

**CAMPBELLTOWN 88
DEVELOPMENT PTY LTD**



**Detailed Site Investigation and
Salinity Assessment**

22-32 Queen Street, Campbelltown NSW

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EXECUTIVE SUMMARY

EI Australia (EI) was engaged by Campbelltown 88 Development Pty Ltd ('the client') to conduct a Detailed Site Investigation and Salinity Assessment (DSI) of the land parcel located at 22-32 Queen Street, Campbelltown NSW (the site). The purpose of this investigation was to determine the environmental condition (contamination status) of the site, and to address conditions 12, 13 and 23 of Campbelltown City Council Development Application Notice of Determination (308/2019/DA-CD). It enables the developer to meet obligations under the *State Environmental Planning Policy (SEPP 55) – Remediation of Land*, for the assessment and management of contaminated soil and groundwater, should this be identified.

The proposed development involves the demolition of existing structures, followed by the construction of multiple mixed use commercial and residential towers, overlying a common five-level basement. The proposed commercial facility includes retail shops, cafe/restaurants, supermarket and a child care centre on ground floor. Landscaping (deep soil) areas are proposed outside the basement footprint along the eastern site boundary and in the south-eastern portion of the site.

This DSI follows on from previous investigations completed for the site by EI, which were documented under the following reports:

- EI (2020a) *Preliminary Site Investigation (PSI), 22-32 Queen Street, Campbelltown NSW* (Ref. E24711.E01_Rev1, dated 8 July 2020);
- EI (2020b) *Hazardous Material Survey, 22-32 Queen Street, Campbelltown NSW* (Ref. E24711.E10_Rev0, dated 3 July 2020); and
- EI (2021) *Geotechnical Investigation, 22-32 Queen Street, Campbelltown NSW* (Ref. E24711.G03, dated 3 June 2021).

Objectives

The objectives of this investigation were to:

- Evaluate the potential for site contamination on the basis of historical land uses, anecdotal and documentary evidence of possible pollutant sources;
- Assess the degree of any soil and groundwater contamination, by means of intrusive sampling and laboratory analysis for the relevant potential contaminants;
- Provide a conclusion regarding suitability of the site for proposed use; and
- Make recommendations for the appropriate management of any impacted soils and/or groundwater, should site contamination be confirmed.

Findings

The key findings from this DSI were as follows:

- The site was occupied by a brick storage building and a commercial (factory outlet / parking) complex. Unbuilt parts of the site were covered by concrete driveways / car park and vegetation.
- The PSI completed by EI (2020a) indicated that a UPSS was historically present at 32 Queen Street as a result of the former on-site service station. However, the GPR survey conducted during this investigation did not locate any tanks in the area where the former UPSS was possibly located.
- No visible or olfactory signs of contamination were noted during the inspection. No above-ground storage tanks (ASTs) were present.

- Based on the borehole logs (BH1M-BH33), the site lithology was generalised as a layer of gravelly and sandy silty clay / gravelly sand filling (to an average depth of 0.4m BGL), overlying natural, sandy silty clay / clayey sand (from 0.1m to 6.3m BGL) and shale / sandstone bedrock.
- Depth to water readings ranged from 1.39m to 2.48m BGL. Groundwater flow direction was inferred from local topography to be north-west towards Bow Bowing Creek.
- Contaminant concentrations in the representative soil samples were all below the adopted investigation levels.
- Contaminant concentrations in the representative groundwater samples were generally below the adopted GILs, with the exception of dissolved metals (cadmium, chromium, copper, nickel and zinc).
- The metal concentrations in groundwater were considered consistent with natural (background) conditions in long standing, urban environments, rather than site specific impacts. Therefore, the detected metal concentrations are not considered to be cause of environmental concern for the site development.
- Soil salinity results indicated that the natural site soils (sandy silty clay / clayey sand) were generally non-saline to moderately saline, with the exception of soil samples at borehole BH25M were very saline from the depth of 3.8m to 5.7m BGL. Soils were found to be slightly acidic to neutral (pH ranged from 4.9 to 7.9). Based on moderately saline to very saline soil conditions, we recommend to prepare a salinity management plan for this site.

Based on the findings from this DSI conducted in accordance with the investigation scope agreed with the Client, and with consideration of the Statement of Limitations (**Section 12**), EI concluded that the site was suitable for the proposed development, provided the following recommendations are implemented:

- Following removal of the asbestos containing materials identified during EI (2020b), an asbestos clearance inspection and certificate should be completed by a suitably qualified professional (SafeWork NSW Licensed Asbestos Assessor);
- Following demolition and removal of associated wastes, an inspection of the exposed soil surfaces should be performed by a suitably qualified environmental consultant to ensure there are no unexpected finds;
- Any material being removed from site (including surplus soil and potential virgin excavated natural materials (VENM)) requires classification for off-site disposal in accordance the EPA (2014) *Waste Classification Guidelines*;
- Any material being imported to the site (i.e. for landscaping purposes) should be assessed for potential contamination in accordance with NSW EPA guidelines as being suitable for the intended use or be classified as VENM.

1. INTRODUCTION

1.1 Background and Purpose

EI Australia (EI) was engaged by Campbelltown 88 Development Pty Ltd ('the client') to conduct a Detailed Site Investigation and Salinity Assessment (DSI) of the land parcel located at 22-32 Queen Street, Campbelltown NSW (herein referred to as the 'the site').

The site is located 41 km south-west of the Sydney central business district (CBD), within the local government area (LGA) of Campbelltown City Council, as shown in **Appendix A, Figure 1**. The site is comprised of three cadastral allotments, identified as Lot X in Deposited Plan (DP) 409704 (22 Queen Street), Lot 15 in DP 14782 (24 Queen Street) and Lot 1 in DP 1154928 (32 Queen Street), covering a total area of 20,465.7m², as depicted in **Appendix A, Figure 2**.

At the time of the investigation, the site was occupied by a brick storage building and a commercial (factory outlet / parking) complex. The unbuilt parts of the site were either concrete paved or grassed areas.

The purpose of this investigation was to determine the environmental condition (contamination status) of the site, and to address conditions 12, 13 and 23 of Campbelltown City Council Development Application Notice of Determination (308/2019/DA-CD). The DSI enables the developer to meet obligations under the *State Environmental Planning Policy (SEPP 55) – Remediation of Land*, for the assessment and management of contaminated soil and groundwater, should this be identified. It follows on from previous investigations completed for the site by EI, which were documented under the following reports:

- EI (2020a) *Preliminary Site Investigation (PSI), 22-32 Queen Street, Campbelltown NSW* (Ref. E24711.E01_Rev1, dated 8 July 2020);
- EI (2020b) *Hazardous Material Survey (HMS), 22-32 Queen Street, Campbelltown NSW* (Ref. E24711.E10_Rev0, dated 3 July 2020); and
- EI (2021) *Geotechnical Investigation, 22-32 Queen Street, Campbelltown NSW* (Ref. E24711.G03, dated 3 June 2021).

1.2 Proposed Development

Based on the supplied plans (**Appendix C**), EI understands that site redevelopment involves the demolition of existing structures, followed by the construction of multiple mixed use commercial and residential towers, overlying a common five-level basement.

The basements will cover the majority of the site area, with a finished floor level of 41.3 metres Australian Height Datum (mAHD). Locally deeper excavations are possible for footings, lift overrun pits, crane pads and service trenches.

The proposed commercial facility includes retail shops, cafe/restaurants, supermarket and a child care centre on ground floor. Landscaping (deep soil) areas are proposed along the eastern site boundary and in the south-eastern portion of the site.

1.3 Regulatory Framework

The following regulatory framework and guidelines were considered during this DSI:

- *Contaminated Land Management Act 1997* (the CLM Act 1997);
- *Protection of the Environment Operations Act 1997* (the POEO Act 1997);
- *Environmental Planning and Assessment Act 1979* (the EP&A Act 1997);
- *State Environmental Planning Policy 55 - Remediation of Land* (SEPP 55);
- *Campbelltown Local Environmental Plan 2015*;
- EPA (1995) *Sampling Design Guidelines*;
- EPA (2017) *Guidelines for the NSW Site Auditor Scheme*;
- EPA (2020) *Consultants Reporting on Contaminated Land: Contaminated Land Guidelines*; and
- NEPC (2013) *Schedule B(1) Guideline on Investigation Levels for Soil and Groundwater* and *Schedule B(2) Guideline on Site Characterisation*, in the *National Environmental Protection (Assessment of Site Contamination) Amendment Measure 1999*.

1.4 Project Objectives

The objectives of this investigation were to:

- Evaluate the potential for site contamination on the basis of historical land uses, anecdotal and documentary evidence of possible pollutant sources;
- Assess the degree of any soil and groundwater contamination, by means of intrusive sampling and laboratory analysis for the relevant potential contaminants;
- Provide a conclusion regarding suitability of the site for proposed use; and
- Make recommendations for the appropriate management of any impacted soils and/or groundwater, should site contamination be confirmed.

1.5 Scope of Works

To achieve the above objectives, the following scope of works was completed:

Desktop Study

- A review of relevant (hydro)geological and soil landscape maps for the project area;
- A review of the previous investigation reports; and
- A search of property files archived by Campbelltown City Council, for information relating to operational site history.

Fieldwork and Laboratory Analysis

- Preparation of a Work, Health, Safety and Environmental Plan;
- A review of existing underground services on-site, utilising *Dial-Before-You-Dig* (DBYD) plans and electro-magnetic equipment operated by a licensed services locator;
- A site walkover inspection and Ground Penetrating Radar (GPR) survey in the location of the former underground petroleum storage system (UPSS) identified in the PSI (EI, 2020a);
- Construction of test boreholes at 33 locations (BH1M - BH33), distributed in a triangular grid pattern across accessible parts of the site;

- Boreholes were completed to collect samples for salinity assessment at four locations to depths of about 1m below the proposed bulk excavation which is about 13m BGL or prior refusal on bedrock;
- Installation of four groundwater monitoring bores (BH1M, BH11M, BH25M and BH29M), located up- and down- gradient of the proposed redevelopment area;
- Multiple level soil sampling within fill and natural soils at each of the test bores;
- Completion of one groundwater monitoring event (GME), with measurement of standing water levels (SWLs) and representative sample collection at each of the installed wells; and
- Laboratory analysis of selected soil and groundwater samples for relevant analytical parameters, as determined from the desktop study and field observations.

Data Analysis and Reporting

This DSI report documents all desk study findings, the conceptual site model, data quality objectives, investigation methodologies and results. It also provides a record of observations made during the site walkover inspection, borehole and monitoring well construction logs and a discussion of laboratory analytical results in regards to potential risks to human health, the environment and the aesthetic condition of the land.

2. SITE DESCRIPTION

2.1 Property Identification, Location and Physical Setting

The site identification details and associated information are presented in **Table 2-1**. The site locality and assessment area are illustrated in **Appendix A, Figures 1 and 2**.

Table 2-1 Site Identification

Attribute	Description
Street Address	22-32 Queen Street, Campbelltown NSW
Location Description	41 km south-west of Sydney CBD. Bound by: ▪ North: Queen Street, followed by a railway corridor; ▪ East: Motel and car dealership to the north-east, then Campbelltown Road; ▪ South: Public open space, followed by Campbelltown Performing Arts High School and Beverley Road; and ▪ West: Commercial buildings and ground level car park.
Site Coordinates	Northern-eastern corner of site (GDA2020-MGA56): ▪ Easting: 299036.588; ▪ Northing: 6229213.089. (Source: http://maps.six.nsw.gov.au)
Site Area	20,465.7m ²
Lots and DPs	Lot X in DP 409704 = 22 Queen Street; Lot 15 in DP 14782 = 24 Queen Street; and Lot 1 in DP 1154928 = 32 Queen Street.
State Survey Marks	Three Permanent Marks are situated within close proximity to the site: ▪ PM52482F and PM4704N: on the corner of Kialba Road and Watsford Road (approximately 105m west); and ▪ PM53222: on the Kialba Road (approximately 70m north). (Source: http://maps.six.nsw.gov.au)
LGA	Campbelltown City Council
Parish	Holsworthy
County	Cumberland
Current Zoning	B4: Mixed Use (<i>Campbelltown Local Environmental Plan 2015</i>)

2.2 Surrounding Land Use

The site is situated within an area of mixed use, as described in **Table 2-2**. The local sensitive receptors within close proximity to the site are also identified in this table.

Table 2-2 Surrounding Land Uses

Direction	Land Use Description	Sensitive Receptors (distance)
North	Railway corridor Commercial properties (e.g. roadfreight transport, suppliers, warehouses, retail shops and car dealers) Community Kids Leumeah Early Education Centre	Childcare centre (approximately 210m northeast)

Direction	Land Use Description	Sensitive Receptors (distance)
South	Public open space Campbelltown Performing Arts High School	High school (approximately 100m south)
East	Residential / commercial properties	Residential (approximately 150m east)
West	Commercial properties Queen Street General Practice / Dexterity Health Medical Centre	Medical centres (immediately adjacent and 210m west)

2.3 Regional Setting

The topography, (hydro)geology and soil landscape information are summarised in **Table 2-3**.

Table 2-3 Regional Setting

Attribute	Description
Topography	Gently undulating rises with local relief 10-30m. Slopes <5% but occasionally up to 10% (Hazelton and Tille, 1990). The site displays a slight down slope to the northwest, with elevations varying from 60.2-60.8 mAHD along the southern boundary to 58.3-58.7 mAHD along the northern boundary (Appendix C).
Site Drainage	Likely to be consistent with the general slope of the site. Stormwater is expected to be collected in stormwater pits and piped to the municipal collection system, which likely flows towards Bow Bowling Creek approximately 200m northwest of the site.
Regional Geology	The Department of Mineral Resources <i>Wollongong-Port Hacking 1:100,000 Geological Series Sheet 9029-9129</i> (DMR, 1985) indicates the site is underlain by Ashfield Shale (<i>Rwa</i>), consisting of laminite and dark-grey siltstone. However, the western site boundary is close to the geological boundary with Quaternary-aged sedimentary deposits (<i>Qal</i>), described as quartz and lithic "fluvial" sand, silt and clay.
Soil Landscape	The Soil Conservation Service of NSW <i>Soil Landscapes of the Wollongong-Port Hacking 1:100,000 Sheet</i> (Hazelton PA and Tille PJ, 1990) indicates that the site overlies a Blacktown (<i>bt</i>) residual soil landscape. This landscape type is characterised by gently undulating rises on Wianamatta Group shale, with broad rounded crests and ridges with gently inclined slopes. Natural soils are dominated by impervious clays.
Acid Sulfate Soil (ASS) Risk	With reference to the <i>Acid Sulfate Soil Risk Map</i> (1:25,000 scale; Murphy, 1997) and the <i>Campbelltown Local Environmental Plan 2015</i> , the site is not mapped for ASS. As such, ASS is not expected to be encountered onsite. Further assessment of ASS was considered unwarranted.
Salinity Potential	The DIPNR (2003) <i>Map of Salinity Potential in Western Sydney 2002</i> indicates that the site is within an area of moderate to high salinity potential.
Nearest Surface Water Features	Bow Bowling Creek (200m northwest) and Leumeah Creek (350m east).
Groundwater Bore Records and Groundwater Flow Direction	A search of WaterNSW was conducted by EI during the PSI (2020a), which revealed no registered bores within a 500m radius of the site, indicating that the local groundwater resource was not being (heavily) utilised. Groundwater flow direction was inferred to be northwest, towards Bow Bowling Creek.

2.4 Site Walkover Inspection

Observations were recorded during a walkover inspection of the site on 7 June 2021. These are summarised below and photographs taken during the inspection are presented in **Appendix D**. A detailed description of the site and earlier use is provided in EI (2020a) and summarised in **Section 3**.

- The site was located within a mixed commercial and residential area. Local commercial activities were mainly associated with warehousing and retail activities. A railway corridor was located approximately 30m northwest to southwest of the site.
- The site consisted of a brick storage building at 24 Queen Street (former tenpin bowling centre) and a commercial (factory outlet / parking) complex at 32 Queen Street (**Photographs 1, 3 and 5**). Unbuilt parts of the site were covered by concrete driveways / car park and vegetation.
 - The commercial complex (32 Queen Street) was mostly untenanted at the time of the investigation. An active motor auction was noted in the basement within the southern portion of the property (**Photograph 8**) and an active medical centre was on the upper floor.
 - Building wastes were stockpiled in the south-eastern corner and along the south-eastern boundary of the site (**Photographs 3 and 7**).
 - The concrete paving was generally in fair to good condition. Major cracks were only noted in the south-eastern portion of the site. However, no oil staining was noted.
 - The vegetation on site did not appear stressed.
- Ground Penetrating Radar (GPR) was completed to determine the presence of former UPSS identified in the PSI (EI, 2020a), which was associated with the former on-site service station at 32 Queen Street between 1979 and 1991. The survey did not locate any tanks in the area where the former UPSS was possibly located.
- No visible or olfactory signs of contamination were noted during the inspection, including fragments of fibre cement sheeting (FCS).
- No above-ground storage tank (AST) was present.

3. PREVIOUS INVESTIGATIONS

A number of previous investigations had been completed for the site by EI, which were documented under the following reports:

- EI (2020a) *Preliminary Site Investigation, 22-32 Queen Street, Campbelltown NSW* (Ref. E24711.E01_Rev1, dated 8 July 2020);
- EI (2020b) *Hazardous Material Survey, 22-32 Queen Street, Campbelltown NSW* (Ref. E24711.E10_Rev0, dated 3 July 2020); and
- EI (2021) *Geotechnical Investigation, 22-32 Queen Street, Campbelltown NSW* (Ref. E24711.G03, dated 3 June 2021).

A summary of the investigations is provided in **Table 3-1**.

Table 3-1 Summary of Previous Investigations

Project Task	Findings
EI (2020a) Preliminary Site Investigation	
Objectives	The primary objective of this investigation was to provide a qualitative assessment of the environmental condition of the site, by appraising the potential for site contamination on the basis of field observations, historical land uses and anecdotal and documentary evidence. A secondary objective was to make recommendations for further investigation of the site, should the potential for contamination be confirmed.
Scope of Works	The scope of the investigation included: ▪ Review of relevant (hydro)geological and soil landscape maps for the project area; ▪ A search for groundwater bore records within close vicinity of the site; ▪ A site walkover inspection; ▪ Review of site history, including Lotsearch report and historical aerial photographs; ▪ A search of property files archived by Campbelltown City Council, for information relating to operational site history; ▪ A search of SafeWork NSW records, for information relating to the storage of hazardous chemicals, including possible underground tank approvals and locations; ▪ Searches of public registers maintained by the NSW Environment Protection Authority (EPA) for statutory notices and licensing agreements issued under the <i>Contaminated Land Management Act 1997</i> and <i>Protection of the Environment Operations Act 1997</i>; ▪ A search of the <i>List of NSW Contaminated Sites Notified to the EPA</i>; and ▪ Reporting.
Findings	At the time of the site inspection on 11 June 2020, the site was occupied by vegetation at 22 Queen Street, one brick storage building at 24 Queen Street and one commercial (factory outlet / parking) complex at 32 Queen Street. The site was mostly sealed with buildings and concrete pavements. The remaining parts were vegetated areas. Waste building materials were stockpiled in the south (eastern) parts of the site (at the rears of the two buildings). Fragments of fibre cement sheeting (FCS) were observed on the ground surface in front of the building on 24 Queen Street (i.e. in northern site corner). The site was used for low density, residential and open space purposes up to 1965 (at least). Redevelopment of the site, which included the replacement of residences and vegetation with commercial / industrial buildings and hardstand concrete, commenced sometime between 1965 and 1975. The storage building at 24 Queen

Project Task	Findings
	Street was likely constructed between 1975 and 1984, while the factory outlet / parking complex at 32 Queen Street was constructed around 2009. The commercial activities which took place on the site included joinery manufacture, motor towing services, motor garages and/or service stations (32 Queen Street; 1979-1991), motor dealers, contractors, glass merchants and a bowling centre. No visual or olfactory evidence of (gross) contamination was detected on the site. During the site walkover, there was no visual evidence that a UST or AST was present on the site. However, the SafeWork NSW search indicated that UPSS was present at 32 Queen Street as a result of former service station activity between 1979 and 1991. The site was free of statutory notices and licensing agreements issued under the <i>Contaminated Land Management Act 1997</i> and <i>Protection of the Environment Operations Act 1997</i>. The site was not included on the <i>List of NSW Contaminated Sites Notified to the EPA</i>. The conceptual site model (CSM) established there was low to moderate potential for site contamination derived from the identified sources, except in relation to the hazardous building products, which was considered to pose a high likelihood.
Conclusion	Based on the above findings, it was concluded that there was potential for contamination to exist on the site. Following demolition and prior to any future redevelopment, a detailed (Phase 2) investigation should be undertaken, to further characterise the soils and groundwater at the site and determine the suitability of the land for proposed use.
Recommendations	Before commencement of any demolition works, a Hazardous Materials Survey should be completed by a suitably qualified consultant, to identify any hazardous materials present within the existing building fabrics. Following demolition and prior to any future redevelopment, a DSI should be undertaken, to further characterise the contamination status of soils and groundwater.
EI (2020b) Hazardous Material Survey	
Purpose	The purpose of this survey was to present the findings of a qualitative risk assessment of the hazardous building materials located on the site.
Aim / Scope of Works	■ Ascertain whether the buildings on site contained hazardous materials, including; ▸ Asbestos-containing materials (ACM); ▸ Synthetic mineral fibre (SMF) materials; ▸ Polychlorinated biphenyls (PCB) containing materials; and ▸ Lead-based paint systems (LBP); ■ Undertake a qualitative risk assessment of the hazardous materials contained within the buildings; ■ Develop control strategies for the ongoing management of hazardous materials contained within the buildings; ■ Identify and provide recommendations where remedial works are needed; and ■ Prepare a report with the findings of the inspection, including the hazardous materials register and recommendations for the ongoing management or remedial works.
Conclusion	Hazardous building materials, including ACM, SMF and LBP were identified within the building structures. All identified hazardous building materials were ranked Priority 3 or 4 (i.e. stable and posing negligible health risk under present conditions). No immediate remedial action was deemed necessary.

Project Task	Findings
El (2021) Geotechnical Investigation	
Objective	The objective of this investigation was to assess site surface and subsurface conditions at five borehole locations, and to provide geotechnical advice and recommendations addressing the following: ▪ Dilapidation Surveys; ▪ Excavation methodologies and monitoring requirements, including rock excavation; ▪ Groundwater considerations; ▪ Vibration considerations; ▪ Excavation support requirements, including geotechnical design parameters for retaining walls and shoring systems; ▪ Building foundation options, including design parameters and earthquake loading factor in accordance with AS1170.4:2007. ▪ The requirement for additional geotechnical works.
Scope of Works	▪ Preparation of a Work Health and Safety Plan; ▪ Review of relevant geological maps for the project area; ▪ Site walkover inspection; ▪ Scanning of proposed borehole locations for buried conductive services using a licensed service locator with reference to Dial Before You Dig (DBYD) plans; ▪ Auger drilling of five boreholes (BH1M, BH2, BH3, BH4M and BH5) by a track-mounted drill rig using solid flight augers equipped with a 'Tungsten-Carbide' (T-C) bit. › Standard Penetration Testing (SPT) was carried out, where possible, during auger drilling of the boreholes to assess soil strength/relative densities. › Measurements of groundwater seepage/levels, where possible, in the augered sections of the boreholes during and shortly after completion of auger drilling. › The strength of the bedrock in the augered sections of the boreholes was assessed by observation of the auger penetration resistance using a T-C drill bit and examination of the recovered rock cuttings. ▪ Continuation of BH1, BH2M, BHM, BH4M, and BH5 using NMLC diamond coring techniques to termination depths to approximately 15-16m BGL. ▪ Boreholes BH2M and BH4M were converted into groundwater monitoring wells with depths of 13.25m BGL (47.45m AHD) and 12.82m BGL (46.28m AHD) to allow for long-term groundwater monitoring. ▪ Soil and rock samples were sent to National Australian Testing Authority (NATA) accredited laboratories for testing and storage. ▪ Preparation of this report.
Findings	The subsurface conditions across the site were summarised as: ▪ Gravelly Silty Clay Fill (to the depth of approximately 0.3m BGL); overlying ▪ Residual Clay soils (from 0.2 to 1.4m BGL); overlying ▪ Weathered Shale/Sandstone bedrock (from 2.6m BGL onwards). Standing water levels at the two installed groundwater monitoring wells were recorded at depths ranging from 2.1m to 2.7m BGL on 20 April 2021.
Conclusion	Based on the investigation results, the following was considered to be the main geotechnical issues for the proposed development: ▪ Soil salinity of the soils; ▪ Basement excavation and retention to limit lateral deflections and ground loss as a result of excavations, resulting in damage to nearby structures; ▪ Rock excavation; and ▪ Foundation design for building loads.

4. CONCEPTUAL SITE MODEL

In accordance with NEPC (2013) *Schedule B2 – Guideline on Site Characterisation*, EI (2020a) developed a preliminary CSM that assessed plausible linkages between potential contamination sources, migration pathways and human and environmental receptors. In this DSI, EI reviewed and updated the CSM in order to identify the gaps in the existing site characterisation.

4.1 Summary of Site History

Based on the historical information (EI, 2020a), the site was used for low density residential and open space purposes up to 1965 (at least). Redevelopment of the site for commercial / industrial uses was commenced sometime between 1965 and 1975. The storage building at 24 Queen Street was likely constructed between 1975 and 1984, while the factory outlet / parking complex at 32 Queen Street was constructed around 2009.

Former commercial activities on the site included joinery manufacture, motor towing services, motor garages and/or service stations (32 Queen Street; 1979-1991), motor dealers, contractors, glass merchants and a bowling centre. The SafeWork NSW search indicated that a UPSS was historically present at 32 Queen Street as a result of the former service station. However, the GPR survey conducted during this DSI did not locate any tanks in the area where the former UPSS was possibly located.

4.2 Subsurface Conditions

Excluding any surface paving, the sub-surface conditions of the site were generalised as a layer of shallow filling (<0.5m BGL), overlying residual clay soils and shale / sandstone bedrock.

Groundwater flow direction was inferred to be north-west towards Bow Bowling Creek based on local topography.

4.3 Potential Contamination Sources

The potential contamination sources were as follows:

- Former commercial activities (joinery manufacture, motor towing services, motor garages and/or service stations (32 Queen Street; 1979-1991), motor dealers, contractors, glass merchants and a bowling centre);
- Imported fill materials of unknown origin and quality (used to grade the site);
- Hazardous building materials (including ACM and lead-based paints), present within the fabrics of the former / existing structures;
- The application of pesticides around building (footing) perimeters;
- Leaks from vehicles in the parking areas; and
- Off-site migration from neighbouring commercial properties.

4.4 Emerging Contaminants

Per- and Poly- Fluoroalkyl Substances (PFAS)

EPA (2017) requires that PFAS are considered when investigating land contamination. The probability of PFAS occurrence, which was based on considerations outlined in the *PFAS National Environmental Management Plan* (NEMP 2020), is reviewed in **Table 4-1**. In this instance, the potential for PFAS to be present on-site was low.

Table 4-1 PFAS Decision Tree

Preliminary Screening	Probability of Occurrence¹
Has an activity listed in NEMP (2020) ² as being associated with PFAS contamination occurred on-site? If so, list activity: Petroleum products storage	L - (No evidence suggested a fire occurred onsite)
Has an activity listed in NEMP (2020) ² as being associated with PFAS contamination occurred up-gradient or adjacent to the site? If so, list activity.	L
Did fire training involving the use of suppressants occur on-site between 1970 and 2010?	L
Did fire training occur up-gradient or adjacent to the site between 1970 and 2010? ³	L
Have “fuel” fires ever occurred on-site between 1970 and 2010? (e.g. ignition of fuel (solvent, petrol, diesel, kero) tanks?)	L
Have PFAS been used in manufacturing or stored on-site? ⁴	L
Could PFAS have been imported to the site in fill materials from a site with an activity listed in NEMP (2020)?	L
Could PFAS-contaminated groundwater or run-off have migrated on to the site?	L
Is the site or adjacent sites listed in the NSW EPA PFAS Investigation Program? ⁵	L
If the probability is medium or high in any of the rows, does the site analytical suite need to be optimised to include preliminary sampling and testing for PFAS in soil (including ASLP testing) and waters?	No
Note 1 Probability: L – low (all necessary documentation has been reviewed and there is no recorded instance or compelling rationale); M – moderate (all necessary documentation has been reviewed and there is potential evidence of a recorded instance with compelling rationale); H – high (all necessary documentation has been reviewed and there is evidence of a recorded instance with compelling rationale). Note 2 Activities listed in Appendix B of NEMP (2020). Note 3 Runoff from up-gradient PFAS use may impact surface water, soil, sediment and groundwater. Note 4 PFAS is used wide range of industrial processes and consumer products, including in the manufacture of non-stick cookware, specialised garments and textiles, Scotchguard™ and similar products (used to protect fabric, furniture, leather and carpets from oils and stains), metal plating and in some types of fire-fighting foam. (https://www.nicnas.gov.au/chemical-information/factsheets/chemical-name/perfluorinated-chemicals-pfas) Note 5 Refer to https://www.epa.nsw.gov.au/your-environment/contaminated-land/pfas-investigation-program.	

Emerging Chemicals

The EPA uses Chemical Control Orders (CCOs) as a primary legislative tool under the *Environmentally Hazardous Chemicals Act 1985*, to control chemicals of concern and limit their potential impact on the environment. Considerations for chemicals controlled by CCOs, and other potential emerging chemicals, are outlined in **Table 4-2**. In this instance, the potential for an emerging chemical of concern to be present on-site was low, with the possible exceptions of polychlorinated biphenyls and pesticides in imported fill and near surface soil.

Table 4-2 Emerging or Controlled Chemicals

Chemicals of Concern (CCO or emerging)	Decision
Were aluminium smelter wastes used or stored on site (CCO, 1986)?	No
Do dioxin contaminated wastes (CCO, 1986) have the potential to impact the site? ¹	No
Were organotin products (CCO, 1989) used or stored on site? ²	No
Were polychlorinated biphenyls (PCBs) used or PCB wastes (CCO, 1997) stored on-site? ³	Possibly in imported fill

Chemicals of Concern (CCO or emerging)	Decision
Were scheduled chemical or wastes (CCO, 2004) used or stored? ⁴	Possibly in imported fill or in near surface soil due application of pesticides for termite control
Are other emerging chemicals suspected? ⁵	No
If Yes to any questions, has site sampling suite been optimised to include sampling for these chemicals of concern?	Yes
Note 1 From burning of certain chemicals, smelting or chemical manufacturing or fire on or near the site. Note 2 From anti-fouling paints used or removed at boat and ship yards and marinas. Note 3 From older transformer oils and electrical capacitors Note 4 Twenty-four mostly organochlorine pesticides and industrial by-products Note 5 Other chemicals considered as emerging (e.g. 1,4 dioxane; associated with some CVOC).	

4.5 Potential Contaminants

The primary contaminants of potential concern (COPCs) at the site were considered to be:

- Priority Metals (Met) - arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc;
- Total Recoverable Hydrocarbons (TRH);
- Volatile Organic Compounds (VOC); including
- Benzene, Toluene, Ethylbenzene and Xylenes (BTEX);
- Polycyclic Aromatic Hydrocarbons (PAH);
- Organochlorine and Organophosphorus Pesticides (OCP / OPP);
- Polychlorinated Biphenyls (PCB);
- Phenols; and
- Asbestos.

4.6 Risk Assessment

An assessment of the potential contamination risks for the site is outlined in **Table 4-3**.

Table 4-3 Assessment of Potential Contamination Risk

Potential Source	Impacted Medium	COPC	Risk of Contamination
Former commercial activities	Soil Groundwater	Met, TRH, VOC (including BTEX), PAH and phenols	Moderate The former underground tank at 32 Queen Street presented a preferred vertical pathway for petroleum hydrocarbons; the installed depth was unknown, hence, allow increased risk from the UST, being situated close to (even in) perched groundwater.
Importation of fill of unknown origin and quality	Shallow soil	Met, TRH, BTEX, PAH, OCP, OPP, PCB and asbestos	Low Based on the borehole logs (Appendix E), shallow filling (< 0.5m BGL) present on the site. Contamination loads, if present, likely to be small. Therefore the risk was considered low.
Hazardous building materials	Building fabrics Surface soil	Met (lead in particular), PCB and asbestos	Low to Moderate Hazardous building materials, including ACM, SMF and LBP were identified within the building structures during the HMS (EI, 2020b). All identified hazardous materials

Potential Source	Impacted Medium	COPC	Risk of Contamination
			were noted to be stable and therefore pose negligible health risk under present conditions. However, these materials must be appropriately managed during demolition works.
Application of pesticides	Surface soil (building footings, sub-slab)	Met, OCP, OPP	Low If present, expected to be limited in extent to shallow, building footprint sub-slab soils, due to the nature of application. Metals and OCP may be highly persistent in soils.
Leakage from vehicles in parking areas	Surface soil	Met, TRH, VOC (including BTEX)	Low Contamination, if present, likely to be localised and restricted to surface or shallow soil horizons. Given the concrete pavement in the parking areas was in good condition, the overall risk was considered low.
Migration from off-site sources	Soil Groundwater	Met, TRH, VOC (including BTEX), PAH and phenols	Low The PSI (EI, 2020a) identified that 34 & 15 Queen Street (immediately adjacent and 23m west, respectively) were historically used as service stations between 1979 and 1990. Current local activities were mainly associated with warehousing and retails. Heavy (chemical) industries not present. Surrounding properties of concern were all cross- and down- gradient from the site. Up-gradient sources were not identified. Therefore, the risk was considered low.

4.7 Exposure Pathways and Receptors

The following potential receptors of site contamination were identified:

- Demolition and construction workers;
- Users of the adjacent land during construction;
- Future site users;
- Ecological receptors in areas of exposed soil / landscaping; and
- Bow Bowling Creek.

Given the assessment conducted in **Section 4.6**, the risks to these receptors were considered to be low to moderate.

A summary of the CSM is provided in **Table 4-4**, identifying the potential contamination sources, exposure pathways and human and environmental receptors.

4.8 Data Gap

Based on the CSM derived for the site and the qualitative assessment of risks, the degree (presence / extent) of any impacts associated with the identified contamination sources constituted an investigation data gap. This data gap required further assessment by way of further intrusive sampling and analysis, to quantify the possible risks to the site receptors.

Table 4-4 Conceptual Site Model

Potential Source	Impacted Media	Contaminants of Potential Concern	Transport mechanism	Exposure pathway	Potential receptor
Former commercial activities	Soil	Met, TRH, VOC (including BTEX), PAH, OCP, OPP, PCB, phenols and asbestos	Disturbance of surface and subsurface soils during site redevelopment, future site maintenance and future use of the site post redevelopment	Ingestion Dermal contact Inhalation of particulates Inhalation of vapour	Demolition / construction workers Adjacent site users Future site users Planting within landscaping areas
Imported fill of unknown origin and quality			Atmospheric dispersion from soil to outdoor and indoor air spaces	Plant root uptake	
Hazardous building materials			Volatilisation of contamination from soil and diffusion to indoor air spaces		
Application of pesticides					
Leakage from vehicles	Groundwater	Dissolved Met, TRH, VOC (including BTEX), PAH and Phenols	Volatilisation of contamination from groundwater to indoor or outdoor air spaces (onsite and offsite)	Ingestion Dermal contact Inhalation of vapours	Construction workers Future site users (within basement) Bow Bowing Creek
Off-site migration			Migration of dissolved phase impacts in groundwater		

5. METHODOLOGY

5.1 Sampling and Analysis Quality Plan (SAQP)

The SAQP ensures that the data collected during environmental works are representative and provide a robust basis for assessment decisions. The SAQP for this DSI included the following:

- Data quality objectives, including a summary of the objectives of the DSI;
- Investigation methodology, including the media to be sampled, details of analytes and parameters to be monitored and a description of intended sampling points;
- Sampling procedures (including sample handling, preservation and storage);
- Field screening methods;
- Laboratory analysis methods; and
- Analytical quality assurance / quality control (QA/QC).

5.2 Data Quality Objectives

In accordance with the NEPC (2013) *Schedule B2 Guideline on Site Characterisation*, the USEPA (2006) *Data Quality Assessment* and EPA (2017) *Guidelines for the NSW Site Auditor Scheme*, data quality objectives (DQO) were developed by the EI investigation team, following the NEPM- / EPA- endorsed, seven step process (**Table 5-1**). In doing so, the appropriate levels of data quantity and quality needed for the specific requirements of the project were established.

Table 5-1 Summary of Project Data Quality Objectives

DQO Step	Details
1. State the Problem Summarise the contamination problem that will require new environmental data, and identify the resources available to resolve the problem; develop a conceptual site model.	Site redevelopment involves the demolition of existing structures, followed by the construction of multiple mixed use commercial and residential towers, overlying a common five-level basement, as outlined in Section 1.2. The proposed commercial facility includes retail shops, cafe/restaurants, supermarket and a child care centre on ground floor. Landscaping (deep soil) areas are proposed along the eastern site boundary and in the south-eastern portion of the site. Based on the proposed land use, the majority of the site area has been assumed to be equivalent to a generic NEPC (2013) setting of residential with minimal opportunities for soil access. The proposed childcare outdoor playing area along the north-eastern site boundary will be assessed against the NEPC (2013) thresholds for residential with garden/accessible soil as a conservative approach and the landscaping areas in the south-eastern portion of the site will be assessed against the NEPC (2013) thresholds for public open space. The PSI (EI, 2020a) identified the potential for soil and/or groundwater contamination due to various possible sources, as listed in Section 4.3. A CSM has been developed (Table 4-4). The findings of the DSI must provide supportive information on the environmental condition of the site, to determine suitability for the proposed redevelopment.
2. Identify the Goal of the Study (Identify the decisions) Identify the decisions that need to be made on the contamination problem and the new environmental data required to make them.	Based on the objectives outlined in Section 1.4, the decisions that need to be made were: - Has the nature, extent and source of any soil and/or groundwater impacts onsite been defined? - What impact do the site specific, geologic and hydrogeological conditions have on the fate and transport of any impacts that may be identified? - Does the level of impact coupled with the fate and transport of identified contaminants represent an unacceptable risk to identified human and/or environmental receptors on or offsite? - Does the collected data provide sufficient information to allow the suitability of the site to be determined, or selection and design of an appropriate remedial strategy, if necessary? - If the data does not provide sufficient information, what data gaps require closure to enable the suitability of the site to be determined, or selection and design of an appropriate remedial strategy?
3. Identify Information Inputs (Identify inputs to decision) Identify the information needed to support any decision and specify which inputs require new environmental measurements.	Inputs to the decision making process included: - The proposed development and land use; - Review of the previous site investigations; - National and NSW EPA guidelines made or approved under the <i>NSW Contaminated Land Management Act 1997</i>; - Observations during / from soil and groundwater sampling; and - Laboratory analytical results for the selected soil and groundwater samples. At completion of the DSI, a decision is required regarding the suitability of the site for the proposed redevelopment, or if additional investigation is required to confirm that the site is suitable for that development or if remediation is required to make the site suitable.

DQO Step

Details

4. Define the Boundaries of the Study

Specify the spatial and temporal aspects of the environmental media that the data must represent to support decision.

