged By: N.Wells
Contractor: Terratest
Total Hole Depth (mbgs): 7
Bore Diameter (mm): 150

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area:
Reference Level: Ground Surface
Elevation (m):

Water Level Initial (mbgs): 5
Surface Finish: Roadbox
Casing / Screen Type: Class 18 PVC - 50mm
Casing Bottom Depth (mbgs): 4
Screen Bottom Depth (mbgs): 7

Method	Depth (mbgs)	Contact (mbgs)	Lithological Class	Lithological Description	Samples / Tests / Remarks	Additional Observations
C			Fill	Fill - CONCRETE		
PT		0.25	Fill	Fill - Gravelly SAND - brown, heterogeneous, fine-medium grained, plastic with clay, damp, with inclusions of brick tiles	BH05 0.25-0.35 PID = 0.5 ppm	No staining, odour, or ACM observed
		0.40	Fill	Fill - Sandy SILT - brown, heterogeneous, fine grained, non-plastic, soft, dry, with inclusions of gravels	BH05 0.4-0.5 PID = 1.1 ppm	No staining, odour, or ACM observed
	1	0.80	CH	CLAY - pale brown, homogeneous, high plasticity, very stiff, damp	BH05 0.9-1.0 PID = 0.3 ppm	No staining, odour, or ACM observed
SFA		1.40	SHALE	SHALE - grey, weathered, dry, moist at 5.0m bgs, becoming saturated at 6.0m bgs	BH05 1.4-1.5 PID = 0 ppm	No staining, odour, or ACM observed
	2					No staining, odour, or ACM observed
					BH05 2.4-2.5 PID = 0 ppm	No staining, odour, or ACM observed
	3				BH05 2.9-3.0 PID = 0 ppm	No staining, odour, or ACM observed
	4				BH05 3.9-4.0 PID = 0 ppm	No staining, odour, or ACM observed
	5				BH05 4.9-5.0 PID = 0 ppm	No staining, odour, or ACM observed Initial water intercepted at 5.0m bgs
	6				BH05 5.9-6.0 PID = 0 ppm	No staining, odour, or ACM observed Saturated at 6.0m bgs
	7	7.00		Borehole BH05/MW05 terminated at 7m		End of Hole at 7.0m bgs in natural shale
	8					
	9					
	10					

BH06

Project Number: 52961
Client: Health Infrastructure
Project Name: Summer Hill - ESA
Site Address: Hardie Ave, Summer Hill, NSW

Date: 4/8/2017
Logged By: N.Wells
Contractor: JBS&G
Total Hole Depth (mbgs): 1.1
Bore Diameter (mm): 150

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area:
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
HA				Fill	Fill - CONCRETE		
		0.15		Fill	Fill - Gravelly SAND - brown, heterogeneous, medium grained, damp, with inclusions of angular to sub-angular gravels	BH06 0.15-0.25 PID = 0 ppm	No staining, odour, or ACM observed
		0.30		Fill	Fill - CLAY - pale brown, high plasticity, stiff, with inclusions of gravels, brick, and sandstone	BH06 0.4-0.5 PID = 0 ppm	No staining, odour, or ACM observed
		0.60		Fill	Fill - Sandy SILT - dark brown, heterogeneous, low plasticity, soft, damp	BH06 0.6-0.7 PID = 0 ppm	No staining, odour, or ACM observed
	1	0.80		Fill	Fill - CLAY - pale brown, high plasticity, firm, damp, with inclusions of gravels	BH06 0.8-0.9 PID = 0 ppm	No staining, odour, or ACM observed
		0.90		CH	CLAY - pale brown mottled orange, high plasticity, firm, damp	BH06 0.9-1.0 PID = 0 ppm	No staining, odour, or ACM observed
		1.10			Borehole BH06 terminated at 1.1m		End of Hole at 1.1m bgs in natural clay
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						

BOREHOLE JBSG BOREHOLE.GPJ GINT STD AUSTRALIA.GDT 8/28/17

BH07

Project Number: 52961
Client: Health Infrastructure
Project Name: Summer Hill - ESA
Site Address: Hardie Ave, Summer Hill, NSW

Date: 4/8/2017
Logged By: N.Wells
Contractor: JBS&G
Total Hole Depth (mbgs): 0.7
Bore Diameter (mm): 150

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area:
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
HA				Fill	Fill - CONCRETE		
		0.15		Fill	Fill - SAND - brown, homogeneous, fine-medium grained, medium dense, damp, with inclusions of angular to sub-angular gravels	BH07 0.15-0.25 PID = 0.5 ppm	No staining, no odours, or ACM observed
		0.30		Fill	Fill - Gravelly CLAY - brown, heterogeneous, medium plasticity, firm, with inclusions of clay	BH07 0.3-0.4 PID = 13 ppm	Minor staining, hydrocarbon odour, one fragment of ACM observed
		0.50		Fill	Fill - GRAVEL - grey, loose, angular to sub-angular, staining observed and odour detected	BH07 0.5-0.6 PID = 3.4 ppm	Staining observed, minor hydrocarbon odour detected, no ACM observed
		0.70			Borehole BH07 terminated at 0.7m		End of Hole at 0.7m bgs due to refusal on gravelly concrete

BH08

Project Number: 52961
Client: Health Infrastructure
Project Name: Summer Hill - ESA
Site Address: Hardie Ave, Summer Hill, NSW

Date: 4/8/2017
Logged By: N.Wells
Contractor: JBS&G
Total Hole Depth (mbgs): 0.9
Bore Diameter (mm): 150

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area:
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
HA				Fill	Fill - CONCRETE		
		0.15		Fill	Fill - SAND - brown, homogeneous, fine-medium grained, loose, damp	BH08 0.15-0.25 PID = 0 ppm	No staining, odour, or ACM observed
		0.40		Fill	Fill - CLAY - pale brown, homogeneous, high plasticity, stiff, damp	BH08 0.4-0.5 PID = 0 ppm	Minor staining observed, hydrocarbon odour detected, no ACM observed
		0.60		CH	CLAY - pale brown, homogeneous, high plasticity, stiff, damp	BH08 0.6-0.7 PID = 0 ppm	No staining, odour, or ACM observed
	1	0.90			Borehole BH08 terminated at 0.9m		End of Hole at 0.90 m bgs in natural clay
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						

BH09

Project Number: 52961
Client: Health Infrastructure
Project Name: Summer Hill - ESA
Site Address: Hardie Ave, Summer Hill, NSW

Date: 4/8/2017
Logged By: N.Wells
Contractor: JBS&G
Total Hole Depth (mbgs): 0.3
Bore Diameter (mm): 150

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area:
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
HA				Fill	Fill - CONCRETE		
		0.17		Fill	Fill - Gravelly SAND - brown, heterogeneous, fine grained, loose, dry, with inclusions of sandstone cobbles, and trace inclusions of clay	BH09 0.2-0.3 PID = 0 ppm	No staining, odour, or ACM observed
		0.30			Borehole BH09 terminated at 0.3m		End of Hole at 0.3m bgs due to refusal on concrete

Appendix D Monitoring Wells

All Groundwater
find a site
All Groundwater Map

bandwidth high low

glossary and metadata

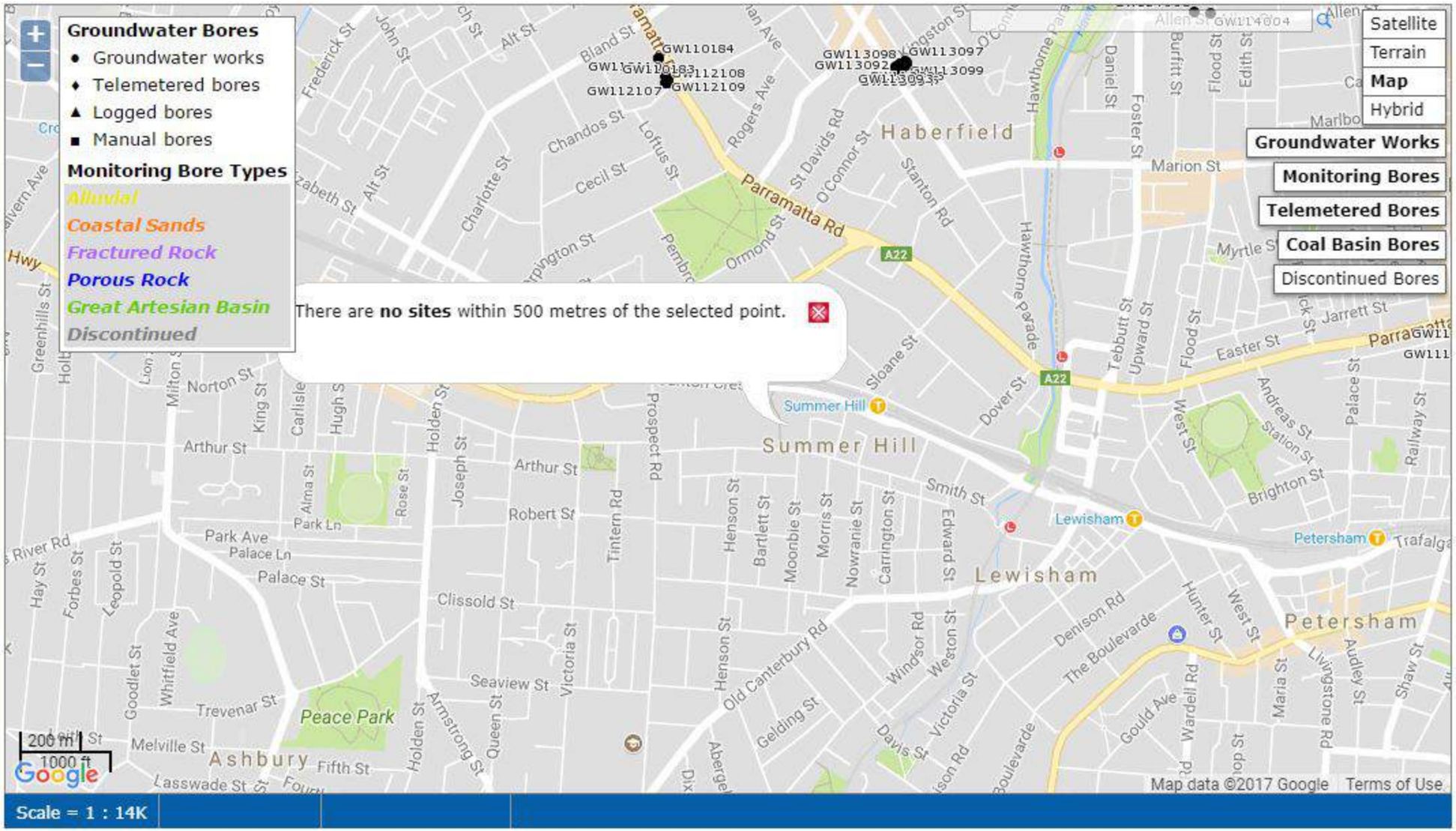
All Groundwater

All Groundwater Map

bookmark this page

All data times are Eastern Standard Time

Map | Info



Scale = 1 : 14K

Appendix E Historical Aerial Photographs

Legend:

Approximate Site Boundary

JBS&G

Job No: 52961

Client: Health Infrastructure

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: NW

Scale 1:1,250

0 10 20

metres

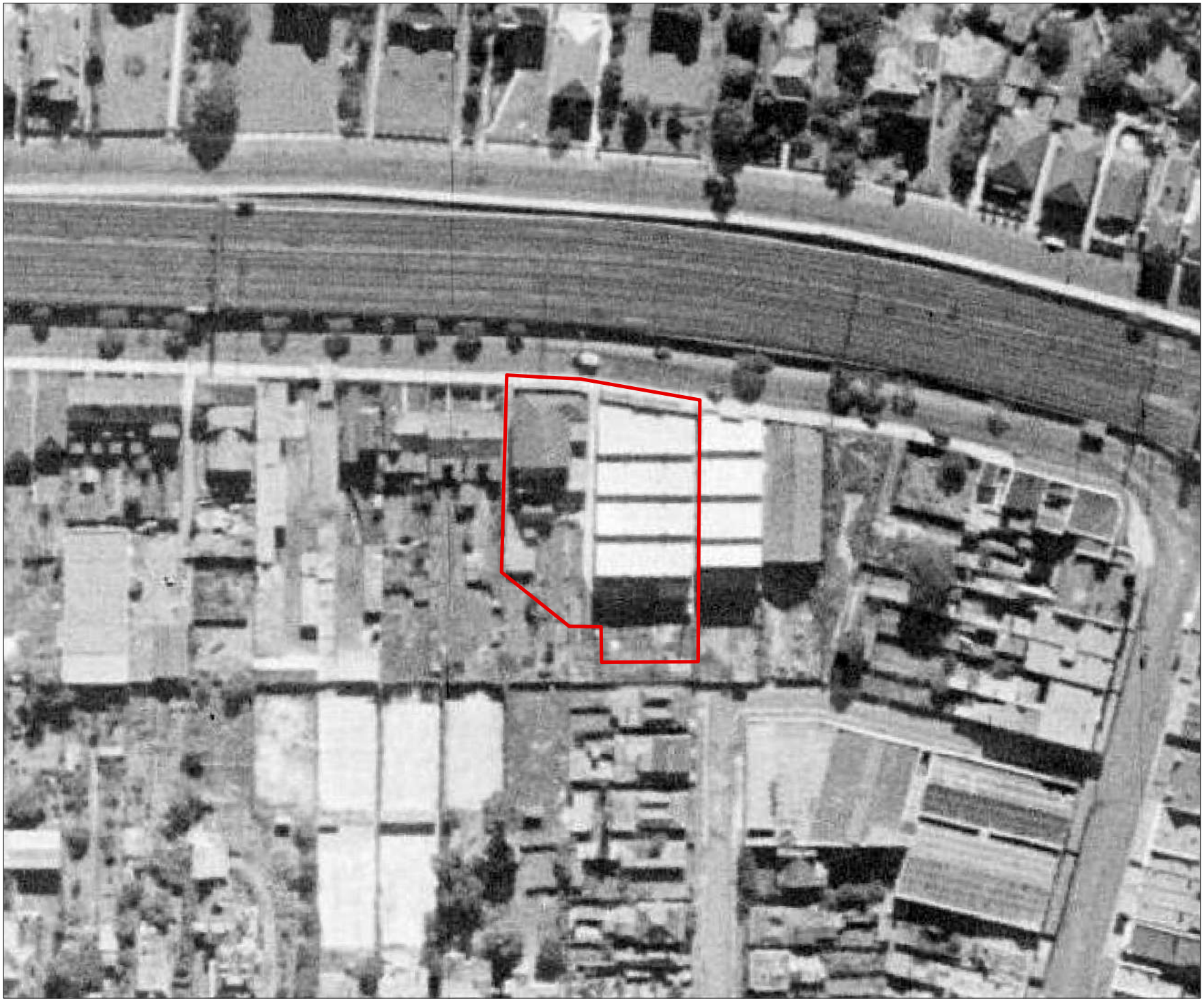
Coor. Sys. GDA 1994 MGA Zone 56

74-75 Carlton Crescent
Summer Hill, NSW

HISTORICAL AERIAL PHOTOGRAPHY 1930

FIGURE 1930

File Name: 52961_1930
Reference: Spatial Services NSW - 1930



Legend:

Approximate Site Boundary

JBS&G

Job No: 52961

Client: Health Infrastructure

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: NW

Scale 1:1,250

0 10 20

metres

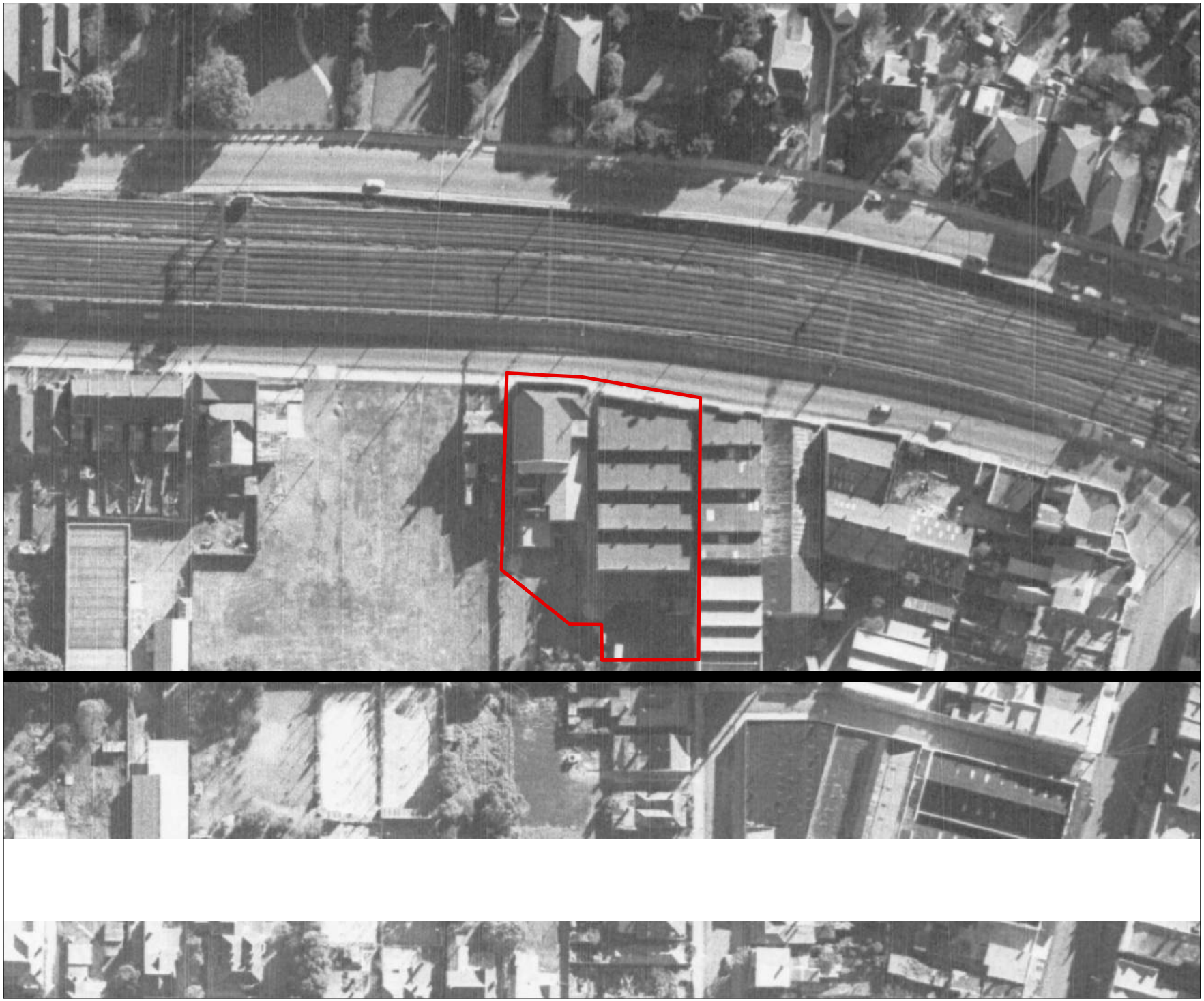
Coor. Sys. GDA 1994 MGA Zone 56

74-75 Carlton Crescent
Summer Hill, NSW

HISTORICAL AERIAL PHOTOGRAPHY 1943

FIGURE 1943

File Name: 52961_1943
Reference: Six Maps - https://maps.six.nsw.gov.au/. Imagery 1943.



Legend:

Approximate Site Boundary

JBS&G

Job No: 52961

Client: Health Infrastructure

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: NW

Scale 1:1,250

0 10 20

metres

Coor. Sys. GDA 1994 MGA Zone 56

74-75 Carlton Crescent
Summer Hill, NSW

HISTORICAL AERIAL PHOTOGRAPHY 1961

FIGURE 1961

File Name: 52961_1961
Reference: Spatial Services NSW - 1961

Legend:

Approximate Site Boundary

JBS&G

Job No: 52961

Client: Health Infrastructure

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: NW

Scale 1:1,250

0 10 20

metres

Coor. Sys. GDA 1994 MGA Zone 56

74-75 Carlton Crescent
Summer Hill, NSW

HISTORICAL AERIAL PHOTOGRAPHY 1970

FIGURE 1970

File Name: 52961_1970
Reference: Spatial Services NSW - 1970

Legend:

Approximate Site Boundary

JBS&G

Job No: 52961

Client: Health Infrastructure

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: NW

Scale 1:1,250

0 10 20

metres

Coor. Sys. GDA 1994 MGA Zone 56

74-75 Carlton Crescent
Summer Hill, NSW

HISTORICAL AERIAL PHOTOGRAPHY 1978

FIGURE 1978

File Name: 52961_1978
Reference: Spatial Services NSW - 1978

Legend:

Approximate Site Boundary

JBS&G

Job No: 52961

Client: Health Infrastructure

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: NW

Scale 1:1,250

0 10 20

metres

Coor. Sys. GDA 1994 MGA Zone 56

74-75 Carlton Crescent
Summer Hill, NSW

HISTORICAL AERIAL PHOTOGRAPHY 1986

FIGURE 1986

File Name: 52961_1986
Reference: Spatial Services NSW - 1986

Legend:

Approximate Site Boundary

JBS&G

Job No: 52961

Client: Health Infrastructure

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: NW

Scale 1:1,250

0 10 20

metres

Coor. Sys. GDA 1994 MGA Zone 56

74-75 Carlton Crescent
Summer Hill, NSW

HISTORICAL AERIAL PHOTOGRAPHY 1998

FIGURE 1998

File Name: 52961_1998
Reference: Spatial Services NSW - 1998

Legend:

Approximate Site Boundary

JBS&G

Job No: 52961

Client: Health Infrastructure

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: NW

Scale 1:1,250

0 10 20

metres

Coor. Sys. GDA 1994 MGA Zone 56

74-75 Carlton Crescent
Summer Hill, NSW

HISTORICAL AERIAL PHOTOGRAPHY 2005

FIGURE 2005

File Name: 52961_2005
Reference: Spatial Services NSW - 2005.

Legend:

Approximate Site Boundary

JBS&G

Job No: 52961

Client: Health Infrastructure

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: NW

Scale 1:1,250

0 10 20

metres

Coor. Sys. GDA 1994 MGA Zone 56

74-75 Carlton Crescent
Summer Hill, NSW

HISTORICAL AERIAL PHOTOGRAPHY 2017

FIGURE 2017

File Name: 52961_2017
Reference: Near Maps - http://www.nearmap.com.au/. Imagery 06-05-2017.

Appendix F Land Titles

Land & Property Information

Cadastral Records Enquiry Report

Requested Parcel : Lot 2 DP 717782

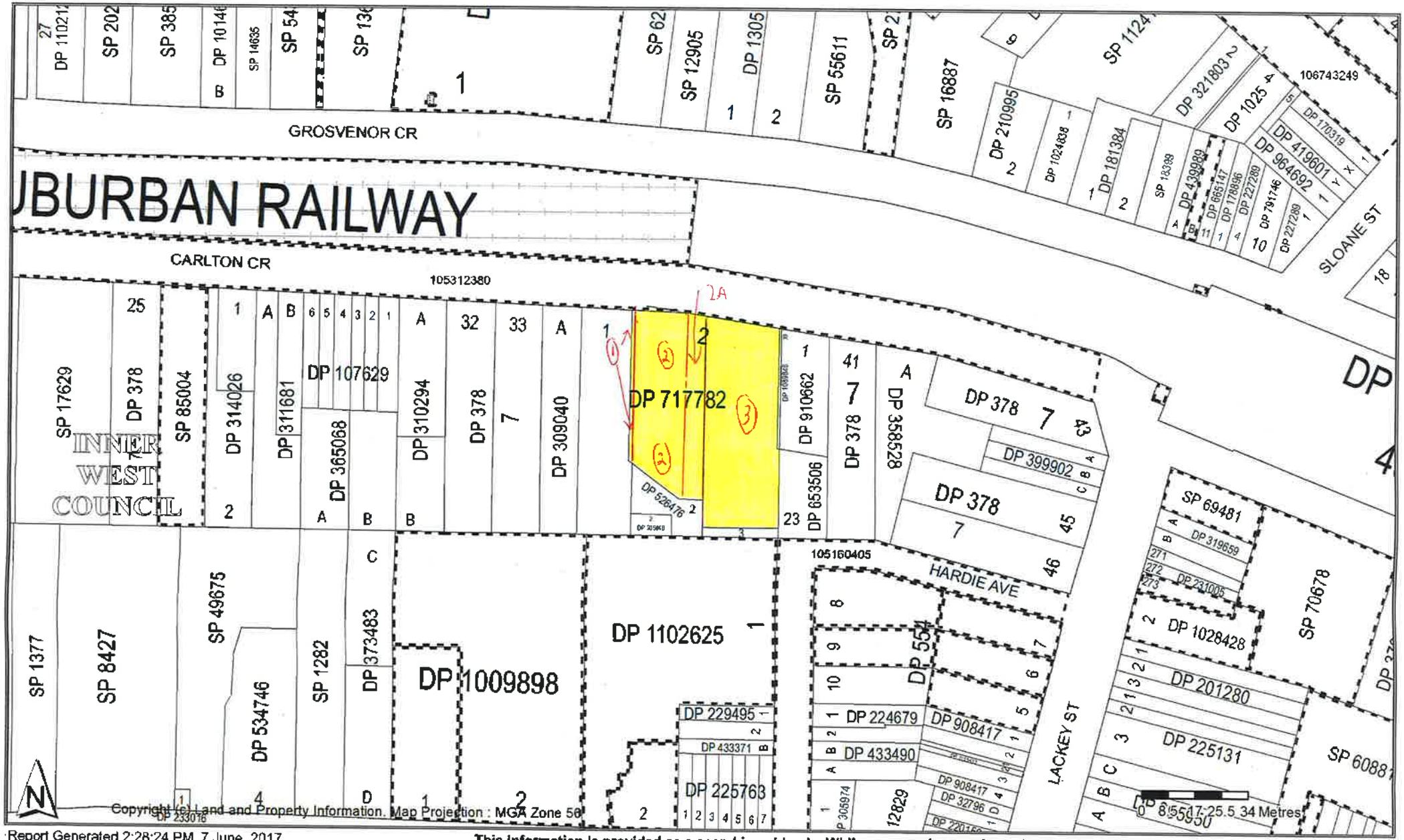
Identified Parcel : Lot 2 DP 717782

Locality : SUMMER HILL

LGA : INNER WEST

Parish : PETERSHAM

County : CUMBERLAND



Copyright (c) Land and Property Information. Map Projection : MGA Zone 56

Report Generated 2:28:24 PM, 7 June, 2017

Copyright © Land and Property Information ABN: 84 104 377 806

This information is provided as a searching aid only. While every endeavour is made to ensure the current cadastral pattern is accurately reflected, the Registrar General cannot guarantee the information provided. For all ACTIVITY PRIOR to SEPT 2002 you must refer to the RGs Charting and Reference Maps.

Req:R793279 /Doc:DP 0717782 P /Rev:06-Aug-1992 /Sts:OK.OK /Pgs:ALL /Prt:02-Jun-2017 16:47 /Seq:1 of 1
Ref:summer hill /Src:M

PLAN FORM 1

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

*OFFICE USE ONLY

Council Clerk's Certificate

I hereby certify that —

(a) the requirements of the Local Government Act, 1919 (other than the requirements for the construction of public roads) and

*(b) the requirements of section 348 of the Metropolitan Water, Sewerage, and Drainage Act, 1924, as amended, Hunter District Water, Sewerage, and Drainage Act, 1938, as amended

have been complied with by the applicant in relation to the proposed Subdivision

(Delete "New Road", "subdivision" or "consolidation" as the case may be)

Subdivision No. 1770/.....

Date 6th September, 1983.

(Signature) ..... Council Clerk

*This part of certificate to be deleted where the application is only for a consolidation (a) or the opening of a new road or where the land is not subdivided or wholly outside the area of supervision of the Metropolitan Water Sewerage and Drainage Board and the Hunter District Water Board (Delete if inapplicable).

Surveyor's Certificate

I, Kenneth Arthur Andrews

of Land Commission of N.S.W.

a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan has been completed on 6th September, 1983

F.R. 554534 and D.P. 526476

Signature

Surveyor registered under Conveyancing Act, 1919, as amended, Partnership of Authority, Strike out either (1) or (2). Insert date of survey.

PLAN OF SUBDIVISION OF LAND IN CERTIFICATES OF TITLE VOLUME 3693 FOLIO 78, VOLUME 10658 FOLIO 230 AND VOLUME 11754 FOLIO 60.

Mun./Shire / City: ASHFIELD

Locality: SUMMER HILL

Parish: PETERSHAM

County: CUMBERLAND

Reduction Ratio 1:500

Lengths are in metres

D.P. 717782

Registered: 12-2-1986

C.A. No. 1770 OF 6-9-1983

Title System: TORRENS

Purpose: SUBDIVISION

Ref. Map: U 0945 - 931

Last Plan: D.P.'s 309040, 334534, 526476

Signatures, seals and statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements or restrictions as to user.

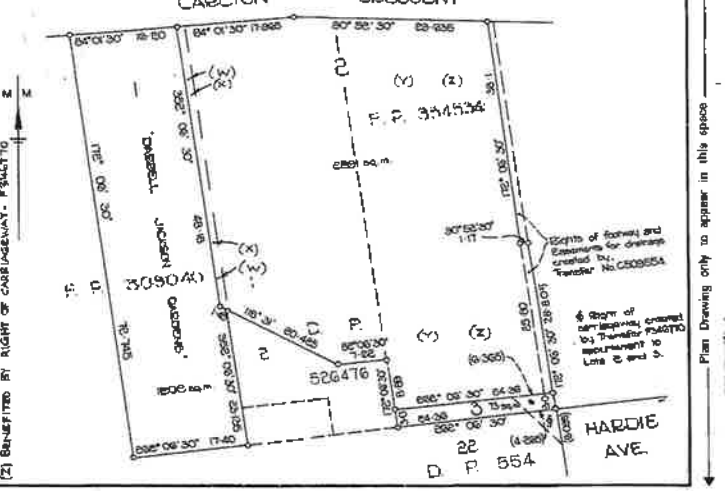
It is intended to create a Right of carriageway appurtenant to Lot 2 over part of Lot 3. Shown thus *

Lot 3 is to be held in conjunction with Lot 2 D.P. 526476 by the Council of the Municipality of Ashfield

Mayor

Town Clerk

(M) BENEFITED BY RIGHT TO ACCESS OF LIGHT AND AIR AND R.O.W. - A941779
(X) BENEFITED BY EASEMENT FOR OVERHANGING EAVES AND GUTTERING - B540645
(Y) BENEFITED BY RIGHT OF FOOTWAY & EASEMENT FOR DRAINAGE - C509554
(Z) BENEFITED BY RIGHT OF CARRIAGEWAY - F946770



M.P.D.

SURVEYOR'S REFERENCE

Plan Drawing only to appear in this space

Plan Drawing only to appear in this space

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 12th February, 1986

Req:R793308 /Doc:CT 09661-010 CT /Rev:14-Jan-2011 /Sts:OK.SC /Pgs:ALL /Prt:02-Jun-2017 16:49 /Seq:1 of 2
Ref:summer hill /Src:M

[redacted]

TIFICATE OF TITLE

NEW SOUTH WALES — PERTY ACT, 1900, as amended.

09661010

Vol. 9661 Fol. 10

CANCELLED

Appln. No.3773
prior title Vol.4741 Fol.214.

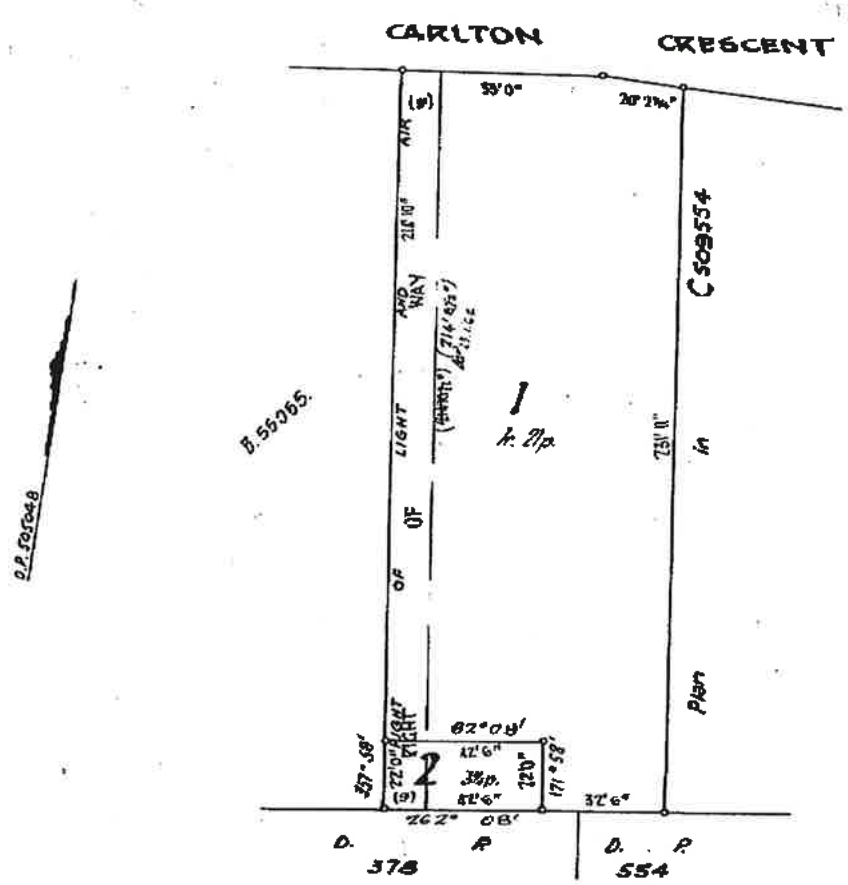
1st Edition issued 6-3-1964.

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Witness

Registrar General.

PLAN SHOWING LOCATION OF LAND



ESTATE AND LAND REFERRED TO.

Estate in Fee Simple in Lot 1 in Deposited Plan 505048 at Summer Hill in the Municipality of Ashfield Parish of Petersham and County of Cumberland being part of 30 acres granted to Henry Cabell on 8-1-1794.

FIRST SCHEDULE (Continued overleaf)

THE NEW SOUTH WALES AMBULANCE TRANSPORT SERVICE BOARD.

Registrar General.

SECOND SCHEDULE (Continued overleaf)

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Right to the unrestricted access of light and air and right of way created by Transfer No.A916779 affecting the piece of land shown in the plan hereon as Right of way.
3. ~~Caveat No. A925970 by the Registrar General affecting that part of the land above described formerly comprised in Certificate of Title Volume 3446 Folio 26. Entered 30-4-1923.~~ DEALING 1.7.1964

Registrar General.

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED.

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE.

Reg:R793308 /Doc:CT 09661-010 CT /Rev:14-Jan-2011 /Sts:OK.SC /Pgs:ALL /Prt:02-Jun-2017 16:49 /Seq:2 of 2
Ref:summer hill /Src:M

ST 8608 V. C. N. BLIGH, GOVERNMENT PRINTER

Vol. 9661 Fol. 10

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
This deed is cancelled as to the whole New Certificates of Title have issued on 2-12-1967 for lots in Deposited Plan No 526476 as follows:- Lots 1 & 2 Vol. 10696 Fols 230 & 231 respectively. REGISTRAR-GENERAL					

CT 7/11/69
DP526476
Prop Impfd
DP526476

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		

(Page 2 of 2 pages)

FORM No. 62

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

Req:R793277 /Doc:CT 10696-230 CT /Rev:08-Feb-2011 /Sts:OK.SC /Pgs:ALL /Prt:02-Jun-2017 16:47 /Seq:1 of 2
Ref:summer hill /Src:M

10696230

[redacted]ICATE OF TITLE

[redacted]RTY ACT, 1900, as amended.

NEW SOUTH WALES

Applicatio No.3773
Prior Title Volume 9661 Folio 10

Vol. 10696 Fol. 230

ID Edition issued 7-12-1967.

CANCELLED

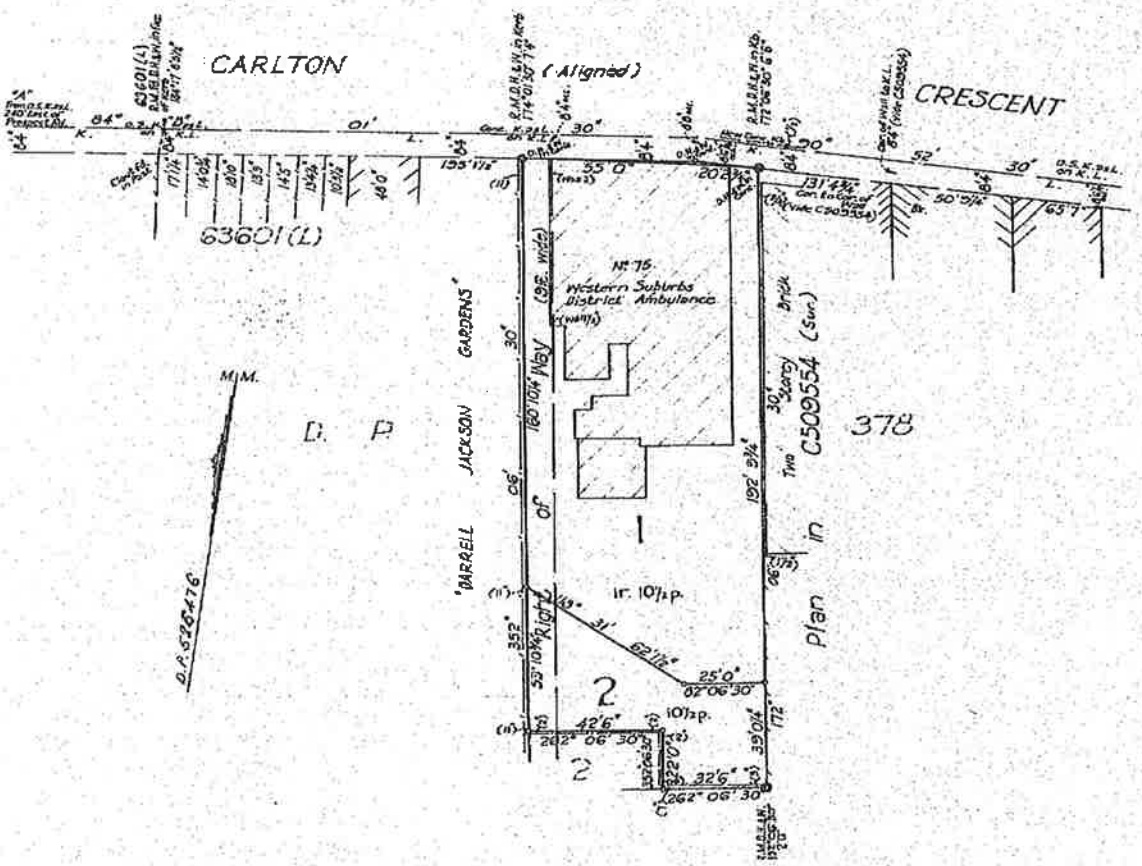
I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Witness [redacted]

Registrar General.

(Page 1) Vol. 10696 Fol. 230

PLAN SHOWING LOCATION OF LAND



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 1 in Deposited Plan 526476 at Summer Hill in the Municipality of Ashfield Parish of Petersham and County of Cumberland being part of 30 acres granted to Henry Cabell on 8-1-1794.

FIRST SCHEDULE (continued overleaf)

~~THE NEW SOUTH WALES AMBULANCE TRANSPORT SERVICE BOARD.~~

SECOND SCHEDULE (continued overleaf)

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
~~2. Right to the unrestricted access of light and air and right of way created by Transfer No. A916779 affecting the piece of land 9 feet wide shown in the plan hereon.~~ W113884

Registrar General

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

RG 7/62

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

WARNING THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE

Req:R793277 /Doc:CT 10696-230 CT /Rev:08-Feb-2011 /Sts:OR.SC /Pgs:ALL /Prt:02-Jun-2017 16:47 /Seq:2 of 2
Ref:summer hill /Src:M

PT 1 .17 V.C.N. Blight, Government Printer

T851739AF
CT 27-9-19
CT 27-9-2
DP 717782
W113884

Vol. 10696 Fol 230

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar-General
24 Health Administration Corporation by Application T851739. Registered 28-11-1983					

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar-General	CANCELLATION		
			DP 717782 Registered 12-2-1986 This folio is cancelled as to whole/~~part~~ upon ~~c~~ ... of computer folios for lots 1/2/3 in the abovementioned plan.					

(Page 2 of 2 pages)

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR-GENERAL ARE CANCELLED

Req:R793278 /Doc:CT 11734-060 CT /Rev:10-Jan-2011 /Sts:OK.OK /Pgs:ALL /Prt:02-Jun-2017 16:47 /Seq:1 of 2
Ref:summer hill /Src:M

[redacted]ICATE OF TITLE

PROPERTY ACT, 1900

NEW SOUTH WALES

11734060

Appln. No. 3773

Prior Title Vol.4834 Fol.2

Vol. 11734 Fol. 60

Edition issued 10-12-1971

M465689

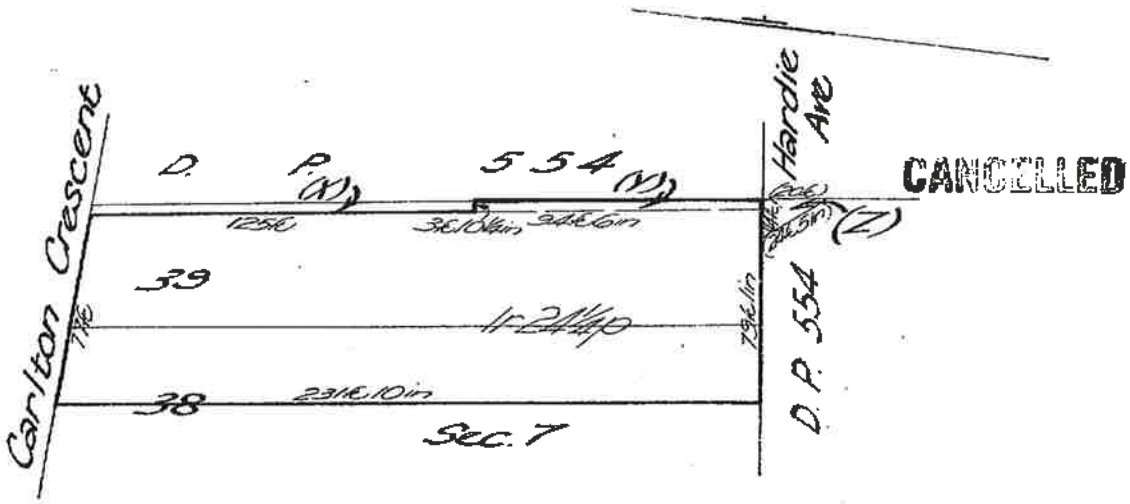
11734 Fol. 60

(Page 1) Vol.

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Registrar General.

PLAN SHOWING LOCATION OF LAND



M465689

Scale: 50 feet to one inch

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in the land shown in plan lodged with Transfer No.C509554 (filed as F.P.334534) being part of Lots 38 and 39 of Section 7 in Deposited Plan 378 at Summer Hill in the Municipality of Ashfield, Parish of Petersham and County of Cumberland being part of 30 acres granted to Henry Cabell on 8-1-1794.

FIRST SCHEDULE

~~FEATHER AND WEBB PTY. LIMITED.~~

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to
2. Right of Footway and Easement for Drainage created by Transfer No.C509554 appurtenant to the land above described affecting the piece of land designated (X) on the plan hereon.
3. Right of Footway and Easement for Drainage created by Transfer No.C509554 affecting the piece of land designated (Y) on the plan hereon.
4. Right of Carriageway created by Transfer No.F346770 appurtenant to the land above described affecting the piece of land designated (Z) on the plan hereon.
5. ~~Lease No.K866528 of premises being factory building situated at and known as No.74 Carlton Crescent, Summer Hill to Joyce Hawkins of Earlwood, Stenographer, Betty Webb of Crows Nest, Stenographer and Carry David Clout of Marrickville, Clerk. Entered 1-12-1967.~~ Expired 28th April 1975

Registrar General.

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE.

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED.

Req:R793278 /Doc:CT 11734-060 CT /Rev:10-Jan-2011 /Sts:OK.OK /Pgs:ALL /Prt:02-Jun-2017 16:47 /Seq:2 of 2
Ref:summer hill /Src:M

Vol. 11734 Fol. 60

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
Health Commission of New South Wales. Health Administration Corporation by Application T851740. Registered 28-11-1983	Transfer	R678607		7-3-1980	

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		
Mortgage	M865690	7-9-1971	to Donald Southwell & others of Sydney					
			Health Office	9-9-1971		Discharged	R678606	
Lease	M868414	30-1-1973	[illegible]					
			[illegible]	26-4-1973		Determined	R461722	
Mortgage	M865690		Caution Variation			Cancelled	R678606	

DP [illegible] 7-2-1982 12-2-1986 Registered

This folio is cancelled as to whole/[illegible] upon creation of computer folios for lots 1/2/3 [illegible] abovementioned plan.

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

(Page 2 of 2 pages)

InfoTrack
An Approved LPI NSW
Information Broker

Historical Title

Information Provided Through
John McLaren & Co (NSW)
Ph. 02 9231 4872 Fax. 02 9233 6557

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE
2/6/2017 4:44PM

FOLIO: 2/717782

First Title(s): OLD SYSTEM
Prior Title(s): VOL 3663 FOL 72 VOL 10696 FOL 230
VOL 11734 FOL 60

Recorded	Number	Type of Instrument	C.T. Issue
13/2/1986	DP717782	DEPOSITED PLAN	FOLIO CREATED EDITION 1
29/6/1987	W919219	TRANSFER	
29/6/1987	W948664	TRANSFER	EDITION 2

*** END OF SEARCH ***

summer hill PRINTED ON 2/6/2017

InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.

Req:R820313 /Doc:DL W919219 /Rev:31-Jul-1997 /Sts:Q2.OK /Pgs:ALL /Prt:07-Jun-2017 15:48 /Seq:1 of 3
Ref:summer hill /Src:M

RP 13A 1979

STAMP DUTY

N.S.W. STAMP DUTIES OFFICE

NO STAMP DUTY PAYABLE ON THIS INSTRUMENT

REGISTERED 22 JUN 1987 11-59

W919219

CB 1 of 1 X

$ 37 E

R1/2

TRANSFER (INCLUDING EASEMENT/COVENANTS)

REAL PROPERTY ACT, 1900

(See Instructions for Completion on back of form)

DESCRIPTION OF LAND Note (a)

LAND being transferred

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
~~Vol 11734 Fol 60~~ 3/717782	~~WHOLE~~ ~~PART~~ ~~Part being Lot 3 in D.P.~~ PTB	Summer Hill

TENEMENTS PANEL Note (b) This panel is to be completed for covenants by transferor

Servient Tenement (Land burdened by easement)		Dominant Tenement (Land benefited by easement)	
Torrens Title Reference	Torrens Title Reference	Torrens Title Reference	Torrens Title Reference
~~Lot 3 D.P.~~ 3/717782		~~Lot 3 D.P.~~ PTB 2/717782	D

TRANSFEROR Note (c)

HEALTH ADMINISTRATION CORPORATION

OFFICE USE ONLY N

Note (d) (the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of $1.00 and transfers an estate in fee simple in the land being transferred above described to the TRANSFEREE

TRANSFEREE Note (c)

THE COUNCIL OF THE MUNICIPALITY OF ASHFIELD

OFFICE USE ONLY OVER

TENANCY Note (e)

~~as joint tenants/tenants in common~~

PRIOR ENCUMBRANCES Note (f)

subject to the following PRIOR ENCUMBRANCES 1. ..... 2. ..... 3. .....

Note (g) AND the TRANSFEROR —

(i) ~~GRANTS/RESERVES~~ an easement as set out in SCHEDULE ONE hereto

(ii) ~~COVENANTS with the TRANSFEREE as set out in SCHEDULE TWO hereto~~

Note (g) AND the TRANSFEREE COVENANTS with the TRANSFEROR as set out in SCHEDULE THREE hereto

DATE OF TRANSFER 29/5/87

We hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900.

EXECUTION Note (h)

Signed in my presence by the Transferor who is personally known to me.

RaRoleda
Signature of Witness

PATRICIA ANNE ROBLEDO
Name of Witness (BLOCK LETTERS)

clk McKell Building Sydney Clerk
Address and occupation of Witness

Signed by me M. M. PURVIS as delegate of the HEALTH ADMINISTRATION CORPORATION, pursuant to Section 21 (1) Health Administration Act, 1982 and I hereby certify that I have no notice of the revocation of such delegation.

M Purvis
Signature of Transferor

Note (h) Signed in my presence by the Transferee who is personally known to me.

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

PAUL LAURENCE
Sydney
NSW Solicitor

Signature of Transferee's Solicitor

TO BE COMPLETED BY LODGING PARTY Notes (i) (j) (k)

LODGED BY G M Laurence & Wherry
105A Clarence Street
Sydney NSW 2000
DX 278 29 7455

Delivery Box Number 177T

LOCATION OF DOCUMENTS

CT | OTHER

Herewith

In R.G.O. with .....

Produced by .....

OFFICE USE ONLY

Extra Fee	Checked by	REGISTERED – –19
5 $37	EAB	29 JUN 1987 Registrar General

WA 48664

RP 13A
1979

SCHEDULE ONE HEREINBEFORE REFERRED TO

The Transferor ~~[illegible]~~ for itself and its successors and assigns hereby reserves out of the land hereby transferred over part of the Servient tenement a right of carriageway shown on D.P. 717782 as marked "A".

Notes (k) and (l)

SCHEDULE TWO HEREINBEFORE REFERRED TO

The Transferor hereby covenants with

Notes (m) and (l)
Also complete continuance panel on front of form

Req:R820313 /Doc:DL W919219 /Rev:31-Jul-1997 /Sts:Q2.OK /Pgs:ALL /Prt:07-Jun-2017 15:48 /Seq:3 of 3
Ref:summer hill /Src:M

RP 13A
1979

INSTRUCTIONS FOR COMPLETION

This form is only to be used for the transfer of land together with the granting or reservation of easements and/or the creation of restrictive covenants. For other transfers use forms RP 13, RP 13B, RP 13C, as appropriate.

This dealing should be marked by the Commissioner of Stamp Duties before lodgment at the Registrar General's Office.

Typewriting and handwriting should be clear, legible and in permanent black non-copying ink.

Alterations are not to be made by erasure; the words rejected are to be ruled through and initialled by the parties to the dealing.

If the space provided is insufficient, additional sheets of the same size and quality of paper and having the same margins as this form should be used. Each additional sheet must be identified as an annexure and signed by the parties and the attesting witnesses.

Registered mortgagees, chargees and lessees of the servient tenement should consent to any grant or reservation of easement; otherwise the mortgage, charge or lease should be noted in the memorandum of prior encumbrances.

The signatures of the parties and the attesting witnesses should appear below the last provision in the last completed schedule.

Rule up all blanks.

The following instructions relate to the side notes on the form.

(a) Description of land.
- (i) TORRENS TITLE REFERENCE.—Insert the current Folio Identifier or Volume and Folio of the Certificate of Title/Crown Grant for the land being transferred, e.g., 135/SP12345 or Vol. 8514 Fol. 126.
- (ii) PART/WHOLE.—If part only of the land in the folio of the Register is being transferred, delete the word "WHOLE" and insert the lot and plan number, portion, &c. See also sections 327 and 327AA of the Local Government Act, 1919.
- (iii) LOCATION.—Insert the locality shown on the Certificate of Title/Crown Grant, e.g., at Chullora. If the locality is not shown, insert the Parish and County, e.g., Ph. Elsmore Co. Rous.

(b) Tenement panel.—Insert the current Folio Identifier or Volume and Folio of the Certificate of Title/Crown Grant for both the servient and dominant tenements of the easements, e.g., 135/SP12345 or Vol. 8514 Fol. 126, &c. This panel is also to be completed for covenants by the transferor.

(c) Show the full name, address and occupation or description.

(d) If the estate being transferred is a lesser estate than an estate in fee simple, delete "fee simple" and insert appropriate estate.

(e) Delete if only one transferee. If more than one transferee, delete either "joint tenants" or "tenants in common", and, if the transferees hold as tenants in common, state the shares in which they hold.

(f) In the memorandum of prior encumbrances, state only the registered number of any mortgage, charge or lease (except where the consent of the mortgagee, chargee or lessee is furnished) and of any writ recorded in the Register.

(g) Delete whichever words are inappropriate.

(h) Execution.
- GENERALLY — (i) Should there be insufficient space for execution of this dealing, use an annexure sheet. (ii) The certificate of correctness under the Real Property Act, 1900 must be signed by all parties to the transfer, each party to execute the dealing in the presence of an adult witness, not being a party to the dealing, to whom he is personally known. The solicitor for the transferee may sign the certificate on behalf of the transferee, the solicitor's name (not that of his firm), to be typewritten or printed adjacent to his signature. Any person falsely or negligently certifying is liable to the penalties provided by section 117 of the Real Property Act, 1900.
- ATTORNEY — (iii) If the transfer is executed by an attorney for the transferor/transferee pursuant to a registered power of attorney, the form of attestation must set out the full name of the attorney and the form of execution must indicate the source of his authority, e.g., "AB by his attorney (or receiver or delegate, as the case may be) XY pursuant to power of attorney registered Book , No. , and I declare that I have no notice of the revocation of the said power of attorney".
- AUTHORITY — (iv) If the transfer is executed pursuant to an authority (other than specified in (iii)) the form of execution must indicate the statutory, judicial or other authority pursuant to which the transfer has been executed.
- CORPORATION — (v) If the transfer is executed by a corporation under seal, the form of execution should include a statement that the seal has been properly affixed, e.g., in accordance with the Articles of Association of the corporation. Each person attesting the affixing of the seal must state his position (e.g., director, secretary) in the corporation.

(i) Insert the name, postal address, Document Exchange reference, telephone number and delivery box number of the lodging party.

(j) The lodging party is to complete the LOCATION OF DOCUMENTS panel. Place a tick in the appropriate box to indicate the whereabouts of the Certificate of Title. List, in an abbreviated form, other documents lodged, e.g., stat. dec. for statutory declaration, pbta for probate, L/A for letters of administration, &c.

(k) State the nature of the easement; (see, e.g., section 181A of the Conveyancing Act, 1919) and accurately describe the site of the easement. The grant or reservation of easement (other than an easement in gross) must comply with section 88 of the Conveyancing Act, 1919. If not applicable, rule through this space.

(l) Annexures should be of the same size and quality of paper and have the same margins as the transfer form. Each such annexure must be identified as an annexure and signed by the parties and the attesting witnesses. Any plan annexed should comply with regulation 37 of the Real Property Act regulations, 1970.

(m) This space is provided for any restrictive covenant by the transferor (which must comply with section 88 of the Conveyancing Act, 1919). If not applicable, rule through this space.

(n) This space is provided for any restrictive covenant by the transferee (which must comply with section 88 of the Conveyancing Act, 1919). If not applicable, rule through this space.

OFFICE USE ONLY

DIRECTION: PROP

FIRST SCHEDULE DIRECTIONS

No. OF NAMES:

(A) FOLIO IDENTIFIER	(B) No.	(C) SHARE	(D) I	(E) NAME AND DESCRIPTION
		S		THE COUNCIL OF THE MUNICIPALITY OF ASHFIELD

SECOND SCHEDULE & OTHER DIRECTIONS

(F) FOLIO IDENTIFIER (OR BOOK, DEALING & FOLIO IDENTIFIER)	(G) DIRECTION	(H) NOTIFN TYPE	(I) DEALING NUMBER	(K) DETAILS
3/717782	ON	EA		RIGHT OF CARRIAGEWAY AFFECTING THE PART (DESIGNATED *) DESCRIBED SHOWN SO BURDENED IN DP 717782.
2/717782	ON	EA		RIGHT OF CARRIAGEWAY APPURTENANT TO THE LAND ABOVE DESCRIBED AFFECTING THE PART DESIGNATED * SHOWN IN DP 717782.
3/717782	CT		4777	

NP 400 D. WEST, GOVERNMENT PRINTER

InfoTrack
An Approved LPI NSW
Information Broker

Title Search

Information Provided Through
John McLaren & Co (NSW)
Ph. 02 9231 4872 Fax. 02 9233 6557

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 2/717782

SEARCH DATE	TIME	EDITION NO	DATE
7/6/2017	3:53 PM	2	29/6/1987

LAND

LOT 2 IN DEPOSITED PLAN 717782
AT SUMMER HILL
LOCAL GOVERNMENT AREA INNER WEST
PARISH OF PETERSHAM COUNTY OF CUMBERLAND
TITLE DIAGRAM DP717782

FIRST SCHEDULE

HEALTH ADMINISTRATION CORPORATION (T W948664)

SECOND SCHEDULE (8 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 A916779 RIGHT TO THE UNRESTRICTED ACCESS OF LIGHT AND AIR AND RIGHT OF WAY APPURTENANT TO THE PART SHOWN SO BENEFITED IN THE TITLE DIAGRAM AFFECTING THE PART OF LOT 2 IN DP526476 SHOWN SO BURDENED THEREIN
3 B56065 EASEMENT FOR OVERHANGING EAVES AND GUTTERING APPURTENANT TO THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BENEFITED IN THE TITLE DIAGRAM
4 C509554 RIGHT OF FOOTWAY AND EASEMENT FOR DRAINAGE APPURTENANT TO THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BENEFITED AFFECTING THE LAND SHOWN SO BURDENED IN THE TITLE DIAGRAM
5 C509554 RIGHT OF FOOTWAY AND EASEMENT FOR DRAINAGE AFFECTING THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BURDENED IN THE TITLE DIAGRAM
6 F346770 RIGHT OF CARRIAGEWAY APPURTENANT TO THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BENEFITED AFFECTING THE LAND SHOWN SO BURDENED IN THE TITLE DIAGRAM
7 W919219 RIGHT OF CARRIAGEWAY APPURTENANT TO THE LAND ABOVE DESCRIBED AFFECTING THE PART DESIGNATED * SHOWN IN DP717782
8 W948664 COVENANT AS REGARDS THAT PART FORMERLY IN VOLUME 3663 FOLIO 72

NOTATIONS

NOTE: THE CERTIFICATE OF TITLE FOR THIS FOLIO OF THE REGISTER DOES NOT INCLUDE SECURITY FEATURES INCLUDED ON COMPUTERISED CERTIFICATES OF TITLE ISSUED FROM 4TH JANUARY, 2004. IT IS

END OF PAGE 1 - CONTINUED OVER

FOLIO: 2/717782 PAGE 2

NOTATIONS (CONTINUED)

RECOMMENDED THAT STRINGENT PROCESSES ARE ADOPTED IN VERIFYING THE IDENTITY OF THE PERSON(S) CLAIMING A RIGHT TO DEAL WITH THE LAND COMPRISED IN THIS FOLIO.

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register. InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.

Appendix G EPA Records

List of NSW Contaminated Sites Notified to EPA as of 4 September 2017

Background

A strategy to systematically assess, prioritise and respond to notifications under Section 60 of the *Contaminated Land Management Act 1997* (CLM Act) has been developed by the EPA. This strategy acknowledges the EPA's obligations to make information available to the public under *Government Information (Public Access) Act 2009*.

When a site is notified to the EPA, it may be accompanied by detailed site reports where the owner has been proactive in addressing the contamination and its source. However, often there is minimal information on the nature or extent of the contamination.

For some notifications, the information indicates the contamination is securely immobilised within the site, such as under a building or carpark, and is not currently causing any offsite consequences to the community or environment. Such sites would still need to be cleaned up, but this could be done in conjunction with any subsequent building or redevelopment of the land. These sites may not require intervention under the CLM Act, but could be dealt with through the planning and development consent process.