Lateral – The proposed development area, as shown on **Figure 2, Appendix A**;

Vertical – Investigations were advanced to the depth of natural soils or rock;

Temporal – The results were valid for the day samples were collected and remain so as long as no changes occur in regards to site use, and contamination (if present) does not migrate onto the site from off-site sources.

5. Develop the Analytic Approach (Develop a decision rule)

To define the parameter of interest, specify the action level, and integrate previous DQO outputs into a single statement that describes a logical basis for choosing from alternative actions.

The decision rules for the investigation were:

- If the concentrations of contaminants in the soil and/or groundwater data exceed the adopted criteria, then assess the need to further investigate the extent of impacts onsite.
- Decision criteria for QA/QC measures are defined by the Data Quality Indicators (DQI) in **Table 5-2**.

6. Specify Performance or Acceptance Criteria (Specify limits on decision errors)

Specify the decision-maker's acceptable limits on decision errors, which are used to establish performance goals for limiting uncertainties in the data.

Specific limits for this project were in accordance with National and NSW EPA guidance, and appropriate indicators of data quality and standard procedures for field sampling and handling. This included the following points to quantify tolerable limits:

- The null hypothesis for the investigation was that the 95% Upper Confidence Limits (UCL) of the mean for contaminants of concern exceed relevant residential with minimal access to soil land use criteria across the site.
- Acceptance of site suitability was based on the probability that:
 - The 95% UCL of the mean of the data satisfied the given site criteria (thus, a limit on the decision error was 5% that a conclusive statement may be incorrect);
 - The standard deviation of the results was less than 50% of the relevant criterion; and
 - No single result exceeded the criterion by 250% or more.
- Soil and groundwater concentrations for the potential chemicals that were below investigation criteria made or approved by the NSW EPA were treated as acceptable and indicative of suitability for the proposed land use(s).
- Samples to determine the presence of asbestos were collected from boreholes at the site. Test pits were not excavated as recommended in the NEPM (2013) due to the presence of an expansive concrete slab.
- If contaminant concentrations exceeded the adopted criteria, further investigation was considered prudent. If no contamination was detected, no further action was required.

DQO Step

7. Develop the Detailed Plan for Obtaining Data (Optimise the design for obtaining data)
Identify the most resource-effective sampling and analysis design for general data that are expected to satisfy the DQOs.

Details

In order to identify the most resource-effective sampling and analysis design and satisfy the DQOs:

- Soil sampling was conducted at 33 locations using a triangular grid pattern across accessible parts of the site, in accordance with the minimum number points recommended under the EPA (1995) *Sampling Design Guidelines*.
- Field screening of soil for potential VOCs was carried out with a portable Photo-Ionisation Detector (PID).
- An upper soil profile sample was collected at each borehole location and tested for the COPC, to assess the conditions of the fill layer, and impacts from activities at ground level.
- Further discrete, natural samples were analysed for primary metals, TRH, BTEX and PAH. Samples were selected on field observations (including visual and olfactory evidence), giving consideration to the subsurface stratigraphy.
- 4 groundwater monitoring wells were installed and gauged to assess groundwater quality at the site.
- A GME was completed, with laboratory analysis of representative groundwater samples for COPCs.
- Review of the results was undertaken to determine if further sampling was warranted.

5.3 Data Quality Indicators

To ensure that the investigation data were of an acceptable quality, they were assessed against the quality indicators outlined in **Table 5-2**. Assessment of data quality is presented in **Section 6** and **Appendix I**.

Table 5-2 Data Quality Indicators

QA/QC Component	Data Quality Indicator(s)
Precision A quantitative measure of the variability (or reproducibility) of data	Data precision was assessed by reviewing the performance of blind field duplicate sample sets, through calculation of relative percentage differences (RPD). Data precision was deemed acceptable if RPDs were found to be less than 30%. RPDs that exceeded this range were considered acceptable where: - Results were less than 10 times the limits of reporting (LOR); - Results were less than 20 times the LOR and the RPD was less than 50%; or - Heterogeneous materials or volatile compounds were encountered.
Accuracy A quantitative measure of the closeness of reported data to the “true” value	Data accuracy was assessed through the analysis of: - Split field duplicate sample sets; - Field and method blanks, analysed for the analytes targeted in the primary samples; - Matrix spike and matrix spike duplicate sample sets; and - Laboratory control samples.
Representativeness The confidence (expressed qualitatively) that data are representative of each medium present onsite	To ensure the data produced by the laboratory were representative of conditions encountered in the field, the following measures were taken: - Blank samples run in parallel with field samples, to confirm there were no unacceptable instances of laboratory artefacts; - Review of relative percentage differences (RPD) values for field and laboratory duplicates to provide an indication that the samples were generally homogeneous, with no unacceptable instances of significant sample matrix heterogeneities; and - The appropriateness of collection methodologies, handling, storage, and preservation techniques was assessed to ensure/confirm there was minimal opportunity for sample interference or degradation (i.e. volatile loss during transport due to incorrect preservation / transport methods).
Completeness A measure of the amount of useable data from a data collection activity	Analytical data sets acquired during the DSI were evaluated as complete upon confirmation that: - Standard operating procedures (SOPs) for sampling protocols were adhered to; and - Copies of all chain of custody (COC) documentation were included and found to be properly completed. It could therefore be considered whether the proportion of “useable data” generated in the data collection activities was sufficient for the purposes of the land use assessment.
Comparability The confidence (expressed qualitatively) that data may be considered to be equivalent for each sampling and analytical event	Data sets from separate sampling episodes were required and issues of comparability were reduced through adherence to SOPs and regulator-endorsed or published guidelines and standards on each data gathering activity. In addition the data were collected by experienced samplers and NATA-accredited laboratory methodologies will be employed.

5.4 Sampling Rationale

With reference to the CSM described in **Section 4**, soil and groundwater sampling works were planned in accordance with the following rationale:

- Sampling fill and natural soils from 33 borehole locations across accessible parts of the site, with two locations targeting the area where the former UPSS was located, to characterise *in situ* soils;
- Sampling natural soils from four locations to assess the site salinity;
- Completion of a single groundwater monitoring even (GME) at four installed monitoring wells, to characterise local groundwater conditions; and
- Laboratory analysis of representative soil and groundwater samples for the COPCs.

5.5 Assessment Criteria

The assessment criteria adopted for this DSI are outlined in **Table 5-3**. These were selected from available published guidelines that are endorsed by national or state regulatory authorities, with due consideration of the exposure scenarios that are expected for various parts of the site, the likely exposure pathways, and the identified potential receptors.

For the purposes of this DSI, the adopted soil assessment criteria are referred to as the *Soil Investigation Levels* (SILs) and the adopted groundwater assessment criteria are referred to as *Groundwater Investigation Levels* (GILs).

Table 5-3 Adopted Investigation Levels for Soil and Groundwater

Medium	Guidelines	Rationale
Soil	NEPC (2013) HILs, HSLs, EILs, ESLs and Management Limits for TRH	Soil Health-based Investigation Levels (HILs) <u>Building footprint:</u> NEPC (2013) <i>HIL-B</i> thresholds for residential with minimal opportunities for soil access settings. <u>Child care outdoor playing area (north-eastern site boundary):</u> NEPC (2013) <i>HIL-A</i> thresholds for residential with garden / accessible soil settings as a conservative approach. <u>Landscaping areas (south-eastern portion):</u> NEPC (2013) <i>HIL-C</i> thresholds for public open space settings. Soil Health-based Screening Levels (HSLs) <u>Basement footprint:</u> NEPC (2013) <i>HSL-D</i> thresholds for vapour intrusion at commercial and industrial sites were applied to assess potential human health impacts from residual vapours resulting from petroleum, BTEX and naphthalene (per Section 2.4.8 Schedule B1 NEPC 2013). <u>Landscaping areas:</u> NEPC (2013) <i>HSL-A&B</i> thresholds for low to high density residential sites as a conservative approach. For asbestos: ▪ No visible asbestos on soil surface in all areas of the site; ▪ HSL-A: bonded ACM within the childcare outdoor playing area; ▪ HSL-B: bonded ACM within the building footprint; ▪ HSL-C: bonded ACM in landscaping areas; ▪ Friable Asbestos: 0.001% w/w in all areas of the site.

Medium	Guidelines	Rationale
		Ecological Investigation Levels (EILs) / Ecological Screening Levels (ESLs) EILs / ESLs were considered relevant for any retained deep soils on the site. EILs / ESLs only apply to the top 2 m (root zone). The derived EIL criteria presented by EI are based on the addition of site specific Added Contaminant Limit (ACL) criteria and the Ambient Background Concentration (ABC) for a high traffic NSW suburb. The adopted ESL criteria presented by EI are based on fine grained criteria. Management Limits for Petroleum Hydrocarbons Where the HSLs and ESLs for petroleum hydrocarbons were exceeded, sample results were also assessed against the NEPC (2013) <i>Management Limits</i> for the F1-F4 TRH fractions, to assess propensity for phase-separated hydrocarbons (PSH), fire and explosive hazards and adverse effects on buried infrastructure. Soil Salinity Criteria for soil salinity assessment were derived from the DLWC (2002) <i>Indicators of Urban Salinity</i>.
Groundwater	ANZG (2018) GILs for Fresh Waters and NEPC (2013) Groundwater HSLs	Groundwater Investigation Levels (GILs) for Fresh Waters ANZG (2018) provides GILs for typical, slightly-moderately disturbed aquatic ecosystems, Trigger Values (TVs) for the 95% level of protection of aquatic ecosystems; however, the 99% TVs were applied for the bio-accumulative analyte (mercury). Health-based Screening Levels (HSLs) The NEPC (2013) groundwater HSLs for vapour intrusion were used to assess potential human health impacts from residual vapours resulting from petroleum, BTEX and naphthalene impacts. The <i>HSL-D</i> thresholds for commercial and industrial settings were applied.

5.6 Soil Sampling

The soil sampling works conducted at the site are described in **Table 5-4**. Sampling locations are illustrated in **Figure 2, Appendix A**.

Table 5-4 Summary of Soil Sampling Methodology

Activity/Item	Details
Fieldwork	Intrusive soil investigations were conducted on 7 and 8 June 2021, and comprised 33 borehole locations.
Investigation Method	Test bores BH5 and BH6 were advanced using a hand auger, while the remainder of the test bores were drilled using a ute-mounted drill rig, fitted with solid flight augers. Borehole details are presented in the detailed logs attached in Appendix E .
Soil Logging	Drilled soils were classified in the field with respect to lithological characteristics and evaluated on a qualitative basis for odour and visual signs of contamination. Soil classifications and descriptions were based on Australian Standard (AS) 1726-2017. Borehole logs are presented in Appendix E .
Soil Sampling	Soil samples were collected using a dry grab method (the sampler wearing unused, dedicated nitrile gloves) and placed into laboratory-supplied, acid-washed, solvent-rinsed glass jars, or snap-lock, plastic bags. Blind and split field duplicates were separated from the primary samples and placed into dedicated glass jars.

Activity/Item	Details
	At each location, aliquots of soil were placed into separate zip-lock bags for laboratory asbestos analysis and in-field VOC screening by a PID.
Soil Vapour Screening	Screening for VOC in soil headspace samples was conducted using a pre-calibrated PID with a 10.6mV ionisation lamp.
Decontamination	Nitrile sampling gloves were replaced between each sampling location. Augers were cleaned of all residual soil between each borehole location.
Management of Soil Cuttings	Soil cuttings were used as backfill for completed boreholes.
Sample Preservation and Transport	Samples were stored in a chilled chest (with frozen ice packs), whilst on-site and in transit to the contracted laboratories. Soil samples were transported to SGS Australia Pty Ltd (SGS; the primary laboratory) under strict chain-of-custody (COC) conditions. Signed COC certificates and sample receipt advice (SRA) were provided by SGS for confirmation purposes (Appendix G). Split (inter-laboratory) soil field duplicates were submitted to Envirolab Services Pty Ltd (Envirolab; the secondary laboratory) under strict COC conditions. Signed COC forms and SRA were provided by Envirolab for confirmation purposes.
Laboratory Analysis and Quality Control	Soil samples were analysed by SGS and Envirolab for the COPC. All samples were analysed within the required holding period, as documented in the corresponding laboratory reports (Appendix H). In addition to the split (inter-laboratory) field duplicates (QT1 & QT2; analysed by Envirolab), QC testing comprised two blind (intra-laboratory) field duplicates (QD1 & QD2), an equipment rinsate blank, a laboratory-prepared trip spike soil sample and a laboratory-prepared trip blank soil sample, all analysed by SGS.

5.7 Groundwater Sampling

The groundwater sampling works are described in **Table 5-5**. The monitoring well locations are illustrated in **Figure 2, Appendix A**.

Table 5-5 Summary of Groundwater Sampling Methodology

Activity/Item	Details
Fieldwork	Four groundwater monitoring wells were installed on 7 and 8 June 2021. The wells were subsequently developed following installation to remove sediment introduced during drilling. Water level gauging, well purging, field testing and groundwater sampling were conducted on 15 June 2021.
Well Construction	Four bores were converted to groundwater monitoring wells as follows: ▪ BH1M: installed to a depth of 5.0m BGL (screened from 2.0-5.0m BGL); ▪ BH11M: installed to a depth of 4.5m BGL (screened from 1.5-4.5m BGL); ▪ BH25M: installed to a depth of 5.7m BGL (screened from 2.7-5.7m BGL); and ▪ BH29M: installed to a depth of 3.0m BGL (screened from 1.5-3.0m BGL). Well construction was in general accordance with the standards described in NUDLC (2012) and involved the following: ▪ 50 mm, Class 18 uPVC, threaded, machine-slotted screen and casing; ▪ Base and top of each well was sealed with a uPVC cap; ▪ Annular, graded sand filter was used to approximately 300 mm above top of screen interval; ▪ Granular bentonite was applied above annular filter to seal the screened interval; ▪ Cuttings backfill just below ground level; and ▪ Surface completion comprised of a -0.5 m plastic J-cap closing the well, with a gatic cover at ground level.
Well Development	Well development was conducted for each well after installation. Each well was purged until dry.
Well Gauging	Monitoring wells were gauged to determine standing water level (SWL) (depth to groundwater) prior to well purging at the commencement of the GME on 15 June 2021. Gauging was conducted with a water/oil interface probe.
Well Purging and Field Testing	The measurement of water quality parameters was conducted repeatedly during purging and the details were recorded onto field data sheets, once water quality parameters stabilised. Field measurements for Dissolved Oxygen (DO), Electrical Conductivity (EC) and pH of the purged water were also recorded during well purging. Purged water volumes removed from each well and field test results are summarised in Table 7-3 .
Groundwater Sampling	Groundwater samples were collected by a micro-purge system (with the exception of BH29M which was sampled using a HDPE bailer due to low volumes of water available in the installed well). Water was continuously measured for four parameters (Temperature, EC, Redox, DO, pH). Once three consecutive field measurements were recorded for purged water to within $\pm 10\%$ for DO, $\pm 3\%$ for EC, ± 0.2 units for pH, $\pm 0.2^\circ$ for temperature and ± 20 mV for redox, this was considered to indicate that representative groundwater quality had been achieved and final physio-chemical measurements were recorded. Groundwater samples were then collected from the micro-purge sampling pump discharge point.
Decontamination Procedure	The water level probe and MicroPurge kit were washed in a solution of potable water and <i>Decon 90</i> and then rinsed with potable water.
Sample Preservation	Sample containers were supplied by the laboratory with the following preservatives: ▪ one, 1 litre amber glass, acid-washed and solvent-rinsed bottle; ▪ two, 40ml glass vials, pre-preserved with dilute hydrochloric acid, Teflon-sealed; and ▪ one, 250mL, HDPE bottle, pre-preserved with dilute nitric acid (1mL).

Activity/Item	Details
	Samples for metals analysis were field-filtered using 0.45 µm pore-size membranes. All containers were filled with sample to the brim then capped and stored in insulated chests (containing ice bricks), until completion of the fieldwork and during sample transit to the laboratory.
Sample Transport	After sampling, the ice brick filled chests were transported to SGS using strict COC procedures. SRA was provided by the laboratory to document sample condition upon receipt. Copies of the SRA and COC certificates are presented in Appendix G . A split (inter-laboratory) field duplicate was submitted to Envirolab under strict COC conditions. Signed COC certificates and sample receipt documentation were provided by Envirolab for confirmation purposes (Appendix G).
Laboratory Analysis and Quality Control	Groundwater samples were analysed by SGS (primary laboratory) and Envirolab (secondary laboratory) for the COPCs. All samples were analysed within the required holding period, as documented in the corresponding laboratory reports (Appendix H). In addition to the split (inter-laboratory) field duplicate (GWQT1; analysed by Envirolab), QC testing comprised a blind (intra-laboratory) field duplicate (GWQD1), an equipment rinsate blank, a laboratory-prepared, trip spike soil sample and a laboratory-prepared, trip blank soil sample, all tested by SGS.

6. DATA QUALITY ASSESSMENT

The assessment of data quality is defined as the scientific and statistical evaluation of environmental results to determine if they meet the objectives of the project (USEPA, 2006). For this DSI, data quality assessment involved an evaluation of the compliance of the field (sampling) and laboratory procedures with established protocols, as well as the accuracy and precision of the associated results from the quality control measures. The findings are summarised in **Table 6-1** and discussed in detail in **Appendix I**.

In summary, the overall quality of the analytical data from this DSI was considered to be of an acceptable standard for interpretive use and preparation of an updated CSM.

Table 6-1 Quality Control Process

Stage	Control	Conformance [Yes, Part, No]	Report Section(s)
Preliminaries	DQO established	Yes	See DQO/DQI, Section 5.2 and 5.3
Field work	Suitable documentation of fieldwork observations including borehole logs, field notes.	Yes	See Appendix E and F
Sampling plan	Use of relevant and appropriate sampling plan (density, type, and location)	Yes	See sample rationale Section 5.4
	All media sampled and duplicates collected	Yes	See Appendix G
	Use of approved and appropriate sampling methods (soil, groundwater, soil vapour)	Yes	See Section 5.6 and 5.7
	Selection of soil samples according to field PID readings (where VOCs are present)	Yes	See Section 7 and Appendix E
	Preservation and storage of samples upon collection and during transport to the laboratory	Yes	See Section 5.6 and 5.7
	Appropriate field rinsate and trip blanks taken	Yes	See Appendix G
	Completed field and analytical laboratory sample COC procedures and documentation	Yes	See Appendix G
Laboratory	Sample holding times within acceptable limits	Yes	See laboratory QA/QC, Appendix H, I, J
	Use of appropriate analytical procedures and NATA-accredited laboratories	Yes	See laboratory QA/QC, Appendix H, I, J
	LOR/PQL low enough to meet adopted criteria	Yes	See laboratory QA/QC, Appendix H, I, J
	Laboratory blanks	Yes	See laboratory QA/QC, Appendix H, I, J
	Laboratory duplicates	Yes	See laboratory QA/QC, Appendix H, I, J
	Matrix spike/matrix spike duplicates	Yes	See laboratory QA/QC, Appendix H, I, J
	Surrogates (or System Monitoring Compounds)	Yes	See laboratory QA/QC, Appendix H, I, J

Stage	Control	Conformance [Yes, Part, No]	Report Section(s)
	Analytical results for replicated samples, including field and laboratory duplicates and inter-laboratory duplicates, expressed as Relative Percentage Difference (RPD)	Yes	See laboratory QA/QC, Appendix H, I, J
	Checking for the occurrence of apparently unusual or anomalous results (e.g. laboratory results that appear to be inconsistent with field observations or measurements)	Yes	See Appendix B, E, F
Reporting	Report reviewed by senior staff to assess project meets desired quality, EPA guidelines and project outcomes.	Yes	See Document Control

7. RESULTS

7.1 Soil Field Results

7.1.1 Sub-Surface Conditions

Excluding any surface paving, the general site lithology encountered during the soil investigations was a layer of gravelly and sandy silty clay / gravelly sand filling (to an average depth of 0.4m BGL), overlying natural, sandy silty clay / clayey sand (from 0.1m to 6.3m BGL) and then shale / sandstone bedrock. More details are provided in **Table 7-1** and borehole logs are presented in **Appendix E**.

Table 7-1 Generalised Sub-Surface Profile (mBGL)

Layer	Description	Minimum and Maximum Depth
Hardstand	Concrete pavement	0.0 – 0.2
Fill	Silty CLAY; low plasticity, dark brown, with minor gravels and rootlets (topsoil).	0.0 – 0.6
	Silty CLAY: low to medium plasticity, yellow brown mottled grey, with minor gravels (reworked natural).	0.12 – 0.6
	Silty CLAY; low plasticity, brown, with gravels.	0.08 – 0.5
	Gravelly Silty CLAY; low plasticity, brown and grey, with gravels and minor brick fragments.	0.15 – 1.6
	Sandy Silty CLAY; low plasticity, brown mottled red and black, with sand, gravels and brick fragments.	0.0 – 0.7
	Gravelly SAND; medium to coarse grained, brown, with gravels.	0.08 – 0.5
Natural	Sandy Silty CLAY; low to medium plasticity, brown and orange mottled grey.	0.12 – 6.3
	Clayey SAND; fine to coarse grained sand, orange brown and light grey, with low plasticity clay.	0.1 – 4.5
Bedrock	SHALE/SANDSTONE; weathered, brown and grey.	0.3 – 6.3+

Note 1 + Termination depth of deepest borehole.

7.1.2 Field Observations and PID Results

Soil samples were obtained from the test bores at various depths ranging between 0.1-6.0m BGL. All examined soil samples were evaluated on a qualitative basis for odour and visual signs of contamination (e.g. hydrocarbon odours, oil staining, petrochemical filming, asbestos fragments, ash, charcoal) and the following observations were noted:

- No suspicious odour was detected in any of the examined soils;
- No fragments of potential ACM were observed in any of the drilled/examined soil;
- VOC concentrations from collected soil samples were low (<0.2 parts per million (ppm)). VOC concentrations were field-screened using a portable Photo-ionisation Detector (PID). The PID results are shown in the borehole logs (**Appendix E**).

- GPR survey conducted at central? part of 32 Queen Street, did not report any anomalies indicating the presents of USTs or associated UPSS infrastructure. The GPR report is provided in **Appendix nn**

7.2 Groundwater Field Results

7.2.1 Monitoring Well Construction

Four groundwater monitoring wells were installed on 7 and 8 June 2021. Construction details for the installed groundwater monitoring wells are summarised in **Table 7-2**.

Table 7-2 Monitoring Well Construction Details

Well ID	Well Depth (m BGL)	Well Stick-up (m)	Screen Interval (m BGL)	First water (m BGL)	Lithology Screened
BH1M	5.0	-0.2	2.0-5.0	3.0	Sandy Silty Clay
BH11M	4.5	-0.1	1.5-4.5	4.0	Sandy Silty Clay / Clayey SAND
BH25M	5.7	-0.1	2.7-5.7	3.5	Sandy Silty Clay
BH29M	3.0	-0.1	1.5-3.0	-	Sandy Silty Clay

7.2.2 Field Observations

A GME was conducted on 15 June 2021. Field data were recorded before sampling, as presented in **Table 7-3**. Field data sheets are attached in **Appendix F**. Samples were then evaluated on the basis of odour and visual signs of contamination, with the following observations noted:

- Groundwater in the monitoring wells BH1M and BH25M was observed to be light grey in colour, with low to medium turbidity, while in the monitoring wells BH11M and BH29M, groundwater was observed to be orange brown in colour, with medium to high turbidity;
- No olfactory or visual evidence of contamination was detected in the monitoring wells;
- No sheens were observed on the sampled groundwater;
- The observed standing water levels (DTW) ranged from 1.39m to 2.48m BGL; and
- Groundwater samples were observed to be oxidising (Redox 217 to 280 mV), slightly acidic (pH 5.6 to 6.5) and highly saline (EC 20,193 to 37,012 $\mu\text{S}/\text{cm}$).

Table 7-3 Groundwater Field Data

Well	DTW (m BGL)	DO (mg/L)	pH	EC ($\mu\text{S}/\text{cm}$)	T ($^{\circ}\text{C}$)	Redox ¹ (mV)
BH1M	1.39	1.05	5.61	26583	21.60	280.2
BH11M	1.94	0.88	5.93	20193	23.02	235.2
BH25M	2.04	1.02	6.52	37012	20.02	217.1
BH29M ²	2.48	-	-	-	-	-

Notes:

DTW – Depth to Water

mBGL – metres below ground level (All wells were completed as standpipes with measured stick-down as shown in field notes under **Appendix F**)

DO – Dissolved Oxygen in units of milligrams per litre (mg/L)

EC – groundwater electrical conductivity as measured onsite using portable EC meter

$\mu\text{S}/\text{cm}$ – micro Siemens per centimetre (EC units)

Redox – Reduction Potential

mV – millivolts

¹ Field Redox (mV) readings adjusted to Standard Hydrogen Electrode (SHE) by adding field electrode potential (205mV).

² No sufficient water in monitoring well BH29M for field measurements.

7.3 Laboratory Analytical Results

7.3.1 Soil Analytical Results

Summary of the soil analytical results, with number of tested samples, minimum/maximum analyte concentrations for primary samples and samples found to exceed the SILs, is presented in **Table 7-4**. More detailed tabulation of results showing the concentrations for individual samples alongside the adopted soil criteria are presented in **Table T-1 (Appendix B)**.

Table 7-4 Summary of Soil Analytical Results

Number of Primary Samples	Analyte	Minimum Concentration (mg/kg)	Maximum Concentration (mg/kg)	Samples Exceeding SILs
Priority Metals				
47	Arsenic	1	11	None
47	Cadmium	<0.3	0.5	None
47	Chromium (Total)	5.6	96	None
47	Copper	3.4	49	None
47	Lead	8	72	None
47	Mercury	<0.05	0.09	None
47	Nickel	2.3	52	None
47	Zinc	11	110	None
PAH				
47	Naphthalene	<0.1	0.2	None
47	Benzo(a)pyrene	<0.1	0.3	None
47	Carcinogenic PAH (as B(a)P TEQ)	<0.3	0.5	None
47	Total PAH	<0.8	3.6	None
BTEX				
47	Benzene	<0.1	<0.1	None
47	Toluene	<0.1	<0.1	None
47	Ethyl benzene	<0.1	<0.1	None
47	Xylenes (Total)	<0.3	<0.3	None
TRH				
47	F1	<25	<25	None
47	F2	<25	<25	None
47	F3	<90	300	None
47	F4	<120	<120	None
VOC				
11	Total VOC	<24	<24	None
Pesticides				

Number of Primary Samples	Analyte	Minimum Concentration (mg/kg)	Maximum Concentration (mg/kg)	Samples Exceeding SILs
33	OCP	<1	<1	None
33	OPP	<1.7	<1.7	None
PCB				
33	Total PCB	<1	<1	None
Phenols				
10	Total Phenols	<0.1	0.1	None
Asbestos				
33	Asbestos	Not detected	Not detected	None

7.3.2 Groundwater Analytical Results

Summary of the groundwater analytical results, with number of tested samples, minimum/maximum analyte concentrations for primary samples and samples found to exceed the GILs, is presented in **Table 7-5**. More detailed tabulation of results showing the concentrations for individual samples alongside the adopted groundwater criteria are presented in **Table T-2 (Appendix B)**.

Table 7-5 Summary of Groundwater Analytical Results

Number of Primary Samples	Analyte	Minimum Concentration (µg/L)	Maximum Concentration (µg/L)	Sample(s) Exceeding GILs
Priority Metals				
4	Arsenic	<1	2	None
4	Cadmium	<0.1	0.3	<u>ANZG (2018) 0.2 µg/L</u> BH1M (0.3 µg/L)
4	Chromium (Total)	<1	2	<u>ANZG (2018) 1 µg/L for Cr VI</u> BH1M (2 µg/L) BH29M (2 µg/L)
4	Copper	<1	3	<u>ANZG (2018) 1.4 µg/L</u> BH1M (3 µg/L) BH29M (2 µg/L)
4	Lead	<1	<1	None
4	Mercury	<0.1	<0.1	None
4	Nickel	5	57	<u>ANZG (2018) 11 µg/L</u> BH1M (57 µg/L) BH11M (15 µg/L)
4	Zinc	22	100	<u>ANZG (2018) 8 µg/L</u> BH1M (100 µg/L) BH11M (22 µg/L) BH25M (47 µg/L) BH29M (72 µg/L)
PAH				
4	Naphthalene	<0.1	<0.1	None
4	Benzo(α)pyrene	<0.1	<0.1	None

Number of Primary Samples	Analyte	Minimum Concentration (µg/L)	Maximum Concentration (µg/L)	Sample(s) Exceeding GILs
4	Total PAH	<1	<1	None
BTEX				
4	Benzene	<0.5	<0.5	None
4	Toluene	<0.5	<0.5	None
4	Ethyl benzene	<0.5	<0.5	None
4	o-xylene	<0.5	<0.5	None
4	m + p-xylene	<1	<1	None
TRH				
4	F1	<50	<50	None
4	F2	<60	<60	None
4	F3	<500	<500	None
4	F4	<500	<500	None
VOC				
4	Total VOC	<10	<10	None
Phenols				
4	Total Phenols	10	20	None

8. SITE CHARACTERISATION

8.1 Subsurface Conditions

Based on the borehole logs (BH1M-BH33), the site lithology was generalised as a layer of gravelly and sandy silty clay / gravelly sand filling (to an average depth of 0.4m BGL), overlying natural, sandy silty clay / clayey sand (from 0.1m to 6.3m BGL) and shale / sandstone bedrock.

8.2 Soil Impacts

No visual signs of contamination (e.g. oil staining, petrochemical filming, asbestos fragments) were noted during the soil investigation.

Analytical results for the COPCs in representative fill and natural soil samples were all found to comply with the adopted soil investigation levels.

- Concentrations of priority metals were low. Adopted health based and ecological criteria were not exceeded.
- No VOCs and BTEX compounds were detected.
- Detected concentrations of petroleum hydrocarbons (TRH-F3) were low. Adopted criteria were not exceeded.
- Minor concentrations of PAHs were reported in shallow fill at BH3, BH23, BH25M and BH30; however adopted health based and ecological criteria were not exceeded.
- No OCPs, OPPs or PCBs were detected.
- Minor concentrations of Phenols were reported in natural soil at BH25M; however adopted health based criteria were not exceeded.
- Asbestos was not identified in any of the examined / analysed soils, nor observed on the ground surface during the site inspection and field work.

8.3 Groundwater Impacts

From the GME on 15 June 2021, depth to water readings ranged from 1.39m to 2.48m BGL. Groundwater flow direction was inferred from the general topography to be north-west towards Bow Bowing Creek.

Local groundwater conditions were oxidising, slightly acidic and highly saline.

For all tested samples, the concentrations of the potential chemicals were below the adopted GILs, except for dissolved metals (cadmium, chromium, copper, nickel and zinc).

EI considered that the metal concentrations were indicative of natural (background) conditions in long standing, urban environments, rather than site specific impacts. Site soils were also not considered to be the source of metal impacts, given the low levels in the tested, representative (fill and natural) samples.

8.4 Review of Conceptual Site Model

On the basis of the DSI findings, the CSM discussed in **Section 4** was considered to appropriately identify contamination sources, migration mechanisms and exposure pathways, as well as potential on-site and off-site receptors. The identified data gap (**Section 4.8**) was considered all addressed.

9. Soil Salinity

Summary of the soil salinity results is presented in **Table 9-1**. More detailed tabulation is presented in **Table T-3 (Appendix B)** and laboratory report is provided in **Appendix H**.

Table 9-1 Summary of Soil Salinity Results

Sample ID	pH	Electrical Conductivity (EC - $\mu\text{S}/\text{cm}$)	Field Soil Texture	Adopted Multiplication Factor	ECe (dS/m)	Soil Salinity Class
BH1M-0.9-1.0	6.1	490	Sandy Silty Clay	7	3.43	Slightly Saline
BH1M-1.9-2.0	4.9	1000	Sandy Silty Clay	6	6	Moderately Saline
BH1M-2.9-3.0	5.2	1100	Sandy Silty Clay	7	7.7	Moderately Saline
BH1M-3.9-4.0	5.7	930	Sandy Silty Clay	7	6.51	Moderately Saline
BH1M-4.9-5.0	6.1	820	Sandy Silty Clay	9	7.38	Moderately Saline
BH1M-5.9-6.0	7.1	960	Sandy Silty Clay	7	6.72	Moderately Saline
BH11M_0.4-0.5	6.3	130	Sandy Silty Clay	6	0.78	Non-Saline
BH11M_1.4-1.5	5.5	280	Sandy Silty Clay	6	1.68	Non-Saline
BH11M_2.4-2.5	6.7	410	Sandy Silty Clay	7	2.87	Slightly Saline
BH11M_3.4-3.5	6.9	650	Sandy Silty Clay	7	4.55	Moderately Saline
BH11M_4.4-4.5	7.7	590	Clayey Sand	8.5	5.015	Moderately Saline
BH25M_0.8-0.9	5.2	470	Sandy Silty Clay	6	2.82	Slightly Saline
BH25M_1.8-1.9	6.6	670	Sandy Silty Clay	6	4.02	Moderately Saline
BH25M_2.8-2.9	7	830	Sandy Silty Clay	7	5.81	Moderately Saline
BH25M_3.8-3.9	7.3	1200	Sandy Silty Clay	7	8.4	Very Saline
BH25M_4.8-4.9	7.8	1300	Sandy Silty Clay	9	11.7	Very Saline
BH25M_5.6-5.7	7.9	1300	Sandy Silty Clay	9	11.7	Very Saline
BH29M_0.9-1.0	6.2	260	Sandy Silty Clay	7	1.82	Non-Saline
BH29M_1.9-2.0	7.6	1100	Sandy Silty Clay	7	7.7	Moderately Saline
BH29M_2.9-3.0	7.8	970	Sandy Silty Clay	7	6.79	Moderately Saline

Laboratory results indicated that the natural site soils (sandy silty clay / clayey sand) were generally non-saline to moderately saline, with the exception of soil samples at borehole were very saline BH25M from the depth of 3.8m to 5.7m BGL. Soils were found to be slightly acidic to circum-neutral (pH ranged from 4.9 to 7.9).

10. CONCLUSION

The property located at 22-32 Queen Street, Campbelltown NSW was the subject of a Detailed Site Investigation, which was conducted to assess the nature and degree of on-site contamination associated with current and former uses of the property. The key findings from this DSI were as follows:

- The site was occupied by a brick storage building and a commercial (factory outlet / parking) complex. Unbuilt parts of the site were covered by concrete driveways / car park and vegetation.
- The PSI completed by EI (2020a) indicated that a UPSS was historically present at 32 Queen Street as a result of the former on-site service station. However, the GPR survey conducted during this investigation did not locate any tanks in the area where the former UPSS was possibly located.
- No visible or olfactory signs of contamination were noted during the inspection. No above-ground storage tanks (ASTs) were present.
- Based on the borehole logs (BH1M-BH33), the site lithology was generalised as a layer of gravelly and sandy silty clay / gravelly sand filling (to an average depth of 0.4m BGL), overlying natural, sandy silty clay / clayey sand (from 0.1m to 6.3m BGL) and shale / sandstone bedrock.
- Depth to water readings ranged from 1.39m to 2.48m BGL. Groundwater flow direction was inferred from local topography to be north-west towards Bow Bowing Creek.
- Contaminant concentrations in the representative soil samples were all below the adopted investigation levels.
- Contaminant concentrations in the representative groundwater samples were generally below the adopted GILs, with the exception of dissolved metals (cadmium, chromium, copper, nickel and zinc).
- The metal concentrations in groundwater were considered consistent with natural (background) conditions in long standing, urban environments, rather than site specific impacts. Therefore, the detected metal concentrations are not considered to be cause of environmental concern for the site development.
- Soil salinity results indicated that the natural site soils (sandy silty clay / clayey sand) were generally non-saline to moderately saline, with the exception of soil samples at borehole BH25M were very saline from the depth of 3.8m to 5.7m BGL. Soils were found to be slightly acidic to neutral (pH ranged from 4.9 to 7.9). Based on moderately saline to very saline soil conditions, we recommend to prepare a salinity management plan for this site.

Based on the findings from this DSI conducted in accordance with the investigation scope agreed with the Client, and with consideration of the Statement of Limitations (**Section 12**), EI concluded that the site was suitable for the proposed development, provided the recommendations detailed in **Section 11** are implemented.

11. RECOMMENDATIONS

EI makes the following recommendations in relation to the proposed development:

- Following removal of the asbestos containing materials identified during EI (2020b), an asbestos clearance inspection and certificate should be completed by a suitably qualified professional (SafeWork NSW Licensed Asbestos Assessor);.
- Following demolition and removal of associated wastes, an inspection of the exposed soil surfaces should be performed by a suitably qualified environmental consultant to ensure there are no unexpected finds;
- Any material being removed from site (including surplus soil and potential virgin excavated natural materials (VENM)) requires classification for off-site disposal in accordance the EPA (2014) *Waste Classification Guidelines*.
- Any material being imported to the site (i.e. for landscaping purposes) should be assessed for potential contamination in accordance with NSW EPA guidelines as being suitable for the intended use or be classified as VENM.

12. STATEMENT OF LIMITATIONS

This report has been prepared for the exclusive use of Campbelltown 88 Development Pty Ltd, whom is the only intended beneficiary of EI's work. The scope of the investigation carried out for the purpose of this report was limited to that agreed with Campbelltown 88 Development Pty Ltd.

No other party should rely on this document without the prior written consent of EI, and EI undertakes no duty, or accepts any responsibility or liability, to any third party who purports to rely upon this document without EI's approval.

The findings presented in this report are the result of discrete and specific sampling methodologies used in accordance with best industry practices and standards. Due to the site-specific nature of soil sampling from point locations, it is considered likely that all variations in subsurface conditions across a site cannot be fully defined, no matter how comprehensive the field program.

While normal assessments of data reliability have been made, EI assumes no responsibility or liability for errors in any data obtained from previous assessments conducted on site, regulatory agencies (e.g. Council, EPA), statements from sources outside of EI, or developments resulting from situations outside the scope of works of this project.

Despite all reasonable care and diligence, the ground conditions encountered and concentrations of contaminants measured may not be representative of conditions between the locations sampled and investigated. In addition, site characteristics may change at any time in response to variations in natural conditions, chemical reactions and other events (e.g. groundwater movement and or spillages of contaminating substances). These changes may occur subsequent to EI's investigation.

EI's assessment is necessarily based upon the results of the site investigation and the restricted program of surface and subsurface sampling, screening and chemical testing which was set out in the project proposal. Neither EI, nor any other reputable consultant, can provide unqualified warranties nor does EI assume any liability for site conditions not observed or accessible during the time of the investigations.

This report was prepared for Campbelltown 88 Development Pty Ltd and no responsibility is accepted for use of any part of this report in any other context or for any other purpose or by other third parties. This report does not purport to provide legal advice.

This report and associated documents remain the property of EI subject to payment of all fees due for this assessment. The report shall not be reproduced except in full and with prior written permission by EI.