Where indications are that the nominated site is causing actual harm to the environment or an unacceptable offsite impact (i.e. it is a "significantly contaminated site"), the EPA would apply the regulatory provisions of the CLM Act to have the responsible polluter and/or landowner investigate and remediate the site.

As such, the sites notified to the EPA and presented in the following table are at various stages of the assessment and/or remediation process. Understanding the nature of the underlying contamination, its implications and implementing a remediation program where required, can take a considerable period of time. The tables provide an indication, in relation to each nominated site, as to the management status of that particular site. Further detailed information may be available from the EPA or the responsible landowner.

The following questions and answers may assist those interested in this issue:

Frequently asked questions

What is the difference between the "List of NSW Contaminated Sites Notified to the EPA" and the "Contaminated Land: Record of Notices"?

A site will be on the Contaminated Land: Record of Notices only if the EPA has issued a regulatory notice in relation to the site under the *Contaminated Land Management Act 1997*.

The sites appearing on this "List of NSW contaminated sites notified to the EPA" indicate that the notifiers consider that the sites are contaminated and warrant reporting to the EPA. However, the contamination may or may not be significant enough to warrant regulation by the EPA. The EPA needs to review and, if necessary, obtain more information before it can make a determination as to whether the site warrants regulation.

Why my site appears on the list?

Your site appears on the list because of one or more of the following reasons:

- The site owner and/or the person partly or fully responsible for causing the contamination notified to the EPA about the contamination under Section 60 of the *Contaminated Land Management Act 1997*. In other words, the site owner or the "polluter" believes the site is contaminated.
- The EPA has been notified via other means and is satisfied that the site is or was contaminated.

Does the list contain all contaminated sites in NSW?

No. The list only contains contaminated sites that the EPA is aware of, with regard to its regulatory role under the CLM Act. An absence of a site from the list does not necessarily imply the site is not contaminated.

The EPA relies upon responsible parties to notify contaminated sites.

How are these notified contaminated sites managed by the EPA?

There are different ways that the EPA manages these notified contaminated sites. First, an initial assessment is carried out by the EPA. At the completion of the initial assessment, the EPA may take one or more than one of the following management approaches:

- The contamination warrants the EPA's direct regulatory intervention either under the *Contaminated Land Management Act 1997* or the *Protection of the Environment Operations Act 1997* (POEO Act), or both. Information about current or past regulatory action on this site can be found on EPA website.
- The contamination with respect to the current use or approved use of the site, as defined under the *Contaminated Land Management Act 1997,* is not significant enough that it warrants EPA regulation.
- The contamination does not require EPA regulation and can be managed by a planning approval process.
- The contamination is related to an operational Underground Petroleum Storage System, such as a service station or fuel depot. The contamination may be managed under the POEO Act and the Protection of the Environment Operation (Underground Petroleum Storage Systems) Regulation 2008.
- The contamination is being managed under a specifically tailored program operated by another agency (for example the Department of Industry and Investment's *Derelict Mines Program*).

I am the owner of a site that appears on the list. What should I do?

First of all, you should ensure the current use of the site is compatible with the site contamination. Secondly, if the site is the subject of EPA regulation, make sure you comply with the regulatory requirements, and you have considered your obligations to notify other parties who may be affected.

If you have any concerns, contact us and we may be able to offer you general advice, or direct you to accredited professionals who can assist with specific issues.

I am a prospective buyer of a site that appears on the list. What should I do?

You should seek advice from the vendor to put the contamination issue into perspective. You may need to seek independent expert advice.

The information provided in the list is meant to be indicative only, and a starting point for your own assessment. Site contamination as a legacy of past site uses is not uncommon,

particularly in an urbanised environment. If the contamination on a site is properly remediated or managed, it may not materially impact upon the intended future use of the site. However, each site needs to be considered in context.

List of NSW Contaminated Sites Notified to the EPA

Disclaimer

The EPA has taken all reasonable care to ensure that the information in the list of contaminated sites notified to the EPA (the list) is complete and correct. The EPA does not, however, warrant or represent that the list is free from errors or omissions or that it is exhaustive.

The EPA may, without notice, change any or all of the information in the list at any time.

You should obtain independent advice before you make any decision based on the information in the list.

The list is made available on the understanding that the EPA, its servants and agents, to the extent permitted by law, accept no responsibility for any damage, cost, loss or expense incurred by you as a result of:

1. any information in the list; or
2. any error, omission or misrepresentation in the list; or
3. any malfunction or failure to function of the list;
4. without limiting (2) or (3) above, any delay, failure or error in recording, displaying or updating information.

Site Status	Explanation
Under assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or *Protection of the Environment Operations Act 1997*. Alternatively, the EPA may require information via a notice issued under s77 of the *Contaminated Land Management Act 1997* or issue a Preliminary Investigation Order.
Regulation under CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the *Contaminated Land Management Act 1997* is not required.
Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the *Contaminated Land Management Act 1997*. A regulatory approach is being finalised.

Contamination currently regulated under CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the *Contaminated Land Management Act 1997* (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record.
Contamination currently regulated under POEO Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. Management of the contamination is regulated under the *Protection of the Environment Operations Act 1997* (POEO Act). The EPA's regulatory actions under the POEO Act are available on the POEO public register.
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the *Environmental Planning and Assessment Act 1979* (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the *Contaminated Land Management Act 1997* (CLM Act). The contamination was addressed under the CLM Act.
Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed under the *Protection of the Environment Operations Act 1997* (POEO Act).
Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the *Environmental Planning and Assessment Act 1979* (EP&A Act).
Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the *Contaminated Land Management Act 1997* (CLM Act), is required to manage the residual contamination. Regulatory notices under the CLM Act are available on the EPA's Contaminated Land Public Record.

Suburb	Site Name	Site Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
STRATHFIELD	7-Eleven (former Mobil) Service Station	577 Liverpool ROAD	Service Station	Under assessment	-33.88736091	151.0743474
STRATHFIELD SOUTH	Former Landfill Site	7-9 Dunlop STREET	Landfill	Regulation under CLM Act not required	-33.89509698	151.0796751
STROUD	Stroud Fuel Supplies (Former Caltex) Service Station	1 Cowper STREET	Service Station	Regulation under CLM Act not required	-32.39092749	151.9563089
SUFFOLK PARK	BP Service Station	207-209 Broken Head ROAD	Service Station	Regulation under CLM Act not required	-28.68800088	153.6083821
SUFFOLK PARK	Suffolk Park dip site	Cnr Broken Head Road & Beech DRIVE	Cattle Dip	Regulation under CLM Act not required	-28.6874242	153.6072824
SURRY HILLS	Woolworths Petrol Surry Hills	475 Cleveland STREET	Service Station	Regulation under CLM Act not required	-33.89203644	151.216217
SURRY HILLS	Former Legion Cabs (Trading) Cooperative	81 & 81A (Formerly 69 - 81) Foveaux STREET	Service Station	Regulation under CLM Act not required	-33.88470082	151.2107944
SURRY HILLS	Ausgrid Road Reserve	Mary STREET	Other Industry	Regulation under CLM Act not required	-33.88292195	151.2095176
SUTHERLAND	United Service Station and Sutherland Reservoir	1 to 3 Oxford STREET	Service Station	Contamination currently regulated under CLM Act	-34.029532	151.0579906
SUTHERLAND	7-Eleven Service Station	693 Old Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.02976735	151.0588789
SUTTON FOREST	Coles Express Sutton Forest West	Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-34.60808989	150.2250592
SWANSEA	Caltex Service Station	126 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.08811841	151.6381764
SYDENHAM	SRA Land	117 Railway PARADE	Other Industry	Regulation under CLM Act not required	-33.91560723	151.1656846
SYDENHAM	Sydenham XPT Maintenance Facility	Way STREET	Other Industry	Regulation under CLM Act not required	-33.91698468	151.1614089
SYDNEY	Interpro House (OSP 46581)	447 Kent STREET	Other Petroleum	Regulation under CLM Act not required	-33.87225413	151.204761
SYDNEY OLYMPIC PARK	RMS Western Precinct	14A-14E and 16 Hill ROAD	Other Petroleum	Regulation under CLM Act not required	-33.82239777	151.0758664
SYDNEY OLYMPIC PARK	Haslams Creek South Area 3	At Kronos Hill, Kevin Coombes AVENUE	Landfill	Contamination formerly regulated under the CLM Act	-33.84113059	151.0602966
SYDNEY OLYMPIC PARK	Bicentennial Park	Bicentennial DRIVE	Landfill	Ongoing maintenance required to manage residual contamination (CLM Act)	-33.84456248	151.0788116
SYDNEY OLYMPIC PARK	Woo-la-ra Landfill	Hill ROAD	Landfill	Ongoing maintenance required to manage residual contamination (CLM Act)	-33.82695807	151.07282
SYDNEY OLYMPIC PARK	Blaxland Common Landfill	Jamieson STREET	Landfill	Ongoing maintenance required to manage residual contamination (CLM Act)	-33.82638382	151.05972
SYDNEY OLYMPIC PARK	Kronos Hill Landfill	Kevin Coombes AVENUE	Landfill	Ongoing maintenance required to manage residual contamination (CLM Act)	-33.84014442	151.0649521

Healthy Environment, Healthy Community, Healthy Business

Search results

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

Suburb - SUMMER HILL

returned 6 results

Export to excel 1 of 1 Pages Search Again

Number	Name	Location	Type	Status	Issued date
2024	ALLIED MILLS PTY LIMITED	2 SMITH STREET, SUMMER HILL, NSW 2130	POEO licence	Surrendered	16 Feb 2000
1012769	ALLIED MILLS PTY LIMITED	2 SMITH STREET, SUMMER HILL, NSW 2130	s.58 Licence Variation	Issued	08 Nov 2001
1019846	ALLIED MILLS PTY LIMITED	2 SMITH STREET, SUMMER HILL, NSW 2130	s.58 Licence Variation	Issued	15 Aug 2002
1028475	ALLIED MILLS PTY LIMITED	2 SMITH STREET, SUMMER HILL, NSW 2130	s.58 Licence Variation	Issued	07 Jul 2003
1052120	ALLIED MILLS PTY LIMITED	2 SMITH STREET, SUMMER HILL, NSW 2130	s.58 Licence Variation	Issued	23 Sep 2005
1065188	ALLIED MILLS PTY LIMITED	2 SMITH STREET, SUMMER HILL, NSW 2130	s.58 Licence Variation	Issued	14 Sep 2006

18 September 2017

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We
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Healthy Environment, Healthy Community, Healthy Business

Home Contaminated land Record of notices

Search results

Your search for:Suburb: SUMMER HILL

Search Again
Refine Search

did not find any records in our database.

If a site does not appear on the record it may still be affected by contamination. For example:

- Contamination may be present but the site has not been regulated by the EPA under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.
- The EPA may be regulating contamination at the site through a licence or notice under the Protection of the Environment Operations Act 1997 (POEO Act).
- Contamination at the site may be being managed under the planning process.

Search TIP

To search for a specific site, search by LGA (local government area) and carefully review all sites listed.

... more search tips

More information about particular sites may be available from:

- The POEO public register
- The appropriate planning authority: for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act.

See What's in the record and What's not in the record.

If you want to know whether a specific site has been the subject of notices issued by the EPA under the CLM Act, we suggest that you search by Local Government Area only and carefully review the sites that are listed.
This public record provides information about sites regulated by the EPA under the Contaminated Land Management Act 1997, including sites currently and previously regulated under the Environmentally Hazardous Chemicals Act 1985. Your inquiry using the above search criteria has not matched any record of current or former regulation. You should consider searching again using different criteria. The fact that a site does not appear on the record does not necessarily mean that it is not affected by contamination. The site may have been notified to the EPA but not yet assessed, or contamination may be present but the site is not yet being regulated by the EPA. Further information about particular sites may be available from the appropriate planning authority, for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act. In addition the EPA may be regulating contamination at the site through a licence under the Protection of the Environment Operations Act 1997. You may wish to search the POEO public register.POEO public register

18 September 2017

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Section 55 Protection of the Environment Operations Act 1997

Environment Protection Licence

Licence - 2024

Department of
Environment, Climate Change and Water NSW

Licence Details	
Number:	2024
Anniversary Date:	02-July
Review Due Date:	23-Sep-2010

Licensee

ALLIED MILLS PTY LIMITED
PO BOX 1
SUMMER HILL NSW 2130

Licence Type

Premises

Premises

ALLIED MILLS PTY LTD
2 SMITH STREET
SUMMER HILL NSW 2130

Scheduled Activity

Agricultural processing

Fee Based Activity	**Scale**
General agricultural processing	> 100000 - 250000 T processed

Region

Metropolitan
Level 3, NSW Govt Offices, 84 Crown Street
WOLLONGONG NSW 2500
Phone: 02 4224 4100
Fax: 02 4224 4110

PO Box 513 WOLLONGONG EAST
NSW 2520

Environment Protection Licence

Licence - 2024

Department of Environment, Climate Change and Water NSW

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Information about this licence

Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act); and
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).

The EPA publication "A Guide to Licensing" contains information about how to calculate your licence fees.

The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

This licence is issued to:

ALLIED MILLS PTY LIMITED
PO BOX 1
SUMMER HILL NSW 2130

subject to the conditions which follow.

1 Administrative conditions

A1 What the licence authorises and regulates

A1.1 Not applicable.

A1.2 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity
Agricultural processing

Fee Based Activity	Scale
General agricultural processing	> 100000 - 250000 T processed

A1.3 Not applicable.

A2 Premises to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
ALLIED MILLS PTY LTD
2 SMITH STREET
SUMMER HILL
NSW
2130
LOT1 DP315

A3 Other activities

A3.1 Not applicable.

A4 Information supplied to the EPA

A4.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:
(a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
(b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

2 Discharges to air and water and applications to land

P1 Location of monitoring/discharge points and areas

P1.1 Not applicable.

P1.2 Not applicable.

P1.3 Not applicable.

3 Limit conditions

L1 Pollution of waters

L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

L2 Load limits

L2.1 Not applicable.

L2.2 Not applicable.

L3 Concentration limits

L3.1 Not applicable.

L3.2 Not applicable.

L3.3 Not applicable.

L4 Volume and mass limits

L4.1 Not applicable.

L5 Waste

L5.1 Not applicable.

L6 Noise Limits

L6.1 Noise from the premises must not exceed:
(a) an $L_{A10\ (15\ minute)}$ noise emission criterion of 45 dB(A) (7am to 6pm) Monday to Friday; and
(b) an $L_{A10\ (15\ minute)}$ noise emission criterion of 40 dB(A) during the evening (6pm to 10pm) Monday to Friday; and
(c) at all other times, an $L_{A10\ (15\ minutes)}$ noise emission criterion of 35 dB(A),
except as expressly provided by this licence.

L6.2 Noise from the premises is to be measured or computed at any point within one metre of the most affected residential property in the vicinity of the premises to determine compliance with condition L6.1.

4 Operating conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.

This includes:
(a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
(b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:
(a) must be maintained in a proper and efficient condition; and
(b) must be operated in a proper and efficient manner.

O3 Dust

O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

5 Monitoring and recording conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.

M1.2 All records required to be kept by this licence must be:

(a) in a legible form, or in a form that can readily be reduced to a legible form;
(b) kept for at least 4 years after the monitoring or event to which they relate took place; and
(c) produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:
(a) the date(s) on which the sample was taken;
(b) the time(s) at which the sample was collected;
(c) the point at which the sample was taken; and
(d) the name of the person who collected the sample.

M2 Requirement to monitor concentration of pollutants discharged

M2.1 Not applicable.

M3 Testing methods - concentration limits

M3.1 Not applicable.

M3.2 Not applicable.

M4 Recording of pollution complaints

M4.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

M4.2 The record must include details of the following:
(a) the date and time of the complaint;
(b) the method by which the complaint was made;
(c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
(d) the nature of the complaint;
(e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
(f) if no action was taken by the licensee, the reasons why no action was taken.

M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M4.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M5 Telephone complaints line

M5.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

M5.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

M5.3 Conditions M5.1 and M5.2 do not apply until 3 months after:
(a) the date of the issue of this licence or
(b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.

M6 Requirement to monitor volume or mass

M6.1 Not applicable.

6 Reporting conditions

R1 Annual return documents

What documents must an Annual Return contain?

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:
(a) a Statement of Compliance; and
(b) a Monitoring and Complaints Summary.
A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

Period covered by Annual Return

R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

R1.3 Where this licence is transferred from the licensee to a new licensee:
(a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and

(b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:
(a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
(b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

Deadline for Annual Return

R1.5 The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

Notification where actual load can not be calculated

R1.6 Not applicable.

Licensee must retain copy of Annual Return

R1.7 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

Certifying of Statement of Compliance and signing of Monitoring and Complaints Summary

R1.8 Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:
(a) the licence holder; or
(b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

R1.9 A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence.

R2 Notification of environmental harm

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:
(a) where this licence applies to premises, an event has occurred at the premises; or
(b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,
and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:
(a) the cause, time and duration of the event;
(b) the type, volume and concentration of every pollutant discharged as a result of the event;
(c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
(d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
(e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
(f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
(g) any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

General conditions

G1 Copy of licence kept at the premises

G1.1 A copy of this licence must be kept at the premises to which the licence applies.

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

Pollution studies and reduction programs

U1 Not applicable.

Special conditions

E1 Not applicable.

Dictionary

General Dictionary

In this licence, unless the contrary is indicated, the terms below have the following meanings:

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
BOD	Means biochemical oxygen demand
CEM	Together with a number, means a continuous emission monitoring method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
COD	Means chemical oxygen demand

composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 1998.
flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
general solid waste (non-putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
general solid waste (putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997

regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 months. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
restricted solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
scheduled activity	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
special waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TM	Together with a number, means a test method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
TSP	Means total suspended particles
TSS	Means total suspended solids
Type 1 substance	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
Type 2 substance	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste type	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non-putrescible), special waste or hazardous waste

Mr David Dutaillis

Environment Protection Authority

(By Delegation)

Date of this edition - 01-Oct-2009

Department of Environment, Climate Change and Water NSW

End Notes

1	Licence transferred through application 140883, approved on 07-Nov-2001, which came into effect on 07-Nov-2001.
2	Licence varied by notice 1012769, issued on 08-Nov-2001, which came into effect on 08-Nov-2001.
3	Licence varied by notice 1019846, issued on 15-Aug-2002, which came into effect on 09-Sep-2002.
4	Licence varied by correction to EPA Sub Region data record, issued on 17-Sep-2002, which came into effect on 17-Sep-2002.
5	Licence varied by notice 1028475, issued on 07-Jul-2003, which came into effect on 01-Aug-2003.
6	Licence varied by notice 1052120, issued on 23-Sep-2005, which came into effect on 18-Oct-2005.
7	Licence varied by notice 1065188, issued on 14-Sep-2006, which came into effect on 14-Sep-2006.
8	Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
9	This licence was surrendered by notice 1106564 on 01-Oct-2009.

Healthy Environment, Healthy Community, Healthy Business

Licence summary

Search Again | Return to Previous Page

Summary Licence No: 2024

View this licence (PDF document 105 kb)

Licence holder: ALLIED MILLS PTY LIMITED
Premises: ALLIED MILLS PTY LTD
2 SMITH STREET, SUMMER HILL, NSW, 2130
LGA: ASHFIELD **Catchment:** Sydney Coast & Georges River
Administrative fee: $5,500.00
Licence status: Surrendered
Activity type: General agricultural processing
Licence review: Complete date 23 Sep 2005
Complete date 08 Nov 2001
Due date 23 Sep 2010
Pollution incident management plan: No

Applications

Number	Application type	Current status	Date received
140883	s.55 Licence Transfer	Approved	07 Nov 2001
141988	s.58 Licence Variation	Refused	28 Mar 2003
1106564	s.80 Surrender of a Licence	Issued	08 Jul 2009

Notices

Number	Issue date	Notice type
1012769	08 Nov 2001	s.58 Licence Variation
1019846	15 Aug 2002	s.58 Licence Variation
1028475	07 Jul 2003	s.58 Licence Variation
1052120	23 Sep 2005	s.58 Licence Variation
1065188	14 Sep 2006	s.58 Licence Variation
1106564	01 Oct 2009	s.80 Surrender of a Licence

Annual Returns

Start date	End date	Date received	Non-compliance	LBL data	
02-Jul-2009	01-Oct-2009				Download Annual Return Form
02-Jul-2008	01-Jul-2009	20-Jul-2009	No	Not available	
02-Jul-2007	01-Jul-2008	27-Aug-2008	No	Not available	
02-Jul-2006	01-Jul-2007	29-Aug-2007	No	Not available	
02-Jul-2005	01-Jul-2006	03-Aug-2006	No	Not available	
02-Jul-2004	01-Jul-2005	19-Aug-2005	No	Not available	
02-Jul-2003	01-Jul-2004	06-Aug-2004	No	Not available	
02-Jul-2002	01-Jul-2003	22-Aug-2003	No	Not available	
02-Jul-2001	01-Jul-2002	28-Aug-2002	No	Not available	
02-Jul-2000	01-Jul-2001	14-Aug-2001	No	Not available	
02-Jul-1999	01-Jul-2000	11-Oct-2000	No	Not available	

Appendix H Section 149 (2) and (5) Certificate

INNER WEST COUNCIL

PLANNING CERTIFICATE UNDER SECTION 149
ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979

JBS&G
Lv 1 50 Margaret Street
SYDNEY NSW 2000

Certificate Number:	20170472	**Certificate Date:**	08/06/2017
Receipt Number:	1243069	**Certificate Fee:**	$133.00
Property Number:	39512	**Applicant's Reference:**	52961

DESCRIPTION OF PROPERTY

Title:	**LOT: 2 DP: 717782**
Property:	**74-75 Carlton Crescent SUMMER HILL 2130**

LAND TO WHICH CERTIFICATE RELATES

The land to which this certificate relates, being the lot or one of the lots described in the corresponding application, is shown in the Council's records as being situated at the street address described on page 1 of this certificate. The information contained in this certificate relates only to the lot described on the certificate. Where the street address comprises more than one lot in one or more deposited plans or strata plans, separate planning certificates can be obtained upon application for the other lots. Those certificates may contain different information than is contained in this certificate.

SECTION 149(2) DETAILS

In accordance with section 149(2) of the Environmental Planning and Assessment Act 1979, at the date of this certificate the following information is provided in respect of the prescribed matters to be included in a planning certificate.

1 RELEVANT ENVIRONMENTAL PLANNING INSTRUMENTS

(a) The following environmental planning instrument applies to the land:

Ashfield Local Environmental Plan 2013
Effective Date: 23 December 2013

Website: **http://143.119.201.4/maintop/view/inforce/epi+753+2013+cd+0+N**

The effect of the above local environmental plan is:

B2 - Local Centre

1 Objectives of zone

To provide a range of retail, business, entertainment and community uses that serve the needs of people who live in, work in and visit the local area.
To encourage employment opportunities in accessible locations.
To maximise public transport patronage and encourage walking and cycling.
To encourage residential accommodation as part of mixed use development.

2 Permitted without consent

Home occupations

3 Permitted with consent

Boarding houses; Business identification signs; Child Care centres; Commercial premises; Community facilities; Educational establishments; Entertainment facilities; Function centres; Hostels; Information and education facilities; Medical centres; Passenger transport facilities; Recreation facilities (indoor); Registered clubs; Respite day care centres; Restricted premises; Roads; Self-storage units; Seniors housing; Service stations; Shop top housing; Tourist and visitor accommodation; Any other development not specified in item 2 or 4

4 Prohibited

Agriculture; Air transport facilities; Airstrips; Animal boarding or training establishments; Biosolids treatment facilities; Boat building and repair facilities; Boat launching ramps; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism; boating facilities; Correctional centres; Crematoria; Depots; Eco-tourist facilities; Electricity generating works; Environmental facilities; Exhibition villages; Extractive industries; Farm buildings; Forestry; Freight transport facilities; Heavy industrial storage establishments; Helipads; Highway service centres; Home occupations (sex services); Industrial retail outlets; Industries; Jetties; Marinas; Mooring pens; Moorings; Mortuaries; Open cut mining; Recreation facilities (major); Residential accommodation; Resource recovery facilities; Rural industries; Sewage treatment plants; Sex services premises; Signage; Storage premises; Transport depots; Truck depots; Vehicle body repair workshops; Warehouse or distribution centres; Waste disposal facilities; Water recreation structures; Water recycling facilities; Water supply systems

(b) Does the land include or comprise 'critical habitat' under the provision of the local environmental plan applying to the land?

No

(c) Is the land located within a heritage conservation area under the provisions of the local environmental plan applying to the land?

Yes, pursuant to the Ashfield LEP 2013.

(d) Is there a heritage item situated on the land under the provisions of the local environmental plan applying to the land?

No

(e) Is the item in the State Heritage Register?

No

2 NAME OF RELEVANT DEVELOPMENT CONTROL PLAN

Inner West Comprehensive Development Control Plan 2016 for Ashbury, Ashfield, Croydon, Croydon Park, Haberfield, Hurlstone Park and Summer Hill.

3 NAMES OF RELEVANT DEVELOPMENT CONTROL PLANS PREPARED BY THE DIRECTOR GENERAL – DEPARTMENT OF PLANNING

Inner West Comprehensive Development Control Plan 2016 for Ashbury, Ashfield, Croydon, Croydon Park, Haberfield, Hurlstone Park and Summer Hill.

4 RELEVANT STATE/DRAFT STATE ENVIRONMENTAL PLANNING POLICIES AND DEEMED STATE ENVIRONMENTAL PLANNING POLICIES APPLYING TO THE LAND.

The following is a list of State, Draft State Environmental Planning Policies (SEPP's) and Deemed State Environmental Planning Policies that apply to the Ashfield Local Government Area. The policy or draft policy may or may not be specifically applicable to the land that is the subject of this certificate. You will need to examine the policy or draft policy for the necessary details.

Any enquiries regarding State Environmental Planning Policies should be directed to the Department of Planning on:(02) 9228 6111 or visit their Website – http://www.planning.nsw.gov.au

State Environmental Planning Policies (SEPP's)

State Environmental Planning Policy No. 19 – Bushland in Urban Areas.
State Environmental Planning Policy No. 32 – Urban Consolidation (Redevelopment of Urban Land)
State Environmental Planning Policy No. 33 – Hazardous and Offensive Development.
State Environmental Planning Policy No. 36 – Manufactured Home Estates.
State Environmental Planning Policy No. 55 – Remediation of Land
State Environmental Planning Policy No. 64 – Advertising and Signage.
State Environmental Planning Policy No. 65 – Design Quality of Residential Flat Development
State Environmental Planning Policy (Affordable Rental Housing) 2009
State Environmental Planning Policy Building Sustainability Index: BASIX 2004
State Environmental Planning Policy (Exempt and Complying Development Codes) 2008
State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004
State Environmental Planning Policy (Infrastructure) 2007
State Environmental Planning Policy (State and Regional Development) 2011
State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011
State Environmental Planning Policy (Urban Renewal) 2010
Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005

Draft State Environmental Planning Policies

Draft State Environmental Planning Policy (Competition) 2010.

Deemed State Environmental Planning Policies

Deemed State Environmental Planning Policy (Sydney Harbour Catchment) 2005.

4A INFORMATION RELATING TO BEACHES AND COASTS

(1) whether an order has been made under Part 4D of the *Coastal Protection Act 1979* in relation to emergency coastal protection works (within the meaning of that Act) on the land (or on public land adjacent to that land), except where the council is satisfied that such an order has been fully complied with. **No**

(2)

(a) whether the council has been notified under section 55X of the *Coastal Protection Act 1979* that emergency protection works (within the meaning of that Act) have been placed on the land (or on public land adjacent to that land), and

(b) if works have been so placed – whether the council is satisfied that the works have been removed and the land restored in accordance with that Act. **No**

(3) such information (if any) as is required by the regulations under section 56B of the *Coastal Protection Act 1979* to be included in the planning certificate and of which the council has been notified pursuant to those regulations. **Not applicable**

4B ANNUAL CHARGES FOR COASTAL PROTECTION SERVICES UNDER LOCAL *GOVERNMENT ACT 1993*

Whether the owner (or any previous owner) of the land has consented in writing to the land being subject to annual charges under section 496B of the *Local Government Act 1993* for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act). **Not applicable**

5 COASTAL PROTECTION

Is the land affected by the operation of section 38 or 39 of the Coastal Protection Act 1979, but only to the extent that Council has been so notified by the Department of Public Works? **No**

6 MINE SUBSIDENCE

Is the land proclaimed to be a mine subsidence district within the meaning of section 15 of the Mine Subsidence Compensation Act 1961? **No**

7 ROAD WIDENING AND ROAD REALIGNMENT

Whether or not the land is land affected by any road widening or road realignment under:
(a) Division 2 of Part 3 of the Roads Act 1993; or
(b) any environmental planning instrument; or
(c) any resolution of the council?

No

8 COUNCIL AND OTHER PUBLIC AUTHORITY POLICIES RESTRICTING DEVELOPMENT DUE TO RISKS OR HAZARDS

Is the land affected by a policy:
(a) adopted by the Council; or
(b) adopted by any other public authority and notified to the Council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the Council, that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding)?
No

9 LAND RESERVED FOR ACQUISITION

Is there an environmental planning instrument, deemed environmental planning instrument or draft environmental planning instrument applying to the land providing for the acquisition of the land by a public authority, as referred to in section 27 of the Environmental Planning and Assessment Act 1979?
No

10 CONTRIBUTIONS PLANS

Ashfield Section 94 and Section 94A Contributions Plans apply to the land for land affected by the Ashfield LEP 2013.

11 DEMOLITION OF BUILDINGS

Under the local environmental plan applying to the land, development consent is required for the demolition of any building on the land, except in those circumstances for exempt and complying development specified in Ashfield LEP 2013 – Exempt and Complying Development, and except in those circumstances specified in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

12 MINIMUM LAND DIMENSIONS FOR THE ERECTION OF A DWELLING-HOUSE (APPLICABLE TO RESIDENTIAL ZONES ONLY)

Whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed.

No

13 TREE PRESERVATION ORDER

The whole of the Ashfield area, to the extent defined by the Ashfield LEP 2013, is affected by a Tree Preservation Order as found in the Inner West Comprehensive Development Control Plan 2016 for Ashbury, Ashfield, Croydon, Croydon Park, Haberfield, Hurlstone Park and Summer Hill.

14 FLOOD RELATED DEVELOPMENT CONTROLS INFORMATION

(1) Whether or not development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.
Yes

(2) Whether or not development on that land or part of the land for any other purpose is subject to flood related development controls.
Yes

(3) Words and expressions in this clause have the same meanings as in the instrument set out in the Schedule to the *Standard Instrument (Local Environmental Plans) Order 2006*.

15 BUSH FIRE PRONE LAND

Is the land bush fire prone land (as defined in the Act)? **No**

16 PROPERTY VEGETATION PLANS

Is the land to which a property vegetation plan under the *Native Vegetation Act 2003* applies? **No**

17 ORDERS UNDER TREES (DISPUTES BETWEEN NEIGHBOURS) ACT 2006

Has an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land (but only if the Council has been notified of the order)? **No**

18 DIRECTIONS UNDER PART 3A

Is there is a direction by the Minister in force under section 75P (2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect, a statement to that effect identifying the provision that does not have effect.
Not applicable

19 SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR SENIORS HOUSING

If the land is land to which *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* applies:

(a) a statement of whether there is a current site compatibility certificate (of which the Council is aware), issued under clause 25 of that Policy in respect of proposed development on the land and, if there is a certificate, the statement is to include:

(i) the period for which the certificate is current, and
(ii) that a copy may be obtained from the head office of the Department of Planning, and

(b) a statement setting out any terms of a kind referred to in clause 18 (2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.

Not applicable

20 SITE COMPATIBILITY CERTIFICATES FOR INFRASTRUCTURE

A statement of whether there is a valid site compatibility certificate (of which the council is aware), issued under clause 19 of *State Environmental Planning Policy (Infrastructure) 2007* in respect of proposed development on the land and, if there is a certificate, the statement is to include:

(a) the period for which the certificate is valid, and
(b) that a copy may be obtained from the head office of the Department of Planning.

Not applicable

21 SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR AFFORDABLE RENTAL HOUSING

(1) A statement of whether there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:

(a) the period for which the certificate is current, and
(b) that a copy may be obtained from the head office of the Department of Planning.

(2) A statement setting out any terms of a kind referred to in clause 17 (1) or 37 (1) of *State Environmental Planning Policy (Affordable Rental Housing) 2009* that have been imposed as a condition of consent to a development application in respect of the land.

Not applicable

22 SITE VERIFICATION CERTIFICATES

Is there a current site verification certificate, of which the council is aware, in respect of the land.

NO

23 MATTERS ARISING UNDER THE CONTAMINATED LAND MANAGEMENT ACT 1997

(a) is the land to which the certificate relates **significantly contaminated land** — if the land (or part of the land) is declared to be significantly contaminated land at the date when this certificate is issued?

No

(b) is the land to which this certificate relates **subject to a management order** — if it is subject to such an order at the date when this certificate is issued?

No

(c) is the land to which this certificate relates the subject of an approved voluntary management proposal — if it is the subject of such an approved proposal at the date when this certificate is issued?

No

(d) is the land to which this certificate relates **subject to an ongoing maintenance order** — if it is subject to such an order at the date when this certificate is issued?

No

(e) is the land to which this certificate relates the **subject of a site audit statement** — if a copy of such a statement has been provided at any time to the local authority issuing this certificate?

No

24 COMPLYING DEVELOPMENT

Provide information on whether or not land is land on which complying development may be carried out under each of the codes for complying development in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008. If complying development may not be carried out on that land because of one or more of the requirements under clause 1.19 of that Policy, why it may not be carried out.

i) General Housing Code

Complying Development under the General Housing Code MAY NOT be carried out on this land. Pursuant to the Ashfield LEP 2013, the land is affected by specific land exemptions:

- land within a heritage conservation area (unless the development is a detached outbuilding or swimming pool).

ii) General Development Code

Complying Development under the General Development Code MAY be carried out on this land subject to compliance with provisions of the code.

iii) Housing Alterations Code

Complying Development under the Housing Alterations Code MAY be carried out on this land subject to compliance with provisions of the code.

iv) General Commercial and Industrial Code

Complying Development under the General Commercial/Industrial Code MAY be carried out on this land subject to compliance with provisions of the code.

v) Subdivisions Code (Strata Subdivision)

Complying Development under the Subdivision Code MAY be carried out on this land subject to compliance with provisions of the code.

25 NATION BUILDING AND JOBS PLAN (STATE INFRASTRUCTURE DELIVERY) ACT 2009

Is the land subject to an Order under Section 23 and an authorisation under Section 24 of the Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009.

The order and authorisation may exempt the relevant project from complying with certain development control legislation. For further details please contact the Nation Building and jobs Plan Taskforce on telephone number 1800 752 100.

Not applicable

26 LOOSE-FILL ASBESTOS INSULATION

Is Council aware of whether the land includes residential premises listed on the register maintained under division 1A of Part 8 of the Home Building Act 1989?

No

SECTION 149(5) : SUBJECT TO SECTION 149 (6) THE FOLLOWING ADDITIONAL INFORMATION IS FURNISHED IN RESPECT OF THE ABOVEMENTIONED LAND

27 COUNCIL HAS GRANTED CONSENT TO THE FOLLOWING DEVELOPMENT APPLICATION(S) WITHIN FIVE YEARS PRECEDING THE DATE OF THIS CERTIFICATE.

Please Note: The absence of any information means that Council has not granted a consent within this period.

Rik Hart
Interim General Manager
Inner West Council

Per: .....

Appendix I LFAI Register

Loose-fill asbestos insulation register

Look up the premises address

Please enter exact address information (including street type) of the address you wish to search (Note, the search fields are not case sensitive).

If a match is found, the premises has been identified as containing loose-fill asbestos insulation.

Results will **only** appear if an **exact match** of an address is found.

No Match Found - A search match was not found in the Loose-fill Asbestos Insulation Register

Address searched: (74 Carlton Crescent Summer Hill)

This information is correct at the time of the search

Unit

Street number

Street name

Street type

Suburb

Search

Loose-fill asbestos insulation register

Look up the premises address

Please enter exact address information (including street type) of the address you wish to search (Note, the search fields are not case sensitive).

If a match is found, the premises has been identified as containing loose-fill asbestos insulation.

Results will **only** appear if an **exact match** of an address is found.

No Match Found - A search match was not found in the Loose-fill Asbestos Insulation Register

Address searched: (75 Carlton Crescent Summer Hill)

This information is correct at the time of the search

Unit

Street number

Street name

Street type

Suburb

Search

Appendix J Heritage Records

Search Results

4 results found.

Long Cove Creek Whipple Truss Rail Bridge Old Canterbury Rd	Lewisham, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Summer Hill Post Office (former) 2 Moonbie St	Summer Hill, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Summer Hill Public School Junction Rd	Summer Hill, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
The Pressure Tunnel	Potts Hill Waterloo, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)

Report Produced: Mon Sep 18 15:12:53 2017

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Summer Hill Ambulance Station

Item details

Name of item: Summer Hill Ambulance Station

Type of item: Built

Primary address: 74-76 Carlton Crescent, Summer Hill, NSW 2130

Parish: PETERSHAM

County: CUMBERLAND

Local govt. area: Ashfield

Property description

Lot/Volume Code	Lot/Volume Number	Section Number	Plan/Folio Code	Plan/Folio Number

All addresses

Street Address	Suburb/town	LGA	Parish	County	Type
74-76 Carlton Crescent	Summer Hill	Ashfield	PETERSHAM	CUMBERLAND	Primary Address

Owner/s

Organisation Name	Owner Category	Date Ownership Updated
NSW Department of Health	State Government	20 Jul 05

Statement of significance:

Of historical significance associated with provision of ambulance services in the district.

Note: There are incomplete details for a number of items listed in NSW. The Heritage Division intends to develop or upgrade statements of significance and other information for these items as resources become available.

Description

Modifications and dates: 1936, 1955

Further information: Recommended conservation strategy as per Preliminary Heritage and Conservation Register, Central District, Feb 1992. Subject to further investigation.

History

Historical notes: Ambulance Station built in 1925 and enlarged in 1936 and 1955.

Historic themes

Australian theme (abbrev)	New South Wales theme	Local theme
3. Economy-Developing local, regional and national economies	Health-Activities associated with preparing and providing medical assistance and/or promoting or maintaining the well being of humans	(none)-

Recommended management:

Refer to Preliminary Heritage and Conservation Register - Central District AHS (1992)

Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
Heritage Act - s.170 NSW State agency heritage register	Dep. Of Health s.170 Register				

References, internet links & images

Type	Author	Year	Title	Internet Links
Written	Schwager Brooks and Partners		Study	

Note: internet links may be to web pages, documents or images.

Data source

The information for this entry comes from the following source:

Name: State Government

Database number: 3540067

Return to previous page

Every effort has been made to ensure that information contained in the State Heritage Inventory is correct. If you find any errors or omissions please send your comments to the **Database Manager**.

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Office of Environment & Heritage

Home > Topics > Heritage places and items > Search for heritage

Search for NSW heritage

Return to search page where you can refine/broaden your search.

Statutory listed items

Information and items listed in the State Heritage Inventory come from a number of sources. This means that there may be several entries for the same heritage item in the database. For clarity, the search results have been divided into three sections.

- **Section 1** - contains Aboriginal Places declared by the **Minister for the Environment** under the National Parks and Wildlife Act. This information is provided by the Heritage Division.
- **Section 2** - contains heritage items listed by the **Heritage Council of NSW** under the NSW Heritage Act. This includes listing on the State Heritage Register, an Interim Heritage Order or protected under section 136 of the NSW Heritage Act. This information is provided by the Heritage Division.
- **Section 3** - contains items listed by **local councils** on Local Environmental Plans under the Environmental Planning and Assessment Act, 1979 and **State government agencies** under s.170 of the Heritage Act. This information is provided by local councils and State government agencies.

Section 1. Aboriginal Places listed under the National Parks and Wildlife Act.

Your search did not return any matching results.

Section 2. Items listed under the NSW Heritage Act.

Your search returned 2 records.

Item name	Address	Suburb	LGA	SHR
Lewisham Railway viaducts over Long Cove Creek	Great Southern and Western Railway	Lewisham/Summer Hill	Marrickville	01043
Lewisham Sewage Aqueduct	Grosvenor Crescent East	Summer Hill	Ashfield	01326

Section 3. Items listed by Local Government and State Agencies.

Your search returned 128 records.

Item name	Address	Suburb	LGA	Information source
Battle Bridge	Parramatta Road (At Hawthorn Canal)	Summer Hill	Ashfield	LGOV
Cottage	70 Kensington Road	Summer Hill	Ashfield	LGOV
Cottage	39 Smith Street	Summer Hill	Ashfield	LGOV
Cottage	44 Sloane Street	Summer Hill	Ashfield	LGOV
Cottage	164 Smith Street	Summer Hill	Ashfield	LGOV
Electricity Substation No. 1439	2 Carrington Street	Summer Hill	Ashfield	SGOV
Flats	6 Sunning Place	Summer Hill	Ashfield	LGOV
Flats	3 Sunning Place	Summer Hill	Ashfield	LGOV

Flats	7 Sunning Place	Summer Hill	Ashfield	LGOV
Flats - Delfrere	1 Sunning Place	Summer Hill	Ashfield	LGOV
Flats - Hillcrest	5 Sunning Place	Summer Hill	Ashfield	LGOV
Flats - Jesmond	169 Smith Street	Summer Hill	Ashfield	LGOV
Flats - Navua	22 Gower Street	Summer Hill	Ashfield	LGOV
Flats - Rewa	22 Gower Street	Summer Hill	Ashfield	LGOV
Flats - Toalar	159 Smith Street	Summer Hill	Ashfield	LGOV
Former Shop With Dwelling Above	109 Smith Street	Summer Hill	Ashfield	LGOV
Four Houses	83, 85, 87 and 89 Kensington Road	Summer Hill	Ashfield	LGOV
Four Small Semi-detached Houses	3,5,7,9 Bogan Street	Summer Hill	Ashfield	LGOV
Grosvenor Hospital - Nurses Quarters	52 Grosvenor Crescent	Summer Hill	Ashfield	LGOV
Group of Buildings	74-90 Moonbie Street	Summer Hill	Ashfield	LGOV
Group of Buildings	8,10,12,14,16,18 Junction Road	Summer Hill	Ashfield	LGOV
Group of Buildings	212-214 Old Canterbury Road	Summer Hill	Ashfield	LGOV
Group of Five Houses	176,178,180,182,184 Smith Street	Summer Hill	Ashfield	LGOV
Group of Three Houses	10,14,16 Drynana Street	Summer Hill	Ashfield	LGOV
Group of Three Houses	44, 46 and 48 Nowranie Street	Summer Hill	Ashfield	LGOV
Group of Two Houses	15, 17 Henson Street	Summer Hill	Ashfield	LGOV
Group of Two Houses	6-8 Teakle Street	Summer Hill	Ashfield	LGOV
Group of Two Houses	154-156 Smith Street	Summer Hill	Ashfield	LGOV
Group of Two Houses	2-4 Kensington Road	Summer Hill	Ashfield	LGOV
Group of Two Houses	30-32 Moonbie Street	Summer Hill	Ashfield	LGOV
Group of Two Houses	37-39 Moonbie Street	Summer Hill	Ashfield	LGOV
Group of Two Matching Free Standing Houses	160-162 Smith Street	Summer Hill	Ashfield	LGOV
Hillview	30a Kensington Road	Summer Hill	Ashfield	LGOV

House	296 Old Canterbury Road	Summer Hill	Ashfield	LGOV
House	28 Kensington Road	Summer Hill	Ashfield	LGOV
House	63 Morris Street	Summer Hill	Ashfield	LGOV
House	7 Teakle Street	Summer Hill	Ashfield	LGOV
House	30 Henson Street	Summer Hill	Ashfield	LGOV
House	12 Sloane Street	Summer Hill	Ashfield	LGOV
House	19 Moonbie Street	Summer Hill	Ashfield	LGOV
House	41 Moonbie Street	Summer Hill	Ashfield	LGOV
House	58 Moonbie Street	Summer Hill	Ashfield	LGOV
House	9 Drynan Street	Summer Hill	Ashfield	LGOV
House	156 Old Canterbury Road	Summer Hill	Ashfield	LGOV
House	20 Bogan Street	Summer Hill	Ashfield	LGOV
House - Dunagall	3 Hurlstone Avenue	Summer Hill	Ashfield	LGOV
House - Englemere	6 Henson Street	Summer Hill	Ashfield	LGOV
House - Kelross	4 Dover Street	Summer Hill	Ashfield	LGOV
House - Kenilworth	12 Dover Street	Summer Hill	Ashfield	LGOV
House - Kiltycrowse	16 Hurlstone Avenue	Summer Hill	Ashfield	LGOV
House - Lyndmoyne	26 Seaview Street	Summer Hill	Ashfield	LGOV
House - Ohio	51 Henson Street	Summer Hill	Ashfield	LGOV
House - Villa Maria	99 Carlton Crescent	Summer Hill	Ashfield	LGOV
House, Plaistow (One of A Former Pair)	90 Moonbie Street	Summer Hill	Ashfield	LGOV
House, Brundah	57 Junction Road, Corner of Bartlett Street	Summer Hill	Ashfield	LGOV
House, Former	67 Smith Street	Summer Hill	Ashfield	LGOV
Lethington Community Centre With Former Stable Block	133 Smith Street	Summer Hill	Ashfield	LGOV
Lewisham Viaduct	Carlton Crescent	Summer Hill	Ashfield	LGOV
Nine House	13,15,17,19,21,23,25,27	Summe	Ashf	LGOV

	and 29 Kensington Road	r Hill	ield	
North Summer Hill Conservation Area	1-22 Bogan Street	Summe r Hill	Ashf ield	LGOV
Pair of Houses	36-38 Moonbie Street	Summe r Hill	Ashf ield	LGOV
Pair of Semi-detached Houses	82-84 Moonbie Street	Summe r Hill	Ashf ield	LGOV
Pair of Semi-detached Houses	86-88 Moonbie Street	Summe r Hill	Ashf ield	LGOV
Pair of Semi-detached Houses	78-80 Moonbie Street	Summe r Hill	Ashf ield	LGOV
Pair of Semi-detached Houses	14-16 Sloane Street	Summe r Hill	Ashf ield	LGOV
Pair of Semi-detached Houses	29-31 Sloane Street	Summe r Hill	Ashf ield	LGOV
Pair of Semi-detached Houses: Kensington & Rhondda No 76 Was Originally Islingt	74 and 76 Moonbie Street	Summe r Hill	Ashf ield	LGOV
Pair of Semi-detached Residences (Part Of The Wellesley Street Group Row Of Hous	36 and 38 Wellesley Street	Summe r Hill	Ashf ield	LGOV
Pair of Semi-detached Residences (Part Of The Wellesley Street Group Row Of Hous	32 and 34 Wellesley Street	Summe r Hill	Ashf ield	LGOV
Pair of Two Semi-detached Houses	15-17 Moonbie Street	Summe r Hill	Ashf ield	LGOV
Post Office Pillar Box	Sloane Street	Summe r Hill	Ashf ield	LGOV
Prospect Hall Conservation Area	45-63 Henson Street (Odd Numbers Only)	Summe r Hill	Ashf ield	LGOV
Public School: Three Original Buildings, Boys, Girls and Infants	Junction Road	Summe r Hill	Ashf ield	LGOV
Quarantine Ground Conservation Area	1-17 Edward Street (Odd Numbers Only)	Summe r Hill	Ashf ield	LGOV
Quarantine Ground Conservation Area	1-43 Carrington Street	Summe r Hill	Ashf ield	LGOV
Railway Station Booking Office	Carlton Crescent (Opp Lackey Street)	Summe r Hill	Ashf ield	LGOV
Reserve	Yeo Park - Old Canterbury Road	Summe r Hill	Ashf ield	LGOV
Residence	54 Morris Street	Summe r Hill	Ashf ield	LGOV
Residence (Part of The Wellesley Street Group Row Of Houses)	18 Wellesley Street	Summe r Hill	Ashf ield	LGOV
Residence (Part of The Wellesley Street Group Row Of Houses)	44 Wellesley Street, Corner of Nowranie Street	Summe r Hill	Ashf ield	LGOV
Residence, Bronte	21 Moonbie Street	Summe r Hill	Ashf ield	LGOV
Residence, Hercules (Part of The Wellesley Street Group Row Of Houses)	14 Wellesley Street	Summe r Hill	Ashf ield	LGOV
Residence, Minnamurra	52 Morris Street	Summe r Hill	Ashf ield	LGOV
Residence, Rosebrier	50 Morris Street	Summe r Hill	Ashf ield	LGOV

Residence, Runnymede	48 Morris Street	Summer Hill	Ashfield	LGOV
Residence, (Part of The Wellesley Street Group Row Of Houses)	24 Wellesley Street, Corner of Carrington Street	Summer Hill	Ashfield	LGOV
Residence, Allenbank (Part of The Wellesley Street Group Row Of Houses)	6 Wellesley Street	Summer Hill	Ashfield	LGOV
Residence, Berowra (Part of The Wellesley Street Group Row Of Houses)	4 Wellesley Street	Summer Hill	Ashfield	LGOV
Residence, Bowthorne (Part of The Wellesley Street Group Row Of Houses)	22 Wellesley Street	Summer Hill	Ashfield	LGOV
Residence, Bradgate (Part of The Wellesley Street Group Row Of Houses)	40 Wellesley Street	Summer Hill	Ashfield	LGOV
Residence, Coo-ee (Part of The Wellesley Street Group Row Of Houses)	20 Wellesley Street	Summer Hill	Ashfield	LGOV
Residence, Elmhurst (Part of The Wellesley Street Group Row Of Houses)	42 Wellesley Street	Summer Hill	Ashfield	LGOV
Residence, Finsbury (Part of The Wellesley Street Group Row Of Houses)	8 Wellesley Street	Summer Hill	Ashfield	LGOV
Residence, Glenelg (Part of The Wellesley Street Group Row Of Houses)	10 Wellesley Street, Corner of Spencer Street	Summer Hill	Ashfield	LGOV
Residence, Hazeldene (Part of The Wellesley Street Group Row Of Houses) Wyuna Co	12 Wellesley Street	Summer Hill	Ashfield	LGOV
Residence, Shaldon	52 Sloane Street	Summer Hill	Ashfield	LGOV
Residence, Tresbill (Part of The Wellesley Street Group Row Of Houses)	2 Wellesley Street	Summer Hill	Ashfield	LGOV
Residence, Wellesley House (Part of The Wellesley Street Group Row Of Houses)	16 Wellesley Street	Summer Hill	Ashfield	LGOV
Rotunda	Yeo Park - Old Canterbury Road	Summer Hill	Ashfield	LGOV
Row of Houses	2-44 Wellesley Street	Summer Hill	Ashfield	LGOV
Shop and Dwelling New Residence, Former	12 Morris Street	Summer Hill	Ashfield	LGOV
Shop/Dwelling/Office	1, 3 and 5 Lackey Street	Summer Hill	Ashfield	LGOV
Site of Excelsior Brickworks	Lang Street	Summer Hill	Ashfield	LGOV
St Andrews Anglican Church and Church Hall	Henson Street	Summer Hill	Ashfield	LGOV
St Andrew's Church of England	Smith Street	Summer Hill	Ashfield	GAZ
Strata Title Units	1 Junction Road	Summer Hill	Ashfield	LGOV
Strata Title Units	139 Smith Street	Summer Hill	Ashfield	LGOV
Summer Hill Ambulance Station	74-76 Carlton Crescent	Summer Hill	Ashfield	SGOV
Summer Hill Children's Community Centre	28 Moonbie Street	Summer Hill	Ashfield	LGOV

Summer Hill Garage	190 -192 Old Canterbury Road	Summer Hill	Ashfield	LGOV
Summer Hill Hotel	Lackey Street	Summer Hill	Ashfield	LGOV
Summer Hill Post Office	2 Moonbie Street	Summer Hill	Ashfield	LGOV
Summer Hill Railway Station Group	Carlton Crescent	Summer Hill	Ashfield	SGOV
Terrace of Three Residences (Part Of The Wellesley Street Group Row Of Houses)	26, 28 and 30 Wellesley Street	Summer Hill	Ashfield	LGOV
Terrace of Two Pairs Of Houses	13, 15, 17, 19 Fleet Street	Summer Hill	Ashfield	LGOV
Thre Groups of Shops With Dwellings Above	Hardie Avenue	Summer Hill	Ashfield	LGOV
Thre Groups of Shops With Dwellings Above	112, 114, 116-122, 124-128 Smith Street	Summer Hill	Ashfield	LGOV
Three Houses	112, 113, 114 Carlton Crescent	Summer Hill	Ashfield	LGOV
Three Shops With Dwellings	16, 18 and 20 Lackey Street	Summer Hill	Ashfield	LGOV
Trinity Grammar School: Headmaster's House and Chapel	113 and 119 Prospect Road	Summer Hill	Ashfield	LGOV
Two Houses	10 Grosvenor Crescent	Summer Hill	Ashfield	LGOV
Two Houses	14 and 16 Gower Street	Summer Hill	Ashfield	LGOV
Two Joined Houses	30-32 Junction Road	Summer Hill	Ashfield	LGOV
Two Matching Houses	49-51 Morris Street	Summer Hill	Ashfield	LGOV
Villa, Former	10 Gower Street	Summer Hill	Ashfield	LGOV
Weir's Building	2-4 Lackey Street, Corner of Carlton Crescent	Summer Hill	Ashfield	LGOV
Wilga Flats and Shops	132-134 Smith Street	Summer Hill	Ashfield	LGOV
Woods Building	Junction Road	Summer Hill	Ashfield	LGOV

There was a total of 130 records matching your search criteria.

Key:
LGA = Local Government Area
GAZ= NSW Government Gazette (statutory listings prior to 1997), HGA = Heritage Grant Application, HS = Heritage Study, LGOV = Local Government, SGOV = State Government Agency.
Note: While the Heritage Division seeks to keep the Inventory up to date, it is reliant on State agencies and local councils to provide their data. Always check with the relevant State agency or local council for the most up-to-date information.

Appendix K Hazardous Chemicals Search

NSW GOVERNMENT | SafeWork NSW

Locked Bag 2906, Lisarow NSW 2252
Customer Experience 13 10 50
ABN 81 913 830 179 | www.safework.nsw.gov.au

Our Ref: D17/159897
Your Ref: Mitchell Hodgins

15 June 2017

Attention: Mitchell Hodgins
JBS & G Australia Pty Ltd
Level 1
50 Margaret St
Sydney NSW 2000

Dear Mr Hodgins

RE SITE: 74-75 Carlton Cr Summer Hill NSW

I refer to your site search request received by SafeWork NSW on 2 June 2017 requesting information on Storage of Hazardous Chemicals for the above site.

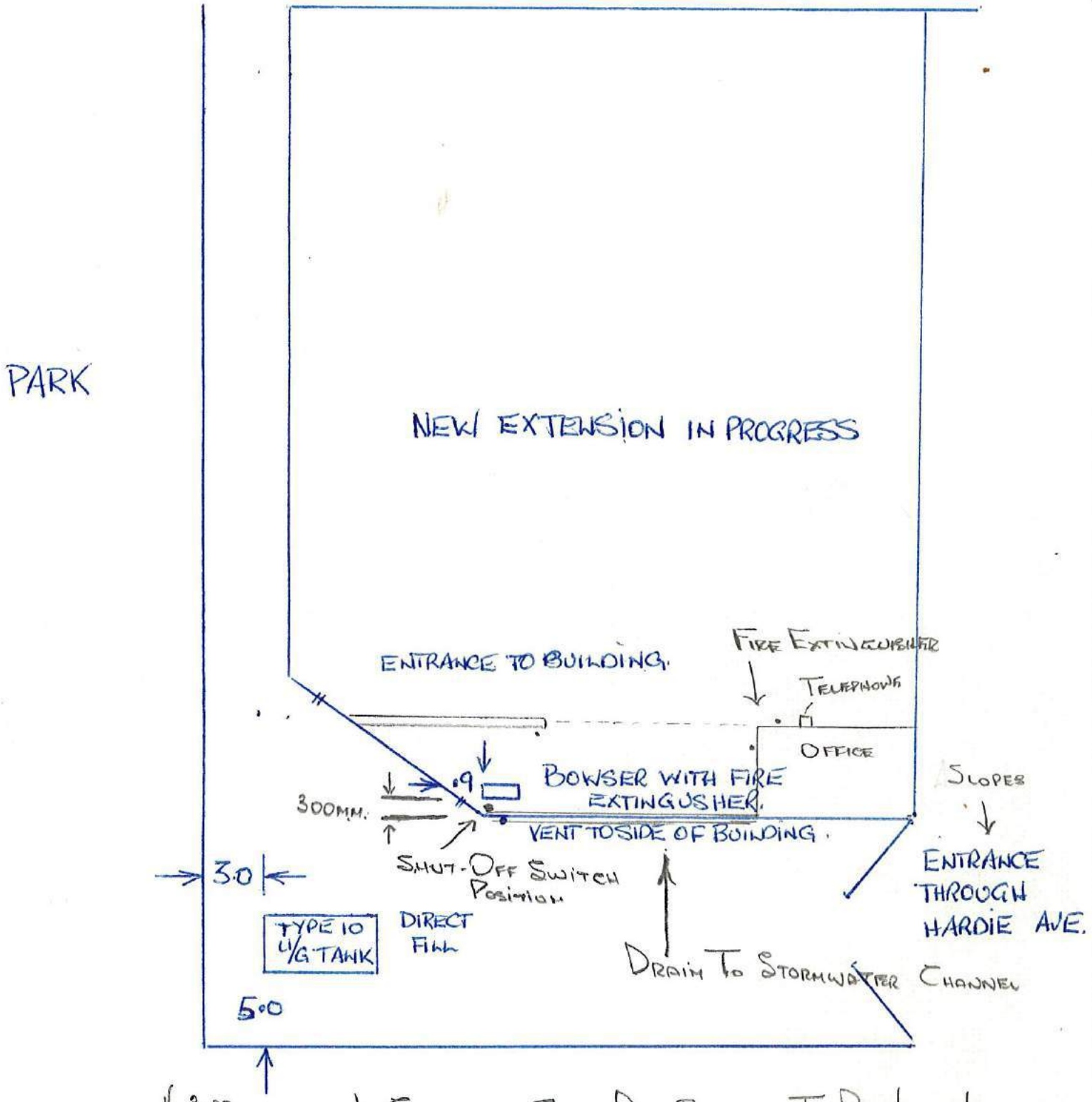
Enclosed are copies of the documents that SafeWork NSW holds on record number 35/004742 relating to the storage of Hazardous Chemicals at the above-mentioned premises.

For further information or if you have any questions, please call us on 13 10 50 or email licensing@safework.nsw.gov.au

Yours sincerely

Customer Service Officer
Customer Experience - Operations
SafeWork NSW

SUMMER HILL
AMBULANCE STATION
76 CARLTON CRE.



16.3.83

I CONSIDER SHUT-OFF SWITCH TO BE IN A DANGEROUS POSITION

P. Williams

orm DG1

DEPARTMENT OF INDUSTRIAL RELATIONS

West N/H

LICENCE No. 35. 00 4742. 9

DANGEROUS GOODS ACT, 1975 DG 8306 001 — — 84

DATA ENTERED 2 SEP 1983 OPERATOR ONE

VERIFIED OP 4

APPLICATION FOR LICENCE (or AMENDMENT ~~or TRANSFER of~~ LICENCE) FOR THE KEEPING OF DANGEROUS GOODS

Application is hereby made for *a licence (or amendment of the licence) *the transfer of the licence for the keeping of dangerous goods in or on the premises described below.

(*delete whichever is not required)

FEE: ~~$10.00 per Depot for new licence.~~ $10.00 for amendment ~~or transfer~~.

Name of Applicant in full (see over)	NT DEPARTMENT OF HEALTH TF CENTRAL DISTRICT AMBULANCE
Trading name or occupier's name (if any)	AS ABOVE
Postal address	75 CARLTON CRES SUMMER HILL Postcode 2434
Address of the premises including street number (if any)	AS ABOVE Postcode
Nature of premises (see over)	AMBULANCE STATION
Telephone number of applicant	STD Code 02 Number 20920 EXT. 324

Particulars of type of depots and maximum quantities of dangerous goods to be kept at any one time.

Depot number	Type of depot (see over)	Storage capacity LTR	Dangerous goods: Product being stored DD	C & C Office use only
1	Underground	11900	3.1 Petrol	001020 4 / 2 020 14
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

Has site plan been approved? Yes / ~~No~~ If yes, no plans required. If no, please attach site plan.

Have premises previously been licensed? Yes / No If yes, state name of previous occupier.

Name of company supplying flammable liquid (if any) CALTEX

Signature of applicant ..... Date 15/8/83

For external explosives magazine(s), please fill in side 2.

FOR OFFICE USE ONLY

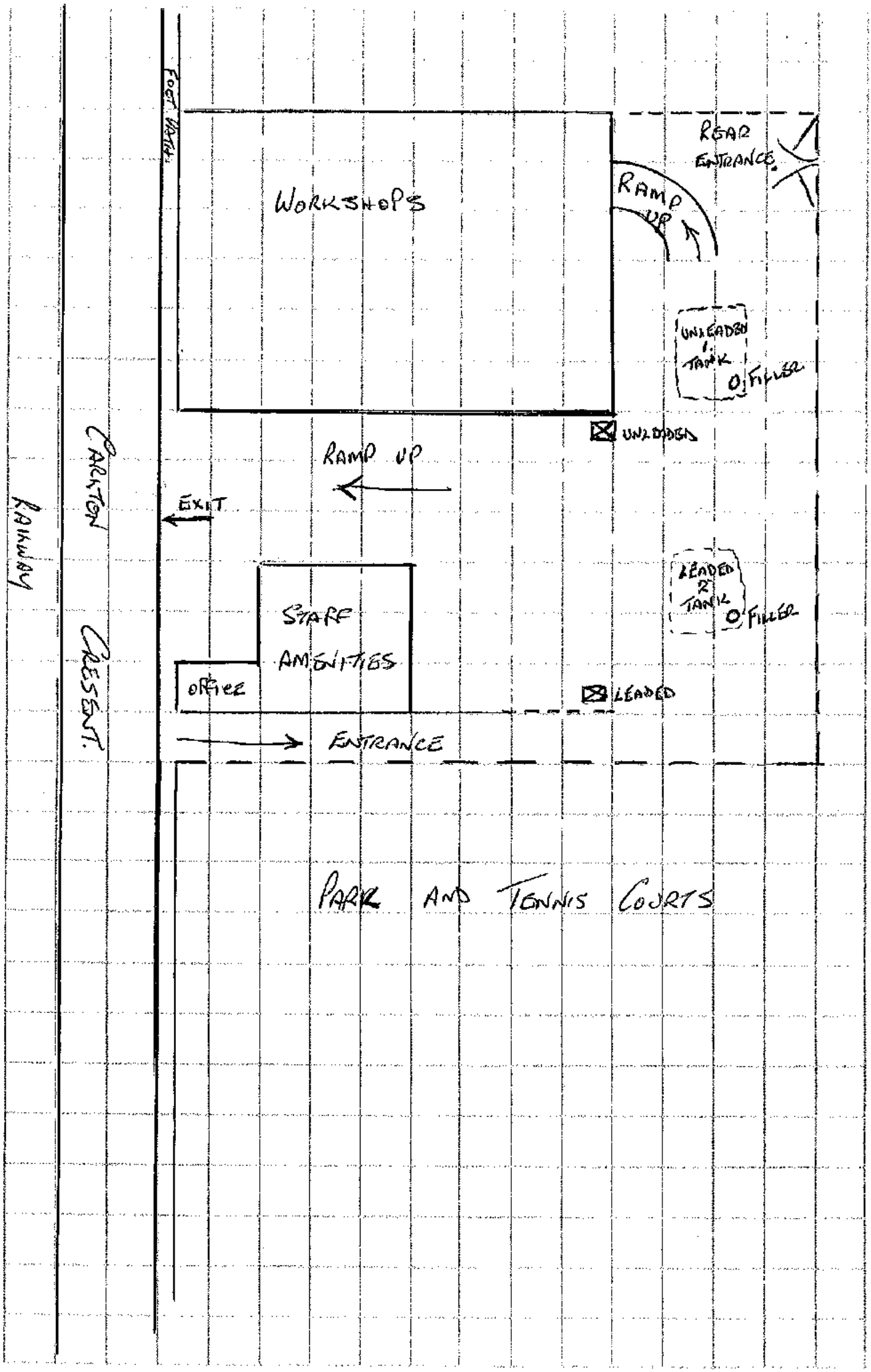
CERTIFICATE OF INSPECTION

I, John Richard Chivers being an Inspector under the Dangerous Goods Act, 1975, do hereby certify that the premises described above do comply with the requirements of the Dangerous Goods Act. 1975. and the

PART B

Site Sketch

Please carefully read the instructions in Part B of the guide before sketching the site.



PART C **CHEMICAL STORAGE**

Complete 1 section per depot

If you have more depots than the space provided, photocopy sufficient sheets first.

Depot number	Type of depot	Class	Licensed maximum storage capacity
C9371	UNDERGROUND TANK	3	Δ 11,900

UN number	Shipping name	Pkg. Class	Pkg. Group	Pkg. EPG	Product or common name	Typical quantity	Unit eg. L, kg, m³
	UNLEADED	3	2		PETROL	6500	L

Depot number	Type of depot	Class	Licensed maximum storage capacity
C9372	UNDERGROUND TANK	3	Δ 11,900

UN number	Shipping name	Pkg. Class	Pkg. Group	Pkg. EPG	Product or common name	Typical quantity	Unit eg. L, kg, m³
	LEADED	3	2		PETROL	8500	L

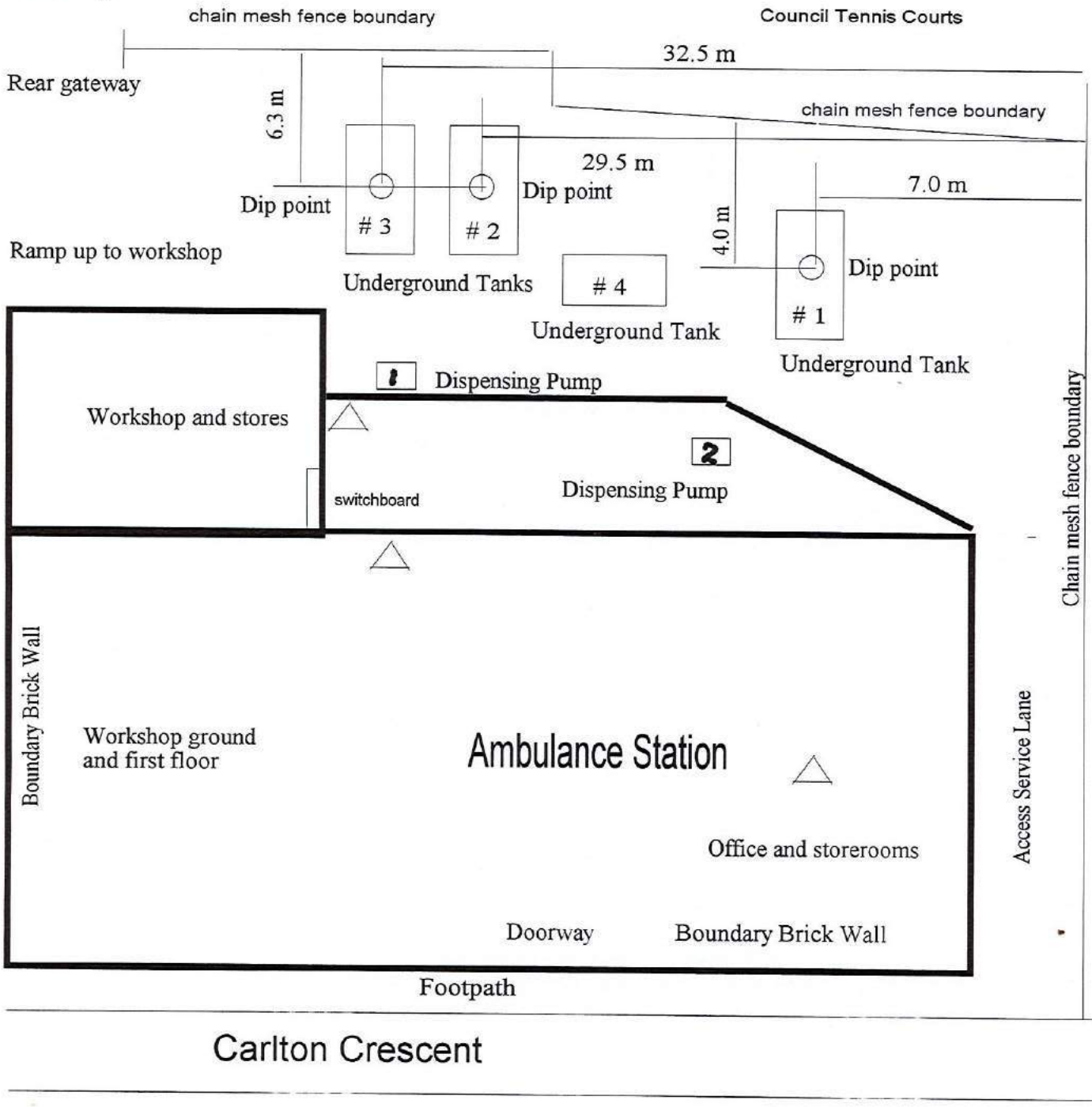
Depot number	Type of depot	Class	Licensed maximum storage capacity
C9373	U/G tank	3	11900

UN number	Shipping name	Pkg. Class	Pkg. Group	Pkg. EPG	Product or common name	Typical quantity	Unit eg. L, kg, m³
1203	Petrol					11900	L

Depot number	Type of depot	Class	Licensed maximum storage capacity

UN number	Shipping name	Pkg. Class	Pkg. Group	Pkg. EPG	Product or common name	Typical quantity	Unit eg. L, kg, m³

35/004742



Notes

△ = Fire Extinguisher

Underground Storage tanks :
No's 1, 2 & 3 Class 3.2
Maximum capacity = 11,900 litres
Safe fill capacity = 11,500 litres
No. 4 tank abandoned with concrete slurry

All product markers fitted to pumps and tank dip/fill points.

Safety signs in place.

Spill kit installed

File No.: ASNSW05

Council Tennis Courts and park

This plan conforms with
the Dangerous Goods Act 1975
and Australian Standard(s)
AS 1940 - 1993
Signed for T & V Grainger (Consultants)

Date: 25/4/95

Ambulance Services of NSW
75 Carlton Crescent
Summer Hill NSW 2130

Telphone No. 02 367 6117
Contact: Co-ordination Supervisor

THE NEW SOUTH WALES GOVERNMENT
Putting people first by managing better

PART A

WorkCover Authority

LICENCE TO KEEP DANGEROUS GOODS

(Dangerous Goods Act 1975)

Application for new licence, amendment or transfer

Expiry: 26.6.96

1. Name of applicant: AMBULANCE SERVICE OF N.S.W. ACN:

2. Site to be licensed
   No: 75 Street: CARLTON CRESENT
   Suburb/Town: SUMMER HILL NSW Postcode: 2130

3. Previous licence number (if known): 35-004742 1/7

4. Nature of site: AMBULANCE STATION AND WORKSHOP

RECEIVED
18 MAY 1995
SCIENTIFIC SERVICES BRANCH

5. Emergency contact on site:
   Phone: Name:

6. Site staffing: Hours per day: 24 Days per week: 7

7. Major supplier of dangerous goods:

8. If new site or significant modification
   Plan stamped by: Accredited consultant's name: Date stamped: 09 JUN 1995

DATA ENTERED

9. Number of dangerous goods depots at site: 2.

10. Trading name or occupier's name: AMBULANCE SERVICE OF NEW SOUTH WALES

11. Postal address of applicant: 93-105 QUAY ST Suburb/Town: SYDNEY Postcode: 2000

12. Contact for licence enquiries:
    Phone: 02-2124155 Fax: 02-2812116 Name: ASSISTANT DIVISIONAL SUPERINTENDENT

I certify that the details contained in this application (or the accompanying computer disk) are true and correct

13. Signature of applicant: [signature] Date: 15.5.95

Please complete attached site sketch, depot listing and check sheet (if required) and return to WorkCover Authority in envelope provided.

Form DG1

WorkCover New South Wales, 400 Kent Street, Sydney 2000. Telephone 9370 5000 ALL MAIL TO LOCKED BAG 10, CLARENCE STREET SYDNEY 2000

WORKCOVER NEW SOUTH WALES

APPLICATION FOR RENEWAL

OF LICENCE TO KEEP DANGEROUS GOODS

ISSUED UNDER AND SUBJECT TO THE PROVISIONS OF THE DANGEROUS GOODS ACT, 1975 AND REGULATION THEREUNDER

DECLARATION: *Please renew licence number 35/004742 to 1999. I confirm that all the licence details shown below are correct (amend if necessary).*

J.J Woods D/O ..... J.J. Woods ..... 14-5-98.

(Signature) *(Please print name)* *(Date signed)*

for: AMBULANCE SERVICE OF NSW

*THIS **SIGNED** DECLARATION SHOULD BE **RETURNED TO:***

WorkCover New South Wales
Dangerous Goods Licensing Section (Level 3)
Locked Bag 10
P O CLARENCE STREET 2000

Enquiries: ph (02) 9370 5187
fax (02) 9370 6105

RECEIVED 22 MAY 1998 SCIENTIFIC SERVICES

Details of licence on 29 April 1998

Licence Number 35/004742 **Expiry Date** 26/06/98

Licensee AMBULANCE SERVICE OF NSW
Level 1, 5-9 Butler Rd, Hurstville 2000

Postal Address ~~93-105 QUAY ST, SYDNEY 2000~~

Licensee Contact ~~Assistant Divisional Sup Ph. 212 4155 Fax. 281 2116~~ Supt E. Marks (P) 9580-3006 (F) 9580-3090

Premises Licensed to Keep Dangerous Goods
75 CARLTON CRES
SUMMER HILL 2130

Nature of Site MOTOR VEHICLE REPAIRS **Major Supplier of Dangerous Goods** UNKNOWN OR OTHER

Emergency Contact for this Site CoOrdination Supervisor ph. 367 6117

Site staffing 24 HRS 7 DAYS

Details of Depots

Depot No.	Depot Type	Goods Stored in Depot	Qty
C9371	UNDERGROUND TANK	Class 3	11900 L
		UN 1203 PETROL	6500 L
C9372	UNDERGROUND TANK	Class 3	11900 L
		UN 1203 PETROL	8500 L
C9373	UNDERGROUND TANK	Class 3	11900 L
		UN 1203 PETROL	11900 L

DATA 28 JUL 1998 PROCESSED

p/ renew

licence renewed on SCID

WorkCover New South Wales, 400 Kent Street, Sydney 2000. Tel: 9370 5000 Fax: 9370 5999 ALL MAIL TO G.P.O. BOX 5364 SYDNEY 2001

Licence No. 35/004742

APPLICATION FOR RENEWAL
OF LICENCE TO KEEP DANGEROUS GOODS

ISSUED UNDER AND SUBJECT TO THE PROVISIONS OF THE DANGEROUS GOODS ACT, 1975 AND REGULATION THEREUNDER

WORKCOVER NEW SOUTH WALES

DECLARATION: Please renew licence number 35/004742 to 25/06/2003 . I confirm that all the licence details shown below are correct (amend if necessary).

..... (Signature) for: AMBULANCE SERVICE OF NSW

E.J. MARKS (Please print name)

27/5/02 (Date signed)

*THIS **SIGNED** DECLARATION SHOULD BE **RETURNED TO:** (please do not fax)*

WorkCover New South Wales
Dangerous Goods Licensing Section
GPO BOX 5364
SYDNEY 2001

Enquiries: ph (02) 9370 5187
fax (02) 9370 6104

RECEIVED
30 MAY 2002
SCIENTIFIC SERVICES BRANCH

Details of licence on 21 May 2002

Licence Number 35/004742 **Expiry Date** 25/06/2002

Licensee AMBULANCE SERVICE OF NSW

Postal Address: LEVEL 1, 5-9 BUTLER RD HURSTVILLE NSW 2220

Licensee Contact ERIC MARKS Ph. 9580 3106 Fax. 9580 3090

Premises Licensed to Keep Dangerous Goods
AMBULANCE SERVICE OF NSW
75 CARLTON CRES SUMMER HILL 2130

Nature of Site MOTOR VEHICLE RETAILING AND SERVICES

Major Supplier of Dangerous Goods UNKNOWN OR OTHER

Emergency Contact for this Site COORDINATION SUPERVISOR Ph. 367 6117

Site staffing 24 HRS 7 DAYS

Details of Depots

Depot No.	Depot Type	Goods Stored in Depot	Qty
C9371	**UNDERGROUND TANK**	**Class 3**	**11900 L**
	UN 1203 PETROL		6500 L
C9372	**UNDERGROUND TANK**	**Class 3**	**11900 L**
	UN 1203 PETROL		8500 L
C9373	**UNDERGROUND TANK**	**Class 3**	**11900 L**
	~~UN 1203 PETROL~~		11900 L

delete ? add # Diesel fuel 0001

make changes renew & issue licence yt

Licence No. 35/004742 ATF

APPLICATION FOR RENEWAL

OF LICENCE TO KEEP DANGEROUS GOODS

ISSUED UNDER AND SUBJECT TO THE PROVISIONS OF THE DANGEROUS GOODS ACT, 1975 AND REGULATION THEREUNDER

DECLARATION: Please renew licence number 35/004742 to 24/06/2005 . I confirm that all the licence details shown below are correct (amend if necessary).

..... P WILSON 19/5/04

(Signature) *(Please print name)* *(Date signed)*

for: AMBULANCE SERVICE OF NSW

*THIS **SIGNED** DECLARATION SHOULD BE **RETURNED TO:***

WorkCover New South Wales
Dangerous Goods Licensing Section
LOCKED BAG 2906
LISAROW NSW 2252

Enquiries:ph (02) 43215500
fax (02) 92875500

Details of licence on 7 May 2004

Licence Number 35/004742 **Expiry Date** 24/06/2004

Licensee AMBULANCE SERVICE OF NSW

Postal Address: ~~UNIT 1 / 143 BARKER ST RANDWICK NSW 2031~~ 5-9 BUTLER RD. HURSTVILLE 2220

Licensee Contact PHIL WILSON Ph. ~~9314 5603~~ 9580-3106 Fax. ~~9326 7470~~ 9580-3090

Premises Licensed to Keep Dangerous Goods
AMBULANCE SERVICE OF NSW
75 CARLTON CRES SUMMER HILL 2130

Nature of Site MOTOR VEHICLE RETAILING AND SERVICES

Major Supplier of Dangerous Goods VARIOUS

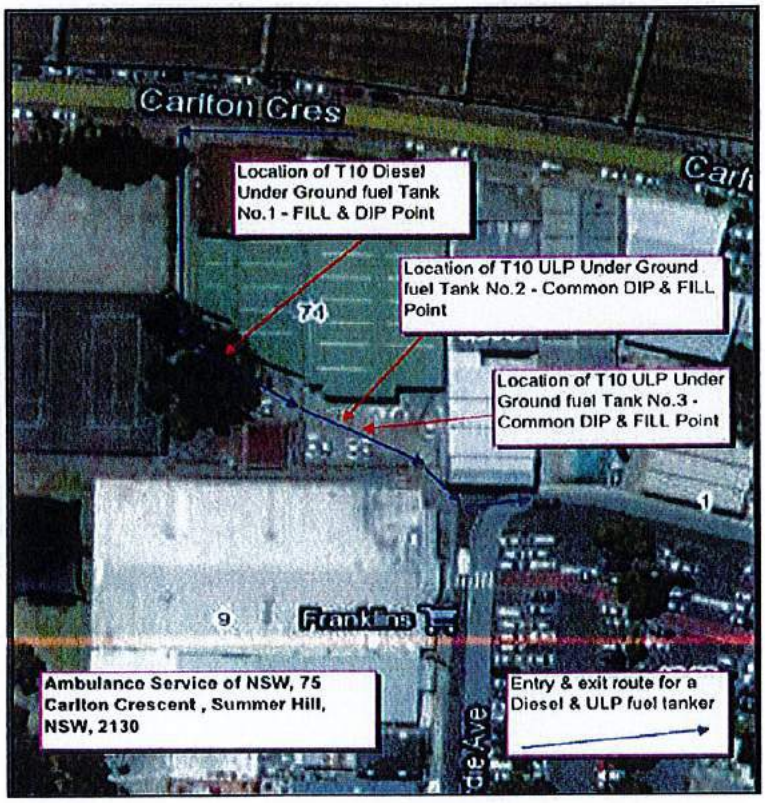
Emergency Contact for this Site COORDINATION SUPERVISOR Ph. 8396 5150

Site staffing 24 HRS 7 DAYS

Details of Depots

Depot No.	Depot Type	Goods Stored in Depot	Qty
C9371	UNDERGROUND TANK	Class 3	11900 L
	UN 1203 PETROL		6500 L
C9372	UNDERGROUND TANK	Class 3	11900 L
	UN 1203 PETROL		8500 L
C9373	UNDERGROUND TANK	Class C1	11900 L
	UN 00C1 DIESEL		11900 L

Site Sketch


Carlton Cres
Location of T10 Diesel Under Ground fuel Tank No.1 - FILL & DIP Point
Location of T10 ULP Under Ground fuel Tank No.2 - Common DIP & FILL Point
Location of T10 ULP Under Ground fuel Tank No.3 - Common DIP & FILL Point
74
1
9
Franklins
Ambulance Service of NSW, 75 Carlton Crescent , Summer Hill, NSW, 2130
Entry & exit route for a Diesel & ULP fuel tanker

Appendix L Previous Environmental Reports Data

Scale (m): 0 20

JK Geotechnics
GEOTECHNICAL & ENVIRONMENTAL ENGINEERS

Title: **BOREHOLE LOCATION PLAN**

Report Number: 28412L

Figure Number: 1

COPYRIGHT

JK Geotechnics
GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS

BOREHOLE LOG

Borehole No. 1
1/1

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED REDEVELOPMENT

Location: 74 & 75 CARLTON CRESCENT, SUMMER HILL, NSW

Job No. 28412L
Date: 26-5-15
Method: SPIRAL AUGER JK308
Logged/Checked by: R.A.P./D.W.
R.L. Surface: ≈ 21.2m
Datum: AHD

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
						0			CONCRETE: 170mm.t				5mm DIA. REINFORCEMENT, 30mm,60mm,130m & 140mm TOP COVER
								-	FILL: Silty gravel, medium to coarse grained sub angular to angular igneous, dark grey.	M			
					N = 14 3,7,7			CH	SILTY CLAY: high plasticity, light grey mottled red brown.	MC>PL	H	550 570 550	RESIDUAL
AFTER 3 HRS					N > 19 13,6/20mm REFUSAL	1		-	SHALE: light grey.	XW	EL		VERY LOW TO LOW 'TC' BIT RESISANCE
						2			SHALE: dark grey, with light grey, fine grained sandstone laminae.	DW	M-H		MODERATE RESISTANCE
						3							
									SHALE: dark grey, with occasional M strength iron indurated bands.		L		LOW RESISTANCE
ON COMPLET-ION						4					L-M		LOW TO MODERATE RESISTANCE
						5							
						6			END OF BOREHOLE AT 6.0m				
						7							

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GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS

BOREHOLE LOG

Borehole No. 2
1/1

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED REDEVELOPMENT

Location: 74 & 75 CARLTON CRESCENT, SUMMER HILL, NSW

Job No. 28412L
Date: 26-5-15
Method: SPIRAL AUGER JK308
Logged/Checked by: R.A.P./D.W.
R.L. Surface: ≈ 20.6m
Datum: AHD

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
						0			CONCRETE: 130mm.t				7mm DIA. REINFORCEMENT, 70mm TOP COVER
					N = 4 2,2,2	1		-	FILL: Silty clayey gravel, dark grey, medium to coarse grained sub angular.	M			
									FILL: Silty clay, low plasticity, dark brown, trace of fine to medium grained sandstone and igneous gravel and slag.	MC>PL			APPEARS POORLY COMPACTED
					N = 7 2,3,4	2		CH	SILTY CLAY: high plasticity, light grey mottled yellow brown and red brown, trace of of fine to coarse grained ironstone gravel.	MC>PL	St	150 160 140	RESIDUAL
▼ AFTER 1.5 HRS					N = 16 7,7,9	3					St-VSt	160 200 280	
▼ ON COMPLET-ION						4		-	SHALE: light grey, with dark grey laminae.	XW	EL		VERY LOW 'TC' BIT RESISTANCE
					N > 22 7,15/0mm REFUSAL				SHALE: dark grey.	DW	VL		
▶						5					M-H		MODERATE TO HIGH RESISTANCE
						6			END OF BOREHOLE AT 6.0m				
						7							

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BOREHOLE LOG

Borehole No. 3
1/1

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED REDEVELOPMENT

Location: 74 & 75 CARLTON CRESCENT, SUMMER HILL, NSW

Job No. 28412L
Date: 26-5-15
Method: SPIRAL AUGER JK308
Logged/Checked by: R.A.P./D.W.
R.L. Surface: ≈ 20.7m
Datum: AHD

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
						0			CONCRETE: 140mm.t				5mm DIA. REINFORCEMENT, 80mm TOP COVER
								-	FILL: Silty clay, low plasticity, brown, with fine to medium grained igneous gravel.	MC>PL			APPEARS WELL COMPACTED
					N = 15 6,6,9				FILL: Silty clay, high plasticity, brown, trace of fine grained ironstone gravel.	MC<PL		>600 >600 >600	POSSIBLY NATURAL
						1		CH	SILTY CLAY: high plasticity, light grey mottled orange brown, trace of fine to coarse grained ironstone gravel.	MC<PL	H		RESIDUAL
					N = 12 7,6,6							>600 >600 510	
						2		-	SHALE: light grey, with fine grained sandstone laminae.	DW	M-H		MODERATE 'TC' BIT RESISTANCE
▼ AFTER 1 HR						3							
						4			as above, but light grey, and dark grey.		VL-L		LOW RESISTANCE
								-	SHALE: dark grey.		M		MODERATE RESISTANCE
▶ ON COMPLET-ION						5							
						6			END OF BOREHOLE AT 6.0m				
						7							

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BOREHOLE LOG

Borehole No. 4
1/1

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED REDEVELOPMENT
Location: 74 & 75 CARLTON CRESCENT, SUMMER HILL, NSW

Job No. 28412L
Date: 26-5-15
Method: SPIRAL AUGER JK308
Logged/Checked by: R.A.P./D.W.
R.L. Surface: ≈ 20.4m
Datum: AHD

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
						0			CONCRETE: 170mm.t				10mm DIA. REINFORCEMENT 70mm TOP COVER, 5mm DIA. AT 70mm & 130mm TOP COVER
	■							-	FILL: Silty sand, fine to medium grained, with igneous gravel, trace of glass fragments.	M MC>PL			
				■	N = 2 0,0,2	1			FILL: Silty clay, low plasticity, brown, trace of fine to coarse grained ironstone and shale gravel and ash.				APPEARS POORLY COMPACTED
	■			■	N = 5 2,2,3	2		CH	SILTY CLAY: high plasticity, light grey mottled orange brown and red brown, trace of fine to coarse grained ironstone gravel.	MC<PL	VSt	280 220 210	RESIDUAL
				■		3		-	SHALE: light grey, with occasional iron indurated bands.	DW	M-H		MODERATE 'TC' BIT RESISTANCE
▼ AFTER 1.5 HRS				■		4			as above, but dark grey, and light grey.				
▼ ON COMPLET-ION				■		5							
				■		6			SHALE: dark grey, with occasional iron indurated bands.				
						7			END OF BOREHOLE AT 6.0m				

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BOREHOLE LOG

Borehole No. 5
1/1

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED REDEVELOPMENT

Location: 74 & 75 CARLTON CRESCENT, SUMMER HILL, NSW

Job No. 28412L
Date: 26-5-15
Method: SPIRAL AUGER JK308
Logged/Checked by: R.A.P./D.W.
R.L. Surface: ≈ 23.6m
Datum: AHD

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
						0			CONCRETE: 200mm.t				10mm DIA. REINFORCENENT, 40mm TOP COVER
									END OF BOREHOLE AT 0.2m				BOREHOLE TERMINATED DUE TO SUSPECTED VOID
						1							
						2							
						3							
						4							
						5							
						6							
						7							

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CERTIFICATE OF ANALYSIS 128635

Client:

Environmental Investigation Services
PO Box 976
North Ryde BC
NSW 1670

Attention: Harry Leonard

Sample log in details:

Your Reference:	**E28412K, Summer HIll**		
No. of samples:	11 Soils		
Date samples received / completed instructions received	27/05/15	/	27/05/15

Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date:	3/06/15	/	3/06/15
Date of Preliminary Report:	Not Issued		

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Results Approved By:

Jacinta Hurst
Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	128635-1	128635-3	128635-4	128635-5	128635-7
Your Reference	----------	BH1	BH1	BH2	BH2	BH3
Depth	----------	0.17-0.18	0.8-1.0	0.13-0.2	0.8-1.0	0.1-0.2
Date Sampled		26/05/2015	26/05/2015	26/05/2015	26/05/2015	26/05/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/05/2015	28/05/2015	28/05/2015	28/05/2015	28/05/2015
Date analysed	-	30/05/2015	30/05/2015	30/05/2015	30/05/2015	30/05/2015
TRHC6 - C9	mg/kg	<25	<25	<25	<25	<25
TRHC6 - C10	mg/kg	<25	<25	<25	<25	<25
vTPHC6 - C10 less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	90	88	86	85	89

vTRH(C6-C10)/BTEXN in Soil				
Our Reference:	UNITS	128635-8	128635-10	128635-11
Your Reference	----------	BH3	BH4	BH4
Depth	----------	0.5-0.95	0.17-0.2	1.5-1.95
Date Sampled		26/05/2015	26/05/2015	26/05/2015
Type of sample		Soil	Soil	Soil
Date extracted	-	28/05/2015	28/05/2015	28/05/2015
Date analysed	-	30/05/2015	30/05/2015	30/05/2015
TRHC6 - C9	mg/kg	<25	<25	<25
TRHC6 - C10	mg/kg	<25	<25	<25
vTPHC6 - C10 less BTEX (F1)	mg/kg	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	91	87	92

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	128635-1	128635-3	128635-4	128635-5	128635-7
Your Reference	----------	BH1	BH1	BH2	BH2	BH3
Depth	----------	0.17-0.18	0.8-1.0	0.13-0.2	0.8-1.0	0.1-0.2
Date Sampled		26/05/2015	26/05/2015	26/05/2015	26/05/2015	26/05/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/05/2015	28/05/2015	28/05/2015	28/05/2015	28/05/2015
Date analysed	-	29/05/2015	29/05/2015	29/05/2015	29/05/2015	29/05/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100	<100	<100	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	<100	<100	<100	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	<50	<50	<50	<50	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	<100	<100	<100	<100	150
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	81	83	81	83	82

svTRH (C10-C40) in Soil				
Our Reference:	UNITS	128635-8	128635-10	128635-11
Your Reference	----------	BH3	BH4	BH4
Depth	----------	0.5-0.95	0.17-0.2	1.5-1.95
Date Sampled		26/05/2015	26/05/2015	26/05/2015
Type of sample		Soil	Soil	Soil
Date extracted	-	28/05/2015	28/05/2015	28/05/2015
Date analysed	-	29/05/2015	29/05/2015	29/05/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	<100	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	<50	<50	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50	<50	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	<100	<100	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100	<100
Surrogate o-Terphenyl	%	82	79	86

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ---------- ----------	128635-1 BH1 0.17-0.18 26/05/2015 Soil	128635-3 BH1 0.8-1.0 26/05/2015 Soil	128635-4 BH2 0.13-0.2 26/05/2015 Soil	128635-5 BH2 0.8-1.0 26/05/2015 Soil	128635-7 BH3 0.1-0.2 26/05/2015 Soil
Date extracted	-	28/05/2015	28/05/2015	28/05/2015	28/05/2015	28/05/2015
Date analysed	-	29/05/2015	29/05/2015	29/05/2015	29/05/2015	29/05/2015
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.3
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	0.7	3.2
Anthracene	mg/kg	<0.1	<0.1	<0.1	0.2	0.8
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	1.7	7.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	1.7	6.9
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	0.7	3.5
Chrysene	mg/kg	<0.1	<0.1	<0.1	0.8	3.3
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	1	6.1
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	0.88	4.0
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	0.5	2.4
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.5
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	0.6	2.4
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	1.2	5.8
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	1.2	5.8
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	1.3	5.8
Total Positive PAHs	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	9.2	41
Surrogate p-Terphenyl-d14	%	96	100	99	102	95

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ---------- ----------	128635-8 BH3 0.5-0.95 26/05/2015 Soil	128635-10 BH4 0.17-0.2 26/05/2015 Soil	128635-11 BH4 1.5-1.95 26/05/2015 Soil
Date extracted	-	28/05/2015	28/05/2015	28/05/2015
Date analysed	-	29/05/2015	29/05/2015	29/05/2015
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	0.2	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	0.6	<0.1
Pyrene	mg/kg	<0.1	0.6	<0.1
Benzo(a)anthracene	mg/kg	<0.1	0.3	<0.1
Chrysene	mg/kg	<0.1	0.4	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	0.8	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.4	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.3	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	0.3	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	0.6	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	0.6	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	0.7	<0.5
Total Positive PAHs	mg/kg	NIL (+)VE	3.9	NIL (+)VE
Surrogate p-Terphenyl-d14	%	92	100	97

Organochlorine Pesticides in soil						
Our Reference:	UNITS	128635-1	128635-3	128635-4	128635-5	128635-7
Your Reference	----------	BH1	BH1	BH2	BH2	BH3
Depth	----------	0.17-0.18	0.8-1.0	0.13-0.2	0.8-1.0	0.1-0.2
Date Sampled		26/05/2015	26/05/2015	26/05/2015	26/05/2015	26/05/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/05/2015	28/05/2015	28/05/2015	28/05/2015	28/05/2015
Date analysed	-	31/05/2015	31/05/2015	31/05/2015	31/05/2015	31/05/2015
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.4	<0.1	<0.1	<0.1	0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
gamma-Chlordane	mg/kg	0.3	<0.1	<0.1	<0.1	0.2
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	88	90	92	94	91

Organochlorine Pesticides in soil				
Our Reference:	UNITS	128635-8	128635-10	128635-11
Your Reference	----------	BH3	BH4	BH4
Depth	----------	0.5-0.95	0.17-0.2	1.5-1.95
Date Sampled		26/05/2015	26/05/2015	26/05/2015
Type of sample		Soil	Soil	Soil
Date extracted	-	28/05/2015	28/05/2015	28/05/2015
Date analysed	-	31/05/2015	31/05/2015	31/05/2015
HCB	mg/kg	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	86	94

Organophosphorus Pesticides Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ---------- ---------- 	128635-3 BH1 0.8-1.0 26/05/2015 Soil	128635-8 BH3 0.5-0.95 26/05/2015 Soil	128635-11 BH4 1.5-1.95 26/05/2015 Soil
Date extracted	-	28/05/2015	28/05/2015	28/05/2015
Date analysed	-	31/05/2015	31/05/2015	31/05/2015
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1
Surrogate TCMX	%	90	85	94

PCBs in Soil						
Our Reference:	UNITS	128635-1	128635-3	128635-4	128635-5	128635-7
Your Reference	----------	BH1	BH1	BH2	BH2	BH3
Depth	----------	0.17-0.18	0.8-1.0	0.13-0.2	0.8-1.0	0.1-0.2
Date Sampled		26/05/2015	26/05/2015	26/05/2015	26/05/2015	26/05/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/05/2015	28/05/2015	28/05/2015	28/05/2015	28/05/2015
Date analysed	-	31/05/2015	31/05/2015	31/05/2015	31/05/2015	31/05/2015
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Surrogate TCLMX	%	88	89	92	94	91

PCBs in Soil				
Our Reference:	UNITS	128635-8	128635-10	128635-11
Your Reference	----------	BH3	BH4	BH4
Depth	----------	0.5-0.95	0.17-0.2	1.5-1.95
Date Sampled		26/05/2015	26/05/2015	26/05/2015
Type of sample		Soil	Soil	Soil
Date extracted	-	28/05/2015	28/05/2015	28/05/2015
Date analysed	-	31/05/2015	31/05/2015	31/05/2015
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1
Surrogate TCLMX	%	85	86	94

Acid Extractable metals in soil						
Our Reference:	UNITS	128635-1	128635-3	128635-4	128635-5	128635-7
Your Reference	----------	BH1	BH1	BH2	BH2	BH3
Depth	----------	0.17-0.18	0.8-1.0	0.13-0.2	0.8-1.0	0.1-0.2
Date Sampled		26/05/2015	26/05/2015	26/05/2015	26/05/2015	26/05/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	29/05/2015	29/05/2015	29/05/2015	29/05/2015	29/05/2015
Date analysed	-	29/05/2015	29/05/2015	29/05/2015	29/05/2015	29/05/2015
Arsenic	mg/kg	<4	9	7	32	11
Cadmium	mg/kg	<0.4	<0.4	<0.4	4	0.4
Chromium	mg/kg	61	19	42	31	19
Copper	mg/kg	22	12	22	150	48
Lead	mg/kg	6	18	31	470	220
Mercury	mg/kg	<0.1	<0.1	<0.1	0.3	0.2
Nickel	mg/kg	60	6	32	26	7
Zinc	mg/kg	74	38	48	1,200	120

Acid Extractable metals in soil				
Our Reference:	UNITS	128635-8	128635-10	128635-11
Your Reference	----------	BH3	BH4	BH4
Depth	----------	0.5-0.95	0.17-0.2	1.5-1.95
Date Sampled		26/05/2015	26/05/2015	26/05/2015
Type of sample		Soil	Soil	Soil
Date digested	-	29/05/2015	29/05/2015	29/05/2015
Date analysed	-	29/05/2015	29/05/2015	29/05/2015
Arsenic	mg/kg	9	52	9
Cadmium	mg/kg	<0.4	1	<0.4
Chromium	mg/kg	24	31	18
Copper	mg/kg	7	1,400	11
Lead	mg/kg	25	390	17
Mercury	mg/kg	<0.1	0.2	<0.1
Nickel	mg/kg	4	36	1
Zinc	mg/kg	9	980	3

Moisture						
Our Reference:	UNITS	128635-1	128635-3	128635-4	128635-5	128635-7
Your Reference	----------	BH1	BH1	BH2	BH2	BH3
Depth	----------	0.17-0.18	0.8-1.0	0.13-0.2	0.8-1.0	0.1-0.2
Date Sampled		26/05/2015	26/05/2015	26/05/2015	26/05/2015	26/05/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	28/05/2015	28/05/2015	28/05/2015	28/05/2015	28/05/2015
Date analysed	-	29/05/2015	29/05/2015	29/05/2015	29/05/2015	29/05/2015
Moisture	%	17	20	20	19	21

Moisture				
Our Reference:	UNITS	128635-8	128635-10	128635-11
Your Reference	----------	BH3	BH4	BH4
Depth	----------	0.5-0.95	0.17-0.2	1.5-1.95
Date Sampled		26/05/2015	26/05/2015	26/05/2015
Type of sample		Soil	Soil	Soil
Date prepared	-	28/05/2015	28/05/2015	28/05/2015
Date analysed	-	29/05/2015	29/05/2015	29/05/2015
Moisture	%	16	27	18

Metals in TCLP USEPA1311						
Our Reference:	UNITS	128635-1	128635-4	128635-5	128635-7	128635-10
Your Reference	----------	BH1	BH2	BH2	BH3	BH4
Depth	----------	0.17-0.18	0.13-0.2	0.8-1.0	0.1-0.2	0.17-0.2
Date Sampled		26/05/2015	26/05/2015	26/05/2015	26/05/2015	26/05/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/05/2015	29/05/2015	29/05/2015	29/05/2015	29/05/2015
Date analysed	-	29/05/2015	29/05/2015	29/05/2015	29/05/2015	29/05/2015
pH of soil for fluid# determ.	pH units	9.7	9.1	8.9	8.7	9.2
pH of soil for fluid # determ. (acid)	pH units	1.6	1.6	1.6	1.8	1.6
Extraction fluid used	-	1	1	1	1	1
pH of final Leachate	pH units	5.3	5.1	5.2	5.1	6.1
Arsenic in TCLP	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Cadmium in TCLP	mg/L	<0.01	<0.01	0.02	<0.01	<0.01
Chromium in TCLP	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Lead in TCLP	mg/L	<0.03	<0.03	0.1	0.1	0.1
Mercury in TCLP	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Nickel in TCLP	mg/L	<0.02	0.03	0.02	<0.02	<0.02

PAHs in TCLP (USEPA 1311)						
Our Reference:	UNITS	128635-1	128635-4	128635-5	128635-7	128635-10
Your Reference	----------	BH1	BH2	BH2	BH3	BH4
Depth	----------	0.17-0.18	0.13-0.2	0.8-1.0	0.1-0.2	0.17-0.2
Date Sampled		26/05/2015	26/05/2015	26/05/2015	26/05/2015	26/05/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/05/2015	29/05/2015	29/05/2015	29/05/2015	29/05/2015
Date analysed	-	29/05/2015	29/05/2015	29/05/2015	29/05/2015	29/05/2015
Naphthalene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Fluorene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Phenanthrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Fluoranthene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(a)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Chrysene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	115	114	104	100	104

Asbestos ID - soils						
Our Reference:	UNITS	128635-1	128635-4	128635-5	128635-7	128635-10
Your Reference	----------	BH1	BH2	BH2	BH3	BH4
Depth	----------	0.17-0.18	0.13-0.2	0.8-1.0	0.1-0.2	0.17-0.2
Date Sampled		26/05/2015	26/05/2015	26/05/2015	26/05/2015	26/05/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	2/06/2015	2/06/2015	2/06/2015	2/06/2015	2/06/2015
Sample mass tested	g	Approx 65g	Approx 55g	Approx 60g	Approx 40g	Approx 15g
Sample Description	-	Grey coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Method ID	Methodology Summary
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'TEQ PQL' values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'TEQ zero' values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'TEQ half PQL' values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-008	Moisture content determined by heating at 105+/-5 deg C for a minimum of 12 hours.
Inorg-004	Toxicity Characteristic Leaching Procedure (TCLP) using AS 4439 and USEPA 1311 and in house method INORG-004.
EXTRACT.7	Toxicity Characteristic Leaching Procedure (TCLP).
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Org-012 subset	Leachates are extracted with Dichloromethane and analysed by GC-MS.

Method ID	Methodology Summary
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			28/05/2015	128635-3	28/05/2015 || 28/05/2015	LCS-10	28/05/2015
Date analysed	-			30/05/2015	128635-3	30/05/2015 || 30/05/2015	LCS-10	30/05/2015
TRHC$_{6}$ - C$_{9}$	mg/kg	25	Org-016	<25	128635-3	<25 || <25	LCS-10	92%
TRHC$_{6}$ - C$_{10}$	mg/kg	25	Org-016	<25	128635-3	<25 || <25	LCS-10	92%
Benzene	mg/kg	0.2	Org-016	<0.2	128635-3	<0.2 || <0.2	LCS-10	88%
Toluene	mg/kg	0.5	Org-016	<0.5	128635-3	<0.5 || <0.5	LCS-10	89%
Ethylbenzene	mg/kg	1	Org-016	<1	128635-3	<1 || <1	LCS-10	93%
m+p-xylene	mg/kg	2	Org-016	<2	128635-3	<2 || <2	LCS-10	94%
o-Xylene	mg/kg	1	Org-016	<1	128635-3	<1 || <1	LCS-10	93%
naphthalene	mg/kg	1	Org-014	<1	128635-3	<1 || <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		Org-016	95	128635-3	88 || 87 || RPD: 1	LCS-10	88%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			28/05/2015	128635-3	28/05/2015 || 28/05/2015	LCS-10	28/05/2015
Date analysed	-			29/05/2015	128635-3	29/05/2015 || 29/05/2015	LCS-10	29/05/2015
TRHC$_{10}$ - C$_{14}$	mg/kg	50	Org-003	<50	128635-3	<50 || <50	LCS-10	114%
TRHC$_{15}$ - C$_{28}$	mg/kg	100	Org-003	<100	128635-3	<100 || <100	LCS-10	120%
TRHC$_{29}$ - C$_{36}$	mg/kg	100	Org-003	<100	128635-3	<100 || <100	LCS-10	99%
TRH>C$_{10}$-C$_{16}$	mg/kg	50	Org-003	<50	128635-3	<50 || <50	LCS-10	114%
TRH>C$_{16}$-C$_{34}$	mg/kg	100	Org-003	<100	128635-3	<100 || <100	LCS-10	120%
TRH>C$_{34}$-C$_{40}$	mg/kg	100	Org-003	<100	128635-3	<100 || <100	LCS-10	99%
Surrogate o-Terphenyl	%		Org-003	75	128635-3	83 || 81 || RPD: 2	LCS-10	102%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			28/05/2015	128635-3	28/05/2015 || 28/05/2015	LCS-10	28/05/2015
Date analysed	-			29/05/2015	128635-3	29/05/2015 || 29/05/2015	LCS-10	29/05/2015
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	128635-3	<0.1 || <0.1	LCS-10	103%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	128635-3	<0.1 || <0.1	LCS-10	107%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	128635-3	<0.1 || <0.1	LCS-10	105%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	128635-3	<0.1 || <0.1	LCS-10	106%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	128635-3	<0.1 || <0.1	LCS-10	109%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	128635-3	<0.1 || <0.1	LCS-10	101%
Benzo(b,j+k) fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	128635-3	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	128635-3	<0.05 || <0.05	LCS-10	111%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	97	128635-3	100 || 97 || RPD: 3	LCS-10	97%

QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			28/05/2015	128635-3	28/05/2015 || 28/05/2015	LCS-9	28/05/2015
Date analysed	-			31/05/2015	128635-3	31/05/2015 || 31/05/2015	LCS-9	31/05/2015
HCB	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	LCS-9	96%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	LCS-9	94%
Heptachlor	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	LCS-9	90%
delta-BHC	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	LCS-9	107%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	LCS-9	102%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	LCS-9	106%
Dieldrin	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	LCS-9	103%
Endrin	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	LCS-9	100%
pp-DDD	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	LCS-9	101%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	LCS-9	85%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Surrogate TCMX	%		Org-005	92	128635-3	90 || 89 || RPD: 1	LCS-9	93%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			28/05/2015	128635-3	28/05/2015 || 28/05/2015	LCS-9	28/05/2015
Date analysed	-			31/05/2015	128635-3	31/05/2015 || 31/05/2015	LCS-9	31/05/2015
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	<0.1	128635-3	<0.1 || <0.1	LCS-9	95%
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Chlorpyriphos	mg/kg	0.1	Org-008	<0.1	128635-3	<0.1 || <0.1	LCS-9	112%
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Diazinon	mg/kg	0.1	Org-008	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Dichlorvos	mg/kg	0.1	Org-008	<0.1	128635-3	<0.1 || <0.1	LCS-9	86%
Dimethoate	mg/kg	0.1	Org-008	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Ethion	mg/kg	0.1	Org-008	<0.1	128635-3	<0.1 || <0.1	LCS-9	120%
Fenitrothion	mg/kg	0.1	Org-008	<0.1	128635-3	<0.1 || <0.1	LCS-9	101%
Malathion	mg/kg	0.1	Org-008	<0.1	128635-3	<0.1 || <0.1	LCS-9	86%
Parathion	mg/kg	0.1	Org-008	<0.1	128635-3	<0.1 || <0.1	LCS-9	116%
Ronnel	mg/kg	0.1	Org-008	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Surrogate TCMX	%		Org-008	92	128635-3	90 || 89 || RPD: 1	LCS-9	89%

QUALITY CONTROL PCBs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			28/05/2015	128635-3	28/05/2015 || 28/05/2015	LCS-9	28/05/2015
Date analysed	-			31/05/2015	128635-3	31/05/2015 || 31/05/2015	LCS-9	31/05/2015
Aroclor 1016	mg/kg	0.1	Org-006	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Aroclor 1221	mg/kg	0.1	Org-006	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Aroclor 1232	mg/kg	0.1	Org-006	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Aroclor 1242	mg/kg	0.1	Org-006	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Aroclor 1248	mg/kg	0.1	Org-006	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Aroclor 1254	mg/kg	0.1	Org-006	<0.1	128635-3	<0.1 || <0.1	LCS-9	101%
Aroclor 1260	mg/kg	0.1	Org-006	<0.1	128635-3	<0.1 || <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-006	92	128635-3	89 || 90 || RPD: 1	LCS-9	85%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date digested	-			29/05/2015	128635-3	29/05/2015 || 29/05/2015	LCS-3	29/05/2015
Date analysed	-			29/05/2015	128635-3	29/05/2015 || 29/05/2015	LCS-3	29/05/2015
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	128635-3	9 || 10 || RPD: 11	LCS-3	95%
Cadmium	mg/kg	0.4	Metals-020 ICP-AES	<0.4	128635-3	<0.4 || <0.4	LCS-3	91%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	128635-3	19 || 18 || RPD: 5	LCS-3	91%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	128635-3	12 || 12 || RPD: 0	LCS-3	92%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	128635-3	18 || 17 || RPD: 6	LCS-3	87%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	128635-3	<0.1 || <0.1	LCS-3	95%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	128635-3	6 || 8 || RPD: 29	LCS-3	88%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	128635-3	38 || 31 || RPD: 20	LCS-3	88%

QUALITY CONTROL Metals in TCLP USEPA1311	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			29/05/2015	128635-1	29/05/2015 || 29/05/2015	LCS-W1	29/05/2015
Date analysed	-			29/05/2015	128635-1	29/05/2015 || 29/05/2015	LCS-W1	29/05/2015
Arsenic in TCLP	mg/L	0.05	Metals-020 ICP-AES	<0.05	128635-1	<0.05 || <0.05	LCS-W1	94%
Cadmium in TCLP	mg/L	0.01	Metals-020 ICP-AES	<0.01	128635-1	<0.01 || <0.01	LCS-W1	90%
Chromium in TCLP	mg/L	0.01	Metals-020 ICP-AES	<0.01	128635-1	<0.01 || <0.01	LCS-W1	90%
Lead in TCLP	mg/L	0.03	Metals-020 ICP-AES	<0.03	128635-1	<0.03 || <0.03	LCS-W1	88%
Mercury in TCLP	mg/L	0.0005	Metals-021 CV-AAS	<0.0005	128635-1	<0.0005 || <0.0005	LCS-W1	84%
Nickel in TCLP	mg/L	0.02	Metals-020 ICP-AES	<0.02	128635-1	<0.02 || <0.02	LCS-W1	88%

QUALITY CONTROL PAHs in TCLP (USEPA 1311)	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			29/05/2015	[NT]	[NT]	LCS-W1	29/05/2015
Date analysed	-			29/05/2015	[NT]	[NT]	LCS-W1	29/05/2015
Naphthalene in TCLP	mg/L	0.001	Org-012 subset	<0.001	[NT]	[NT]	LCS-W1	83%
Acenaphthylene in TCLP	mg/L	0.001	Org-012 subset	<0.001	[NT]	[NT]	[NR]	[NR]
Acenaphthene in TCLP	mg/L	0.001	Org-012 subset	<0.001	[NT]	[NT]	[NR]	[NR]
Fluorene in TCLP	mg/L	0.001	Org-012 subset	<0.001	[NT]	[NT]	LCS-W1	76%
Phenanthrene in TCLP	mg/L	0.001	Org-012 subset	<0.001	[NT]	[NT]	LCS-W1	81%
Anthracene in TCLP	mg/L	0.001	Org-012 subset	<0.001	[NT]	[NT]	[NR]	[NR]
Fluoranthene in TCLP	mg/L	0.001	Org-012 subset	<0.001	[NT]	[NT]	LCS-W1	79%
Pyrene in TCLP	mg/L	0.001	Org-012 subset	<0.001	[NT]	[NT]	LCS-W1	81%
Benzo(a)anthracene in TCLP	mg/L	0.001	Org-012 subset	<0.001	[NT]	[NT]	[NR]	[NR]
Chrysene in TCLP	mg/L	0.001	Org-012 subset	<0.001	[NT]	[NT]	LCS-W1	80%
Benzo(bjk)fluoranthene in TCLP	mg/L	0.002	Org-012 subset	<0.002	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene in TCLP	mg/L	0.001	Org-012 subset	<0.001	[NT]	[NT]	LCS-W1	94%
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	0.001	Org-012 subset	<0.001	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene in TCLP	mg/L	0.001	Org-012 subset	<0.001	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene in TCLP	mg/L	0.001	Org-012 subset	<0.001	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012	120	[NT]	[NT]	LCS-W1	107%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	128635-8	28/05/2015
Date analysed	-	[NT]	[NT]	128635-8	31/05/2015
Azinphos-methyl (Guthion)	mg/kg	[NT]	[NT]	128635-8	70%
Bromophos-ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos	mg/kg	[NT]	[NT]	128635-8	103%
Chlorpyriphos-methyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Diazinon	mg/kg	[NT]	[NT]	[NR]	[NR]
Dichlorvos	mg/kg	[NT]	[NT]	128635-8	96%
Dimethoate	mg/kg	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Ethion	mg/kg	[NT]	[NT]	128635-8	74%
Fenitrothion	mg/kg	[NT]	[NT]	128635-8	78%
Malathion	mg/kg	[NT]	[NT]	128635-8	70%
Parathion	mg/kg	[NT]	[NT]	128635-8	102%
Ronnel	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%	[NT]	[NT]	128635-8	89%
QUALITY CONTROL Metals in TCLP USEPA1311	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	128635-4	29/05/2015
Date analysed	-	[NT]	[NT]	128635-4	29/05/2015
Arsenic in TCLP	mg/L	[NT]	[NT]	128635-4	94%
Cadmium in TCLP	mg/L	[NT]	[NT]	128635-4	88%
Chromium in TCLP	mg/L	[NT]	[NT]	128635-4	90%
Lead in TCLP	mg/L	[NT]	[NT]	128635-4	87%
Mercury in TCLP	mg/L	[NT]	[NT]	128635-4	87%
Nickel in TCLP	mg/L	[NT]	[NT]	128635-4	88%

Report Comments:

PCB in soil: PQL has been raised due to interference from analytes(other than those being tested) in the sample/s.

Asbestos ID was analysed by Approved Identifier: Paul Ching
Asbestos ID was authorised by Approved Signatory: Paul Ching

INS: Insufficient sample for this test
NA: Test not required
<: Less than

PQL: Practical Quantitation Limit
RPD: Relative Percent Difference
>: Greater than

NT: Not tested
NA: Test not required
LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.
Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.
Spikes for Physical and Aggregate Tests are not applicable.
For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

SAMPLE AND CHAIN OF CUSTODY FORM

TO:
ENVIROLAB SERVICES PTY LTD
12 ASHLEY STREET
CHATSWOOD NSW 2067
P: (02) 99106200
F: (02) 99106201

Attention: Aileen

EIS Job Number: E28412K

Date Results Required: STANDARD

Page: 1 of 1

FROM:
ENVIRONMENTAL INVESTIGATION SERVICES
REAR OF 115 WICKS ROAD
MACQUARIE PARK, NSW 2113
P: 02-9888 5000 F: 02-9888 5001
Attention: Harry Leonard

Location: Summer Hill
Sampler: HL

Sample Preserved in Esky on Ice

Tests Required

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 2	Combo 3a	Combo 6	Combo 12a	8 Metals	PAHs	TRH/BTEX	BTEX	Asbestos			
26/5/15	1	BH1	0.17-0.18	G, A	0.3	F-Gravel				X								
26/5/15	2	BH1	0.5-0.95	G, A	0.0	N-Clay												
26/5/15	3	BH1	0.8-1.0	G, A	0.0	N-Clay			X									
26/5/15	4	BH2	0.13-0.2	G, A	0.0	F-Gravel				X								
26/5/15	5	BH2	0.8-1.0	G, A	0.0	F-Clay				X								
26/5/15	6	BH2	1.5-1.95	G, A	0.0	N-Clay												
26/5/15	7	BH3	0.1-0.2	G, A	0.0	F-Clay				X								
26/5/15	8	BH3	0.5-0.95	G, A	0.0	N-Clay			X									
26/5/15	9	BH3	1.5-1.95	G	0.0	N-Clay												
26/5/15	10	BH4	0.17-0.2	G, A	0.0	F-Sand				X								
26/5/15	11	BH4	1.5-1.95	G, A	0.0	N-Clay			X									

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 128635
Date Received: 27/5/15
Time Received: 14.10
Received by: LSB
Temp: Cool/Ambient
Cooling: Ice/Gel Pack
Security: Intact/Broken/None

Remarks (comments/detection limits required):

Sample Containers:
G - 250mg Glass Jar
A - Ziplock Asbestos Bag
P - Plastic Bag

Relinquished By:	Date:	Time:	Received By:	Date:
			LSB ELS	27/5/15

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS 128635-A

Client:

Environmental Investigation Services
PO Box 976
North Ryde BC
NSW 1670

Attention: Harry Leonard

Sample log in details:

Your Reference:	**E28412K, Summer HIll**
No. of samples:	Additional Testing on 5 Soils
Date samples received / completed instructions received	27/05/15 / 28/05/15

Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date:	4/06/15 / 3/06/15
Date of Preliminary Report:	Not Issued

NATA accreditation number 2901. This document shall not be reproduced except in full.
Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:

Jacinta Hurst
Laboratory Manager

NATA
ACCREDITED FOR TECHNICAL COMPETENCE

Organophosphorus Pesticides						
Our Reference:	UNITS	128635-A-1	128635-A-4	128635-A-5	128635-A-7	128635-A-10
Your Reference	----------	BH1	BH2	BH2	BH3	BH4
Depth	----------	0.17-0.18	0.13-0.2	0.8-1.0	0.1-0.2	0.17-0.2
Date Sampled		26/05/2015	26/05/2015	26/05/2015	26/05/2015	26/05/2015
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/05/2015	28/05/2015	28/05/2015	28/05/2015	28/05/2015
Date analysed	-	30/05/2015	30/05/2015	30/05/2015	30/05/2015	30/05/2015
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	88	92	94	91	86

Method ID	Methodology Summary
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.

QUALITY CONTROL Organophosphorus Pesticides	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			28/05/2015	[NT]	[NT]	LCS-9	28/05/2015
Date analysed	-			30/05/2015	[NT]	[NT]	LCS-9	30/05/2015
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-9	95%
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-9	112%
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Diazinon	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Dichlorvos	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-9	86%
Dimethoate	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-9	120%
Fenitrothion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-9	101%
Malathion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-9	86%
Parathion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-9	116%
Ronnel	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%		Org-008	92	[NT]	[NT]	LCS-9	89%

Report Comments:

Asbestos ID was analysed by Approved Identifier:	Not applicable for this job
Asbestos ID was authorised by Approved Signatory:	Not applicable for this job

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

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Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Aileen Hie

From: Harry Leonard <HLeonard@jkgroup.net.au>
Sent: Thursday, 28 May 2015 8:16 AM
To: Aileen Hie
Subject: FW: Sample Receipt for '128635 - E28412K, Summer HIll'
Attachments: SR_128635.PDF; 128635-coc.pdf

Hi Aileen,

Could you please add analysis for OPP's for the following samples on the attached COC:

1 BH1 (0.17-0.18)
4 BH2 (0.13-0.2)
5 BH2 (0.8-1.0)
7 BH3 (0.1-0.2)
10 BH4 (0.17-0.2)

Envirolab Ref: 128635A
Due: 4/6/15
Std T/A.