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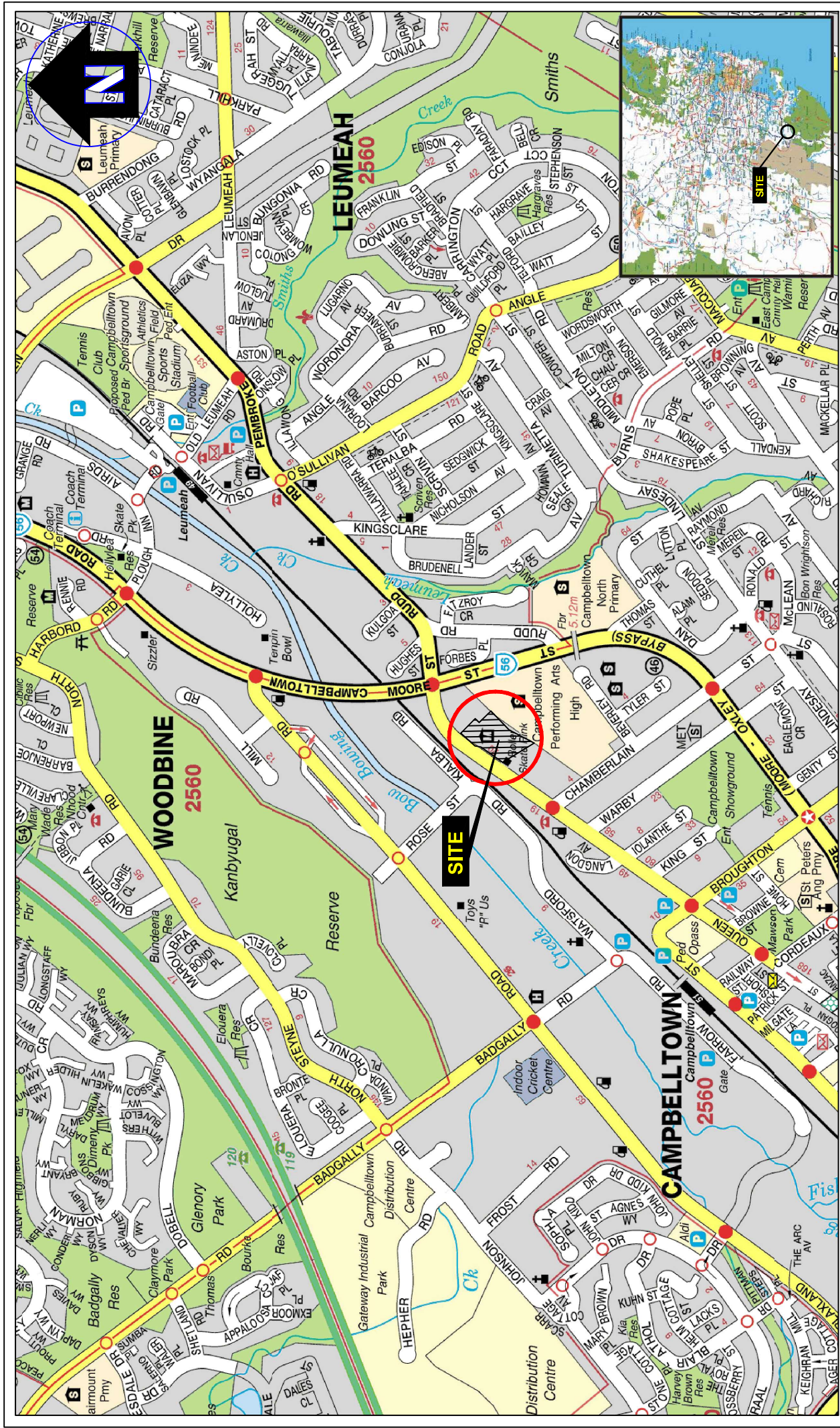
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ABBREVIATIONS

ACM	Asbestos-Containing Materials
AHD	Australian Height Datum
ASS	Acid Sulfate Soils
AST	Above-ground Storage Tank
B(α)P	Benzo(α)Pyrene (a PAH compound)
BGL	Below Ground Level
BH	Borehole
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CCO	Chemical Control Order
COC	Chain of Custody
CSM	Conceptual Site Model
CVOC	Chlorinated Volatile Organic Compounds (a sub-set of the VOC suite)
DA	Development Application
DBYD	Dial Before You Dig
DO	Dissolved Oxygen
DP	Deposited Plan
DSI	Detailed Site Investigation
EC	Electrical Conductivity
EI	EI Australia
EIL	Ecological Investigation Level
EPA	Environment Protection Authority (of New South Wales)
ESL	Ecological Screening Level
F1	C ₆ -C ₁₀ TRH (less the sum of BTEX concentrations)
F2	>C ₁₀ -C ₁₆ TRH (less the concentration of naphthalene)
F3	TRH >C ₁₆ -C ₃₄
F4	TRH >C ₃₄ -C ₄₀
FCS	Fibre Cement Sheetting
FFL	Finished Floor Level
GIL	Groundwater Investigation Level
GIPA	Government Information Public Access
GME	Groundwater Monitoring Event
GPR	Ground Penetrating Radar
GSW	General Solid Waste
HDPE	High Density Polyethylene
HIL	Health-based Investigation Level
HMS	Hazardous Material Survey
HSL	Health-based Screening Level
km	Kilometres
L	Litres
LEP	Local Environmental Plan
LGA	Local Government Area
LOR	Limit of Reporting (limit of reporting for respective laboratory method)
m	Metres
µg/L	Micrograms per Litre
mg/L	Milligrams per Litre
mV	Millivolts
N/A	Not Applicable
NATA	National Association of Testing Authorities, Australia
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure

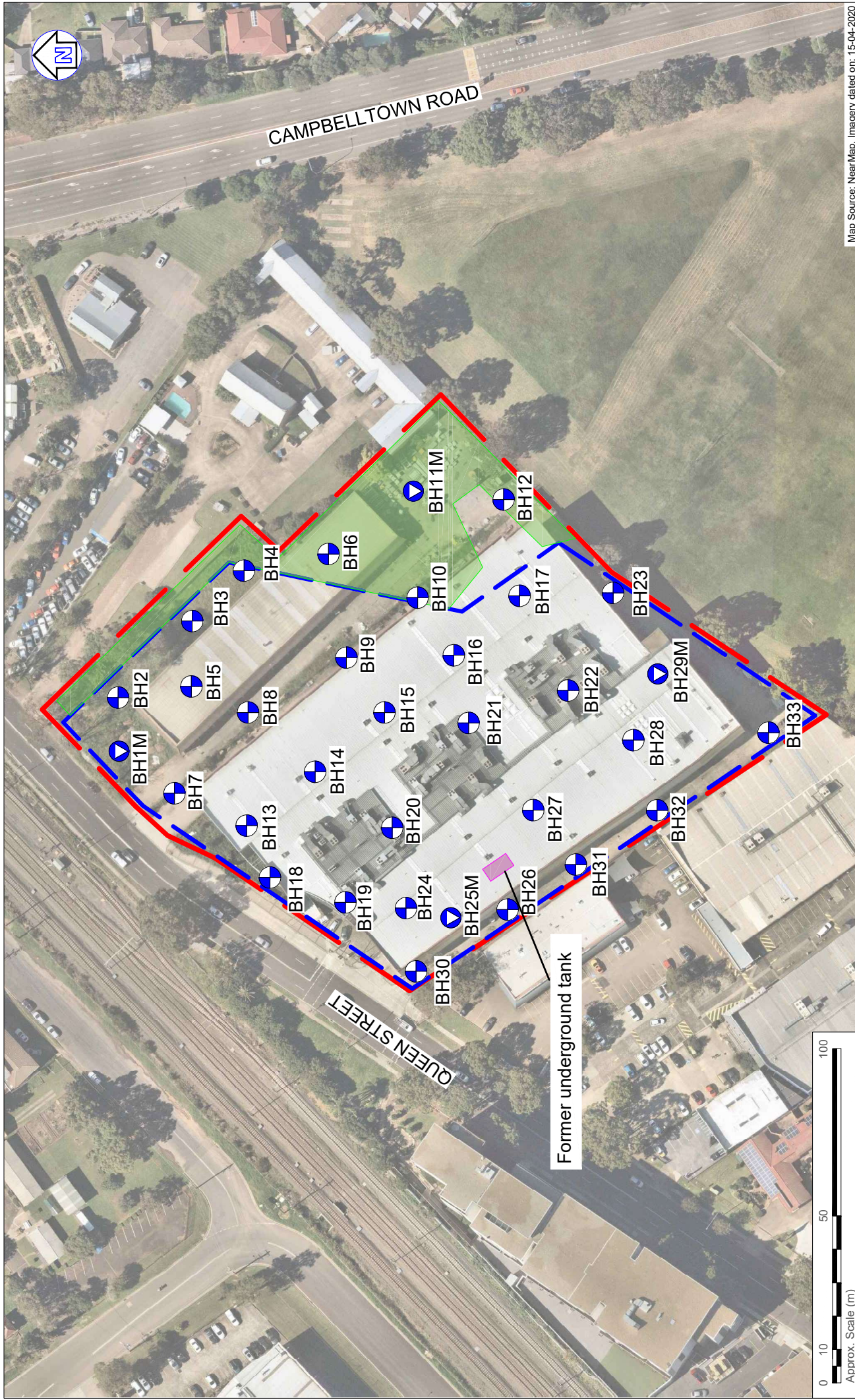
NSW	New South Wales
OCP	Organochlorine Pesticides
OPP	Organophosphate Pesticides
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
pH	Potential Hydrogen (a measure of the acidity or basicity of an aqueous solution)
PQL	Practical Quantitation Limit (limit of detection for respective laboratory method)
PSH	Phase-Separated Hydrocarbons
PSI	Preliminary Site Investigation
QA/QC	Quality Assurance / Quality Control
Redox	Reduction-Oxidation Potential
SAQP	Sampling and Analysis Quality Plan
SIL	Soil Investigation Level
SOP	Standard Operating Procedure
SRA	Sample Receipt Advice (document confirming laboratory receipt of samples)
SWL	Standing Water Level
TEQ	Toxicity Equivalent Quotient
TPH	Total Petroleum Hydrocarbons (superseded term equivalent to TRH)
TRH	Total Recoverable Hydrocarbons (non-specific analysis of organic compounds)
UCL	Upper Confidence Limit (of the mean)
UPSS	Underground Petroleum Storage System
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VENM	Virgin Excavated Natural Material
VOC	Volatile Organic Compounds (specific organic compounds which are volatile)

Appendix A – Figures



Campbelltown 88 Development Pty Ltd
Detailed Site Investigation
22-32 Queen Street, Campbelltown NSW
Site Locality Plan

Drawn:	L.W.
Approved:	-
Date:	04-11-22
Scale:	Not To Scale



LEGEND (Note: All locations are approximate)

- Site boundary
- Proposed basement boundary (B1 to B4)
- Proposed deep soil zone
- Borehole location
- Borehole / monitoring well location



Drawn:

Approved:

Date:

A.N.

-

04-11-22

Figure:

2

Campbelltown 88 Development Pty Ltd

Detailed Site Investigation

22-32 Queen Street, Campbelltown NSW

Sampling Location Plan

Project: E24711 E02_Rev1

Appendix B – Tables

Table T1 – Summary of Soil Test Results

Sample ID	Sampling Date	Priority Metals								PAHs				BTEX				TRHs				Total VOC	Pesticides		PCBs	Total Phenols	Presence/ Absence	
		As	Cd	Cr ⁶	Cu	Pb	Hg	Ni	Zn	Chlorinated PAHs (as B[a]P %)	Benzo[a]pyrene	Total PAHs	Naphthalene	Benzene	Toluene	Ethylbenzene	Total Xylenes	F1	F2	F3	F4		OCFs	OPPs				
Fill																												
BH1M_0.1-0.2	7/06/2021	3	<0.3	8.3	7	16	<0.05	5.4	32	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<24	<1	<1.7	<1	<0.1	No	
BH2_0.1-0.2	7/06/2021	8	<0.3	23	26	56	<0.05	25	66	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH3_0.1-0.2	7/06/2021	7	<0.3	15	18	72	0.07	13	77	<0.3	<0.1	<0.8	0.2	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH4_0.1-0.2	7/06/2021	7	<0.3	15	12	37	0.05	6.7	55	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH7_0.1-0.2	8/06/2021	11	<0.3	17	35	45	<0.05	15	110	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH8_0.1-0.2	7/06/2021	10	<0.3	15	17	41	<0.05	8.7	60	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH9_0.2-0.3	7/06/2021	3	<0.3	12	15	8	<0.05	8.3	32	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH10_0.2-0.3	7/06/2021	6	<0.3	19	20	28	<0.05	14	87	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	300	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH11M_0.1-0.2	7/06/2021	8	<0.3	16	12	30	<0.05	9.1	30	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH12_0.1-0.2	7/06/2021	9	<0.3	15	13	56	0.06	6.4	28	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH13_0.2-0.3	8/06/2021	6	<0.3	13	19	48	<0.05	7.9	61	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<24	<1	<1.7	<1	N.A.	No	
BH14_0.3-0.4	8/06/2021	4	<0.3	11	20	29	<0.05	6.3	40	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH15_0.2-0.3	8/06/2021	6	<0.3	20	16	15	<0.05	13	42	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH17_0.2-0.3	8/06/2021	6	<0.3	12	19	20	<0.05	9.3	42	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<24	<1	<1.7	<1	<0.1	No	
BH18_0.1-0.2	8/06/2021	6	0.3	9.6	22	24	<0.05	7	83	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH19_0.2-0.3	8/06/2021	4	<0.3	13	49	24	<0.05	13	47	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<24	<1	<1.7	<1	<0.1	No	
BH20_0.2-0.3	8/06/2021	6	<0.3	20	22	39	<0.05	19	50	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH21_0.2-0.3	8/06/2021	1	0.5	7.3	21	14	<0.05	44	80	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH22_0.15-0.2	8/06/2021	3	<0.3	9.5	21	19	<0.05	7.2	41	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH23_0.2-0.3	7/06/2021	4	<0.3	15	18	16	<0.05	8.8	51	0.4	0.2	3.4	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH24_0.2-0.3	8/06/2021	6	<0.3	19	19	19	<0.05	13	34	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH25M_0.3-0.4	8/06/2021	7	<0.3	17	25	20	<0.05	10	44	<0.3	<0.1	<0.8	1.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<24	<1	<1.7	<1	<0.1	No	
BH26_0.3-0.4	8/06/2021	5	<0.3	14	24	16	<0.05	7.6	29	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<24	<1	<1.7	<1	<0.1	No	
BH27_0.2-0.3	8/06/2021	6	<0.3	10	15	19	<0.05	13	54	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH28M_0.3-0.4	8/06/2021	6	<0.3	20	20	21	<0.05	11	43	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<24	<1	<1.7	<1	<0.1	No	
BH30_0.2-0.3	8/06/2021	5	<0.3	16	32	35	0.09	14	65	0.5	0.3	3.6	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH31_0.3-0.4	8/06/2021	7	<0.3	15	24	19	<0.05	9.8	35	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	100	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH32_0.3-0.4	8/06/2021	5	<0.3	14	32	20	<0.05	13	94	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	140	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH33_0.2-0.3	8/06/2021	5	<0.3	12	26	37	<0.05	6.2	24	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	140	<120	<24	<1	<1.7	<1	<0.1	No	
Statistical Analysis																												
Maximum concentration		11	0.5	23	49	72	0.09	44	110	0.5	0.3	3.6	0.2	<0.1	<0.1	<0.1	<0.3	<25	<25	300	<120	<24	<1	<1.7	<1	<0.1	No	
Natural																												
BH1M_0.1-0.1	7/06/2021	7	<0.3	13	14	17	<0.05	6.1	31	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
BH4_0.6-0.7	7/06/2021	10	<0.3	17	18	27	<0.05	13	48	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
BH5_0.3-0.4	8/06/2021	2	<0.3	6.5	3.4	9	<0.05	2.3	12	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH6_0.1-0.2	8/06/2021	3	<0.3	5.6	3.5	8	<0.05	2.3	11	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<24	<1	<1.7	<1	<0.1	No	
BH8_0.7-0.8	7/06/2021	6	<0.3	12	20	17	<0.05	6.8	34	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
BH12_0.4-0.5	7/06/2021	7	<0.3	12	19	17	<0.05	5.7	31	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
BH13_0.7-0.8	8/06/2021	6	<0.3	9.5	20	16	<0.05	6.2	26	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
BH16_0.3-0.4	8/06/2021	1	<0.3	7.7	18	9	0.08	27	77	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	<1	<1.7	<1	N.A.	No	
BH20_1.8-1.9	8/06/2021	5	<0.3	9.1	17	16	<0.05	5.7	30	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
BH22_0.4-0.5	8/06/2021	2	<0.3	19	9.5	16	<0.05	12	61	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
BH24_0.8-0.9	8/06/2021	7	<0.3	15	26	22	<0.05	9.7	44	<0.3	<0.1</																	

Table T2 - Summary of Groundwater Analytical Results

Sample ID	Sampling Date	Metals								PAHs		BTEX				TRHs				Total VOC	Total Phenols	pH	EC (µS/cm)			
		As	Cd	Cr	Cu	Pb	Hg	Ni	Zn	Total PAHs	Benzo(a)pyrene	Naphthalene	Benzene	Toluene	Ethylbenzene	o-xylene	m/p-xylene	F1	F2					F3	F4	
BH1M	15/6/2021	2	0.3	2	3	<1	<0.1	57	100	<1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<50	<60	<500	<500	<10	10	5.7	20,000	
BH11M		<1	<0.1	<1	<1	<1	<0.1	15	22	<1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<50	<60	<500	<500	<10	20	6.1	15,000	
BH25M		<1	<0.1	<1	<1	<1	<0.1	5	47	<1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<50	<60	<500	<500	<10	10	6.2	27,000	
BH29M		<1	0.2	2	2	<1	<0.1	8	72	<1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<50	<60	<500	<500	<10	20	6.2	20,000	
Statistical Analysis																										
Maximum Concentration		2	0.3	2	3	<1	<0.1	57	100	<1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<50	<60	<500	<500	<10	20	6.2	27,000	
GILs																										
HSL D - Commercial / Industrial Soil texture classification – Clay		2m to <4m								NL		NL	NL	NL	NL	NL	NL	NL	NL	NL						
		4m to <8m								NL		NL	NL	NL	NL	NL	NL	NL	NL	NL						
		8m+								NL		NL	NL	NL	NL	NL	NL	NL	NL	NL						
GILs	Fresh Waters ¹	24 (AsIII) 13 (AsV)	0.2	1 ³ (Cr VI)	1.4	3.4	0.06 ²	11	8 ³			16	950	180 ⁴	80 ⁴	350	275 ⁴	50 ⁵	60 ⁵	500 ⁵	500 ⁵		320			
	Marine Waters ¹		0.7 ²	27 (Cr III) 4.4 (Cr IV)	1.3	4.4	0.1 ²	7	15 ³			50 ³	500 ³	180 ⁴	5 ⁴	350 ⁴	275 ⁴	50 ⁵	60 ⁵	500 ⁵	500 ⁵		400			
	Recreational Water ⁶	100	20		1,000 *	100	10	200	3,000*				10	25*	3*	20 *	20 *									

Notes:

- Highlighted indicates criteria exceeded
- Highlighted indicates criteria not met

All values are µg/L unless stated otherwise

HSL D NEPC 1999 Amendment 2013 'HSL D' Health Based Screening Levels for vapour intrusion applicable for commercial / industrial settings.

NL Not Limiting

F1 To obtain F1 subtract the sum of BTEX concentrations from the C6-C10 fraction.

F2 To obtain F2 subtract naphthalene from the >C10-C16 fraction.

F3 >C16-C34)

F4 (>C34-C40)

1 NEPM (2013) Groundwater Investigation Levels for fresh and marine water quality, based on ANZECC & ARMCANZ (2000).

2 Chemical for which possible bioaccumulation and secondary poisoning effects should be considered, refer to ANZG (2018) for further guidance.

3 Figure may not protect key species from chronic toxicity, refer to ANZECC & ARMCANZ (2000) for further guidance

4 Low reliability toxicity data, refer to ANZECC & ARMCANZ (2000)

5 In lack of a criteria the laboratory POL has been used (DEC. 2007).

6 Based on NHMRC (2011 - update August 2018 v.3.5) Drinking Water Guidelines. The lowest of the Health Guideline x10 or the Aesthetic Guideline has been chosen as the assessment criteria. Aesthetic based criteria have been indicated by *

Sample	pH	Electrical Conductivity (EC - $\mu\text{S}/\text{cm}$)	Soil Texture	ECe ($\mu\text{S}/\text{cm}$)	Adopted Multiplication Factor	ECe (dS/m)	Cation Exchange Capacity (CEC - meq/100)	Exchangeable Sodium Percentage (%)	Cations (mg/kg)				Anions (mg/kg)		Soil Salinity Class ¹
									Ca	Mg	Na	K	Chloride	Sulfate	
BH11M_0.9-1.0	6.1	490	Medium Clay	3430	7	3.43	12	33.9	300	730	910	59	660	260	Slightly Saline
BH11M_1.9-2.0	4.9	1000	Heavy Clay	6000	6	6	14	50.7	16	830	1700	61	1800	120	Moderately Saline
BH11M_2.9-3.0	5.2	1100	Medium Clay	7700	7	7.7	17	54.5	100	830	2100	81	2200	160	Moderately Saline
BH11M_3.9-4.0	5.7	930	Medium Clay	6510	7	6.51	15	55.1	46	750	1900	100	1600	110	Moderately Saline
BH11M_4.9-5.0	6.1	820	Clay Loam	7380	9	7.38	13	46.9	210	660	1300	72	1400	200	Moderately Saline
BH11M_5.9-6.0	7.1	960	Medium Clay	6720	7	6.72	15	50.8	110	810	1800	150	1700	160	Moderately Saline
BH11M_0.4-0.5	6.3	130	Heavy Clay	780	6	0.78	13	23	230	1100	700	88	140	17	Non-Saline
BH11M_1.4-1.5	5.5	280	Heavy Clay	1680	6	1.68	12	35.7	39	910	1000	83	260	260	Non-Saline
BH11M_2.4-2.5	6.7	410	Medium Clay	2870	7	2.87	7.9	45.7	5	510	830	33	620	150	Slightly Saline
BH11M_3.4-3.5	6.9	650	Medium Clay	4550	7	4.55	11	50.5	33	630	1300	75	970	150	Moderately Saline
BH11M_4.4-4.5	7.7	590	Light Clay	5015	8.5	5.015	12	47.2	56	710	1300	93	910	80	Moderately Saline
BH25M_0.8-0.9	5.2	470	Heavy Clay	2820	6	2.82	14	35.9	190	960	1200	90	740	91	Slightly Saline
BH25M_1.8-1.9	6.6	670	Heavy Clay	4020	6	4.02	21	47.2	17	1300	2300	100	1000	87	Moderately Saline
BH25M_2.8-2.9	7	830	Medium Clay	5810	7	5.81	12	54.3	19	640	1500	55	1400	84	Moderately Saline
BH25M_3.8-3.9	7.3	1200	Medium Clay	8400	7	8.4	17	58.9	53	780	2300	87	2300	73	Very Saline
BH25M_4.8-4.9	7.8	1300	Clay Loam	11700	9	11.7	18	57.3	140	820	2400	100	2400	67	Very Saline
BH25M_5.6-5.7	7.9	1300	Clay Loam	11700	9	11.7	18	60.1	160	750	2500	98	2500	57	Very Saline
BH29M_0.9-1.0	6.2	260	Medium Clay	1820	7	1.82	9.9	28.9	67	800	660	48	260	190	Non-Saline
BH29M_1.9-2.0	7.6	1100	Medium Clay	7700	7	7.7	15	48.1	43	910	1700	64	1800	73	Moderately Saline
BH29M_2.9-3.0	7.8	970	Medium Clay	6790	7	6.79	15	51.1	85	800	1700	68	1600	72	Moderately Saline

¹ DLWC (2002)

Appendix C – Proposed Development

REFERENCES

Any work to be carried out in accordance with the provisions of the Building Act 2016 and the Building Regulation 2016 must be carried out in accordance with the provisions of the Building Act 2016 and the Building Regulation 2016.

NOTES

1. The drawings are prepared in accordance with the provisions of the Building Act 2016 and the Building Regulation 2016.

2. The drawings are prepared in accordance with the provisions of the Building Act 2016 and the Building Regulation 2016.

3. The drawings are prepared in accordance with the provisions of the Building Act 2016 and the Building Regulation 2016.

BASEMENT ABBREVIATION LEGEND

CODE	DESCRIPTION
PH	Pre Hydrant
PHH	Pre Hydrant Hose
SC	Small Car
ST	Storage Cage

RESIDENTIAL

Parking Schedule Basement 5	
Description	Count
Disabled Carpark Space	21
Standard Carpark Space	306
Standard Small Carpark Space	6
Total Carpark	: 333

RESIDENTIAL

Bike Parking Schedule Basement 5	
Description	Count
Bicycle Space	85
Motorcycle Space	20
Total Bikes	: 105

Client

CAMPBELLTOWN 88 DEVELOPMENT PTY LTD

ABN: 46 649 535 393

Architect

sketchi design group

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Sydney, NSW, 2106
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W: WWW.SKETCHIDESIGN.COM.AU

Project

22-32 QUEEN STREET,
CAMPBELLTOWN NSW 2560

Drawing Title

BASEMENT 5

Scale

1:300@A1

Scale Bar

0 5 10 15 20 25 30m

DEVELOPMENT APPLICATION

Job No. 201902
Rev. B
Drawn by KL/AK/HSE
Checked by MC
Date AUG 2022



CODE:	DESCRIPTION:
a	Bollard
b	Fire Hydrant
c	Fire Hose Reel
CH	Motor Cycle Parking Space
CP	Car Parking Space
SC	Storage Cage
ST	Visitor Parking Space

NOTES

[illegible]

Client
CAMPBELLTOWN 88 DEVELOPMENT
PTY LTD
ABN: 45 649 535 393

Structural	MANCE ARR
Stormwater	SGC
Mechanical	STANTEC
Electrical	STANTEC
Hydraulic	STANTEC

Architect

sketch!

design group

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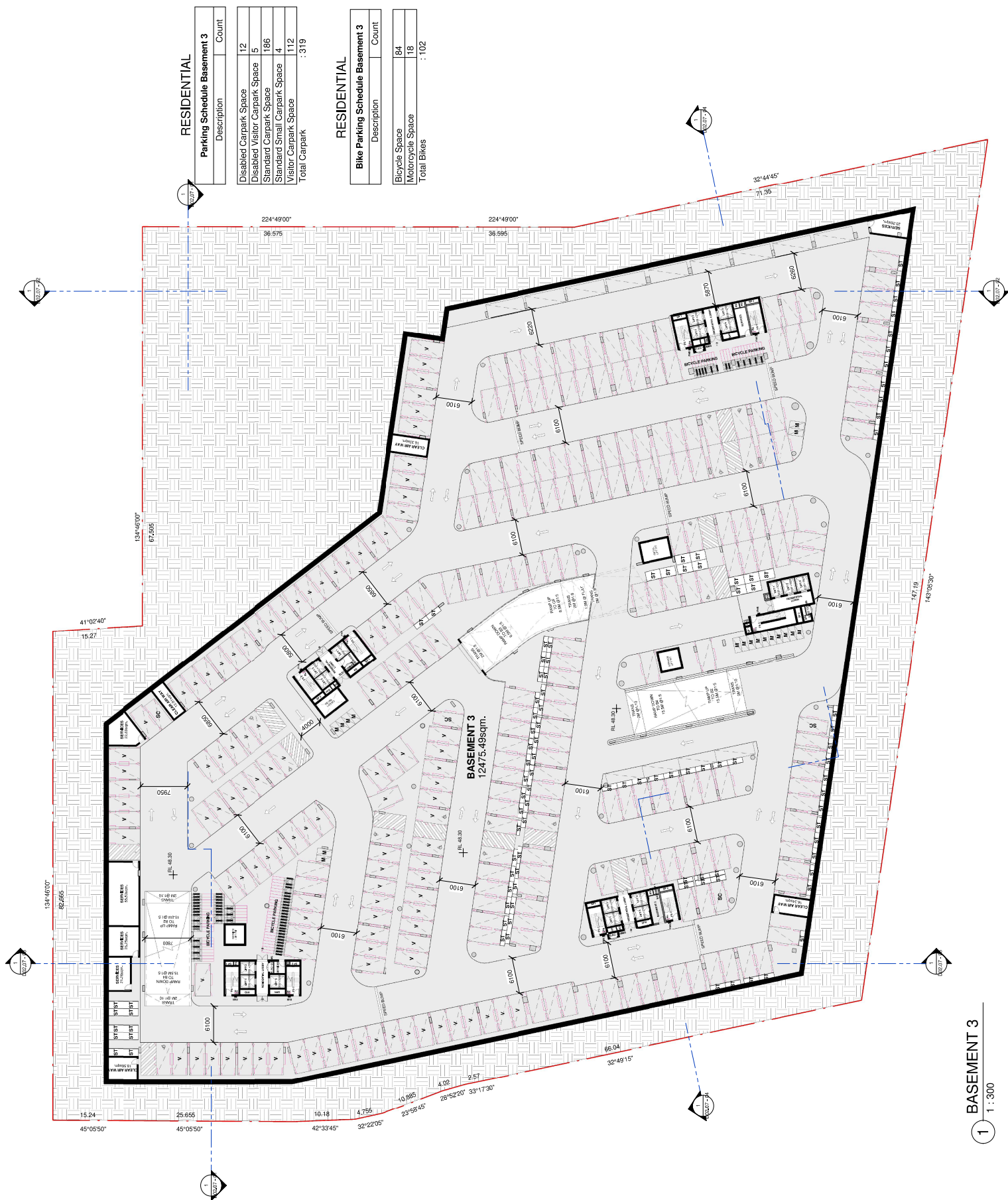
Project
222-32 QUEEN STREET,
CAMPBELLTOWN NSW 2560

Drawing Title

Scale 1 : 300@A1

Scale Bar

DEVELOPMENT APPLICATION			
Status	Job No.	Sheet No.	Rev.
	201902	D01.01 - 03	B
Drawn by		Checked by	Date
KL/AK/JH/SE		MC	AUG 2022





REFERENCES

Any work to be done in accordance with the provisions of the Building Act 1993 and the Building Regulation 2006 must be done in accordance with the provisions of the Building Act 1993 and the Building Regulation 2006. The Building Act 1993 and the Building Regulation 2006 are the primary legislation governing the construction of buildings in New South Wales. The Building Act 1993 and the Building Regulation 2006 are the primary legislation governing the construction of buildings in New South Wales. The Building Act 1993 and the Building Regulation 2006 are the primary legislation governing the construction of buildings in New South Wales.

NOTES

1. The drawings are prepared in accordance with the provisions of the Building Act 1993 and the Building Regulation 2006. The drawings are prepared in accordance with the provisions of the Building Act 1993 and the Building Regulation 2006. The drawings are prepared in accordance with the provisions of the Building Act 1993 and the Building Regulation 2006.

LEGEND

- 1BD
- 2BD
- 3BD
- BAL
- CO-WORKING SPACE
- COMMERCIAL
- COMMERCIAL LOBBY
- COMMUNITY FACILITIES
- CORRIDOR
- COS
- GYM
- PLANTER

Rev	Date	By	Description
C	28.10.22		ISSUE FOR COUNCIL RFS
B	01.08.22		RE-ISSUE FOR DA SUBMISSION
A	10.02.22		ISSUE FOR DA SUBMISSION

Client

CAMPBELLTOWN 88 DEVELOPMENT
PTY LTD

ABN: 46 649 535 393

- Structural MANICE ARRAJ
- Stormwater SGC
- Mechanical STANTEC
- Electrical STANTEC
- Hydraulic STANTEC
- Landscape STURT NOBLE ASSOCIATES

Architect

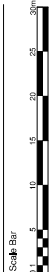
sketchi:
design group

10 Gault St,
South Shillfield, NSW, 2106
P: 02 8076 5510
W: WWW.SKETCHIDSGROUP.COM.AU

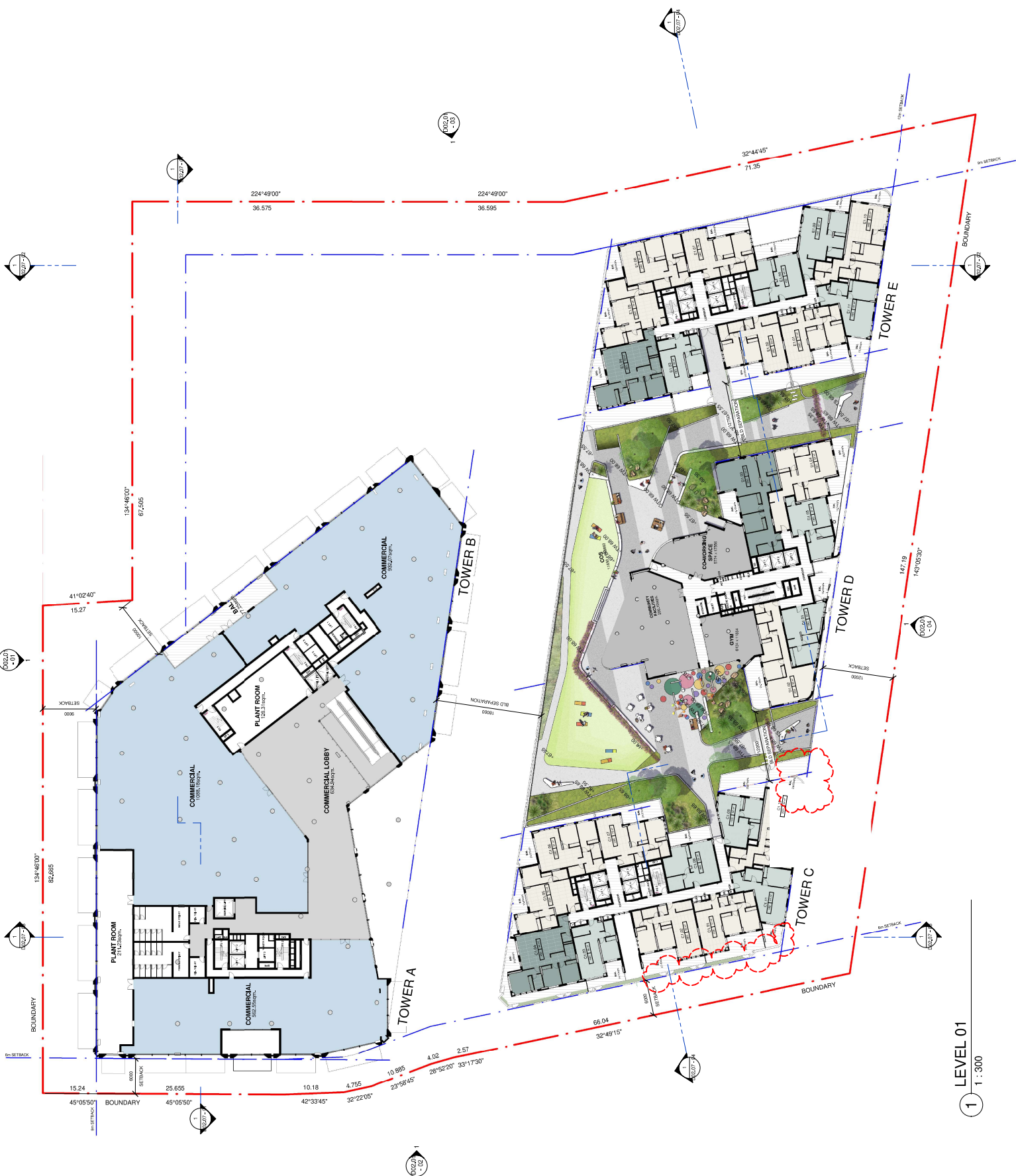
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22-32 QUEEN STREET,
CAMPBELLTOWN NSW 2560

Drawing Title
LEVEL 01

Scale
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STATUS
DEVELOPMENT APPLICATION
Sheet No.
201902
Job No.
D01.01 - 07
Drawn by
KL/AK/HSE
Checked by
MC
Date
AUG 2022



1 LEVEL 01
1:300

REFERENCES

Any work that is not in accordance with the Australian Standards must be referred to the relevant Australian Standard. The Australian Standards are available from the Australian Standards Organisation (AS/NZS).

NOTES

1. This drawing is a preliminary design and is not to be used for construction or any other purpose without the written approval of the architect.

2. The architect is not responsible for the accuracy of the information provided by the client or any other source.

3. The architect is not responsible for the accuracy of the information provided by the client or any other source.

4. The architect is not responsible for the accuracy of the information provided by the client or any other source.

5. The architect is not responsible for the accuracy of the information provided by the client or any other source.

- LEGEND**
- 1BD
 - 2BD
 - 3BD
 - BAL
 - CO - WORKING SPACE
 - COMMUNAL ROOM
 - CORRIDOR
 - PLANTER

Rev	Date	By	Description
B	01/08/22		RE-ISSUE FOR DA SUBMISSION
C	01/08/22		ISSUE FOR DA SUBMISSION

Client

CAMPBELLTOWN 88 DEVELOPMENT
PTY LTD

ABN: 46 649 535 393

Structural MANICE ARRAJ
Stormwater SGC
Mechanical STANTEC
Electrical STANTEC
Hydraulic STANTEC
Landscape STURT NOBLE ASSOCIATES

Architect

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Project

22-32 QUEEN STREET,
CAMPBELLTOWN NSW 2560

Drawing Title

LEVEL 03

Scale

1:300@A1

Scale Bar

0 5 10 15 20 25 30m

DEVELOPMENT APPLICATION

Job No. 201902
Rev. D01.01 - 09
Drawn by KLAK/HISE
Checked by MC
Date AUG 2022



LEVEL 03
1:300

REFERENCES

Any works to be carried out in accordance with the provisions of the Building Act 2016 and the Building Regulation 2016 must be carried out in accordance with the provisions of the Building Act 2016 and the Building Regulation 2016.

NOTES

1. This drawing is a preliminary drawing and is not to be used for construction purposes.

2. This drawing is a preliminary drawing and is not to be used for construction purposes.

3. This drawing is a preliminary drawing and is not to be used for construction purposes.

- LEGEND**
- 1BD
 - 2BD
 - 3BD
 - BAL
 - CORRIDOR
 - COS
 - PLANTER

Rev	Date	By	Description
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C	01/08/22		RE-ISSUE FOR DA SUBMISSION
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X	01/08/22		RE-ISSUE FOR DA SUBMISSION
Y	01/08/22		RE-ISSUE FOR DA SUBMISSION
Z	01/08/22		RE-ISSUE FOR DA SUBMISSION

Client

CAMPBELLTOWN 88 DEVELOPMENT
PTY LTD

ABN: 46 649 535 393

Architect

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Project

22-32 QUEEN STREET,
CAMPBELLTOWN NSW 2560

Drawing Title:
LEVEL 04

Scale:
1:300@A1

Development Application

Job No.
201902

Sheet No.
D01.01 - 10

Rev.
B

Drawn by
KLAKU/HSE

Checked by
MC

Date
AUG 2022

Scale Bar

0 5 10 15 20 25 30m

Scale

1:300@A1

Scale Bar

0 5 10 15 20 25 30m



LEVEL 04

1:300

REFERENCES

Any work to be done in accordance with the provisions of the Building Act 2016 and the Building Regulation 2016 must be done in accordance with the provisions of the Building Act 2016 and the Building Regulation 2016.