Thank you so much.

-----Original Message-----
From: Sophie Keritz [mailto:skeritz@envirolab.com.au]
Sent: Wednesday, 27 May 2015 6:53 PM
To: Harry Leonard
Subject: Sample Receipt for '128635 - E28412K, Summer HIll'

Please refer to attached for a copy of your COC and our Sample Receipt Advice (SRA).
Please open and read the SRA as it contains important information. Please let the lab know immediately if there are any issues.

Results will be available by 6.30pm on the date indicated.

PLEASE NOTE COMBO PRICES WILL ONLY APPLY IF COMBOS ARE SELECTED ON COC.

The current pricing schedule came into effect on 1/1/13.

Please note that subcontracted testing or non routine testing may take significantly longer than just the std 5 day TAT, contact the lab to get an approximate due date

Enquiries should be made directly to:
Aileen Hie on ahie@envirolabservices.com.au or Jacinta Hurst on jhurst@envirolabservices.com.au or Geoff Weir on gweir@envirolabservices.com.au (Tuesday to Friday)

Regards

Envirolab Services
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
www.envirolabservices.com.au

Great Chemistry.Great Service

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Appendix M Calibration & Decontamination Records

Field Equipment Calibration and Decontamination

JBS&G

PROJECT NAME: Summerhill	PROJECT NO: S-2961
FIELD DATES: 3/8/17, 4/8/17	FIELD STAFF: NW

CALIBRATION SUMMARY	PID calibrated
EQUIPMENT:	Isobutylene gas
CALIBRATION STANDARD:	100.00, 0.00 ppm

DATE	TIME	READING (ppm,)	COMMENTS
3/8/17	07:30	100.00	calibrated successfully
	07:31	0.00	"
4.8.17	07:30	100.00	"
	07:31	0.00	"

DECONTAMINATION SUMMARY: Hand auger decontaminated between locations

EQUIPMENT: Hand auger, decon90, d.i water, bucket, brush

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

WERE ANY ADDITIONAL DECONTAMINATION MEASURES REQUIRED? PROVIDE DETAILS.

new nitrile gloves worn between locations

Gas Calibration Certificate

airmet

Air-Met Scientific Pty Ltd
1300 137 067

Instrument MX6
Serial No. 1203HBW-023
Sensors O2, LEL, PID

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
	Recharge OK?	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
Pump	Operation		
	Filter		
	Flow		
	Valves, Diaphragm		
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	O2	✓	
	LEL	✓	
	PID	✓	
Alarms	Beeper	✓	
	Settings	✓	
Software	Version		
Datalogger	Operation		
Download	Operation		
Other tests:			

Low	High	TWA	STEL
19.5%	23.5%	N/A	N/A
5%	10%	N/A	N/A
50ppm	100ppm	10ppm	25ppm

Certificate of Calibration

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

Diffusion mode Sensor	Aspirated mode Serial no	Calibration gas and concentration	Certified	Gas bottle No	Instrument Reading
O2		20.9% Vol O2		Fresh Air	20.9% O2
LEL		50% LEL Methane	NATA	SY131	49% LEL (Methane)
PID		98ppm Isobutylene	NATA	SY137	97.8ppm

Calibrated by: SB **Sophie Boler**

Calibration date: **10-Aug-17**

Next calibration due: **06-Feb-18**

Appendix N QA/QC Results

ESDAT QA Checker
Project:52961
Filter: ALL

Overview Summary
- Count of Samples
- Count of Results

Holding Times
- Holding Time Errors (0)

Blanks
- Field Blanks
- Detects in Lab Blanks (1)
- SDG's without Storage Blanks (7)
- SDG's without Method Blanks (1)

Duplicates
- Field and Interlab Duplicates
- Lab Duplicates with high RPDs (3)
- Duplicate Samples with incorrect or missing Parent Samples (0)
- Samples at the same Location/Depth/Time not specified as duplicates (16)

Surrogates
- Surrogate Variation > 30% or outside lab LCL or UCL (52)

Lab Control Samples
- SDG's without a Laboratory Control Sample (0)
- Laboratory Control Samples, Error > 30% (9)

Certified and Standard Reference Materials
- Certified Reference Materials - Error > 30% (0)

Matrix Spikes
- SDG's without a Matrix Spike (0)
- Trip Spikes with invalid Control Sample (0)
- Less than 1 matrix spike in 20 samples, or less than 1 matrix duplicate in 20 samples (3)
- Matrix Spike Recoveries less than 70% or greater than 130% or outside lab LCL or UCL (7)
- Trip Spike Recoveries (70% - 130% is acceptable) (12)

Inorganic
- Na + CL > TDS (0)
- BOD > COD (0)
- BOD > COD (0)

Other
- Unit Conversion Problems (1)
- OriginalChemNames Requiring Validation (2)
- Samples with no Results (0)
- Samples associated with Wells which are not specified in the Well Table (0)
- Aborted Analysis (0)

Field Blanks (GAS)
Filter: ALL

SDG	558483	558483
Field ID	SVBLANK_FRONT	SVBLANK_BACK
Sampled_Date/Time	2017/08/11	2017/08/11
Sample Type	Trip_B	Trip_B

Chem_Group	ChemName	Units	EQL		
BTEX	Benzene	mg/m3	0.5	<0.5	<0.5
	Ethylbenzene	mg/m3	0.5	<0.5	<0.5
	Toluene	mg/m3	0.5	<0.5	<0.5
	Xylene (Total)	mg/m3	1.5	<1.5	<1.5
Chlorinated Alkanes	1,1,1,2-tetrachloroethane	mg/m3	0.5	<0.5	<0.5
	1,1,1-trichloroethane	mg/m3	0.5	<0.5	<0.5
	1,1,2,2-tetrachloroethane	mg/m3	0.5	<0.5	<0.5
	1,1,2-trichloroethane	mg/m3	0.5	<0.5	<0.5
	1,1-dichloroethane	mg/m3	0.5	<0.5	<0.5
	1,2,3-trichloropropane	mg/m3	0.5	<0.5	<0.5
	1,2-dibromo-3-chloropropane	mg/m3	0.5	<0.5	<0.5
	1,2-dichloroethane	mg/m3	0.5	<0.5	<0.5
	1,2-dichloropropane	mg/m3	0.5	<0.5	<0.5
	1,3-dichloropropane	mg/m3	0.5	<0.5	<0.5
	2,2-dichloropropane	mg/m3	0.5	<0.5	<0.5
	Bromochloromethane	mg/m3	0.5	<0.5	<0.5
	Carbon tetrachloride	mg/m3	0.5	<0.5	<0.5
	Trichlorofluoromethane	mg/m3	0.5	<0.5	<0.5
Chlorinated Alkenes	1,1-dichloroethene	mg/m3	0.5	<0.5	<0.5
	1,1-dichloropropene	mg/m3	0.5	<0.5	<0.5
	2-chlorotoluene	mg/m3	0.5	<0.5	<0.5
	4-chlorotoluene	mg/m3	0.5	<0.5	<0.5
	cis-1,2-dichloroethene	mg/m3	0.5	<0.5	<0.5
	cis-1,3-dichloropropene	mg/m3	0.5	<0.5	<0.5
	Tetrachloroethene	mg/m3	0.5	<0.5	<0.5
	trans-1,3-dichloropropene	mg/m3	0.5	<0.5	<0.5
	Trichloroethene	mg/m3	0.5	<0.5	<0.5
	Vinyl Chloride	mg/m3	0.5	<0.5	<0.5
Chlorinated Benzenes	1,2,3-trichlorobenzene	mg/m3	0.5	<0.5	<0.5
	1,2,4-trichlorobenzene	mg/m3	0.5	<0.5	<0.5
	1,2-Dichlorobenzene	mg/m3	0.5	<0.5	<0.5
	1,3-dichlorobenzene	mg/m3	0.5	<0.5	<0.5
	1,4-dichlorobenzene	mg/m3	0.5	<0.5	<0.5
	Chlorobenzene	mg/m3	0.5	<0.5	<0.5
Miscellaneous Hydrocarbons	1,2-dibromoethane	mg/m3	0.5	<0.5	<0.5
	Dibromomethane	mg/m3	0.5	<0.5	<0.5
Miscellaneous Industrial Chemicals	Hexachlorobutadiene	mg/m3	0.5	<0.5	<0.5
Monocyclic Aromatic Hydrocarbons	1,2,4-trimethyl benzene	mg/m3	0.5	<0.5	<0.5
	1,3,5-trimethyl benzene	mg/m3	0.5	<0.5	<0.5
	4-isopropyl toluene	mg/m3	0.5	<0.5	<0.5
	Isopropylbenzene	mg/m3	0.5	<0.5	<0.5
	n-butyl benzene	mg/m3	0.5	<0.5	<0.5
	n-propyl benzene	mg/m3	0.5	<0.5	<0.5
	sec-butyl benzene	mg/m3	0.5	<0.5	<0.5
	Styrene	mg/m3	5	<5	<5
	Tert-butyl benzene	mg/m3	0.5	<0.5	<0.5
Organic Alcohols	Isopropyl alcohol	mg/m3	10	<10	<10
Polycyclic Aromatic Hydrocarbons	Naphthalene	mg/m3	0.5	<0.5	<0.5
TRHs (NEPC 2013)	>C10-C16 Fraction	mg/m3	10	<10	<10
	C6-C10 Fraction	mg/m3	10	<10	<10
Trihalomethanes	Bromodichloromethane	mg/m3	0.5	<0.5	<0.5
	Chloroform	mg/m3	0.5	<0.5	<0.5
	Dibromochloromethane	mg/m3	0.5	<0.5	<0.5
	Tribromomethane	mg/m3	0.5	<0.5	<0.5

Field Blanks (WATER)
Filter: ALL

SDG	557460	557460	558341
Field ID	RB20170804	TB20170804	TB20170811
Sampled_Date/Time	2017/08/04	2017/08/04	2017/08/11
Sample Type	Rinsate	Trip_B	Trip_B

Chem_Group	ChemName	Units	EQL			
BTEX	Benzene	mg/l	0.001	<0.001	<0.001	<0.001
	Ethylbenzene	mg/l	0.001	<0.001	<0.001	<0.001
	Toluene	mg/l	0.001	<0.001	<0.001	<0.001
	Xylene (o)	mg/l	0.001	<0.001	<0.001	<0.001
	Xylene (m & p)	mg/l	0.002	<0.002	<0.002	<0.002
	Xylene (Total)	mg/l	0.003	<0.003	<0.003	<0.003
Chlorinated Alkanes	1,1,1,2-tetrachloroethane	mg/l	0.001	<0.001		
	1,1,1-trichloroethane	mg/l	0.001	<0.001		
	1,1,2,2-tetrachloroethane	mg/l	0.001	<0.001		
	1,1,2-trichloroethane	mg/l	0.001	<0.001		
	1,1-dichloroethane	mg/l	0.001	<0.001		
	1,2,3-trichloropropane	mg/l	0.001	<0.001		
	1,2-dibromo-3-chloropropane	mg/l	0.001			
	1,2-dichloroethane	mg/l	0.001	<0.001		
	1,2-dichloropropane	mg/l	0.001	<0.001		
	1,3-dichloropropane	mg/l	0.001	<0.001		
	2,2-dichloropropane	mg/l	0.001			
	Bromochloromethane	mg/l	0.001	<0.001		
	Carbon tetrachloride	mg/l	0.001	<0.001		
	Chloroethane	mg/l	0.001	<0.001		
	Chloromethane	mg/l	0.001	<0.001		
	Dichlorodifluoromethane	mg/l	0.001	<0.001		
	Dichloromethane	mg/l	0.001	**0.046**		
	Trichlorofluoromethane	mg/l	0.001	<0.001		
Chlorinated Alkenes	1,1-dichloroethene	mg/l	0.001	<0.001		
	1,1-dichloropropene	mg/l	0.001			
	2-chlorotoluene	mg/l	0.001			
	3-chloropropene	mg/l	0.001	<0.001		
	4-chlorotoluene	mg/l	0.001	<0.001		
	cis-1,2-dichloroethene	mg/l	0.001	<0.001		
	cis-1,3-dichloropropene	mg/l	0.001	<0.001		
	Tetrachloroethene	mg/l	0.001	<0.001		
	trans-1,2-dichloroethene	mg/l	0.001	<0.001		
	trans-1,3-dichloropropene	mg/l	0.001	<0.001		
	Trichloroethene	mg/l	0.001	<0.001		
	Vinyl Chloride	mg/l	0.001	<0.001		
Chlorinated Benzenes	1,2,3-trichlorobenzene	mg/l	0.001			
	1,2,4-trichlorobenzene	mg/l	0.001			
	1,2-Dichlorobenzene	mg/l	0.001	<0.001		
	1,3-dichlorobenzene	mg/l	0.001	<0.001		
	1,4-dichlorobenzene	mg/l	0.001	<0.001		
	Chlorobenzene	mg/l	0.001	<0.001		
	Hexachlorobenzene	mg/l	0.0001	<0.0001		
EPA VIC - IWRG621	Chlorinated Hydrocarbons EPAVic	µg/l	5			
Herbicides & Fungicides	Dinoseb	mg/l	0.1			
Metals & Metalloids	Arsenic (Total)	mg/l	0.001	<0.001		
	Arsenic (Total) (Filtered)	mg/l	0.001			
	Cadmium	mg/l	0.0002	<0.0002		
	Cadmium (Filtered)	mg/l	0.0001			
	Chromium (Total)	mg/l	0.001	<0.001		
	Chromium (Total) (Filtered)	mg/l	0.001			
	Copper	mg/l	0.001	<0.001		
	Copper (Filtered)	mg/l	0.001			
	Lead	mg/l	0.001	<0.001		
	Lead (Filtered)	mg/l	0.001			
	Mercury (Inorganic)	mg/l	0.0001	<0.0001		
	Mercury (Inorganic) (Filtered)	mg/l	0.00005			
	Nickel	mg/l	0.001	<0.001		
	Nickel (Filtered)	mg/l	0.001			
	Zinc	mg/l	0.005	<0.005		
	Zinc (Filtered)	mg/l	0.001			

Field Blanks (WATER)
Filter: ALL

			SDG	557460	557460	558341
			Field ID	RB20170804	TB20170804	TB20170811
			Sampled_Date/Time	2017/08/04	2017/08/04	2017/08/11
			Sample Type	Rinsate	Trip_B	Trip_B
Miscellaneous Hydrocarbons	1,2-dibromoethane	mg/l	0.001	<0.001		
	2-Butanone (MEK)	mg/l	0.001	<0.001		
	4-Methyl-2-pentanone (MIBK)	mg/l	0.001	<0.001		
	Bromomethane	mg/l	0.001	<0.001		
	Cyclohexane	mg/l	0.001			
	Dibromomethane	mg/l	0.001	<0.001		
	Iodomethane	mg/l	0.001	<0.001		
Miscellaneous Industrial Chemicals	Hexachlorobutadiene	mg/l	0.001			
Monocyclic Aromatic Hydrocarbons	1,2,4-trimethyl benzene	mg/l	0.001	<0.001		
	1,3,5-trimethyl benzene	mg/l	0.001	<0.001		
	4-isopropyl toluene	mg/l	0.001			
	Bromobenzene	mg/l	0.001	<0.001		
	Isopropylbenzene	mg/l	0.001	<0.001		
	n-butyl benzene	mg/l	0.001			
	n-propyl benzene	mg/l	0.001			
	sec-butyl benzene	mg/l	0.001			
	Styrene	mg/l	0.001	<0.001		
	Tert-butyl benzene	mg/l	0.001			
Organic Sulfur Compounds	Carbon disulfide	mg/l	0.001	<0.001		
Organochlorine Pesticides	4,4-DDE	µg/l	0.1	<0.1		
	Aldrin	mg/l	0.0001	<0.0001		
	Aldrin + Dieldrin (Sum of Total)	mg/l	0.0001	<0.0001		
	alpha-BHC	mg/l	0.0001	<0.0001		
	alpha-Chlordane	mg/l	0.0002			
	beta-BHC	mg/l	0.0001	<0.0001		
	Dieldrin	mg/l	0.0001	<0.0001		
	DDD	mg/l	0.0001	<0.0001		
	DDT	mg/l	0.0001	<0.0001		
	DDT+DDE+DDD (Sum of Total)	mg/l	0.0001	<0.0001		
	Chlordane	mg/l	0.001	<0.001		
	delta-BHC	mg/l	0.0001	<0.0001		
	Endosulfan alpha	mg/l	0.0001	<0.0001		
	Endosulfan beta	mg/l	0.0001	<0.0001		
	gamma-Chlordane	mg/l	0.0002			
	Endosulfan sulphate	mg/l	0.0001	<0.0001		
	Endrin	mg/l	0.0001	<0.0001		
	Endrin aldehyde	mg/l	0.0001	<0.0001		
	Endrin ketone	mg/l	0.0001	<0.0001		
	Heptachlor	mg/l	0.0001	<0.0001		
	Heptachlor Epoxide	mg/l	0.0001	<0.0001		
	Lindane	mg/l	0.0001	<0.0001		
	Methoxychlor	mg/l	0.0001	<0.0001		
	Pentachlorophenol	mg/l	0.01			
	Toxaphene	mg/l	0.01	<0.01		
PAHs in Soil	Benzo(b,j+k)fluoranthene	mg/kg	0.03334			
Phenols	2,4,5-trichlorophenol	mg/l	0.01			
	2,4,6-trichlorophenol	mg/l	0.01			
	2,4-dichlorophenol	mg/l	0.003			
	2,4-dimethylphenol	mg/l	0.003			
	2,4-dinitrophenol	mg/l	0.03			
	2,6-dichlorophenol	mg/l	0.003			
	2-chlorophenol	mg/l	0.003			
	2-Methylphenol	mg/l	0.003			
	2-nitrophenol	mg/l	0.01			
	3- & 4-Methylphenol	mg/l	0.006			
	4,6-Dinitro-2-methylphenol	mg/l	0.03			
	4,6-Dinitro-o-cyclohexyl phenol	mg/l	0.1			
	4-Chloro-3-Methylphenol	mg/l	0.01			
	4-nitrophenol	mg/l	0.03			
	Phenol	mg/l	0.003			
	Phenols (Total)	mg/l	0.05			
	Total Halogenated Phenol	mg/l	0.01			
	Total Non-Halogenated Phenol	mg/l	0.1			
	Total Tetrachlorophenols	mg/l	0.03			

Field Blanks (WATER)
Filter: ALL

			SDG	557460	557460	558341
			Field ID	RB20170804	TB20170804	TB20170811
			Sampled_Date/Time	2017/08/04	2017/08/04	2017/08/11
			Sample Type	Rinsate	Trip_B	Trip_B
Polychlorinated Biphenyls	Aroclor 1016	mg/l	0.001	<0.001		
	Aroclor 1221	mg/l	0.001	<0.001		
	Aroclor 1232	mg/l	0.001	<0.001		
	Aroclor 1242	mg/l	0.001	<0.001		
	Aroclor 1248	mg/l	0.001	<0.001		
	Aroclor 1254	mg/l	0.001	<0.001		
	Aroclor 1260	mg/l	0.001	<0.001		
	PCBs (Total)	mg/l	0.001	<0.001		
Polycyclic Aromatic Hydrocarbons	Acenaphthene	mg/l	0.00005	<0.001		
	Acenaphthylene	mg/l	0.00005	<0.001		
	Anthracene	mg/l	0.00005	<0.001		
	Benz(a)anthracene	mg/l	0.00005	<0.001		
	Benzo(a)pyrene	mg/l	0.00001	<0.001		
	Benzo(a)pyrene TEQ (WHO)	mg/l	0.0005			
	Benzo(b,j)fluoranthene	mg/l	0.00005	<0.001		
	Benzo(g,h,i)perylene	mg/l	0.00005	<0.001		
	Benzo(k)fluoranthene	mg/l	0.00005	<0.001		
	Chrysene	mg/l	0.00005	<0.001		
	Dibenz(a,h)anthracene	mg/l	0.00005	<0.001		
	Fluoranthene	mg/l	0.00005	<0.001		
	Fluorene	mg/l	0.00005	<0.001		
	Indeno(1,2,3-c,d)pyrene	mg/l	0.00005	<0.001		
	Naphthalene	mg/l	0.00005	<0.01		
	Phenanthrene	mg/l	0.00005	<0.001		
	Pyrene	mg/l	0.00005	<0.001		
	PAHs (Total)	mg/l	0.00005	<0.001		
	Total Positive PAHs	mg/l				
Solvents	2-Propanone (Acetone)	µg/l	1	<1		
	MTBE	mg/l	0.001			
TPHs (NEPC 1999)	C6-C9 Fraction	mg/l	0.01	<0.02		
	C10-C14 Fraction	mg/l	0.05	<0.05		
	C15-C28 Fraction	mg/l	0.1	<0.1		
	C29-C36 Fraction	mg/l	0.1	<0.1		
	C10-C36 Fraction (Total)	mg/l	0.1	<0.1		
TRHs (NEPC 2013)	>C10-C16 Fraction	mg/l	0.05	<0.05		
	>C16-C34 Fraction	mg/l	0.1	<0.1		
	>C34-C40 Fraction	mg/l	0.1	<0.1		
	>C10-C16 less Naphthalene (F2)	mg/l	0.05	<0.05		
	C6-C10 Fraction	mg/l	0.01	<0.02		
	C6-C10 less BTEX (F1)	mg/l	0.02	<0.02		
Trihalomethanes	Bromodichloromethane	mg/l	0.001	<0.001		
	Chloroform	mg/l	0.001	<0.005		
	Dibromochloromethane	mg/l	0.001	<0.001		
	Tribromomethane	mg/l	0.001	<0.001		

Contents

Detects in Lab Blanks

SDG	Lab_Report_Number	Matrix_Type	SampleCode	Field_ID	Depth	Sampled_Date-Time	Sample_Type	Compound	Prefix	Result	Extraction_Date
557460	557460	WATER	METHODBLANK_10_557460			2017/08/04	MB	Iodomethane		0.001 MG/L	2017/08/14

Field Duplicates (SOIL)
Filter: ALL

			SDG	557460	557460		557460	ENVIROLAB 2017-08-08T00:00:00		
			Field ID	BH09_0.2-0.3	QA20170804	**RPD**	BH09_0.2-0.3	QC20170804	**RPD**
			Sampled Date/Time	2017/08/04	2017/08/04		2017/08/04	2017/08/04	
Chem_Group	**ChemName**	**Units**	**EQL**						
Metals & Metalloids	Arsenic (Total)	mg/kg	2 (Primary): 4 (Interlab)	**3.0**	**6.3**	**71**	**3.0**	**5.0**	**50**
	Cadmium	mg/kg	0.4	<0.4	<0.4	0	<0.4	<0.4	0
	Chromium (Total)	mg/kg	5 (Primary): 1 (Interlab)	**8.9**	**17.0**	**63**	8.9	11.0	21
	Copper	mg/kg	5 (Primary): 1 (Interlab)	55.0	61.0	10	55.0	45.0	20
	Lead	mg/kg	5 (Primary): 1 (Interlab)	**42.0**	**180.0**	**124**	**42.0**	**130.0**	**102**
	Mercury (Inorganic)	mg/kg	0.1	**<0.1**	**0.2**	**67**	**<0.1**	**0.2**	**67**
	Nickel	mg/kg	5 (Primary): 1 (Interlab)	25.0	22.0	13	**25.0**	**14.0**	**56**
	Zinc	mg/kg	5 (Primary): 1 (Interlab)	290.0	310.0	7	**290.0**	**210.0**	**32**
Chlorinated Alkanes	1,1,1,2-tetrachloroethane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	1,1,1-trichloroethane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	1,1,2,2-tetrachloroethane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	1,1,2-trichloroethane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	1,1-dichloroethane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	1,2,3-trichloropropane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	1,2-dichloroethane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	1,2-dichloropropane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	1,3-dichloropropane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Bromochloromethane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Carbon tetrachloride	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Chloroethane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Chloromethane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Dichlorodifluoromethane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Dichloromethane	mg/kg	0.5	**<0.5**	**0.9**	**57**	<0.5		
	Trichlorofluoromethane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
Chlorinated Alkenes	1,1-dichloroethene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	3-chloropropene	mg/kg	0.5	<0.5	<0.5	0	<0.5		
	4-chlorotoluene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	cis-1,2-dichloroethene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	cis-1,3-dichloropropene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Tetrachloroethene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	trans-1,2-dichloroethene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	trans-1,3-dichloropropene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Trichloroethene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Vinyl Chloride	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
Trihalomethanes	Bromodichloromethane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Chloroform	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Dibromochloromethane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Tribromomethane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
TPHs (NEPC 1999)	C6-C9 Fraction	mg/kg	20 (Primary): 25 (Interlab)	<20.0	<20.0	0	<20.0	<25.0	0
	C10-C14 Fraction	mg/kg	20 (Primary): 50 (Interlab)	<20.0	<20.0	0	<20.0	<50.0	0
	C15-C28 Fraction	mg/kg	50 (Primary): 100 (Interlab)	**60.0**	**180.0**	**100**	60.0	<100.0	0
	C29-C36 Fraction	mg/kg	50 (Primary): 100 (Interlab)	<50.0	61.0	20	<50.0	<100.0	0
	C10-C36 Fraction (Total)	mg/kg	50	**60.0**	**241.0**	**120**	60.0		
TRHs (NEPC 2013)	>C10-C16 Fraction	mg/kg	50	<50.0	<50.0	0	<50.0	<50.0	0
	>C16-C34 Fraction	mg/kg	100	**<100.0**	**230.0**	**79**	<100.0	<100.0	0
	>C34-C40 Fraction	mg/kg	100	<100.0	<100.0	0	<100.0	<100.0	0
	>C10-C16 less Naphthalene (F2)	mg/kg	50	<50.0	<50.0	0	<50.0	<50.0	0
	C6-C10 Fraction	mg/kg	20 (Primary): 25 (Interlab)	<20.0	<20.0	0	<20.0	<25.0	0
	C6-C10 less BTEX (F1)	mg/kg	20 (Primary): 25 (Interlab)	<20.0	<20.0	0	<20.0	<25.0	0
BTEX	Benzene	mg/kg	0.1 (Primary): 0.2 (Interlab)	<0.1	<0.1	0	<0.1	<0.2	0
	Ethylbenzene	mg/kg	0.1 (Primary): 1 (Interlab)	<0.1	<0.1	0	<0.1	<1.0	0
	Toluene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.5	0
	Xylene (o)	mg/kg	0.1 (Primary): 1 (Interlab)	<0.1	<0.1	0	<0.1	<1.0	0
	Xylene (m & p)	mg/kg	0.2 (Primary): 2 (Interlab)	<0.2	<0.2	0	<0.2	<2.0	0
	Xylene (Total)	mg/kg	0.3 (Primary): 1 (Interlab)	<0.3	<0.3	0	<0.3	<1.0	0
PAHs	Acenaphthene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0
	Acenaphthylene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	0.2	0
	Anthracene	mg/kg	0.5 (Primary): 0.1 (Interlab)	**<0.5**	**1.3**	**89**	<0.5	0.2	0
	Benz(a)anthracene	mg/kg	0.5 (Primary): 0.1 (Interlab)	**0.6**	**3.4**	**140**	0.6	0.7	15
	Benzo(a)pyrene	mg/kg	0.5 (Primary): 0.05 (Interlab)	**<0.5**	**2.8**	**139**	<0.5	0.6	18
	BAP TEQ (lower bound)*	mg/kg	0.5	**<0.5**	**5.5**	**167**	**<0.5**	**0.9**	**57**
	BAP TEQ (medium bound)*	mg/kg	0.5	**0.6**	**5.5**	**161**	**0.6**	**0.9**	**40**
	BAP TEQ (upper bound)*	mg/kg	0.5	**1.2**	**5.5**	**128**	1.2	0.9	29
	Benzo(b,j)fluoranthene	mg/kg	0.5	**<0.5**	**2.5**	**133**	<0.5		
	Benzo(g,h,i)perylene	mg/kg	0.5 (Primary): 0.1 (Interlab)	**<0.5**	**3.2**	**146**	<0.5	0.5	0
	Benzo(k)fluoranthene	mg/kg	0.5	**<0.5**	**2.3**	**129**	<0.5		
	Chrysene	mg/kg	0.5 (Primary): 0.1 (Interlab)	**0.6**	**3.4**	**140**	0.6	0.7	15
	Dibenz(a,h)anthracene	mg/kg	0.5 (Primary): 0.1 (Interlab)	**<0.5**	**1.5**	**100**	<0.5	<0.1	0
	Fluoranthene	mg/kg	0.5 (Primary): 0.1 (Interlab)	**0.9**	**6.9**	**154**	**0.9**	**1.4**	**43**
	Fluorene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.5 (Primary): 0.1 (Interlab)	**<0.5**	**3.0**	**143**	<0.5	0.4	0
	Naphthalene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0
	Naphthalene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0
	Phenanthrene	mg/kg	0.5 (Primary): 0.1 (Interlab)	**0.8**	**5.5**	**149**	**0.8**	**0.5**	**46**
	Pyrene	mg/kg	0.5 (Primary): 0.1 (Interlab)	**0.9**	**6.7**	**153**	**0.9**	**1.4**	**43**
	PAHs (Total)	mg/kg	0.5	**3.8**	**42.5**	**167**	3.8		

Field Duplicates (SOIL)
Filter: ALL

			SDG	557460	557460		557460	ENVIROLAB 2017-08-08T00:00:00	
			Field ID	BH09_0.2-0.3	QA20170804	**RPD**	BH09_0.2-0.3	QC20170804	**RPD**
			Sampled Date/Time	2017/08/04	2017/08/04		2017/08/04	2017/08/04	
MAHs	1,2,4-trimethyl benzene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	1,3,5-trimethyl benzene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Bromobenzene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Isopropylbenzene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Styrene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
Misc. Hydrocarbons	1,2-dibromoethane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	2-Butanone (MEK)	mg/kg	0.5	<0.5	<0.5	0	<0.5		
	4-Methyl-2-pentanone (MIBK)	mg/kg	0.5	<0.5	<0.5	0	<0.5		
	Bromomethane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Dibromomethane	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Iodomethane	mg/kg	0.5	<0.5	<0.5	0	<0.5		
Chlorinated Benzenes	1,2-Dichlorobenzene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	1,3-dichlorobenzene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	1,4-dichlorobenzene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Chlorobenzene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
	Hexachlorobenzene	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
Solvents	2-Propanone (Acetone)	mg/kg	0.5	<0.5	<0.5	0	<0.5		
PCBs	Aroclor 1016	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0
	Aroclor 1221	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0
	Aroclor 1232	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0
	Aroclor 1242	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0
	Aroclor 1248	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0
	Aroclor 1254	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0
	Aroclor 1260	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0
	PCBs (Total)	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0
Phenols	2,4,5-trichlorophenol	mg/kg	1	<1.0	<1.0	0	<1.0		
	2,4,6-trichlorophenol	mg/kg	1	<1.0	<1.0	0	<1.0		
	2,4-dichlorophenol	mg/kg	0.5	<0.5	<0.5	0	<0.5		
	2,4-dimethylphenol	mg/kg	0.5	<0.5	<0.5	0	<0.5		
	2,4-dinitrophenol	mg/kg	5	<5.0	<5.0	0	<5.0		
	2,6-dichlorophenol	mg/kg	0.5	<0.5	<0.5	0	<0.5		
	2-chlorophenol	mg/kg	0.5	<0.5	<0.5	0	<0.5		
	2-Methylphenol	mg/kg	0.2	<0.2	<0.2	0	<0.2		
	2-nitrophenol	mg/kg	1	<1.0	<1.0	0	<1.0		
	3- & 4-Methylphenol	mg/kg	0.4	<0.4	<0.4	0	<0.4		
	4,6-Dinitro-2-methylphenol	mg/kg	5	<5.0	<5.0	0	<5.0		
	4,6-Dinitro-o-cyclohexyl phenol	mg/kg	20	<20.0	<20.0	0	<20.0		
	4-Chloro-3-Methylphenol	mg/kg	1	<1.0	<1.0	0	<1.0		
	4-nitrophenol	mg/kg	5	<5.0	<5.0	0	<5.0		
	Phenol	mg/kg	0.5	<0.5	<0.5	0	<0.5		
	Total Halogenated Phenol	mg/kg	1	<1.0	<1.0	0	<1.0		
	Total Non-Halogenated Phenol	mg/kg	20	<20.0	<20.0	0	<20.0		
	Total Tetrachlorophenols	mg/kg	1	<1.0	<1.0	0	<1.0		
Org. Sulfur Compounds	Carbon disulfide	mg/kg	0.5	<0.5	<0.5	0	<0.5		
OCPs	4,4-DDE	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	Aldrin	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	Aldrin + Dieldrin (Sum of Total)	mg/kg	0.05	<0.05	<0.05	0	<0.05		
	alpha-BHC	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	beta-BHC	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	Dieldrin	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	DDD	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	DDT	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	DDT+DDE+DDD (Sum of Total)	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	Chlordane	mg/kg	0.1	<0.1	<0.1	0	<0.1		
	delta-BHC	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	Endosulfan alpha	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	Endosulfan beta	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	Endosulfan sulphate	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	Endrin	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	Endrin aldehyde	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	Endrin ketone	mg/kg	0.05	<0.05	<0.05	0	<0.05		
	Heptachlor	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	Heptachlor Epoxide	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	Lindane	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	Methoxychlor	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	Pentachlorophenol	mg/kg	1	<1.0	<1.0	0	<1.0		
	Toxaphene	mg/kg	1	<1.0	<1.0	0	<1.0		
Herbicides & Fungicides	Dinoseb	mg/kg	20	<20.0	<20.0	0	<20.0		
Other	% Moisture 103oC	%	1	**23.0**	**12.0**	**63**	23.0		

*RPDs have only been considered where a concentration is greater than 1 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 30 (1-20 x EQL); 30 (20-30 x EQL); 30 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Field Duplicates (WATER)
Filter: ALL

			SDG	558341	558341		558341	ENVIROLAB 2017-08-14T00:00:00		
			Field ID	MW05	QA20170811	**RPD**	MW05	QC20170811	**RPD**
			Sampled Date/Time	2017/08/11	2017/08/11		2017/08/11	2017/08/11	
Chem_Group	**ChemName**	**Units**	**EQL**						
Metals & Metalloids	Arsenic (Total) (Filtered)	mg/l	0.001	0.004	0.004	0	0.004	0.004	0
	Cadmium (Filtered)	mg/l	0.0002 (Primary): 0.0001 (Interlab)	<0.0002	<0.0002	0	<0.0002	<0.0001	0
	Chromium (Total) (Filtered)	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Copper (Filtered)	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Lead (Filtered)	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Mercury (Inorganic) (Filtered)	mg/l	0.0001 (Primary): 0.00005 (Interlab)	<0.0001	<0.0001	0	<0.0001	<0.0001	0
	Nickel (Filtered)	mg/l	0.001	0.001	0.001	0	0.001	0.001	0
	Zinc (Filtered)	mg/l	0.005 (Primary): 0.001 (Interlab)	0.01	0.008	22	0.01	0.008	22
Chlorinated Alkanes	1,1,1,2-tetrachloroethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,1,1-trichloroethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,1,2,2-tetrachloroethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,1,2-trichloroethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,1-dichloroethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,2,3-trichloropropane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,2-dichloroethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,2-dichloropropane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,3-dichloropropane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Bromochloromethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Carbon tetrachloride	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Chloroethane	mg/l	0.001 (Primary): 0.01 (Interlab)	<0.001	<0.001	0	<0.001	<0.01	0
	Chloromethane	mg/l	0.001 (Primary): 0.01 (Interlab)	<0.001	<0.001	0	<0.001	<0.01	0
	Dichlorodifluoromethane	mg/l	0.001 (Primary): 0.01 (Interlab)	<0.001	<0.001	0	<0.001	<0.01	0
	Dichloromethane	mg/l	0.001	0.027	0.021	25	0.027		
	Trichlorofluoromethane	mg/l	0.001 (Primary): 0.01 (Interlab)	<0.001	<0.001	0	<0.001	<0.01	0
Chlorinated Alkenes	1,1-dichloroethene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	3-chloropropene	mg/l	0.001	<0.001	<0.001	0	<0.001		
	4-chlorotoluene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	cis-1,2-dichloroethene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	cis-1,3-dichloropropene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Tetrachloroethene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	trans-1,2-dichloroethene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	trans-1,3-dichloropropene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Trichloroethene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Vinyl Chloride	mg/l	0.001 (Primary): 0.01 (Interlab)	<0.001	<0.001	0	<0.001	<0.01	0
Trihalomethanes	Bromodichloromethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Chloroform	mg/l	0.005 (Primary): 0.001 (Interlab)	<0.005	<0.005	0	<0.005	<0.001	0
	Dibromochloromethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Tribromomethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
TPHs (NEPC 1999)	C6-C9 Fraction	mg/l	0.02 (Primary): 0.01 (Interlab)	<0.02	<0.02	0	<0.02	<0.01	0
	C10-C14 Fraction	mg/l	0.05	<0.05	<0.05	0	<0.05	<0.05	0
	C15-C28 Fraction	mg/l	0.1	<0.1	<0.1	0	<0.1	<0.1	0
	C29-C36 Fraction	mg/l	0.1	<0.1	<0.1	0	<0.1	<0.1	0
	C10-C36 Fraction (Total)	mg/l	0.1	<0.1	<0.1	0	<0.1		
TRHs (NEPC 2013)	>C10-C16 Fraction	mg/l	0.05	<0.05	<0.05	0	<0.05	<0.05	0
	>C16-C34 Fraction	mg/l	0.1	<0.1	<0.1	0	<0.1	<0.1	0
	>C34-C40 Fraction	mg/l	0.1	<0.1	<0.1	0	<0.1	<0.1	0
	>C10-C16 less Naphthalene (F2)	mg/l	0.05	<0.05	<0.05	0	<0.05		
	C6-C10 Fraction	mg/l	0.02 (Primary): 0.01 (Interlab)	<0.02	<0.02	0	<0.02	<0.01	0
	C6-C10 less BTEX (F1)	mg/l	0.02	<0.02	<0.02	0	<0.02		
BTEX	Benzene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Ethylbenzene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Toluene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Xylene (o)	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Xylene (m & p)	mg/l	0.002	<0.002	<0.002	0	<0.002	<0.002	0
	Xylene (Total)	mg/l	0.003	<0.003	<0.003	0	<0.003		
Polycyclic Aromatic Hydrocarb	Acenaphthene	mg/l	0.00005	<0.0001	<0.0001	0			
	Acenaphthylene	mg/l	0.00005	<0.0001	<0.0001	0			
	Anthracene	mg/l	0.00005	<0.0001	<0.0001	0			
	Benz(a)anthracene	mg/l	0.00005	<0.0001	<0.0001	0			
	Benzo(a)pyrene	mg/l	0.00001	<0.0	<0.0	0			
	Benzo(b,j)fluoranthene	mg/l	0.00005	<0.0001	<0.0001	0			
	Benzo(g,h,i)perylene	mg/l	0.00005	<0.0001	<0.0001	0			
	Benzo(k)fluoranthene	mg/l	0.00005	<0.0001	<0.0001	0			
	Chrysene	mg/l	0.00005	<0.0001	<0.0001	0			
	Dibenz(a,h)anthracene	mg/l	0.00005	<0.0001	<0.0001	0			
	Fluoranthene	mg/l	0.00005	<0.0001	<0.0001	0			
	Fluorene	mg/l	0.00005	<0.0001	<0.0001	0			
	Indeno(1,2,3-c,d)pyrene	mg/l	0.00005	<0.0001	<0.0001	0			
	Naphthalene	mg/l	0.01 (Primary): 0.0002 (Interlab)				<0.01	<0.0002	0
	Naphthalene	mg/l	0.00005	<0.0001	<0.0001	0			
	Phenanthrene	mg/l	0.00005	<0.0001	<0.0001	0			
	Pyrene	mg/l	0.00005	<0.0001	<0.0001	0			
	PAHs (Total)	mg/l	0.00005	<0.0001	<0.0001	0			

Field Duplicates (WATER)
Filter: ALL

				SDG	558341	558341		558341	ENVIROLAB 2017-08-14T00:00:00	
				Field ID	MW05	QA20170811	RPD	MW05	QC20170811	RPD
				Sampled Date/Time	2017/08/11	2017/08/11		2017/08/11	2017/08/11	
Monocyclic Aromatic Hydroca	1,2,4-trimethyl benzene	mg/l	0.001		<0.001	<0.001	0	<0.001	<0.001	0
	1,3,5-trimethyl benzene	mg/l	0.001		<0.001	<0.001	0	<0.001	<0.001	0
	Bromobenzene	mg/l	0.001		<0.001	<0.001	0	<0.001	<0.001	0
	Isopropylbenzene	mg/l	0.001		<0.001	<0.001	0	<0.001	<0.001	0
	Styrene	mg/l	0.001		<0.001	<0.001	0	<0.001	<0.001	0
Miscellaneous Hydrocarbons	1,2-dibromoethane	mg/l	0.001		<0.001	<0.001	0	<0.001	<0.001	0
	2-Butanone (MEK)	mg/l	0.001		<0.001	<0.001	0	<0.001		
	4-Methyl-2-pentanone (MIBK)	mg/l	0.001		<0.001	<0.001	0	<0.001		
	Bromomethane	mg/l	0.001 (Primary): 0.01 (Interlab)		<0.001	<0.001	0	<0.001	<0.01	0
	Dibromomethane	mg/l	0.001		<0.001	<0.001	0	<0.001	<0.001	0
	Iodomethane	mg/l	0.001		<0.001	<0.001	0	<0.001		
Chlorinated Benzenes	1,2-Dichlorobenzene	mg/l	0.001		<0.001	<0.001	0	<0.001	<0.001	0
	1,3-dichlorobenzene	mg/l	0.001		<0.001	<0.001	0	<0.001	<0.001	0
	1,4-dichlorobenzene	mg/l	0.001		<0.001	<0.001	0	<0.001	<0.001	0
	Chlorobenzene	mg/l	0.001		<0.001	<0.001	0	<0.001	<0.001	0
	Hexachlorobenzene	mg/l	0.0001 (Primary): 0.0002 (Interlab)		<0.0001	<0.0001	0	<0.0001	<0.0002	0
Solvents	2-Propanone (Acetone)	µg/l	1		<1.0	<1.0	0	<1.0		
	MTBE	mg/l	0.001		<0.001	<0.001	0	<0.001	<0.001	0
Polychlorinated Biphenyls	Aroclor 1016	mg/l	0.001 (Primary): 0.002 (Interlab)		<0.001	<0.001	0	<0.001	<0.002	0
	Aroclor 1221	mg/l	0.001 (Primary): 0.002 (Interlab)		<0.001	<0.001	0	<0.001	<0.002	0
	Aroclor 1232	mg/l	0.001 (Primary): 0.002 (Interlab)		<0.001	<0.001	0	<0.001	<0.002	0
	Aroclor 1242	mg/l	0.001 (Primary): 0.002 (Interlab)		<0.001	<0.001	0	<0.001	<0.002	0
	Aroclor 1248	mg/l	0.001 (Primary): 0.002 (Interlab)		<0.001	<0.001	0	<0.001	<0.002	0
	Aroclor 1254	mg/l	0.001 (Primary): 0.002 (Interlab)		<0.001	<0.001	0	<0.001	<0.002	0
	Aroclor 1260	mg/l	0.001 (Primary): 0.002 (Interlab)		<0.001	<0.001	0	<0.001	<0.002	0
	PCBs (Total)	mg/l	0.001		<0.001	<0.001	0	<0.001		
Phenols	2,4,5-trichlorophenol	mg/l	0.01		<0.01	<0.01	0	<0.01		
	2,4,6-trichlorophenol	mg/l	0.01		<0.01	<0.01	0	<0.01		
	2,4-dichlorophenol	mg/l	0.003		<0.003	<0.003	0	<0.003		
	2,4-dimethylphenol	mg/l	0.003		<0.003	<0.003	0	<0.003		
	2,4-dinitrophenol	mg/l	0.03		<0.03	<0.03	0	<0.03		
	2,6-dichlorophenol	mg/l	0.003		<0.003	<0.003	0	<0.003		
	2-chlorophenol	mg/l	0.003		<0.003	<0.003	0	<0.003		
	2-Methylphenol	mg/l	0.003		<0.003	<0.003	0	<0.003		
	2-nitrophenol	mg/l	0.01		<0.01	<0.01	0	<0.01		
	3- & 4-Methylphenol	mg/l	0.006		<0.006	<0.006	0	<0.006		
	4,6-Dinitro-2-methylphenol	mg/l	0.03		<0.03	<0.03	0	<0.03		
	4,6-Dinitro-o-cyclohexyl phenol	mg/l	0.1		<0.1	<0.1	0	<0.1		
	4-Chloro-3-Methylphenol	mg/l	0.01		<0.01	<0.01	0	<0.01		
	4-nitrophenol	mg/l	0.03		<0.03	<0.03	0	<0.03		
	Phenol	mg/l	0.003		<0.003	<0.003	0	<0.003		
	Total Halogenated Phenol	mg/l	0.01		<0.01	<0.01	0	<0.01		
	Total Non-Halogenated Phenol	mg/l	0.1		<0.1	<0.1	0	<0.1		
	Total Tetrachlorophenols	mg/l	0.03		<0.03	<0.03	0	<0.03		
Organic Sulfur Compounds	Carbon disulfide	mg/l	0.001		<0.001	<0.001	0	<0.001		
Organochlorine Pesticides	4,4-DDE	µg/l	0.1 (Primary): 0.2 (Interlab)		<0.1	<0.1	0	<0.1	<0.2	0
	Aldrin	mg/l	0.0001 (Primary): 0.0002 (Interlab)		<0.0001	<0.0001	0	<0.0001	<0.0002	0
	Aldrin + Dieldrin (Sum of Total)	mg/l	0.0001		<0.0001	<0.0001	0	<0.0001		
	alpha-BHC	mg/l	0.0001 (Primary): 0.0002 (Interlab)		<0.0001	<0.0001	0	<0.0001	<0.0002	0
	beta-BHC	mg/l	0.0001 (Primary): 0.0002 (Interlab)		<0.0001	<0.0001	0	<0.0001	<0.0002	0
	Dieldrin	mg/l	0.0001 (Primary): 0.0002 (Interlab)		<0.0001	<0.0001	0	<0.0001	<0.0002	0
	DDD	mg/l	0.0001 (Primary): 0.0002 (Interlab)		<0.0001	<0.0001	0	<0.0001	<0.0002	0
	DDT	mg/l	0.0001 (Primary): 0.0002 (Interlab)		<0.0001	<0.0001	0	<0.0001	<0.0002	0
	DDT+DDE+DDD (Sum of Total)	mg/l	0.0001		<0.0001	<0.0001	0	<0.0001		
	Chlordane	mg/l	0.001		<0.001	<0.001	0	<0.001		
	delta-BHC	mg/l	0.0001 (Primary): 0.0002 (Interlab)		<0.0001	<0.0001	0	<0.0001	<0.0002	0
	Endosulfan alpha	mg/l	0.0001 (Primary): 0.0002 (Interlab)		<0.0001	<0.0001	0	<0.0001	<0.0002	0
	Endosulfan beta	mg/l	0.0001 (Primary): 0.0002 (Interlab)		<0.0001	<0.0001	0	<0.0001	<0.0002	0
	Endosulfan sulphate	mg/l	0.0001 (Primary): 0.0002 (Interlab)		<0.0001	<0.0001	0	<0.0001	<0.0002	0
	Endrin	mg/l	0.0001 (Primary): 0.0002 (Interlab)		<0.0001	<0.0001	0	<0.0001	<0.0002	0
	Endrin aldehyde	mg/l	0.0001 (Primary): 0.0002 (Interlab)		<0.0001	<0.0001	0	<0.0001	<0.0002	0
	Endrin ketone	mg/l	0.0001		<0.0001	<0.0001	0	<0.0001		
	Heptachlor	mg/l	0.0001 (Primary): 0.0002 (Interlab)		<0.0001	<0.0001	0	<0.0001	<0.0002	0
	Heptachlor Epoxide	mg/l	0.0001 (Primary): 0.0002 (Interlab)		<0.0001	<0.0001	0	<0.0001	<0.0002	0
	Lindane	mg/l	0.0001 (Primary): 0.0002 (Interlab)		<0.0001	<0.0001	0	<0.0001	<0.0002	0
	Methoxychlor	mg/l	0.0001 (Primary): 0.0002 (Interlab)		<0.0001	<0.0001	0	<0.0001	<0.0002	0
	Pentachlorophenol	mg/l	0.01		<0.01	<0.01	0	<0.01		
	Toxaphene	mg/l	0.01		<0.01	<0.01	0	<0.01		
Herbicides & Fungicides	Dinoseb	mg/l	0.1		<0.1	<0.1	0	<0.1		

*RPDs have only been considered where a concentration is greater than 1 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 30 (1-20 x EQL); 30 (20-30 x EQL); 30 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Field Duplicates (GAS)

Filter: ALL

SDG	558483	558483		558483	558483	
		QC_110817S			QC_110817S	
Field ID	SV01_FRONT	V_FRONT	**RPD**	SV01_BACK	V_BACK	**RPD**
Sampled Date/Time	2017/08/11	2017/08/11		2017/08/11	2017/08/11	

Chem_Group	ChemName	Units	EQL						
Organic Alcohols	Isopropyl alcohol	mg/m3	10	<10.0	<10.0	0	<10.0	<10.0	0
Chlorinated Alkanes	1,1,1,2-tetrachloroethane	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	1,1,1-trichloroethane	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	1,1,2,2-tetrachloroethane	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	1,1,2-trichloroethane	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	1,1-dichloroethane	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	1,2,3-trichloropropane	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	1,2-dibromo-3-chloropropane	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	1,2-dichloroethane	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	1,2-dichloropropane	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	1,3-dichloropropane	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	2,2-dichloropropane	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Bromochloromethane	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Carbon tetrachloride	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Trichlorofluoromethane	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
Chlorinated Alkenes	1,1-dichloroethene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	1,1-dichloropropene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	2-chlorotoluene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	4-chlorotoluene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	cis-1,2-dichloroethene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	cis-1,3-dichloropropene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Tetrachloroethene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	trans-1,3-dichloropropene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Trichloroethene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Vinyl Chloride	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
Trihalomethanes	Bromodichloromethane	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Chloroform	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Dibromochloromethane	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Tribromomethane	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
TRHs (NEPC 2013)	>C10-C16 Fraction	mg/m3	10	<10.0	<10.0	0	<10.0	<10.0	0
	C6-C10 Fraction	mg/m3	10	<10.0	<10.0	0	<10.0	<10.0	0
BTEX	Benzene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Ethylbenzene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Toluene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Xylene (Total)	mg/m3	1.5	<1.5	<1.5	0	<1.5	<1.5	0
Polycyclic Aromatic Hydrocarbons	Naphthalene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
Monocyclic Aromatic Hydrocarbons	1,2,4-trimethyl benzene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	1,3,5-trimethyl benzene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	4-isopropyl toluene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Isopropylbenzene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	n-butyl benzene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	n-propyl benzene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	sec-butyl benzene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Styrene	mg/m3	5	<5.0	<5.0	0	<5.0	<5.0	0
	Tert-butyl benzene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
Miscellaneous Hydrocarbons	1,2-dibromoethane	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Dibromomethane	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
Chlorinated Benzenes	1,2,3-trichlorobenzene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	1,2,4-trichlorobenzene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	1,2-Dichlorobenzene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	1,3-dichlorobenzene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	1,4-dichlorobenzene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Chlorobenzene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0
Miscellaneous Industrial Chemicals	Hexachlorobutadiene	mg/m3	0.5	<0.5	<0.5	0	<0.5	<0.5	0

*RPDs have only been considered where a concentration is greater than 1 times the EQL.

**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 30 (1-20 x EQL); 30 (20-30 x EQL); 30 (> 30 x EQL))

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary labo

Contents

Lab Duplicates with high RPDs

SDG	Lab_Report_Number	Matrix_Type	Lab_Duplicate	Field_ID	Depth	Sampled_Date-Time	Method_Name	Compound	Parent_Result	Dupe_Result	Result_Unit	EQL	RPD
559156	559156	SOIL	M17-Au21826-DUP	BH07_0.3-0.4		2017/08/03	LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices	1.3.5-Trimethylbenzene	3	2	MG/KG	0.5 mg/kg	40
557460	557460	SOIL	S17-Au07965-DUP	BH07_0.5-0.6		2017/08/04	LTM-ORG-2140 PAH and Phenols in Soils by GCMS	Fluoranthene	0.9	<0.5	MG/KG	0.5 mg/kg	57
557460	557460	SOIL	S17-Au07965-DUP	BH07_0.5-0.6		2017/08/04	LTM-ORG-2140 PAH and Phenols in Soils by GCMS	Pyrene	1	<0.5	MG/KG	0.5 mg/kg	67

Contents

Surrogate Variation > 30% or outside lab LCL or UCL

SDG	Expr1001	Lab_Report_Number	Sample_Type	Matrix_Type	SampleCode	Field_ID	Depth	Sampled_Date-Time	Compound	Recovery %	Unit	LCL	UCL
557460	557460	557460	Normal	SOIL	S17-Au07956	BH01_0.9-1.0		2017/08/03	4-Bromofluorobenzene (surr.)	67	%	50	150
557460	557460	557460	Normal	SOIL	S17-Au07956	BH01_0.9-1.0		2017/08/03	Tetrachloro-m-xylene (surr.)	69	%	50	150
557460	557460	557460	Normal	SOIL	S17-Au07957	BH01_2.9-3.0		2017/08/03	4-Bromofluorobenzene (surr.)	65	%	50	150
557460	557460	557460	Normal	SOIL	S17-Au07959	BH02_2.9-3.0		2017/08/03	4-Bromofluorobenzene (surr.)	54	%	50	150
557460	557460	557460	Normal	SOIL	S17-Au07959	BH02_2.9-3.0		2017/08/03	Fluorobenzene (surr.)	69	%	50	150
557460	557460	557460	Normal	SOIL	S17-Au07960	BH03_2.9-3.0		2017/08/03	4-Bromofluorobenzene (surr.)	54	%	50	150
557460	557460	557460	Normal	SOIL	S17-Au07960	BH03_2.9-3.0		2017/08/03	Fluorobenzene (surr.)	63	%	50	150
557460	557460	557460	Normal	SOIL	S17-Au07961	BH04_2.9-3.0		2017/08/03	4-Bromofluorobenzene (surr.)	55	%	50	150
557460	557460	557460	Normal	SOIL	S17-Au07961	BH04_2.9-3.0		2017/08/03	Fluorobenzene (surr.)	69	%	50	150
557460	557460	557460	Normal	SOIL	S17-Au07962	BH05_0.25-0.35		2017/08/03	4-Bromofluorobenzene (surr.)	65	%	50	150
557460	557460	557460	Normal	SOIL	S17-Au07962	BH05_0.25-0.35		2017/08/03	Dibutylchlorendate (surr.)	56	%	50	150
557460	557460	557460	Normal	SOIL	S17-Au07963	BH05_0.4-0.5		2017/08/03	Dibutylchlorendate (surr.)	67	%	50	150
557460	557460	557460	Normal	SOIL	S17-Au07963	BH05_0.4-0.5		2017/08/03	Tetrachloro-m-xylene (surr.)	58	%	50	150
557460	557460	557460	Normal	SOIL	S17-Au07964	BH06_0.8-0.9		2017/08/04	4-Bromofluorobenzene (surr.)	55	%	50	150
557460	557460	557460	Normal	SOIL	S17-Au07964	BH06_0.8-0.9		2017/08/04	Fluorobenzene (surr.)	65	%	50	150
557460	557460	557460	Normal	SOIL	S17-Au07966	BH08_0.4-0.5		2017/08/04	4-Bromofluorobenzene (surr.)	56	%	50	150
557460	557460	557460	Normal	SOIL	S17-Au07966	BH08_0.4-0.5		2017/08/04	Fluorobenzene (surr.)	62	%	50	150
557460	557460	557460	Normal	SOIL	S17-Au07967	BH09_0.2-0.3		2017/08/04	4-Bromofluorobenzene (surr.)	55	%	50	150
557460	557460	557460	Normal	SOIL	S17-Au07967	BH09_0.2-0.3		2017/08/04	Fluorobenzene (surr.)	60	%	50	150
557460	557460	557460	Field_D	SOIL	S17-Au07968	QA20170804		2017/08/04	4-Bromofluorobenzene (surr.)	54	%	50	150
557460	557460	557460	Field_D	SOIL	S17-Au07968	QA20170804		2017/08/04	Fluorobenzene (surr.)	67	%	50	150
557460	557460	557460	Field_D	SOIL	S17-Au07968	QA20170804		2017/08/04	Tetrachloro-m-xylene (surr.)	68	%	50	150
557460	557460	557460	Rinsate	WATER	S17-Au07969	RB20170804		2017/08/04	4-Bromofluorobenzene (surr.)	64	%	50	150
557460	557460	557460	Rinsate	WATER	S17-Au07969	RB20170804		2017/08/04	p-Terphenyl-d14 (surr.)	148	%	50	150
558341	558341	558341	Normal	WATER	S17-Au15162	MW01	MW01	2017/08/11	4-Bromofluorobenzene (surr.)	69	%	50	150
558341	558341	558341	Normal	WATER	S17-Au15162	MW01	MW01	2017/08/11	Fluorobenzene (surr.)	69	%	50	150
558341	558341	558341	Normal	WATER	S17-Au15162	MW01	MW01	2017/08/11	Phenol-d6 (surr.)	53	%	20	130
558341	558341	558341	Normal	WATER	S17-Au15163	MW02	MW02	2017/08/11	4-Bromofluorobenzene (surr.)	63	%	50	150
558341	558341	558341	Normal	WATER	S17-Au15163	MW02	MW02	2017/08/11	Fluorobenzene (surr.)	62	%	50	150
558341	558341	558341	Normal	WATER	S17-Au15163	MW02	MW02	2017/08/11	Phenol-d6 (surr.)	41	%	20	130
558341	558341	558341	Normal	WATER	S17-Au15164	MW03	MW03	2017/08/11	Phenol-d6 (surr.)	37	%	20	130
558341	558341	558341	Normal	WATER	S17-Au15164	MW03	MW03	2017/08/11	Tetrachloro-m-xylene (surr.)	69	%	50	150
558341	558341	558341	Normal	WATER	S17-Au15165	MW04	MW04	2017/08/11	4-Bromofluorobenzene (surr.)	67	%	50	150
558341	558341	558341	Normal	WATER	S17-Au15165	MW04	MW04	2017/08/11	Dibutylchlorendate (surr.)	131	%	50	150
558341	558341	558341	Normal	WATER	S17-Au15165	MW04	MW04	2017/08/11	Fluorobenzene (surr.)	65	%	50	150
558341	558341	558341	Normal	WATER	S17-Au15165	MW04	MW04	2017/08/11	Phenol-d6 (surr.)	52	%	20	130
558341	558341	558341	Normal	WATER	S17-Au15165	MW04	MW04	2017/08/11	Tetrachloro-m-xylene (surr.)	69	%	50	150
558341	558341	558341	Normal	WATER	S17-Au15166	MW05	MW05	2017/08/11	4-Bromofluorobenzene (surr.)	61	%	50	150
558341	558341	558341	Normal	WATER	S17-Au15166	MW05	MW05	2017/08/11	Dibutylchlorendate (surr.)	51	%	50	150
558341	558341	558341	Normal	WATER	S17-Au15166	MW05	MW05	2017/08/11	Fluorobenzene (surr.)	61	%	50	150
558341	558341	558341	Normal	WATER	S17-Au15166	MW05	MW05	2017/08/11	Phenol-d6 (surr.)	62	%	20	130
558341	558341	558341	Field_D	WATER	S17-Au15167	QA20170811	MW05	2017/08/11	Dibutylchlorendate (surr.)	55	%	50	150
558341	558341	558341	Field_D	WATER	S17-Au15167	QA20170811	MW05	2017/08/11	Phenol-d6 (surr.)	58	%	20	130
558341	558341	558341	Normal	WATER	S17-Au15172	MW03	MW03	2017/08/11	2-Fluorobiphenyl (surr.)	67	%	50	150
558341	558341	558341	Normal	WATER	S17-Au15173	MW04	MW04	2017/08/11	p-Terphenyl-d14 (surr.)	138	%	50	150
558341	558341	558341	Field_D	WATER	S17-Au15175	QA20170811	MW05	2017/08/11	p-Terphenyl-d14 (surr.)	137	%	50	150
559156	559156	559156	Normal	SOIL	M17-Au21824	BH05_0.9-1.0		2017/08/03	4-Bromofluorobenzene (surr.)	50	%	50	150
559156	559156	559156	Normal	SOIL	M17-Au21824	BH05_0.9-1.0		2017/08/03	Tetrachloro-m-xylene (surr.)	63	%	50	150
559156	559156	559156	Normal	SOIL	M17-Au21825	BH05_2.9-3.0		2017/08/03	4-Bromofluorobenzene (surr.)	58	%	50	150
559156	559156	559156	Normal	SOIL	M17-Au21825	BH05_2.9-3.0		2017/08/03	Fluorobenzene (surr.)	63	%	50	150
559156	559156	559156	Normal	SOIL	M17-Au21826	BH07_0.3-0.4		2017/08/03	4-Bromofluorobenzene (surr.)	61	%	50	150
559156	559156	559156	Normal	SOIL	M17-Au21832	BH02_0.6-0.7		2017/08/03	p-Terphenyl-d14 (surr.)	147	%	50	150

Contents

Laboratory Control Samples, Error > 30%

SDG	Matrix_Type	SampleCode	Method_Name	OriginalChemName	Recovery %	Unit	Result_Type	LCL	UCL	Lab_Comments
558341	WATER	LCS_1_558341	LTM-ORG-2130 PAH and Phenols in Water by GCMS	2-Cyclohexyl-4.6-dinitrophenol	52	%	REG			
558341	WATER	LCS_1_558341	LTM-ORG-2130 PAH and Phenols in Water by GCMS	2.4-Dinitrophenol	36	%	REG			
558341	WATER	LCS_1_558341	LTM-ORG-2130 PAH and Phenols in Water by GCMS	4-Nitrophenol	64	%	REG			
557460	SOIL	LCS_3_557460	LTM-ORG-2140 PAH and Phenols in Soils by GCMS	2-Cyclohexyl-4.6-dinitrophenol	31	%	REG			
557460	SOIL	LCS_4_557460	LTM-ORG-2140 PAH and Phenols in Soils by GCMS	2.4-Dinitrophenol	35	%	REG			
557460	SOIL	LCS_9_557460	LTM-ORG-2140 PAH and Phenols in Soils by GCMS	2-Methyl-4.6-dinitrophenol	33	%	REG			
557460	SOIL	LCS_9_557460	LTM-ORG-2140 PAH and Phenols in Soils by GCMS	2.4-Dimethylphenol	66	%	REG			
557460	SOIL	LCS_9_557460	USEPA 8270 Phenols	Dinoseb	36	%	REG			
557460	SOIL	LCS_9_557460	LTM-ORG-2140 PAH and Phenols in Soils by GCMS	Pentachlorophenol	38	%	REG			

Contents

Matrix Spike Recoveries less than 70% or greater than 130% or outside lab LCL or UCL

SDG	Lab_Report_Number	Matrix_Type	SampleCode	Field_ID	Depth	Sampled_Date-Time	Method_Name	Compound	Recovery %	Result_Type	LCL	UCL	Lab_Comments
558341	558341	WATER	NCP_Au18763_558341-SPK			2017/08/11	LTM-ORG-2130 PAH and Phenols in Water by GCMS	2-Methyl-4.6-dinitrophenol	47	SC			
557460	557460	SOIL	S17-Au07966-SPK	BH08_0.4-0.5		2017/08/04	LTM-ORG-2140 PAH and Phenols in Soils by GCMS	2-Cyclohexyl-4.6-dinitrophenol	31	SC			
557460	557460	SOIL	S17-Au07966-SPK	BH08_0.4-0.5		2017/08/04	LTM-ORG-2140 PAH and Phenols in Soils by GCMS	2-Methyl-4.6-dinitrophenol	34	SC			
557460	557460	SOIL	S17-Au07966-SPK	BH08_0.4-0.5		2017/08/04	LTM-ORG-2140 PAH and Phenols in Soils by GCMS	2.4-Dimethylphenol	64	SC			
557460	557460	SOIL	S17-Au07966-SPK	BH08_0.4-0.5		2017/08/04	LTM-ORG-2140 PAH and Phenols in Soils by GCMS	2.4-Dinitrophenol	35	SC			
557460	557460	SOIL	S17-Au07966-SPK	BH08_0.4-0.5		2017/08/04	USEPA 8270 Phenols	Dinoseb	43	SC			
557460	557460	SOIL	S17-Au07966-SPK	BH08_0.4-0.5		2017/08/04	LTM-ORG-2140 PAH and Phenols in Soils by GCMS	Pentachlorophenol	53	SC			

Contents

Trip Spike Recoveries (70% - 130% is acceptable)

SDG	Lab_Report_Number	Matrix_Type	SampleCode	Field_ID	Method_Name	Compound	Trip_Spike_Result	Trip_Spike_Control	Result_Units	Spike_Recovery_%	Acceptable	Result_Type	Lab_Comments
557460	557460	WATER	S17-Au07971	TS20170804	TRH C6-C40 - LTM-ORG-2010	Benzene	NA	NA	NA	91	Y	REG	
557460	557460	WATER	S17-Au07971	TS20170804	TRH C6-C40 - LTM-ORG-2010	Ethylbenzene	NA	NA	NA	80	Y	REG	
557460	557460	WATER	S17-Au07971	TS20170804	TRH C6-C40 - LTM-ORG-2010	m&p-Xylenes	NA	NA	NA	70	Y	REG	
557460	557460	WATER	S17-Au07971	TS20170804	TRH C6-C40 - LTM-ORG-2010	o-Xylene	NA	NA	NA	82	Y	REG	
557460	557460	WATER	S17-Au07971	TS20170804	TRH C6-C40 - LTM-ORG-2010	Toluene	NA	NA	NA	84	Y	REG	
557460	557460	WATER	S17-Au07971	TS20170804	TRH C6-C40 - LTM-ORG-2010	Xylenes - Total	NA	NA	NA	74	Y	REG	
558341	558341	WATER	S17-Au15169	TS20170811	TRH C6-C40 - LTM-ORG-2010	Benzene	NA	NA	NA	97	Y	REG	
558341	558341	WATER	S17-Au15169	TS20170811	TRH C6-C40 - LTM-ORG-2010	Ethylbenzene	NA	NA	NA	97	Y	REG	
558341	558341	WATER	S17-Au15169	TS20170811	TRH C6-C40 - LTM-ORG-2010	m&p-Xylenes	NA	NA	NA	107	Y	REG	
558341	558341	WATER	S17-Au15169	TS20170811	TRH C6-C40 - LTM-ORG-2010	o-Xylene	NA	NA	NA	104	Y	REG	
558341	558341	WATER	S17-Au15169	TS20170811	TRH C6-C40 - LTM-ORG-2010	Toluene	NA	NA	NA	82	Y	REG	
558341	558341	WATER	S17-Au15169	TS20170811	TRH C6-C40 - LTM-ORG-2010	Xylenes - Total	NA	NA	NA	106	Y	REG	

Appendix O Laboratory Documentation

010845

CHAIN OF CUSTODY

JBS&G

Eurofins page 1

PROJECT NO.: 52961
PROJECT NAME: Summerhill
DATE NEEDED BY: Std TAT

LABORATORY BATCH NO.:
SAMPLERS: NWells
QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

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

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

557460

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TEH	PAH	OCP/PCB	VOL	Phenols	CEC & PH	Clay	HOLD	Lead	E.Coli										TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES
BH01 - ~~0.1-0.2~~ 0.15-0.2	Soil	3/8/17		Jar + ice										X														
- 0.4 - 0.5														X		X												
- 0.9 - 1.0						X	X	X	X	X	X																	
- 1.4 - 1.5														X														
- 1.9 - 2.0														X														
- 2.3 - 2.4														X														
- 2.9 - 3.0						X	X	X		X				~~X~~														
- 3.9 - 4.0														X														
- 4.7 - 4.8														X														
- 5.9 - 6.0														X														
BH02 - 0.15 - 0.25														X														
- 0.4 - 0.5														X														
- 0.6 - 0.7						X	X	X						X														
- 0.8 - 0.9														X														
- 0.9 - 1.0														X														
- 1.4 - 1.5														X														
- 1.9 - 2.0														X														
- 2.4 - 2.5														X														
- 2.4 - 3.0						X	X	X		X	X																	

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: NWells DATE: 4/8/17	CONSIGNMENT NOTE NO.	NAME: JT	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: 4/8/17 17:29	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

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

IMSO Forms013 - Chain of Custody - Generic

010846

CHAIN OF CUSTODY

JBS&G

Eurofins page 2

PROJECT NO.: S2961 | LABORATORY BATCH NO.:

PROJECT NAME: Summerhill | SAMPLERS: NWells

DATE NEEDED BY: Std TAT | QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

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

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

557460

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TRH	PAH	OCP/PCB	VOC	Phenols	CEC	pH	Clay	Lead	Hold	RZ1	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH02-3.9-4.0	soil	3/8/17		Jar + Ice												X				
-4.9-5.0																X				
-5.9-6.0																X				
BH03-0.15-0.25																X				
-0.4-0.5																X			/	
-0.6-0.7																X				
-0.9-1.0																X				
-1.4-1.5																X				
-1.9-2.0																X				
-2.4-2.5																X				
-2.9-3.0						X	X	X		X	X									
-3.9-4.0																X				
-4.8-4.9																X				
BH04-0.15-0.25																X				
-0.4-0.5																X				
-0.9-1.0																	X			
-1.4-1.5																X				
-1.9-2.0																X				
-2.4-2.5																X				

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: VT	COOLER SEAL – Yes..... No..... Intact..... Broken.....
OF: JBS&G NWells 4/8/17	TRANSPORT CO.	DATE: 4/8/17 17:29	COOLER TEMP..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No..... Intact..... Broken.....
OF:	TRANSPORT CO	OF: EP/MGT	COOLER TEMP..... deg C

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

IMSO Forms013 – Chain of Custody - Generic

010847

CHAIN OF CUSTODY

JBS&G

Eurofins page 3

PROJECT NO.: 52961	LABORATORY BATCH NO.:
PROJECT NAME: Summerhill	SAMPLERS: NWells
DATE NEEDED BY: Std TAT	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) M.Hudgins@jbsg.com.au; (3) NWells@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TRH	PAH	OCP/PCB	VOC	Phenols	CEC	pH	Clay	HOLD	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH04-2.9-3.0	Soil	3-8-17		Jar + Ice		X	X	X		X	X							557460
-3.9-4.0															X			
-4.9-5.0															X			
-5.9-6.0															X			
BH05-0.25-0.35						X	X	X	X	X	X							
-0.4-0.5						X	X	X	X	X	X							
-0.9-1.0															X			
-1.4-1.5															X			
-1.9-2.0															X			
-2.4-2.5															X			
-2.9-3.0															X			
-3.9-4.0															X			
-4.9-5.0																		
-5.9-6.0																		
QA20170503															X			
QC20170503															X			
BH06-0.15-0.25		4/8																
-0.4-0.5																		
-0.6-0.7																		

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY
NAME: NWells DATE: 4/8/17 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: DATE: 4/8/17 12:29 OF: Eurofins	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

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

IMSO Forms013 – Chain of Custody - Generic

010850

CHAIN OF CUSTODY

JBS&G

chem page 3A

PROJECT NO.: 52961 | LABORATORY BATCH NO.:
PROJECT NAME: Summerhill | SAMPLERS: NWells
DATE NEEDED BY: std TAT | QC LEVEL: NEPM (2013)
PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) .....M.Hocking.....@jbsg.com.au; (3) .....N.wells.....@jbsg.com.au
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

557460

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TPH	PAH	OCP/PCB	VOC	PHENOLS	CEC	pH	Clay	HOLD	BTEX	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH06 - 0.8-0.9	Soil	4.8.17		Jar + Bag ice		X	X	X	X	X	X								
- 0.9-1.0															X				
BH07 - 0.15-0.25															X				
- 0.3-0.4															X				
- 0.5-0.6						X	X	X	X	X	X								
BH08 - 0.15-0.25															X				
- 0.4-0.5						X	X	X	X	X									
- 0.6-0.7															X				
BH04 - 0.2-0.3						X	X	X	X	X	X								
QA20170804						X	X	X	X	X	X								
QC20170804						send to Envirolab under separate COC													
RB20170804	Water			bottles + vials + ice		X	X	X	X	X									
TB2017 0804																X			
TS2017 0804				Vials + ice												X			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY
NAME: NWells DATE: 4/8/17	CONSIGNMENT NOTE NO.	NAME: VJ	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: 4/8/17 17:29	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF: EFFmat	COOLER TEMP ..... deg C

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

IMSO Forms013 – Chain of Custody - Generic

010863

CHAIN OF CUSTODY

JBS&G

Envirolab

PROJECT NO.: 52961
PROJECT NAME: Summerhill
DATE NEEDED BY: Std TAT

LABORATORY BATCH NO.:
SAMPLERS: NWells
QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) M.Hodgins@jbsg.com.au; (3) N.Wells@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

	SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TRH	VOC	PAH (Limited)	PCB	OCP	Phenols	MTBE	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
1	QC20170811	Water	11/8		bottles trials tue		X	X	X	X	X	X	X	X			

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 173315
Date Received: 14/8/17
Time Received: 11:05
Received by: DW
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: NWells DATE: 11/8/17 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: DW DATE: 14/8/17 11:05 OF: EL	COOLER SEAL – Yes ✓ No ..... Intact ✓ Broken ..... COOLER TEMP 10.2 deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

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

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 173315

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	Mitch Hodgins, N Wells
Address	Level 1, 50 Margaret St, Sydney, NSW, 2000

Sample Details

Your Reference	**52961, Summer Hill**
Number of Samples	1 Water
Date samples received	14/08/2017
Date completed instructions received	14/08/2017

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	21/08/2017
Date of Issue	18/08/2017

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Jeremy Faircloth, Organics Supervisor
Long Pham, Team Leader, Metals
Priya Samarawickrama, Senior Chemist
Steven Luong, Chemist

Authorised By

David Springer, General Manager

VOCs in water		
Our Reference		173315-1
Your Reference	UNITS	QC20170811
Date Sampled		11/08/2017
Type of sample		Water
Date extracted	-	15/08/2017
Date analysed	-	16/08/2017
Dichlorodifluoromethane	µg/L	<10
Chloromethane	µg/L	<10
Vinyl Chloride	µg/L	<10
Bromomethane	µg/L	<10
Chloroethane	µg/L	<10
Trichlorofluoromethane	µg/L	<10
1,1-Dichloroethene	µg/L	<1
Trans-1,2-dichloroethene	µg/L	<1
1,1-dichloroethane	µg/L	<1
Cis-1,2-dichloroethene	µg/L	<1
Bromochloromethane	µg/L	<1
Chloroform	µg/L	<1
2,2-dichloropropane	µg/L	<1
1,2-dichloroethane	µg/L	<1
1,1,1-trichloroethane	µg/L	<1
1,1-dichloropropene	µg/L	<1
Cyclohexane	µg/L	<1
Carbon tetrachloride	µg/L	<1
Benzene	µg/L	<1
Dibromomethane	µg/L	<1
1,2-dichloropropane	µg/L	<1
Trichloroethene	µg/L	<1
Bromodichloromethane	µg/L	<1
trans-1,3-dichloropropene	µg/L	<1
cis-1,3-dichloropropene	µg/L	<1
1,1,2-trichloroethane	µg/L	<1
Toluene	µg/L	<1
1,3-dichloropropane	µg/L	<1
Dibromochloromethane	µg/L	<1
1,2-dibromoethane	µg/L	<1
Tetrachloroethene	µg/L	<1
1,1,1,2-tetrachloroethane	µg/L	<1
Chlorobenzene	µg/L	<1
Ethylbenzene	µg/L	<1
Bromoform	µg/L	<1

VOCs in water		
Our Reference		173315-1
Your Reference	UNITS	QC20170811
Date Sampled		11/08/2017
Type of sample		Water
m+p-xylene	µg/L	<2
Styrene	µg/L	<1
1,1,2,2-tetrachloroethane	µg/L	<1
o-xylene	µg/L	<1
1,2,3-trichloropropane	µg/L	<1
Isopropylbenzene	µg/L	<1
Bromobenzene	µg/L	<1
n-propyl benzene	µg/L	<1
2-chlorotoluene	µg/L	<1
4-chlorotoluene	µg/L	<1
1,3,5-trimethyl benzene	µg/L	<1
Tert-butyl benzene	µg/L	<1
1,2,4-trimethyl benzene	µg/L	<1
1,3-dichlorobenzene	µg/L	<1
Sec-butyl benzene	µg/L	<1
1,4-dichlorobenzene	µg/L	<1
4-isopropyl toluene	µg/L	<1
1,2-dichlorobenzene	µg/L	<1
n-butyl benzene	µg/L	<1
1,2-dibromo-3-chloropropane	µg/L	<1
1,2,4-trichlorobenzene	µg/L	<1
Hexachlorobutadiene	µg/L	<1
1,2,3-trichlorobenzene	µg/L	<1
Surrogate Dibromofluoromethane	%	109
Surrogate toluene-d8	%	97
Surrogate 4-BFB	%	98

vTRH in Water (C6-C9) NEPM		
Our Reference		173315-1
Your Reference	UNITS	QC20170811
Date Sampled		11/08/2017
Type of sample		Water
Date extracted	-	15/08/2017
Date analysed	-	16/08/2017
TRH C_6 - C_9	µg/L	<10
TRH C_6 - C_{10}	µg/L	<10
Surrogate Dibromofluoromethane	%	109
Surrogate toluene-d8	%	97
Surrogate 4-BFB	%	98
MTBE	µg/L	<1

svTRH (C10-C40) in Water		
Our Reference		173315-1
Your Reference	UNITS	QC20170811
Date Sampled		11/08/2017
Type of sample		Water
Date extracted	-	15/08/2017
Date analysed	-	16/08/2017
TRH C_{10} - C_{14}	µg/L	<50
TRH C_{15} - C_{28}	µg/L	<100
TRH C_{29} - C_{36}	µg/L	<100
TRH >C_{10} - C_{16}	µg/L	<50
TRH >C_{16} - C_{34}	µg/L	<100
TRH >C_{34} - C_{40}	µg/L	<100
Surrogate o-Terphenyl	%	80

PAHs in Water - Low Level		
Our Reference		173315-1
Your Reference	UNITS	QC20170811
Date Sampled		11/08/2017
Type of sample		Water
Date extracted	-	15/08/2017
Date analysed	-	16/08/2017
Naphthalene	µg/L	<0.2
Acenaphthylene	µg/L	<0.1
Acenaphthene	µg/L	<0.1
Fluorene	µg/L	<0.1
Phenanthrene	µg/L	<0.1
Anthracene	µg/L	<0.1
Fluoranthene	µg/L	<0.1
Pyrene	µg/L	<0.1
Benzo(a)anthracene	µg/L	<0.1
Chrysene	µg/L	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2
Benzo(a)pyrene	µg/L	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5
Total +ve PAH's	µg/L	NIL (+)VE
Surrogate p-Terphenyl-d14	%	78

OCP in water		
Our Reference		173315-1
Your Reference	UNITS	QC20170811
Date Sampled		11/08/2017
Type of sample		Water
Date extracted	-	15/08/2017
Date analysed	-	15/08/2017
HCB	µg/L	<0.2
alpha-BHC	µg/L	<0.2
gamma-BHC	µg/L	<0.2
beta-BHC	µg/L	<0.2
Heptachlor	µg/L	<0.2
delta-BHC	µg/L	<0.2
Aldrin	µg/L	<0.2
Heptachlor Epoxide	µg/L	<0.2
gamma-Chlordane	µg/L	<0.2
alpha-Chlordane	µg/L	<0.2
Endosulfan I	µg/L	<0.2
pp-DDE	µg/L	<0.2
Dieldrin	µg/L	<0.2
Endrin	µg/L	<0.2
pp-DDD	µg/L	<0.2
Endosulfan II	µg/L	<0.2
pp-DDT	µg/L	<0.2
Endrin Aldehyde	µg/L	<0.2
Endosulfan Sulphate	µg/L	<0.2
Methoxychlor	µg/L	<0.2
Surrogate TCMX	%	92

PCBs in Water		
Our Reference		173315-1
Your Reference	UNITS	QC20170811
Date Sampled		11/08/2017
Type of sample		Water
Date extracted	-	15/08/2017
Date analysed	-	15/08/2017
Aroclor 1016	µg/L	<2
Aroclor 1221	µg/L	<2
Aroclor 1232	µg/L	<2
Aroclor 1242	µg/L	<2
Aroclor 1248	µg/L	<2
Aroclor 1254	µg/L	<2
Aroclor 1260	µg/L	<2
Surrogate TCLMX	%	92

Total Phenolics in Water		
Our Reference		173315-1
Your Reference	UNITS	QC20170811
Date Sampled		11/08/2017
Type of sample		Water
Date extracted	-	15/08/2017
Date analysed	-	15/08/2017
Total Phenolics (as Phenol)	mg/L	<0.05

HM in water - dissolved		
Our Reference	UNITS	173315-1
Your Reference		QC20170811
Date Sampled		11/08/2017
Type of sample		Water
Date prepared	-	15/08/2017
Date analysed	-	15/08/2017
Arsenic-Dissolved	µg/L	4
Cadmium-Dissolved	µg/L	<0.1
Chromium-Dissolved	µg/L	<1
Copper-Dissolved	µg/L	<1
Lead-Dissolved	µg/L	<1
Mercury-Dissolved	µg/L	<0.05
Nickel-Dissolved	µg/L	1
Zinc-Dissolved	µg/L	8

Method ID	Methodology Summary
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-013	Water samples are analysed directly by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.

QUALITY CONTROL: VOCs in water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			15/08/2017	[NT]	[NT]	[NT]	[NT]	15/08/2017	[NT]
Date analysed	-			16/08/2017	[NT]	[NT]	[NT]	[NT]	16/08/2017	[NT]
Dichlorodifluoromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Vinyl Chloride	µg/L	10	Org-013	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromomethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichlorofluoromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-Dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trans-1,2-dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-dichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Cis-1,2-dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromochloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroform	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	109	[NT]
2,2-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	101	[NT]
1,1,1-trichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]
1,1-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Cyclohexane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Carbon tetrachloride	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibromomethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	111	[NT]
Bromodichloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	109	[NT]
trans-1,3-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
cis-1,3-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2-trichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Toluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibromochloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	115	[NT]
1,2-dibromoethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Tetrachloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	127	[NT]
1,1,1,2-tetrachloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromoform	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
m+p-xylene	µg/L	2	Org-013	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Styrene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2,2-tetrachloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
o-xylene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

QUALITY CONTROL: VOCs in water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
1,2,3-trichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Isopropylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-propyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-chlorotoluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-chlorotoluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3,5-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Tert-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Sec-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,4-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-isopropyl toluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dibromo-3-chloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Hexachlorobutadiene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-013	108	[NT]	[NT]	[NT]	[NT]	112	[NT]
Surrogate toluene-d8	%		Org-013	97	[NT]	[NT]	[NT]	[NT]	98	[NT]
Surrogate 4-BFB	%		Org-013	97	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: vTRH in Water (C6-C9) NEPM						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			15/08/2017	[NT]	[NT]	[NT]	[NT]	15/08/2017	[NT]
Date analysed	-			16/08/2017	[NT]	[NT]	[NT]	[NT]	16/08/2017	[NT]
TRH C_6 - C_9	µg/L	10	Org-016	<10	[NT]	[NT]	[NT]	[NT]	110	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-016	<10	[NT]	[NT]	[NT]	[NT]	110	[NT]
Surrogate Dibromofluoromethane	%		Org-016	108	[NT]	[NT]	[NT]	[NT]	112	[NT]
Surrogate toluene-d8	%		Org-016	97	[NT]	[NT]	[NT]	[NT]	98	[NT]
Surrogate 4-BFB	%		Org-016	97	[NT]	[NT]	[NT]	[NT]	102	[NT]
MTBE	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date extracted	-			15/08/2017	[NT]	[NT]	[NT]	[NT]	15/08/2017	[NT]
Date analysed	-			15/08/2017	[NT]	[NT]	[NT]	[NT]	15/08/2017	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	108	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	120	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	107	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	108	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	120	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	107	[NT]
Surrogate o-Terphenyl	%		Org-003	76	[NT]	[NT]	[NT]	[NT]	95	[NT]

QUALITY CONTROL: PAHs in Water - Low Level						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			15/08/2017	[NT]	[NT]	[NT]	[NT]	15/08/2017	[NT]
Date analysed	-			16/08/2017	[NT]	[NT]	[NT]	[NT]	16/08/2017	[NT]
Naphthalene	µg/L	0.2	Org-012	<0.2	[NT]	[NT]	[NT]	[NT]	70	[NT]
Acenaphthylene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluorene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Phenanthrene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	89	[NT]
Anthracene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
Pyrene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	91	[NT]
Benzo(a)anthracene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Benzo(b,j+k)fluoranthene	µg/L	0.2	Org-012	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	88	[NT]	[NT]	[NT]	[NT]	92	[NT]

QUALITY CONTROL: OCP in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			15/08/2017	[NT]	[NT]	[NT]	[NT]	15/08/2017	[NT]
Date analysed	-			15/08/2017	[NT]	[NT]	[NT]	[NT]	15/08/2017	[NT]
HCB	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-BHC	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	81	[NT]
gamma-BHC	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	95	[NT]
Heptachlor	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	93	[NT]
delta-BHC	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	92	[NT]
Heptachlor Epoxide	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	89	[NT]
gamma-Chlordane	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-Chlordane	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	92	[NT]
Dieldrin	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	97	[NT]
Endrin	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	87	[NT]
pp-DDD	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	92	[NT]
Endosulfan II	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endrin Aldehyde	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	93	[NT]
Methoxychlor	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-005	84	[NT]	[NT]	[NT]	[NT]	89	[NT]

QUALITY CONTROL: PCBs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			15/08/2017	[NT]	[NT]	[NT]	[NT]	15/08/2017	[NT]
Date analysed	-			15/08/2017	[NT]	[NT]	[NT]	[NT]	15/08/2017	[NT]
Aroclor 1016	µg/L	2	Org-006	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	µg/L	2	Org-006	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	µg/L	2	Org-006	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	µg/L	2	Org-006	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	µg/L	2	Org-006	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	µg/L	2	Org-006	<2	[NT]	[NT]	[NT]	[NT]	93	[NT]
Aroclor 1260	µg/L	2	Org-006	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCLMX	%		Org-006	84	[NT]	[NT]	[NT]	[NT]	88	[NT]

QUALITY CONTROL: Total Phenolics in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			15/08/2017	[NT]	[NT]	[NT]	[NT]	15/08/2017	[NT]
Date analysed	-			15/08/2017	[NT]	[NT]	[NT]	[NT]	15/08/2017	[NT]
Total Phenolics (as Phenol)	mg/L	0.05	Inorg-031	<0.05	[NT]	[NT]	[NT]	[NT]	99	[NT]

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			15/08/2017	[NT]	[NT]	[NT]	[NT]	15/08/2017	[NT]
Date analysed	-			15/08/2017	[NT]	[NT]	[NT]	[NT]	15/08/2017	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	92	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	92	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	[NT]	[NT]	[NT]	[NT]	95	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

010851

CHAIN OF CUSTODY

JBS&G Enviroiab

PROJECT NO.: 52961	LABORATORY BATCH NO.:
PROJECT NAME: Summerhill	SAMPLERS: NWells
DATE NEEDED BY: Std TAT	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

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

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

	SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TRH	PAH	OCP/PCB	VOC	Phenols	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
1	QC20170408 (QC20170804 on jar)	soil	4/8		Jar + Ice		X	X	X	X	X	X			

ENVIROLAB GROUP
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 172940
Date Received: 8/8
Time Received: 11.00
Received by: DW
Temp: ~~Cool~~/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: NWells DATE: 4/8/17 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: DW DATE: 8/8/17 11.00 OF: ELJ	COOLER SEAL – Yes ✓ No ..... Intact ✓ Broken ..... COOLER TEMP 12.0 deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

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

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 172940

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	M Hodgins, N Wells
Address	Level 1, 50 Margaret St, Sydney, NSW, 2000

Sample Details

Your Reference	**52961, Summer Hill**
Number of Samples	1 soil
Date samples received	08/08/2017
Date completed instructions received	08/08/2017

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	15/08/2017
Date of Issue	14/08/2017

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Jeremy Faircloth, Organics Supervisor
Long Pham, Team Leader, Metals
Nick Sarlamis, Inorganics Supervisor
Steven Luong, Chemist

Authorised By

David Springer, General Manager

VOCs in soil		
Our Reference		172940-1
Your Reference	UNITS	QC20170804
Date Sampled		4/08/2017
Type of sample		soil
Date extracted	-	09/08/2017
Date analysed	-	11/08/2017
Dichlorodifluoromethane	mg/kg	<1
Chloromethane	mg/kg	<1
Vinyl Chloride	mg/kg	<1
Bromomethane	mg/kg	<1
Chloroethane	mg/kg	<1
Trichlorofluoromethane	mg/kg	<1
1,1-Dichloroethene	mg/kg	<1
trans-1,2-dichloroethene	mg/kg	<1
1,1-dichloroethane	mg/kg	<1
cis-1,2-dichloroethene	mg/kg	<1
bromochloromethane	mg/kg	<1
chloroform	mg/kg	<1
2,2-dichloropropane	mg/kg	<1
1,2-dichloroethane	mg/kg	<1
1,1,1-trichloroethane	mg/kg	<1
1,1-dichloropropene	mg/kg	<1
Cyclohexane	mg/kg	<1
carbon tetrachloride	mg/kg	<1
Benzene	mg/kg	<0.2
dibromomethane	mg/kg	<1
1,2-dichloropropane	mg/kg	<1
trichloroethene	mg/kg	<1
bromodichloromethane	mg/kg	<1
trans-1,3-dichloropropene	mg/kg	<1
cis-1,3-dichloropropene	mg/kg	<1
1,1,2-trichloroethane	mg/kg	<1
Toluene	mg/kg	<0.5
1,3-dichloropropane	mg/kg	<1
dibromochloromethane	mg/kg	<1
1,2-dibromoethane	mg/kg	<1
tetrachloroethene	mg/kg	<1
1,1,1,2-tetrachloroethane	mg/kg	<1
chlorobenzene	mg/kg	<1
Ethylbenzene	mg/kg	<1
bromoform	mg/kg	<1

VOCs in soil		
Our Reference		172940-1
Your Reference	UNITS	QC20170804
Date Sampled		4/08/2017
Type of sample		soil
m+p-xylene	mg/kg	<2
styrene	mg/kg	<1
1,1,2,2-tetrachloroethane	mg/kg	<1
o-Xylene	mg/kg	<1
1,2,3-trichloropropane	mg/kg	<1
isopropylbenzene	mg/kg	<1
bromobenzene	mg/kg	<1
n-propyl benzene	mg/kg	<1
2-chlorotoluene	mg/kg	<1
4-chlorotoluene	mg/kg	<1
1,3,5-trimethyl benzene	mg/kg	<1
tert-butyl benzene	mg/kg	<1
1,2,4-trimethyl benzene	mg/kg	<1
1,3-dichlorobenzene	mg/kg	<1
sec-butyl benzene	mg/kg	<1
1,4-dichlorobenzene	mg/kg	<1
4-isopropyl toluene	mg/kg	<1
1,2-dichlorobenzene	mg/kg	<1
n-butyl benzene	mg/kg	<1
1,2-dibromo-3-chloropropane	mg/kg	<1
1,2,4-trichlorobenzene	mg/kg	<1
hexachlorobutadiene	mg/kg	<1
1,2,3-trichlorobenzene	mg/kg	<1
Surrogate Dibromofluorometha	%	115
Surrogate aaa-Trifluorotoluene	%	105
Surrogate Toluene-d_8	%	98
Surrogate 4-Bromofluorobenzene	%	99

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		172940-1
Your Reference	UNITS	QC20170804
Date Sampled		4/08/2017
Type of sample		soil
Date extracted	-	09/08/2017
Date analysed	-	11/08/2017
TRH C_6 - C_9	mg/kg	<25
TRH C_6 - C_{10}	mg/kg	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
Total +ve Xylenes	mg/kg	<1
naphthalene	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	105

svTRH (C10-C40) in Soil		
Our Reference		172940-1
Your Reference	UNITS	QC20170804
Date Sampled		4/08/2017
Type of sample		soil
Date extracted	-	09/08/2017
Date analysed	-	10/08/2017
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	<100
TRH >C_{10} -C_{16}	mg/kg	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50
TRH >C_{16} -C_{34}	mg/kg	<100
TRH >C_{34} -C_{40}	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	<50
Surrogate o-Terphenyl	%	86

PAHs in Soil		
Our Reference		172940-1
Your Reference	UNITS	QC20170804
Date Sampled		4/08/2017
Type of sample		soil
Date extracted	-	09/08/2017
Date analysed	-	10/08/2017
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	0.2
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	0.5
Anthracene	mg/kg	0.2
Fluoranthene	mg/kg	1.4
Pyrene	mg/kg	1.4
Benzo(a)anthracene	mg/kg	0.7
Chrysene	mg/kg	0.7
Benzo(b,j+k)fluoranthene	mg/kg	1
Benzo(a)pyrene	mg/kg	0.60
Indeno(1,2,3-c,d)pyrene	mg/kg	0.4
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	0.5
Benzo(a)pyrene TEQ calc (zero)	mg/kg	0.9
Benzo(a)pyrene TEQ calc(half)	mg/kg	0.9
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	0.9
Total +ve PAH's	mg/kg	7.6
Surrogate p-Terphenyl-d14	%	95

Organochlorine Pesticides in soil		
Our Reference		172940-1
Your Reference	UNITS	QC20170804
Date Sampled		4/08/2017
Type of sample		soil
Date extracted	-	09/08/2017
Date analysed	-	10/08/2017
HCB	mg/kg	<0.1
alpha-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1
Surrogate TCMX	%	84

PCBs in Soil		
Our Reference		172940-1
Your Reference	UNITS	QC20170804
Date Sampled		4/08/2017
Type of sample		soil
Date extracted	-	09/08/2017
Date analysed	-	10/08/2017
Aroclor 1016	mg/kg	<0.1
Aroclor 1221	mg/kg	<0.1
Aroclor 1232	mg/kg	<0.1
Aroclor 1242	mg/kg	<0.1
Aroclor 1248	mg/kg	<0.1
Aroclor 1254	mg/kg	<0.1
Aroclor 1260	mg/kg	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1
Surrogate TCLMX	%	84

Acid Extractable metals in soil		
Our Reference		172940-1
Your Reference	UNITS	QC20170804
Date Sampled		4/08/2017
Type of sample		soil
Date prepared	-	09/08/2017
Date analysed	-	10/08/2017
Arsenic	mg/kg	5
Cadmium	mg/kg	<0.4
Chromium	mg/kg	11
Copper	mg/kg	45
Lead	mg/kg	130
Mercury	mg/kg	0.2
Nickel	mg/kg	14
Zinc	mg/kg	210

Misc Soil - Inorg		
Our Reference		172940-1
Your Reference	UNITS	QC20170804
Date Sampled		4/08/2017
Type of sample		soil
Date prepared	-	09/08/2017
Date analysed	-	09/08/2017
Total Phenolics (as Phenol)	mg/kg	<5

Moisture		
Our Reference		172940-1
Your Reference	UNITS	QC20170804
Date Sampled		4/08/2017
Type of sample		soil
Date prepared	-	09/08/2017
Date analysed	-	10/08/2017
Moisture	%	8.5

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: VOCs in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			09/08/2017	1	09/08/2017	09/08/2017		09/08/2017	[NT]
Date analysed	-			11/08/2017	1	11/08/2017	11/08/2017		11/08/2017	[NT]
Dichlorodifluoromethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Chloromethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Bromomethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Chloroethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
trans-1,2-dichloroethene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	mg/kg	1	Org-014	<1	1	<1	<1	0	96	[NT]
cis-1,2-dichloroethene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
bromochloromethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
chloroform	mg/kg	1	Org-014	<1	1	<1	<1	0	106	[NT]
2,2-dichloropropane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	mg/kg	1	Org-014	<1	1	<1	<1	0	101	[NT]
1,1,1-trichloroethane	mg/kg	1	Org-014	<1	1	<1	<1	0	94	[NT]
1,1-dichloropropene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
carbon tetrachloride	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-014	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
dibromomethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
trichloroethene	mg/kg	1	Org-014	<1	1	<1	<1	0	104	[NT]
bromodichloromethane	mg/kg	1	Org-014	<1	1	<1	<1	0	103	[NT]
trans-1,3-dichloropropene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-014	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,3-dichloropropane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
dibromochloromethane	mg/kg	1	Org-014	<1	1	<1	<1	0	101	[NT]
1,2-dibromoethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
tetrachloroethene	mg/kg	1	Org-014	<1	1	<1	<1	0	113	[NT]
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
chlorobenzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
bromoform	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-014	<2	1	<2	<2	0	[NT]	[NT]
styrene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
1,2,3-trichloropropane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
isopropylbenzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
bromobenzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
n-propyl benzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
2-chlorotoluene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
4-chlorotoluene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
tert-butyl benzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
sec-butyl benzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
n-butyl benzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
hexachlorobutadiene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluorometha	%		Org-014	101	1	115	103	11	114	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-014	109	1	105	103	2	110	[NT]
Surrogate Toluene-d_8	%		Org-014	98	1	98	98	0	99	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-014	99	1	99	100	1	100	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			09/08/2017	1	09/08/2017	09/08/2017		09/08/2017	[NT]
Date analysed	-			11/08/2017	1	11/08/2017	11/08/2017		11/08/2017	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	<25	1	<25	<25	0	104	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	<25	1	<25	<25	0	104	[NT]
Benzene	mg/kg	0.2	Org-016	<0.2	1	<0.2	<0.2	0	97	[NT]
Toluene	mg/kg	0.5	Org-016	<0.5	1	<0.5	<0.5	0	99	[NT]
Ethylbenzene	mg/kg	1	Org-016	<1	1	<1	<1	0	108	[NT]
m+p-xylene	mg/kg	2	Org-016	<2	1	<2	<2	0	108	[NT]
o-Xylene	mg/kg	1	Org-016	<1	1	<1	<1	0	110	[NT]
naphthalene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	109	1	105	103	2	110	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			09/08/2017	[NT]	[NT]	[NT]	[NT]	09/08/2017	[NT]
Date analysed	-			10/08/2017	[NT]	[NT]	[NT]	[NT]	10/08/2017	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	96	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	104	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	106	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	96	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	104	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	106	[NT]
Surrogate o-Terphenyl	%		Org-003	90	[NT]	[NT]	[NT]	[NT]	96	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			09/08/2017	[NT]	[NT]	[NT]	[NT]	09/08/2017	[NT]
Date analysed	-			10/08/2017	[NT]	[NT]	[NT]	[NT]	10/08/2017	[NT]
Naphthalene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	89	[NT]
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Phenanthrene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Anthracene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Pyrene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	[NT]	[NT]	[NT]	[NT]	73	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	96	[NT]	[NT]	[NT]	[NT]	82	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			09/08/2017	[NT]	[NT]	[NT]	[NT]	09/08/2017	[NT]
Date analysed	-			10/08/2017	[NT]	[NT]	[NT]	[NT]	10/08/2017	[NT]
HCB	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	80	[NT]
gamma-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Heptachlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
delta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	85	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	82	[NT]
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	80	[NT]
Dieldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	91	[NT]
Endrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	84	[NT]
pp-DDD	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	79	[NT]
Endosulfan II	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	74	[NT]
Methoxychlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-005	96	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			09/08/2017	[NT]	[NT]	[NT]	[NT]	09/08/2017	[NT]
Date analysed	-			10/08/2017	[NT]	[NT]	[NT]	[NT]	10/08/2017	[NT]
Aroclor 1016	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Aroclor 1260	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCLMX	%		Org-006	96	[NT]	[NT]	[NT]	[NT]	96	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date prepared	-			09/08/2017	[NT]	[NT]	[NT]	[NT]	09/08/2017	[NT]
Date analysed	-			10/08/2017	[NT]	[NT]	[NT]	[NT]	10/08/2017	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	105	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	96	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date prepared	-			09/08/2017	[NT]	[NT]	[NT]	[NT]	09/08/2017	[NT]
Date analysed	-			09/08/2017	[NT]	[NT]	[NT]	[NT]	09/08/2017	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	[NT]	[NT]	[NT]	[NT]	95	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

eurofins | mgt

Certificate of Analysis

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

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Mitch Hodgins**

Report **559156-S**
Project name SUMMER HILL
Project ID 52961
Received Date Aug 18, 2017

Client Sample ID			**BH02_0.9-1.0**	**BH05_0.9-1.0**	**BH05_2.9-3.0**	**BH07_0.3-0.4**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M17-Au21823**	**M17-Au21824**	**M17-Au21825**	**M17-Au21826**
Date Sampled			**Aug 03, 2017**	**Aug 03, 2017**	**Aug 03, 2017**	**Aug 03, 2017**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	< 20	-
TRH C10-C14	20	mg/kg	-	< 20	< 20	-
TRH C15-C28	50	mg/kg	-	< 50	< 50	-
TRH C29-C36	50	mg/kg	-	< 50	< 50	-
TRH C10-36 (Total)	50	mg/kg	-	< 50	< 50	-
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	-	< 0.5	< 0.5	7.6
1.3-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	-	< 0.5	< 0.5	3.0
1.4-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	-	< 0.5	< 1	< 0.5
4-Chlorotoluene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5

Client Sample ID			BH02_0.9-1.0	BH05_0.9-1.0	BH05_2.9-3.0	BH07_0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			M17-Au21823	M17-Au21824	M17-Au21825	M17-Au21826
Date Sampled			Aug 03, 2017	Aug 03, 2017	Aug 03, 2017	Aug 03, 2017
Test/Reference	LOR	Unit				
Volatile Organics						
Chlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	0.5
Iodomethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	5.0
Methylene Chloride	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	0.7
Styrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	0.5
trans-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Xylenes - Total	0.3	mg/kg	-	< 0.3	< 0.3	5.7
Vic EPA IWRG 621 Chlorinated hydrocarbons (Total)*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other chlorinated hydrocarbons (Total)*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	-	50	58	61
Fluorobenzene (surr.)	1	%	-	92	63	71
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	< 0.5	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	< 20	-
TRH C6-C10	20	mg/kg	-	< 20	< 20	-
TRH >C10-C16	50	mg/kg	-	< 50	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	< 50	-
TRH >C16-C34	100	mg/kg	-	< 100	< 100	-
TRH >C34-C40	100	mg/kg	-	< 100	< 100	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-

Client Sample ID			BH02_0.9-1.0	BH05_0.9-1.0	BH05_2.9-3.0	BH07_0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			M17-Au21823	M17-Au21824	M17-Au21825	M17-Au21826
Date Sampled			Aug 03, 2017	Aug 03, 2017	Aug 03, 2017	Aug 03, 2017
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	0.6	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	0.6	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	1.2	-
2-Fluorobiphenyl (surr.)	1	%	85	90	94	-
p-Terphenyl-d14 (surr.)	1	%	113	115	123	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	-
4.4'-DDD	0.05	mg/kg	-	< 0.05	-	-
4.4'-DDE	0.05	mg/kg	-	< 0.05	-	-
4.4'-DDT	0.05	mg/kg	-	< 0.05	-	-
a-BHC	0.05	mg/kg	-	< 0.05	-	-
Aldrin	0.05	mg/kg	-	< 0.05	-	-
b-BHC	0.05	mg/kg	-	< 0.05	-	-
d-BHC	0.05	mg/kg	-	< 0.05	-	-
Dieldrin	0.05	mg/kg	-	< 0.05	-	-
Endosulfan I	0.05	mg/kg	-	< 0.05	-	-
Endosulfan II	0.05	mg/kg	-	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	-
Endrin	0.05	mg/kg	-	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	-
Endrin ketone	0.05	mg/kg	-	< 0.05	-	-
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	-
Heptachlor	0.05	mg/kg	-	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	-
Methoxychlor	0.05	mg/kg	-	< 0.05	-	-
Toxaphene	1	mg/kg	-	< 1	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	-	-
Vic EPA IWRG 621 Organochlorine pesticides (Total)*	0.1	mg/kg	-	< 0.1	-	-
Vic EPA IWRG 621 Other organochlorine pesticides (Total)*	0.1	mg/kg	-	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	-	73	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	63	-	-
Heavy Metals						
Arsenic	2	mg/kg	10.0	10	12	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	-
Chromium	5	mg/kg	27	21	8.5	-
Copper	5	mg/kg	8.5	15	18	-
Lead	5	mg/kg	25	40	51	-
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Nickel	5	mg/kg	< 5	< 5	< 5	-
Zinc	5	mg/kg	6.6	11	11	-

Client Sample ID			BH02_0.9-1.0	BH05_0.9-1.0	BH05_2.9-3.0	BH07_0.3-0.4
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M17-Au21823**	**M17-Au21824**	**M17-Au21825**	**M17-Au21826**
Date Sampled			**Aug 03, 2017**	**Aug 03, 2017**	**Aug 03, 2017**	**Aug 03, 2017**
Test/Reference	LOR	Unit				
% Moisture	1	%	23	18	9.0	18

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Aug 18, 2017	14 Day
- Method: LTM-ORG-2010 TRH C6-C36			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 18, 2017	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 18, 2017	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Volatile Organics	Melbourne	Aug 18, 2017	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Polycyclic Aromatic Hydrocarbons	Melbourne	Aug 18, 2017	14 Day
- Method: LTM-ORG-2140 PAH and Phenols in Soils by GCMS			
Organochlorine Pesticides	Melbourne	Aug 18, 2017	14 Day
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Melbourne	Aug 18, 2017	28 Days
- Method: LTM-MET-3030 by ICP-OES (hydride ICP-OES for Mercury)			
% Moisture	Melbourne	Aug 18, 2017	14 Day
- Method: LTM-GEN-7080 Moisture			

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Site # 23736

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

Project Name: SUMMER HILL
Project ID: 52961

Order No.:
Report #: 559156
Phone: 02 8245 0300
Fax:

Received: Aug 18, 2017 11:03 AM
Due: Aug 22, 2017
Priority: 2 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Arsenic	Benzo(a)pyrene	Lead	Nickel	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	AUS Leaching Procedure	USA Leaching Procedure	Metals M8	Volatile Organics	Moisture Set	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217																	
Brisbane Laboratory - NATA Site # 20794																	
Perth Laboratory - NATA Site # 23736																	
External Laboratory																	
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**												
1	BH02_0.9-1.0	Aug 03, 2017		Soil	M17-Au21823					X				X		X	
2	BH05_0.9-1.0	Aug 03, 2017		Soil	M17-Au21824					X	X			X	X	X	X
3	BH05_2.9-3.0	Aug 03, 2017		Soil	M17-Au21825					X				X	X	X	X
4	BH07_0.3-0.4	Aug 03, 2017		Soil	M17-Au21826										X	X	
5	BH02_0.6-0.7	Aug 03, 2017		US Leachate	M17-Au21827	X	X	X					X				
6	BH05_0.25-0.35	Aug 03, 2017		US Leachate	M17-Au21828			X		X			X				
7	BH07_0.5-0.6	Aug 03, 2017		US Leachate	M17-Au21829				X				X				
8	BH08_0.4-0.5	Aug 03, 2017		US Leachate	M17-Au21830		X	X					X				
9	QA20170804	Aug 03, 2017		US Leachate	M17-Au21831		X	X					X				

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Company Name: JBS & G Australia (NSW) P/L
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Project Name: SUMMER HILL
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Sample Detail						Arsenic	Benzo(a)pyrene	Lead	Nickel	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	AUS Leaching Procedure	USA Leaching Procedure	Metals M8	Volatile Organics	Moisture Set	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217																	
Brisbane Laboratory - NATA Site # 20794																	
Perth Laboratory - NATA Site # 23736																	
10	BH02_0.6-0.7	Aug 03, 2017		AUS Leachate	M17-Au21832					X		X		X			
11	BH05_0.25-0.35	Aug 03, 2017		AUS Leachate	M17-Au21833			X		X		X					
Test Counts						1	3	5	1	6	1	2	5	4	3	4	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	
Benzene	mg/kg	< 0.1			0.1	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Xylenes - Total	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	116			70-130	Pass	
TRH C10-C14	%	91			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	88			70-130	Pass	
1.1.1-Trichloroethane	%	113			70-130	Pass	
1.2-Dichlorobenzene	%	96			70-130	Pass	
1.2-Dichloroethane	%	99			70-130	Pass	
Benzene	%	95			70-130	Pass	
Ethylbenzene	%	95			70-130	Pass	
m&p-Xylenes	%	86			70-130	Pass	
Toluene	%	87			70-130	Pass	
Trichloroethene	%	101			70-130	Pass	
Xylenes - Total	%	85			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	113			70-130	Pass	
TRH C6-C10	%	113			70-130	Pass	
TRH >C10-C16	%	95			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	86			70-130	Pass	
Acenaphthylene	%	89			70-130	Pass	
Anthracene	%	91			70-130	Pass	
Benz(a)anthracene	%	93			70-130	Pass	
Benzo(a)pyrene	%	79			70-130	Pass	
Benzo(b&j)fluoranthene	%	98			70-130	Pass	
Benzo(g.h.i)perylene	%	89			70-130	Pass	
Benzo(k)fluoranthene	%	88			70-130	Pass	
Chrysene	%	88			70-130	Pass	
Dibenz(a.h)anthracene	%	92			70-130	Pass	
Fluoranthene	%	75			70-130	Pass	
Fluorene	%	92			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	90			70-130	Pass	
Naphthalene	%	85			70-130	Pass	
Phenanthrene	%	91			70-130	Pass	
Pyrene	%	70			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4.4'-DDD	%	120			70-130	Pass	
4.4'-DDE	%	104			70-130	Pass	
4.4'-DDT	%	75			70-130	Pass	
a-BHC	%	105			70-130	Pass	
Aldrin	%	105			70-130	Pass	
b-BHC	%	102			70-130	Pass	
d-BHC	%	108			70-130	Pass	
Dieldrin	%	103			70-130	Pass	
Endosulfan I	%	102			70-130	Pass	
Endosulfan II	%	105			70-130	Pass	
Endosulfan sulphate	%	94			70-130	Pass	
Endrin	%	103			70-130	Pass	
Endrin aldehyde	%	98			70-130	Pass	
Endrin ketone	%	94			70-130	Pass	
g-BHC (Lindane)	%	115			70-130	Pass	
Heptachlor	%	101			70-130	Pass	
Heptachlor epoxide	%	103			70-130	Pass	
Hexachlorobenzene	%	102			70-130	Pass	
Methoxychlor	%	82			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	106			80-120	Pass	
Cadmium	%	111			80-120	Pass	
Chromium	%	110			80-120	Pass	
Copper	%	114			80-120	Pass	
Lead	%	114			80-120	Pass	
Mercury	%	107			75-125	Pass	
Nickel	%	114			80-120	Pass	
Zinc	%	114			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M17-Au21797	NCP	%	91			70-130	Pass	
Acenaphthylene	M17-Au21797	NCP	%	95			70-130	Pass	
Anthracene	M17-Au21797	NCP	%	96			70-130	Pass	
Benz(a)anthracene	M17-Au21797	NCP	%	108			70-130	Pass	
Benzo(a)pyrene	M17-Au21797	NCP	%	87			70-130	Pass	
Benzo(b&j)fluoranthene	M17-Au21797	NCP	%	116			70-130	Pass	
Benzo(g.h.i)perylene	M17-Au21797	NCP	%	107			70-130	Pass	
Benzo(k)fluoranthene	M17-Au21797	NCP	%	96			70-130	Pass	
Chrysene	M17-Au21797	NCP	%	98			70-130	Pass	
Dibenz(a.h)anthracene	M17-Au21797	NCP	%	130			70-130	Pass	
Fluoranthene	M17-Au21797	NCP	%	81			70-130	Pass	
Fluorene	M17-Au21797	NCP	%	94			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M17-Au21797	NCP	%	125			70-130	Pass	
Naphthalene	M17-Au21797	NCP	%	91			70-130	Pass	
Phenanthrene	M17-Au21797	NCP	%	94			70-130	Pass	
Pyrene	M17-Au21797	NCP	%	77			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M17-Au22299	NCP	%	98			75-125	Pass	
Cadmium	M17-Au22299	NCP	%	103			75-125	Pass	
Chromium	M17-Au22299	NCP	%	126			75-125	Fail	Q08
Copper	M17-Au22299	NCP	%	121			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Lead	M17-Au22309	NCP	%	105			75-125	Pass	
Mercury	M17-Au22299	NCP	%	109			70-130	Pass	
Nickel	M17-Au22299	NCP	%	114			75-125	Pass	
Zinc	M17-Au22299	NCP	%	109			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	M17-Au21798	NCP	%	106			70-130	Pass	
TRH C10-C14	M17-Au21801	NCP	%	83			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
1.1-Dichloroethene	M17-Au21798	NCP	%	73			70-130	Pass	
1.1.1-Trichloroethane	M17-Au21798	NCP	%	91			70-130	Pass	
1.2-Dichlorobenzene	M17-Au21798	NCP	%	98			70-130	Pass	
1.2-Dichloroethane	M17-Au21798	NCP	%	81			70-130	Pass	
Benzene	M17-Au21798	NCP	%	88			70-130	Pass	
Ethylbenzene	M17-Au21798	NCP	%	95			70-130	Pass	
m&p-Xylenes	M17-Au21798	NCP	%	85			70-130	Pass	
o-Xylene	M17-Au21798	NCP	%	82			70-130	Pass	
Toluene	M17-Au21798	NCP	%	81			70-130	Pass	
Trichloroethene	M17-Au21798	NCP	%	82			70-130	Pass	
Xylenes - Total	M17-Au21798	NCP	%	84			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	M17-Au21798	NCP	%	128			70-130	Pass	
TRH C6-C10	M17-Au21798	NCP	%	105			70-130	Pass	
TRH >C10-C16	M17-Au21801	NCP	%	79			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	M17-Au21805	NCP	%	105			70-130	Pass	
4.4'-DDE	M17-Au21805	NCP	%	92			70-130	Pass	
4.4'-DDT	M17-Au21805	NCP	%	87			70-130	Pass	
a-BHC	M17-Au21805	NCP	%	98			70-130	Pass	
Aldrin	M17-Au21805	NCP	%	89			70-130	Pass	
b-BHC	M17-Au21805	NCP	%	94			70-130	Pass	
d-BHC	M17-Au21805	NCP	%	96			70-130	Pass	
Dieldrin	M17-Au21805	NCP	%	90			70-130	Pass	
Endosulfan I	M17-Au21805	NCP	%	86			70-130	Pass	
Endosulfan II	M17-Au21805	NCP	%	93			70-130	Pass	
Endosulfan sulphate	M17-Au21805	NCP	%	90			70-130	Pass	
Endrin	M17-Au21805	NCP	%	96			70-130	Pass	
Endrin aldehyde	M17-Au21805	NCP	%	87			70-130	Pass	
Endrin ketone	M17-Au21805	NCP	%	91			70-130	Pass	
g-BHC (Lindane)	M17-Au21805	NCP	%	105			70-130	Pass	
Heptachlor	M17-Au21805	NCP	%	90			70-130	Pass	
Heptachlor epoxide	M17-Au21805	NCP	%	87			70-130	Pass	
Hexachlorobenzene	M17-Au21805	NCP	%	100			70-130	Pass	
Methoxychlor	M17-Au21805	NCP	%	109			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M17-Au21796	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M17-Au21796	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M17-Au21796	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M17-Au21796	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Benzo(a)pyrene	M17-Au21796	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	M17-Au21796	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	M17-Au21796	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M17-Au21796	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	M17-Au21796	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	M17-Au21796	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M17-Au21796	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	M17-Au21796	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M17-Au21796	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M17-Au21796	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M17-Au21796	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M17-Au21796	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M17-Au22298	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	M17-Au22298	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M17-Au22298	NCP	mg/kg	41	38	8.0	30%	Pass	
Copper	M17-Au22298	NCP	mg/kg	7.1	6.1	15	30%	Pass	
Lead	M17-Au22298	NCP	mg/kg	23	22	3.0	30%	Pass	
Mercury	M17-Au22298	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M17-Au22298	NCP	mg/kg	7.2	5.6	24	30%	Pass	
Zinc	M17-Au22298	NCP	mg/kg	7.9	6.6	19	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M17-Au21798	NCP	%	9.0	9.2	2.0	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	M17-Au20852	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	M17-Au20852	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	M17-Au20852	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	M17-Au21825	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M17-Au21825	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M17-Au21825	CP	mg/kg	< 50	< 50	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	M17-Au21825	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M17-Au21825	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M17-Au21825	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M17-Au21826	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	M17-Au21826	CP	mg/kg	7.6	4.0	62	30%	Fail	Q15
1.3-Dichlorobenzene	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	M17-Au21826	CP	mg/kg	3.0	2.0	40	30%	Fail	Q15
1.4-Dichlorobenzene	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzene	M17-Au21826	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Bromobenzene	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethylbenzene	M17-Au21826	CP	mg/kg	0.5	0.3	60	30%	Fail	Q15
Iodomethane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
m&p-Xylenes	M17-Au21826	CP	mg/kg	5.0	3.1	46	30%	Fail	Q15
Methylene Chloride	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
o-Xylene	M17-Au21826	CP	mg/kg	0.7	0.6	25	30%	Pass	
Styrene	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Toluene	M17-Au21826	CP	mg/kg	0.5	0.3	34	30%	Fail	Q15
trans-1.2-Dichloroethene	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	M17-Au21826	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Xylenes - Total	M17-Au21826	CP	mg/kg	5.7	3.7	43	30%	Fail	Q15
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	M17-Au21826	CP	mg/kg	0.6	< 0.5	72	30%	Fail	Q15
TRH C6-C10	M17-Au21826	CP	mg/kg	25	< 20	63	30%	Fail	Q15

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference
Q15	The RPD reported passes Eurofins | mgt's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised By

Nibha Vaidya	Analytical Services Manager
Alex Petridis	Senior Analyst-Metal (VIC)
Alex Petridis	Senior Analyst-Organic (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Huong Le	Senior Analyst-Inorganic (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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eurofins | mgt

Certificate of Analysis

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

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Mitch Hodgins**

Report **559156-L**
Project name SUMMER HILL
Project ID 52961
Received Date Aug 18, 2017