NOTES

1. This drawing is a preliminary drawing and is not to be used for construction purposes.

2. This drawing is a preliminary drawing and is not to be used for construction purposes.

3. This drawing is a preliminary drawing and is not to be used for construction purposes.

- LEGEND**
- 1BD
 - 2BD
 - 3BD
 - BAL
 - CORRIDOR

Rev	Date	By	Description
B	01/08/22		RE-ISSUE FOR DA SUBMISSION
C	01/08/22		ISSUE FOR DA SUBMISSION

Client

CAMPBELLTOWN 88 DEVELOPMENT
PTY LTD

ABN: 46 649 535 393

Structural MANICE ARRAJ
Stormwater SGC
Mechanical STANTEC
Electrical STANTEC
Hydraulic STANTEC
Landscape STURT NOBLE ASSOCIATES

Architect

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design group

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Project

22-32 QUEEN STREET,
CAMPBELLTOWN NSW 2560

Drawing Title

LEVEL 05-07

Scale

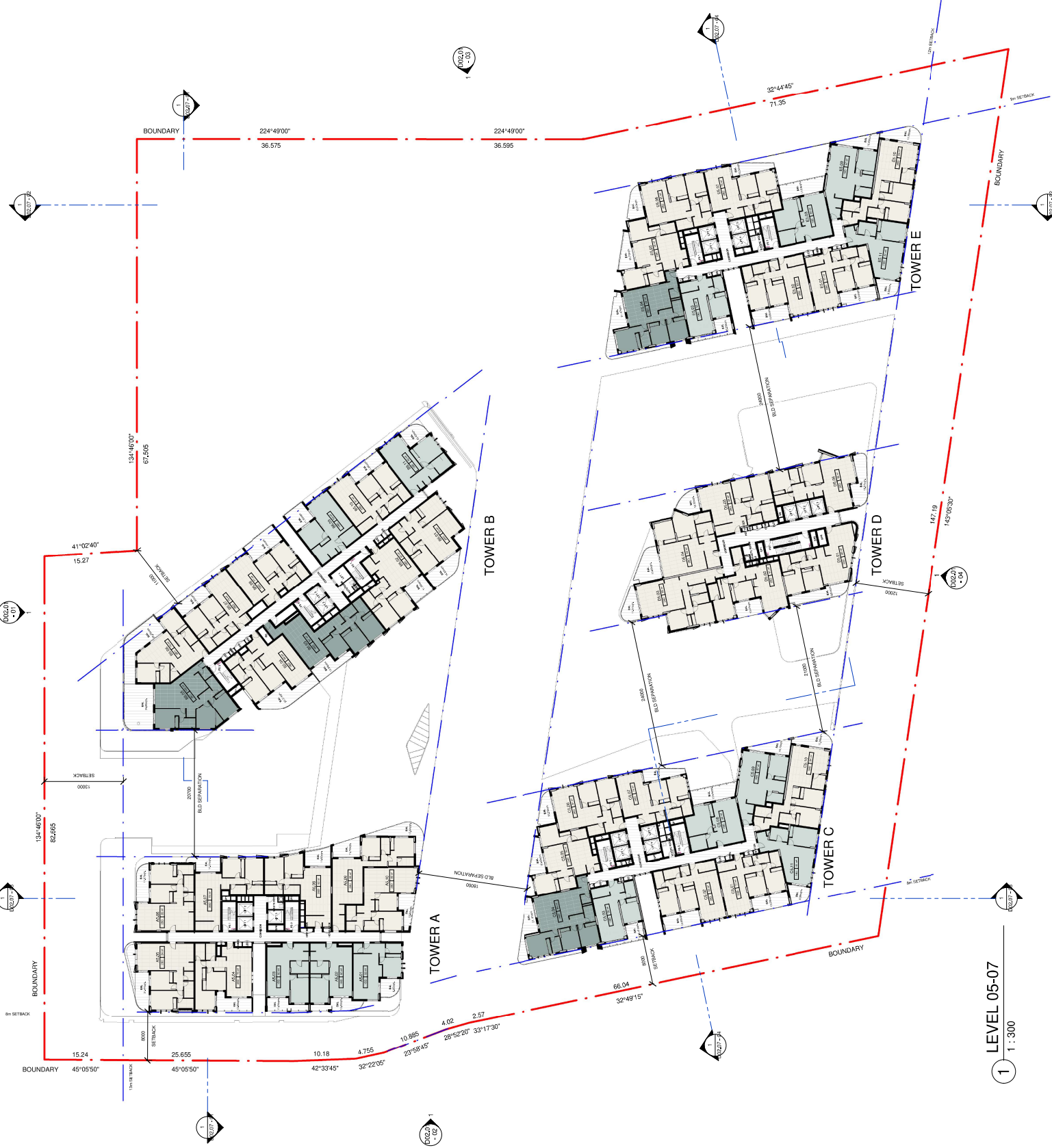
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Scale Bar

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DEVELOPMENT APPLICATION

Job No. 201902
Sheet No. D01.01 - 11
Rev. B
Drawn by KLAKU/HS
Checked by MC
Date AUG 2022



REFERENCES

Any work that is to be undertaken in accordance with the drawings must be done in accordance with the relevant Australian Standards and the relevant codes of practice. The drawings are to be used in accordance with the relevant Australian Standards and the relevant codes of practice. The drawings are to be used in accordance with the relevant Australian Standards and the relevant codes of practice.

NOTES

1. The drawings are to be used in accordance with the relevant Australian Standards and the relevant codes of practice. The drawings are to be used in accordance with the relevant Australian Standards and the relevant codes of practice.

- LEGEND**
- 18D
 - 28D
 - 38D
 - BAL
 - CORRIDOR

Rev	Date	By	Check	Description
B	01/08/22			RE-ISSUE FOR DA SUBMISSION
I	01/08/22			ISSUE FOR DA SUBMISSION

Client

CAMPBELLTOWN 88 DEVELOPMENT
PTY LTD

ABN: 46 649 535 393

Structural MANICE ARRAJ
Stormwater SGC
Mechanical STANTEC
Electrical STANTEC
Hydraulic STANTEC
Landscape STURT NOBLE ASSOCIATES

Architect

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Project

22-32 QUEEN STREET,
CAMPBELLTOWN NSW 2560

Drawing Title

LEVEL 09-11

Scale

1:300@A1

Scale Bar

0 5 10 15 20 25 30m

DEVELOPMENT APPLICATION

Sheet No. 201902
Job No. D01.01 - 13
Drawn by KLAKU/HS
Checked by MC
Date AUG 2022



1 LEVEL 09-11
1:300

REFERENCES

Any works that are to be undertaken in accordance with this drawing must be in accordance with the relevant Australian Standards and any other applicable codes of practice. The design is based on the information provided by the client and the design team. The design team is not responsible for the accuracy of the information provided by the client and the design team. The design team is not responsible for the accuracy of the information provided by the client and the design team.

NOTES

1. The design is based on the information provided by the client and the design team. The design team is not responsible for the accuracy of the information provided by the client and the design team. The design team is not responsible for the accuracy of the information provided by the client and the design team.

LEGEND

28D	38D	BAL	CORRIDOR	COS
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Z	01/08/22		RE-ISSUE FOR DA SUBMISSION

Client

CAMPBELLTOWN 88 DEVELOPMENT
PTY LTD

ABN: 46 649 535 393

Structural MANICE ARRAJ
Stormwater SGC
Mechanical STANTEC
Electrical STANTEC
Hydraulic STANTEC
Landscape STURT NOBLE ASSOCIATES

Architect

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Project

22-32 QUEEN STREET,
CAMPBELLTOWN NSW 2560

Drawing Title

LEVEL 12

Scale

1:300@A1

Scale Bar

0 5 10 15 20 25 30m

STATUS

DEVELOPMENT APPLICATION

Job No. 201902
Sheet No. D01.01 - 14
Rev. B
Drawn by KLAKUJISE
Checked by MC
Date AUG 2022



LEVEL 12
1:300

REFERENCES

Any works that are indicated on the drawings must be carried out in accordance with the relevant standards and specifications. The drawings are prepared on the basis of the information provided by the client and the design team. The design team is not responsible for the accuracy of the information provided by the client and the design team. The design team is not responsible for the accuracy of the information provided by the client and the design team.

NOTES

1. The drawings are prepared on the basis of the information provided by the client and the design team. The design team is not responsible for the accuracy of the information provided by the client and the design team. The design team is not responsible for the accuracy of the information provided by the client and the design team.

- LEGEND**
- 2BD
 - 3BD
 - BAL
 - CORRIDOR
 - COS

Rev	Date	By	Description
B	01/08/22		RE-ISSUE FOR DA SUBMISSION
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Y	01/08/22		RE-ISSUE FOR DA SUBMISSION
Z	01/08/22		RE-ISSUE FOR DA SUBMISSION

Client

CAMPBELLTOWN 88 DEVELOPMENT
PTY LTD

ABN: 46 649 535 393

Structural MANICE ARRAJ
Stormwater SGC
Mechanical STANTEC
Electrical STANTEC
Hydraulic STANTEC
Landscape STURT NOBLE ASSOCIATES

Architect

sketchi:
design group

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P: 02 8076 5110
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Project

22-32 QUEEN STREET,
CAMPBELLTOWN NSW 2560

Development Application

Site No. D01.01 - 15
Rev. B
Drawn by KLAKU/HISE
Checked by MC
Date AUG 2022

Drawing Title

LEVEL 13

Scale

1:300@A1

Scale Bar

0 5 10 15 20 25 30m

STATUS

Development Application

1

LEVEL 13

1:300



REFERENCES

Any works to be carried out in accordance with the provisions of the Building Act 1993 and the Building Regulation 2006 must be carried out in accordance with the provisions of the Building Act 1993 and the Building Regulation 2006.

NOTES

1. The drawings are prepared in accordance with the provisions of the Building Act 1993 and the Building Regulation 2006.

LEGEND

 CORRIDOR

Rev	Date	By	Description
B	01/08/22		RE-ISSUE FOR DA SUBMISSION
C	01/08/22		RE-ISSUE FOR DA SUBMISSION
D	01/08/22		RE-ISSUE FOR DA SUBMISSION
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G	01/08/22		RE-ISSUE FOR DA SUBMISSION
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Y	01/08/22		RE-ISSUE FOR DA SUBMISSION
Z	01/08/22		RE-ISSUE FOR DA SUBMISSION

Client

CAMPBELLTOWN 88 DEVELOPMENT
PTY LTD

ABN: 46 649 535 393

Structural MANICE ARRAJ
Stormwater SGC
Mechanical STANTEC
Electrical STANTEC
Hydraulic STANTEC
Landscaping STURTS NOBLE ASSOCIATES

Architect

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W: www.sketchigroup.com.au

Project

22-32 QUEEN STREET,
CAMPBELLTOWN NSW 2560

Drawing Title

LEVEL 15

Scale

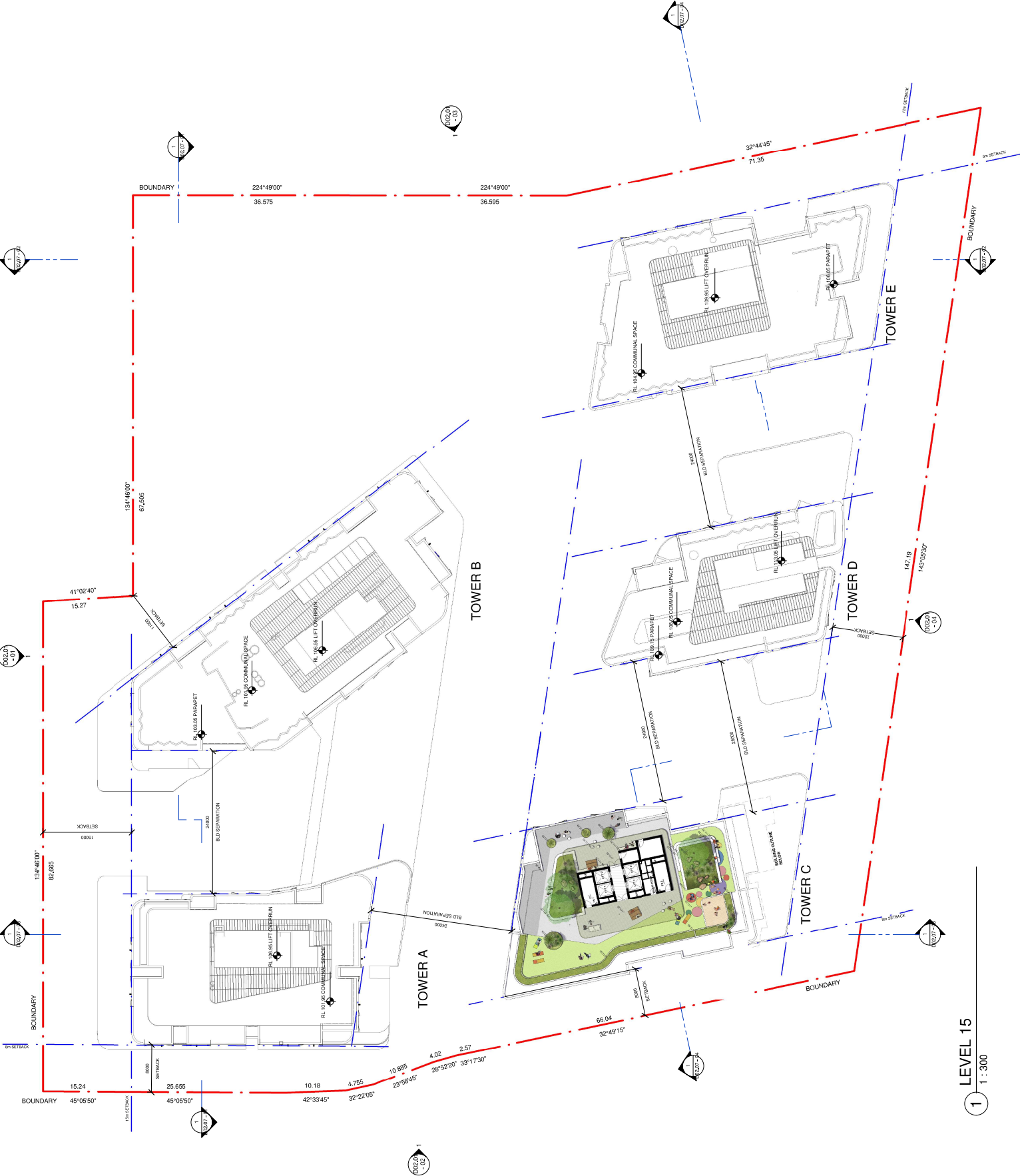
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Scale Bar

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DEVELOPMENT APPLICATION

Sheet No. 201902
Job No. D01.01 - 17
Drawn by KLAKUJISE
Checked by MC
Date AUG 2022



1 LEVEL 15
1:300

REFERENCES

Any work to be carried out in accordance with the provisions of the Building Act 2016 and the Building Regulation 2016 must be carried out in accordance with the provisions of the Building Act 2016 and the Building Regulation 2016.

NOTES

1. The drawings are prepared in accordance with the provisions of the Building Act 2016 and the Building Regulation 2016.

Rev	Date	By	Description
B	01/08/22		RE-ISSUE FOR DA SUBMISSION
A	10/08/22		ISSUE FOR DA SUBMISSION

Client

CAMPBELLTOWN 88 DEVELOPMENT
PTY LTD

ABN: 46 649 535 393

Structural MANICE ARRAJ
Stormwater SGC
Mechanical STANTEC
Electrical STANTEC
Hydraulic STANTEC
Landscaping STURTELL ASSOCIATES

Architect

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W: WWW.SKETCHIDSGROUP.COM.AU

Project

22-32 QUEEN STREET,
CAMPBELLTOWN NSW 2560

Drawing Title

ROOF LEVEL

Scale

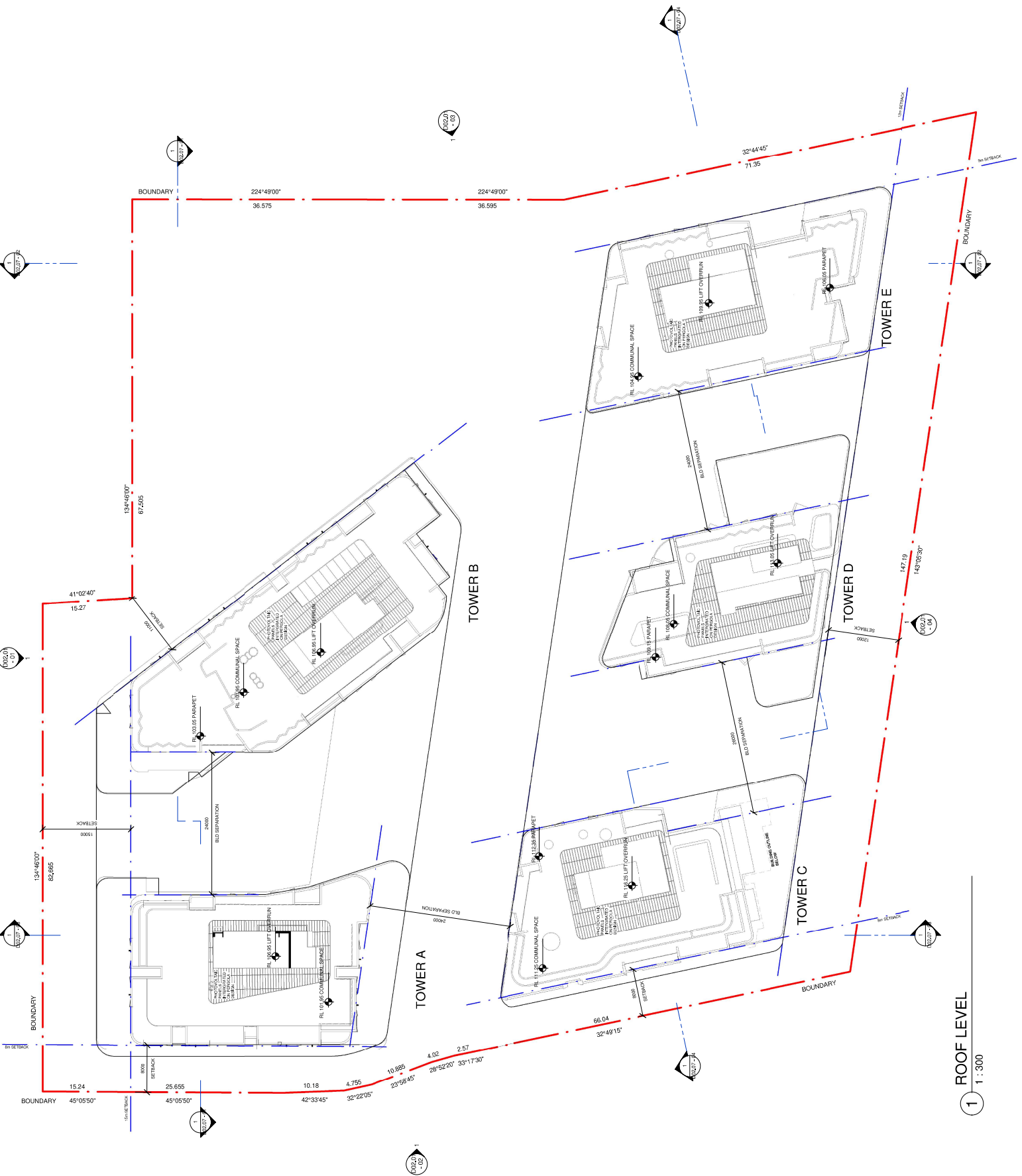
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Scale Bar

0 5 10 15 20 25 30m

DEVELOPMENT APPLICATION

Sheet No. 201902
Rev. D01.01 - 18
Drawn by KLAK/HISE
Checked by MC
Date AUG 2022



1 ROOF LEVEL
1:300

Appendix D – Site Photographs



Photograph 1: The brick storage building (former tenpin bowling centre) at 24 Queen Street.



Photograph 2: Vegetated area at 22 Queen Street.



Photograph 3: The rear of the brick storage building (the south-eastern portion of the site).



Photograph 4: The concrete driveway between the two buildings.



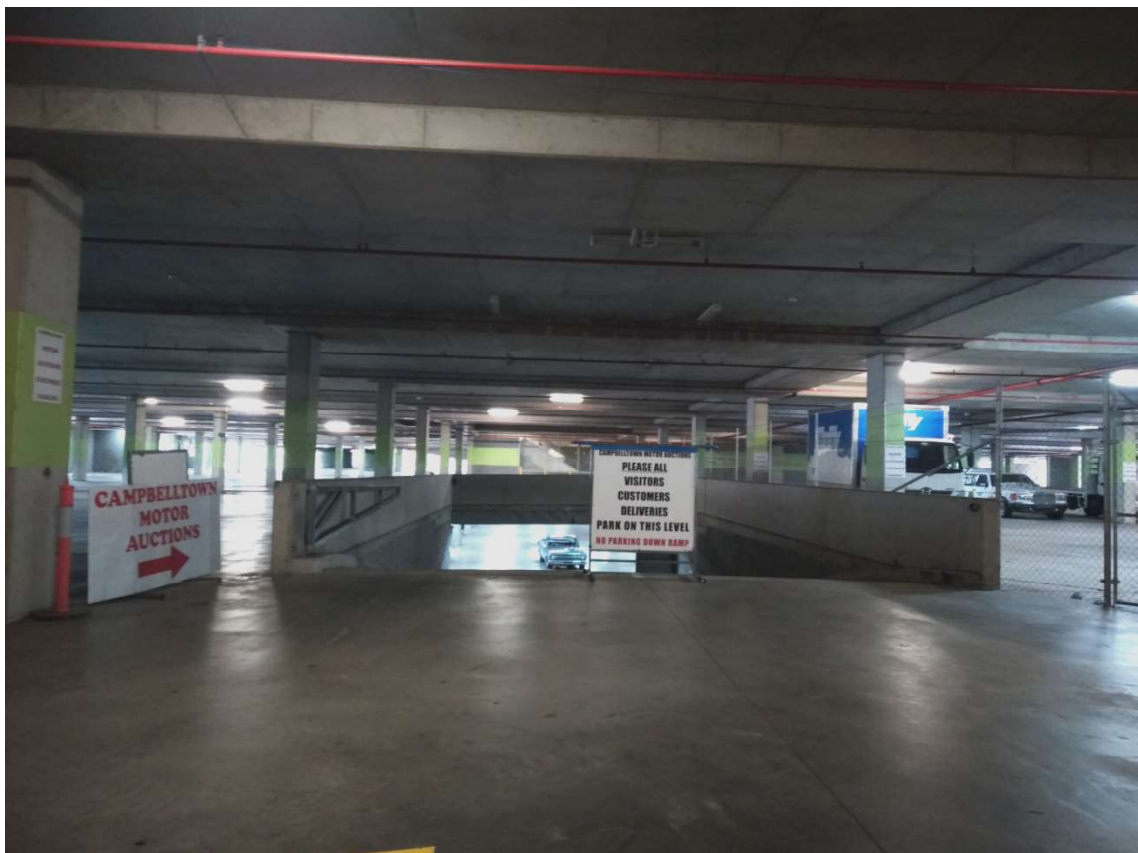
Photograph 5: The commercial complex at 32 Queen Street.



Photograph 6: The south-western site boundary.



Photograph 7: The south-eastern site boundary.



Photograph 8: Access to the motor auctions in the basement (within the southern portion of the site).

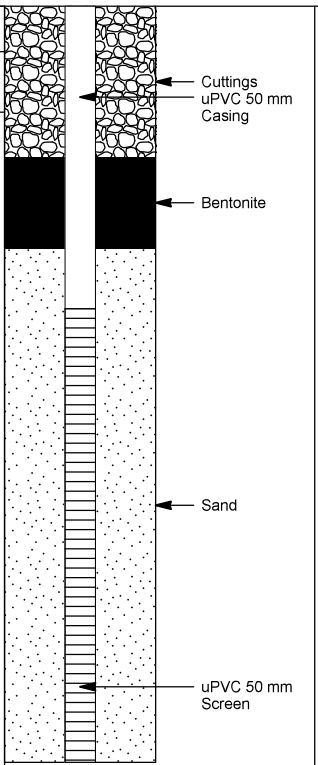
Appendix E – Borehole Logs

Project Detailed Site Investigation
Location 22-32 Queen Street, Campbelltown NSW
Position Refer to Figure 2
Job No. E24711.E02
Client Aland Developments Pty Ltd

Contractor Hatgeo Pty Ltd
Drill Rig Drill Rig
Inclination -90°

BOREHOLE: BH1M

Sheet 1 OF 1
Date Started 7/6/21
Date Completed 7/6/21
Logged LW Date: 7/6/21
Checked Date:

Drilling				Sampling		Field Material Description						
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS	
											ID BH1M	Static Water Level
AD/T	-	07/06/21	0		BH1M_0.10-0.20 ES PID = 0.1 ppm		-	FILL: Silty CLAY; low plasticity, dark brown, with minor sub-angular to angular gravels, rootlets, no odour.	D - M	-	 Cuttings uPVC 50 mm Casing Bentonite Sand uPVC 50 mm Screen	
			0.30		BH1M_0.50-0.60 ES PID = 0.2 ppm		-	FILL: Gravelly Silty CLAY; low plasticity, brown-grey, with sub-angular to angular gravels, minor brick fragments, no odour.	D	-		
			0.70		BH1M_0.90-1.00 ES PID = 0.1 ppm		CL-CI	Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.				
			1		BH1M_1.90-2.00 ES PID = 0 ppm				D			
			2									
			2.50					From 2.5 m, dark brown, no odour.				
			3		BH1M_2.90-3.00 ES PID = 0 ppm			From 3.0 m, orange-brown mottled grey, no odour.				
			4		BH1M_3.90-4.00 ES PID = 0.1 ppm							
			5		BH1M_4.90-5.00 ES PID = 0.2 ppm				M			
			6		BH1M_5.90-6.00 ES PID = 0 ppm							
			6.30					Borehole Terminated at 6.30 mBGL; Refusal on Rocks.				
			7									
			8									
			9									
			10									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
Location 22-32 Queen Street, Campbelltown NSW
Position Refer to Figure 2
Job No. E24711.E02
Client Aland Developments Pty Ltd

Contractor Hatgeo Pty Ltd
Drill Rig Drill Rig
Inclination -90°

BOREHOLE: BH2

Sheet 1 OF 1
Date Started 7/6/21
Date Completed 7/6/21
Logged LW Date: 7/6/21
Checked Date:

Drilling				Sampling		Field Material Description							
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY	DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0		BH2_0.10-0.20 ES PID = 0.2 ppm			-	FILL: Silty CLAY; low plasticity, dark brown, with minor sub-angular to angular gravels, rootlets, no odour.	D - M	-		FILL
			0.60										
			1	1.00	BH2_0.80-0.90 ES PID = 0.1 ppm			CL- CI	Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.	D	-		RESIDUAL SOIL
									Borehole Terminated at 1.00 mBGL; Target Depth Reached.				

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.



This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
Location 22-32 Queen Street, Campbelltown NSW
Position Refer to Figure 2
Job No. E24711.E02
Client Aland Developments Pty Ltd

Contractor Hatgeo Pty Ltd
Drill Rig Drill Rig
Inclination -90°

Sheet 1 OF 1
Date Started 7/6/21
Date Completed 7/6/21
Logged LW Date: 7/6/21
Checked Date:

Drilling				Sampling		Field Material Description									
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION		MOISTURE CONDITION	CONSISTENCY	DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS	
AD/T	-	GWNE	0												
			0.30	BH4_0.10-0.20 ES PID = 0 ppm			-	FILL: Silty CLAY; low plasticity, dark brown, with minor sub-angular to angular gravels, rootlets, no odour.	D - M	-	FILL				
				BH4_0.60-0.70 ES PID = 0 ppm		CL- CI	Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.	D	-	RESIDUAL SOIL					
			1	1.00					Borehole Terminated at 1.00 mBGL; Target Depth Reached.						
			2												
			3												
			4												
			5												
			6												
			7												
			8												
			9												
			10												

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor -
 Drill Rig Hand Auger
 Inclination -90°

BOREHOLE: BH5

Sheet 1 OF 1
 Date Started 8/6/21
 Date Completed 8/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling				Sampling		Field Material Description							
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION		MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA	-	GWNE	0	0.10	BH5_0.30-0.40 ES PID = 0.1 ppm			SC	CONCRETE; 100 mm thick.		-	-	CONCRETE HARDSTAND
			Clayey SAND; fine to coarse grained, with low plasticity clay, red, no odour.						D	-	RESIDUAL SOIL		
			0.50						Borehole Terminated at 0.50 mBGL; Target Depth Reached.				
			1										
			2										
			3										
			4										
			5										
			6										
			7										
			8										
			9										
			10										

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
Location 22-32 Queen Street, Campbelltown NSW
Position Refer to Figure 2
Job No. E24711.E02
Client Aland Developments Pty Ltd

Contractor -
Drill Rig Hand Auger
Inclination -90°

Sheet 1 OF 1
Date Started 8/6/21
Date Completed 8/6/21
Logged LW Date: 7/6/21
Checked Date:

Drilling				Sampling		Field Material Description								
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY	DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS	
HA	-	GWNE	0											
			0.10											
			0.20	BH6_0.10-0.20 ES				SC	CONCRETE; 100 mm thick.	D	-	-	CONCRETE HARDSTAND	
			PID = 0 ppm			CL-CI	Clayey SAND; fine to coarse grained, with low plasticity clay, red, no odour.	D	-	-	RESIDUAL SOIL			
			0.50		BH6_0.40-0.50 ES									
					PID = 0 ppm				Sandy Silty CLAY; low to medium plasticity, red, no odour.					
			1						Borehole Terminated at 0.50 mBGL; Target Depth Reached.					
			2											
			3											
			4											
			5											
			6											
			7											
			8											
			9											
			10											

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor STS
 Drill Rig Drill Rig
 Inclination -90°

BOREHOLE: BH7

Sheet 1 OF 1
 Date Started 8/6/21
 Date Completed 8/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling					Sampling		Field Material Description								
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION		MOISTURE CONDITION	CONSISTENCY	DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS	
AD/T	-	GWNE	0		BH7_0.10-0.20 ES PID = 0.2 ppm			-	FILL: Silty CLAY; low plasticity, dark brown, with minor sub-angular to angular gravels, rootlets, no odour.	D - M	-		FILL		
			0.40		BH7_0.60-0.70 ES PID = 0.1 ppm			CL - CI	Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.	D	-		RESIDUAL SOIL		
			1.00						Borehole Terminated at 1.00 mBGL; Target Depth Reached.						
			1												
			2												
			3												
			4												
			5												
			6												
			7												
			8												
			9												
			10												

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor Hatgeo Pty Ltd
 Drill Rig Drill Rig
 Inclination -90°

BOREHOLE: BH8

Sheet 1 OF 1
 Date Started 7/6/21
 Date Completed 7/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling					Sampling		Field Material Description								
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION		MOISTURE CONDITION	CONSISTENCY	DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS	
AD/T	-	GWNE	0		BH8_0.10-0.20 ES PID = 0.1 ppm			-	FILL: Sandy Silty CLAY; low plasticity, brown mottled red-black, with medium to coarse grained sand, with sub-angular to angular gravels and brick fragments.	D	-		FILL		
			0.40					CL-CI	Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.	D	-		RESIDUAL SOIL		
			1	1.00	BH8_0.70-0.80 ES PID = 0.1 ppm					Borehole Terminated at 1.00 mBGL; Target Depth Reached.					
			2												
			3												
			4												
			5												
			6												
			7												
			8												
			9												
			10												

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor Hatgeo Pty Ltd
 Drill Rig Drill Rig
 Inclination -90°

BOREHOLE: BH9

Sheet 1 OF 1
 Date Started 7/6/21
 Date Completed 7/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling				Sampling		Field Material Description						
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0									
			0.10	BH9_0.20-0.30 ES PID = 0.2 ppm			-	CONCRETE; 100 mm thick.	-	-	CONCRETE HARDSTAND	
			0.50				-	FILL: Gravelly SAND; medium to coarse grained, brown, with sub-angular to angular gravels.	D	-	FILL	
				BH9_0.70-0.80 ES PID = 0.1 ppm		CL-CI	Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.	D	-	RESIDUAL SOIL		
			1	1.00					Borehole Terminated at 1.00 mBGL; Target Depth Reached.			
			2									
			3									
			4									
			5									
			6									
			7									
			8									
			9									
			10									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor Hatgeo Pty Ltd
 Drill Rig Drill Rig
 Inclination -90°

BOREHOLE: BH10

Sheet 1 OF 1
 Date Started 7/6/21
 Date Completed 7/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling				Sampling		Field Material Description							
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY	DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0										
			0.10	BH10_0.20-0.30 ES				-	CONCRETE; 100 mm thick.	-	-	CONCRETE HARDSTAND	
			0.50	PID = 0.2 ppm				-	FILL: Gravelly SAND; medium to coarse grained, brown, with sub-angular to angular gravels.	D	-	FILL	
				BH10_0.70-0.80 ES		CL-CI	Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.	D	-	RESIDUAL SOIL			
			1	1.00	PID = 0.1 ppm								
			2						Borehole Terminated at 1.00 mBGL; Target Depth Reached.				
			3										
			4										
			5										
			6										
			7										
			8										
			9										
			10										

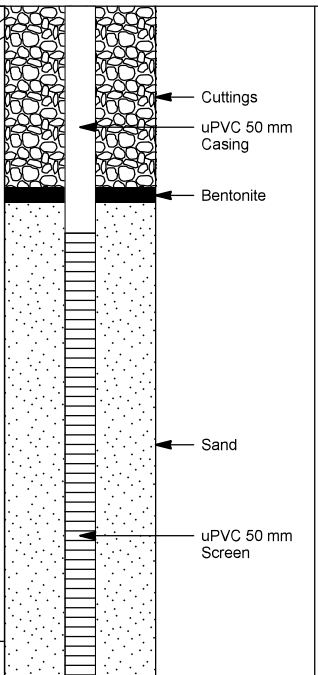
This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
Location 22-32 Queen Street, Campbelltown NSW
Position Refer to Figure 2
Job No. E24711.E02
Client Aland Developments Pty Ltd

Contractor Hatgeo Pty Ltd
Drill Rig Drill Rig
Inclination -90°

BOREHOLE: BH11M

Sheet 1 OF 1
Date Started 7/6/21
Date Completed 7/6/21
Logged LW Date: 7/6/21
Checked Date:

Drilling				Sampling		Field Material Description						
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY	PIEZOMETER DETAILS
												ID Static Water Level BH11M
ADIT		07/06/21	0		BH11M_0.10-0.20 ES PID = 0.1 ppm				CONCRETE; 80 mm thick.	M		
			0.20		BH11M_0.40-0.50 ES PID = 0.2 ppm			CL-CL	FILL: Sandy Silty CLAY; low plasticity, brown mottled red-black, with medium to coarse grained sand, with sub-angular to angular gravels and brick fragments. Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.			
			1		BH11M_1.40-1.50 ES PID = 0.1 ppm							
			2		BH11M_2.40-2.50 ES PID = 0.1 ppm							
			3		BH11M_3.40-3.50 ES PID = 0 ppm				From 3.2 m, with ironstone gravels, no odour.			
			3.20									
			4		BH11M_4.40-4.50 ES PID = 0.5 ppm			SC	Clayey SAND; fine to coarse grained, with low plasticity clay, brown-light grey, no odour.	D		
			4.20									
			4.50						Borehole Terminated at 4.50 mBGL; Refusal on Sandstone.			
			5									
			6									
			7									
			8									
			9									
			10									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor Hatgeo Pty Ltd
 Drill Rig Drill Rig
 Inclination -90°

Sheet 1 OF 1
 Date Started 7/6/21
 Date Completed 7/6/21
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 Checked Date:

Drilling					Sampling		Field Material Description						
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY	DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0										
			0.20	BH12_0.10-0.20 ES PID = 0.1 ppm				CONCRETE; 80 mm thick.	-	D	-	CONCRETE HARDSTAND	
				BH12_0.40-0.50 ES PID = 0.1 ppm			CL-CL	FILL: Silty CLAY; low plasticity, brown, with minor sub-angular to angular gravels, no odour. Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.	D	-	FILL RESIDUAL SOIL		
			1	1.00					Borehole Terminated at 1.00 mBGL; Target Depth Reached.				
			2										
			3										
			4										
			5										
			6										
			7										
			8										
			9										
			10										

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor STS
 Drill Rig Drill Rig
 Inclination -90°

Sheet 1 OF 1
 Date Started 8/6/21
 Date Completed 8/6/21
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 Checked Date:

Drilling				Sampling		Field Material Description						
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0	0.18	BH13_0.20-0.30 ES PID = 0.2 ppm			-	CONCRETE; 180 mm thick.	-	-	CONCRETE HARDSTAND
			-	FILL: Silty CLAY; low plasticity, brown, with minor sub-angular to angular gravels, no odour.				M	-	FILL		
			0.50	BH13_0.70-0.80 ES PID = 0.1 ppm			CL-CI	Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.	D	-	RESIDUAL SOIL	
			1				1.00	Borehole Terminated at 1.00 mBGL; Target Depth Reached.				
			2									
			3									
			4									
			5									
			6									
			7									
			8									
			9									
			10									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor STS
 Drill Rig Drill Rig
 Inclination -90°

BOREHOLE: BH14

Sheet 1 OF 1
 Date Started 8/6/21
 Date Completed 8/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling				Sampling		Field Material Description						
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0	0.20	BH14_0.30-0.40 ES PID = 0.3 ppm			-	CONCRETE; 200 mm thick.	-	-	CONCRETE HARDSTAND
			-	FILL: Gravelly Silty CLAY; low plasticity, brown-grey, with sub-angular to angular gravels, minor brick fragments, no odour.				M	-	FILL		
			0.60	BH14_0.80-0.90 ES PID = 0.2 ppm			CL-CI	Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.	D	-	RESIDUAL SOIL	
							Borehole Terminated at 1.00 mBGL; Target Depth Reached.					
			1	1.00								
			2									
			3									
			4									
			5									
			6									
			7									
			8									
			9									
			10									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor STS
 Drill Rig Drill Rig
 Inclination -90°

Sheet 1 OF 1
 Date Started 8/6/21
 Date Completed 8/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling				Sampling		Field Material Description							
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY	DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0	0.15	BH15_0.20-0.30 ES PID = 0.1 ppm			-	CONCRETE; 150 mm thick.	-	-		CONCRETE HARDSTAND
			-	FILL: Gravelly Silty CLAY; low plasticity, brown-grey, with sub-angular to angular gravels, minor brick fragments, no odour.				D	-	FILL			
			0.60	BH15_0.80-0.90 ES PID = 0.1 ppm			CL-CI	Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.	D	-	RESIDUAL SOIL		
							Borehole Terminated at 1.00 mBGL; Target Depth Reached.						
			1	1.00									
			2										
			3										
			4										
			5										
			6										
			7										
			8										
			9										
			10										

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor STS
 Drill Rig Drill Rig
 Inclination -90°

BOREHOLE: BH16

Sheet 1 OF 1
 Date Started 8/6/21
 Date Completed 8/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling				Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION		MOISTURE CONDITION	STRUCTURE AND ADDITIONAL OBSERVATIONS
ADIT	-	GWNE	0	0.12	BH16_0.30-0.40 ES PID = 0 ppm		- CL-CI	CONCRETE; 120 mm thick.		-	CONCRETE HARDSTAND
			0.60					Sandy Silty CLAY; low to medium plasticity, yellow mottled grey, no odour.		D	RESIDUAL SOIL
			1					Borehole Terminated at 0.60 mBGL; Target Depth Reached.			
			2								
			3								
			4								
			5								
			6								
			7								
			8								
			9								
			10								

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor STS
 Drill Rig Drill Rig
 Inclination -90°

BOREHOLE: BH17

Sheet 1 OF 1
 Date Started 8/6/21
 Date Completed 8/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling				Sampling		Field Material Description							
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY	DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0	0.12	BH17_0.20-0.30 ES PID = 0.2 ppm BH17_0.40-0.50 ES PID = 0.1 ppm			-	CONCRETE; 120 mm thick.	-	-	CONCRETE HARDSTAND	
			-	FILL: Silty CLAY; yellow-brown mottled grey, with minor sub-angular to angular gravels, no odour.				M	-	REWORKED NATURAL			
			SC	Clayey SAND; fine to coarse grained, with low plasticity clay, brown-light grey, no odour.				D	-	RESIDUAL SOIL			
				Borehole Terminated at 0.50 mBGL; Target Depth Reached.									
			1										
			2										
			3										
			4										
			5										
			6										
			7										
			8										
			9										
			10										

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor STS
 Drill Rig Drill Rig
 Inclination -90°

Sheet 1 OF 1
 Date Started 8/6/21
 Date Completed 8/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling				Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0		BH18_0.10-0.20 ES PID = 0.2 ppm			-	FILL: Silty CLAY; low plasticity, dark brown, with minor sub-angular to angular gravels, rootlets, no odour.	D - M	FILL
			0.30		BH18_0.50-0.60 ES PID = 0 ppm			CL - CI	Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.	D	RESIDUAL SOIL
			1.00						Borehole Terminated at 1.00 mBGL; Target Depth Reached.		
			1								
			2								
			3								
			4								
			5								
			6								
			7								
			8								
			9								
			10								

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
Location 22-32 Queen Street, Campbelltown NSW
Position Refer to Figure 2
Job No. E24711.E02
Client Aland Developments Pty Ltd

Contractor STS
Drill Rig Drill Rig
Inclination -90°

Sheet 1 OF 1
Date Started 8/6/21
Date Completed 8/6/21
Logged LW Date: 7/6/21
Checked Date:

Drilling				Sampling		Field Material Description							
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY	DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0					-	CONCRETE; 180 mm thick.	-	-		CONCRETE HARDSTAND
			0.18	BH19_0.20-0.30 ES			-	FILL: Gravelly Silty CLAY; low plasticity, brown-grey, with sub-angular to angular gravels, minor brick fragments, no odour. Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.	D	-	FILL		
			0.30	PID = 0.2 ppm		CL-CI	D		-	RESIDUAL SOIL			
			1.00	BH19_0.50-0.60 ES									
			1	1.00					Borehole Terminated at 1.00 mBGL; Target Depth Reached.				
			2										
			3										
			4										
			5										
			6										
			7										
			8										
			9										
			10										

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor STS
 Drill Rig Drill Rig
 Inclination -90°

Sheet 1 OF 1
 Date Started 8/6/21
 Date Completed 8/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling				Sampling		Field Material Description								
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION		MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS	
AD/T	-	GWNE	0	0.18	BH20_0.20-0.30 ES PID = 0 ppm		-	CONCRETE; 180 mm thick.	-	-	CONCRETE HARDSTAND			
			1	1.00	BH20_0.70-0.80 ES PID = 0.3 ppm		-	FILL: Gravelly Silty CLAY; low plasticity, brown-grey, with sub-angular to angular gravels, minor brick fragments, no odour.	M	-	FILL			
				1.60	BH20_1.20-1.30 ES PID = 0.4 ppm		From 1.0 m, with rootlets, no odour.							
				2.00	BH20_1.80-1.90 ES		CL-CI	Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.				D	-	RESIDUAL SOIL
			2							Borehole Terminated at 2.00 mBGL; Target Depth Reached.				
			3											
			4											
			5											
			6											
			7											
			8											
			9											
			10											

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor STS
 Drill Rig Drill Rig
 Inclination -90°

BOREHOLE: BH21

Sheet 1 OF 1
 Date Started 8/6/21
 Date Completed 8/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling				Sampling		Field Material Description						
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0						CONCRETE; 150 mm thick.	-	-	CONCRETE HARDSTAND
			0.15	BH21_0.20-0.30 ES			-	FILL: Gravelly Silty CLAY; low plasticity, brown-grey, with sub-angular to angular gravels, minor brick fragments, no odour.	M	-	FILL	
			0.50	PID = 0.2 ppm			SC	Clayey SAND; fine to coarse grained, with low plasticity clay, brown-light grey, no odour.	D	-	RESIDUAL SOIL	
			0.80	BH21_0.70-0.80 ES				Borehole Terminated at 0.80 mBGL; Target Depth Reached.				
			1									
			2									
			3									
			4									
			5									
			6									
			7									
			8									
			9									
			10									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor STS
 Drill Rig Drill Rig
 Inclination -90°

Sheet 1 OF 1
 Date Started 8/6/21
 Date Completed 8/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling				Sampling		Field Material Description									
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION			MOISTURE CONDITION	CONSISTENCY	DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0	0.15	BH22_0.15-0.20 ES PID = 0.1 ppm			-	CONCRETE; 150 mm thick.			-	-	-	CONCRETE HARDSTAND
			-					FILL: Gravelly Silty CLAY; low plasticity, brown-grey, with sub-angular to angular gravels, minor brick fragments, no odour.			M	-	-	FILL	
			SC					Clayey SAND; fine to coarse grained, with low plasticity clay, brown-light grey, no odour.			D	-	-	RESIDUAL SOIL	
			Borehole Terminated at 0.50 mBGL; Target Depth Reached.												
			1		BH22_0.40-0.50 ES										
			2												
			3												
			4												
			5												
			6												
			7												
			8												
			9												
			10												

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.