Client Sample ID			**BH02_0.6-0.7**	**BH05_0.25-0.35**	**BH07_0.5-0.6**	**BH08_0.4-0.5**
Sample Matrix			**US Leachate**	**US Leachate**	**US Leachate**	**US Leachate**
Eurofins | mgt Sample No.			**M17-Au21827**	**M17-Au21828**	**M17-Au21829**	**M17-Au21830**
Date Sampled			**Aug 03, 2017**	**Aug 03, 2017**	**Aug 03, 2017**	**Aug 03, 2017**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	-	< 0.001	-	-
Acenaphthylene	0.001	mg/L	-	< 0.001	-	-
Anthracene	0.001	mg/L	-	< 0.001	-	-
Benz(a)anthracene	0.001	mg/L	-	0.001	-	-
Benzo(a)pyrene	0.001	mg/L	< 0.001	-	-	< 0.001
Benzo(a)pyrene	0.001	mg/L	-	0.001	-	-
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	-	0.001	-	-
Benzo(g.h.i)perylene	0.001	mg/L	-	< 0.001	-	-
Benzo(k)fluoranthene	0.001	mg/L	-	0.001	-	-
Chrysene	0.001	mg/L	-	0.001	-	-
Dibenz(a.h)anthracene	0.001	mg/L	-	< 0.001	-	-
Fluoranthene	0.001	mg/L	-	< 0.001	-	-
Fluorene	0.001	mg/L	-	< 0.001	-	-
Indeno(1.2.3-cd)pyrene	0.001	mg/L	-	< 0.001	-	-
Naphthalene	0.001	mg/L	-	< 0.001	-	-
Phenanthrene	0.001	mg/L	-	0.002	-	-
Pyrene	0.001	mg/L	-	< 0.001	-	-
Total PAH*	0.001	mg/L	-	0.007	-	-
2-Fluorobiphenyl (surr.)	1	%	-	105	-	-
p-Terphenyl-d14 (surr.)	1	%	-	113	-	-
Heavy Metals						
Arsenic	0.01	mg/L	0.10	-	-	-
Lead	0.01	mg/L	0.02	0.69	-	0.01
Nickel	0.01	mg/L	-	-	0.02	-
USA Leaching Procedure						
Leachate Fluid[C01]		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	5.6	5.7	6.4	6.4
pH (Leachate fluid)	0.1	pH Units	5.0	5.0	5.0	5.0
pH (off)	0.1	pH Units	5.1	6.9	6.3	5.4
pH (USA HCl addition)	0.1	pH Units	1.8	1.8	1.8	1.9

Client Sample ID			QA20170804	BH02_0.6-0.7	BH05_0.25-0.35
Sample Matrix			**US Leachate**	**AUS Leachate**	**AUS Leachate**
Eurofins | mgt Sample No.			**M17-Au21831**	**M17-Au21832**	**M17-Au21833**
Date Sampled			**Aug 03, 2017**	**Aug 03, 2017**	**Aug 03, 2017**
Test/Reference	LOR	Unit			
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	0.001	mg/L	-	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	-	< 0.001	< 0.001
Anthracene	0.001	mg/L	-	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	-	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	-	-
Benzo(a)pyrene	0.001	mg/L	-	< 0.005	< 0.005
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	-	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	-	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	-	< 0.001	< 0.001
Chrysene	0.001	mg/L	-	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	-	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	-	< 0.001	< 0.001
Fluorene	0.001	mg/L	-	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	-	< 0.001	< 0.001
Naphthalene	0.001	mg/L	-	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	-	< 0.001	0.001
Pyrene	0.001	mg/L	-	< 0.001	< 0.001
Total PAH*	0.001	mg/L	-	< 0.005	< 0.005
2-Fluorobiphenyl (surr.)	1	%	-	124	99
p-Terphenyl-d14 (surr.)	1	%	-	147	130
Heavy Metals					
Arsenic	0.01	mg/L	-	0.07	-
Cadmium	0.005	mg/L	-	< 0.005	-
Chromium	0.01	mg/L	-	< 0.01	-
Copper	0.01	mg/L	-	< 0.01	-
Lead	0.01	mg/L	< 0.01	0.04	1.3
Mercury	0.005	mg/L	-	< 0.005	-
Nickel	0.01	mg/L	-	< 0.01	-
Zinc	0.01	mg/L	-	0.08	-
AUS Leaching Procedure					
Leachate Fluid[C01]		comment	-	1.0	1.0
pH (initial)	0.1	pH Units	-	7.1	7.2
pH (Leachate fluid)	0.1	pH Units	-	5.0	5.0
pH (off)	0.1	pH Units	-	5.2	6.4
USA Leaching Procedure					
Leachate Fluid[C01]		comment	1.0	-	-
pH (initial)	0.1	pH Units	6.6	-	-
pH (Leachate fluid)	0.1	pH Units	5.0	-	-
pH (off)	0.1	pH Units	6.9	-	-
pH (USA HCl addition)	0.1	pH Units	1.9	-	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

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

Description	Testing Site	Extracted	Holding Time
Polycyclic Aromatic Hydrocarbons	Melbourne	Aug 22, 2017	7 Day
- Method: LTM-ORG-2140 PAH and Phenols in Soils by GCMS			
Heavy Metals	Melbourne	Aug 18, 2017	180 Day
- Method: LTM-MET-3030 by ICP-OES (hydride ICP-OES for Mercury)			
Metals M8	Melbourne	Aug 18, 2017	28 Days
- Method: LTM-MET-3030 by ICP-OES (hydride ICP-OES for Mercury)			
AUS Leaching Procedure	Melbourne	Aug 18, 2017	7 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			

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NATA # 1261
Site # 23736

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Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: SUMMER HILL
Project ID: 52961

Order No.:
Report #: 559156
Phone: 02 8245 0300
Fax:

Received: Aug 18, 2017 11:03 AM
Due: Aug 22, 2017
Priority: 2 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Arsenic	Benzo(a)pyrene	Lead	Nickel	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	AUS Leaching Procedure	USA Leaching Procedure	Metals M8	Volatile Organics	Moisture Set	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217																	
Brisbane Laboratory - NATA Site # 20794																	
Perth Laboratory - NATA Site # 23736																	
External Laboratory																	
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**												
1	BH02_0.9-1.0	Aug 03, 2017		Soil	M17-Au21823					X				X		X	
2	BH05_0.9-1.0	Aug 03, 2017		Soil	M17-Au21824					X	X			X	X	X	X
3	BH05_2.9-3.0	Aug 03, 2017		Soil	M17-Au21825					X				X	X	X	X
4	BH07_0.3-0.4	Aug 03, 2017		Soil	M17-Au21826										X	X	
5	BH02_0.6-0.7	Aug 03, 2017		US Leachate	M17-Au21827	X	X	X					X				
6	BH05_0.25-0.35	Aug 03, 2017		US Leachate	M17-Au21828			X		X			X				
7	BH07_0.5-0.6	Aug 03, 2017		US Leachate	M17-Au21829				X				X				
8	BH08_0.4-0.5	Aug 03, 2017		US Leachate	M17-Au21830		X	X					X				
9	QA20170804	Aug 03, 2017		US Leachate	M17-Au21831		X	X					X				

eurofins | mgt

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Site # 1254 & 14271

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NATA # 1261 Site # 20794

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Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

Project Name: SUMMER HILL
Project ID: 52961

Order No.:
Report #: 559156
Phone: 02 8245 0300
Fax:

Received: Aug 18, 2017 11:03 AM
Due: Aug 22, 2017
Priority: 2 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Arsenic	Benzo(a)pyrene	Lead	Nickel	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	AUS Leaching Procedure	USA Leaching Procedure	Metals M8	Volatile Organics	Moisture Set	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217																	
Brisbane Laboratory - NATA Site # 20794																	
Perth Laboratory - NATA Site # 23736																	
10	BH02_0.6-0.7	Aug 03, 2017		AUS Leachate	M17-Au21832					X		X		X			
11	BH05_0.25-0.35	Aug 03, 2017		AUS Leachate	M17-Au21833			X		X		X					
Test Counts						1	3	5	1	6	1	2	5	4	3	4	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

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

Quality Control Results

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank									
Heavy Metals									
Arsenic			mg/L	< 0.01			0.01	Pass	
Cadmium			mg/L	< 0.005			0.005	Pass	
Chromium			mg/L	< 0.01			0.01	Pass	
Copper			mg/L	< 0.01			0.01	Pass	
Lead			mg/L	< 0.01			0.01	Pass	
Mercury			mg/L	< 0.005			0.005	Pass	
Nickel			mg/L	< 0.01			0.01	Pass	
Zinc			mg/L	< 0.01			0.01	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M17-Au20144	NCP	%	105			75-125	Pass	
Lead	M17-Au20144	NCP	%	100			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Nickel	M17-Au20144	NCP	%	96			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Cadmium	M17-Au20144	NCP	%	99			75-125	Pass	
Chromium	M17-Au20144	NCP	%	98			75-125	Pass	
Copper	M17-Au20144	NCP	%	94			75-125	Pass	
Mercury	M17-Au20144	NCP	%	94			70-130	Pass	
Zinc	M17-Au20144	NCP	%	105			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Benzo(a)pyrene	M17-Au21808	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M17-Au20144	NCP	mg/L	0.16	0.16	<1	30%	Pass	
Lead	M17-Au20144	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Nickel	M17-Au20144	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M17-Au21808	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	M17-Au21808	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	M17-Au21808	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	M17-Au21808	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	M17-Au21808	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	M17-Au21808	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	M17-Au21808	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	M17-Au21808	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	M17-Au21808	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	M17-Au21808	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	M17-Au21808	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M17-Au21808	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	M17-Au21808	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Phenanthrene	M17-Au21808	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	M17-Au21808	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Cadmium	M17-Au20271	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chromium	M17-Au20271	NCP	mg/L	0.03	0.03	8.0	30%	Pass	
Copper	M17-Au20271	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Mercury	M17-Au20271	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	M17-Au20271	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised By

Nibha Vaidya	Analytical Services Manager
Alex Petridis	Senior Analyst-Metal (VIC)
Alex Petridis	Senior Analyst-Organic (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Sample Receipt Advice

Company name: **JBS & G Australia (NSW) P/L**

Contact name: Mitch Hodgins
Project name: SUMMER HILL
Project ID: 52961
COC number: Not provided
Turn around time: 2 Day
Date/Time received: Aug 18, 2017 11:03 AM
Eurofins | mgt reference: **559156**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8400 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to Mitch Hodgins - mhodgins@jbsg.com.au.

Enviro Sample Vic

From: Nibha Vaidya
Sent: Friday, 18 August 2017 11:03 AM
To: Enviro Sample Vic
Subject: 2 DAY TAT - FW: Eurofins | mgt Draft Test Results - Report 557460 : Site SUMMER HILL (52961)

Additional analysis please (leachates / soils) – 2 day TAT

Kind Regards,

Nibha Vaidya
Phone : +61 2 9900 8415
Mobile : +61 499 900 805
Email : NibhaVaidya@eurofins.com

Cotreic
EFlmgt
18/8 11.03 —

SS9150

From: Mitchell Hodgins [mailto:MHodgins@jbsg.com.au]
Sent: Friday, 18 August 2017 9:46 AM
To: Nibha Vaidya
Cc: Nicola Wells
Subject: RE: Eurofins | mgt Draft Test Results - Report 557460 : Site SUMMER HILL (52961)

Hi Nibha,

Can I please order the following additional analyses on 48 hr TAT?

- BH02-0.6-0.7
  - TCLP Arsenic
  - TCLP Lead
  - TCLP BaP
  - ASLP Heavy metals
  - ASLP PAHs
- BH02-0.9-1.0
  - Heavy Metals
  - PAHs
- BH05-0.25-0.35
  - TCLP Lead
  - ASLP Lead
  - TCLP PAHs
  - ASLP PAHs
- BH05-0.9-1.0
  - Heavy metals
  - PAHs
  - OCPs
  - TRH
  - VOCs
- BH05-2.9-30
  - Heavy metals
  - PAHs
  - TRH
  - VOCs
- BH07_0.5-0.6
  - TCLP Nickel
- BH07-0.3-0.4
  - VOCs
- BH08_0.4-0.5

AJ07958 . G1028
AJ07982 - # - G1029 .
AJ07962 . G1028
AJ08007 - # G1031
AJ08011 - # G1031
AJ07965 G1029
AJ08022 - # G1031
AJ07966 G1029
AJ07968 G1029 .

d.s 3/8.

- TCLP Lead
- TCLP BaP

- QA20170804
  - TCLP Lead
  - TCLP BaP

Regards,

Mitchell Hodgins | Project Manager | JBS&G
Sydney | Melbourne | Adelaide | Perth | Brisbane
Level 1, 50 Margaret Street Sydney NSW 2000
T: 02 8245 0300 | M: 0427 979 749 | www.jbsg.com.au
Contaminated Land | Groundwater Remediation | Environmental Impact Assessment | Auditing and Compliance | Hygiene and Hazardous Materials | Due Diligence and Liability

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From: NibhaVaidya@eurofins.com [mailto:NibhaVaidya@eurofins.com]
Sent: Thursday, 17 August 2017 6:30 PM
To: Mitchell Hodgins <MHodgins@jbsg.com.au>
Cc: Nicola Wells <NWells@jbsg.com.au>
Subject: Eurofins | mgt Draft Test Results - Report 557460 : Site SUMMER HILL (52961)

Dear Mitch,

Please find attached all available results for your project in the subject header.

Kind Regards,

Nibha Vaidya
Analytical Services Manager

Eurofins | mgt
Unit F3, Parkview Building
16 Mars Road
LANE COVE WEST NSW 2066
AUSTRALIA
Phone: +61 299 008 400
Mobile:
Email: NibhaVaidya@eurofins.com
Website:environment.eurofins.com.au
EnviroNote 1072 - NATA Accreditation for AirToxics Brisbane
EnviroNote 1073 - 1,4-Dioxane : a new Contaminant of Concern?

Are you on TOP of PFASs? Find out more by reading Eurofins | mgt's Environote by clicking here

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Certificate of Analysis

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

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Mitch Hodgins**

Report **558483-A**
Project name SUMMER HILL
Project ID 52961
Received Date Aug 11, 2017

Client Sample ID			**SV01_FRONT**	**SV01_BACK**	**SV02_FRONT**	**SV02_BACK**
Sample Matrix			**Air**	**Air**	**Air**	**Air**
Eurofins | mgt Sample No.			**S17-Au16348**	**S17-Au16349**	**S17-Au16350**	**S17-Au16351**
Date Sampled			**Aug 11, 2017**	**Aug 11, 2017**	**Aug 11, 2017**	**Aug 11, 2017**
Test/Reference	LOR	Unit				
Isopropanol	10	Total ug	< 10	< 10	< 10	< 10
VOCs in Ambient Air by GC/MS						
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV01_FRONT	SV01_BACK	SV02_FRONT	SV02_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S17-Au16348	S17-Au16349	S17-Au16350	S17-Au16351
Date Sampled			Aug 11, 2017	Aug 11, 2017	Aug 11, 2017	Aug 11, 2017
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	95	100	99	94
4-Bromofluorobenzene (surr.)	1	%	108	117	111	112
Dibromofluoromethane (surr.)	1	%	83	85	84	82
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH C6-C10	10	Total ug	< 10	< 10	< 10	< 10
TRH >C10-C16	10	Total ug	< 10	< 10	< 10	< 10

Client Sample ID			SV03_FRONT	SV03_BACK	SV04_FRONT	SV04_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S17-Au16352	S17-Au16353	S17-Au16354	S17-Au16355
Date Sampled			Aug 11, 2017	Aug 11, 2017	Aug 11, 2017	Aug 11, 2017
Test/Reference	LOR	Unit				
Isopropanol	10	Total ug	< 10	< 10	< 10	< 10
VOCs in Ambient Air by GC/MS						
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV03_FRONT	SV03_BACK	SV04_FRONT	SV04_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S17-Au16352	S17-Au16353	S17-Au16354	S17-Au16355
Date Sampled			Aug 11, 2017	Aug 11, 2017	Aug 11, 2017	Aug 11, 2017
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	106	101	100	96
4-Bromofluorobenzene (surr.)	1	%	114	114	117	110
Dibromofluoromethane (surr.)	1	%	83	86	88	83
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH C6-C10	10	Total ug	< 10	< 10	< 10	< 10
TRH >C10-C16	10	Total ug	< 10	< 10	< 10	< 10

Client Sample ID			SV05_FRONT	SV05_BACK	SV06_FRONT	SV06_BACK
Sample Matrix			Air	Air	Air	Air
Eurofins | mgt Sample No.			S17-Au16356	S17-Au16357	S17-Au16358	S17-Au16359
Date Sampled			Aug 11, 2017	Aug 11, 2017	Aug 11, 2017	Aug 11, 2017
Test/Reference	LOR	Unit				
Isopropanol	10	Total ug	< 10	< 10	< 10	< 10
VOCs in Ambient Air by GC/MS						
Naphthalene	0.5	Total ug	< 5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	97	105	98	100
4-Bromofluorobenzene (surr.)	1	%	114	121	112	116

Client Sample ID			SV05_FRONT	SV05_BACK	SV06_FRONT	SV06_BACK
Sample Matrix			**Air**	**Air**	**Air**	**Air**
Eurofins | mgt Sample No.			**S17-Au16356**	**S17-Au16357**	**S17-Au16358**	**S17-Au16359**
Date Sampled			**Aug 11, 2017**	**Aug 11, 2017**	**Aug 11, 2017**	**Aug 11, 2017**
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
Dibromofluoromethane (surr.)	1	%	86	90	84	87
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH C6-C10	10	Total ug	< 10	< 10	< 10	< 10
TRH >C10-C16	10	Total ug	< 10	< 10	< 10	< 10

Client Sample ID			QC_110817SV_FRONT	QC_110817SV_BACK	SVBLANK_FRONT	SVBLANK_BACK
Sample Matrix			**Air**	**Air**	**Air**	**Air**
Eurofins | mgt Sample No.			**S17-Au16360**	**S17-Au16361**	**S17-Au16362**	**S17-Au16363**
Date Sampled			**Aug 11, 2017**	**Aug 11, 2017**	**Aug 11, 2017**	**Aug 11, 2017**
Test/Reference	LOR	Unit				
Isopropanol	10	Total ug	< 10	< 10	< 10	< 10
VOCs in Ambient Air by GC/MS						
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			QC_110817SV_FRONT	QC_110817SV_BACK	SVBLANK_FRONT	SVBLANK_BACK
Sample Matrix			**Air**	**Air**	**Air**	**Air**
Eurofins | mgt Sample No.			**S17-Au16360**	**S17-Au16361**	**S17-Au16362**	**S17-Au16363**
Date Sampled			**Aug 11, 2017**	**Aug 11, 2017**	**Aug 11, 2017**	**Aug 11, 2017**
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	102	97	86	91
4-Bromofluorobenzene (surr.)	1	%	116	113	103	109
Dibromofluoromethane (surr.)	1	%	91	85	81	83
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH C6-C10	10	Total ug	< 10	< 10	< 10	< 10
TRH >C10-C16	10	Total ug	< 10	< 10	< 10	< 10

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

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

Description	Testing Site	Extracted	Holding Time
Isopropanol	Melbourne	Aug 14, 2017	14 Days
VOCs in Ambient Air by GC/MS	Melbourne	Aug 14, 2017	14 Day
- Method: LTM-ORG-2030 VOCs in Ambient Air by GC/MS			
VOC AIR-TRH (Total Recoverable Hydrocarbons)			
Total Recoverable Hydrocarbons	Melbourne	Aug 14, 2017	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
TRH >C10-C16	Melbourne	Aug 14, 2017	7 Day
- Method: MGT 100A			

ABN– 50 005 085 521
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NATA # 1261
Site # 1254 & 14271

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Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
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Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	JBS & G Australia (NSW) P/L	**Order No.:**	
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	558483
		Phone:	02 8245 0300
		Fax:	
Project Name:	SUMMER HILL		
Project ID:	52961		

Received:	Aug 11, 2017 5:29 PM	
Due:	Aug 18, 2017	
Priority:	5 Day	
Contact Name:	Mitch Hodgins	

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Isopropanol	VOC AIR-TRH (Total Recoverable Hydrocarbons)	VOCs in Ambient Air by GC/MS
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X
Sydney Laboratory - NATA Site # 18217								
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	SV01_FRONT	Aug 11, 2017		Air	S17-Au16348	X	X	X
2	SV01_BACK	Aug 11, 2017		Air	S17-Au16349	X	X	X
3	SV02_FRONT	Aug 11, 2017		Air	S17-Au16350	X	X	X
4	SV02_BACK	Aug 11, 2017		Air	S17-Au16351	X	X	X
5	SV03_FRONT	Aug 11, 2017		Air	S17-Au16352	X	X	X
6	SV03_BACK	Aug 11, 2017		Air	S17-Au16353	X	X	X
7	SV04_FRONT	Aug 11, 2017		Air	S17-Au16354	X	X	X
8	SV04_BACK	Aug 11, 2017		Air	S17-Au16355	X	X	X
9	SV05_FRONT	Aug 11, 2017		Air	S17-Au16356	X	X	X

ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

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Site # 1254 & 14271

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Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
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Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

Project Name: SUMMER HILL
Project ID: 52961

Order No.:
Report #: 558483
Phone: 02 8245 0300
Fax:

Received: Aug 11, 2017 5:29 PM
Due: Aug 18, 2017
Priority: 5 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Isopropanol	VOC AIR-TRH (Total Recoverable Hydrocarbons)	VOCs in Ambient Air by GC/MS
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X
Sydney Laboratory - NATA Site # 18217								
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
10	SV05_BACK	Aug 11, 2017		Air	S17-Au16357	X	X	X
11	SV06_FRONT	Aug 11, 2017		Air	S17-Au16358	X	X	X
12	SV06_BACK	Aug 11, 2017		Air	S17-Au16359	X	X	X
13	QC_110817SV_FRONT	Aug 11, 2017		Air	S17-Au16360	X	X	X
14	QC_110817SV_BACK	Aug 11, 2017		Air	S17-Au16361	X	X	X
15	SVBLANK_FRONT	Aug 11, 2017		Air	S17-Au16362	X	X	X
16	SVBLANK_BACK	Aug 11, 2017		Air	S17-Au16363	X	X	X
Test Counts						16	16	16

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Isopropanol	Total ug	< 10			10	Pass	
Method Blank							
VOCs in Ambient Air by GC/MS							
Naphthalene	Total ug	< 0.5			0.5	Pass	
1.1-Dichloroethane	Total ug	< 0.5			0.5	Pass	
1.1-Dichloroethene	Total ug	< 0.5			0.5	Pass	
1.1-Dichloropropene	Total ug	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	Total ug	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	Total ug	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	Total ug	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	Total ug	< 0.5			0.5	Pass	
1.2-Dibromo-3-chloropropane	Total ug	< 0.5			0.5	Pass	
1.2-Dibromoethane	Total ug	< 0.5			0.5	Pass	
1.2-Dichloroethane	Total ug	< 0.5			0.5	Pass	
1.2-Dichloropropane	Total ug	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	Total ug	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	Total ug	< 0.5			0.5	Pass	
1.3-Dichloropropane	Total ug	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	Total ug	< 0.5			0.5	Pass	
2-Chlorotoluene	Total ug	< 0.5			0.5	Pass	
2.2-Dichloropropane	Total ug	< 0.5			0.5	Pass	
4-Chlorotoluene	Total ug	< 0.5			0.5	Pass	
Benzene	Total ug	< 0.5			0.5	Pass	
Bromochloromethane	Total ug	< 0.5			0.5	Pass	
Bromodichloromethane	Total ug	< 0.5			0.5	Pass	
Bromoform	Total ug	< 0.5			0.5	Pass	
Carbon Tetrachloride	Total ug	< 0.5			0.5	Pass	
Chlorobenzene	Total ug	< 0.5			0.5	Pass	
Chloroform	Total ug	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	Total ug	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	Total ug	< 0.5			0.5	Pass	
Dibromochloromethane	Total ug	< 0.5			0.5	Pass	
Dibromomethane	Total ug	< 0.5			0.5	Pass	
Ethylbenzene	Total ug	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	Total ug	< 0.5			0.5	Pass	
n-Butylbenzene	Total ug	< 0.5			0.5	Pass	
n-Propylbenzene	Total ug	< 0.5			0.5	Pass	
p-Isopropyltoluene	Total ug	< 0.5			0.5	Pass	
sec-Butylbenzene	Total ug	< 0.5			0.5	Pass	
Styrene	Total ug	< 5			5	Pass	
tert-Butylbenzene	Total ug	< 0.5			0.5	Pass	
Tetrachloroethene	Total ug	< 0.5			0.5	Pass	
Toluene	Total ug	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	Total ug	< 0.5			0.5	Pass	
Trichloroethene	Total ug	< 0.5			0.5	Pass	
Trichlorofluoromethane	Total ug	< 0.5			0.5	Pass	
Vinyl chloride	Total ug	< 0.5			0.5	Pass	
Xylenes - Total	Total ug	< 1.5			1.5	Pass	
1.2-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.2.3-Trichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	Total ug	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1.3-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
Hexachlorobutadiene	Total ug	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH C6-C10	Total ug	< 10			10	Pass	
TRH >C10-C16	Total ug	< 10			10	Pass	
LCS - % Recovery							
VOCs in Ambient Air by GC/MS							
1.1-Dichloroethene	%	98			70-130	Pass	
1.1-Dichloropropene	%	104			70-130	Pass	
1.1.1-Trichloroethane	%	93			70-130	Pass	
1.2-Dibromo-3-chloropropane	%	108			75-125	Pass	
1.2-Dichloroethane	%	100			70-130	Pass	
Benzene	%	102			70-130	Pass	
Ethylbenzene	%	117			70-130	Pass	
Toluene	%	112			70-130	Pass	
Trichloroethene	%	99			70-130	Pass	
Xylenes - Total	%	104			70-130	Pass	
1.2-Dichlorobenzene	%	97			70-130	Pass	
1.2.3-Trichlorobenzene	%	79			70-130	Pass	
1.2.4-Trichlorobenzene	%	76			70-130	Pass	
1.4-Dichlorobenzene	%	99			70-130	Pass	

Comments

Sample Integrity

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

Authorised By

Nibha Vaidya	Analytical Services Manager
Alex Petridis	Senior Analyst-Metal (VIC)
Alex Petridis	Senior Analyst-Organic (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)

Glenn Jackson
National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name: **JBS & G Australia (NSW) P/L**

Contact name: Mitch Hodgins
Project name: SUMMER HILL
Project ID: 52961
COC number: Not provided
Turn around time: 5 Day
Date/Time received: Aug 11, 2017 5:29 PM
Eurofins | mgt reference: **558483**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ Sample Temperature of a random sample selected from the batch as recorded by Eurofins | mgt Sample Receipt : 25 degrees Celsius.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☒ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8400 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to Mitch Hodgins - mhodgins@jbsg.com.au.

07288

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 52961	LABORATORY BATCH NO.:
PROJECT NAME: SUMMER HILL	SAMPLERS: KY
DATE NEEDED BY: STD TAT	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

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

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

558483

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Vic 8260	Volatile TRH	Isopropanol	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
SV01	AIR	11/8		tubes		X	X	X			
SV02	"	"		"		"	"	"			
SV03	"	"		"		"	"	"			
SV04	"	"		"		"	"	"			
SV05	"	"		"		"	"	"			
SV06	"	"		"		"	"	"			
QC-1108175V	"	"		"		"	"	"			
Sv. Blank	"	"		"		"	"	"			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: E. Yeung DATE: 11/8/17	CONSIGNMENT NOTE NO.	NAME: DATE: 17:29	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE: 11/08	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

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

IMSO FormsO13 - Chain of Custody - Generic

Enviro Sample NSW

From: Nibha Vaidya
Sent: Friday, 11 August 2017 5:38 PM
To: Enviro Sample NSW; COC NSW
Subject: 5 DAY TAT - JBS&G - FW: 52961 COC
Attachments: 20170811 SV COC.pdf

COC for JBS&G 52961

Please add a Lab Method Blank Carbon tube and note in the Lab Comments.

Kind Regards,

Nibha Vaidya
Phone : +61 2 9900 8415
Mobile : +61 499 900 805
Email : NibhaVaidya@eurofins.com

From: Kiu Yeung [mailto:KYeung@jbsg.com.au]
Sent: Friday, 11 August 2017 5:26 PM
To: Nibha Vaidya
Cc: Mitchell Hodgins
Subject: 52961 COC

Hi Nibha

Please kindly find the attached COC for Soil Vapour samples sent along with the office courier pick up. Could you please he

Thanks and have a good weekend.

Kind Regards,

Kiu

Kiu Yeung | Environmental Consultant | JBS&G

eurofins | mgt

Certificate of Analysis

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

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Mitch Hodgins**

Report **558341-W**
Project name SUMMERHILL
Project ID 52961
Received Date Aug 11, 2017

Client Sample ID			**MW01**	**MW02**	**MW03**	**MW04**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins | mgt Sample No.			**S17-Au15162**	**S17-Au15163**	**S17-Au15164**	**S17-Au15165**
Date Sampled			**Aug 11, 2017**	**Aug 11, 2017**	**Aug 11, 2017**	**Aug 11, 2017**
Test/Reference	LOR	Unit				
Methyl-tert-Butyl Ether	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-36 (Total)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Volatile Organics						
1.1-Dichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.1-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.1.1-Trichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.1.1.2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.1.2-Trichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.1.2.2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.2-Dibromoethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.2-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.2-Dichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.2-Dichloropropane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.2.3-Trichloropropane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.2.4-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.3-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.3-Dichloropropane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.3.5-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.4-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Butanone (MEK)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Propanone (Acetone)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
4-Chlorotoluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
4-Methyl-2-pentanone (MIBK)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Allyl chloride	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromochloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromodichloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromoform	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromomethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID			MW01	MW02	MW03	MW04
Sample Matrix			Water	Water	Water	Water
Eurofins | mgt Sample No.			S17-Au15162	S17-Au15163	S17-Au15164	S17-Au15165
Date Sampled			Aug 11, 2017	Aug 11, 2017	Aug 11, 2017	Aug 11, 2017
Test/Reference	LOR	Unit				
Volatile Organics						
Carbon disulfide	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Carbon Tetrachloride	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chloroform	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Chloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
cis-1.2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
cis-1.3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibromochloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dichlorodifluoromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Iodomethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Methylene Chloride	0.001	mg/L	0.020	0.022	0.018	0.024
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Styrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Tetrachloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
trans-1.2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
trans-1.3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Trichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Trichlorofluoromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Vinyl chloride	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Vic EPA IWRG 621 Chlorinated hydrocarbons (Total)*	0.005	mg/L	0.02	0.022	0.018	0.024
Vic EPA IWRG 621 Other chlorinated hydrocarbons (Total)*	0.005	mg/L	0.02	0.022	0.018	0.024
4-Bromofluorobenzene (surr.)	1	%	69	63	96	67
Fluorobenzene (surr.)	1	%	69	62	93	65
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Organochlorine Pesticides						
Chlordanes - Total	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
4.4'-DDD	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
4.4'-DDE	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
4.4'-DDT	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
a-BHC	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Aldrin	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
b-BHC	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
d-BHC	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Dieldrin	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001

Client Sample ID			MW01	MW02	MW03	MW04
Sample Matrix			Water	Water	Water	Water
Eurofins | mgt Sample No.			S17-Au15162	S17-Au15163	S17-Au15164	S17-Au15165
Date Sampled			Aug 11, 2017	Aug 11, 2017	Aug 11, 2017	Aug 11, 2017
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endosulfan I	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Endosulfan II	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Endosulfan sulphate	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Endrin	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Endrin aldehyde	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Endrin ketone	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
g-BHC (Lindane)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Heptachlor	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Heptachlor epoxide	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Hexachlorobenzene	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Methoxychlor	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Toxaphene	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Aldrin and Dieldrin (Total)*	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
DDT + DDE + DDD (Total)*	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Vic EPA IWRG 621 Organochlorine pesticides (Total)*	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Vic EPA IWRG 621 Other organochlorine pesticides (Total)*	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibutylchlorendate (surr.)	1	%	119	73	87	131
Tetrachloro-m-xylene (surr.)	1	%	89	86	69	69
Polychlorinated Biphenyls						
Aroclor-1016	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Aroclor-1221	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Aroclor-1232	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Aroclor-1242	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Aroclor-1248	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Aroclor-1254	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Aroclor-1260	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PCB*	0.001	mg/L	<0.001	<0.001	<0.001	<0.001
Dibutylchlorendate (surr.)	1	%	119	73	87	131
Tetrachloro-m-xylene (surr.)	1	%	89	86	69	69
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.006	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03

Client Sample ID			MW01	MW02	MW03	MW04
Sample Matrix			Water	Water	Water	Water
Eurofins | mgt Sample No.			S17-Au15162	S17-Au15163	S17-Au15164	S17-Au15165
Date Sampled			Aug 11, 2017	Aug 11, 2017	Aug 11, 2017	Aug 11, 2017
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol-d6 (surr.)	1	%	53	41	37	52
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	0.002	0.002	0.003	0.005
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.003	0.006	0.004	0.004
Zinc (filtered)	0.005	mg/L	0.016	0.027	0.017	0.026

Client Sample ID			MW05	QA20170811	TB20170811	TS20170811
Sample Matrix			Water	Water	Water	Water
Eurofins | mgt Sample No.			S17-Au15166	S17-Au15167	S17-Au15168	S17-Au15169
Date Sampled			Aug 11, 2017	Aug 11, 2017	Aug 11, 2017	Aug 11, 2017
Test/Reference	LOR	Unit				
Methyl-tert-Butyl Ether	0.001	mg/L	< 0.001	< 0.001	-	-
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	-	-
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	-	-
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	-	-
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	-	-
TRH C10-36 (Total)	0.1	mg/L	< 0.1	< 0.1	-	-
BTEX						
Benzene	0.001	mg/L	-	-	< 0.001	97%
Toluene	0.001	mg/L	-	-	< 0.001	82%
Ethylbenzene	0.001	mg/L	-	-	< 0.001	97%
m&p-Xylenes	0.002	mg/L	-	-	< 0.002	107%
o-Xylene	0.001	mg/L	-	-	< 0.001	104%
Xylenes - Total	0.003	mg/L	-	-	< 0.003	106%
4-Bromofluorobenzene (surr.)	1	%	-	-	99	111
Volatile Organics						
1.1-Dichloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.1-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	-	-
1.1.1-Trichloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.1.1.2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.1.2-Trichloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.1.2.2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.2-Dibromoethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.2-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	-	-
1.2-Dichloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.2-Dichloropropane	0.001	mg/L	< 0.001	< 0.001	-	-
1.2.3-Trichloropropane	0.001	mg/L	< 0.001	< 0.001	-	-
1.2.4-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001	-	-

Client Sample ID			MW05	QA20170811	TB20170811	TS20170811
Sample Matrix			Water	Water	Water	Water
Eurofins | mgt Sample No.			S17-Au15166	S17-Au15167	S17-Au15168	S17-Au15169
Date Sampled			Aug 11, 2017	Aug 11, 2017	Aug 11, 2017	Aug 11, 2017
Test/Reference	LOR	Unit				
Volatile Organics						
1.3-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	-	-
1.3-Dichloropropane	0.001	mg/L	< 0.001	< 0.001	-	-
1.3.5-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001	-	-
1.4-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	-	-
2-Butanone (MEK)	0.001	mg/L	< 0.001	< 0.001	-	-
2-Propanone (Acetone)	0.001	mg/L	< 0.001	< 0.001	-	-
4-Chlorotoluene	0.001	mg/L	< 0.001	< 0.001	-	-
4-Methyl-2-pentanone (MIBK)	0.001	mg/L	< 0.001	< 0.001	-	-
Allyl chloride	0.001	mg/L	< 0.001	< 0.001	-	-
Benzene	0.001	mg/L	< 0.001	< 0.001	-	-
Bromobenzene	0.001	mg/L	< 0.001	< 0.001	-	-
Bromochloromethane	0.001	mg/L	< 0.001	< 0.001	-	-
Bromodichloromethane	0.001	mg/L	< 0.001	< 0.001	-	-
Bromoform	0.001	mg/L	< 0.001	< 0.001	-	-
Bromomethane	0.001	mg/L	< 0.001	< 0.001	-	-
Carbon disulfide	0.001	mg/L	< 0.001	< 0.001	-	-
Carbon Tetrachloride	0.001	mg/L	< 0.001	< 0.001	-	-
Chlorobenzene	0.001	mg/L	< 0.001	< 0.001	-	-
Chloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
Chloroform	0.005	mg/L	< 0.005	< 0.005	-	-
Chloromethane	0.001	mg/L	< 0.001	< 0.001	-	-
cis-1.2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	-	-
cis-1.3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001	-	-
Dibromochloromethane	0.001	mg/L	< 0.001	< 0.001	-	-
Dibromomethane	0.001	mg/L	< 0.001	< 0.001	-	-
Dichlorodifluoromethane	0.001	mg/L	< 0.001	< 0.001	-	-
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	-	-
Iodomethane	0.001	mg/L	< 0.001	< 0.001	-	-
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.001	< 0.001	-	-
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	-	-
Methylene Chloride	0.001	mg/L	0.027	0.021	-	-
o-Xylene	0.001	mg/L	< 0.001	< 0.001	-	-
Styrene	0.001	mg/L	< 0.001	< 0.001	-	-
Tetrachloroethene	0.001	mg/L	< 0.001	< 0.001	-	-
Toluene	0.001	mg/L	< 0.001	< 0.001	-	-
trans-1.2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	-	-
trans-1.3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001	-	-
Trichloroethene	0.001	mg/L	< 0.001	< 0.001	-	-
Trichlorofluoromethane	0.001	mg/L	< 0.001	< 0.001	-	-
Vinyl chloride	0.001	mg/L	< 0.001	< 0.001	-	-
Xylenes - Total	0.003	mg/L	< 0.003	< 0.003	-	-
Vic EPA IWRG 621 Chlorinated hydrocarbons (Total)*	0.005	mg/L	0.027	0.021	-	-
Vic EPA IWRG 621 Other chlorinated hydrocarbons (Total)*	0.005	mg/L	0.027	0.021	-	-
4-Bromofluorobenzene (surr.)	1	%	61	76	-	-
Fluorobenzene (surr.)	1	%	61	78	-	-

Client Sample ID			MW05	QA20170811	TB20170811	TS20170811
Sample Matrix			Water	Water	Water	Water
Eurofins | mgt Sample No.			S17-Au15166	S17-Au15167	S17-Au15168	S17-Au15169
Date Sampled			Aug 11, 2017	Aug 11, 2017	Aug 11, 2017	Aug 11, 2017
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	-	-
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	-	-
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	-	-
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	-	-
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	-	-
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	-	-
Organochlorine Pesticides						
Chlordanes - Total	0.001	mg/L	< 0.001	< 0.001	-	-
4.4'-DDD	0.0001	mg/L	< 0.0001	< 0.0001	-	-
4.4'-DDE	0.0001	mg/L	< 0.0001	< 0.0001	-	-
4.4'-DDT	0.0001	mg/L	< 0.0001	< 0.0001	-	-
a-BHC	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Aldrin	0.0001	mg/L	< 0.0001	< 0.0001	-	-
b-BHC	0.0001	mg/L	< 0.0001	< 0.0001	-	-
d-BHC	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Dieldrin	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Endosulfan I	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Endosulfan II	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Endosulfan sulphate	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Endrin	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Endrin aldehyde	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Endrin ketone	0.0001	mg/L	< 0.0001	< 0.0001	-	-
g-BHC (Lindane)	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Heptachlor	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Heptachlor epoxide	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Hexachlorobenzene	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Methoxychlor	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Toxaphene	0.01	mg/L	< 0.01	< 0.01	-	-
Aldrin and Dieldrin (Total)*	0.0001	mg/L	< 0.0001	< 0.0001	-	-
DDT + DDE + DDD (Total)*	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Vic EPA IWRG 621 Organochlorine pesticides (Total)*	0.001	mg/L	< 0.001	< 0.001	-	-
Vic EPA IWRG 621 Other organochlorine pesticides (Total)*	0.001	mg/L	< 0.001	< 0.001	-	-
Dibutylchlorendate (surr.)	1	%	51	55	-	-
Tetrachloro-m-xylene (surr.)	1	%	78	75	-	-
Polychlorinated Biphenyls						
Aroclor-1016	0.001	mg/L	< 0.001	< 0.001	-	-
Aroclor-1221	0.001	mg/L	< 0.001	< 0.001	-	-
Aroclor-1232	0.001	mg/L	< 0.001	< 0.001	-	-
Aroclor-1242	0.001	mg/L	< 0.001	< 0.001	-	-
Aroclor-1248	0.001	mg/L	< 0.001	< 0.001	-	-
Aroclor-1254	0.001	mg/L	< 0.001	< 0.001	-	-
Aroclor-1260	0.001	mg/L	< 0.001	< 0.001	-	-
Total PCB*	0.001	mg/L	<0.001	<0.001	-	-
Dibutylchlorendate (surr.)	1	%	51	55	-	-
Tetrachloro-m-xylene (surr.)	1	%	78	75	-	-

Client Sample ID			MW05	QA20170811	TB20170811	TS20170811
Sample Matrix			Water	Water	Water	Water
Eurofins | mgt Sample No.			S17-Au15166	S17-Au15167	S17-Au15168	S17-Au15169
Date Sampled			Aug 11, 2017	Aug 11, 2017	Aug 11, 2017	Aug 11, 2017
Test/Reference	LOR	Unit				
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	-	-
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	-	-
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	-	-
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	-	-
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	-	-
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	-	-
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	-	-
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	-	-
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	-	-
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	-	-
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	-	-
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	-	-
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	-	-
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	-	-
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	-	-
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	-	-
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	-	-
Dinoseb	0.1	mg/L	< 0.1	< 0.1	-	-
Phenol	0.003	mg/L	< 0.003	< 0.003	-	-
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	-	-
Phenol-d6 (surr.)	1	%	62	58	-	-
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	0.004	0.004	-	-
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	-	-
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	-	-
Copper (filtered)	0.001	mg/L	< 0.001	< 0.001	-	-
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	-	-
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Nickel (filtered)	0.001	mg/L	0.001	0.001	-	-
Zinc (filtered)	0.005	mg/L	0.010	0.008	-	-

Client Sample ID			MW01	MW02	MW03	MW04
Sample Matrix			Water (Trace)	Water (Trace)	Water (Trace)	Water (Trace)
Eurofins | mgt Sample No.			S17-Au15170	S17-Au15171	S17-Au15172	S17-Au15173
Date Sampled			Aug 11, 2017	Aug 11, 2017	Aug 11, 2017	Aug 11, 2017
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.00005	mg/L	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Acenaphthylene	0.00005	mg/L	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Anthracene	0.00005	mg/L	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Benz(a)anthracene	0.00005	mg/L	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene[N07]	0.00005	mg/L	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Benzo(g.h.i)perylene	0.00005	mg/L	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Benzo(k)fluoranthene	0.00005	mg/L	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Chrysene	0.00005	mg/L	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Dibenz(a.h)anthracene	0.00005	mg/L	< 0.00005	< 0.00005	< 0.00005	< 0.00005

Client Sample ID			MW01	MW02	MW03	MW04
Sample Matrix			Water (Trace)	Water (Trace)	Water (Trace)	Water (Trace)
Eurofins | mgt Sample No.			S17-Au15170	S17-Au15171	S17-Au15172	S17-Au15173
Date Sampled			Aug 11, 2017	Aug 11, 2017	Aug 11, 2017	Aug 11, 2017
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Fluoranthene	0.00005	mg/L	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Fluorene	0.00005	mg/L	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Indeno(1.2.3-cd)pyrene	0.00005	mg/L	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Naphthalene	0.00005	mg/L	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Phenanthrene	0.00005	mg/L	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Pyrene	0.00005	mg/L	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Total PAH*	0.00005	mg/L	< 0.00005	< 0.00005	< 0.00005	< 0.00005
2-Fluorobiphenyl (surr.)	1	%	82	72	67	92
p-Terphenyl-d14 (surr.)	1	%	113	92	93	138

Client Sample ID			MW05	QA20170811
Sample Matrix			Water (Trace)	Water (Trace)
Eurofins | mgt Sample No.			S17-Au15174	S17-Au15175
Date Sampled			Aug 11, 2017	Aug 11, 2017
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
Acenaphthene	0.00005	mg/L	< 0.00005	< 0.00005
Acenaphthylene	0.00005	mg/L	< 0.00005	< 0.00005
Anthracene	0.00005	mg/L	< 0.00005	< 0.00005
Benz(a)anthracene	0.00005	mg/L	< 0.00005	< 0.00005
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene[N07]	0.00005	mg/L	< 0.00005	< 0.00005
Benzo(g.h.i)perylene	0.00005	mg/L	< 0.00005	< 0.00005
Benzo(k)fluoranthene	0.00005	mg/L	< 0.00005	< 0.00005
Chrysene	0.00005	mg/L	< 0.00005	< 0.00005
Dibenz(a.h)anthracene	0.00005	mg/L	< 0.00005	< 0.00005
Fluoranthene	0.00005	mg/L	< 0.00005	< 0.00005
Fluorene	0.00005	mg/L	< 0.00005	< 0.00005
Indeno(1.2.3-cd)pyrene	0.00005	mg/L	< 0.00005	< 0.00005
Naphthalene	0.00005	mg/L	< 0.00005	< 0.00005
Phenanthrene	0.00005	mg/L	< 0.00005	< 0.00005
Pyrene	0.00005	mg/L	< 0.00005	< 0.00005
Total PAH*	0.00005	mg/L	< 0.00005	< 0.00005
2-Fluorobiphenyl (surr.)	1	%	119	125
p-Terphenyl-d14 (surr.)	1	%	118	137

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

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

Description	Testing Site	Extracted	Holding Time
Methyl-tert-Butyl Ether	Melbourne	Aug 15, 2017	14 Day
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
BTEX	Sydney	Aug 11, 2017	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Volatile Organics	Melbourne	Aug 15, 2017	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Polycyclic Aromatic Hydrocarbons	Melbourne	Aug 15, 2017	7 Day
- Method: LTM-ORG-2130 PAH and Phenols in Water by GCMS			
Organochlorine Pesticides	Melbourne	Aug 15, 2017	7 Day
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Melbourne	Aug 15, 2017	7 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8 filtered	Melbourne	Aug 15, 2017	28 Day
- Method: LTM-MET-3040 Metals in Waters by ICP-MS			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Aug 15, 2017	7 Day
- Method: LTM-ORG-2010 TRH C6-C36			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 15, 2017	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 15, 2017	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Phenols (IWRG 621)			
Phenols (Halogenated)	Melbourne	Aug 15, 2017	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Water by GCMS			
Phenols (non-Halogenated)	Melbourne	Aug 15, 2017	7 Day
- Method: LTM-ORG-2130 PAH and Phenols in Water by GCMS			

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

Project Name: SUMMERHILL
Project ID: 52961

Order No.:
Report #: 558341
Phone: 02 8245 0300
Fax:

Received: Aug 11, 2017 5:00 PM
Due: Aug 18, 2017
Priority: 5 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Methyl-tert-Butyl Ether	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8 filtered	Phenols (IWRG 621)	BTEX	Volatile Organics	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X		X	X
Sydney Laboratory - NATA Site # 18217												X		
Brisbane Laboratory - NATA Site # 20794														
Perth Laboratory - NATA Site # 23736														
External Laboratory														
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**									
1	MW01	Aug 11, 2017		Water	S17-Au15162	X		X	X	X	X		X	X
2	MW02	Aug 11, 2017		Water	S17-Au15163	X		X	X	X	X		X	X
3	MW03	Aug 11, 2017		Water	S17-Au15164	X		X	X	X	X		X	X
4	MW04	Aug 11, 2017		Water	S17-Au15165	X		X	X	X	X		X	X
5	MW05	Aug 11, 2017		Water	S17-Au15166	X		X	X	X	X		X	X
6	QA20170811	Aug 11, 2017		Water	S17-Au15167	X		X	X	X	X		X	X
7	TB20170811	Aug 11, 2017		Water	S17-Au15168							X		
8	TS20170811	Aug 11, 2017		Water	S17-Au15169							X		
9	MW01	Aug 11, 2017		Water (Trace)	S17-Au15170		X							

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Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X		X	X
Sydney Laboratory - NATA Site # 18217												X		
Brisbane Laboratory - NATA Site # 20794														
Perth Laboratory - NATA Site # 23736														
10	MW02	Aug 11, 2017		Water (Trace)	S17-Au15171		X							
11	MW03	Aug 11, 2017		Water (Trace)	S17-Au15172		X							
12	MW04	Aug 11, 2017		Water (Trace)	S17-Au15173		X							
13	MW05	Aug 11, 2017		Water (Trace)	S17-Au15174		X							
14	QA20170811	Aug 11, 2017		Water (Trace)	S17-Au15175		X							
Test Counts						6	6	6	6	6	6	2	6	6

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Methyl-tert-Butyl Ether	mg/L	< 0.001			0.001	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total	mg/L	< 0.003			0.003	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.1-Dichloroethene	mg/L	< 0.001			0.001	Pass	
1.1.1-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.1.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dibromoethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.2-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.3-Trichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.4-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.3.5-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.4-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
2-Butanone (MEK)	mg/L	< 0.001			0.001	Pass	
2-Propanone (Acetone)	mg/L	< 0.001			0.001	Pass	
4-Chlorotoluene	mg/L	< 0.001			0.001	Pass	
4-Methyl-2-pentanone (MIBK)	mg/L	< 0.001			0.001	Pass	
Allyl chloride	mg/L	< 0.001			0.001	Pass	
Bromobenzene	mg/L	< 0.001			0.001	Pass	
Bromochloromethane	mg/L	< 0.001			0.001	Pass	
Bromodichloromethane	mg/L	< 0.001			0.001	Pass	
Bromoform	mg/L	< 0.001			0.001	Pass	
Bromomethane	mg/L	< 0.001			0.001	Pass	
Carbon disulfide	mg/L	< 0.001			0.001	Pass	
Carbon Tetrachloride	mg/L	< 0.001			0.001	Pass	
Chlorobenzene	mg/L	< 0.001			0.001	Pass	
Chloroethane	mg/L	< 0.001			0.001	Pass	
Chloroform	mg/L	< 0.005			0.005	Pass	
Chloromethane	mg/L	< 0.001			0.001	Pass	
cis-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
cis-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dibromochloromethane	mg/L	< 0.001			0.001	Pass	
Dibromomethane	mg/L	< 0.001			0.001	Pass	
Dichlorodifluoromethane	mg/L	< 0.001			0.001	Pass	
Iodomethane	mg/L	< 0.001			0.001	Pass	
Isopropyl benzene (Cumene)	mg/L	< 0.001			0.001	Pass	
Methylene Chloride	mg/L	< 0.001			0.001	Pass	
Styrene	mg/L	< 0.001			0.001	Pass	
Tetrachloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Trichloroethene	mg/L	< 0.001			0.001	Pass	
Trichlorofluoromethane	mg/L	< 0.001			0.001	Pass	
Vinyl chloride	mg/L	< 0.001			0.001	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.00005			0.00005	Pass	
Acenaphthylene	mg/L	< 0.00005			0.00005	Pass	
Anthracene	mg/L	< 0.00005			0.00005	Pass	
Benz(a)anthracene	mg/L	< 0.00005			0.00005	Pass	
Benzo(a)pyrene	mg/L	< 0.00001			0.00001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.00005			0.00005	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.00005			0.00005	Pass	
Benzo(k)fluoranthene	mg/L	< 0.00005			0.00005	Pass	
Chrysene	mg/L	< 0.00005			0.00005	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.00005			0.00005	Pass	
Fluoranthene	mg/L	< 0.00005			0.00005	Pass	
Fluorene	mg/L	< 0.00005			0.00005	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.00005			0.00005	Pass	
Naphthalene	mg/L	< 0.00005			0.00005	Pass	
Phenanthrene	mg/L	< 0.00005			0.00005	Pass	
Pyrene	mg/L	< 0.00005			0.00005	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/L	< 0.001			0.001	Pass	
4.4'-DDD	mg/L	< 0.0001			0.0001	Pass	
4.4'-DDE	mg/L	< 0.0001			0.0001	Pass	
4.4'-DDT	mg/L	< 0.0001			0.0001	Pass	
a-BHC	mg/L	< 0.0001			0.0001	Pass	
Aldrin	mg/L	< 0.0001			0.0001	Pass	
b-BHC	mg/L	< 0.0001			0.0001	Pass	
d-BHC	mg/L	< 0.0001			0.0001	Pass	
Dieldrin	mg/L	< 0.0001			0.0001	Pass	
Endosulfan I	mg/L	< 0.0001			0.0001	Pass	
Endosulfan II	mg/L	< 0.0001			0.0001	Pass	
Endosulfan sulphate	mg/L	< 0.0001			0.0001	Pass	
Endrin	mg/L	< 0.0001			0.0001	Pass	
Endrin aldehyde	mg/L	< 0.0001			0.0001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin ketone	mg/L	< 0.0001			0.0001	Pass	
g-BHC (Lindane)	mg/L	< 0.0001			0.0001	Pass	
Heptachlor	mg/L	< 0.0001			0.0001	Pass	
Heptachlor epoxide	mg/L	< 0.0001			0.0001	Pass	
Hexachlorobenzene	mg/L	< 0.0001			0.0001	Pass	
Methoxychlor	mg/L	< 0.0001			0.0001	Pass	
Toxaphene	mg/L	< 0.01			0.01	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/L	< 0.001			0.001	Pass	
Aroclor-1221	mg/L	< 0.001			0.001	Pass	
Aroclor-1232	mg/L	< 0.001			0.001	Pass	
Aroclor-1242	mg/L	< 0.001			0.001	Pass	
Aroclor-1248	mg/L	< 0.001			0.001	Pass	
Aroclor-1254	mg/L	< 0.001			0.001	Pass	
Aroclor-1260	mg/L	< 0.001			0.001	Pass	
Total PCB*	mg/L	<0.001			0.001	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/L	< 0.003			0.003	Pass	
2.4-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
2.4.5-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2.4.6-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2.6-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
4-Chloro-3-methylphenol	mg/L	< 0.01			0.01	Pass	
Pentachlorophenol	mg/L	< 0.01			0.01	Pass	
Tetrachlorophenols - Total	mg/L	< 0.03			0.03	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/L	< 0.1			0.1	Pass	
2-Methyl-4.6-dinitrophenol	mg/L	< 0.03			0.03	Pass	
2-Methylphenol (o-Cresol)	mg/L	< 0.003			0.003	Pass	
2-Nitrophenol	mg/L	< 0.01			0.01	Pass	
2.4-Dimethylphenol	mg/L	< 0.003			0.003	Pass	
2.4-Dinitrophenol	mg/L	< 0.03			0.03	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/L	< 0.006			0.006	Pass	
4-Nitrophenol	mg/L	< 0.03			0.03	Pass	
Dinoseb	mg/L	< 0.1			0.1	Pass	
Phenol	mg/L	< 0.003			0.003	Pass	
Method Blank							
Heavy Metals							
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Methyl-tert-Butyl Ether	%	92			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	106			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C10-C14	%	113			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	98			70-130	Pass	
Toluene	%	109			70-130	Pass	
Ethylbenzene	%	112			70-130	Pass	
m&p-Xylenes	%	128			70-130	Pass	
Xylenes - Total	%	125			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	116			70-130	Pass	
1.1.1-Trichloroethane	%	125			70-130	Pass	
1.2-Dichlorobenzene	%	122			70-130	Pass	
1.2-Dichloroethane	%	113			70-130	Pass	
Trichloroethene	%	109			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	107			70-130	Pass	
TRH C6-C10	%	94			70-130	Pass	
TRH >C10-C16	%	102			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	102			70-130	Pass	
Acenaphthylene	%	109			70-130	Pass	
Anthracene	%	106			70-130	Pass	
Benz(a)anthracene	%	107			70-130	Pass	
Benzo(a)pyrene	%	112			70-130	Pass	
Benzo(b&j)fluoranthene	%	98			70-130	Pass	
Benzo(g.h.i)perylene	%	116			70-130	Pass	
Benzo(k)fluoranthene	%	114			70-130	Pass	
Chrysene	%	110			70-130	Pass	
Dibenz(a.h)anthracene	%	80			70-130	Pass	
Fluoranthene	%	111			70-130	Pass	
Fluorene	%	113			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	103			70-130	Pass	
Naphthalene	%	102			70-130	Pass	
Phenanthrene	%	111			70-130	Pass	
Pyrene	%	107			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
4.4'-DDD	%	114			70-130	Pass	
4.4'-DDE	%	113			70-130	Pass	
4.4'-DDT	%	98			70-130	Pass	
a-BHC	%	120			70-130	Pass	
Aldrin	%	108			70-130	Pass	
b-BHC	%	109			70-130	Pass	
d-BHC	%	113			70-130	Pass	
Dieldrin	%	115			70-130	Pass	
Endosulfan I	%	101			70-130	Pass	
Endosulfan II	%	96			70-130	Pass	
Endosulfan sulphate	%	105			70-130	Pass	
Endrin	%	111			70-130	Pass	
Endrin aldehyde	%	103			70-130	Pass	
Endrin ketone	%	107			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
g-BHC (Lindane)	%	109			70-130	Pass	
Heptachlor	%	111			70-130	Pass	
Heptachlor epoxide	%	115			70-130	Pass	
Hexachlorobenzene	%	126			70-130	Pass	
Methoxychlor	%	97			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	111			30-130	Pass	
2.4-Dichlorophenol	%	108			30-130	Pass	
2.4.5-Trichlorophenol	%	94			30-130	Pass	
2.4.6-Trichlorophenol	%	93			30-130	Pass	
2.6-Dichlorophenol	%	111			30-130	Pass	
4-Chloro-3-methylphenol	%	95			30-130	Pass	
Pentachlorophenol	%	85			30-130	Pass	
Tetrachlorophenols - Total	%	122			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	52			30-130	Pass	
2-Methyl-4.6-dinitrophenol	%	92			30-130	Pass	
2-Methylphenol (o-Cresol)	%	96			30-130	Pass	
2-Nitrophenol	%	127			30-130	Pass	
2.4-Dimethylphenol	%	95			30-130	Pass	
2.4-Dinitrophenol	%	36			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	89			30-130	Pass	
4-Nitrophenol	%	64			30-130	Pass	
Dinoseb	%	93			30-130	Pass	
Phenol	%	71			30-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic (filtered)	%	100			80-120	Pass	
Cadmium (filtered)	%	102			80-120	Pass	
Chromium (filtered)	%	106			80-120	Pass	
Copper (filtered)	%	100			80-120	Pass	
Lead (filtered)	%	103			80-120	Pass	
Mercury (filtered)	%	100			70-130	Pass	
Nickel (filtered)	%	100			80-120	Pass	
Zinc (filtered)	%	103			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	M17-Au16625	NCP	%	113			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	M17-Au16625	NCP	%	123			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	M17-Au19657	NCP	%	117			70-130	Pass	
4.4'-DDE	M17-Au19657	NCP	%	112			70-130	Pass	
4.4'-DDT	M17-Au19657	NCP	%	89			70-130	Pass	
a-BHC	M17-Au19657	NCP	%	109			70-130	Pass	
Aldrin	M17-Au19657	NCP	%	110			70-130	Pass	
b-BHC	M17-Au19657	NCP	%	128			70-130	Pass	
d-BHC	M17-Au19657	NCP	%	109			70-130	Pass	
Dieldrin	M17-Au19657	NCP	%	103			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan I	M17-Au19657	NCP	%	86			70-130	Pass	
Endosulfan II	M17-Au19657	NCP	%	97			70-130	Pass	
Endosulfan sulphate	M17-Au19657	NCP	%	121			70-130	Pass	
Endrin	M17-Au19657	NCP	%	121			70-130	Pass	
Endrin aldehyde	M17-Au19657	NCP	%	114			70-130	Pass	
Endrin ketone	M17-Au19657	NCP	%	121			70-130	Pass	
g-BHC (Lindane)	M17-Au19657	NCP	%	107			70-130	Pass	
Heptachlor	M17-Au19657	NCP	%	103			70-130	Pass	
Heptachlor epoxide	M17-Au19657	NCP	%	102			70-130	Pass	
Hexachlorobenzene	M17-Au19657	NCP	%	116			70-130	Pass	
Methoxychlor	M17-Au19657	NCP	%	80			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	M17-Au18763	NCP	%	112			30-130	Pass	
2.4-Dichlorophenol	M17-Au18763	NCP	%	94			30-130	Pass	
2.4.5-Trichlorophenol	M17-Au18763	NCP	%	121			30-130	Pass	
2.4.6-Trichlorophenol	M17-Au18763	NCP	%	103			30-130	Pass	
2.6-Dichlorophenol	M17-Au18763	NCP	%	106			30-130	Pass	
4-Chloro-3-methylphenol	M17-Au18763	NCP	%	114			30-130	Pass	
Pentachlorophenol	M17-Au18763	NCP	%	89			30-130	Pass	
Tetrachlorophenols - Total	M17-Au18763	NCP	%	83			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Methyl-4.6-dinitrophenol	M17-Au18763	NCP	%	47			30-130	Pass	
2-Methylphenol (o-Cresol)	M17-Au18763	NCP	%	84			30-130	Pass	
2-Nitrophenol	M17-Au18763	NCP	%	93			30-130	Pass	
2.4-Dimethylphenol	M17-Au18763	NCP	%	113			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M17-Au18763	NCP	%	99			30-130	Pass	
Phenol	M17-Au18763	NCP	%	78			30-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic (filtered)	S17-Au15357	NCP	%	95			70-130	Pass	
Cadmium (filtered)	S17-Au15357	NCP	%	89			70-130	Pass	
Chromium (filtered)	S17-Au15357	NCP	%	94			70-130	Pass	
Copper (filtered)	S17-Au15357	NCP	%	87			70-130	Pass	
Lead (filtered)	S17-Au15357	NCP	%	89			70-130	Pass	
Mercury (filtered)	S17-Au15357	NCP	%	77			70-130	Pass	
Nickel (filtered)	S17-Au15357	NCP	%	88			70-130	Pass	
Zinc (filtered)	S17-Au15357	NCP	%	89			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S17-Au18880	NCP	%	77			70-130	Pass	
Toluene	S17-Au18880	NCP	%	78			70-130	Pass	
Ethylbenzene	S17-Au18880	NCP	%	105			70-130	Pass	
m&p-Xylenes	S17-Au18880	NCP	%	114			70-130	Pass	
o-Xylene	S17-Au18880	NCP	%	115			70-130	Pass	
Xylenes - Total	S17-Au18880	NCP	%	114			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
				Result 1	Result 2	RPD			
Methyl-tert-Butyl Ether	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M17-Au15447	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	M17-Au15430	NCP	mg/L	1.9	2.1	10	30%	Pass	
TRH C15-C28	M17-Au15430	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	M17-Au15430	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1-Dichloroethene	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.1-Trichloroethane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.2-Trichloroethane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dibromoethane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dichlorobenzene	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dichloroethane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dichloropropane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2.3-Trichloropropane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2.4-Trimethylbenzene	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.3-Dichlorobenzene	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.3-Dichloropropane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.3.5-Trimethylbenzene	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.4-Dichlorobenzene	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
2-Butanone (MEK)	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
2-Propanone (Acetone)	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
4-Chlorotoluene	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Allyl chloride	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromobenzene	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromochloromethane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromodichloromethane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromoform	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromomethane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Carbon disulfide	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Carbon Tetrachloride	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chlorobenzene	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chloroethane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chloroform	M17-Au15447	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chloromethane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
cis-1.2-Dichloroethene	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
cis-1.3-Dichloropropene	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibromochloromethane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibromomethane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dichlorodifluoromethane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Iodomethane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Isopropyl benzene (Cumene)	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Methylene Chloride	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Styrene	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Tetrachloroethene	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
trans-1.2-Dichloroethene	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
trans-1.3-Dichloropropene	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Trichloroethene	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Trichlorofluoromethane	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Vinyl chloride	M17-Au15447	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	M17-Au15447	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	M17-Au15447	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH >C10-C16	M17-Au15430	NCP	mg/L	2.2	2.3	6.0	30%	Pass	
TRH >C16-C34	M17-Au15430	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	M17-Au15430	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S17-Au15358	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
4.4'-DDD	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
4.4'-DDE	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
4.4'-DDT	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
a-BHC	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Aldrin	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
b-BHC	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
d-BHC	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Dieldrin	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endosulfan I	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endosulfan II	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endosulfan sulphate	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endrin	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endrin aldehyde	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endrin ketone	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
g-BHC (Lindane)	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Heptachlor	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Heptachlor epoxide	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Hexachlorobenzene	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Methoxychlor	S17-Au15358	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Toxaphene	S17-Au15358	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S17-Au15358	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Aroclor-1221	S17-Au15358	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Aroclor-1232	S17-Au15358	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Aroclor-1242	S17-Au15358	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Aroclor-1248	S17-Au15358	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Aroclor-1254	S17-Au15358	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Aroclor-1260	S17-Au15358	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Total PCB*	S17-Au15358	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	M17-Au18762	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4-Dichlorophenol	M17-Au18762	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4.5-Trichlorophenol	M17-Au18762	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.4.6-Trichlorophenol	M17-Au18762	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.6-Dichlorophenol	M17-Au18762	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
4-Chloro-3-methylphenol	M17-Au18762	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Pentachlorophenol	M17-Au18762	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Tetrachlorophenols - Total	M17-Au18762	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	M17-Au18762	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	M17-Au18762	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
2-Methylphenol (o-Cresol)	M17-Au18762	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2-Nitrophenol	M17-Au18762	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2.4-Dimethylphenol	M17-Au18762	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4-Dinitrophenol	M17-Au18762	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	M17-Au18762	NCP	mg/L	< 0.006	< 0.006	<1	30%	Pass	
4-Nitrophenol	M17-Au18762	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
Dinoseb	M17-Au18762	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Phenol	M17-Au18762	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S17-Au15357	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium (filtered)	S17-Au15357	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium (filtered)	S17-Au15357	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S17-Au15357	NCP	mg/L	0.008	0.008	1.0	30%	Pass	
Lead (filtered)	S17-Au15357	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury (filtered)	S17-Au15357	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	S17-Au15357	NCP	mg/L	0.002	0.002	1.0	30%	Pass	
Zinc (filtered)	S17-Au15357	NCP	mg/L	0.017	0.018	3.0	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S17-Au16950	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S17-Au16950	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S17-Au16950	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S17-Au16950	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S17-Au16950	NCP	mg/L	0.001	0.001	11	30%	Pass	
Xylenes - Total	S17-Au16950	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S17-Au15367	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	S17-Au15367	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	S17-Au15367	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	S17-Au15367	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	S17-Au15367	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(b&j)fluoranthene	S17-Au15367	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	S17-Au15367	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	S17-Au15367	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	S17-Au15367	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	S17-Au15367	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	S17-Au15367	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	S17-Au15367	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S17-Au15367	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	S17-Au15367	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	S17-Au15367	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	S17-Au15367	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised By

Nibha Vaidya	Analytical Services Manager
Alex Petridis	Senior Analyst-Metal (VIC)
Alex Petridis	Senior Analyst-Organic (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name: **JBS & G Australia (NSW) P/L**

Contact name: Mitch Hodgins
Project name: SUMMERHILL
Project ID: 52961
COC number: Not provided
Turn around time: 5 Day
Date/Time received: Aug 11, 2017 5:00 PM
Eurofins | mgt reference: **558341**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ Sample Temperature of a random sample selected from the batch as recorded by Eurofins | mgt Sample Receipt : 11 degrees Celsius.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☑ Sample containers for volatile analysis received with zero headspace.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

QC20170811 forwarded to Envirolab.

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8400 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to Mitch Hodgins - mhodgins@jbsg.com.au.

010862

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 52961
PROJECT NAME: Summerhill
DATE NEEDED BY: Std TAT

LABORATORY BATCH NO.:
SAMPLERS: NWells
QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) .....Mhladuin2.....@jbsg.com.au; (3) .....NWells.....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TRH	VOCs	PAH (water)	PCB	OCP	Arsenic	MTBE	BTEX	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA
MW01	water	11.8		bottles + vials + ice		X	X	X	X	X	X	X	X			
MW02						X	X	X	X	X	X	X	X			
MW03						X	X	X	X	X	X	X	X			
MW04						X	X	X	X	X	X	X	X			
MW05						X	X	X	X	X	X	X	X			
QA20170811						X	X	X	X	X	X	X	X			
QC 20170811						please send to Envirolab under seperate COC										
TB 20170811				vials + ice										X		
TS 20170811														X		

558341

NOTES:

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: NWells DATE: 11.8.17	CONSIGNMENT NOTE NO.	NAME: Rupan DATE: 11/08 17:00	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF:	COOLER TEMP 11.0 deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

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

010863

CHAIN OF CUSTODY

JBS&G

Enviolab

PROJECT NO.: 52961
PROJECT NAME: Summerhill
DATE NEEDED BY: Std TAT

LABORATORY BATCH NO.:
SAMPLERS: NWells
QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) .....M.Hodgins.....@jbsg.com.au; (3) .....NWells.....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TRH	VOC	PAH (Coated)	PCB	OCP	Phenols	MTBE	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
QC20170811	Water	11/8		bottles + ice		X	X	X	X	X	X	X	X			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: NWells DATE: 11/8/17	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE:	
		OF:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

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

IMSO FormsO13 – Chain of Custody - Generic

Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

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

Attention:	Mitch Hodgins
Report	557530-AID
Project Name	SUMMER HILL
Project ID	52961
Received Date	Aug 04, 2017
Date Reported	Aug 14, 2017

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. *NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.*
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.*
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination.The resultant material is then further examined in accordance with AS 4964 - 2004. *NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting	The performance limitation of the AS4964 method is around 0.1 g/kg (0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis where required, this is considered to be at the nominal reporting limit of 0.01 % (w / w).The examination of large sample sizes(500 mL is recommended) may improve the likelihood of identifying ACM in the > 2mm fraction.The NEPM screening level of 0.001 % (w / w) asbestos in soil for FA(friable asbestos) and AF(asbestos fines) then applies where they are able to be quantified by gravimetric procedures.This quantitative screening is not generally applicable to FF(free fibres) and results of Trace Analysis are referred. *NOTE: NATA News March 2014, p.7, states in relation to AS4964: "This is a qualitative method with a nominal reporting limit of 0.01%" and that currently in Australia "there is no validated method available for the quantification of asbestos". Accordingly, NATA Accreditation does not cover the performance of this service (indicated with an asterisk).* *This report is consistent with the analytical procedures and reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended) and the Western Australia Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia, 2009, including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil, June 2011.*

Project Name SUMMER HILL
Project ID 52961
Date Sampled Aug 03, 2017 to Aug 04, 2017
Report 557530-AID

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
BH01_AQ_0.3-0.8	17-Au08461	Aug 03, 2017	Approximate Sample 615g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
BH02_AQ_0.6-0.7	17-Au08462	Aug 03, 2017	Approximate Sample 556g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
BH03_AQ_0.3-0.5	17-Au08463	Aug 03, 2017	Approximate Sample 576g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
BH04_AQ_0.3-1.4	17-Au08464	Aug 03, 2017	Approximate Sample 662g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
BH05_AQ_0.25-0.4	17-Au08465	Aug 03, 2017	Approximate Sample 731g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
BH05_AQ_0.4-0.8	17-Au08466	Aug 03, 2017	Approximate Sample 488g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
BH06_AQ_0.3-0.6	17-Au08467	Aug 04, 2017	Approximate Sample 607g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
BH07_AQ_0.3-0.5	17-Au08468	Aug 04, 2017	Approximate Sample 600g Sample consisted of: Brown coarse grain soil and rocks	AF: Chrysotile asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0013g* Estimated asbestos content in AF = 0.0013g* Total estimated asbestos concentration in AF = 0.00022% w/w* No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected.[M11]
BH08_AQ_0.4-0.6	17-Au08469	Aug 04, 2017	Approximate Sample 618g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
BH09_AQ_0.2-0.3	17-Au08470	Aug 04, 2017	Approximate Sample 594g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

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

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Aug 07, 2017	Indefinite

eurofins | mgt

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Site # 1254 & 14271

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Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
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Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

Project Name: SUMMER HILL
Project ID: 52961

Order No.:
Report #: 557530
Phone: 02 8245 0300
Fax:

Received: Aug 4, 2017 5:29 PM
Due: Aug 11, 2017
Priority: 5 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - WA guidelines	HOLD
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217						X	X
Brisbane Laboratory - NATA Site # 20794							
Perth Laboratory - NATA Site # 23736							
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	BH01_AQ_0.3 -0.8	Aug 03, 2017		Soil	S17-Au08461	X	
2	BH02_AQ_0.6 -0.7	Aug 03, 2017		Soil	S17-Au08462	X	
3	BH03_AQ_0.3 -0.5	Aug 03, 2017		Soil	S17-Au08463	X	
4	BH04_AQ_0.3 -1.4	Aug 03, 2017		Soil	S17-Au08464	X	
5	BH05_AQ_0.2 5-0.4	Aug 03, 2017		Soil	S17-Au08465	X	
6	BH05_AQ_0.4	Aug 03, 2017		Soil	S17-Au08466	X	

eurofins | mgt

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NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

Project Name: SUMMER HILL
Project ID: 52961

Order No.:
Report #: 557530
Phone: 02 8245 0300
Fax:

Received: Aug 4, 2017 5:29 PM
Due: Aug 11, 2017
Priority: 5 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - WA guidelines	HOLD
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217						X	X
Brisbane Laboratory - NATA Site # 20794							
Perth Laboratory - NATA Site # 23736							
	-0.8						
7	BH06_AQ_0.3 -0.6	Aug 04, 2017		Soil	S17-Au08467	X	
8	BH07_AQ_0.3 -0.5	Aug 04, 2017		Soil	S17-Au08468	X	
9	BH08_AQ_0.4 -0.6	Aug 04, 2017		Soil	S17-Au08469	X	
10	BH09_AQ_0.2 -0.3	Aug 04, 2017		Soil	S17-Au08470	X	
11	BH01_AQ_0.1 -0.3	Aug 03, 2017		Soil	S17-Au08471		X
12	BH01_AQ_0.9 -1.0	Aug 03, 2017		Soil	S17-Au08472		X
13	BH02_AQ_0.1	Aug 03, 2017		Soil	S17-Au08473		X

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Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217						X	X
Brisbane Laboratory - NATA Site # 20794							
Perth Laboratory - NATA Site # 23736							
	5-0.3						
14	BH02_AQ_0.4 -0.5	Aug 03, 2017		Soil	S17-Au08474		X
15	BH02_AQ_0.7 -0.8	Aug 03, 2017		Soil	S17-Au08475		X
16	BH02_AQ_0.9 -1.0	Aug 03, 2017		Soil	S17-Au08476		X
17	BH03_AQ_0.1 5-0.3	Aug 03, 2017		Soil	S17-Au08477		X
18	BH03_AQ_0.5 -0.8	Aug 03, 2017		Soil	S17-Au08478		X
19	BH03_AQ_0.8 -1.0	Aug 03, 2017		Soil	S17-Au08479		X
20	BH04_AQ_0.1	Aug 03, 2017		Soil	S17-Au08480		X

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Contact Name: Mitch Hodgins

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - WA guidelines	HOLD
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217						X	X
Brisbane Laboratory - NATA Site # 20794							
Perth Laboratory - NATA Site # 23736							
	5-0.3						
21	BH04_AQ_1.4 -1.6	Aug 03, 2017		Soil	S17-Au08481		X
22	BH05_AQ_0.8 -1.0	Aug 03, 2017		Soil	S17-Au08482		X
23	QA20170803	Aug 03, 2017		Soil	S17-Au08483		X
24	QC20170803	Aug 03, 2017		Soil	S17-Au08484		X
25	BH06_AQ_0.1 5-0.3	Aug 04, 2017		Soil	S17-Au08485		X
26	BH06_AQ_0.6 -0.8	Aug 04, 2017		Soil	S17-Au08486		X
27	BH06_AQ_0.8 -0.9	Aug 04, 2017		Soil	S17-Au08487		X
28	BH06_AQ_0.9	Aug 04, 2017		Soil	S17-Au08488		X

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Priority: 5 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - WA guidelines	HOLD
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217						X	X
Brisbane Laboratory - NATA Site # 20794							
Perth Laboratory - NATA Site # 23736							
	-1.0						
29	BH07_AQ_0.1 5-0.3	Aug 04, 2017		Soil	S17-Au08489		X
30	BH07_AQ_0.5 -0.7	Aug 04, 2017		Soil	S17-Au08490		X
31	BH08_AQ_0.1 5-0.3	Aug 04, 2017		Soil	S17-Au08491		X
32	BH08_AQ_0.6 -0.9	Aug 04, 2017		Soil	S17-Au08492		X
Test Counts						10	22

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. This report replaces any interim results previously issued.

Holding Times

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

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

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

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

Units

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

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substatntial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Au08466: Sample received was less than the nominal 500mL as recommended in Section 4.10 of the NEPM Schedule B1 - Guideline on Investigation Levels for Soil and Groundwater.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable
M11	NATA accreditation does not cover the performance of this service.

Asbestos Counter/Identifier:

Sayeed Abu	Senior Analyst-Asbestos (NSW)

Authorised by:

Laxman Dias	Senior Analyst-Asbestos (NSW)

Glenn Jackson
National Operations Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

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

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ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name: **JBS & G Australia (NSW) P/L**

Contact name: Mitch Hodgins
Project name: SUMMER HILL
Project ID: 52961
COC number: Not provided
Turn around time: 5 Day
Date/Time received: Aug 4, 2017 5:29 PM
Eurofins | mgt reference: **557530**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ Sample Temperature of a random sample selected from the batch as recorded by Eurofins | mgt Sample Receipt : 20 degrees Celsius.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☒ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8400 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to Mitch Hodgins - mhodgins@jbsg.com.au.

010848

CHAIN OF CUSTODY

JBS&G

Original A4b page 1

PROJECT NO.: 52961	LABORATORY BATCH NO.:
PROJECT NAME: Summerhill	SAMPLERS: NWells
DATE NEEDED BY: Std TAT	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) M.Hodgins@jbsg.com.au; (3) NWells@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL

557530

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Asbestos HOLD	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES
BH01 - 0.1-0.3 (AA)	Soil	3.8.17		bag		X			
-0.3-0.8								X	
-0.9-1.0						X			
BH02 - 0.15-0.3						X			
-0.4-0.5						X			
-0.6-0.7								X	
-0.7-0.8						X			
-0.9-1.0						X			
BH03 - 0.15-0.3 (AA)						X			
-0.3-0.5								X	
-0.5-0.8						X			
-0.8-1.0						X			
BH04 - 0.15-0.3 (AA)						X			
-0.3-1.4								X	
-1.4-1.6						X			
BH05 - 0.25-0.4 (AA)						X		X	
0.4-0.8						X		X	
-0.8-1.0						X			
QA120170803						X			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: Rupan	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G NWells 4/8/17	TRANSPORT CO.	DATE: 17:29 04/08	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

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

010849

CHAIN OF CUSTODY

Eurofins Melb page 2 -

PROJECT NO.: 52961	LABORATORY BATCH NO.:
PROJECT NAME: Summerhill	SAMPLERS: NWells
DATE NEEDED BY: Std TAT	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

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

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	NB - HOLD	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
QC12017080 3	Soil	3.8.17		bag		X			
BH06 0.15-0.3 (DA)		4.8.17				X			
-0.3-0.6					X			X	
-0.6-0.8						X			
-0.8-0.9						X			
-0.9-1.2						X			
BH07- 0.15-0.3 (DA)						X			
-0.3-0.5					X			X	
-0.5-0.7						X			
BH08 -0.15-0.4 (DA)						X			
-0.4-0.6					X				
-0.6-0.9						X			
BH09- 0.2-0.3					X			X	

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: Rupam	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G NWells 4/8/17	TRANSPORT CO.	DATE: 17:29 04/08	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

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

IMSO Forms013 – Chain of Custody - Generic

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Certificate of Analysis

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

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Mitch Hodgins**

Report **557460-W**
Project name SUMMER HILL
Project ID 52961
Received Date Aug 04, 2017

Client Sample ID			**RB20170804**	**TB20170804**	**TS20170804**
Sample Matrix			**Water**	**Water**	**Water**
Eurofins | mgt Sample No.			**S17-Au07969**	**S17-Au07970**	**S17-Au07971**
Date Sampled			**Aug 04, 2017**	**Aug 04, 2017**	**Aug 04, 2017**
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					
TRH C6-C9	0.02	mg/L	< 0.02	-	-
TRH C10-C14	0.05	mg/L	< 0.05	-	-
TRH C15-C28	0.1	mg/L	< 0.1	-	-
TRH C29-C36	0.1	mg/L	< 0.1	-	-
TRH C10-36 (Total)	0.1	mg/L	< 0.1	-	-
BTEX					
Benzene	0.001	mg/L	-	< 0.001	91%
Toluene	0.001	mg/L	-	< 0.001	84%
Ethylbenzene	0.001	mg/L	-	< 0.001	80%
m&p-Xylenes	0.002	mg/L	-	< 0.002	70%
o-Xylene	0.001	mg/L	-	< 0.001	82%
Xylenes - Total	0.003	mg/L	-	< 0.003	74%
4-Bromofluorobenzene (surr.)	1	%	-	86	95
Volatile Organics					
1.1-Dichloroethane	0.001	mg/L	< 0.001	-	-
1.1-Dichloroethene	0.001	mg/L	< 0.001	-	-
1.1.1-Trichloroethane	0.001	mg/L	< 0.001	-	-
1.1.1.2-Tetrachloroethane	0.001	mg/L	< 0.001	-	-
1.1.2-Trichloroethane	0.001	mg/L	< 0.001	-	-
1.1.2.2-Tetrachloroethane	0.001	mg/L	< 0.001	-	-
1.2-Dibromoethane	0.001	mg/L	< 0.001	-	-
1.2-Dichlorobenzene	0.001	mg/L	< 0.001	-	-
1.2-Dichloroethane	0.001	mg/L	< 0.001	-	-
1.2-Dichloropropane	0.001	mg/L	< 0.001	-	-
1.2.3-Trichloropropane	0.001	mg/L	< 0.001	-	-
1.2.4-Trimethylbenzene	0.001	mg/L	< 0.001	-	-
1.3-Dichlorobenzene	0.001	mg/L	< 0.001	-	-
1.3-Dichloropropane	0.001	mg/L	< 0.001	-	-
1.3.5-Trimethylbenzene	0.001	mg/L	< 0.001	-	-
1.4-Dichlorobenzene	0.001	mg/L	< 0.001	-	-
2-Butanone (MEK)	0.001	mg/L	< 0.001	-	-
2-Propanone (Acetone)	0.001	mg/L	< 0.001	-	-
4-Chlorotoluene	0.001	mg/L	< 0.001	-	-
4-Methyl-2-pentanone (MIBK)	0.001	mg/L	< 0.001	-	-
Allyl chloride	0.001	mg/L	< 0.001	-	-

Client Sample ID			RB20170804	TB20170804	TS20170804
Sample Matrix			Water	Water	Water
Eurofins | mgt Sample No.			S17-Au07969	S17-Au07970	S17-Au07971
Date Sampled			Aug 04, 2017	Aug 04, 2017	Aug 04, 2017
Test/Reference	LOR	Unit			
Volatile Organics					
Benzene	0.001	mg/L	< 0.001	-	-
Bromobenzene	0.001	mg/L	< 0.001	-	-
Bromochloromethane	0.001	mg/L	< 0.001	-	-
Bromodichloromethane	0.001	mg/L	< 0.001	-	-
Bromoform	0.001	mg/L	< 0.001	-	-
Bromomethane	0.001	mg/L	< 0.001	-	-
Carbon disulfide	0.001	mg/L	< 0.001	-	-
Carbon Tetrachloride	0.001	mg/L	< 0.001	-	-
Chlorobenzene	0.001	mg/L	< 0.001	-	-
Chloroethane	0.001	mg/L	< 0.001	-	-
Chloroform	0.005	mg/L	< 0.005	-	-
Chloromethane	0.001	mg/L	< 0.001	-	-
cis-1.2-Dichloroethene	0.001	mg/L	< 0.001	-	-
cis-1.3-Dichloropropene	0.001	mg/L	< 0.001	-	-
Dibromochloromethane	0.001	mg/L	< 0.001	-	-
Dibromomethane	0.001	mg/L	< 0.001	-	-
Dichlorodifluoromethane	0.001	mg/L	< 0.001	-	-
Ethylbenzene	0.001	mg/L	< 0.001	-	-
Iodomethane	0.001	mg/L	< 0.001	-	-
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.001	-	-
m&p-Xylenes	0.002	mg/L	< 0.002	-	-
Methylene Chloride	0.001	mg/L	0.046	-	-
o-Xylene	0.001	mg/L	< 0.001	-	-
Styrene	0.001	mg/L	< 0.001	-	-
Tetrachloroethene	0.001	mg/L	< 0.001	-	-
Toluene	0.001	mg/L	< 0.001	-	-
trans-1.2-Dichloroethene	0.001	mg/L	< 0.001	-	-
trans-1.3-Dichloropropene	0.001	mg/L	< 0.001	-	-
Trichloroethene	0.001	mg/L	< 0.001	-	-
Trichlorofluoromethane	0.001	mg/L	< 0.001	-	-
Vinyl chloride	0.001	mg/L	< 0.001	-	-
Xylenes - Total	0.003	mg/L	< 0.003	-	-
4-Bromofluorobenzene (surr.)	1	%	64	-	-
Fluorobenzene (surr.)	1	%	72	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene[N02]	0.01	mg/L	< 0.01	-	-
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	-	-
TRH C6-C10	0.02	mg/L	< 0.02	-	-
TRH >C10-C16	0.05	mg/L	< 0.05	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	-	-
TRH >C16-C34	0.1	mg/L	< 0.1	-	-
TRH >C34-C40	0.1	mg/L	< 0.1	-	-
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	0.001	mg/L	< 0.001	-	-
Acenaphthylene	0.001	mg/L	< 0.001	-	-
Anthracene	0.001	mg/L	< 0.001	-	-
Benz(a)anthracene	0.001	mg/L	< 0.001	-	-
Benzo(a)pyrene	0.001	mg/L	< 0.001	-	-
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	-	-

Client Sample ID			RB20170804	TB20170804	TS20170804
Sample Matrix			Water	Water	Water
Eurofins | mgt Sample No.			S17-Au07969	S17-Au07970	S17-Au07971
Date Sampled			Aug 04, 2017	Aug 04, 2017	Aug 04, 2017
Test/Reference	LOR	Unit			
Polycyclic Aromatic Hydrocarbons					
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	-	-
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	-	-
Chrysene	0.001	mg/L	< 0.001	-	-
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	-	-
Fluoranthene	0.001	mg/L	< 0.001	-	-
Fluorene	0.001	mg/L	< 0.001	-	-
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	-	-
Naphthalene	0.001	mg/L	< 0.001	-	-
Phenanthrene	0.001	mg/L	< 0.001	-	-
Pyrene	0.001	mg/L	< 0.001	-	-
Total PAH*	0.001	mg/L	< 0.001	-	-
2-Fluorobiphenyl (surr.)	1	%	127	-	-
p-Terphenyl-d14 (surr.)	1	%	148	-	-
Organochlorine Pesticides					
Chlordanes - Total	0.001	mg/L	< 0.001	-	-
4.4'-DDD	0.0001	mg/L	< 0.0001	-	-
4.4'-DDE	0.0001	mg/L	< 0.0001	-	-
4.4'-DDT	0.0001	mg/L	< 0.0001	-	-
a-BHC	0.0001	mg/L	< 0.0001	-	-
Aldrin	0.0001	mg/L	< 0.0001	-	-
b-BHC	0.0001	mg/L	< 0.0001	-	-
d-BHC	0.0001	mg/L	< 0.0001	-	-
Dieldrin	0.0001	mg/L	< 0.0001	-	-
Endosulfan I	0.0001	mg/L	< 0.0001	-	-
Endosulfan II	0.0001	mg/L	< 0.0001	-	-
Endosulfan sulphate	0.0001	mg/L	< 0.0001	-	-
Endrin	0.0001	mg/L	< 0.0001	-	-
Endrin aldehyde	0.0001	mg/L	< 0.0001	-	-
Endrin ketone	0.0001	mg/L	< 0.0001	-	-
g-BHC (Lindane)	0.0001	mg/L	< 0.0001	-	-
Heptachlor	0.0001	mg/L	< 0.0001	-	-
Heptachlor epoxide	0.0001	mg/L	< 0.0001	-	-
Hexachlorobenzene	0.0001	mg/L	< 0.0001	-	-
Methoxychlor	0.0001	mg/L	< 0.0001	-	-
Toxaphene	0.01	mg/L	< 0.01	-	-
Aldrin and Dieldrin (Total)*	0.0001	mg/L	< 0.0001	-	-
DDT + DDE + DDD (Total)*	0.0001	mg/L	< 0.0001	-	-
Dibutylchlorendate (surr.)	1	%	113	-	-
Tetrachloro-m-xylene (surr.)	1	%	104	-	-
Polychlorinated Biphenyls					
Aroclor-1016	0.001	mg/L	< 0.001	-	-
Aroclor-1221	0.001	mg/L	< 0.001	-	-
Aroclor-1232	0.001	mg/L	< 0.001	-	-
Aroclor-1242	0.001	mg/L	< 0.001	-	-
Aroclor-1248	0.001	mg/L	< 0.001	-	-
Aroclor-1254	0.001	mg/L	< 0.001	-	-
Aroclor-1260	0.001	mg/L	< 0.001	-	-
Total PCB*	0.001	mg/L	<0.001	-	-
Dibutylchlorendate (surr.)	1	%	113	-	-
Tetrachloro-m-xylene (surr.)	1	%	104	-	-

Client Sample ID			RB20170804	TB20170804	TS20170804
Sample Matrix			**Water**	**Water**	**Water**
Eurofins | mgt Sample No.			**S17-Au07969**	**S17-Au07970**	**S17-Au07971**
Date Sampled			**Aug 04, 2017**	**Aug 04, 2017**	**Aug 04, 2017**
Test/Reference	LOR	Unit			
Heavy Metals					
Arsenic	0.001	mg/L	< 0.001	-	-
Cadmium	0.0002	mg/L	< 0.0002	-	-
Chromium	0.001	mg/L	< 0.001	-	-
Copper	0.001	mg/L	< 0.001	-	-
Lead	0.001	mg/L	< 0.001	-	-
Mercury	0.0001	mg/L	< 0.0001	-	-
Nickel	0.001	mg/L	< 0.001	-	-
Zinc	0.005	mg/L	< 0.005	-	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Aug 11, 2017	7 Day
- Method: LTM-ORG-2010 TRH C6-C36			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 08, 2017	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 11, 2017	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
BTEX	Sydney	Aug 07, 2017	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Volatile Organics	Melbourne	Aug 08, 2017	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Polycyclic Aromatic Hydrocarbons	Melbourne	Aug 11, 2017	7 Day
- Method: LTM-ORG-2130 PAH and Phenols in Water by GCMS			
Organochlorine Pesticides	Melbourne	Aug 11, 2017	7 Day
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Melbourne	Aug 11, 2017	7 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Melbourne	Aug 08, 2017	28 Days
- Method: LTM-MET-3040 Metals in Waters by ICP-MS			

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Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
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Project Name: SUMMER HILL
Project ID: 52961

Order No.:
Report #: 557460
Phone: 02 8245 0300
Fax:

Received: Aug 4, 2017 5:29 PM
Due: Aug 14, 2017
Priority: 5 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail	CANCELLED	HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	Phenols (IWRG 621)	BTEX	Volatile Organics	Moisture Set	NEPM Screen for Soil Classification	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271		X	X	X	X	X	X		X	X	X	X
Sydney Laboratory - NATA Site # 18217	X							X				X
Brisbane Laboratory - NATA Site # 20794											X	
Perth Laboratory - NATA Site # 23736												
External Laboratory												

No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID											
1	BH01_0.4-0.5	Aug 03, 2017		Soil	S17-Au07955										X	X	
2	BH01_0.9-1.0	Aug 03, 2017		Soil	S17-Au07956			X	X	X	X	X		X	X		X
3	BH01_2.9-3.0	Aug 03, 2017		Soil	S17-Au07957			X			X			X	X		X
4	BH02_0.6-0.7	Aug 03, 2017		Soil	S17-Au07958			X			X				X		X
5	BH02_2.9-3.0	Aug 03, 2017		Soil	S17-Au07959			X			X	X		X	X		X
6	BH03_2.9-3.0	Aug 03, 2017		Soil	S17-Au07960			X			X	X		X	X		X
7	BH04_2.9-3.0	Aug 03, 2017		Soil	S17-Au07961			X			X	X		X	X		X
8	BH05_0.25-0.35	Aug 03, 2017		Soil	S17-Au07962			X	X	X	X	X		X	X		X
9	BH05_0.4-0.5	Aug 03, 2017		Soil	S17-Au07963			X	X	X	X	X		X	X		X

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Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X		X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							X				X
Brisbane Laboratory - NATA Site # 20794																X	
Perth Laboratory - NATA Site # 23736																	
10	BH06_0.8-0.9	Aug 04, 2017		Soil	S17-Au07964			X	X	X	X	X		X	X		X
11	BH07_0.5-0.6	Aug 04, 2017		Soil	S17-Au07965			X	X	X	X	X		X	X		X
12	BH08_0.4-0.5	Aug 04, 2017		Soil	S17-Au07966			X	X	X	X			X	X		X
13	BH09_0.2-0.3	Aug 04, 2017		Soil	S17-Au07967			X	X	X	X	X		X	X		X
14	QA20170804	Aug 04, 2017		Soil	S17-Au07968			X	X	X	X	X		X	X		X
15	RB20170804	Aug 04, 2017		Water	S17-Au07969			X	X	X	X			X			X
16	TB20170804	Aug 04, 2017		Water	S17-Au07970								X				
17	TS20170804	Aug 04, 2017		Water	S17-Au07971								X				
18	BH01_0.15-0.25	Aug 03, 2017		Soil	S17-Au07972		X										
19	BH01_1.4-1.5	Aug 03, 2017		Soil	S17-Au07973		X										
20	BH01_1.9-2.0	Aug 03, 2017		Soil	S17-Au07974		X										

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Sample Detail						CANCELLED	HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	Phenols (IWRG 621)	BTEX	Volatile Organics	Moisture Set	NEPM Screen for Soil Classification	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X		X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							X				X
Brisbane Laboratory - NATA Site # 20794																X	
Perth Laboratory - NATA Site # 23736																	
21	BH01_2.3-2.4	Aug 03, 2017		Soil	S17-Au07975		X										
22	BH01_3.9-4.0	Aug 03, 2017		Soil	S17-Au07976		X										
23	BH01_4.7-4.8	Aug 03, 2017		Soil	S17-Au07977		X										
24	BH01_5.9-6.0	Aug 03, 2017		Soil	S17-Au07978		X										
25	BH02_0.15-0.25	Aug 03, 2017		Soil	S17-Au07979		X										
26	BH02_0.4-0.5	Aug 03, 2017		Soil	S17-Au07980		X										
27	BH02_0.8-0.9	Aug 03, 2017		Soil	S17-Au07981		X										
28	BH02_0.9-1.0	Aug 03, 2017		Soil	S17-Au07982		X										
29	BH02_1.4-1.5	Aug 03, 2017		Soil	S17-Au07983		X										
30	BH02_1.9-2.0	Aug 03, 2017		Soil	S17-Au07984		X										
31	BH02_2.4-2.5	Aug 03, 2017		Soil	S17-Au07985		X										

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Sample Detail						CANCELLED	HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	Phenols (IWRG 621)	BTEX	Volatile Organics	Moisture Set	NEPM Screen for Soil Classification	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X		X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							X				X
Brisbane Laboratory - NATA Site # 20794																X	
Perth Laboratory - NATA Site # 23736																	
32	BH02_3.9-4.0	Aug 03, 2017		Soil	S17-Au07986		X										
33	BH02_4.9-5.0	Aug 03, 2017		Soil	S17-Au07987		X										
34	BH02_5.9-6.0	Aug 03, 2017		Soil	S17-Au07988		X										
35	BH03_0.15-0.25	Aug 03, 2017		Soil	S17-Au07989		X										
36	BH03_0.4-0.5	Aug 03, 2017		Soil	S17-Au07990		X										
37	BH03_0.6-0.7	Aug 03, 2017		Soil	S17-Au07991	X											
38	BH03_0.9-1.0	Aug 03, 2017		Soil	S17-Au07992		X										
39	BH03_1.4-1.5	Aug 03, 2017		Soil	S17-Au07993		X										
40	BH03_1.9-2.0	Aug 03, 2017		Soil	S17-Au07994		X										
41	BH03_2.4-2.5	Aug 03, 2017		Soil	S17-Au07995		X										
42	BH03_3.9-4.0	Aug 03, 2017		Soil	S17-Au07996		X										

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Sample Detail						CANCELLED	HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	Phenols (IWRG 621)	BTEX	Volatile Organics	Moisture Set	NEPM Screen for Soil Classification	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X		X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							X				X
Brisbane Laboratory - NATA Site # 20794																X	
Perth Laboratory - NATA Site # 23736																	
43	BH03_4.8-4.9	Aug 03, 2017		Soil	S17-Au07997		X										
44	BH04_0.15-0.25	Aug 03, 2017		Soil	S17-Au07998		X										
45	BH04_0.4-0.5	Aug 03, 2017		Soil	S17-Au07999		X										
46	BH04_0.9-1.0	Aug 03, 2017		Soil	S17-Au08000										X	X	
47	BH04_1.4-1.5	Aug 03, 2017		Soil	S17-Au08001		X										
48	BH04_1.9-2.0	Aug 03, 2017		Soil	S17-Au08002		X										
49	BH04_2.4-2.5	Aug 03, 2017		Soil	S17-Au08003		X										
50	BH04_3.9-4.0	Aug 03, 2017		Soil	S17-Au08004		X										
51	BH04_4.9-5.0	Aug 03, 2017		Soil	S17-Au08005		X										
52	BH04_5.9-6.0	Aug 03, 2017		Soil	S17-Au08006		X										
53	BH05_0.9-1.0	Aug 03, 2017		Soil	S17-Au08007		X										

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Sample Detail						CANCELLED	HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	Phenols (IWRG 621)	BTEX	Volatile Organics	Moisture Set	NEPM Screen for Soil Classification	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X		X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							X				X
Brisbane Laboratory - NATA Site # 20794																X	
Perth Laboratory - NATA Site # 23736																	
54	BH05_1.4-1.5	Aug 03, 2017		Soil	S17-Au08008		X										
55	BH05_1.9-2.0	Aug 03, 2017		Soil	S17-Au08009		X										
56	BH05_2.4-2.5	Aug 03, 2017		Soil	S17-Au08010		X										
57	BH05_2.9-3.0	Aug 03, 2017		Soil	S17-Au08011		X										
58	BH05_3.9-4.0	Aug 03, 2017		Soil	S17-Au08012		X										
59	BH05_4.9-5.0	Aug 03, 2017		Soil	S17-Au08013		X										
60	BH05_5.9-6.0	Aug 03, 2017		Soil	S17-Au08014		X										
61	QA20170803	Aug 03, 2017		Soil	S17-Au08015		X										
62	QC20170803	Aug 03, 2017		Soil	S17-Au08016		X										
63	BH06_0.15-0.25	Aug 04, 2017		Soil	S17-Au08017		X										
64	BH06_0.4-0.5	Aug 04, 2017		Soil	S17-Au08018		X										

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Project Name: SUMMER HILL
Project ID: 52961

Order No.:
Report #: 557460
Phone: 02 8245 0300
Fax:

Received: Aug 4, 2017 5:29 PM
Due: Aug 14, 2017
Priority: 5 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						CANCELLED	HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	Phenols (IWRG 621)	BTEX	Volatile Organics	Moisture Set	NEPM Screen for Soil Classification	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X		X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							X				X
Brisbane Laboratory - NATA Site # 20794																X	
Perth Laboratory - NATA Site # 23736																	
65	BH06_0.6-0.7	Aug 04, 2017		Soil	S17-Au08019		X										
66	BH06_0.9-1.0	Aug 04, 2017		Soil	S17-Au08020		X										
67	BH07_0.15-0.25	Aug 04, 2017		Soil	S17-Au08021		X										
68	BH07_0.3-0.4	Aug 04, 2017		Soil	S17-Au08022		X										
69	BH08_0.15-0.25	Aug 04, 2017		Soil	S17-Au08023		X										
70	BH08_0.6-0.7	Aug 04, 2017		Soil	S17-Au08024		X										
71	BH08_0.7-0.8	Aug 03, 2017		Soil	S17-Au08026		X										
Test Counts						1	52	14	9	9	14	10	2	13	15	2	14

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total	mg/L	< 0.003			0.003	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.1-Dichloroethene	mg/L	< 0.001			0.001	Pass	
1.1.1-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.1.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dibromoethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.2-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.3-Trichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.4-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.3.5-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.4-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
2-Butanone (MEK)	mg/L	< 0.001			0.001	Pass	
2-Propanone (Acetone)	mg/L	< 0.001			0.001	Pass	
4-Chlorotoluene	mg/L	< 0.001			0.001	Pass	
4-Methyl-2-pentanone (MIBK)	mg/L	< 0.001			0.001	Pass	
Allyl chloride	mg/L	< 0.001			0.001	Pass	
Bromobenzene	mg/L	< 0.001			0.001	Pass	
Bromochloromethane	mg/L	< 0.001			0.001	Pass	
Bromodichloromethane	mg/L	< 0.001			0.001	Pass	
Bromoform	mg/L	< 0.001			0.001	Pass	
Bromomethane	mg/L	< 0.001			0.001	Pass	
Carbon disulfide	mg/L	< 0.001			0.001	Pass	
Carbon Tetrachloride	mg/L	< 0.001			0.001	Pass	
Chlorobenzene	mg/L	< 0.001			0.001	Pass	
Chloroethane	mg/L	< 0.001			0.001	Pass	
Chloroform	mg/L	< 0.005			0.005	Pass	
Chloromethane	mg/L	< 0.001			0.001	Pass	
cis-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
cis-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Dibromochloromethane	mg/L	< 0.001			0.001	Pass	
Dibromomethane	mg/L	< 0.001			0.001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dichlorodifluoromethane	mg/L	< 0.001			0.001	Pass	
Iodomethane	mg/L	0.001			0.001	Pass	
Isopropyl benzene (Cumene)	mg/L	< 0.001			0.001	Pass	
Methylene Chloride	mg/L	< 0.001			0.001	Pass	
Styrene	mg/L	< 0.001			0.001	Pass	
Tetrachloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Trichloroethene	mg/L	< 0.001			0.001	Pass	
Trichlorofluoromethane	mg/L	< 0.001			0.001	Pass	
Vinyl chloride	mg/L	< 0.001			0.001	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/L	< 0.001			0.001	Pass	
4.4'-DDD	mg/L	< 0.0001			0.0001	Pass	
4.4'-DDE	mg/L	< 0.0001			0.0001	Pass	
4.4'-DDT	mg/L	< 0.0001			0.0001	Pass	
a-BHC	mg/L	< 0.0001			0.0001	Pass	
Aldrin	mg/L	< 0.0001			0.0001	Pass	
b-BHC	mg/L	< 0.0001			0.0001	Pass	
d-BHC	mg/L	< 0.0001			0.0001	Pass	
Dieldrin	mg/L	< 0.0001			0.0001	Pass	
Endosulfan I	mg/L	< 0.0001			0.0001	Pass	
Endosulfan II	mg/L	< 0.0001			0.0001	Pass	
Endosulfan sulphate	mg/L	< 0.0001			0.0001	Pass	
Endrin	mg/L	< 0.0001			0.0001	Pass	
Endrin aldehyde	mg/L	< 0.0001			0.0001	Pass	
Endrin ketone	mg/L	< 0.0001			0.0001	Pass	
g-BHC (Lindane)	mg/L	< 0.0001			0.0001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Heptachlor	mg/L	< 0.0001			0.0001	Pass	
Heptachlor epoxide	mg/L	< 0.0001			0.0001	Pass	
Hexachlorobenzene	mg/L	< 0.0001			0.0001	Pass	
Methoxychlor	mg/L	< 0.0001			0.0001	Pass	
Toxaphene	mg/L	< 0.01			0.01	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/L	< 0.001			0.001	Pass	
Aroclor-1221	mg/L	< 0.001			0.001	Pass	
Aroclor-1232	mg/L	< 0.001			0.001	Pass	
Aroclor-1242	mg/L	< 0.001			0.001	Pass	
Aroclor-1248	mg/L	< 0.001			0.001	Pass	
Aroclor-1254	mg/L	< 0.001			0.001	Pass	
Aroclor-1260	mg/L	< 0.001			0.001	Pass	
Total PCB*	mg/L	<0.0005			0.001	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	85			70-130	Pass	
TRH C10-C14	%	81			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	96			70-130	Pass	
Toluene	%	95			70-130	Pass	
Ethylbenzene	%	101			70-130	Pass	
m&p-Xylenes	%	90			70-130	Pass	
Xylenes - Total	%	91			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	105			70-130	Pass	
1.1.1-Trichloroethane	%	114			70-130	Pass	
1.2-Dichlorobenzene	%	110			70-130	Pass	
1.2-Dichloroethane	%	94			70-130	Pass	
Trichloroethene	%	93			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	106			70-130	Pass	
TRH C6-C10	%	76			70-130	Pass	
TRH >C10-C16	%	81			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	103			70-130	Pass	
Acenaphthylene	%	104			70-130	Pass	
Anthracene	%	88			70-130	Pass	
Benz(a)anthracene	%	105			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(a)pyrene	%	113			70-130	Pass	
Benzo(b&j)fluoranthene	%	111			70-130	Pass	
Benzo(g.h.i)perylene	%	111			70-130	Pass	
Benzo(k)fluoranthene	%	90			70-130	Pass	
Chrysene	%	97			70-130	Pass	
Dibenz(a.h)anthracene	%	111			70-130	Pass	
Fluoranthene	%	97			70-130	Pass	
Fluorene	%	104			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	111			70-130	Pass	
Naphthalene	%	97			70-130	Pass	
Phenanthrene	%	109			70-130	Pass	
Pyrene	%	90			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
4.4'-DDD	%	126			70-130	Pass	
4.4'-DDE	%	114			70-130	Pass	
4.4'-DDT	%	90			70-130	Pass	
a-BHC	%	75			70-130	Pass	
Aldrin	%	110			70-130	Pass	
b-BHC	%	96			70-130	Pass	
d-BHC	%	81			70-130	Pass	
Dieldrin	%	113			70-130	Pass	
Endosulfan I	%	106			70-130	Pass	
Endosulfan II	%	121			70-130	Pass	
Endosulfan sulphate	%	104			70-130	Pass	
Endrin	%	96			70-130	Pass	
Endrin aldehyde	%	101			70-130	Pass	
Endrin ketone	%	103			70-130	Pass	
g-BHC (Lindane)	%	80			70-130	Pass	
Heptachlor	%	95			70-130	Pass	
Heptachlor epoxide	%	103			70-130	Pass	
Hexachlorobenzene	%	90			70-130	Pass	
Methoxychlor	%	99			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	99			80-120	Pass	
Cadmium	%	100			80-120	Pass	
Chromium	%	97			80-120	Pass	
Copper	%	97			80-120	Pass	
Lead	%	99			80-120	Pass	
Mercury	%	96			75-125	Pass	
Nickel	%	98			80-120	Pass	
Zinc	%	100			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	M17-Au10073	NCP	%	83			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	M17-Au10073	NCP	%	84			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M17-Au08840	NCP	%	102			70-130	Pass	
Acenaphthylene	M17-Au08840	NCP	%	109			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Anthracene	M17-Au08840	NCP	%	84			70-130	Pass	
Benz(a)anthracene	M17-Au08840	NCP	%	119			70-130	Pass	
Benzo(a)pyrene	M17-Au08840	NCP	%	125			70-130	Pass	
Benzo(b&j)fluoranthene	M17-Au08840	NCP	%	130			70-130	Pass	
Benzo(g.h.i)perylene	M17-Au08840	NCP	%	127			70-130	Pass	
Benzo(k)fluoranthene	M17-Au08840	NCP	%	87			70-130	Pass	
Chrysene	M17-Au08840	NCP	%	109			70-130	Pass	
Dibenz(a.h)anthracene	M17-Au08840	NCP	%	124			70-130	Pass	
Fluoranthene	M17-Au08840	NCP	%	104			70-130	Pass	
Fluorene	M17-Au08840	NCP	%	102			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M17-Au08840	NCP	%	129			70-130	Pass	
Naphthalene	M17-Au08840	NCP	%	100			70-130	Pass	
Phenanthrene	M17-Au08840	NCP	%	105			70-130	Pass	
Pyrene	M17-Au08840	NCP	%	98			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	M17-Au11613	NCP	%	112			70-130	Pass	
4.4'-DDE	M17-Au11613	NCP	%	118			70-130	Pass	
4.4'-DDT	M17-Au11613	NCP	%	86			70-130	Pass	
a-BHC	M17-Au11613	NCP	%	89			70-130	Pass	
Aldrin	M17-Au11613	NCP	%	97			70-130	Pass	
b-BHC	M17-Au11613	NCP	%	84			70-130	Pass	
d-BHC	M17-Au11613	NCP	%	96			70-130	Pass	
Dieldrin	M17-Au11613	NCP	%	121			70-130	Pass	
Endosulfan I	M17-Au11613	NCP	%	101			70-130	Pass	
Endosulfan II	M17-Au11613	NCP	%	128			70-130	Pass	
Endosulfan sulphate	M17-Au11613	NCP	%	116			70-130	Pass	
Endrin	M17-Au11613	NCP	%	93			70-130	Pass	
Endrin aldehyde	M17-Au11613	NCP	%	123			70-130	Pass	
Endrin ketone	M17-Au13141	NCP	%	114			70-130	Pass	
g-BHC (Lindane)	M17-Au11613	NCP	%	96			70-130	Pass	
Heptachlor	M17-Au11613	NCP	%	80			70-130	Pass	
Heptachlor epoxide	M17-Au11613	NCP	%	103			70-130	Pass	
Hexachlorobenzene	M17-Au11613	NCP	%	97			70-130	Pass	
Methoxychlor	M17-Au11613	NCP	%	110			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M17-Au07825	NCP	%	92			75-125	Pass	
Cadmium	M17-Au07825	NCP	%	89			75-125	Pass	
Chromium	M17-Au07825	NCP	%	89			75-125	Pass	
Copper	M17-Au07825	NCP	%	84			75-125	Pass	
Lead	M17-Au07825	NCP	%	89			75-125	Pass	
Mercury	M17-Au07825	NCP	%	92			70-130	Pass	
Nickel	M17-Au07825	NCP	%	85			75-125	Pass	
Zinc	M17-Au07825	NCP	%	86			75-125	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S17-Au09611	NCP	%	88			70-130	Pass	
Toluene	S17-Au09611	NCP	%	89			70-130	Pass	
Ethylbenzene	S17-Au09611	NCP	%	90			70-130	Pass	
m&p-Xylenes	S17-Au09611	NCP	%	83			70-130	Pass	
o-Xylene	S17-Au09611	NCP	%	87			70-130	Pass	
Xylenes - Total	S17-Au09611	NCP	%	84			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M17-Au13145	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	M17-Au08839	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	M17-Au08839	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	M17-Au08839	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1-Dichloroethene	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.1-Trichloroethane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.2-Trichloroethane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dibromoethane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dichlorobenzene	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dichloroethane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dichloropropane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2.3-Trichloropropane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2.4-Trimethylbenzene	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.3-Dichlorobenzene	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.3-Dichloropropane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.3.5-Trimethylbenzene	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.4-Dichlorobenzene	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
2-Butanone (MEK)	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
2-Propanone (Acetone)	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
4-Chlorotoluene	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Allyl chloride	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromobenzene	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromochloromethane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromodichloromethane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromoform	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromomethane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Carbon disulfide	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Carbon Tetrachloride	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chlorobenzene	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chloroethane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chloroform	M17-Au13145	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chloromethane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
cis-1.2-Dichloroethene	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
cis-1.3-Dichloropropene	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibromochloromethane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibromomethane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dichlorodifluoromethane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Iodomethane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Isopropyl benzene (Cumene)	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Methylene Chloride	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Styrene	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Tetrachloroethene	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
trans-1.2-Dichloroethene	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
trans-1.3-Dichloropropene	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Trichloroethene	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Trichlorofluoromethane	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Vinyl chloride	M17-Au13145	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	M17-Au13145	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	M17-Au13145	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH >C10-C16	M17-Au08839	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	M17-Au08839	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	M17-Au08839	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M17-Au08839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	M17-Au08839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	M17-Au08839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	M17-Au08839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	M17-Au08839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	M17-Au08839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	M17-Au08839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	M17-Au08839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	M17-Au08839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	M17-Au08839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	M17-Au08839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	M17-Au08839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M17-Au08839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	M17-Au08839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	M17-Au08839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	M17-Au08839	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	M17-Au10219	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
4.4'-DDD	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
4.4'-DDE	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
4.4'-DDT	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
a-BHC	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Aldrin	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
b-BHC	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
d-BHC	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Dieldrin	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endosulfan I	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endosulfan II	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endosulfan sulphate	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endrin	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endrin aldehyde	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endrin ketone	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
g-BHC (Lindane)	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Heptachlor	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Heptachlor epoxide	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Hexachlorobenzene	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Methoxychlor	M17-Au10219	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Toxaphene	M17-Au10219	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	M17-Au10219	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Aroclor-1221	M17-Au10219	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Aroclor-1232	M17-Au10219	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Aroclor-1242	M17-Au10219	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Aroclor-1248	M17-Au10219	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Aroclor-1254	M17-Au10219	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1260	M17-Au10219	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Total PCB*	M17-Au10219	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M17-Au07825	NCP	mg/L	0.001	0.001	1.0	30%	Pass	
Cadmium	M17-Au07825	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	M17-Au07825	NCP	mg/L	0.003	0.003	<1	30%	Pass	
Copper	M17-Au07825	NCP	mg/L	0.017	0.017	3.0	30%	Pass	
Lead	M17-Au07825	NCP	mg/L	0.005	0.005	4.0	30%	Pass	
Mercury	M17-Au07825	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	M17-Au07825	NCP	mg/L	0.005	0.005	8.0	30%	Pass	
Zinc	M17-Au07825	NCP	mg/L	0.029	0.031	6.0	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S17-Au09475	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S17-Au09475	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S17-Au09475	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S17-Au09475	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S17-Au09475	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total	S17-Au09475	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised By

Nibha Vaidya	Analytical Services Manager
Alex Petridis	Senior Analyst-Metal (VIC)
Alex Petridis	Senior Analyst-Organic (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Certificate of Analysis

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

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Mitch Hodgins**

Report **557460-S**
Project name SUMMER HILL
Project ID 52961
Received Date Aug 04, 2017

Client Sample ID			**BH01_0.4-0.5**	**BH01_0.9-1.0**	**BH01_2.9-3.0**	**BH02_0.6-0.7**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S17-Au07955**	**S17-Au07956**	**S17-Au07957**	**S17-Au07958**
Date Sampled			**Aug 03, 2017**	**Aug 03, 2017**	**Aug 03, 2017**	**Aug 03, 2017**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	-	570	< 50	56
TRH C29-C36	50	mg/kg	-	400	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	-	970	< 50	56
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.3-Dichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.3.5-Trimethylbenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
2-Butanone (MEK)	0.5	mg/kg	-	< 0.5	< 0.5	-
2-Propanone (Acetone)	0.5	mg/kg	-	< 0.5	< 0.5	-
4-Chlorotoluene	0.5	mg/kg	-	< 0.5	< 0.5	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	< 0.5	< 0.5	-
Allyl chloride	0.5	mg/kg	-	< 0.5	< 0.5	-
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	-
Bromobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
Bromochloromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Bromodichloromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Bromoform	0.5	mg/kg	-	< 0.5	< 0.5	-
Bromomethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Carbon disulfide	0.5	mg/kg	-	< 0.5	< 0.5	-
Carbon Tetrachloride	0.5	mg/kg	-	< 0.5	< 0.5	-

Client Sample ID			BH01_0.4-0.5	BH01_0.9-1.0	BH01_2.9-3.0	BH02_0.6-0.7
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S17-Au07955**	**S17-Au07956**	**S17-Au07957**	**S17-Au07958**
Date Sampled			**Aug 03, 2017**	**Aug 03, 2017**	**Aug 03, 2017**	**Aug 03, 2017**
Test/Reference	LOR	Unit				
Volatile Organics						
Chlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
Chloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Chloroform	0.5	mg/kg	-	< 0.5	< 0.5	-
Chloromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
cis-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
cis-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	< 0.5	-
Dibromochloromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Dibromomethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Dichlorodifluoromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	-
Iodomethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	-	< 0.5	< 0.5	-
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	-
Methylene Chloride	0.5	mg/kg	-	< 0.5	< 0.5	-
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	-
Styrene	0.5	mg/kg	-	< 0.5	< 0.5	-
Tetrachloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	-
trans-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
trans-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	< 0.5	-
Trichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Vinyl chloride	0.5	mg/kg	-	< 0.5	< 0.5	-
Xylenes - Total	0.3	mg/kg	-	< 0.3	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	-	67	65	-
Fluorobenzene (surr.)	1	%	-	79	80	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	< 20	< 20
TRH C6-C10	20	mg/kg	-	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	-	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	-	900	< 100	< 100
TRH >C34-C40	100	mg/kg	-	210	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	< 0.5	< 0.5	1.4
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	0.6	0.6	1.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.2	1.2	1.9
Acenaphthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	0.6
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	1.1
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	< 0.5	< 0.5	1.0
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5	< 0.5	0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	0.8
Chrysene	0.5	mg/kg	-	< 0.5	< 0.5	1.1
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	1.7

Client Sample ID			BH01_0.4-0.5	BH01_0.9-1.0	BH01_2.9-3.0	BH02_0.6-0.7
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S17-Au07955**	**S17-Au07956**	**S17-Au07957**	**S17-Au07958**
Date Sampled			**Aug 03, 2017**	**Aug 03, 2017**	**Aug 03, 2017**	**Aug 03, 2017**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Fluorene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	< 0.5	1.8
Total PAH*	0.5	mg/kg	-	< 0.5	< 0.5	8.6
2-Fluorobiphenyl (surr.)	1	%	-	104	95	92
p-Terphenyl-d14 (surr.)	1	%	-	100	106	101
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	-
4.4'-DDD	0.05	mg/kg	-	< 0.05	-	-
4.4'-DDE	0.05	mg/kg	-	< 0.05	-	-
4.4'-DDT	0.05	mg/kg	-	< 0.05	-	-
a-BHC	0.05	mg/kg	-	< 0.05	-	-
Aldrin	0.05	mg/kg	-	< 0.05	-	-
b-BHC	0.05	mg/kg	-	< 0.05	-	-
d-BHC	0.05	mg/kg	-	< 0.05	-	-
Dieldrin	0.05	mg/kg	-	< 0.05	-	-
Endosulfan I	0.05	mg/kg	-	< 0.05	-	-
Endosulfan II	0.05	mg/kg	-	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	-
Endrin	0.05	mg/kg	-	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	-
Endrin ketone	0.05	mg/kg	-	< 0.05	-	-
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	-
Heptachlor	0.05	mg/kg	-	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	-
Methoxychlor	0.05	mg/kg	-	< 0.05	-	-
Toxaphene	1	mg/kg	-	< 1	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	-	-
Dibutylchlorendate (surr.)	1	%	-	94	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	69	-	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1221	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1232	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1242	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1248	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1254	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1260	0.1	mg/kg	-	< 0.1	-	-
Total PCB*	0.1	mg/kg	-	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	-	94	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	69	-	-