Contractor	Hatgeo Pty Ltd
Drill Rig	Drill Rig
Inclination	-90°

Sheet 1 OF 1
Date Started 7/6/21
Date Completed 7/6/21
Logged LW Date:7/6/21
Checked Date:

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0					-	CONCRETE; 200 mm thick.	-	-	CONCRETE HARDSTAND
			0.20	BH23_0.20-0.30 ES PID = 0.2 ppm			-	FILL: Sandy Silty CLAY; low plasticity, brown mottled red-black, with medium to coarse grained sand, with sub-angular to angular gravels and brick fragments.	D	-	FILL	
			0.30			CL-CI			RESIDUAL SOIL			
				BH23_0.50-0.60 ES PID = 0.1 ppm				Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.	D	-		
			1	1.00					Borehole Terminated at 1.00 mBGL; Target Depth Reached.			
			2									
			3									
			4									
			5									
			6									
			7									
			8									
			9									
			10									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor STS
 Drill Rig Drill Rig
 Inclination -90°

Sheet 1 OF 1
 Date Started 8/6/21
 Date Completed 8/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling				Sampling		Field Material Description						
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0	0.18	BH24_0.20-0.30 ES PID = 0.1 ppm			-	CONCRETE; 180 mm thick.	-	-	CONCRETE HARDSTAND
			-	FILL: Gravelly Silty CLAY; low plasticity, brown-grey, with sub-angular to angular gravels, minor brick fragments, no odour.				M	-	FILL		
			0.60	BH24_0.80-0.90 ES			CL-CI	Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.	D	-	RESIDUAL SOIL	
			1.00									
			1						Borehole Terminated at 1.00 mBGL; Target Depth Reached.			
			2									
			3									
			4									
			5									
			6									
			7									
			8									
			9									
			10									

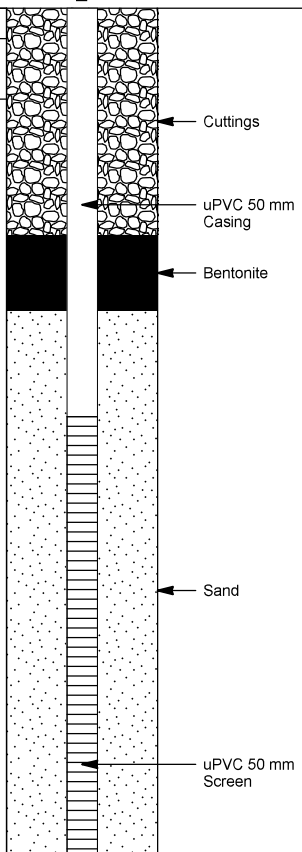
This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
Location 22-32 Queen Street, Campbelltown NSW
Position Refer to Figure 2
Job No. E24711.E02
Client Aland Developments Pty Ltd

Contractor STS
Drill Rig Drill Rig
Inclination -90°

BOREHOLE: BH25M

Sheet 1 OF 1
Date Started 8/6/21
Date Completed 8/6/21
Logged LW Date: 7/6/21
Checked Date:

Drilling				Sampling		Field Material Description						
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY	PIEZOMETER DETAILS
												ID BH25M Static Water Level
AD/IT		08/06/21	0	0.20				-	CONCRETE; 200 mm thick.	-	-	
				BH25M_0.30-0.40 ES PID = 0.1 ppm			-	FILL: Gravelly Silty CLAY; low plasticity, brown-grey, with sub-angular to angular gravels, minor brick fragments, no odour.	D	-		
			0.60	BH25M_0.80-0.90 ES		CL-CI	Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.					
			1									
			2	BH25M_1.80-1.90 ES								
			3	BH25M_2.80-2.90 ES				D	-			
			4	BH25M_3.80-3.90 ES								
			5	BH25M_4.80-4.90 ES								
			5.70	BH25M_5.60-5.70 ES								
			6				Borehole Terminated at 5.70 mBGL; Refusal on Rocks.					
			7									
			8									
			9									
			10									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor STS
 Drill Rig Drill Rig
 Inclination -90°

BOREHOLE: BH26

Sheet 1 OF 1
 Date Started 8/6/21
 Date Completed 8/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling				Sampling		Field Material Description							
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION		MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0		BH26_0.30-0.40 ES PID = 0.1 ppm			-	CONCRETE; 200 mm thick.	-	-	CONCRETE HARDSTAND	
			-	FILL: Gravelly Silty CLAY; low plasticity, dark grey-black, with sub-angular to angular gravels, minor brick fragments, no odour.				M	-	FILL			
			0.80										
			1						Borehole Terminated at 0.80 mBGL; Refusal on Sandstone.				
			2										
			3										
			4										
			5										
			6										
			7										
			8										
			9										
			10										

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
Location 22-32 Queen Street, Campbelltown NSW
Position Refer to Figure 2
Job No. E24711.E02
Client Aland Developments Pty Ltd

Contractor STS
Drill Rig Drill Rig
Inclination -90°

BOREHOLE: BH27

Sheet 1 OF 1
Date Started 8/6/21
Date Completed 8/6/21
Logged LW Date: 7/6/21
Checked Date:

Drilling				Sampling		Field Material Description								
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION		MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS	
AD/T	-	GWNE	0	0.15	BH27_0.20-0.30 ES PID = 0 ppm			-	CONCRETE; 150 mm thick.	-	-	CONCRETE HARDSTAND		
			-	FILL: Silty CLAY; yellow-brown mottled grey, with minor sub-angular to angular gravels, no odour.				M	-	REWORKED NATURAL				
			0.60	BH27_0.70-0.80 ES					SC	Clayey SAND; fine to coarse grained, with low plasticity clay, brown-light grey, no odour.	D	-	RESIDUAL SOIL	
									Borehole Terminated at 0.80 mBGL; Target Depth Reached.					
	1													
	2													
	3													
	4													
	5													
	6													
	7													
	8													
	9													
	10													

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor STS
 Drill Rig Drill Rig
 Inclination -90°

Sheet 1 OF 1
 Date Started 8/6/21
 Date Completed 8/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling				Sampling		Field Material Description							
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION		MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0	0.15	BH28_0.20-0.30 ES			-	CONCRETE; 150 mm thick.	-	-	CONCRETE HARDSTAND	
			0.30	SC				Clayey SAND; fine to coarse grained, with low plasticity clay, brown-light grey, no odour. Borehole Terminated at 0.30 mBGL; Target Depth Reached.	D	-	RESIDUAL SOIL		
			1										
			2										
			3										
			4										
			5										
			6										
			7										
			8										
			9										
			10										

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

BOREHOLE: BH29M

Project	Detailed Site Investigation
Location	22-32 Queen Street, Campbelltown NSW
Position	Refer to Figure 2
Job No.	E24711.E02
Client	Aland Developments Pty Ltd

Contractor	STS
Drill Rig	Drill Rig
Inclination	-90°

Sheet 1 OF 1
Date Started 8/6/21
Date Completed 8/6/21
Logged LW Date:7/6/21
Checked Date:

[illegible]

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor STS
 Drill Rig Drill Rig
 Inclination -90°

BOREHOLE: BH30

Sheet 1 OF 1
 Date Started 8/6/21
 Date Completed 8/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling				Sampling		Field Material Description						
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0									
			0.18	BH30_0.20-0.30 ES			-	CONCRETE; 180 mm thick.	-	-	CONCRETE HARDSTAND	
			0.50	PID = 0.1 ppm			-	FILL: Sandy Silty CLAY; low plasticity, brown mottled red-black, with medium to coarse grained sand, with sub-angular to angular gravels and brick fragments.	D	-	FILL	
				BH30_0.70-0.80 ES		CL-CI	Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.	D	-	RESIDUAL SOIL		
			1	1.00					Borehole Terminated at 1.00 mBGL; Target Depth Reached.			
			2									
			3									
			4									
			5									
			6									
			7									
			8									
			9									
			10									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor STS
 Drill Rig Drill Rig
 Inclination -90°

BOREHOLE: BH31

Sheet 1 OF 1
 Date Started 8/6/21
 Date Completed 8/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling				Sampling		Field Material Description								
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION		MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS	
AD/T	-	GWNE	0	0.20	BH31_0.30-0.40 ES PID = 0.2 ppm			-	CONCRETE; 200 mm thick.	-	-	CONCRETE HARDSTAND		
			-	FILL: Sandy Silty CLAY; low plasticity, brown mottled red-black, with medium to coarse grained sand, with sub-angular to angular gravels and brick fragments.				D	-	FILL				
			0.60	BH31_0.80-0.90 ES			CL-CI	Sandy Silty CLAY; low to medium plasticity, brown mottled grey-orange, no odour.	D	-	RESIDUAL SOIL			
			1				1.00	Borehole Terminated at 1.00 mBGL; Target Depth Reached.						
			2											
			3											
			4											
			5											
			6											
			7											
			8											
			9											
			10											

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor STS
 Drill Rig Drill Rig
 Inclination -90°

Sheet 1 OF 1
 Date Started 8/6/21
 Date Completed 8/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling				Sampling		Field Material Description							
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS	
AD/T	-	GWNE	0										
			0.20										
			0.60	BH32_0.30-0.40 ES PID = 0 ppm									
			1.00	BH32_0.80-0.90 ES									
			1						Borehole Terminated at 1.00 mBGL; Target Depth Reached.				
			2										
			3										
			4										
			5										
			6										
			7										
			8										
			9										

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Project Detailed Site Investigation
 Location 22-32 Queen Street, Campbelltown NSW
 Position Refer to Figure 2
 Job No. E24711.E02
 Client Aland Developments Pty Ltd

Contractor STS
 Drill Rig Drill Rig
 Inclination -90°

Sheet 1 OF 1
 Date Started 8/6/21
 Date Completed 8/6/21
 Logged LW Date: 7/6/21
 Checked Date:

Drilling				Sampling		Field Material Description						
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0	0.18	BH33_0.20-0.30 ES PID = 0.1 ppm BH33_0.60-0.70 ES			-	CONCRETE; 180 mm thick.	-	-	CONCRETE HARDSTAND
			-	FILL: Gravelly Silty CLAY; low plasticity, brown-grey, with sub-angular to angular gravels, minor brick fragments, no odour.				D	-	FILL		
			CL-CI	Sandy Silty CLAY; low to medium plasticity, red, no odour.				D	-	RESIDUAL SOIL		
			1	1.00				Borehole Terminated at 1.00 mBGL; Target Depth Reached.				
			2									
			3									
			4									
			5									
			6									
			7									
			8									
			9									
			10									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

Appendix F – Calibration Forms and Field Data Sheets



EI Australia
Suite 6.01, 55 Miller Street
PYRMONT, NSW, 2009

ABN 33 102 449 507
E service@eiaustralia.com.au
W www.eiaustralia.com.au
T 02 9516 0722

CALIBRATION CERTIFICATE FOR PHOTO IONISATION DETECTOR

Instrument: Mini RAE 3000

Serial Number: 592-906667 - EI PID02 ☐ OR 592-901345 - EI PID03 ☒

Instrument Conditions: fair

Calibration gas species: Isobutylene.

Calibration gas concentration: 100 ppm

Gas bottle number: Lot 983370 / cyl 70.

This PID has been calibrated to Isobutylene gas with the span concentration displayed as
100 ppm at 100 ppm span setting (allowable range +/-10ppm from span setting).

The PID is initially zero calibrated in fresh air.

Remaining gas in bottle: 260 psi (if reading is <250 psi, notify Equipment Manager to arrange new
gas bottle order)

The above detector was calibrated in accordance with manufacturer's specifications.

Signed: LMW

Date: 7/6/21 / 8/6/21

Time: 7:00 am

Rev 1 20150604SH
Form OP 017

Rev 1 20150604SH
Form OP 017

U:\Fieldwork\Water Sampling Field Sheet Rev1 20150604 - BAedit

U:\Fieldwork\Water Sampling Field Sheet Rev1 20150604 - BAedit

Appendix G – Chain of Custody and Sample Receipt Documentation

[illegible]

Sheet 2 of 8		Project No: E24711		Site: 22-32 Queen Street, Campbelltown		Laboratory: SGS Australia Unit 16, 33 Maddox Street, ALEXANDRIA NSW 2015 P: 02 8594 0400 F: 02 8594 0499		Sample Matrix		Analysis										Comments				
Sample ID	Laboratory ID	Container Type	Sampling Date	Time	WATER	SOIL	OTHER	HM A / TRH/BTEX/PAHs	OCP/OP/PCB/Asbestos	HM A / TRH/BTEX/PAHs	HM A / TRH/BTEX	BTEX	VOCs & Phenols	Asbestos	Asbestos Quantification	PH / CEC (cation exchange)	PH / EC (electrical conductivity)	Dewatering Suite	sPOCAS	PFAS	Sulphates	Chlorides	TCLP HM A / PAH	Comments
BH4-0.1-0.2	10	J/243	7/6/21	6:00 PM		X		X																HM A Arsenic Cadmium Chromium Copper Lead Mercury Nickel Zinc HM A Arsenic Cadmium Chromium Lead Mercury Nickel Dewatering Suite pH & EC TDS / TOU Hardness Total Cyanide Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn) TRH (F1, F2, F3, F4) BTEX PAH Total Phenol LABORATORY TURNAROUND
-0.6-0.7	11		↓					X																
BH5-0.3-0.4	12		8/6/21					X																
BH6-0.1-0.2	13		↓					X																
-0.4-0.5	14		↓					X																
BH7-0.1-0.2	14		↓					X																
-0.6-0.7	15		7/6/21					X																
BH8-0.1-0.2	15		↓					X																
-0.7-0.8	16		↓					X																
BH9-0.2-0.3	17		↓					X																
-0.7-0.8	18		↓					X																
BH10-0.2-0.3	18		↓					X																

Container Type:
J = solvent washed, acid rinsed, Teflon sealed glass jar
S = solvent washed, acid rinsed glass bottle
P = natural HDPE plastic bottle
VC = glass vial, Teflon Septum
ZLB = Zip-Lock Bag

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Investigator's Name (EI):

Sampler's Name (EI): Li Wei

Received by (SGS):

Signature: George Zhi

Date: 9/6/21

Signature: [Signature]

Date: 9/6/21 @ 2:10 pm

IMPORTANT: Please e-mail laboratory results to: lab@eiaustralia.com.au



Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

CC0 March 2018 FORM V4 - SGS

Sheet 4 of 8		Project No: E24711		Laboratory: SGS Australia Unit 16, 33 Maddox Street, ALEXANDRIA NSW 2015 P: 02 8594 0400 F: 02 8594 0499		Sample Matrix		Analysis										Comments								
Site:	22-32 Queen Street, Campbelltown			Sample ID	Laboratory ID	Container Type	Sampling Date	Time	WATER	SOIL	OTHER	HM ⁺ /TRH/BTEX/PAHs	HM ⁺ /TRH/BTEX/PAHs	HM ⁺ /TRH/BTEX/PAHs	Asbestos	Asbestos Quantification	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Dewatering Suite	sPOCAs	PFA	Sulphates	Chlorides	TCLP HM A / PAH	Comments	
				BH14-0.8-0.9	30	J/203	8/6/21	14:00		X																HM ⁺ Arsenic Cadmium Chromium Copper Lead Mercury Nickel Zinc HM ⁺ Arsenic Cadmium Chromium Lead Mercury Nickel Dewatering Suite pH & EC TDS / TDU Hardness Total Cyanide Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn) TRH (F1, F2, F3, F4) BTEX PAH Total Phenol
				BH15-0.2-0.3								X														
				BH16-0.3-0.4	31							X														
				BH17-0.2-0.3	32							X														
				BH18-0.1-0.2	33							X														
				BH19-0.2-0.3	34							X														
				BH20-0.2-0.3	35							X														
				BH21-0.7-0.8																						

Container Type: J = solvent washed, acid rinsed, Teflon sealed glass jar S = solvent washed, acid rinsed glass bottle P = natural HDPE plastic bottle VC = glass vial, Teflon Septum ZLB = Zip-Lock Bag		Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.		Report with EI Waste Classification Table ☐	
Sampler's Name (EI): Print Signature	Received by (SGS): Print Signature	Sampler's Comments:			
Li Wei	George Zhi				
Date: 9/6/21	Date: 9/6/21				
IMPORTANT: Please e-mail laboratory results to: lab@eiaustralia.com.au					

 Suite 6.01, 55 Miller Street, PYRMONT NSW 2009 Ph: 9516 0722 lab@eiaustralia.com.au		COC March 2018 FORM V4 - SGS	
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[illegible]

Sheet 6 of 6		Project No: E24711		Site: 22-32 Queen Street, Campbelltown	
Laboratory: SGS Australia Unit 16, 33 Maddox Street, ALEXANDRIA NSW 2015 P: 02 8594 0400 F: 02 8594 0499		Sample ID	Laboratory ID	Container Type	Sampling Date Time
BH25M-18-79	45	J/ZLB	8/6/21	AM/PM	
-28-29	46				
-38-39	47				
-48-49	48				
-56-57	49				
BH26-03-04	50				
BH27-02-03	51				
-07-08	52				
BH28-02-03	53				
BH29-03-04	54				
-09-10	55				
-19-20	56				

Sample Matrix		Analysis										Comments							
WATER	SOIL	OTHER	HM ⁺ /TRH/BTEX/PAHs	OCP/OP/PCB/Asbestos	HM ⁺ /TRH/BTEX/PAHs	HM ⁺ /TRH/BTEX/PAHs	VOCs	Asbestos	Asbestos Quantification	PH / CEC (cation exchange)	PH / EC (electrical conductivity)		Dewatering Suite	sPOCAS	PFAS	Sulphates	Solubility Testing	Phenols	TCLP HM A / PAH
	X		X				X									X	X		
																X	X		
																X	X		
																X	X		
																X	X		
																X	X		
																X	X		
																X	X		
																X	X		

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.		Received by (SGS):	
Print	Signature	Print	Signature
Li Wei		George Zhu	
Date	9/6/21	Date	9/6/21

Container Type:	
J = solvent washed, acid rinsed, Teflon sealed glass jar	☒
S = solvent washed, acid rinsed glass bottle	☐
P = natural HDPE plastic bottle	☐
VC = glass vial, Teflon Septum	☐
ZLB = Zip-Lock Bag	☐

Report with EI Waste Classification Table	
Standard	☒
24 Hours	☐
48 Hours	☐
72 Hours	☐
Other	☐

LABORATORY TURNAROUND	
HM ⁺	
Arsenic	
Cadmium	
Chromium	
Copper	
Lead	
Mercury	
Nickel	
HM ⁺	
Arsenic	
Cadmium	
Chromium	
Lead	
Mercury	
Nickel	
Dewatering Suite	
PH & EC	
TDS / TOU	
Hardness	
Total Cyanide	
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)	
TRI (F1, F2, F3, F4)	
BTX	
PAH	
Total Phenol	

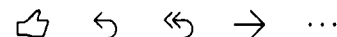
Sampler's Comments:	
Solubility - Same as above	

IMPORTANT:	
Please e-mail laboratory results to: lab@eiaustralia.com.au	

[illegible]

RE: [EXTERNAL] E24711.E02 - Campbelltown

A AU.Environmental.Sydney (Sydney)



Wed 9/06/2021 1:13 PM

To: Andrew Ibrahim - EIAustralia <andrew.ibrahim@eiaustralia.com.au>; AU.SampleReceipt.Sydn

Cc: Li Wei - EIAustralia <li.wei@eiaustralia.com.au>; Benjamin Aggar - EIAustralia <benjamin.agg

Hi Andrew

Yes we can do this

Regards,

Paul Harley
Industries and Environment
Client Manager

Phone: +61 (0)2 8594 0400

Direct: +61 (0)2 8594 0449

Mobile: +61 (0)4 0797 2867

(Please note my new working hours of Mon-Fri 7:00am-3:00pm)

From: Andrew Ibrahim - EIAustralia <andrew.ibrahim@eiaustralia.com.au>

Sent: Wednesday, 9 June 2021 1:11 PM

To: AU.Environmental.Sydney (Sydney) <AU.Environmental.Sydney@sgs.com>;

AU.SampleReceipt.Sydney (Sydney) <AU.SampleReceipt.Sydney@sgs.com>

Cc: Li Wei - EIAustralia <li.wei@eiaustralia.com.au>; Benjamin Aggar - EIAustralia
<benjamin.agggar@eiaustralia.com.au>

Subject: [EXTERNAL] E24711.E02 - Campbelltown

*** WARNING: this message is from an EXTERNAL SENDER. Please be cautious, particularly with
links and attachments. ***

Hi SGS team,

We have samples to be delivered to you today for job number E24711.E02.

For sample BH32_0.3-0.4, can you please split it into two additional sub-samples QD2 and QT2.

- Test QD2 for HMs, TRH and BTEX (as per COCs)
- Send sample QT2 to Envirolab.

Sorry the inconvenience and thank you for your help.

Kind regards,

Andrew Ibrahim
MEng. (Env), BEng. (Che)
Chemical / Environmental Engineer

T 02 9516 0722 M 0451224922



SAMPLE RECEIPT ADVICE

SE220562

CLIENT DETAILS

Contact Li Wei
Client EIAUSTRALIA
Address SUITE 6.01
55 MILLER STREET
PYRMONT NSW 2009

Telephone 61 2 95160722
Facsimile (Not specified)
Email li.wei@eiaustralia.com.au

Project **E24711 22-32 Queen Street, Campbelltown**
Order Number **E24711**
Samples 69

LABORATORY DETAILS

Manager Huong Crawford
Laboratory SGS Alexandria Environmental
Address Unit 16, 33 Maddox St
Alexandria NSW 2015

Telephone +61 2 8594 0400
Facsimile +61 2 8594 0499
Email au.environmental.sydney@sgs.com

Samples Received Wed 9/6/2021
Report Due Thu 17/6/2021
SGS Reference **SE220562**

SUBMISSION DETAILS

This is to confirm that 69 samples were received on Wednesday 9/6/2021. Results are expected to be ready by COB Thursday 17/6/2021. Please quote SGS reference SE220562 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	68 Soil, 1 Water
Date documentation received	9/6/2021	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	6°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

17 soil and 1 water samples have been placed on hold as no tests have been assigned for them by the client. These samples will not be processed.

This document is issued by the Company under its General Conditions of Service accessible at www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

CLIENT DETAILS

Client **EIAUSTRALIA**

Project **E24711 22-32 Queen Street, Campbelltown**

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Total Phenolics in Soil	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
001	BH1M-0.1-0.2	29	14	26	11	1	10	81	7
002	BH1M-0.9-1.0	-	-	26	-	-	10	11	7
008	BH2-0.1-0.2	29	14	26	11	-	10	11	7
009	BH3-0.1-0.2	29	14	26	11	-	10	11	7
010	BH4_0.1-0.2	29	14	26	11	-	10	11	7
011	BH4_0.6-0.7	-	-	26	-	-	10	11	7
012	BH5_0.3-0.4	29	14	26	11	-	10	11	7
013	BH6_0.1-0.2	29	14	26	11	1	10	81	7
014	BH7_0.1-0.2	29	14	26	11	-	10	11	7
015	BH8_0.1-0.2	29	14	26	11	-	10	11	7
016	BH8_0.7-0.8	-	-	26	-	-	10	11	7
017	BH9_0.2-0.3	29	14	26	11	-	10	11	7
018	BH10_0.2-0.3	29	14	26	11	-	10	11	7
019	BH11M_0.1-0.2	29	14	26	11	-	10	11	7

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details .

Testing as per this table shall commence immediately unless the client intervenes with a correction .

CLIENT DETAILS

Client **EIAUSTRALIA**

Project **E24711 22-32 Queen Street, Campbelltown**

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Total Phenolics in Soil	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
025	BH12_0.1-0.2	29	14	26	11	-	10	11	7
026	BH12_0.4-0.5	-	-	26	-	-	10	11	7
027	BH13_0.2-0.3	29	14	26	11	-	10	81	7
028	BH13_0.7-0.8	-	-	26	-	-	10	11	7
029	BH14_0.3-0.4	29	14	26	11	-	10	11	7
030	BH15_0.2-0.3	29	14	26	11	-	10	11	7
031	BH16_0.3-0.4	29	14	26	11	-	10	11	7
032	BH17_0.2-0.3	29	14	26	11	1	10	81	7
033	BH18_0.1-0.2	29	14	26	11	-	10	11	7
034	BH19_0.2-0.3	29	14	26	11	1	10	81	7
035	BH20_0.2-0.3	29	14	26	11	-	10	11	7
036	BH20_1.8-1.9	-	-	26	-	-	10	11	7
037	BH21_0.2-0.3	29	14	26	11	-	10	11	7
038	BH22_0.15-0.2	29	14	26	11	-	10	11	7
039	BH22_0.4-0.5	-	-	26	-	-	10	11	7
040	BH23_0.2-0.3	29	14	26	11	-	10	11	7
041	BH24_0.2-0.3	29	14	26	11	-	10	11	7
042	BH24_0.8-0.9	-	-	26	-	-	10	11	7
043	BH25M_0.3-0.4	29	14	26	11	1	10	81	7
044	BH25M_0.8-0.9	-	-	26	-	1	10	81	7
045	BH25M_1.8-1.9	-	-	26	-	1	10	81	7

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.

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CLIENT DETAILS

Client **EIAUSTRALIA**

Project **E24711 22-32 Queen Street, Campbelltown**

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Total Phenolics in Soil	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
050	BH26_0.3-0.4	29	14	26	11	1	10	81	7
051	BH27_0.2-0.3	29	14	26	11	-	10	11	7
052	BH27_0.7-0.8	-	-	26	-	-	10	11	7
053	BH28_0.2-0.3	29	14	26	11	-	10	11	7
054	BH29M_0.3-0.4	29	14	26	11	1	10	81	7
058	BH30_0.2-0.3	29	14	26	11	-	10	11	7
059	BH30_0.7-0.8	-	-	26	-	-	10	11	7
060	BH31_0.3-0.4	29	14	26	11	-	10	11	7
061	BH32_0.3-0.4	29	14	26	11	-	10	11	7
062	BH32_0.8-0.9	-	-	26	-	-	10	11	7
063	BH33_0.2-0.3	29	14	26	11	1	10	81	7
064	BH33_0.6-0.7	-	-	26	-	-	10	11	7
065	QD1	-	-	-	-	-	10	11	7
067	QTB1	-	-	-	-	-	-	81	-
068	QTS1	-	-	-	-	-	-	81	-
069	QD2	-	-	-	-	-	10	11	7

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.

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Testing as per this table shall commence immediately unless the client intervenes with a correction .

CLIENT DETAILS

Client **EIAUSTRALIA**

Project **E24711 22-32 Queen Street, Campbelltown**

SUMMARY OF ANALYSIS

No.	Sample ID	Alkalinity in Soil	Conductivity and TDS by Calculation - Soil	Exchangeable Cations and Cation Exchange Capacity	Mercury in Soil	Moisture Content	pH in soil (1:5)	Soluble Anions (1:5) in Soil/Solids by Ion	Total Recoverable Elements in Soil/Waste
001	BH1M-0.1-0.2	-	-	-	1	1	-	-	7
002	BH1M-0.9-1.0	4	2	13	1	1	1	2	11
003	BH1M-1.9-2.0	4	2	13	-	1	1	2	4
004	BH1M-2.9-3.0	4	2	13	-	1	1	2	4
005	BH1M-3.9-4.0	4	2	13	-	1	1	2	4
006	BH1M-4.9-5.0	4	2	13	-	1	1	2	4
007	BH1M-5.9-6.0	4	2	13	-	1	1	2	4
008	BH2-0.1-0.2	-	-	-	1	1	-	-	7
009	BH3-0.1-0.2	-	-	-	1	1	-	-	7
010	BH4_0.1-0.2	-	-	-	1	1	-	-	7
011	BH4_0.6-0.7	-	-	-	1	1	-	-	7
012	BH5_0.3-0.4	-	-	-	1	1	-	-	7
013	BH6_0.1-0.2	-	-	-	1	1	-	-	7
014	BH7_0.1-0.2	-	-	-	1	1	-	-	7
015	BH8_0.1-0.2	-	-	-	1	1	-	-	7
016	BH8_0.7-0.8	-	-	-	1	1	-	-	7
017	BH9_0.2-0.3	-	-	-	1	1	-	-	7
018	BH10_0.2-0.3	-	-	-	1	1	-	-	7
019	BH11M_0.1-0.2	-	-	-	1	1	-	-	7
020	BH11M_0.4-0.5	4	2	13	-	1	1	2	4
021	BH11M_1.4-1.5	4	2	13	-	1	1	2	4
022	BH11M_2.4-2.5	4	2	13	-	1	1	2	4
023	BH11M_3.4-3.5	4	2	13	-	1	1	2	4
024	BH11M_4.4-4.5	4	2	13	-	1	1	2	4

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details .

Testing as per this table shall commence immediately unless the client intervenes with a correction .

CLIENT DETAILS

Client EIAUSTRALIA

Project E24711 22-32 Queen Street, Campbelltown

SUMMARY OF ANALYSIS

No.	Sample ID	Alkalinity in Soil	Conductivity and TDS by Calculation - Soil	Exchangeable Cations and Cation Exchange Capacity	Mercury in Soil	Moisture Content	pH in soil (1:5)	Soluble Anions (1:5) in Soil/Solids by Ion	Total Recoverable Elements in Soil/Waste
025	BH12_0.1-0.2	-	-	-	1	1	-	-	7
026	BH12_0.4-0.5	-	-	-	1	1	-	-	7
027	BH13_0.2-0.3	-	-	-	1	1	-	-	7
028	BH13_0.7-0.8	-	-	-	1	1	-	-	7
029	BH14_0.3-0.4	-	-	-	1	1	-	-	7
030	BH15_0.2-0.3	-	-	-	1	1	-	-	7
031	BH16_0.3-0.4	-	-	-	1	1	-	-	7
032	BH17_0.2-0.3	-	-	-	1	1	-	-	7
033	BH18_0.1-0.2	-	-	-	1	1	-	-	7
034	BH19_0.2-0.3	-	-	-	1	1	-	-	7
035	BH20_0.2-0.3	-	-	-	1	1	-	-	7
036	BH20_1.8-1.9	-	-	-	1	1	-	-	7
037	BH21_0.2-0.3	-	-	-	1	1	-	-	7
038	BH22_0.15-0.2	-	-	-	1	1	-	-	7
039	BH22_0.4-0.5	-	-	-	1	1	-	-	7
040	BH23_0.2-0.3	-	-	-	1	1	-	-	7
041	BH24_0.2-0.3	-	-	-	1	1	-	-	7
042	BH24_0.8-0.9	-	-	-	1	1	-	-	7
043	BH25M_0.3-0.4	-	-	-	1	1	-	-	7
044	BH25M_0.8-0.9	4	2	13	1	1	1	2	11
045	BH25M_1.8-1.9	4	2	13	1	1	1	2	11
046	BH25M_2.8-2.9	4	2	13	-	1	1	2	4
047	BH25M_3.8-3.9	4	2	13	-	1	1	2	4
048	BH25M_4.8-4.9	4	2	13	-	1	1	2	4

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details .

Testing as per this table shall commence immediately unless the client intervenes with a correction .

CLIENT DETAILS

Client **EIAUSTRALIA**

Project **E24711 22-32 Queen Street, Campbelltown**

SUMMARY OF ANALYSIS

No.	Sample ID	Alkalinity in Soil	Conductivity and TDS by Calculation - Soil	Exchangeable Cations and Cation Exchange Capacity	Mercury in Soil	Moisture Content	pH in soil (1:5)	Soluble Anions (1:5) in Soil/Solids by Ion	Total Recoverable Elements in Soil/Waste
049	BH25M_5.6-5.7	4	2	13	-	1	1	2	4
050	BH26_0.3-0.4	-	-	-	1	1	-	-	7
051	BH27_0.2-0.3	-	-	-	1	1	-	-	7
052	BH27_0.7-0.8	-	-	-	1	1	-	-	7
053	BH28_0.2-0.3	-	-	-	1	1	-	-	7
054	BH29M_0.3-0.4	-	-	-	1	1	-	-	7
055	BH29M_0.9-1.0	4	2	13	-	1	1	2	4
056	BH29M_1.9-2.0	4	2	13	-	1	1	2	4
057	BH29M_2.9-3.0	4	2	13	-	1	1	2	4
058	BH30_0.2-0.3	-	-	-	1	1	-	-	7
059	BH30_0.7-0.8	-	-	-	1	1	-	-	7
060	BH31_0.3-0.4	-	-	-	1	1	-	-	7
061	BH32_0.3-0.4	-	-	-	1	1	-	-	7
062	BH32_0.8-0.9	-	-	-	1	1	-	-	7
063	BH33_0.2-0.3	-	-	-	1	1	-	-	7
064	BH33_0.6-0.7	-	-	-	1	1	-	-	7
065	QD1	-	-	-	1	1	-	-	7
067	QTB1	-	-	-	-	1	-	-	-
069	QD2	-	-	-	1	1	-	-	7

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details .

Testing as per this table shall commence immediately unless the client intervenes with a correction .

CLIENT DETAILS

Client **EIA AUSTRALIA**

Project **E24711 22-32 Queen Street, Campbelltown**

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre Identification in soil	Soil Texture (AS4419)
001	BH1M-0.1-0.2	2	-
002	BH1M-0.9-1.0	-	1
003	BH1M-1.9-2.0	-	1
004	BH1M-2.9-3.0	-	1
005	BH1M-3.9-4.0	-	1
006	BH1M-4.9-5.0	-	1
007	BH1M-5.9-6.0	-	1
008	BH2-0.1-0.2	2	-
009	BH3-0.1-0.2	2	-
010	BH4_0.1-0.2	2	-
012	BH5_0.3-0.4	2	-
013	BH6_0.1-0.2	2	-
014	BH7_0.1-0.2	2	-
015	BH8_0.1-0.2	2	-
017	BH9_0.2-0.3	2	-
018	BH10_0.2-0.3	2	-
019	BH11M_0.1-0.2	2	-
020	BH11M_0.4-0.5	-	1
021	BH11M_1.4-1.5	-	1
022	BH11M_2.4-2.5	-	1
023	BH11M_3.4-3.5	-	1
024	BH11M_4.4-4.5	-	1

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.