Client Sample ID			BH01_0.4-0.5	BH01_0.9-1.0	BH01_2.9-3.0	BH02_0.6-0.7
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S17-Au07955**	**S17-Au07956**	**S17-Au07957**	**S17-Au07958**
Date Sampled			**Aug 03, 2017**	**Aug 03, 2017**	**Aug 03, 2017**	**Aug 03, 2017**
Test/Reference	LOR	Unit				
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	-	< 0.5	-	-
2.4-Dichlorophenol	0.5	mg/kg	-	< 0.5	-	-
2.4.5-Trichlorophenol	1.0	mg/kg	-	< 1	-	-
2.4.6-Trichlorophenol	1.0	mg/kg	-	< 1	-	-
2.6-Dichlorophenol	0.5	mg/kg	-	< 0.5	-	-
4-Chloro-3-methylphenol	1.0	mg/kg	-	< 1	-	-
Pentachlorophenol	1.0	mg/kg	-	< 1	-	-
Tetrachlorophenols - Total	1.0	mg/kg	-	< 1	-	-
Total Halogenated Phenol*	1	mg/kg	-	< 1	-	-
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	-	< 20	-	-
2-Methyl-4.6-dinitrophenol	5	mg/kg	-	< 5	-	-
2-Methylphenol (o-Cresol)	0.2	mg/kg	-	< 0.2	-	-
2-Nitrophenol	1.0	mg/kg	-	< 1	-	-
2.4-Dimethylphenol	0.5	mg/kg	-	< 0.5	-	-
2.4-Dinitrophenol	5	mg/kg	-	< 5	-	-
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	-	< 0.4	-	-
4-Nitrophenol	5	mg/kg	-	< 5	-	-
Dinoseb	20	mg/kg	-	< 20	-	-
Phenol	0.5	mg/kg	-	< 0.5	-	-
Total Non-Halogenated Phenol*	20	mg/kg	-	< 20	-	-
Phenol-d6 (surr.)	1	%	-	102	-	-
% Clay	1	%	11	-	-	-
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	110	-	-	-
pH (units)(1:5 soil:CaCl2 extract)	0.1	pH Units	8.8	-	-	-
Total Organic Carbon	0.1	%	2.2	-	-	-
% Moisture	1	%	16	21	16	23
Heavy Metals						
Arsenic	2	mg/kg	-	10	< 2	210
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	-	21	< 5	37
Copper	5	mg/kg	-	11	6.2	34
Iron	20	mg/kg	63000	-	-	-
Lead	5	mg/kg	-	31	22	710
Mercury	0.1	mg/kg	-	< 0.1	< 0.1	2.3
Nickel	5	mg/kg	-	< 5	< 5	6.2
Zinc	5	mg/kg	-	79	< 5	200
Heavy Metals						
Iron (%)	0.01	%	6.3	-	-	-
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	23	-	-	-

Client Sample ID			BH02_2.9-3.0	BH03_2.9-3.0	BH04_2.9-3.0	BH05_0.25-0.35
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S17-Au07959	S17-Au07960	S17-Au07961	S17-Au07962
Date Sampled			Aug 03, 2017	Aug 03, 2017	Aug 03, 2017	Aug 03, 2017
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	740
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	760
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	1500
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.7

Client Sample ID			BH02_2.9-3.0	BH03_2.9-3.0	BH04_2.9-3.0	BH05_0.25-0.35
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S17-Au07959**	**S17-Au07960**	**S17-Au07961**	**S17-Au07962**
Date Sampled			**Aug 03, 2017**	**Aug 03, 2017**	**Aug 03, 2017**	**Aug 03, 2017**
Test/Reference	LOR	Unit				
Volatile Organics						
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	54	54	55	65
Fluorobenzene (surr.)	1	%	69	63	69	72
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	1500
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	240
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	55
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	55
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	55
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.6
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	5.4
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	29
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	34
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	33
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	23
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	32
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	27
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	9.3
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	40
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.9
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	20
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.1
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	23
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	43
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	323.3
2-Fluorobiphenyl (surr.)	1	%	92	101	95	98
p-Terphenyl-d14 (surr.)	1	%	104	126	119	128
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	-	17
4.4'-DDD	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDT	0.05	mg/kg	-	-	-	< 0.05
a-BHC	0.05	mg/kg	-	-	-	< 0.05

Client Sample ID			BH02_2.9-3.0	BH03_2.9-3.0	BH04_2.9-3.0	BH05_0.25-0.35
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S17-Au07959	S17-Au07960	S17-Au07961	S17-Au07962
Date Sampled			Aug 03, 2017	Aug 03, 2017	Aug 03, 2017	Aug 03, 2017
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Aldrin	0.05	mg/kg	-	-	-	< 0.05
b-BHC	0.05	mg/kg	-	-	-	< 0.05
d-BHC	0.05	mg/kg	-	-	-	< 0.05
Dieldrin	0.05	mg/kg	-	-	-	0.28
Endosulfan I	0.05	mg/kg	-	-	-	< 0.05
Endosulfan II	0.05	mg/kg	-	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	-	< 0.05
Endrin	0.05	mg/kg	-	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	-	< 0.05
Endrin ketone	0.05	mg/kg	-	-	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	-	-	< 0.05
Heptachlor	0.05	mg/kg	-	-	-	2.8
Heptachlor epoxide	0.05	mg/kg	-	-	-	2.0
Hexachlorobenzene	0.05	mg/kg	-	-	-	< 0.05
Methoxychlor	0.05	mg/kg	-	-	-	< 0.05
Toxaphene	1	mg/kg	-	-	-	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	-	0.28
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	-	< 0.05
Dibutylchlorendate (surr.)	1	%	-	-	-	56
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	80
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	-	-	< 0.5
Aroclor-1221	0.1	mg/kg	-	-	-	< 0.5
Aroclor-1232	0.1	mg/kg	-	-	-	< 0.5
Aroclor-1242	0.1	mg/kg	-	-	-	< 0.5
Aroclor-1248	0.1	mg/kg	-	-	-	< 0.5
Aroclor-1254	0.1	mg/kg	-	-	-	< 0.5
Aroclor-1260	0.1	mg/kg	-	-	-	< 0.5
Total PCB*	0.1	mg/kg	-	-	-	< 0.5
Dibutylchlorendate (surr.)	1	%	-	-	-	56
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	80
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1.0	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	1.0	mg/kg	< 1	< 1	< 1	< 1
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4

Client Sample ID			BH02_2.9-3.0	BH03_2.9-3.0	BH04_2.9-3.0	BH05_0.25-0.35
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S17-Au07959	S17-Au07960	S17-Au07961	S17-Au07962
Date Sampled			Aug 03, 2017	Aug 03, 2017	Aug 03, 2017	Aug 03, 2017
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Phenol-d6 (surr.)	1	%	96	108	96	92
% Moisture	1	%	21	21	19	15
Heavy Metals						
Arsenic	2	mg/kg	4.7	2.8	2.3	22
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	24	13	21	19
Copper	5	mg/kg	12	11	18	68
Lead	5	mg/kg	17	19	21	3100
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.9
Nickel	5	mg/kg	< 5	< 5	< 5	19
Zinc	5	mg/kg	9.8	6.1	7.8	170

Client Sample ID			BH05_0.4-0.5	BH06_0.8-0.9	BH07_0.5-0.6	BH08_0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S17-Au07963	S17-Au07964	S17-Au07965	S17-Au07966
Date Sampled			Aug 03, 2017	Aug 04, 2017	Aug 04, 2017	Aug 04, 2017
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	26	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	60	< 20
TRH C15-C28	50	mg/kg	81	< 50	< 50	66
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	81	< 50	60	66
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	15	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	3.0	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH05_0.4-0.5	BH06_0.8-0.9	BH07_0.5-0.6	BH08_0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S17-Au07963	S17-Au07964	S17-Au07965	S17-Au07966
Date Sampled			Aug 03, 2017	Aug 04, 2017	Aug 04, 2017	Aug 04, 2017
Test/Reference	LOR	Unit				
Volatile Organics						
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	0.6	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	8.7	< 0.2
Methylene Chloride	0.5	mg/kg	1.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	0.9	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	0.4	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	9.6	< 0.3
4-Bromofluorobenzene (surr.)	1	%	70	55	70	56
Fluorobenzene (surr.)	1	%	81	65	71	62
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	1.7	< 0.5
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	33	< 20
TRH C6-C10	20	mg/kg	< 20	< 20	44	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	110	< 100	< 100	110
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100

Client Sample ID			BH05_0.4-0.5	BH06_0.8-0.9	BH07_0.5-0.6	BH08_0.4-0.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S17-Au07963**	**S17-Au07964**	**S17-Au07965**	**S17-Au07966**
Date Sampled			**Aug 03, 2017**	**Aug 04, 2017**	**Aug 04, 2017**	**Aug 04, 2017**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	2.9	< 0.5	< 0.5	1.4
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	2.9	0.6	0.7	1.7
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	2.9	1.2	1.2	1.9
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	1.6	< 0.5	0.6	0.9
Benzo(a)pyrene	0.5	mg/kg	1.6	< 0.5	< 0.5	1.0
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	1.4	< 0.5	< 0.5	0.9
Benzo(g.h.i)perylene	0.5	mg/kg	2.1	< 0.5	< 0.5	1.3
Benzo(k)fluoranthene	0.5	mg/kg	1.5	< 0.5	0.6	1.0
Chrysene	0.5	mg/kg	1.7	< 0.5	0.6	1.1
Dibenz(a.h)anthracene	0.5	mg/kg	0.6	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	2.6	< 0.5	0.9	1.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	1.8	< 0.5	< 0.5	1.3
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	2.7	< 0.5
Phenanthrene	0.5	mg/kg	1.4	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	2.7	< 0.5	1.0	1.5
Total PAH*	0.5	mg/kg	19	< 0.5	6.4	10.5
2-Fluorobiphenyl (surr.)	1	%	102	104	120	96
p-Terphenyl-d14 (surr.)	1	%	93	101	114	87
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	1.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	0.09	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	0.06	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dibutylchlorendate (surr.)	1	%	67	120	103	104
Tetrachloro-m-xylene (surr.)	1	%	58	73	74	72

Client Sample ID			BH05_0.4-0.5	BH06_0.8-0.9	BH07_0.5-0.6	BH08_0.4-0.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S17-Au07963**	**S17-Au07964**	**S17-Au07965**	**S17-Au07966**
Date Sampled			**Aug 03, 2017**	**Aug 04, 2017**	**Aug 04, 2017**	**Aug 04, 2017**
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	67	120	103	104
Tetrachloro-m-xylene (surr.)	1	%	58	73	74	72
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
2.4.5-Trichlorophenol	1.0	mg/kg	< 1	< 1	< 1	-
2.4.6-Trichlorophenol	1.0	mg/kg	< 1	< 1	< 1	-
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
4-Chloro-3-methylphenol	1.0	mg/kg	< 1	< 1	< 1	-
Pentachlorophenol	1.0	mg/kg	< 1	< 1	< 1	-
Tetrachlorophenols - Total	1.0	mg/kg	< 1	< 1	< 1	-
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	-
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	-
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	-
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	-
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	-
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	-
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	-
Dinoseb	20	mg/kg	< 20	< 20	< 20	-
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	-
Phenol-d6 (surr.)	1	%	95	100	126	-
% Moisture	1	%	15	20	19	21
Heavy Metals						
Arsenic	2	mg/kg	10	40	14	11
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	23	29	15	29
Copper	5	mg/kg	21	15	41	27
Lead	5	mg/kg	490	34	82	160
Mercury	0.1	mg/kg	0.2	< 0.1	0.3	0.2
Nickel	5	mg/kg	5.7	6.2	110	14
Zinc	5	mg/kg	130	47	81	69

Client Sample ID			BH09_0.2-0.3	QA20170804	BH04_0.9-1.0
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S17-Au07967**	**S17-Au07968**	**S17-Au08000**
Date Sampled			**Aug 04, 2017**	**Aug 04, 2017**	**Aug 03, 2017**
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					
TRH C6-C9	20	mg/kg	< 20	< 20	-
TRH C10-C14	20	mg/kg	< 20	< 20	-
TRH C15-C28	50	mg/kg	60	180	-
TRH C29-C36	50	mg/kg	< 50	61	-
TRH C10-36 (Total)	50	mg/kg	60	241	-
Volatile Organics					
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	-
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	-
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	-
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	-
Benzene	0.1	mg/kg	< 0.1	< 0.1	-
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	-
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	-
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	-
Bromoform	0.5	mg/kg	< 0.5	< 0.5	-
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	-
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	-
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	-
Chloroform	0.5	mg/kg	< 0.5	< 0.5	-
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	-
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	-
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-
Methylene Chloride	0.5	mg/kg	< 0.5	0.9	-

Client Sample ID			BH09_0.2-0.3	QA20170804	BH04_0.9-1.0
Sample Matrix			Soil	Soil	Soil
Eurofins | mgt Sample No.			S17-Au07967	S17-Au07968	S17-Au08000
Date Sampled			Aug 04, 2017	Aug 04, 2017	Aug 03, 2017
Test/Reference	LOR	Unit			
Volatile Organics					
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-
Styrene	0.5	mg/kg	< 0.5	< 0.5	-
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	-
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	-
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	-
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	55	54	-
Fluorobenzene (surr.)	1	%	60	67	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	-
TRH C6-C10	20	mg/kg	< 20	< 20	-
TRH >C10-C16	50	mg/kg	< 50	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	-
TRH >C16-C34	100	mg/kg	< 100	230	-
TRH >C34-C40	100	mg/kg	< 100	< 100	-
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	5.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	5.5	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	5.5	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	1.3	-
Benz(a)anthracene	0.5	mg/kg	0.6	3.4	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	2.8	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	2.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	3.2	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	2.3	-
Chrysene	0.5	mg/kg	0.6	3.4	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	1.5	-
Fluoranthene	0.5	mg/kg	0.9	6.9	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	3.0	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	0.8	5.5	-
Pyrene	0.5	mg/kg	0.9	6.7	-
Total PAH*	0.5	mg/kg	3.8	42.5	-
2-Fluorobiphenyl (surr.)	1	%	96	101	-
p-Terphenyl-d14 (surr.)	1	%	92	91	-
Organochlorine Pesticides					
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	-
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	-
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	-
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	-
a-BHC	0.05	mg/kg	< 0.05	< 0.05	-

Client Sample ID			BH09_0.2-0.3	QA20170804	BH04_0.9-1.0
Sample Matrix			Soil	Soil	Soil
Eurofins | mgt Sample No.			S17-Au07967	S17-Au07968	S17-Au08000
Date Sampled			Aug 04, 2017	Aug 04, 2017	Aug 03, 2017
Test/Reference	LOR	Unit			
Organochlorine Pesticides					
Aldrin	0.05	mg/kg	< 0.05	< 0.05	-
b-BHC	0.05	mg/kg	< 0.05	< 0.05	-
d-BHC	0.05	mg/kg	< 0.05	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	-
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	-
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	-
Endrin	0.05	mg/kg	< 0.05	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	-
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	-
Toxaphene	1	mg/kg	< 1	< 1	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	-
Dibutylchlorendate (surr.)	1	%	110	98	-
Tetrachloro-m-xylene (surr.)	1	%	81	68	-
Polychlorinated Biphenyls					
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	-
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	-
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	-
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	-
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	-
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	-
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	-
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	-
Dibutylchlorendate (surr.)	1	%	110	98	-
Tetrachloro-m-xylene (surr.)	1	%	81	68	-
Phenols (Halogenated)					
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	-
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	-
2.4.5-Trichlorophenol	1.0	mg/kg	< 1	< 1	-
2.4.6-Trichlorophenol	1.0	mg/kg	< 1	< 1	-
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	-
4-Chloro-3-methylphenol	1.0	mg/kg	< 1	< 1	-
Pentachlorophenol	1.0	mg/kg	< 1	< 1	-
Tetrachlorophenols - Total	1.0	mg/kg	< 1	< 1	-
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	-
Phenols (non-Halogenated)					
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	-
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	-
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	-
2-Nitrophenol	1.0	mg/kg	< 1	< 1	-
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	-
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	-
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH09_0.2-0.3 Soil S17-Au07967 Aug 04, 2017	QA20170804 Soil S17-Au07968 Aug 04, 2017	BH04_0.9-1.0 Soil S17-Au08000 Aug 03, 2017
Phenols (non-Halogenated)					
4-Nitrophenol	5	mg/kg	< 5	< 5	-
Dinoseb	20	mg/kg	< 20	< 20	-
Phenol	0.5	mg/kg	< 0.5	< 0.5	-
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	-
Phenol-d6 (surr.)	1	%	97	108	-
% Clay	1	%	-	-	25
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	-	-	150
pH (units)(1:5 soil:CaCl2 extract)	0.1	pH Units	-	-	7.1
Total Organic Carbon	0.1	%	-	-	3.2
% Moisture	1	%	23	12	20
Heavy Metals					
Arsenic	2	mg/kg	3.0	6.3	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-
Chromium	5	mg/kg	8.9	17	-
Copper	5	mg/kg	55	61	-
Iron	20	mg/kg	-	-	32000
Lead	5	mg/kg	42	180	-
Mercury	0.1	mg/kg	< 0.1	0.2	-
Nickel	5	mg/kg	25	22	-
Zinc	5	mg/kg	290	310	-
Heavy Metals					
Iron (%)	0.01	%	-	-	3.2
Cation Exchange Capacity					
Cation Exchange Capacity	0.05	meq/100g	-	-	20

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Aug 09, 2017	14 Day
- Method: LTM-ORG-2010 TRH C6-C36			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 09, 2017	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 09, 2017	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Volatile Organics	Melbourne	Aug 09, 2017	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Polycyclic Aromatic Hydrocarbons	Melbourne	Aug 09, 2017	14 Day
- Method: LTM-ORG-2140 PAH and Phenols in Soils by GCMS			
Organochlorine Pesticides	Melbourne	Aug 09, 2017	14 Day
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Melbourne	Aug 09, 2017	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Melbourne	Aug 09, 2017	28 Days
- Method: LTM-MET-3030 by ICP-OES (hydride ICP-OES for Mercury)			
Phenols (IWRG 621)			
Phenols (Halogenated)	Melbourne	Aug 09, 2017	14 Days
- Method: LTM-ORG-2140 PAH and Phenols in Soils by GCMS			
Phenols (non-Halogenated)	Melbourne	Aug 09, 2017	14 Day
- Method: LTM-ORG-2140 PAH and Phenols in Soils by GCMS			
NEPM Screen for Soil Classification			
% Clay	Brisbane	Aug 15, 2017	6 Day
- Method: LTM-GEN-7040			
Conductivity (1:5 aqueous extract at 25°C)	Melbourne	Aug 09, 2017	7 Day
- Method: LTM-INO-4030			
pH (units)(1:5 soil:CaCl2 extract)	Melbourne	Aug 09, 2017	7 Day
- Method: LTM-GEN-7090 pH in soil by ISE			
Total Organic Carbon	Melbourne	Aug 11, 2017	28 Day
- Method: APHA 5310B Total Organic Carbon			
Heavy Metals	Melbourne	Aug 09, 2017	180 Day
- Method: LTM-MET-3030 by ICP-OES (hydride ICP-OES for Mercury)			
Cation Exchange Capacity	Melbourne	Aug 11, 2017	180 Days
- Method: LTM-MET-3060 - Cation Exchange Capacity (CEC) & Exchangeable Sodium Percentage (ESP)			
% Moisture	Melbourne	Aug 07, 2017	14 Day
- Method: LTM-GEN-7080 Moisture			

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

Project Name: SUMMER HILL
Project ID: 52961

Order No.:
Report #: 557460
Phone: 02 8245 0300
Fax:

Received: Aug 4, 2017 5:29 PM
Due: Aug 14, 2017
Priority: 5 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						CANCELLED	HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	Phenols (IWRG 621)	BTEX	Volatile Organics	Moisture Set	NEPM Screen for Soil Classification	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X		X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							X				X
Brisbane Laboratory - NATA Site # 20794																X	
Perth Laboratory - NATA Site # 23736																	
External Laboratory																	
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**												
1	BH01_0.4-0.5	Aug 03, 2017		Soil	S17-Au07955										X	X	
2	BH01_0.9-1.0	Aug 03, 2017		Soil	S17-Au07956			X	X	X	X	X		X	X		X
3	BH01_2.9-3.0	Aug 03, 2017		Soil	S17-Au07957			X			X			X	X		X
4	BH02_0.6-0.7	Aug 03, 2017		Soil	S17-Au07958			X			X				X		X
5	BH02_2.9-3.0	Aug 03, 2017		Soil	S17-Au07959			X			X	X		X	X		X
6	BH03_2.9-3.0	Aug 03, 2017		Soil	S17-Au07960			X			X	X		X	X		X
7	BH04_2.9-3.0	Aug 03, 2017		Soil	S17-Au07961			X			X	X		X	X		X
8	BH05_0.25-0.35	Aug 03, 2017		Soil	S17-Au07962			X	X	X	X	X		X	X		X
9	BH05_0.4-0.5	Aug 03, 2017		Soil	S17-Au07963			X	X	X	X	X		X	X		X

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Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X		X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							X				X
Brisbane Laboratory - NATA Site # 20794																X	
Perth Laboratory - NATA Site # 23736																	
10	BH06_0.8-0.9	Aug 04, 2017		Soil	S17-Au07964			X	X	X	X	X		X	X		X
11	BH07_0.5-0.6	Aug 04, 2017		Soil	S17-Au07965			X	X	X	X	X		X	X		X
12	BH08_0.4-0.5	Aug 04, 2017		Soil	S17-Au07966			X	X	X	X			X	X		X
13	BH09_0.2-0.3	Aug 04, 2017		Soil	S17-Au07967			X	X	X	X	X		X	X		X
14	QA20170804	Aug 04, 2017		Soil	S17-Au07968			X	X	X	X	X		X	X		X
15	RB20170804	Aug 04, 2017		Water	S17-Au07969			X	X	X	X			X			X
16	TB20170804	Aug 04, 2017		Water	S17-Au07970								X				
17	TS20170804	Aug 04, 2017		Water	S17-Au07971								X				
18	BH01_0.15-0.25	Aug 03, 2017		Soil	S17-Au07972		X										
19	BH01_1.4-1.5	Aug 03, 2017		Soil	S17-Au07973		X										
20	BH01_1.9-2.0	Aug 03, 2017		Soil	S17-Au07974		X										

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Sample Detail						CANCELLED	HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	Phenols (IWRG 621)	BTEX	Volatile Organics	Moisture Set	NEPM Screen for Soil Classification	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X		X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							X				X
Brisbane Laboratory - NATA Site # 20794																X	
Perth Laboratory - NATA Site # 23736																	
21	BH01_2.3-2.4	Aug 03, 2017		Soil	S17-Au07975		X										
22	BH01_3.9-4.0	Aug 03, 2017		Soil	S17-Au07976		X										
23	BH01_4.7-4.8	Aug 03, 2017		Soil	S17-Au07977		X										
24	BH01_5.9-6.0	Aug 03, 2017		Soil	S17-Au07978		X										
25	BH02_0.15-0.25	Aug 03, 2017		Soil	S17-Au07979		X										
26	BH02_0.4-0.5	Aug 03, 2017		Soil	S17-Au07980		X										
27	BH02_0.8-0.9	Aug 03, 2017		Soil	S17-Au07981		X										
28	BH02_0.9-1.0	Aug 03, 2017		Soil	S17-Au07982		X										
29	BH02_1.4-1.5	Aug 03, 2017		Soil	S17-Au07983		X										
30	BH02_1.9-2.0	Aug 03, 2017		Soil	S17-Au07984		X										
31	BH02_2.4-2.5	Aug 03, 2017		Soil	S17-Au07985		X										

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Sample Detail						CANCELLED	HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	Phenols (IWRG 621)	BTEX	Volatile Organics	Moisture Set	NEPM Screen for Soil Classification	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X		X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							X				X
Brisbane Laboratory - NATA Site # 20794																X	
Perth Laboratory - NATA Site # 23736																	
32	BH02_3.9-4.0	Aug 03, 2017		Soil	S17-Au07986		X										
33	BH02_4.9-5.0	Aug 03, 2017		Soil	S17-Au07987		X										
34	BH02_5.9-6.0	Aug 03, 2017		Soil	S17-Au07988		X										
35	BH03_0.15-0.25	Aug 03, 2017		Soil	S17-Au07989		X										
36	BH03_0.4-0.5	Aug 03, 2017		Soil	S17-Au07990		X										
37	BH03_0.6-0.7	Aug 03, 2017		Soil	S17-Au07991	X											
38	BH03_0.9-1.0	Aug 03, 2017		Soil	S17-Au07992		X										
39	BH03_1.4-1.5	Aug 03, 2017		Soil	S17-Au07993		X										
40	BH03_1.9-2.0	Aug 03, 2017		Soil	S17-Au07994		X										
41	BH03_2.4-2.5	Aug 03, 2017		Soil	S17-Au07995		X										
42	BH03_3.9-4.0	Aug 03, 2017		Soil	S17-Au07996		X										

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Site # 23736

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

Project Name: SUMMER HILL
Project ID: 52961

Order No.:
Report #: 557460
Phone: 02 8245 0300
Fax:

Received: Aug 4, 2017 5:29 PM
Due: Aug 14, 2017
Priority: 5 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						CANCELLED	HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	Phenols (IWRG 621)	BTEX	Volatile Organics	Moisture Set	NEPM Screen for Soil Classification	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X		X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							X				X
Brisbane Laboratory - NATA Site # 20794																X	
Perth Laboratory - NATA Site # 23736																	
43	BH03_4.8-4.9	Aug 03, 2017		Soil	S17-Au07997		X										
44	BH04_0.15-0.25	Aug 03, 2017		Soil	S17-Au07998		X										
45	BH04_0.4-0.5	Aug 03, 2017		Soil	S17-Au07999		X										
46	BH04_0.9-1.0	Aug 03, 2017		Soil	S17-Au08000										X	X	
47	BH04_1.4-1.5	Aug 03, 2017		Soil	S17-Au08001		X										
48	BH04_1.9-2.0	Aug 03, 2017		Soil	S17-Au08002		X										
49	BH04_2.4-2.5	Aug 03, 2017		Soil	S17-Au08003		X										
50	BH04_3.9-4.0	Aug 03, 2017		Soil	S17-Au08004		X										
51	BH04_4.9-5.0	Aug 03, 2017		Soil	S17-Au08005		X										
52	BH04_5.9-6.0	Aug 03, 2017		Soil	S17-Au08006		X										
53	BH05_0.9-1.0	Aug 03, 2017		Soil	S17-Au08007		X										

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Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X		X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							X				X
Brisbane Laboratory - NATA Site # 20794																X	
Perth Laboratory - NATA Site # 23736																	
54	BH05_1.4-1.5	Aug 03, 2017		Soil	S17-Au08008		X										
55	BH05_1.9-2.0	Aug 03, 2017		Soil	S17-Au08009		X										
56	BH05_2.4-2.5	Aug 03, 2017		Soil	S17-Au08010		X										
57	BH05_2.9-3.0	Aug 03, 2017		Soil	S17-Au08011		X										
58	BH05_3.9-4.0	Aug 03, 2017		Soil	S17-Au08012		X										
59	BH05_4.9-5.0	Aug 03, 2017		Soil	S17-Au08013		X										
60	BH05_5.9-6.0	Aug 03, 2017		Soil	S17-Au08014		X										
61	QA20170803	Aug 03, 2017		Soil	S17-Au08015		X										
62	QC20170803	Aug 03, 2017		Soil	S17-Au08016		X										
63	BH06_0.15-0.25	Aug 04, 2017		Soil	S17-Au08017		X										
64	BH06_0.4-0.5	Aug 04, 2017		Soil	S17-Au08018		X										

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Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X		X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							X				X
Brisbane Laboratory - NATA Site # 20794																X	
Perth Laboratory - NATA Site # 23736																	
65	BH06_0.6-0.7	Aug 04, 2017		Soil	S17-Au08019		X										
66	BH06_0.9-1.0	Aug 04, 2017		Soil	S17-Au08020		X										
67	BH07_0.15-0.25	Aug 04, 2017		Soil	S17-Au08021		X										
68	BH07_0.3-0.4	Aug 04, 2017		Soil	S17-Au08022		X										
69	BH08_0.15-0.25	Aug 04, 2017		Soil	S17-Au08023		X										
70	BH08_0.6-0.7	Aug 04, 2017		Soil	S17-Au08024		X										
71	BH08_0.7-0.8	Aug 03, 2017		Soil	S17-Au08026		X										
Test Counts						1	52	14	9	9	14	10	2	13	15	2	14

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	
Benzene	mg/kg	< 0.1			0.1	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Xylenes - Total	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1.0	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1.0	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1.0	Pass	
Pentachlorophenol	mg/kg	< 1			1.0	Pass	
Tetrachlorophenols - Total	mg/kg	< 1			1.0	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
2-Nitrophenol	mg/kg	< 1			1.0	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
% Clay	%	< 1			1	Pass	
Conductivity (1:5 aqueous extract at 25°C)	uS/cm	< 10			10	Pass	
Total Organic Carbon	%	< 0.1			0.1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Iron	mg/kg	< 20			20	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Cation Exchange Capacity							
Cation Exchange Capacity	meq/100g	< 0.05			0.05	Pass	
LCS - % Recovery							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	120			70-130	Pass	
TRH C10-C14	%	88			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	111			70-130	Pass	
1.1.1-Trichloroethane	%	117			70-130	Pass	
1.2-Dichlorobenzene	%	125			70-130	Pass	
1.2-Dichloroethane	%	112			70-130	Pass	
Benzene	%	117			70-130	Pass	
Ethylbenzene	%	119			70-130	Pass	
m&p-Xylenes	%	123			70-130	Pass	
Toluene	%	108			70-130	Pass	
Trichloroethene	%	99			70-130	Pass	
Xylenes - Total	%	121			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	99			70-130	Pass	
TRH C6-C10	%	116			70-130	Pass	
TRH >C10-C16	%	92			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	102			70-130	Pass	
Acenaphthylene	%	105			70-130	Pass	
Anthracene	%	104			70-130	Pass	
Benz(a)anthracene	%	100			70-130	Pass	
Benzo(a)pyrene	%	84			70-130	Pass	
Benzo(b&j)fluoranthene	%	99			70-130	Pass	
Benzo(g.h.i)perylene	%	127			70-130	Pass	
Benzo(k)fluoranthene	%	100			70-130	Pass	
Chrysene	%	104			70-130	Pass	
Dibenz(a.h)anthracene	%	120			70-130	Pass	
Fluoranthene	%	91			70-130	Pass	
Fluorene	%	104			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	129			70-130	Pass	
Naphthalene	%	104			70-130	Pass	
Phenanthrene	%	102			70-130	Pass	
Pyrene	%	91			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
4.4'-DDD	%	121			70-130	Pass	
4.4'-DDE	%	117			70-130	Pass	
4.4'-DDT	%	78			70-130	Pass	
a-BHC	%	110			70-130	Pass	
Aldrin	%	113			70-130	Pass	
b-BHC	%	108			70-130	Pass	
d-BHC	%	114			70-130	Pass	
Dieldrin	%	114			70-130	Pass	
Endosulfan I	%	114			70-130	Pass	
Endosulfan II	%	114			70-130	Pass	
Endosulfan sulphate	%	110			70-130	Pass	
Endrin	%	96			70-130	Pass	
Endrin aldehyde	%	111			70-130	Pass	
Endrin ketone	%	110			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
g-BHC (Lindane)	%	111			70-130	Pass	
Heptachlor	%	100			70-130	Pass	
Heptachlor epoxide	%	110			70-130	Pass	
Hexachlorobenzene	%	104			70-130	Pass	
Methoxychlor	%	93			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	76			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	99			30-130	Pass	
2.4-Dichlorophenol	%	83			30-130	Pass	
2.4.5-Trichlorophenol	%	79			30-130	Pass	
2.4.6-Trichlorophenol	%	90			30-130	Pass	
2.6-Dichlorophenol	%	86			30-130	Pass	
4-Chloro-3-methylphenol	%	93			30-130	Pass	
Pentachlorophenol	%	38			30-130	Pass	
Tetrachlorophenols - Total	%	82			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	31			30-130	Pass	
2-Methyl-4.6-dinitrophenol	%	33			30-130	Pass	
2-Methylphenol (o-Cresol)	%	83			30-130	Pass	
2-Nitrophenol	%	80			30-130	Pass	
2.4-Dimethylphenol	%	66			30-130	Pass	
2.4-Dinitrophenol	%	35			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	79			30-130	Pass	
4-Nitrophenol	%	72			30-130	Pass	
Dinoseb	%	36			30-130	Pass	
Phenol	%	99			30-130	Pass	
LCS - % Recovery							
% Clay	%	93			70-130	Pass	
Total Organic Carbon	%	102			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	109			80-120	Pass	
Cadmium	%	108			80-120	Pass	
Chromium	%	116			80-120	Pass	
Copper	%	101			80-120	Pass	
Lead	%	100			80-120	Pass	
Mercury	%	99			75-125	Pass	
Nickel	%	100			80-120	Pass	
Zinc	%	119			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1260	M17-Au10008	NCP	%	83			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	S17-Au07960	CP	%	83			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	S17-Au07960	CP	%	84			70-130	Pass	
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S17-Au07961	CP	%	106			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
1.1-Dichloroethene	S17-Au07961	CP	%	101			70-130	Pass	
1.1.1-Trichloroethane	S17-Au07961	CP	%	93			70-130	Pass	
1.2-Dichlorobenzene	S17-Au07961	CP	%	117			70-130	Pass	
1.2-Dichloroethane	S17-Au07961	CP	%	96			70-130	Pass	
Benzene	S17-Au07961	CP	%	100			70-130	Pass	
Ethylbenzene	S17-Au07961	CP	%	104			70-130	Pass	
m&p-Xylenes	S17-Au07961	CP	%	105			70-130	Pass	
o-Xylene	S17-Au07961	CP	%	103			70-130	Pass	
Toluene	S17-Au07961	CP	%	93			70-130	Pass	
Trichloroethene	S17-Au07961	CP	%	84			70-130	Pass	
Xylenes - Total	S17-Au07961	CP	%	104			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S17-Au07961	CP	%	97			70-130	Pass	
TRH C6-C10	S17-Au07961	CP	%	103			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S17-Au07961	CP	%	112			75-125	Pass	
Cadmium	S17-Au07961	CP	%	114			75-125	Pass	
Chromium	S17-Au07961	CP	%	100			75-125	Pass	
Copper	S17-Au07961	CP	%	122			75-125	Pass	
Lead	S17-Au07961	CP	%	112			75-125	Pass	
Mercury	S17-Au07961	CP	%	113			70-130	Pass	
Nickel	S17-Au07961	CP	%	124			75-125	Pass	
Zinc	S17-Au07961	CP	%	119			75-125	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	S17-Au07965	CP	%	115			70-130	Pass	
4.4'-DDE	S17-Au07965	CP	%	105			70-130	Pass	
4.4'-DDT	S17-Au07965	CP	%	84			70-130	Pass	
a-BHC	S17-Au07965	CP	%	104			70-130	Pass	
Aldrin	S17-Au07965	CP	%	116			70-130	Pass	
b-BHC	S17-Au07965	CP	%	99			70-130	Pass	
d-BHC	S17-Au07965	CP	%	105			70-130	Pass	
Dieldrin	S17-Au07965	CP	%	106			70-130	Pass	
Endosulfan I	S17-Au07965	CP	%	94			70-130	Pass	
Endosulfan II	S17-Au07965	CP	%	103			70-130	Pass	
Endosulfan sulphate	S17-Au07965	CP	%	98			70-130	Pass	
Endrin	S17-Au07965	CP	%	99			70-130	Pass	
Endrin aldehyde	S17-Au07965	CP	%	88			70-130	Pass	
Endrin ketone	S17-Au07965	CP	%	100			70-130	Pass	
g-BHC (Lindane)	S17-Au07965	CP	%	103			70-130	Pass	
Heptachlor	S17-Au07965	CP	%	111			70-130	Pass	
Heptachlor epoxide	S17-Au07965	CP	%	104			70-130	Pass	
Hexachlorobenzene	S17-Au07965	CP	%	105			70-130	Pass	
Methoxychlor	S17-Au07965	CP	%	95			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S17-Au07966	CP	%	91			70-130	Pass	
Acenaphthylene	S17-Au07966	CP	%	94			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Anthracene	S17-Au07966	CP	%	102			70-130	Pass	
Benz(a)anthracene	S17-Au07966	CP	%	86			70-130	Pass	
Benzo(a)pyrene	S17-Au07966	CP	%	73			70-130	Pass	
Benzo(b&j)fluoranthene	S17-Au07966	CP	%	84			70-130	Pass	
Benzo(g.h.i)perylene	S17-Au07966	CP	%	129			70-130	Pass	
Benzo(k)fluoranthene	S17-Au07966	CP	%	85			70-130	Pass	
Chrysene	S17-Au07966	CP	%	81			70-130	Pass	
Dibenz(a.h)anthracene	S17-Au07966	CP	%	121			70-130	Pass	
Fluoranthene	S17-Au07966	CP	%	91			70-130	Pass	
Fluorene	S17-Au07966	CP	%	95			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S17-Au07966	CP	%	110			70-130	Pass	
Naphthalene	S17-Au07966	CP	%	93			70-130	Pass	
Phenanthrene	S17-Au07966	CP	%	90			70-130	Pass	
Pyrene	S17-Au07966	CP	%	91			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	S17-Au07966	CP	%	88			30-130	Pass	
2.4-Dichlorophenol	S17-Au07966	CP	%	75			30-130	Pass	
2.4.5-Trichlorophenol	S17-Au07966	CP	%	74			30-130	Pass	
2.4.6-Trichlorophenol	S17-Au07966	CP	%	85			30-130	Pass	
2.6-Dichlorophenol	S17-Au07966	CP	%	78			30-130	Pass	
4-Chloro-3-methylphenol	S17-Au07966	CP	%	79			30-130	Pass	
Pentachlorophenol	S17-Au07966	CP	%	53			30-130	Pass	
Tetrachlorophenols - Total	S17-Au07966	CP	%	85			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Cyclohexyl-4.6-dinitrophenol	S17-Au07966	CP	%	31			30-130	Pass	
2-Methyl-4.6-dinitrophenol	S17-Au07966	CP	%	34			30-130	Pass	
2-Methylphenol (o-Cresol)	S17-Au07966	CP	%	74			30-130	Pass	
2-Nitrophenol	S17-Au07966	CP	%	71			30-130	Pass	
2.4-Dimethylphenol	S17-Au07966	CP	%	64			30-130	Pass	
2.4-Dinitrophenol	S17-Au07966	CP	%	35			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	S17-Au07966	CP	%	74			30-130	Pass	
4-Nitrophenol	S17-Au07966	CP	%	81			30-130	Pass	
Dinoseb	S17-Au07966	CP	%	43			30-130	Pass	
Phenol	S17-Au07966	CP	%	94			30-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
				Result 1	Result 2	RPD			
% Clay	B17-Jl12854	NCP	%	24	25	7.0	30%	Pass	
Conductivity (1:5 aqueous extract at 25°C)	S17-Au07955	CP	uS/cm	110	100	6.0	30%	Pass	
pH (units)(1:5 soil:CaCl2 extract)	S17-Au07955	CP	pH Units	8.8	8.6	pass	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Iron	M17-Au09946	NCP	mg/kg	930	930	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	S17-Au07959	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S17-Au07959	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S17-Au07959	CP	mg/kg	< 50	< 50	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	S17-Au07959	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S17-Au07959	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S17-Au07959	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S17-Au07960	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzene	S17-Au07960	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Bromobenzene	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethylbenzene	S17-Au07960	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Iodomethane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
m&p-Xylenes	S17-Au07960	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methylene Chloride	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
o-Xylene	S17-Au07960	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Styrene	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Toluene	S17-Au07960	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
trans-1.2-Dichloroethene	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Xylenes - Total	S17-Au07960	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S17-Au07960	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S17-Au07960	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S17-Au07960	CP	mg/kg	2.8	2.7	4.0	30%	Pass	
Cadmium	S17-Au07960	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S17-Au07960	CP	mg/kg	13	15	16	30%	Pass	
Copper	S17-Au07960	CP	mg/kg	11	10	8.0	30%	Pass	
Lead	S17-Au07960	CP	mg/kg	19	22	14	30%	Pass	
Mercury	S17-Au07960	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S17-Au07960	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S17-Au07960	CP	mg/kg	6.1	7.3	18	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S17-Au07961	CP	mg/kg	2.3	2.3	2.0	30%	Pass	
Cadmium	S17-Au07961	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S17-Au07961	CP	mg/kg	21	21	3.0	30%	Pass	
Copper	S17-Au07961	CP	mg/kg	18	18	1.0	30%	Pass	
Lead	S17-Au07961	CP	mg/kg	21	21	2.0	30%	Pass	
Mercury	S17-Au07961	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S17-Au07961	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S17-Au07961	CP	mg/kg	7.8	7.9	1.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S17-Au07963	CP	%	15	15	2.0	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S17-Au07964	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Hexachlorobenzene	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S17-Au07964	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S17-Au07964	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S17-Au07965	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S17-Au07965	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S17-Au07965	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S17-Au07965	CP	mg/kg	0.6	< 0.5	65	30%	Fail	Q15
Benzo(a)pyrene	S17-Au07965	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S17-Au07965	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S17-Au07965	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S17-Au07965	CP	mg/kg	0.6	< 0.5	100	30%	Fail	Q15
Chrysene	S17-Au07965	CP	mg/kg	0.6	< 0.5	63	30%	Fail	Q15
Dibenz(a.h)anthracene	S17-Au07965	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S17-Au07965	CP	mg/kg	0.9	< 0.5	71	30%	Fail	Q15
Fluorene	S17-Au07965	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S17-Au07965	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S17-Au07965	CP	mg/kg	2.7	2.4	9.0	30%	Pass	
Phenanthrene	S17-Au07965	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S17-Au07965	CP	mg/kg	1.0	< 0.5	72	30%	Fail	Q15
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	S17-Au07965	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	S17-Au07965	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	S17-Au07965	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	S17-Au07965	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	S17-Au07965	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	S17-Au07965	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	S17-Au07965	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	S17-Au07965	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	S17-Au07965	CP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	S17-Au07965	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	S17-Au07965	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2-Nitrophenol	S17-Au07965	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	S17-Au07965	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	S17-Au07965	CP	mg/kg	< 5	< 5	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	S17-Au07965	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	S17-Au07965	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Dinoseb	S17-Au07965	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	S17-Au07965	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Total Organic Carbon	S17-Au08000	CP	%	3.2	2.6	21	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference
Q15	The RPD reported passes Eurofins | mgt's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised By

Nibha Vaidya	Analytical Services Manager
Alex Petridis	Senior Analyst-Metal (VIC)
Alex Petridis	Senior Analyst-Organic (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Huong Le	Senior Analyst-Inorganic (VIC)
Jonathon Angell	Senior Analyst-Inorganic (QLD)
Joseph Edouard	Senior Analyst-Organic (VIC)

Glenn Jackson
National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name: **JBS & G Australia (NSW) P/L**

Contact name: Mitch Hodgins
Project name: SUMMER HILL
Project ID: 52961
COC number: Not provided
Turn around time: 5 Day
Date/Time received: Aug 4, 2017 5:29 PM
Eurofins | mgt reference: **557460**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ Sample Temperature of a random sample selected from the batch as recorded by Eurofins | mgt Sample Receipt : 15.5 degrees Celsius.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☑ Sample containers for volatile analysis received with zero headspace.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

QC20170804 forwarded to Envirolab. MISSING BH03_0.6-0.7, hence cancelled. Extra sample received BH08_0.7-0.8, placed on HOLD.

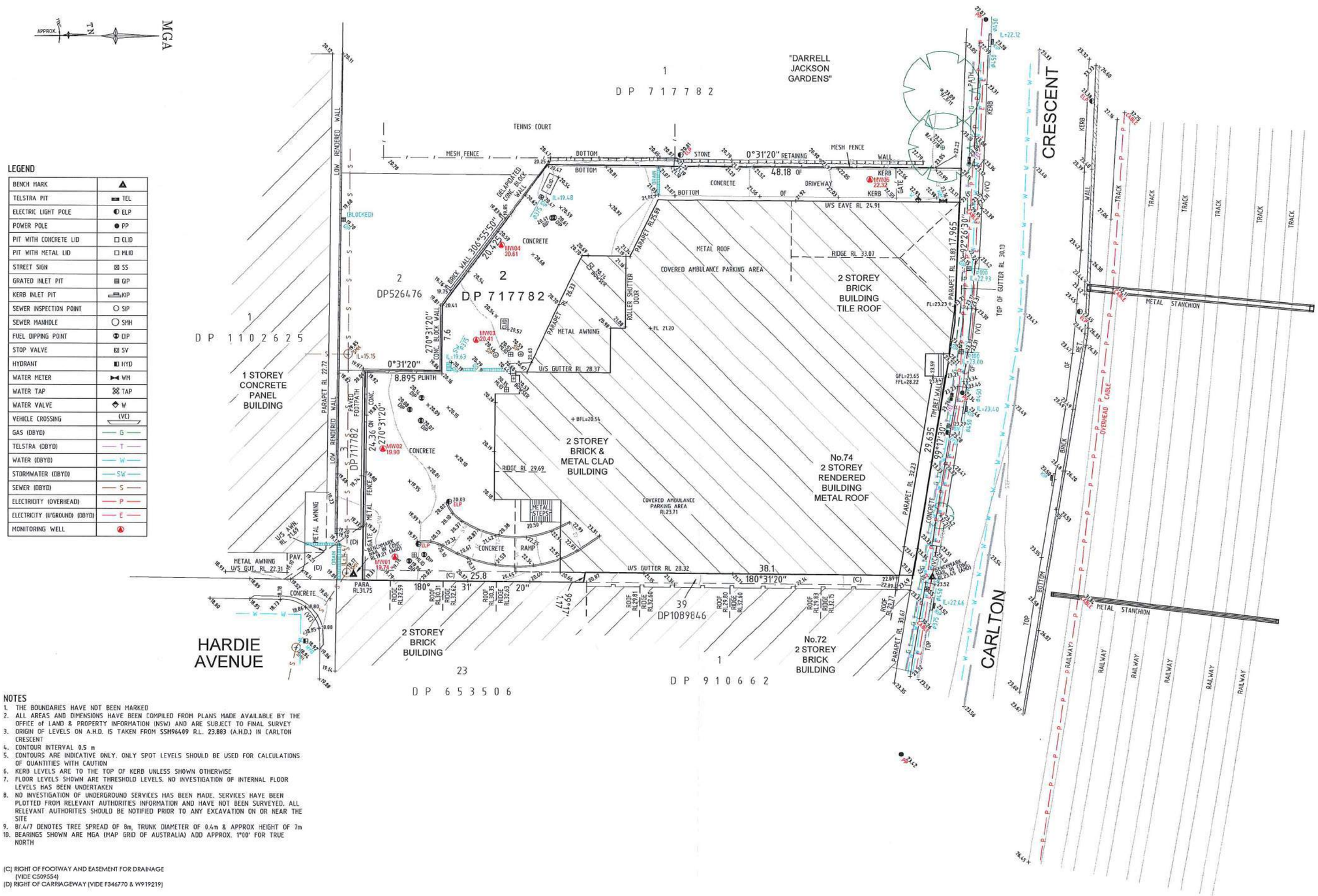
Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8400 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to Mitch Hodgins - mhodgins@jbsg.com.au.

Appendix P Monitoring Well Survey Data



NOTES

1. THE BOUNDARIES HAVE NOT BEEN MARKED
2. ALL AREAS AND DIMENSIONS HAVE BEEN COMPILED FROM PLANS MADE AVAILABLE BY THE OFFICE of LAND & PROPERTY INFORMATION (NSW) AND ARE SUBJECT TO FINAL SURVEY
3. ORIGIN OF LEVELS ON A.H.D. IS TAKEN FROM SSM96409 R.L. 23.883 (A.H.D.) IN CARLTON CRESCENT
4. CONTOUR INTERVAL 0.5 m
5. CONTOURS ARE INDICATIVE ONLY. ONLY SPOT LEVELS SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION
6. KERB LEVELS ARE TO THE TOP OF KERB UNLESS SHOWN OTHERWISE
7. FLOOR LEVELS SHOWN ARE THRESHOLD LEVELS. NO INVESTIGATION OF INTERNAL FLOOR LEVELS HAS BEEN UNDERTAKEN
8. NO INVESTIGATION OF UNDERGROUND SERVICES HAS BEEN MADE. SERVICES HAVE BEEN PLOTTED FROM RELEVANT AUTHORITIES INFORMATION AND HAVE NOT BEEN SURVEYED. ALL RELEVANT AUTHORITIES SHOULD BE NOTIFIED PRIOR TO ANY EXCAVATION ON OR NEAR THE SITE
9. 8/.4/7 DENOTES TREE SPREAD OF 8m, TRUNK DIAMETER OF 0.4m & APPROX HEIGHT OF 7m
10. BEARINGS SHOWN ARE MGA (MAP GRID OF AUSTRALIA) ADD APPROX. 1°00' FOR TRUE NORTH

(C) RIGHT OF FOOTWAY AND EASEMENT FOR DRAINAGE (VIDE C509554)
(D) RIGHT OF CARRIAGEWAY (VIDE F346770 & W919219)

DIAL BEFORE YOU DIG www.1100.com.au

REFER TO NOTES AND LEGEND

0 4 6 8 12 16 20
SCALE 1:200 @ A1

Revision	Date	Description	Reference
D	00/00/00	-	00
C	00/00/00	-	00
B	00/00/00	-	00
A	31/08/17	MONITORING WELLS ADDED	50006 001

THIS IS THE PLAN REFERRED TO IN MY LETTER DATED:

Registered Surveyor NSW

LTS LOCKLEY
Registered Surveyors NSW
www.ltslt.com.au
Suite 1, Level 1
810 Pacific Highway
Gordon NSW 2072
Locked Bag 5
Gordon NSW 2072
P 1300 587 000
F 02 9499 7760

Client HEALTH INFRASTRUCTURE
Drawing title
PLAN OF DETAIL AND LEVELS OVER LOT 2 IN DP717782 KNOWN AS 74 CARLTON CRESCENT, SUMMER HILL

datum AHD
site Area 2896m²
LGA INNER WEST

reference number 50006DT 001
scale 1:200 @A1
date of survey 19/06/2017
SHEET 1 OF 1 SHEETS

Appendix Q Groundwater Monitoring Field Records

Groundwater Sampling Form

FIELD RECORD SHEETS

JBS&G

Project name: Summerhill	**Location:** MW01	**Well ID:** MW01
Person sampling: NW	**Sample method:** Peri pump	**Date:** 11/8/17 **Weather:** fine 20°
Pre-purging groundwater depth (m): 3.345	**Post-sampling groundwater depth (m):** 4.02	**Total well depth (m):** 6.86m
Well diameter (mm): 50mm **Well volume (L):**	**Pump on time:** 08.25 **Pump off time:** 09.05	**Cycles per minute:** N/A

Field Measurements

Time	Purge Rate (mL/min)	Volume purged (L)	DO (mg/L) ppm	DO (% saturation)	EC (us/cm)	pH (units)	Redox (mV)	Temp (oC)	TDS ppm
Field Stabilisation Criteria [1]:			+/- 10%		+/- 3%	+/- 0.5	+/- 10 mV		+/- 3%
08:13	3.60	0	0.23		1.53	5.91	64.4	19.5	
08:16	3.73	1	0.23		1.55	5.96	66.0	19.6	
08:20	3.82	2	0.24		1.55	6.00	66.3	19.5	
08:24	3.89	3	0.20		1.54	6.02	61.3	19.5	
08:28	3.93	4	0.20		1.54	6.04	57.5	19.5	
08:32	3.93	5	0.20		1.54	6.04	55.8	19.6	
08:37	3.94	6	0.25		1.53	6.04	55.5	19.5	①
08:43	3.96	7	0.23		1.54	5.96	58.2	19.6	②
08:49	3.98	8	0.24		1.54	5.98	57.0	19.6	③
08:54	3.99	9	0.24		1.54	5.99	56.8	19.6	
			sampled after 9 L purged 3 3 readings						

Comments (Odour, colour, turbidity, sheen etc)

brown, cloudy, no sheen, no odour

Were Metals Field Filtered? Yes

Were QA/QC Samples Collected? No

[1] These parameters may be considered stable when three consecutive readings (obtained several minutes apart) are within these levels.

Source "Victorian Environmental Protection Authority, *Groundwater Sampling Guidelines*, Publication 669, April 2000".

Groundwater Sampling Form

FIELD RECORD SHEETS

JBS&G 52961

Project name: Summer hill	**Location:** Summershill	**Well ID:** MW02
Person sampling: NW	**Sample method:** Peristaltic	**Date:** 11/8/17 **Weather:**
Pre-purging groundwater depth (m): 2.824	**Post-sampling groundwater depth (m):** 3.015	**Total well depth (m):** 6.90 m
Well diameter (mm): 50 mm **Well volume (L):**	**Pump on time:** 09:30 **Pump off time:** 10:10	**Cycles per minute:** N/A

Field Measurements

drawdown

Time	Purge Rate (mL/min)	Volume purged (L)	PPM DO ~~(mg/L)~~	DO (% saturation)	EC (us/cm)	pH (units)	Redox (mV)	Temp (oC)	TDS ppm
Field Stabilisation Criteria [1]:			**+/- 10%**		**+/- 3%**	**+/- 0.5**	**+/- 10 mV**		**+/- 3%**
09.30		0	0.20		1.83	6.03	56.8	20.7	
09:34	3.09	1	0.16		1.84	5.98	55.8	20.7	
09:37	3.10	2	0.16		1.81	5.94	53.6	20.7	
09:40	3.09	3	0.17		1.80	5.92	52.3	20.7	①
09:43	3.10	4	0.18		1.77	5.91	50.8	20.8	②
09:48	3.12	5	0.19		1.75	5.90	50.0	20.9	
09:53		6	0.19		1.75	5.90	48.8	20.9	③
				sampled after 6 L purged				③ 3 consec readings -	

Comments (Odour, colour, turbidity, sheen etc)

Clear / slightly cloudy, low turbidity, minor sheen, no odour

Were Metals Field Filtered? Yes

Were QA/QC Samples Collected? No

[1] These parameters may be considered stable when three consecutive readings (obtained several minutes apart) are within these levels.

Source "Victorian Environmental Protection Authority, *Groundwater Sampling Guidelines*, Publication 669, April 2000".

Groundwater Sampling Form

FIELD RECORD SHEETS

JBS&G

Project name: Summerhill - 52961	**Location:**	**Well ID:** MW03
Person sampling: NW	**Sample method:** Peristaltic	**Date:** 11/8/17 **Weather:** Sunc 20°
Pre-purging groundwater depth (m): 2.575m	**Post-sampling groundwater depth (m):** 2.935	**Total well depth (m):** 6.700
Well diameter (mm): 50mm **Well volume (L):**	**Pump on time:** 10:30 **Pump off time:**	**Cycles per minute:**

Field Measurements

Time	Purge Rate (mL/min)	Volume purged (L)	DO (mg/L)	DO (% saturation)	EC (us/cm)	pH (units)	Redox (mV)	Temp (oC)	TDS ppm	
Field Stabilisation Criteria [1]:			+/- 10%		+/- 3%	+/- 0.5	+/- 10 mV		+/- 3%	
10:30		0	0.14		1.42	5.87	86.1	20.0		
10:34	2.84	1	0.17		1.41	5.78	85.1	19.6		
10:38	2.87	2	0.17		1.41	5.78	85.1	19.6		
10:42	2.92	3	0.17		1.46	5.77	82.9	19.9		
10:45	2.95	4	0.16		1.48	5.76	80.6	20.0		①
10:50	2.98	5	0.16		1.51	5.76	76.9	20.2		②
10:55	3.02	6	0.16		1.54	5.71	72.1	20.4		
11:00	3.05	7	0.15		1.56	5.77	67.3	20.4		③
				Sampled after 7L purged						

Comments (Odour, colour, turbidity, sheen etc)

Brown, no odour, turbid, minor / slight sheen.

Were Metals Field Filtered? Yes

Were QA/QC Samples Collected? No

[1] These parameters may be considered stable when three consecutive readings (obtained several minutes apart) are within these levels.

Source "Victorian Environmental Protection Authority, *Groundwater Sampling Guidelines*, Publication 669, April 2000".

Groundwater Sampling Form

FIELD RECORD SHEETS

JBS&G

Project name: Summerhill	**Location:**	**Well ID:** MW04
Person sampling: NLJ	**Sample method:** Peristaltic	**Date:** 11/8/17 **Weather:**
Pre-purging groundwater depth (m): 2.807m	**Post-sampling groundwater depth (m):** 2.940	**Total well depth (m):** 6.895
Well diameter (mm): 50mm **Well volume (L):**	**Pump on time:** 12:00 **Pump off time:** 12:36	**Cycles per minute:**

Field Measurements

Drawdown

Time	~~Purge~~ Rate (mL/min)	Volume purged (L)	ppM ~~DO (mg/L)~~	DO (% saturation)	EC (us/cm)	pH (units)	Redox (mV)	Temp (oC)	TDS ppm
Field Stabilisation Criteria [1]:			**+/- 10%**		**+/- 3%**	**+/- 0.5**	**+/- 10 mV**		**+/- 3%**
12:00	2.910	0	0.72		2.27	5.91	84.6	21.3	
12:04	3.01	1	0.38		2.28	5.91	82.9	21.3	
12:08	3.01	2	0.20		1.73	5.95	53.6	21.4	
12:12	3.01	3	0.16		1.78	5.90	50.6	21.3	
12:16	3.02	4	0.18		1.74	5.86	53.9	21.2	①
12:20	3.02	5	0.20		1.74	5.89	53.3	21.2	②
12:24	3.04	6	0.19		1.71	5.89	52.9	21.2	
12:28	3.05	7	0.19		1.69	5.88	52.7	21.3	③
				sampled after 7 L purged & 3 consec readings!					

Comments (Odour, colour, turbidity, sheen etc)

brown/cloudy, no odour, turbid, no sheen

Were Metals Field Filtered? Yes

Were QA/QC Samples Collected? No

[1] These parameters may be considered stable when three consecutive readings (obtained several minutes apart) are within these levels.

Source "Victorian Environmental Protection Authority, *Groundwater Sampling Guidelines*, Publication 669, April 2000".

MW04

TOC = 10.30 cm below Ground/ gatic

Groundwater Sampling Form

FIELD RECORD SHEETS

JBS&G

Project name: Summerhill	**Location:**	**Well ID:** MW05
Person sampling: NWells	**Sample method:** Peristaltic	**Date:** 11/8/17 **Weather:**
Pre-purging groundwater depth (m): 2.269m	**Post-sampling groundwater depth (m):** 2.53	**Total well depth (m):** 6.890
Well diameter (mm): 50mm **Well volume (L):**	**Pump on time:** 12:00 **Pump off time:** 13:50	**Cycles per minute:**

Jon@ mmsenvgroup.com (Dynamic Lay Core)

Field Measurements

Time	Purge Rate (mL/min)	Volume purged (L)	DO (mg/L) ppm	DO (% saturation)	EC (us/cm)	pH (units)	Redox (mV)	Temp (oC)	TDS ppm
Field Stabilisation Criteria [1]:			+/- 10%		+/- 3%	+/- 0.5	+/- 10 mV		+/- 3%
13:00	2.42		0.56		0.61	5.98	134.4	20.3	
13:05	2.60	1	0.39		0.60	5.38	134.7	20.1	
13:09	2.60	2	0.25		0.54	5.21	135.5	20.1	
13:14	2.59	3	0.35		0.60	5.16	130.7	20.1	
13:17	2.59	4	0.42		0.60	5.14	120.2	20.4	(1)
13:20	2.59	5	0.41		0.60	5.14	113.5	20.5	(2)
13:24	2.59	6	0.42		0.61	5.14	112.0	20.5	(3)
13:27	2.59	7	0.40		0.61	5.13	111.4	20.5	
				Sampled after 7L purged and 3 consec readings.					

Comments (Odour, colour, turbidity, sheen etc)

Cloudy, grey, slightly turbid, no sheen, no odour

Were Metals Field Filtered? yes

Were QA/QC Samples Collected? yes - QN20170811, QC20170811

[1] These parameters may be considered stable when three consecutive readings (obtained several minutes apart) are within these levels.

Source "Victorian Environmental Protection Authority, *Groundwater Sampling Guidelines*, Publication 669, April 2000".

IMSO Forms010 - Groundwater Sampling

MW05 - Top of casing = 3.4cm below gatic

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