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Please indicate as soon as possible should your request differ from these details .

Testing as per this table shall commence immediately unless the client intervenes with a correction .

CLIENT DETAILS

Client **EIAUSTRALIA**

Project **E24711 22-32 Queen Street, Campbelltown**

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre Identification in soil	Soil Texture (AS4419)
025	BH12_0.1-0.2	2	-
027	BH13_0.2-0.3	2	-
029	BH14_0.3-0.4	2	-
030	BH15_0.2-0.3	2	-
031	BH16_0.3-0.4	2	-
032	BH17_0.2-0.3	2	-
033	BH18_0.1-0.2	2	-
034	BH19_0.2-0.3	2	-
035	BH20_0.2-0.3	2	-
037	BH21_0.2-0.3	2	-
038	BH22_0.15-0.2	2	-
040	BH23_0.2-0.3	2	-
041	BH24_0.2-0.3	2	-
043	BH25M_0.3-0.4	2	-
044	BH25M_0.8-0.9	-	1
045	BH25M_1.8-1.9	-	1
046	BH25M_2.8-2.9	-	1
047	BH25M_3.8-3.9	-	1
048	BH25M_4.8-4.9	-	1

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details .

Testing as per this table shall commence immediately unless the client intervenes with a correction .



SAMPLE RECEIPT ADVICE

SE220562

CLIENT DETAILS

Client EIAUSTRALIA

Project E24711 22-32 Queen Street, Campbelltown

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre Identification in soil	Soil Texture (AS4419)	VOCs in Water
049	BH25M_5.6-5.7	-	1	-
050	BH26_0.3-0.4	2	-	-
051	BH27_0.2-0.3	2	-	-
053	BH28_0.2-0.3	2	-	-
054	BH29M_0.3-0.4	2	-	-
055	BH29M_0.9-1.0	-	1	-
056	BH29M_1.9-2.0	-	1	-
057	BH29M_2.9-3.0	-	1	-
058	BH30_0.2-0.3	2	-	-
060	BH31_0.3-0.4	2	-	-
061	BH32_0.3-0.4	2	-	-
063	BH33_0.2-0.3	2	-	-
066	QR1	-	-	11

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details .

Testing as per this table shall commence immediately unless the client intervenes with a correction .



SAMPLE RECEIPT ADVICE

SE220562

CLIENT DETAILS

Client **EIAUSTRALIA**

Project **E24711 22-32 Queen Street, Campbelltown**

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury (dissolved) in Water	Trace Metals (Dissolved) in Water by ICPMS	TRH (Total Recoverable Hydrocarbons) in Water	Volatile Petroleum Hydrocarbons in Water
066	QR1	1	7	9	7

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

Client Details

Client	EI Australia
Attention	Lab Email

Sample Login Details

Your reference	E24711, Campbelltown
Envirolab Reference	271249
Date Sample Received	09/06/2021
Date Instructions Received	09/06/2021
Date Results Expected to be Reported	17/06/2021

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	1 soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	2
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

QT2 yet to come

Please direct any queries to:

Aileen Hie

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: ahie@envirolab.com.au

Jacinta Hurst

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: jhurst@envirolab.com.au

Analysis Underway, details on the following page:

**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

Sample ID	VTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	Acid Extractable metals in soil
QT1	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.

TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

RE: [EXTERNAL] E24711.E02 - Campbelltown

A

AU.Environmental.Sydney (Sydney)

Wed 9/06/2021 1:43 PM

To: Li Wei - EIAustralia <li.wei@eiaustralia.com.au>

Cc: Andrew Ibrahim - EIAustralia <andrew.ibrahim@eiaustralia.com.au>; Benjamin Aggar - EIAus

Hi Li,

Thanks for the COC, will forward sample QT2 to Envirolab.

Kind Regards,

Huong Crawford

Industries & Environment

Production Manager

SGS Australia Pty Ltd

Unit 16, 33 Maddox Street

Alexandria NSW 2015

Phone: +61 (0)2 8594 0403

Fax: + 61 (0)2 8594 0499

E-mail: Huong.Crawford@sgs.com

Web: www.au.sgs.com

View Your Results Online: engage.sgs.com

From: Li Wei - EIAustralia <li.wei@eiaustralia.com.au>

Sent: Wednesday, 9 June 2021 1:38 PM

To: AU.Environmental.Sydney (Sydney) <AU.Environmental.Sydney@sgs.com>;

AU.SampleReceipt.Sydney (Sydney) <AU.SampleReceipt.Sydney@sgs.com>

Cc: Andrew Ibrahim - EIAustralia <andrew.ibrahim@eiaustralia.com.au>; Benjamin Aggar -

EIAustralia <benjamin.aggar@eiaustralia.com.au>

Subject: RE: [EXTERNAL] E24711.E02 - Campbelltown

*** WARNING: this message is from an EXTERNAL SENDER. Please be cautious, particularly with links and attachments. ***

Hi SGS,

Please find attached COCs for the samples today (including QT2 sample to be delivered to Envirolab).

Many thanks.

Best Regards

Li Wei

BSc (Env), MEng (Env)

Environmental Engineer

SAMPLE RECEIPT ADVICE

Client Details

Client	EI Australia
Attention	Accounts Email, Lab Email

Sample Login Details

Your reference	E24711, Campbelltown
Envirolab Reference	271375
Date Sample Received	10/06/2021
Date Instructions Received	10/06/2021
Date Results Expected to be Reported	18/06/2021

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	1 soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	14
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: ahie@envirolab.com.au

Jacinta Hurst

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: jhurst@envirolab.com.au

Analysis Underway, details on the following page:

**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

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	Acid Extractable metals in soil
QT2	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.

TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Sheet 1 of 1		Project No:		E24711		Site:		22-32 Queen Street, Campbelltown	
Laboratory:		SGS Australia Unit 16, 33 Maddox Street, ALEXANDRIA NSW 2015 P: 02 8594 0400 F: 02 8594 0499				Sample ID		Sampling	
		Laboratory ID	Container Type	Date	Time				
BH1M		1	P.P.S. 2Vc	15/6/21	8:40 PM	X			
BH11M		2				X			
BH25M		3				X			
BH29M		4	P.S. 2Vc			X			
GWA71		5				X			
GWA81		6				X			
GWA8B1						X			
GWTB1		7	Cab prepared			X			
GWTS1		8				X			
Container Type: J = solvent washed, acid rinsed, Teflon sealed glass jar S = solvent washed, acid rinsed glass bottle P = natural HDPE plastic bottle VC = glass vial, Teflon Septum ZLB = Zip-Lock Bag						Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.			
Report with EI Waste Classification Table						Sampler's Comments:			
Received by (SGS): Print Signature Date						Received by (SGS): Print Signature Date			
Li Wci						George Zhi			
Date 15/6/21						Date 15/6/21 @ 2:15 pm			
IMPORTANT: Please e-mail laboratory results to: lab@eiaustralia.com.au						IMPORTANT: Please e-mail laboratory results to: lab@eiaustralia.com.au			



SAMPLE RECEIPT ADVICE

SE220691

CLIENT DETAILS

Contact Li Wei
Client EIAUSTRALIA
Address SUITE 6.01
55 MILLER STREET
PYRMONT NSW 2009

Telephone 61 2 95160722
Facsimile (Not specified)
Email li.wei@eiaustralia.com.au

Project **E24711 22-32 Queen Street, Campbelltown**
Order Number **E24711**
Samples 8

LABORATORY DETAILS

Manager Huong Crawford
Laboratory SGS Alexandria Environmental
Address Unit 16, 33 Maddox St
Alexandria NSW 2015

Telephone +61 2 8594 0400
Facsimile +61 2 8594 0499
Email au.environmental.sydney@sgs.com

Samples Received Tue 15/6/2021
Report Due Tue 22/6/2021
SGS Reference **SE220691**

SUBMISSION DETAILS

This is to confirm that 8 samples were received on Tuesday 15/6/2021. Results are expected to be ready by COB Tuesday 22/6/2021. Please quote SGS reference SE220691 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	2 Soil, 6 Water
Date documentation received	15/6/2021	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	18°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

1 water sample has been placed on hold as no tests have been assigned for it. This sample will not be processed.

This document is issued by the Company under its General Conditions of Service accessible at www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.



SAMPLE RECEIPT ADVICE

SE220691

CLIENT DETAILS

Client **EI AUSTRALIA**

Project **E24711 22-32 Queen Street, Campbelltown**

SUMMARY OF ANALYSIS

No.	Sample ID	Moisture Content	PAH (Polynuclear Aromatic Hydrocarbons) in Water	TRH (Total Recoverable Hydrocarbons) in Water	VOC's in Soil	VOCs in Water	Volatile Petroleum Hydrocarbons in Water
001	BH1M	-	22	9	-	78	7
002	BH11M	-	22	9	-	78	7
003	BH25M	-	22	9	-	78	7
004	BH29M	-	22	9	-	78	7
005	GWQD1	-	-	9	-	11	7
006	GWQR1	-	-	9	-	11	7
007	GWTB1	1	-	-	11	-	-
008	GWTS1	-	-	-	11	-	-

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details .

Testing as per this table shall commence immediately unless the client intervenes with a correction .



SAMPLE RECEIPT ADVICE

SE220691

CLIENT DETAILS

Client **EI AUSTRALIA**

Project **E24711 22-32 Queen Street, Campbelltown**

SUMMARY OF ANALYSIS

No.	Sample ID	Anions by Ion Chromatography in Water	Conductivity and TDS by Calculation - Water	Mercury (dissolved) in Water	pH in water	Total Phenolics in Water	Trace Metals (Dissolved) in Water by ICPMS
001	BH1M	2	1	1	1	1	7
002	BH11M	2	1	1	1	1	7
003	BH25M	2	1	1	1	1	7
004	BH29M	2	1	1	1	1	7
005	GWQD1	-	-	1	-	-	7
006	GWQR1	-	-	1	-	-	7

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details .

Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

Client Details

Client	EI Australia
Attention	Lab Email

Sample Login Details

Your reference	E24711, 23-32 Queen St, Campbelltown
Envirolab Reference	271797
Date Sample Received	16/06/2021
Date Instructions Received	16/06/2021
Date Results Expected to be Reported	23/06/2021

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	1 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	12
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: ahie@envirolab.com.au

Jacinta Hurst

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: jhurst@envirolab.com.au

Analysis Underway, details on the following page:

**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

Sample ID	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	HM in water - dissolved
GWQT1	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.

TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Appendix H – Laboratory Analytical Reports

CLIENT DETAILS

Contact Li Wei
 Client EI AUSTRALIA
 Address SUITE 6.01
 55 MILLER STREET
 PYRMONT NSW 2009

Telephone 61 2 95160722
 Facsimile (Not specified)
 Email li.wei@eiaustralia.com.au

Project **E24711 22-32 Queen Street, Campbelltown**
 Order Number **E24711**
 Samples 69

LABORATORY DETAILS

Manager Huong Crawford
 Laboratory SGS Alexandria Environmental
 Address Unit 16, 33 Maddox St
 Alexandria NSW 2015

Telephone +61 2 8594 0400
 Facsimile +61 2 8594 0499
 Email au.environmental.sydney@sgs.com

SGS Reference **SE220562 R0**
 Date Received 9/6/2021
 Date Reported 17/6/2021

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

No respirable fibres detected in all soil samples using trace analysis technique.

Asbestos analysed by Approved Identifiers Ravee Sivasubramaniam and Yusuf Kuthupudin .

SIGNATORIES



Akheeque BENIAEMEEN
 Chemist



Dong LIANG
 Metals/Inorganics Team Leader



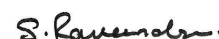
Huong CRAWFORD
 Production Manager



Kamrul AHSAN
 Senior Chemist



Ly Kim HA
 Organic Section Head



Ravee SIVASUBRAMANIAM
 Hygiene Team Leader

VOC's in Soil [AN433] Tested: 11/6/2021

PARAMETER	UOM	LOR	BH1M-0.1-0.2	BH1M-0.9-1.0	BH2-0.1-0.2	BH3-0.1-0.2	BH4_0.1-0.2
			SOIL - 7/6/2021 SE220562.001	SOIL - 7/6/2021 SE220562.002	SOIL - 7/6/2021 SE220562.008	SOIL - 7/6/2021 SE220562.009	SOIL - 7/6/2021 SE220562.010
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	-	-	-	-
Chloromethane	mg/kg	1	<1	-	-	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	-	-	-	-
Bromomethane	mg/kg	1	<1	-	-	-	-
Chloroethane	mg/kg	1	<1	-	-	-	-
Trichlorofluoromethane	mg/kg	1	<1	-	-	-	-
Acetone (2-propanone)	mg/kg	10	<10	-	-	-	-
Iodomethane	mg/kg	5	<5	-	-	-	-
1,1-dichloroethene	mg/kg	0.1	<0.1	-	-	-	-
Acrylonitrile	mg/kg	0.1	<0.1	-	-	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	-	-	-	-
Allyl chloride	mg/kg	0.1	<0.1	-	-	-	-
Carbon disulfide	mg/kg	0.5	<0.5	-	-	-	-
trans-1,2-dichloroethene	mg/kg	0.1	<0.1	-	-	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	-	-	-	-
1,1-dichloroethane	mg/kg	0.1	<0.1	-	-	-	-
Vinyl acetate	mg/kg	10	<10	-	-	-	-
MEK (2-butanone)	mg/kg	10	<10	-	-	-	-
cis-1,2-dichloroethene	mg/kg	0.1	<0.1	-	-	-	-
Bromochloromethane	mg/kg	0.1	<0.1	-	-	-	-
Chloroform	mg/kg	0.1	<0.1	-	-	-	-
2,2-dichloropropane	mg/kg	0.1	<0.1	-	-	-	-
1,2-dichloroethane	mg/kg	0.1	<0.1	-	-	-	-
1,1,1-trichloroethane	mg/kg	0.1	<0.1	-	-	-	-
1,1-dichloropropene	mg/kg	0.1	<0.1	-	-	-	-
Carbon tetrachloride	mg/kg	0.1	<0.1	-	-	-	-
Dibromomethane	mg/kg	0.1	<0.1	-	-	-	-
1,2-dichloropropane	mg/kg	0.1	<0.1	-	-	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	-	-	-	-
2-nitropropane	mg/kg	10	<10	-	-	-	-
Bromodichloromethane	mg/kg	0.1	<0.1	-	-	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	-	-	-	-
cis-1,3-dichloropropene	mg/kg	0.1	<0.1	-	-	-	-
trans-1,3-dichloropropene	mg/kg	0.1	<0.1	-	-	-	-
1,1,2-trichloroethane	mg/kg	0.1	<0.1	-	-	-	-
1,3-dichloropropane	mg/kg	0.1	<0.1	-	-	-	-
Chlorodibromomethane	mg/kg	0.1	<0.1	-	-	-	-
2-hexanone (MBK)	mg/kg	5	<5	-	-	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	-	-	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	-	-	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	-	-	-	-
Chlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
Bromoform	mg/kg	0.1	<0.1	-	-	-	-
cis-1,4-dichloro-2-butene	mg/kg	1	<1	-	-	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	-	-	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	-	-	-	-
1,2,3-trichloropropane	mg/kg	0.1	<0.1	-	-	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	<1	-	-	-	-

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH1M-0.1-0.2	BH1M-0.9-1.0	BH2-0.1-0.2	BH3-0.1-0.2	BH4_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.001	7/6/2021 SE220562.002	7/6/2021 SE220562.008	7/6/2021 SE220562.009	7/6/2021 SE220562.010
Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	-	-	-	-
Bromobenzene	mg/kg	0.1	<0.1	-	-	-	-
n-propylbenzene	mg/kg	0.1	<0.1	-	-	-	-
2-chlorotoluene	mg/kg	0.1	<0.1	-	-	-	-
4-chlorotoluene	mg/kg	0.1	<0.1	-	-	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	-	-	-	-
tert-butylbenzene	mg/kg	0.1	<0.1	-	-	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	-	-	-	-
sec-butylbenzene	mg/kg	0.1	<0.1	-	-	-	-
1,3-dichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
1,4-dichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
p-isopropyltoluene	mg/kg	0.1	<0.1	-	-	-	-
1,2-dichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
n-butylbenzene	mg/kg	0.1	<0.1	-	-	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	-	-	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	<0.1	-	-	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
Total VOC*	mg/kg	24	<24	-	-	-	-
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3.0	-	-	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	-	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	-	-	-

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH4_0.6-0.7	BH5_0.3-0.4	BH6_0.1-0.2	BH7_0.1-0.2	BH8_0.1-0.2
			SOIL - 7/6/2021 SE220562.011	SOIL - 8/6/2021 SE220562.012	SOIL - 8/6/2021 SE220562.013	SOIL - 8/6/2021 SE220562.014	SOIL - 7/6/2021 SE220562.015
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-	-	<1	-	-
Chloromethane	mg/kg	1	-	-	<1	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	-	-	<0.1	-	-
Bromomethane	mg/kg	1	-	-	<1	-	-
Chloroethane	mg/kg	1	-	-	<1	-	-
Trichlorofluoromethane	mg/kg	1	-	-	<1	-	-
Acetone (2-propanone)	mg/kg	10	-	-	<10	-	-
Iodomethane	mg/kg	5	-	-	<5	-	-
1,1-dichloroethene	mg/kg	0.1	-	-	<0.1	-	-
Acrylonitrile	mg/kg	0.1	-	-	<0.1	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	-	-	<0.5	-	-
Allyl chloride	mg/kg	0.1	-	-	<0.1	-	-
Carbon disulfide	mg/kg	0.5	-	-	<0.5	-	-
trans-1,2-dichloroethene	mg/kg	0.1	-	-	<0.1	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-	-	<0.1	-	-
1,1-dichloroethane	mg/kg	0.1	-	-	<0.1	-	-
Vinyl acetate	mg/kg	10	-	-	<10	-	-
MEK (2-butanone)	mg/kg	10	-	-	<10	-	-
cis-1,2-dichloroethene	mg/kg	0.1	-	-	<0.1	-	-
Bromochloromethane	mg/kg	0.1	-	-	<0.1	-	-
Chloroform	mg/kg	0.1	-	-	<0.1	-	-
2,2-dichloropropane	mg/kg	0.1	-	-	<0.1	-	-
1,2-dichloroethane	mg/kg	0.1	-	-	<0.1	-	-
1,1,1-trichloroethane	mg/kg	0.1	-	-	<0.1	-	-
1,1-dichloropropene	mg/kg	0.1	-	-	<0.1	-	-
Carbon tetrachloride	mg/kg	0.1	-	-	<0.1	-	-
Dibromomethane	mg/kg	0.1	-	-	<0.1	-	-
1,2-dichloropropane	mg/kg	0.1	-	-	<0.1	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-	-	<0.1	-	-
2-nitropropane	mg/kg	10	-	-	<10	-	-
Bromodichloromethane	mg/kg	0.1	-	-	<0.1	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	-	-	<1	-	-
cis-1,3-dichloropropene	mg/kg	0.1	-	-	<0.1	-	-
trans-1,3-dichloropropene	mg/kg	0.1	-	-	<0.1	-	-
1,1,2-trichloroethane	mg/kg	0.1	-	-	<0.1	-	-
1,3-dichloropropane	mg/kg	0.1	-	-	<0.1	-	-
Chlorodibromomethane	mg/kg	0.1	-	-	<0.1	-	-
2-hexanone (MBK)	mg/kg	5	-	-	<5	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	-	-	<0.1	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-	-	<0.1	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	-	-	<0.1	-	-
Chlorobenzene	mg/kg	0.1	-	-	<0.1	-	-
Bromoform	mg/kg	0.1	-	-	<0.1	-	-
cis-1,4-dichloro-2-butene	mg/kg	1	-	-	<1	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	-	-	<0.1	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	-	-	<0.1	-	-
1,2,3-trichloropropane	mg/kg	0.1	-	-	<0.1	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	-	-	<1	-	-

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH4_0.6-0.7	BH5_0.3-0.4	BH6_0.1-0.2	BH7_0.1-0.2	BH8_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.011	8/6/2021 SE220562.012	8/6/2021 SE220562.013	8/6/2021 SE220562.014	7/6/2021 SE220562.015
Isopropylbenzene (Cumene)	mg/kg	0.1	-	-	<0.1	-	-
Bromobenzene	mg/kg	0.1	-	-	<0.1	-	-
n-propylbenzene	mg/kg	0.1	-	-	<0.1	-	-
2-chlorotoluene	mg/kg	0.1	-	-	<0.1	-	-
4-chlorotoluene	mg/kg	0.1	-	-	<0.1	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	-	-	<0.1	-	-
tert-butylbenzene	mg/kg	0.1	-	-	<0.1	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	-	-	<0.1	-	-
sec-butylbenzene	mg/kg	0.1	-	-	<0.1	-	-
1,3-dichlorobenzene	mg/kg	0.1	-	-	<0.1	-	-
1,4-dichlorobenzene	mg/kg	0.1	-	-	<0.1	-	-
p-isopropyltoluene	mg/kg	0.1	-	-	<0.1	-	-
1,2-dichlorobenzene	mg/kg	0.1	-	-	<0.1	-	-
n-butylbenzene	mg/kg	0.1	-	-	<0.1	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	-	-	<0.1	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	-	-	<0.1	-	-
Hexachlorobutadiene	mg/kg	0.1	-	-	<0.1	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	-	-	<0.1	-	-
Total VOC*	mg/kg	24	-	-	<24	-	-
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	-	-	<3.0	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-	<1.8	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-	<1.8	-	-

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH8_0.7-0.8	BH9_0.2-0.3	BH10_0.2-0.3	BH11M_0.1-0.2	BH12_0.1-0.2
			SOIL - 7/6/2021 SE220562.016	SOIL - 7/6/2021 SE220562.017	SOIL - 7/6/2021 SE220562.018	SOIL - 7/6/2021 SE220562.019	SOIL - 7/6/2021 SE220562.025
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-	-	-	-	-
Chloromethane	mg/kg	1	-	-	-	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	-	-	-	-	-
Bromomethane	mg/kg	1	-	-	-	-	-
Chloroethane	mg/kg	1	-	-	-	-	-
Trichlorofluoromethane	mg/kg	1	-	-	-	-	-
Acetone (2-propanone)	mg/kg	10	-	-	-	-	-
Iodomethane	mg/kg	5	-	-	-	-	-
1,1-dichloroethene	mg/kg	0.1	-	-	-	-	-
Acrylonitrile	mg/kg	0.1	-	-	-	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	-	-	-	-	-
Allyl chloride	mg/kg	0.1	-	-	-	-	-
Carbon disulfide	mg/kg	0.5	-	-	-	-	-
trans-1,2-dichloroethene	mg/kg	0.1	-	-	-	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-	-	-	-	-
1,1-dichloroethane	mg/kg	0.1	-	-	-	-	-
Vinyl acetate	mg/kg	10	-	-	-	-	-
MEK (2-butanone)	mg/kg	10	-	-	-	-	-
cis-1,2-dichloroethene	mg/kg	0.1	-	-	-	-	-
Bromochloromethane	mg/kg	0.1	-	-	-	-	-
Chloroform	mg/kg	0.1	-	-	-	-	-
2,2-dichloropropane	mg/kg	0.1	-	-	-	-	-
1,2-dichloroethane	mg/kg	0.1	-	-	-	-	-
1,1,1-trichloroethane	mg/kg	0.1	-	-	-	-	-
1,1-dichloropropene	mg/kg	0.1	-	-	-	-	-
Carbon tetrachloride	mg/kg	0.1	-	-	-	-	-
Dibromomethane	mg/kg	0.1	-	-	-	-	-
1,2-dichloropropane	mg/kg	0.1	-	-	-	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-	-	-	-	-
2-nitropropane	mg/kg	10	-	-	-	-	-
Bromodichloromethane	mg/kg	0.1	-	-	-	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	-	-	-	-	-
cis-1,3-dichloropropene	mg/kg	0.1	-	-	-	-	-
trans-1,3-dichloropropene	mg/kg	0.1	-	-	-	-	-
1,1,2-trichloroethane	mg/kg	0.1	-	-	-	-	-
1,3-dichloropropane	mg/kg	0.1	-	-	-	-	-
Chlorodibromomethane	mg/kg	0.1	-	-	-	-	-
2-hexanone (MBK)	mg/kg	5	-	-	-	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	-	-	-	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-	-	-	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	-	-	-	-	-
Chlorobenzene	mg/kg	0.1	-	-	-	-	-
Bromoform	mg/kg	0.1	-	-	-	-	-
cis-1,4-dichloro-2-butene	mg/kg	1	-	-	-	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	-	-	-	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	-	-	-	-	-
1,2,3-trichloropropane	mg/kg	0.1	-	-	-	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	-	-	-	-	-

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH8_0.7-0.8	BH9_0.2-0.3	BH10_0.2-0.3	BH11M_0.1-0.2	BH12_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021	7/6/2021	7/6/2021	7/6/2021	7/6/2021
			SE220562.016	SE220562.017	SE220562.018	SE220562.019	SE220562.025
Isopropylbenzene (Cumene)	mg/kg	0.1	-	-	-	-	-
Bromobenzene	mg/kg	0.1	-	-	-	-	-
n-propylbenzene	mg/kg	0.1	-	-	-	-	-
2-chlorotoluene	mg/kg	0.1	-	-	-	-	-
4-chlorotoluene	mg/kg	0.1	-	-	-	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	-	-	-	-	-
tert-butylbenzene	mg/kg	0.1	-	-	-	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	-	-	-	-	-
sec-butylbenzene	mg/kg	0.1	-	-	-	-	-
1,3-dichlorobenzene	mg/kg	0.1	-	-	-	-	-
1,4-dichlorobenzene	mg/kg	0.1	-	-	-	-	-
p-isopropyltoluene	mg/kg	0.1	-	-	-	-	-
1,2-dichlorobenzene	mg/kg	0.1	-	-	-	-	-
n-butylbenzene	mg/kg	0.1	-	-	-	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	-	-	-	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	-	-	-	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	-	-	-	-	-
Total VOC*	mg/kg	24	-	-	-	-	-
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	-	-	-	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-	-	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-	-	-	-

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH12_0.4-0.5	BH13_0.2-0.3	BH13_0.7-0.8	BH14_0.3-0.4	BH15_0.2-0.3
			SOIL - 7/6/2021 SE220562.026	SOIL - 8/6/2021 SE220562.027	SOIL - 8/6/2021 SE220562.028	SOIL - 8/6/2021 SE220562.029	SOIL - 8/6/2021 SE220562.030
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-	<1	-	-	-
Chloromethane	mg/kg	1	-	<1	-	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	-	<0.1	-	-	-
Bromomethane	mg/kg	1	-	<1	-	-	-
Chloroethane	mg/kg	1	-	<1	-	-	-
Trichlorofluoromethane	mg/kg	1	-	<1	-	-	-
Acetone (2-propanone)	mg/kg	10	-	<10	-	-	-
Iodomethane	mg/kg	5	-	<5	-	-	-
1,1-dichloroethene	mg/kg	0.1	-	<0.1	-	-	-
Acrylonitrile	mg/kg	0.1	-	<0.1	-	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	-	<0.5	-	-	-
Allyl chloride	mg/kg	0.1	-	<0.1	-	-	-
Carbon disulfide	mg/kg	0.5	-	<0.5	-	-	-
trans-1,2-dichloroethene	mg/kg	0.1	-	<0.1	-	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-	<0.1	-	-	-
1,1-dichloroethane	mg/kg	0.1	-	<0.1	-	-	-
Vinyl acetate	mg/kg	10	-	<10	-	-	-
MEK (2-butanone)	mg/kg	10	-	<10	-	-	-
cis-1,2-dichloroethene	mg/kg	0.1	-	<0.1	-	-	-
Bromochloromethane	mg/kg	0.1	-	<0.1	-	-	-
Chloroform	mg/kg	0.1	-	<0.1	-	-	-
2,2-dichloropropane	mg/kg	0.1	-	<0.1	-	-	-
1,2-dichloroethane	mg/kg	0.1	-	<0.1	-	-	-
1,1,1-trichloroethane	mg/kg	0.1	-	<0.1	-	-	-
1,1-dichloropropene	mg/kg	0.1	-	<0.1	-	-	-
Carbon tetrachloride	mg/kg	0.1	-	<0.1	-	-	-
Dibromomethane	mg/kg	0.1	-	<0.1	-	-	-
1,2-dichloropropane	mg/kg	0.1	-	<0.1	-	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-	<0.1	-	-	-
2-nitropropane	mg/kg	10	-	<10	-	-	-
Bromodichloromethane	mg/kg	0.1	-	<0.1	-	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	-	<1	-	-	-
cis-1,3-dichloropropene	mg/kg	0.1	-	<0.1	-	-	-
trans-1,3-dichloropropene	mg/kg	0.1	-	<0.1	-	-	-
1,1,2-trichloroethane	mg/kg	0.1	-	<0.1	-	-	-
1,3-dichloropropane	mg/kg	0.1	-	<0.1	-	-	-
Chlorodibromomethane	mg/kg	0.1	-	<0.1	-	-	-
2-hexanone (MBK)	mg/kg	5	-	<5	-	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	-	<0.1	-	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-	<0.1	-	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	-	<0.1	-	-	-
Chlorobenzene	mg/kg	0.1	-	<0.1	-	-	-
Bromoform	mg/kg	0.1	-	<0.1	-	-	-
cis-1,4-dichloro-2-butene	mg/kg	1	-	<1	-	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	-	<0.1	-	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	-	<0.1	-	-	-
1,2,3-trichloropropane	mg/kg	0.1	-	<0.1	-	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	-	<1	-	-	-

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH12_0.4-0.5	BH13_0.2-0.3	BH13_0.7-0.8	BH14_0.3-0.4	BH15_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.026	8/6/2021 SE220562.027	8/6/2021 SE220562.028	8/6/2021 SE220562.029	8/6/2021 SE220562.030
Isopropylbenzene (Cumene)	mg/kg	0.1	-	<0.1	-	-	-
Bromobenzene	mg/kg	0.1	-	<0.1	-	-	-
n-propylbenzene	mg/kg	0.1	-	<0.1	-	-	-
2-chlorotoluene	mg/kg	0.1	-	<0.1	-	-	-
4-chlorotoluene	mg/kg	0.1	-	<0.1	-	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	-	<0.1	-	-	-
tert-butylbenzene	mg/kg	0.1	-	<0.1	-	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	-	<0.1	-	-	-
sec-butylbenzene	mg/kg	0.1	-	<0.1	-	-	-
1,3-dichlorobenzene	mg/kg	0.1	-	<0.1	-	-	-
1,4-dichlorobenzene	mg/kg	0.1	-	<0.1	-	-	-
p-isopropyltoluene	mg/kg	0.1	-	<0.1	-	-	-
1,2-dichlorobenzene	mg/kg	0.1	-	<0.1	-	-	-
n-butylbenzene	mg/kg	0.1	-	<0.1	-	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	-	<0.1	-	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	-	<0.1	-	-	-
Hexachlorobutadiene	mg/kg	0.1	-	<0.1	-	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	-	<0.1	-	-	-
Total VOC*	mg/kg	24	-	<24	-	-	-
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	-	<3.0	-	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	<1.8	-	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	<1.8	-	-	-

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH16_0.3-0.4	BH17_0.2-0.3	BH18_0.1-0.2	BH19_0.2-0.3	BH20_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.031	8/6/2021 SE220562.032	8/6/2021 SE220562.033	8/6/2021 SE220562.034	8/6/2021 SE220562.035
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-	<1	-	<1	-
Chloromethane	mg/kg	1	-	<1	-	<1	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	-	<0.1	-	<0.1	-
Bromomethane	mg/kg	1	-	<1	-	<1	-
Chloroethane	mg/kg	1	-	<1	-	<1	-
Trichlorofluoromethane	mg/kg	1	-	<1	-	<1	-
Acetone (2-propanone)	mg/kg	10	-	<10	-	<10	-
Iodomethane	mg/kg	5	-	<5	-	<5	-
1,1-dichloroethene	mg/kg	0.1	-	<0.1	-	<0.1	-
Acrylonitrile	mg/kg	0.1	-	<0.1	-	<0.1	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	-	<0.5	-	<0.5	-
Allyl chloride	mg/kg	0.1	-	<0.1	-	<0.1	-
Carbon disulfide	mg/kg	0.5	-	<0.5	-	<0.5	-
trans-1,2-dichloroethene	mg/kg	0.1	-	<0.1	-	<0.1	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-	<0.1	-	<0.1	-
1,1-dichloroethane	mg/kg	0.1	-	<0.1	-	<0.1	-
Vinyl acetate	mg/kg	10	-	<10	-	<10	-
MEK (2-butanone)	mg/kg	10	-	<10	-	<10	-
cis-1,2-dichloroethene	mg/kg	0.1	-	<0.1	-	<0.1	-
Bromochloromethane	mg/kg	0.1	-	<0.1	-	<0.1	-
Chloroform	mg/kg	0.1	-	<0.1	-	<0.1	-
2,2-dichloropropane	mg/kg	0.1	-	<0.1	-	<0.1	-
1,2-dichloroethane	mg/kg	0.1	-	<0.1	-	<0.1	-
1,1,1-trichloroethane	mg/kg	0.1	-	<0.1	-	<0.1	-
1,1-dichloropropene	mg/kg	0.1	-	<0.1	-	<0.1	-
Carbon tetrachloride	mg/kg	0.1	-	<0.1	-	<0.1	-
Dibromomethane	mg/kg	0.1	-	<0.1	-	<0.1	-
1,2-dichloropropane	mg/kg	0.1	-	<0.1	-	<0.1	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-	<0.1	-	<0.1	-
2-nitropropane	mg/kg	10	-	<10	-	<10	-
Bromodichloromethane	mg/kg	0.1	-	<0.1	-	<0.1	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	-	<1	-	<1	-
cis-1,3-dichloropropene	mg/kg	0.1	-	<0.1	-	<0.1	-
trans-1,3-dichloropropene	mg/kg	0.1	-	<0.1	-	<0.1	-
1,1,2-trichloroethane	mg/kg	0.1	-	<0.1	-	<0.1	-
1,3-dichloropropane	mg/kg	0.1	-	<0.1	-	<0.1	-
Chlorodibromomethane	mg/kg	0.1	-	<0.1	-	<0.1	-
2-hexanone (MBK)	mg/kg	5	-	<5	-	<5	-
1,2-dibromoethane (EDB)	mg/kg	0.1	-	<0.1	-	<0.1	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-	<0.1	-	<0.1	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	-	<0.1	-	<0.1	-
Chlorobenzene	mg/kg	0.1	-	<0.1	-	<0.1	-
Bromoform	mg/kg	0.1	-	<0.1	-	<0.1	-
cis-1,4-dichloro-2-butene	mg/kg	1	-	<1	-	<1	-
Styrene (Vinyl benzene)	mg/kg	0.1	-	<0.1	-	<0.1	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	-	<0.1	-	<0.1	-
1,2,3-trichloropropane	mg/kg	0.1	-	<0.1	-	<0.1	-
trans-1,4-dichloro-2-butene	mg/kg	1	-	<1	-	<1	-

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH16_0.3-0.4	BH17_0.2-0.3	BH18_0.1-0.2	BH19_0.2-0.3	BH20_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.031	8/6/2021 SE220562.032	8/6/2021 SE220562.033	8/6/2021 SE220562.034	8/6/2021 SE220562.035
Isopropylbenzene (Cumene)	mg/kg	0.1	-	<0.1	-	<0.1	-
Bromobenzene	mg/kg	0.1	-	<0.1	-	<0.1	-
n-propylbenzene	mg/kg	0.1	-	<0.1	-	<0.1	-
2-chlorotoluene	mg/kg	0.1	-	<0.1	-	<0.1	-
4-chlorotoluene	mg/kg	0.1	-	<0.1	-	<0.1	-
1,3,5-trimethylbenzene	mg/kg	0.1	-	<0.1	-	<0.1	-
tert-butylbenzene	mg/kg	0.1	-	<0.1	-	<0.1	-
1,2,4-trimethylbenzene	mg/kg	0.1	-	<0.1	-	<0.1	-
sec-butylbenzene	mg/kg	0.1	-	<0.1	-	<0.1	-
1,3-dichlorobenzene	mg/kg	0.1	-	<0.1	-	<0.1	-
1,4-dichlorobenzene	mg/kg	0.1	-	<0.1	-	<0.1	-
p-isopropyltoluene	mg/kg	0.1	-	<0.1	-	<0.1	-
1,2-dichlorobenzene	mg/kg	0.1	-	<0.1	-	<0.1	-
n-butylbenzene	mg/kg	0.1	-	<0.1	-	<0.1	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	-	<0.1	-	<0.1	-
1,2,4-trichlorobenzene	mg/kg	0.1	-	<0.1	-	<0.1	-
Hexachlorobutadiene	mg/kg	0.1	-	<0.1	-	<0.1	-
1,2,3-trichlorobenzene	mg/kg	0.1	-	<0.1	-	<0.1	-
Total VOC*	mg/kg	24	-	<24	-	<24	-
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	-	<3.0	-	<3.0	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	<1.8	-	<1.8	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	<1.8	-	<1.8	-

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH20_1.8-1.9	BH21_0.2-0.3	BH22_0.15-0.2	BH22_0.4-0.5	BH23_0.2-0.3
			SOIL - 8/6/2021 SE220562.036	SOIL - 8/6/2021 SE220562.037	SOIL - 8/6/2021 SE220562.038	SOIL - 8/6/2021 SE220562.039	SOIL - 7/6/2021 SE220562.040
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-	-	-	-	-
Chloromethane	mg/kg	1	-	-	-	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	-	-	-	-	-
Bromomethane	mg/kg	1	-	-	-	-	-
Chloroethane	mg/kg	1	-	-	-	-	-
Trichlorofluoromethane	mg/kg	1	-	-	-	-	-
Acetone (2-propanone)	mg/kg	10	-	-	-	-	-
Iodomethane	mg/kg	5	-	-	-	-	-
1,1-dichloroethene	mg/kg	0.1	-	-	-	-	-
Acrylonitrile	mg/kg	0.1	-	-	-	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	-	-	-	-	-
Allyl chloride	mg/kg	0.1	-	-	-	-	-
Carbon disulfide	mg/kg	0.5	-	-	-	-	-
trans-1,2-dichloroethene	mg/kg	0.1	-	-	-	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-	-	-	-	-
1,1-dichloroethane	mg/kg	0.1	-	-	-	-	-
Vinyl acetate	mg/kg	10	-	-	-	-	-
MEK (2-butanone)	mg/kg	10	-	-	-	-	-
cis-1,2-dichloroethene	mg/kg	0.1	-	-	-	-	-
Bromochloromethane	mg/kg	0.1	-	-	-	-	-
Chloroform	mg/kg	0.1	-	-	-	-	-
2,2-dichloropropane	mg/kg	0.1	-	-	-	-	-
1,2-dichloroethane	mg/kg	0.1	-	-	-	-	-
1,1,1-trichloroethane	mg/kg	0.1	-	-	-	-	-
1,1-dichloropropene	mg/kg	0.1	-	-	-	-	-
Carbon tetrachloride	mg/kg	0.1	-	-	-	-	-
Dibromomethane	mg/kg	0.1	-	-	-	-	-
1,2-dichloropropane	mg/kg	0.1	-	-	-	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-	-	-	-	-
2-nitropropane	mg/kg	10	-	-	-	-	-
Bromodichloromethane	mg/kg	0.1	-	-	-	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	-	-	-	-	-
cis-1,3-dichloropropene	mg/kg	0.1	-	-	-	-	-
trans-1,3-dichloropropene	mg/kg	0.1	-	-	-	-	-
1,1,2-trichloroethane	mg/kg	0.1	-	-	-	-	-
1,3-dichloropropane	mg/kg	0.1	-	-	-	-	-
Chlorodibromomethane	mg/kg	0.1	-	-	-	-	-
2-hexanone (MBK)	mg/kg	5	-	-	-	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	-	-	-	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-	-	-	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	-	-	-	-	-
Chlorobenzene	mg/kg	0.1	-	-	-	-	-
Bromoform	mg/kg	0.1	-	-	-	-	-
cis-1,4-dichloro-2-butene	mg/kg	1	-	-	-	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	-	-	-	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	-	-	-	-	-
1,2,3-trichloropropane	mg/kg	0.1	-	-	-	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	-	-	-	-	-

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH20_1.8-1.9	BH21_0.2-0.3	BH22_0.15-0.2	BH22_0.4-0.5	BH23_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021	8/6/2021	8/6/2021	8/6/2021	7/6/2021
			SE220562.036	SE220562.037	SE220562.038	SE220562.039	SE220562.040
Isopropylbenzene (Cumene)	mg/kg	0.1	-	-	-	-	-
Bromobenzene	mg/kg	0.1	-	-	-	-	-
n-propylbenzene	mg/kg	0.1	-	-	-	-	-
2-chlorotoluene	mg/kg	0.1	-	-	-	-	-
4-chlorotoluene	mg/kg	0.1	-	-	-	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	-	-	-	-	-
tert-butylbenzene	mg/kg	0.1	-	-	-	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	-	-	-	-	-
sec-butylbenzene	mg/kg	0.1	-	-	-	-	-
1,3-dichlorobenzene	mg/kg	0.1	-	-	-	-	-
1,4-dichlorobenzene	mg/kg	0.1	-	-	-	-	-
p-isopropyltoluene	mg/kg	0.1	-	-	-	-	-
1,2-dichlorobenzene	mg/kg	0.1	-	-	-	-	-
n-butylbenzene	mg/kg	0.1	-	-	-	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	-	-	-	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	-	-	-	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	-	-	-	-	-
Total VOC*	mg/kg	24	-	-	-	-	-
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	-	-	-	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-	-	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-	-	-	-

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH24_0.2-0.3	BH24_0.8-0.9	BH25M_0.3-0.4	BH25M_0.8-0.9	BH25M_1.8-1.9
			SOIL - 8/6/2021 SE220562.041	SOIL - 8/6/2021 SE220562.042	SOIL - 8/6/2021 SE220562.043	SOIL - 8/6/2021 SE220562.044	SOIL - 8/6/2021 SE220562.045
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-	-	<1	<1	<1
Chloromethane	mg/kg	1	-	-	<1	<1	<1
Vinyl chloride (Chloroethene)	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
Bromomethane	mg/kg	1	-	-	<1	<1	<1
Chloroethane	mg/kg	1	-	-	<1	<1	<1
Trichlorofluoromethane	mg/kg	1	-	-	<1	<1	<1
Acetone (2-propanone)	mg/kg	10	-	-	<10	<10	<10
Iodomethane	mg/kg	5	-	-	<5	<5	<5
1,1-dichloroethene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
Acrylonitrile	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
Dichloromethane (Methylene chloride)	mg/kg	0.5	-	-	<0.5	<0.5	<0.5
Allyl chloride	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
Carbon disulfide	mg/kg	0.5	-	-	<0.5	<0.5	<0.5
trans-1,2-dichloroethene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
1,1-dichloroethane	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
Vinyl acetate	mg/kg	10	-	-	<10	<10	<10
MEK (2-butanone)	mg/kg	10	-	-	<10	<10	<10
cis-1,2-dichloroethene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
Bromochloromethane	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
Chloroform	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
2,2-dichloropropane	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
1,2-dichloroethane	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
1,1,1-trichloroethane	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
1,1-dichloropropene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
Carbon tetrachloride	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
1,2-dichloropropane	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
2-nitropropane	mg/kg	10	-	-	<10	<10	<10
Bromodichloromethane	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
MIBK (4-methyl-2-pentanone)	mg/kg	1	-	-	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
trans-1,3-dichloropropene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
1,1,2-trichloroethane	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
1,3-dichloropropane	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
Chlorodibromomethane	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
2-hexanone (MBK)	mg/kg	5	-	-	<5	<5	<5
1,2-dibromoethane (EDB)	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
1,1,1,2-tetrachloroethane	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
Chlorobenzene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
Bromoform	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
cis-1,4-dichloro-2-butene	mg/kg	1	-	-	<1	<1	<1
Styrene (Vinyl benzene)	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
1,1,2,2-tetrachloroethane	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
1,2,3-trichloropropane	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
trans-1,4-dichloro-2-butene	mg/kg	1	-	-	<1	<1	<1

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH24_0.2-0.3	BH24_0.8-0.9	BH25M_0.3-0.4	BH25M_0.8-0.9	BH25M_1.8-1.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.041	8/6/2021 SE220562.042	8/6/2021 SE220562.043	8/6/2021 SE220562.044	8/6/2021 SE220562.045
Isopropylbenzene (Cumene)	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
Bromobenzene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
n-propylbenzene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
2-chlorotoluene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
4-chlorotoluene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
1,3,5-trimethylbenzene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
tert-butylbenzene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
1,2,4-trimethylbenzene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
sec-butylbenzene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
1,3-dichlorobenzene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
1,4-dichlorobenzene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
p-isopropyltoluene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
1,2-dichlorobenzene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
n-butylbenzene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
1,2-dibromo-3-chloropropane	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
1,2,4-trichlorobenzene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
1,2,3-trichlorobenzene	mg/kg	0.1	-	-	<0.1	<0.1	<0.1
Total VOC*	mg/kg	24	-	-	<24	<24	<24
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	-	-	<3.0	<3.0	<3.0
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-	<1.8	<1.8	<1.8
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-	<1.8	<1.8	<1.8

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH26_0.3-0.4	BH27_0.2-0.3	BH27_0.7-0.8	BH28_0.2-0.3	BH29M_0.3-0.4
			SOIL - 8/6/2021 SE220562.050	SOIL - 8/6/2021 SE220562.051	SOIL - 8/6/2021 SE220562.052	SOIL - 8/6/2021 SE220562.053	SOIL - 8/6/2021 SE220562.054
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	-	-	-	<1
Chloromethane	mg/kg	1	<1	-	-	-	<1
Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	-	-	-	<0.1
Bromomethane	mg/kg	1	<1	-	-	-	<1
Chloroethane	mg/kg	1	<1	-	-	-	<1
Trichlorofluoromethane	mg/kg	1	<1	-	-	-	<1
Acetone (2-propanone)	mg/kg	10	<10	-	-	-	<10
Iodomethane	mg/kg	5	<5	-	-	-	<5
1,1-dichloroethene	mg/kg	0.1	<0.1	-	-	-	<0.1
Acrylonitrile	mg/kg	0.1	<0.1	-	-	-	<0.1
Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	-	-	-	<0.5
Allyl chloride	mg/kg	0.1	<0.1	-	-	-	<0.1
Carbon disulfide	mg/kg	0.5	<0.5	-	-	-	<0.5
trans-1,2-dichloroethene	mg/kg	0.1	<0.1	-	-	-	<0.1
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	-	-	-	<0.1
1,1-dichloroethane	mg/kg	0.1	<0.1	-	-	-	<0.1
Vinyl acetate	mg/kg	10	<10	-	-	-	<10
MEK (2-butanone)	mg/kg	10	<10	-	-	-	<10
cis-1,2-dichloroethene	mg/kg	0.1	<0.1	-	-	-	<0.1
Bromochloromethane	mg/kg	0.1	<0.1	-	-	-	<0.1
Chloroform	mg/kg	0.1	<0.1	-	-	-	<0.1
2,2-dichloropropane	mg/kg	0.1	<0.1	-	-	-	<0.1
1,2-dichloroethane	mg/kg	0.1	<0.1	-	-	-	<0.1
1,1,1-trichloroethane	mg/kg	0.1	<0.1	-	-	-	<0.1
1,1-dichloropropene	mg/kg	0.1	<0.1	-	-	-	<0.1
Carbon tetrachloride	mg/kg	0.1	<0.1	-	-	-	<0.1
Dibromomethane	mg/kg	0.1	<0.1	-	-	-	<0.1
1,2-dichloropropane	mg/kg	0.1	<0.1	-	-	-	<0.1
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	-	-	-	<0.1
2-nitropropane	mg/kg	10	<10	-	-	-	<10
Bromodichloromethane	mg/kg	0.1	<0.1	-	-	-	<0.1
MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	-	-	-	<1
cis-1,3-dichloropropene	mg/kg	0.1	<0.1	-	-	-	<0.1
trans-1,3-dichloropropene	mg/kg	0.1	<0.1	-	-	-	<0.1
1,1,2-trichloroethane	mg/kg	0.1	<0.1	-	-	-	<0.1
1,3-dichloropropane	mg/kg	0.1	<0.1	-	-	-	<0.1
Chlorodibromomethane	mg/kg	0.1	<0.1	-	-	-	<0.1
2-hexanone (MBK)	mg/kg	5	<5	-	-	-	<5
1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	-	-	-	<0.1
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	-	-	-	<0.1
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	-	-	-	<0.1
Chlorobenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
Bromoform	mg/kg	0.1	<0.1	-	-	-	<0.1
cis-1,4-dichloro-2-butene	mg/kg	1	<1	-	-	-	<1
Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	-	-	-	<0.1
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	-	-	-	<0.1
1,2,3-trichloropropane	mg/kg	0.1	<0.1	-	-	-	<0.1
trans-1,4-dichloro-2-butene	mg/kg	1	<1	-	-	-	<1

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH26_0.3-0.4	BH27_0.2-0.3	BH27_0.7-0.8	BH28_0.2-0.3	BH29M_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.050	8/6/2021 SE220562.051	8/6/2021 SE220562.052	8/6/2021 SE220562.053	8/6/2021 SE220562.054
Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	-	-	-	<0.1
Bromobenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
n-propylbenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
2-chlorotoluene	mg/kg	0.1	<0.1	-	-	-	<0.1
4-chlorotoluene	mg/kg	0.1	<0.1	-	-	-	<0.1
1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
tert-butylbenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
sec-butylbenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
1,3-dichlorobenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
1,4-dichlorobenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
p-isopropyltoluene	mg/kg	0.1	<0.1	-	-	-	<0.1
1,2-dichlorobenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
n-butylbenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	-	-	-	<0.1
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
Hexachlorobutadiene	mg/kg	0.1	<0.1	-	-	-	<0.1
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
Total VOC*	mg/kg	24	<24	-	-	-	<24
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3.0	-	-	-	<3.0
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	-	-	<1.8
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	-	-	<1.8

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH30_0.2-0.3	BH30_0.7-0.8	BH31_0.3-0.4	BH32_0.3-0.4	BH32_0.8-0.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.058	8/6/2021 SE220562.059	8/6/2021 SE220562.060	8/6/2021 SE220562.061	8/6/2021 SE220562.062
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-	-	-	-	-
Chloromethane	mg/kg	1	-	-	-	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	-	-	-	-	-
Bromomethane	mg/kg	1	-	-	-	-	-
Chloroethane	mg/kg	1	-	-	-	-	-
Trichlorofluoromethane	mg/kg	1	-	-	-	-	-
Acetone (2-propanone)	mg/kg	10	-	-	-	-	-
Iodomethane	mg/kg	5	-	-	-	-	-
1,1-dichloroethene	mg/kg	0.1	-	-	-	-	-
Acrylonitrile	mg/kg	0.1	-	-	-	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	-	-	-	-	-
Allyl chloride	mg/kg	0.1	-	-	-	-	-
Carbon disulfide	mg/kg	0.5	-	-	-	-	-
trans-1,2-dichloroethene	mg/kg	0.1	-	-	-	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-	-	-	-	-
1,1-dichloroethane	mg/kg	0.1	-	-	-	-	-
Vinyl acetate	mg/kg	10	-	-	-	-	-
MEK (2-butanone)	mg/kg	10	-	-	-	-	-
cis-1,2-dichloroethene	mg/kg	0.1	-	-	-	-	-
Bromochloromethane	mg/kg	0.1	-	-	-	-	-
Chloroform	mg/kg	0.1	-	-	-	-	-
2,2-dichloropropane	mg/kg	0.1	-	-	-	-	-
1,2-dichloroethane	mg/kg	0.1	-	-	-	-	-
1,1,1-trichloroethane	mg/kg	0.1	-	-	-	-	-
1,1-dichloropropene	mg/kg	0.1	-	-	-	-	-
Carbon tetrachloride	mg/kg	0.1	-	-	-	-	-
Dibromomethane	mg/kg	0.1	-	-	-	-	-
1,2-dichloropropane	mg/kg	0.1	-	-	-	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-	-	-	-	-
2-nitropropane	mg/kg	10	-	-	-	-	-
Bromodichloromethane	mg/kg	0.1	-	-	-	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	-	-	-	-	-
cis-1,3-dichloropropene	mg/kg	0.1	-	-	-	-	-
trans-1,3-dichloropropene	mg/kg	0.1	-	-	-	-	-
1,1,2-trichloroethane	mg/kg	0.1	-	-	-	-	-
1,3-dichloropropane	mg/kg	0.1	-	-	-	-	-
Chlorodibromomethane	mg/kg	0.1	-	-	-	-	-
2-hexanone (MBK)	mg/kg	5	-	-	-	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	-	-	-	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-	-	-	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	-	-	-	-	-
Chlorobenzene	mg/kg	0.1	-	-	-	-	-
Bromoform	mg/kg	0.1	-	-	-	-	-
cis-1,4-dichloro-2-butene	mg/kg	1	-	-	-	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	-	-	-	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	-	-	-	-	-
1,2,3-trichloropropane	mg/kg	0.1	-	-	-	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	-	-	-	-	-

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH30_0.2-0.3	BH30_0.7-0.8	BH31_0.3-0.4	BH32_0.3-0.4	BH32_0.8-0.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021	8/6/2021	8/6/2021	8/6/2021	8/6/2021
			SE220562.058	SE220562.059	SE220562.060	SE220562.061	SE220562.062
Isopropylbenzene (Cumene)	mg/kg	0.1	-	-	-	-	-
Bromobenzene	mg/kg	0.1	-	-	-	-	-
n-propylbenzene	mg/kg	0.1	-	-	-	-	-
2-chlorotoluene	mg/kg	0.1	-	-	-	-	-
4-chlorotoluene	mg/kg	0.1	-	-	-	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	-	-	-	-	-
tert-butylbenzene	mg/kg	0.1	-	-	-	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	-	-	-	-	-
sec-butylbenzene	mg/kg	0.1	-	-	-	-	-
1,3-dichlorobenzene	mg/kg	0.1	-	-	-	-	-
1,4-dichlorobenzene	mg/kg	0.1	-	-	-	-	-
p-isopropyltoluene	mg/kg	0.1	-	-	-	-	-
1,2-dichlorobenzene	mg/kg	0.1	-	-	-	-	-
n-butylbenzene	mg/kg	0.1	-	-	-	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	-	-	-	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	-	-	-	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	-	-	-	-	-
Total VOC*	mg/kg	24	-	-	-	-	-
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	-	-	-	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-	-	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-	-	-	-

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH33_0.2-0.3	BH33_0.6-0.7	QD1	QTB1	QTS1
			SOIL - 8/6/2021 SE220562.063	SOIL - 8/6/2021 SE220562.064	SOIL - 7/6/2021 SE220562.065	SOIL - 9/6/2021 SE220562.067	SOIL - 9/6/2021 SE220562.068
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	[100%]
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	[99%]
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	[101%]
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	[101%]
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	[102%]
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	-
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	-
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	-	-	-	-
Chloromethane	mg/kg	1	<1	-	-	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	-	-	-	-
Bromomethane	mg/kg	1	<1	-	-	-	-
Chloroethane	mg/kg	1	<1	-	-	-	-
Trichlorofluoromethane	mg/kg	1	<1	-	-	-	-
Acetone (2-propanone)	mg/kg	10	<10	-	-	-	-
Iodomethane	mg/kg	5	<5	-	-	-	-
1,1-dichloroethene	mg/kg	0.1	<0.1	-	-	-	-
Acrylonitrile	mg/kg	0.1	<0.1	-	-	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	-	-	-	-
Allyl chloride	mg/kg	0.1	<0.1	-	-	-	-
Carbon disulfide	mg/kg	0.5	<0.5	-	-	-	-
trans-1,2-dichloroethene	mg/kg	0.1	<0.1	-	-	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	-	-	-	-
1,1-dichloroethane	mg/kg	0.1	<0.1	-	-	-	-
Vinyl acetate	mg/kg	10	<10	-	-	-	-
MEK (2-butanone)	mg/kg	10	<10	-	-	-	-
cis-1,2-dichloroethene	mg/kg	0.1	<0.1	-	-	-	-
Bromochloromethane	mg/kg	0.1	<0.1	-	-	-	-
Chloroform	mg/kg	0.1	<0.1	-	-	-	-
2,2-dichloropropane	mg/kg	0.1	<0.1	-	-	-	-
1,2-dichloroethane	mg/kg	0.1	<0.1	-	-	-	-
1,1,1-trichloroethane	mg/kg	0.1	<0.1	-	-	-	-
1,1-dichloropropene	mg/kg	0.1	<0.1	-	-	-	-
Carbon tetrachloride	mg/kg	0.1	<0.1	-	-	-	-
Dibromomethane	mg/kg	0.1	<0.1	-	-	-	-
1,2-dichloropropane	mg/kg	0.1	<0.1	-	-	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	-	-	-	-
2-nitropropane	mg/kg	10	<10	-	-	-	-
Bromodichloromethane	mg/kg	0.1	<0.1	-	-	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	-	-	-	-
cis-1,3-dichloropropene	mg/kg	0.1	<0.1	-	-	-	-
trans-1,3-dichloropropene	mg/kg	0.1	<0.1	-	-	-	-
1,1,2-trichloroethane	mg/kg	0.1	<0.1	-	-	-	-
1,3-dichloropropane	mg/kg	0.1	<0.1	-	-	-	-
Chlorodibromomethane	mg/kg	0.1	<0.1	-	-	-	-
2-hexanone (MBK)	mg/kg	5	<5	-	-	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	-	-	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	-	-	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	-	-	-	-
Chlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
Bromoform	mg/kg	0.1	<0.1	-	-	-	-
cis-1,4-dichloro-2-butene	mg/kg	1	<1	-	-	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	-	-	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	-	-	-	-
1,2,3-trichloropropane	mg/kg	0.1	<0.1	-	-	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	<1	-	-	-	-

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH33_0.2-0.3	BH33_0.6-0.7	QD1	QTB1	QTS1
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.063	8/6/2021 SE220562.064	7/6/2021 SE220562.065	9/6/2021 SE220562.067	9/6/2021 SE220562.068
Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	-	-	-	-
Bromobenzene	mg/kg	0.1	<0.1	-	-	-	-
n-propylbenzene	mg/kg	0.1	<0.1	-	-	-	-
2-chlorotoluene	mg/kg	0.1	<0.1	-	-	-	-
4-chlorotoluene	mg/kg	0.1	<0.1	-	-	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	-	-	-	-
tert-butylbenzene	mg/kg	0.1	<0.1	-	-	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	-	-	-	-
sec-butylbenzene	mg/kg	0.1	<0.1	-	-	-	-
1,3-dichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
1,4-dichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
p-isopropyltoluene	mg/kg	0.1	<0.1	-	-	-	-
1,2-dichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
n-butylbenzene	mg/kg	0.1	<0.1	-	-	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	-	-	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	<0.1	-	-	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
Total VOC*	mg/kg	24	<24	-	-	-	-
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3.0	-	-	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	-	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	-	-	-

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

			QD2
			SOIL
			-
			8/6/2021
PARAMETER	UOM	LOR	SE220562.069
Benzene	mg/kg	0.1	<0.1
Toluene	mg/kg	0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2
o-xylene	mg/kg	0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-
Chloromethane	mg/kg	1	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	-
Bromomethane	mg/kg	1	-
Chloroethane	mg/kg	1	-
Trichlorofluoromethane	mg/kg	1	-
Acetone (2-propanone)	mg/kg	10	-
Iodomethane	mg/kg	5	-
1,1-dichloroethene	mg/kg	0.1	-
Acrylonitrile	mg/kg	0.1	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	-
Allyl chloride	mg/kg	0.1	-
Carbon disulfide	mg/kg	0.5	-
trans-1,2-dichloroethene	mg/kg	0.1	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-
1,1-dichloroethane	mg/kg	0.1	-
Vinyl acetate	mg/kg	10	-
MEK (2-butanone)	mg/kg	10	-
cis-1,2-dichloroethene	mg/kg	0.1	-
Bromochloromethane	mg/kg	0.1	-
Chloroform	mg/kg	0.1	-
2,2-dichloropropane	mg/kg	0.1	-
1,2-dichloroethane	mg/kg	0.1	-
1,1,1-trichloroethane	mg/kg	0.1	-
1,1-dichloropropene	mg/kg	0.1	-
Carbon tetrachloride	mg/kg	0.1	-
Dibromomethane	mg/kg	0.1	-
1,2-dichloropropane	mg/kg	0.1	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-
2-nitropropane	mg/kg	10	-
Bromodichloromethane	mg/kg	0.1	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	-
cis-1,3-dichloropropene	mg/kg	0.1	-
trans-1,3-dichloropropene	mg/kg	0.1	-
1,1,2-trichloroethane	mg/kg	0.1	-
1,3-dichloropropane	mg/kg	0.1	-
Chlorodibromomethane	mg/kg	0.1	-
2-hexanone (MBK)	mg/kg	5	-
1,2-dibromoethane (EDB)	mg/kg	0.1	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	-
Chlorobenzene	mg/kg	0.1	-
Bromoform	mg/kg	0.1	-
cis-1,4-dichloro-2-butene	mg/kg	1	-
Styrene (Vinyl benzene)	mg/kg	0.1	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	-
1,2,3-trichloropropane	mg/kg	0.1	-
trans-1,4-dichloro-2-butene	mg/kg	1	-

VOC's in Soil [AN433] Tested: 11/6/2021 (continued)

			QD2
			SOIL
			-
			8/6/2021
			SE220562.069
PARAMETER	UOM	LOR	
Isopropylbenzene (Cumene)	mg/kg	0.1	-
Bromobenzene	mg/kg	0.1	-
n-propylbenzene	mg/kg	0.1	-
2-chlorotoluene	mg/kg	0.1	-
4-chlorotoluene	mg/kg	0.1	-
1,3,5-trimethylbenzene	mg/kg	0.1	-
tert-butylbenzene	mg/kg	0.1	-
1,2,4-trimethylbenzene	mg/kg	0.1	-
sec-butylbenzene	mg/kg	0.1	-
1,3-dichlorobenzene	mg/kg	0.1	-
1,4-dichlorobenzene	mg/kg	0.1	-
p-isopropyltoluene	mg/kg	0.1	-
1,2-dichlorobenzene	mg/kg	0.1	-
n-butylbenzene	mg/kg	0.1	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	-
1,2,4-trichlorobenzene	mg/kg	0.1	-
Hexachlorobutadiene	mg/kg	0.1	-
1,2,3-trichlorobenzene	mg/kg	0.1	-
Total VOC*	mg/kg	24	-
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 11/6/2021

PARAMETER	UOM	LOR	BH1M-0.1-0.2	BH1M-0.9-1.0	BH2-0.1-0.2	BH3-0.1-0.2	BH4_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.001	7/6/2021 SE220562.002	7/6/2021 SE220562.008	7/6/2021 SE220562.009	7/6/2021 SE220562.010
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH4_0.6-0.7	BH5_0.3-0.4	BH6_0.1-0.2	BH7_0.1-0.2	BH8_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.011	8/6/2021 SE220562.012	8/6/2021 SE220562.013	8/6/2021 SE220562.014	7/6/2021 SE220562.015
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH8_0.7-0.8	BH9_0.2-0.3	BH10_0.2-0.3	BH11M_0.1-0.2	BH12_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.016	7/6/2021 SE220562.017	7/6/2021 SE220562.018	7/6/2021 SE220562.019	7/6/2021 SE220562.025
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH12_0.4-0.5	BH13_0.2-0.3	BH13_0.7-0.8	BH14_0.3-0.4	BH15_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.026	8/6/2021 SE220562.027	8/6/2021 SE220562.028	8/6/2021 SE220562.029	8/6/2021 SE220562.030
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH16_0.3-0.4	BH17_0.2-0.3	BH18_0.1-0.2	BH19_0.2-0.3	BH20_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.031	8/6/2021 SE220562.032	8/6/2021 SE220562.033	8/6/2021 SE220562.034	8/6/2021 SE220562.035
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH20_1.8-1.9	BH21_0.2-0.3	BH22_0.15-0.2	BH22_0.4-0.5	BH23_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.036	8/6/2021 SE220562.037	8/6/2021 SE220562.038	8/6/2021 SE220562.039	7/6/2021 SE220562.040
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH24_0.2-0.3	BH24_0.8-0.9	BH25M_0.3-0.4	BH25M_0.8-0.9	BH25M_1.8-1.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.041	8/6/2021 SE220562.042	8/6/2021 SE220562.043	8/6/2021 SE220562.044	8/6/2021 SE220562.045
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH26_0.3-0.4	BH27_0.2-0.3	BH27_0.7-0.8	BH28_0.2-0.3	BH29M_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.050	8/6/2021 SE220562.051	8/6/2021 SE220562.052	8/6/2021 SE220562.053	8/6/2021 SE220562.054
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH30_0.2-0.3	BH30_0.7-0.8	BH31_0.3-0.4	BH32_0.3-0.4	BH32_0.8-0.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.058	8/6/2021 SE220562.059	8/6/2021 SE220562.060	8/6/2021 SE220562.061	8/6/2021 SE220562.062
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH33_0.2-0.3	BH33_0.6-0.7	QD1	QD2
			SOIL	SOIL	SOIL	SOIL
			-	-	-	-
			8/6/2021 SE220562.063	8/6/2021 SE220562.064	7/6/2021 SE220562.065	8/6/2021 SE220562.069
TRH C6-C9	mg/kg	20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 11/6/2021

PARAMETER	UOM	LOR	BH1M-0.1-0.2	BH1M-0.9-1.0	BH2-0.1-0.2	BH3-0.1-0.2	BH4_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.001	7/6/2021 SE220562.002	7/6/2021 SE220562.008	7/6/2021 SE220562.009	7/6/2021 SE220562.010
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH4_0.6-0.7	BH5_0.3-0.4	BH6_0.1-0.2	BH7_0.1-0.2	BH8_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.011	8/6/2021 SE220562.012	8/6/2021 SE220562.013	8/6/2021 SE220562.014	7/6/2021 SE220562.015
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH8_0.7-0.8	BH9_0.2-0.3	BH10_0.2-0.3	BH11M_0.1-0.2	BH12_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.016	7/6/2021 SE220562.017	7/6/2021 SE220562.018	7/6/2021 SE220562.019	7/6/2021 SE220562.025
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	150	54	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	300	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	350	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	300	<210	<210

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH12_0.4-0.5	BH13_0.2-0.3	BH13_0.7-0.8	BH14_0.3-0.4	BH15_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.026	8/6/2021 SE220562.027	8/6/2021 SE220562.028	8/6/2021 SE220562.029	8/6/2021 SE220562.030
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH16_0.3-0.4	BH17_0.2-0.3	BH18_0.1-0.2	BH19_0.2-0.3	BH20_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.031	8/6/2021 SE220562.032	8/6/2021 SE220562.033	8/6/2021 SE220562.034	8/6/2021 SE220562.035
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH20_1.8-1.9	BH21_0.2-0.3	BH22_0.15-0.2	BH22_0.4-0.5	BH23_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.036	8/6/2021 SE220562.037	8/6/2021 SE220562.038	8/6/2021 SE220562.039	7/6/2021 SE220562.040
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH24_0.2-0.3	BH24_0.8-0.9	BH25M_0.3-0.4	BH25M_0.8-0.9	BH25M_1.8-1.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.041	8/6/2021 SE220562.042	8/6/2021 SE220562.043	8/6/2021 SE220562.044	8/6/2021 SE220562.045
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH26_0.3-0.4	BH27_0.2-0.3	BH27_0.7-0.8	BH28_0.2-0.3	BH29M_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.050	8/6/2021 SE220562.051	8/6/2021 SE220562.052	8/6/2021 SE220562.053	8/6/2021 SE220562.054
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH30_0.2-0.3	BH30_0.7-0.8	BH31_0.3-0.4	BH32_0.3-0.4	BH32_0.8-0.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.058	8/6/2021 SE220562.059	8/6/2021 SE220562.060	8/6/2021 SE220562.061	8/6/2021 SE220562.062
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	60	55
TRH C29-C36	mg/kg	45	<45	<45	82	120	67
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	100	140	110
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	180	120
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH33_0.2-0.3	BH33_0.6-0.7	QD1	QD2
			SOIL	SOIL	SOIL	SOIL
			-	-	-	-
			8/6/2021 SE220562.063	8/6/2021 SE220562.064	7/6/2021 SE220562.065	8/6/2021 SE220562.069
TRH C10-C14	mg/kg	20	<20	<20	22	<20
TRH C15-C28	mg/kg	45	53	<45	100	97
TRH C29-C36	mg/kg	45	130	<45	79	170
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	25	<25
TRH >C16-C34 (F3)	mg/kg	90	140	<90	150	210
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	120
TRH C10-C36 Total	mg/kg	110	180	<110	200	270
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	330

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 11/6/2021

PARAMETER	UOM	LOR	BH1M-0.1-0.2	BH1M-0.9-1.0	BH2-0.1-0.2	BH3-0.1-0.2	BH4_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.001	7/6/2021 SE220562.002	7/6/2021 SE220562.008	7/6/2021 SE220562.009	7/6/2021 SE220562.010
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	0.2	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	BH4_0.6-0.7	BH5_0.3-0.4	BH6_0.1-0.2	BH7_0.1-0.2	BH8_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.011	8/6/2021 SE220562.012	8/6/2021 SE220562.013	8/6/2021 SE220562.014	7/6/2021 SE220562.015
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH8_0.7-0.8	BH9_0.2-0.3	BH10_0.2-0.3	BH11M_0.1-0.2	BH12_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.016	7/6/2021 SE220562.017	7/6/2021 SE220562.018	7/6/2021 SE220562.019	7/6/2021 SE220562.025
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	0.2	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	BH12_0.4-0.5	BH13_0.2-0.3	BH13_0.7-0.8	BH14_0.3-0.4	BH15_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.026	8/6/2021 SE220562.027	8/6/2021 SE220562.028	8/6/2021 SE220562.029	8/6/2021 SE220562.030
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH16_0.3-0.4	BH17_0.2-0.3	BH18_0.1-0.2	BH19_0.2-0.3	BH20_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.031	8/6/2021 SE220562.032	8/6/2021 SE220562.033	8/6/2021 SE220562.034	8/6/2021 SE220562.035
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	BH20_1.8-1.9	BH21_0.2-0.3	BH22_0.15-0.2	BH22_0.4-0.5	BH23_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.036	8/6/2021 SE220562.037	8/6/2021 SE220562.038	8/6/2021 SE220562.039	7/6/2021 SE220562.040
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.5
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	0.7
Pyrene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	0.8
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.3
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.3
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.2
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.2
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.2
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	0.4
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	0.3
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	3.4
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	3.4

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH24_0.2-0.3	BH24_0.8-0.9	BH25M_0.3-0.4	BH25M_0.8-0.9	BH25M_1.8-1.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.041	8/6/2021 SE220562.042	8/6/2021 SE220562.043	8/6/2021 SE220562.044	8/6/2021 SE220562.045
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	0.4	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	0.4	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	1.1	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	1.1	<0.8	<0.8

PARAMETER	UOM	LOR	BH26_0.3-0.4	BH27_0.2-0.3	BH27_0.7-0.8	BH28_0.2-0.3	BH29M_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.050	8/6/2021 SE220562.051	8/6/2021 SE220562.052	8/6/2021 SE220562.053	8/6/2021 SE220562.054
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH30_0.2-0.3	BH30_0.7-0.8	BH31_0.3-0.4	BH32_0.3-0.4	BH32_0.8-0.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.058	8/6/2021 SE220562.059	8/6/2021 SE220562.060	8/6/2021 SE220562.061	8/6/2021 SE220562.062
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	0.3	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	0.6	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	0.7	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	0.3	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	0.3	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	0.3	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	0.3	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	0.4	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	0.5	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	0.5	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	3.6	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	3.6	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	BH33_0.2-0.3	BH33_0.6-0.7
			SOIL	SOIL
			8/6/2021 SE220562.063	8/6/2021 SE220562.064
Naphthalene	mg/kg	0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1
1-methylnaphthalene	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	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8

OC Pesticides in Soil [AN420] Tested: 11/6/2021

PARAMETER	UOM	LOR	BH1M-0.1-0.2	BH2-0.1-0.2	BH3-0.1-0.2	BH4_0.1-0.2	BH5_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.001	7/6/2021 SE220562.008	7/6/2021 SE220562.009	7/6/2021 SE220562.010	8/6/2021 SE220562.012
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH6_0.1-0.2	BH7_0.1-0.2	BH8_0.1-0.2	BH9_0.2-0.3	BH10_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.013	8/6/2021 SE220562.014	7/6/2021 SE220562.015	7/6/2021 SE220562.017	7/6/2021 SE220562.018
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH11M_0.1-0.2	BH12_0.1-0.2	BH13_0.2-0.3	BH14_0.3-0.4	BH15_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.019	7/6/2021 SE220562.025	8/6/2021 SE220562.027	8/6/2021 SE220562.029	8/6/2021 SE220562.030
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH16_0.3-0.4	BH17_0.2-0.3	BH18_0.1-0.2	BH19_0.2-0.3	BH20_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.031	8/6/2021 SE220562.032	8/6/2021 SE220562.033	8/6/2021 SE220562.034	8/6/2021 SE220562.035
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH21_0.2-0.3	BH22_0.15-0.2	BH23_0.2-0.3	BH24_0.2-0.3	BH25M_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.037	8/6/2021 SE220562.038	7/6/2021 SE220562.040	8/6/2021 SE220562.041	8/6/2021 SE220562.043
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH26_0.3-0.4	BH27_0.2-0.3	BH28_0.2-0.3	BH29M_0.3-0.4	BH30_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.050	8/6/2021 SE220562.051	8/6/2021 SE220562.053	8/6/2021 SE220562.054	8/6/2021 SE220562.058
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH31_0.3-0.4	BH32_0.3-0.4	BH33_0.2-0.3
			SOIL - 8/6/2021 SE220562.060	SOIL - 8/6/2021 SE220562.061	SOIL - 8/6/2021 SE220562.063
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1

OP Pesticides in Soil [AN420] Tested: 11/6/2021

PARAMETER	UOM	LOR	BH1M-0.1-0.2	BH2-0.1-0.2	BH3-0.1-0.2	BH4_0.1-0.2	BH5_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.001	7/6/2021 SE220562.008	7/6/2021 SE220562.009	7/6/2021 SE220562.010	8/6/2021 SE220562.012
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	BH6_0.1-0.2	BH7_0.1-0.2	BH8_0.1-0.2	BH9_0.2-0.3	BH10_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.013	8/6/2021 SE220562.014	7/6/2021 SE220562.015	7/6/2021 SE220562.017	7/6/2021 SE220562.018
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	BH11M_0.1-0.2	BH12_0.1-0.2	BH13_0.2-0.3	BH14_0.3-0.4	BH15_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.019	7/6/2021 SE220562.025	8/6/2021 SE220562.027	8/6/2021 SE220562.029	8/6/2021 SE220562.030
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

OP Pesticides in Soil [AN420] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH16_0.3-0.4	BH17_0.2-0.3	BH18_0.1-0.2	BH19_0.2-0.3	BH20_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.031	8/6/2021 SE220562.032	8/6/2021 SE220562.033	8/6/2021 SE220562.034	8/6/2021 SE220562.035
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	BH21_0.2-0.3	BH22_0.15-0.2	BH23_0.2-0.3	BH24_0.2-0.3	BH25M_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.037	8/6/2021 SE220562.038	7/6/2021 SE220562.040	8/6/2021 SE220562.041	8/6/2021 SE220562.043
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	BH26_0.3-0.4	BH27_0.2-0.3	BH28_0.2-0.3	BH29M_0.3-0.4	BH30_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.050	8/6/2021 SE220562.051	8/6/2021 SE220562.053	8/6/2021 SE220562.054	8/6/2021 SE220562.058
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

OP Pesticides in Soil [AN420] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH31_0.3-0.4	BH32_0.3-0.4	BH33_0.2-0.3
			SOIL	SOIL	SOIL
			-	-	-
			8/6/2021	8/6/2021	8/6/2021
			SE220562.060	SE220562.061	SE220562.063
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7

PCBs in Soil [AN420] Tested: 11/6/2021

PARAMETER	UOM	LOR	BH1M-0.1-0.2	BH2-0.1-0.2	BH3-0.1-0.2	BH4_0.1-0.2	BH5_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.001	7/6/2021 SE220562.008	7/6/2021 SE220562.009	7/6/2021 SE220562.010	8/6/2021 SE220562.012
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PARAMETER	UOM	LOR	BH6_0.1-0.2	BH7_0.1-0.2	BH8_0.1-0.2	BH9_0.2-0.3	BH10_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.013	8/6/2021 SE220562.014	7/6/2021 SE220562.015	7/6/2021 SE220562.017	7/6/2021 SE220562.018
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PARAMETER	UOM	LOR	BH11M_0.1-0.2	BH12_0.1-0.2	BH13_0.2-0.3	BH14_0.3-0.4	BH15_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.019	7/6/2021 SE220562.025	8/6/2021 SE220562.027	8/6/2021 SE220562.029	8/6/2021 SE220562.030
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PCBs in Soil [AN420] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH16_0.3-0.4	BH17_0.2-0.3	BH18_0.1-0.2	BH19_0.2-0.3	BH20_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.031	8/6/2021 SE220562.032	8/6/2021 SE220562.033	8/6/2021 SE220562.034	8/6/2021 SE220562.035
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PARAMETER	UOM	LOR	BH21_0.2-0.3	BH22_0.15-0.2	BH23_0.2-0.3	BH24_0.2-0.3	BH25M_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.037	8/6/2021 SE220562.038	7/6/2021 SE220562.040	8/6/2021 SE220562.041	8/6/2021 SE220562.043
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PARAMETER	UOM	LOR	BH26_0.3-0.4	BH27_0.2-0.3	BH28_0.2-0.3	BH29M_0.3-0.4	BH30_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.050	8/6/2021 SE220562.051	8/6/2021 SE220562.053	8/6/2021 SE220562.054	8/6/2021 SE220562.058
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1



ANALYTICAL RESULTS

SE220562 R0

PCBs in Soil [AN420] Tested: 11/6/2021 (continued)

PARAMETER	UOM	LOR	BH31_0.3-0.4	BH32_0.3-0.4	BH33_0.2-0.3
			SOIL	SOIL	SOIL
			-	-	-
			8/6/2021 SE220562.060	8/6/2021 SE220562.061	8/6/2021 SE220562.063
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1

Total Phenolics in Soil [AN289] Tested: 16/6/2021

PARAMETER	UOM	LOR	BH1M-0.1-0.2	BH6_0.1-0.2	BH17_0.2-0.3	BH19_0.2-0.3	BH25M_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021	8/6/2021	8/6/2021	8/6/2021	8/6/2021
			SE220562.001	SE220562.013	SE220562.032	SE220562.034	SE220562.043
Total Phenols	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	BH25M_0.8-0.9	BH25M_1.8-1.9	BH26_0.3-0.4	BH29M_0.3-0.4	BH33_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021	8/6/2021	8/6/2021	8/6/2021	8/6/2021
			SE220562.044	SE220562.045	SE220562.050	SE220562.054	SE220562.063
Total Phenols	mg/kg	0.1	0.1	<0.1	<0.1	<0.1	<0.1

Soluble Anions (1:5) in Soil/Solids by Ion Chromatography [AN245] Tested: 17/6/2021

PARAMETER	UOM	LOR	BH1M-0.9-1.0	BH1M-1.9-2.0	BH1M-2.9-3.0	BH1M-3.9-4.0	BH1M-4.9-5.0
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.002	7/6/2021 SE220562.003	7/6/2021 SE220562.004	7/6/2021 SE220562.005	7/6/2021 SE220562.006
Chloride	mg/kg	0.25	660	1800	2200	1600	1400
Sulfate	mg/kg	5	260	120	160	110	200

PARAMETER	UOM	LOR	BH1M-5.9-6.0	BH11M_0.4-0.5	BH11M_1.4-1.5	BH11M_2.4-2.5	BH11M_3.4-3.5
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.007	7/6/2021 SE220562.020	7/6/2021 SE220562.021	7/6/2021 SE220562.022	7/6/2021 SE220562.023
Chloride	mg/kg	0.25	1700	140	260	620	970
Sulfate	mg/kg	5	160	17	260	150	150

PARAMETER	UOM	LOR	BH11M_4.4-4.5	BH25M_0.8-0.9	BH25M_1.8-1.9	BH25M_2.8-2.9	BH25M_3.8-3.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.024	8/6/2021 SE220562.044	8/6/2021 SE220562.045	8/6/2021 SE220562.046	8/6/2021 SE220562.047
Chloride	mg/kg	0.25	910	740	1000	1400	2300
Sulfate	mg/kg	5	80	91	87	84	73

PARAMETER	UOM	LOR	BH25M_4.8-4.9	BH25M_5.6-5.7	BH29M_0.9-1.0	BH29M_1.9-2.0	BH29M_2.9-3.0
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.048	8/6/2021 SE220562.049	8/6/2021 SE220562.055	8/6/2021 SE220562.056	8/6/2021 SE220562.057
Chloride	mg/kg	0.25	2400	2500	260	1800	1600
Sulfate	mg/kg	5	67	57	190	73	72

pH in soil (1:5) [AN101] Tested: 17/6/2021

PARAMETER	UOM	LOR	BH1M-0.9-1.0	BH1M-1.9-2.0	BH1M-2.9-3.0	BH1M-3.9-4.0	BH1M-4.9-5.0
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.002	7/6/2021 SE220562.003	7/6/2021 SE220562.004	7/6/2021 SE220562.005	7/6/2021 SE220562.006
pH	pH Units	0.1	6.1	4.9	5.2	5.7	6.1

PARAMETER	UOM	LOR	BH1M-5.9-6.0	BH1M_0.4-0.5	BH1M_1.4-1.5	BH1M_2.4-2.5	BH1M_3.4-3.5
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.007	7/6/2021 SE220562.020	7/6/2021 SE220562.021	7/6/2021 SE220562.022	7/6/2021 SE220562.023
pH	pH Units	0.1	7.1	6.3	5.5	6.7	6.9

PARAMETER	UOM	LOR	BH1M_4.4-4.5	BH25M_0.8-0.9	BH25M_1.8-1.9	BH25M_2.8-2.9	BH25M_3.8-3.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.024	8/6/2021 SE220562.044	8/6/2021 SE220562.045	8/6/2021 SE220562.046	8/6/2021 SE220562.047
pH	pH Units	0.1	7.7	5.2	6.6	7.0	7.3

PARAMETER	UOM	LOR	BH25M_4.8-4.9	BH25M_5.6-5.7	BH29M_0.9-1.0	BH29M_1.9-2.0	BH29M_2.9-3.0
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.048	8/6/2021 SE220562.049	8/6/2021 SE220562.055	8/6/2021 SE220562.056	8/6/2021 SE220562.057
pH	pH Units	0.1	7.8	7.9	6.2	7.6	7.8

Conductivity and TDS by Calculation - Soil [AN106] Tested: 17/6/2021

PARAMETER	UOM	LOR	BH1M-0.9-1.0	BH1M-1.9-2.0	BH1M-2.9-3.0	BH1M-3.9-4.0	BH1M-4.9-5.0
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.002	7/6/2021 SE220562.003	7/6/2021 SE220562.004	7/6/2021 SE220562.005	7/6/2021 SE220562.006
Conductivity of Extract (1:5 as received)	µS/cm	1	490	1000	1100	930	820
Salinity (by calculation)*	mg/kg	5	1900	4100	4400	3700	3200

PARAMETER	UOM	LOR	BH1M-5.9-6.0	BH11M_0.4-0.5	BH11M_1.4-1.5	BH11M_2.4-2.5	BH11M_3.4-3.5
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.007	7/6/2021 SE220562.020	7/6/2021 SE220562.021	7/6/2021 SE220562.022	7/6/2021 SE220562.023
Conductivity of Extract (1:5 as received)	µS/cm	1	960	130	280	410	650
Salinity (by calculation)*	mg/kg	5	3900	510	1100	1500	2500

PARAMETER	UOM	LOR	BH11M_4.4-4.5	BH25M_0.8-0.9	BH25M_1.8-1.9	BH25M_2.8-2.9	BH25M_3.8-3.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.024	8/6/2021 SE220562.044	8/6/2021 SE220562.045	8/6/2021 SE220562.046	8/6/2021 SE220562.047
Conductivity of Extract (1:5 as received)	µS/cm	1	590	470	670	830	1200
Salinity (by calculation)*	mg/kg	5	2200	1900	2700	3200	4900

PARAMETER	UOM	LOR	BH25M_4.8-4.9	BH25M_5.6-5.7	BH29M_0.9-1.0	BH29M_1.9-2.0	BH29M_2.9-3.0
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.048	8/6/2021 SE220562.049	8/6/2021 SE220562.055	8/6/2021 SE220562.056	8/6/2021 SE220562.057
Conductivity of Extract (1:5 as received)	µS/cm	1	1300	1300	260	1100	970
Salinity (by calculation)*	mg/kg	5	5300	5700	960	4100	3600

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR) [AN122] Tested: 16/6/2021

PARAMETER	UOM	LOR	BH1M-0.9-1.0	BH1M-1.9-2.0	BH1M-2.9-3.0	BH1M-3.9-4.0	BH1M-4.9-5.0
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.002	7/6/2021 SE220562.003	7/6/2021 SE220562.004	7/6/2021 SE220562.005	7/6/2021 SE220562.006
Exchangeable Calcium, Ca	mg/kg	2	300	16	100	46	210
Exchangeable Calcium, Ca	meq/100g	0.01	1.5	0.08	0.52	0.23	1.1
Exchangeable Calcium Percentage*	%	0.1	12.9	0.6	3.2	1.5	8.5
Exchangeable Potassium, K	mg/kg	2	59	61	81	100	72
Exchangeable Potassium, K	meq/100g	0.01	0.15	0.16	0.21	0.26	0.18
Exchangeable Potassium Percentage*	%	0.1	1.3	1.1	1.3	1.8	1.5
Exchangeable Magnesium, Mg	mg/kg	2	730	830	830	750	660
Exchangeable Magnesium, Mg	meq/100g	0.02	6.0	6.8	6.8	6.2	5.4
Exchangeable Magnesium Percentage*	%	0.1	51.8	47.6	41.1	41.6	43.1
Exchangeable Sodium, Na	mg/kg	2	910	1700	2100	1900	1300
Exchangeable Sodium, Na	meq/100g	0.01	3.9	7.3	9.0	8.2	5.9
Exchangeable Sodium Percentage*	%	0.1	33.9	50.7	54.5	55.1	46.9
Cation Exchange Capacity	meq/100g	0.02	12	14	17	15	13

PARAMETER	UOM	LOR	BH1M-5.9-6.0	BH11M_0.4-0.5	BH11M_1.4-1.5	BH11M_2.4-2.5	BH11M_3.4-3.5
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.007	7/6/2021 SE220562.020	7/6/2021 SE220562.021	7/6/2021 SE220562.022	7/6/2021 SE220562.023
Exchangeable Calcium, Ca	mg/kg	2	110	230	39	5	33
Exchangeable Calcium, Ca	meq/100g	0.01	0.53	1.2	0.20	0.03	0.17
Exchangeable Calcium Percentage*	%	0.1	3.5	8.7	1.6	0.3	1.5
Exchangeable Potassium, K	mg/kg	2	150	88	83	33	75
Exchangeable Potassium, K	meq/100g	0.01	0.39	0.23	0.21	0.09	0.19
Exchangeable Potassium Percentage*	%	0.1	2.6	1.7	1.7	1.1	1.7
Exchangeable Magnesium, Mg	mg/kg	2	810	1100	910	510	630
Exchangeable Magnesium, Mg	meq/100g	0.02	6.6	8.9	7.5	4.2	5.1
Exchangeable Magnesium Percentage*	%	0.1	43.2	66.7	61.0	52.9	46.3
Exchangeable Sodium, Na	mg/kg	2	1800	700	1000	830	1300
Exchangeable Sodium, Na	meq/100g	0.01	7.8	3.1	4.4	3.6	5.6
Exchangeable Sodium Percentage*	%	0.1	50.8	23.0	35.7	45.7	50.5
Cation Exchange Capacity	meq/100g	0.02	15	13	12	7.9	11

PARAMETER	UOM	LOR	BH11M_4.4-4.5	BH25M_0.8-0.9	BH25M_1.8-1.9	BH25M_2.8-2.9	BH25M_3.8-3.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.024	8/6/2021 SE220562.044	8/6/2021 SE220562.045	8/6/2021 SE220562.046	8/6/2021 SE220562.047
Exchangeable Calcium, Ca	mg/kg	2	56	190	17	19	53
Exchangeable Calcium, Ca	meq/100g	0.01	0.28	0.97	0.09	0.10	0.27
Exchangeable Calcium Percentage*	%	0.1	2.3	6.9	0.4	0.8	1.6
Exchangeable Potassium, K	mg/kg	2	93	90	100	55	87
Exchangeable Potassium, K	meq/100g	0.01	0.24	0.23	0.26	0.14	0.22
Exchangeable Potassium Percentage*	%	0.1	2.0	1.6	1.2	1.2	1.3
Exchangeable Magnesium, Mg	mg/kg	2	710	960	1300	640	780
Exchangeable Magnesium, Mg	meq/100g	0.02	5.8	7.8	11	5.2	6.4
Exchangeable Magnesium Percentage*	%	0.1	48.5	55.6	51.1	43.7	38.2
Exchangeable Sodium, Na	mg/kg	2	1300	1200	2300	1500	2300
Exchangeable Sodium, Na	meq/100g	0.01	5.7	5.1	10	6.5	9.9
Exchangeable Sodium Percentage*	%	0.1	47.2	35.9	47.2	54.3	58.9
Cation Exchange Capacity	meq/100g	0.02	12	14	21	12	17

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR) [AN122] Tested: 16/6/2021 (continued)

PARAMETER	UOM	LOR	BH25M_4.8-4.9	BH25M_5.6-5.7	BH29M_0.9-1.0	BH29M_1.9-2.0	BH29M_2.9-3.0
			SOIL	SOIL	SOIL	SOIL	SOIL
			8/6/2021 SE220562.048	8/6/2021 SE220562.049	8/6/2021 SE220562.055	8/6/2021 SE220562.056	8/6/2021 SE220562.057
Exchangeable Calcium, Ca	mg/kg	2	140	160	67	43	85
Exchangeable Calcium, Ca	meq/100g	0.01	0.70	0.81	0.34	0.22	0.43
Exchangeable Calcium Percentage*	%	0.1	3.9	4.5	3.4	1.4	2.9
Exchangeable Potassium, K	mg/kg	2	100	98	48	64	68
Exchangeable Potassium, K	meq/100g	0.01	0.27	0.25	0.12	0.16	0.17
Exchangeable Potassium Percentage*	%	0.1	1.5	1.4	1.2	1.1	1.2
Exchangeable Magnesium, Mg	mg/kg	2	820	750	800	910	800
Exchangeable Magnesium, Mg	meq/100g	0.02	6.7	6.2	6.6	7.5	6.5
Exchangeable Magnesium Percentage*	%	0.1	37.3	34.0	66.4	49.4	44.8
Exchangeable Sodium, Na	mg/kg	2	2400	2500	660	1700	1700
Exchangeable Sodium, Na	meq/100g	0.01	10	11	2.9	7.3	7.5
Exchangeable Sodium Percentage*	%	0.1	57.3	60.1	28.9	48.1	51.1
Cation Exchange Capacity	meq/100g	0.02	18	18	9.9	15	15

Alkalinity in Soil [AN002/AN135] Tested: 17/6/2021

PARAMETER	UOM	LOR	BH1M-0.9-1.0	BH1M-1.9-2.0	BH1M-2.9-3.0	BH1M-3.9-4.0	BH1M-4.9-5.0
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.002	7/6/2021 SE220562.003	7/6/2021 SE220562.004	7/6/2021 SE220562.005	7/6/2021 SE220562.006
Bicarbonate Alkalinity as HCO ₃ in Soil*	mg/kg	25	<25	<25	<25	28	27
Carbonate Alkalinity as CO ₃ in Soil*	mg/kg	25	<25	<25	<25	<25	<25
Hydroxide Alkalinity as OH in Soil*	mg/kg	25	<25	<25	<25	<25	<25
Total Alkalinity as CaCO ₃ in Soil*	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH1M-5.9-6.0	BH11M_0.4-0.5	BH11M_1.4-1.5	BH11M_2.4-2.5	BH11M_3.4-3.5
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.007	7/6/2021 SE220562.020	7/6/2021 SE220562.021	7/6/2021 SE220562.022	7/6/2021 SE220562.023
Bicarbonate Alkalinity as HCO ₃ in Soil*	mg/kg	25	41	620	240	28	30
Carbonate Alkalinity as CO ₃ in Soil*	mg/kg	25	<25	<25	<25	<25	<25
Hydroxide Alkalinity as OH in Soil*	mg/kg	25	<25	<25	<25	<25	<25
Total Alkalinity as CaCO ₃ in Soil*	mg/kg	25	34	510	200	<25	<25

PARAMETER	UOM	LOR	BH11M_4.4-4.5	BH25M_0.8-0.9	BH25M_1.8-1.9	BH25M_2.8-2.9	BH25M_3.8-3.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.024	8/6/2021 SE220562.044	8/6/2021 SE220562.045	8/6/2021 SE220562.046	8/6/2021 SE220562.047
Bicarbonate Alkalinity as HCO ₃ in Soil*	mg/kg	25	320	<25	560	<25	58
Carbonate Alkalinity as CO ₃ in Soil*	mg/kg	25	<25	<25	<25	<25	<25
Hydroxide Alkalinity as OH in Soil*	mg/kg	25	<25	<25	<25	<25	<25
Total Alkalinity as CaCO ₃ in Soil*	mg/kg	25	270	<25	460	<25	48

PARAMETER	UOM	LOR	BH25M_4.8-4.9	BH25M_5.6-5.7	BH29M_0.9-1.0	BH29M_1.9-2.0	BH29M_2.9-3.0
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.048	8/6/2021 SE220562.049	8/6/2021 SE220562.055	8/6/2021 SE220562.056	8/6/2021 SE220562.057
Bicarbonate Alkalinity as HCO ₃ in Soil*	mg/kg	25	95	210	<25	97	110
Carbonate Alkalinity as CO ₃ in Soil*	mg/kg	25	<25	<25	<25	<25	<25
Hydroxide Alkalinity as OH in Soil*	mg/kg	25	<25	<25	<25	<25	<25
Total Alkalinity as CaCO ₃ in Soil*	mg/kg	25	78	170	<25	80	94

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 15/6/2021

PARAMETER	UOM	LOR	BH1M-0.1-0.2	BH1M-0.9-1.0	BH1M-1.9-2.0	BH1M-2.9-3.0	BH1M-3.9-4.0
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.001	7/6/2021 SE220562.002	7/6/2021 SE220562.003	7/6/2021 SE220562.004	7/6/2021 SE220562.005
Arsenic, As	mg/kg	1	3	7	-	-	-
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	-	-	-
Chromium, Cr	mg/kg	0.5	8.3	13	-	-	-
Copper, Cu	mg/kg	0.5	7.0	14	-	-	-
Lead, Pb	mg/kg	1	16	17	-	-	-
Nickel, Ni	mg/kg	0.5	5.4	6.1	-	-	-
Zinc, Zn	mg/kg	2	32	31	-	-	-
Calcium, Ca	mg/kg	5	-	250	31	40	89
Magnesium, Mg	mg/kg	5	-	1100	1200	1100	1100
Sodium, Na	mg/kg	5	-	1500	2400	2600	2300
Potassium, K	mg/kg	10	-	420	470	600	570

PARAMETER	UOM	LOR	BH1M-4.9-5.0	BH1M-5.9-6.0	BH2-0.1-0.2	BH3-0.1-0.2	BH4_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.006	7/6/2021 SE220562.007	7/6/2021 SE220562.008	7/6/2021 SE220562.009	7/6/2021 SE220562.010
Arsenic, As	mg/kg	1	-	-	8	7	7
Cadmium, Cd	mg/kg	0.3	-	-	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	-	-	23	15	15
Copper, Cu	mg/kg	0.5	-	-	26	18	12
Lead, Pb	mg/kg	1	-	-	56	72	37
Nickel, Ni	mg/kg	0.5	-	-	25	13	6.7
Zinc, Zn	mg/kg	2	-	-	66	77	55
Calcium, Ca	mg/kg	5	380	150	-	-	-
Magnesium, Mg	mg/kg	5	900	1200	-	-	-
Sodium, Na	mg/kg	5	1600	2000	-	-	-
Potassium, K	mg/kg	10	440	780	-	-	-

PARAMETER	UOM	LOR	BH4_0.6-0.7	BH5_0.3-0.4	BH6_0.1-0.2	BH7_0.1-0.2	BH8_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.011	8/6/2021 SE220562.012	8/6/2021 SE220562.013	8/6/2021 SE220562.014	7/6/2021 SE220562.015
Arsenic, As	mg/kg	1	10	2	3	11	10
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	17	6.5	5.6	17	15
Copper, Cu	mg/kg	0.5	18	3.4	3.5	35	17
Lead, Pb	mg/kg	1	27	9	8	45	41
Nickel, Ni	mg/kg	0.5	13	2.3	2.3	15	8.7
Zinc, Zn	mg/kg	2	48	12	11	110	60
Calcium, Ca	mg/kg	5	-	-	-	-	-
Magnesium, Mg	mg/kg	5	-	-	-	-	-
Sodium, Na	mg/kg	5	-	-	-	-	-
Potassium, K	mg/kg	10	-	-	-	-	-

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 15/6/2021

PARAMETER	UOM	LOR	BH8_0.7-0.8	BH9_0.2-0.3	BH10_0.2-0.3	BH11M_0.1-0.2	BH11M_0.4-0.5
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.016	7/6/2021 SE220562.017	7/6/2021 SE220562.018	7/6/2021 SE220562.019	7/6/2021 SE220562.020
Arsenic, As	mg/kg	1	6	3	6	8	-
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	-
Chromium, Cr	mg/kg	0.5	12	12	19	16	-
Copper, Cu	mg/kg	0.5	20	15	20	12	-
Lead, Pb	mg/kg	1	17	8	28	30	-
Nickel, Ni	mg/kg	0.5	6.8	8.3	14	9.1	-
Zinc, Zn	mg/kg	2	34	32	87	30	-
Calcium, Ca	mg/kg	5	-	-	-	-	240
Magnesium, Mg	mg/kg	5	-	-	-	-	1300
Sodium, Na	mg/kg	5	-	-	-	-	860
Potassium, K	mg/kg	10	-	-	-	-	340

PARAMETER	UOM	LOR	BH11M_1.4-1.5	BH11M_2.4-2.5	BH11M_3.4-3.5	BH11M_4.4-4.5	BH12_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.021	7/6/2021 SE220562.022	7/6/2021 SE220562.023	7/6/2021 SE220562.024	7/6/2021 SE220562.025
Arsenic, As	mg/kg	1	-	-	-	-	9
Cadmium, Cd	mg/kg	0.3	-	-	-	-	<0.3
Chromium, Cr	mg/kg	0.5	-	-	-	-	15
Copper, Cu	mg/kg	0.5	-	-	-	-	13
Lead, Pb	mg/kg	1	-	-	-	-	56
Nickel, Ni	mg/kg	0.5	-	-	-	-	6.4
Zinc, Zn	mg/kg	2	-	-	-	-	28
Calcium, Ca	mg/kg	5	17	8	49	100	-
Magnesium, Mg	mg/kg	5	1100	810	1100	750	-
Sodium, Na	mg/kg	5	1300	1200	1800	1100	-
Potassium, K	mg/kg	10	350	260	400	300	-

PARAMETER	UOM	LOR	BH12_0.4-0.5	BH13_0.2-0.3	BH13_0.7-0.8	BH14_0.3-0.4	BH15_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			7/6/2021 SE220562.026	8/6/2021 SE220562.027	8/6/2021 SE220562.028	8/6/2021 SE220562.029	8/6/2021 SE220562.030
Arsenic, As	mg/kg	1	7	6	6	4	6
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	12	13	9.5	11	20
Copper, Cu	mg/kg	0.5	19	19	20	20	16
Lead, Pb	mg/kg	1	17	48	16	29	15
Nickel, Ni	mg/kg	0.5	5.7	7.9	6.2	6.3	13
Zinc, Zn	mg/kg	2	31	61	26	40	42
Calcium, Ca	mg/kg	5	-	-	-	-	-
Magnesium, Mg	mg/kg	5	-	-	-	-	-
Sodium, Na	mg/kg	5	-	-	-	-	-
Potassium, K	mg/kg	10	-	-	-	-	-

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 15/6/2021

PARAMETER	UOM	LOR	BH16_0.3-0.4	BH17_0.2-0.3	BH18_0.1-0.2	BH19_0.2-0.3	BH20_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.031	8/6/2021 SE220562.032	8/6/2021 SE220562.033	8/6/2021 SE220562.034	8/6/2021 SE220562.035
Arsenic, As	mg/kg	1	1	6	6	4	6
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	7.7	12	9.6	13	20
Copper, Cu	mg/kg	0.5	18	19	22	49	22
Lead, Pb	mg/kg	1	9	20	24	24	39
Nickel, Ni	mg/kg	0.5	27	9.3	7.0	13	19
Zinc, Zn	mg/kg	2	77	42	83	47	50
Calcium, Ca	mg/kg	5	-	-	-	-	-
Magnesium, Mg	mg/kg	5	-	-	-	-	-
Sodium, Na	mg/kg	5	-	-	-	-	-
Potassium, K	mg/kg	10	-	-	-	-	-

PARAMETER	UOM	LOR	BH20_1.8-1.9	BH21_0.2-0.3	BH22_0.15-0.2	BH22_0.4-0.5	BH23_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.036	8/6/2021 SE220562.037	8/6/2021 SE220562.038	8/6/2021 SE220562.039	7/6/2021 SE220562.040
Arsenic, As	mg/kg	1	5	1	3	2	4
Cadmium, Cd	mg/kg	0.3	<0.3	0.5	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	9.1	7.3	9.5	19	15
Copper, Cu	mg/kg	0.5	17	21	21	9.5	18
Lead, Pb	mg/kg	1	16	14	19	16	16
Nickel, Ni	mg/kg	0.5	5.7	44	7.2	12	8.8
Zinc, Zn	mg/kg	2	30	80	41	61	51
Calcium, Ca	mg/kg	5	-	-	-	-	-
Magnesium, Mg	mg/kg	5	-	-	-	-	-
Sodium, Na	mg/kg	5	-	-	-	-	-
Potassium, K	mg/kg	10	-	-	-	-	-

PARAMETER	UOM	LOR	BH24_0.2-0.3	BH24_0.8-0.9	BH25M_0.3-0.4	BH25M_0.8-0.9	BH25M_1.8-1.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.041	8/6/2021 SE220562.042	8/6/2021 SE220562.043	8/6/2021 SE220562.044	8/6/2021 SE220562.045
Arsenic, As	mg/kg	1	6	7	7	6	5
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	19	15	17	17	11
Copper, Cu	mg/kg	0.5	19	26	25	20	20
Lead, Pb	mg/kg	1	19	22	20	17	12
Nickel, Ni	mg/kg	0.5	13	9.7	10	7.7	12
Zinc, Zn	mg/kg	2	34	44	44	28	37
Calcium, Ca	mg/kg	5	-	-	-	400	20
Magnesium, Mg	mg/kg	5	-	-	-	1300	1700
Sodium, Na	mg/kg	5	-	-	-	1600	3100
Potassium, K	mg/kg	10	-	-	-	500	450

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 15/6/2021

PARAMETER	UOM	LOR	BH25M_2.8-2.9	BH25M_3.8-3.9	BH25M_4.8-4.9	BH25M_5.6-5.7	BH26_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.046	8/6/2021 SE220562.047	8/6/2021 SE220562.048	8/6/2021 SE220562.049	8/6/2021 SE220562.050
Arsenic, As	mg/kg	1	-	-	-	-	5
Cadmium, Cd	mg/kg	0.3	-	-	-	-	<0.3
Chromium, Cr	mg/kg	0.5	-	-	-	-	14
Copper, Cu	mg/kg	0.5	-	-	-	-	24
Lead, Pb	mg/kg	1	-	-	-	-	16
Nickel, Ni	mg/kg	0.5	-	-	-	-	7.6
Zinc, Zn	mg/kg	2	-	-	-	-	29
Calcium, Ca	mg/kg	5	38	75	260	240	-
Magnesium, Mg	mg/kg	5	1000	1300	1400	1400	-
Sodium, Na	mg/kg	5	2100	2800	3000	2600	-
Potassium, K	mg/kg	10	400	590	520	430	-

PARAMETER	UOM	LOR	BH27_0.2-0.3	BH27_0.7-0.8	BH28_0.2-0.3	BH29M_0.3-0.4	BH29M_0.9-1.0
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.051	8/6/2021 SE220562.052	8/6/2021 SE220562.053	8/6/2021 SE220562.054	8/6/2021 SE220562.055
Arsenic, As	mg/kg	1	6	5	4	6	-
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	-
Chromium, Cr	mg/kg	0.5	10	31	96	20	-
Copper, Cu	mg/kg	0.5	15	5.3	14	20	-
Lead, Pb	mg/kg	1	19	20	12	21	-
Nickel, Ni	mg/kg	0.5	13	19	52	11	-
Zinc, Zn	mg/kg	2	54	38	27	43	-
Calcium, Ca	mg/kg	5	-	-	-	-	51
Magnesium, Mg	mg/kg	5	-	-	-	-	1000
Sodium, Na	mg/kg	5	-	-	-	-	910
Potassium, K	mg/kg	10	-	-	-	-	290

PARAMETER	UOM	LOR	BH29M_1.9-2.0	BH29M_2.9-3.0	BH30_0.2-0.3	BH30_0.7-0.8	BH31_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.056	8/6/2021 SE220562.057	8/6/2021 SE220562.058	8/6/2021 SE220562.059	8/6/2021 SE220562.060
Arsenic, As	mg/kg	1	-	-	5	8	7
Cadmium, Cd	mg/kg	0.3	-	-	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	-	-	16	16	15
Copper, Cu	mg/kg	0.5	-	-	32	27	24
Lead, Pb	mg/kg	1	-	-	35	24	19
Nickel, Ni	mg/kg	0.5	-	-	14	11	9.8
Zinc, Zn	mg/kg	2	-	-	65	58	35
Calcium, Ca	mg/kg	5	150	110	-	-	-
Magnesium, Mg	mg/kg	5	1800	1300	-	-	-
Sodium, Na	mg/kg	5	2200	1100	-	-	-
Potassium, K	mg/kg	10	430	190	-	-	-

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 15/6/2021

PARAMETER	UOM	LOR	BH32_0.3-0.4	BH32_0.8-0.9	BH33_0.2-0.3	BH33_0.6-0.7	QD1
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.061	8/6/2021 SE220562.062	8/6/2021 SE220562.063	8/6/2021 SE220562.064	7/6/2021 SE220562.065
Arsenic, As	mg/kg	1	5	6	5	6	6
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	14	9.7	12	14	14
Copper, Cu	mg/kg	0.5	32	25	26	20	51
Lead, Pb	mg/kg	1	20	20	37	20	74
Nickel, Ni	mg/kg	0.5	13	9.8	6.2	7.3	37
Zinc, Zn	mg/kg	2	94	60	24	31	63
Calcium, Ca	mg/kg	5	-	-	-	-	-
Magnesium, Mg	mg/kg	5	-	-	-	-	-
Sodium, Na	mg/kg	5	-	-	-	-	-
Potassium, K	mg/kg	10	-	-	-	-	-

PARAMETER	UOM	LOR	QD2
			SOIL
			-
			8/6/2021 SE220562.069
Arsenic, As	mg/kg	1	6
Cadmium, Cd	mg/kg	0.3	<0.3
Chromium, Cr	mg/kg	0.5	13
Copper, Cu	mg/kg	0.5	24
Lead, Pb	mg/kg	1	21
Nickel, Ni	mg/kg	0.5	12
Zinc, Zn	mg/kg	2	59
Calcium, Ca	mg/kg	5	-
Magnesium, Mg	mg/kg	5	-
Sodium, Na	mg/kg	5	-
Potassium, K	mg/kg	10	-

Mercury in Soil [AN312] Tested: 15/6/2021

PARAMETER	UOM	LOR	BH1M-0.1-0.2	BH1M-0.9-1.0	BH2-0.1-0.2	BH3-0.1-0.2	BH4_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.001	7/6/2021 SE220562.002	7/6/2021 SE220562.008	7/6/2021 SE220562.009	7/6/2021 SE220562.010
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	0.07	0.05

PARAMETER	UOM	LOR	BH4_0.6-0.7	BH5_0.3-0.4	BH6_0.1-0.2	BH7_0.1-0.2	BH8_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.011	8/6/2021 SE220562.012	8/6/2021 SE220562.013	8/6/2021 SE220562.014	7/6/2021 SE220562.015
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH8_0.7-0.8	BH9_0.2-0.3	BH10_0.2-0.3	BH11M_0.1-0.2	BH12_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.016	7/6/2021 SE220562.017	7/6/2021 SE220562.018	7/6/2021 SE220562.019	7/6/2021 SE220562.025
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	0.06

PARAMETER	UOM	LOR	BH12_0.4-0.5	BH13_0.2-0.3	BH13_0.7-0.8	BH14_0.3-0.4	BH15_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.026	8/6/2021 SE220562.027	8/6/2021 SE220562.028	8/6/2021 SE220562.029	8/6/2021 SE220562.030
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH16_0.3-0.4	BH17_0.2-0.3	BH18_0.1-0.2	BH19_0.2-0.3	BH20_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.031	8/6/2021 SE220562.032	8/6/2021 SE220562.033	8/6/2021 SE220562.034	8/6/2021 SE220562.035
Mercury	mg/kg	0.05	0.08	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH20_1.8-1.9	BH21_0.2-0.3	BH22_0.15-0.2	BH22_0.4-0.5	BH23_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.036	8/6/2021 SE220562.037	8/6/2021 SE220562.038	8/6/2021 SE220562.039	7/6/2021 SE220562.040
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH24_0.2-0.3	BH24_0.8-0.9	BH25M_0.3-0.4	BH25M_0.8-0.9	BH25M_1.8-1.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.041	8/6/2021 SE220562.042	8/6/2021 SE220562.043	8/6/2021 SE220562.044	8/6/2021 SE220562.045
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	0.05

Mercury in Soil [AN312] Tested: 15/6/2021 (continued)

PARAMETER	UOM	LOR	BH26_0.3-0.4	BH27_0.2-0.3	BH27_0.7-0.8	BH28_0.2-0.3	BH29M_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021	8/6/2021	8/6/2021	8/6/2021	8/6/2021
			SE220562.050	SE220562.051	SE220562.052	SE220562.053	SE220562.054
Mercury	mg/kg	0.05	<0.05	<0.05	0.06	<0.05	<0.05

PARAMETER	UOM	LOR	BH30_0.2-0.3	BH30_0.7-0.8	BH31_0.3-0.4	BH32_0.3-0.4	BH32_0.8-0.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021	8/6/2021	8/6/2021	8/6/2021	8/6/2021
			SE220562.058	SE220562.059	SE220562.060	SE220562.061	SE220562.062
Mercury	mg/kg	0.05	0.09	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH33_0.2-0.3	BH33_0.6-0.7	QD1	QD2
			SOIL	SOIL	SOIL	SOIL
			-	-	-	-
			8/6/2021	8/6/2021	7/6/2021	8/6/2021
			SE220562.063	SE220562.064	SE220562.065	SE220562.069
Mercury	mg/kg	0.05	<0.05	<0.05	0.07	<0.05

Moisture Content [AN002] Tested: 15/6/2021

PARAMETER	UOM	LOR	BH1M-0.1-0.2	BH1M-0.9-1.0	BH1M-1.9-2.0	BH1M-2.9-3.0	BH1M-3.9-4.0
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.001	7/6/2021 SE220562.002	7/6/2021 SE220562.003	7/6/2021 SE220562.004	7/6/2021 SE220562.005
% Moisture	%w/w	1	10.5	16.3	17.1	20.1	18.0

PARAMETER	UOM	LOR	BH1M-4.9-5.0	BH1M-5.9-6.0	BH2-0.1-0.2	BH3-0.1-0.2	BH4_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.006	7/6/2021 SE220562.007	7/6/2021 SE220562.008	7/6/2021 SE220562.009	7/6/2021 SE220562.010
% Moisture	%w/w	1	17.6	19.0	15.9	16.6	14.3

PARAMETER	UOM	LOR	BH4_0.6-0.7	BH5_0.3-0.4	BH6_0.1-0.2	BH7_0.1-0.2	BH8_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.011	8/6/2021 SE220562.012	8/6/2021 SE220562.013	8/6/2021 SE220562.014	7/6/2021 SE220562.015
% Moisture	%w/w	1	14.8	8.0	7.1	15.4	23.5

PARAMETER	UOM	LOR	BH8_0.7-0.8	BH9_0.2-0.3	BH10_0.2-0.3	BH11M_0.1-0.2	BH11M_0.4-0.5
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.016	7/6/2021 SE220562.017	7/6/2021 SE220562.018	7/6/2021 SE220562.019	7/6/2021 SE220562.020
% Moisture	%w/w	1	20.4	12.1	14.2	19.3	18.9

PARAMETER	UOM	LOR	BH11M_1.4-1.5	BH11M_2.4-2.5	BH11M_3.4-3.5	BH11M_4.4-4.5	BH12_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.021	7/6/2021 SE220562.022	7/6/2021 SE220562.023	7/6/2021 SE220562.024	7/6/2021 SE220562.025
% Moisture	%w/w	1	16.0	12.8	13.4	13.5	14.1

PARAMETER	UOM	LOR	BH12_0.4-0.5	BH13_0.2-0.3	BH13_0.7-0.8	BH14_0.3-0.4	BH15_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.026	8/6/2021 SE220562.027	8/6/2021 SE220562.028	8/6/2021 SE220562.029	8/6/2021 SE220562.030
% Moisture	%w/w	1	17.4	18.7	20.0	21.8	14.3

PARAMETER	UOM	LOR	BH16_0.3-0.4	BH17_0.2-0.3	BH18_0.1-0.2	BH19_0.2-0.3	BH20_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.031	8/6/2021 SE220562.032	8/6/2021 SE220562.033	8/6/2021 SE220562.034	8/6/2021 SE220562.035
% Moisture	%w/w	1	14.5	16.9	22.0	17.6	17.9

Moisture Content [AN002] Tested: 15/6/2021 (continued)

PARAMETER	UOM	LOR	BH20_1.8-1.9	BH21_0.2-0.3	BH22_0.15-0.2	BH22_0.4-0.5	BH23_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.036	8/6/2021 SE220562.037	8/6/2021 SE220562.038	8/6/2021 SE220562.039	7/6/2021 SE220562.040
% Moisture	%w/w	1	16.8	18.5	19.1	7.9	13.0

PARAMETER	UOM	LOR	BH24_0.2-0.3	BH24_0.8-0.9	BH25M_0.3-0.4	BH25M_0.8-0.9	BH25M_1.8-1.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.041	8/6/2021 SE220562.042	8/6/2021 SE220562.043	8/6/2021 SE220562.044	8/6/2021 SE220562.045
% Moisture	%w/w	1	15.6	18.5	19.4	19.3	19.9

PARAMETER	UOM	LOR	BH25M_2.8-2.9	BH25M_3.8-3.9	BH25M_4.8-4.9	BH25M_5.6-5.7	BH26_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.046	8/6/2021 SE220562.047	8/6/2021 SE220562.048	8/6/2021 SE220562.049	8/6/2021 SE220562.050
% Moisture	%w/w	1	15.5	19.8	21.7	22.8	18.5

PARAMETER	UOM	LOR	BH27_0.2-0.3	BH27_0.7-0.8	BH28_0.2-0.3	BH29M_0.3-0.4	BH29M_0.9-1.0
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.051	8/6/2021 SE220562.052	8/6/2021 SE220562.053	8/6/2021 SE220562.054	8/6/2021 SE220562.055
% Moisture	%w/w	1	16.6	8.1	7.8	14.2	11.5

PARAMETER	UOM	LOR	BH29M_1.9-2.0	BH29M_2.9-3.0	BH30_0.2-0.3	BH30_0.7-0.8	BH31_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.056	8/6/2021 SE220562.057	8/6/2021 SE220562.058	8/6/2021 SE220562.059	8/6/2021 SE220562.060
% Moisture	%w/w	1	15.3	13.0	12.3	17.9	18.9

PARAMETER	UOM	LOR	BH32_0.3-0.4	BH32_0.8-0.9	BH33_0.2-0.3	BH33_0.6-0.7	QD1
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.061	8/6/2021 SE220562.062	8/6/2021 SE220562.063	8/6/2021 SE220562.064	7/6/2021 SE220562.065
% Moisture	%w/w	1	16.4	18.5	13.7	17.9	17.0

PARAMETER	UOM	LOR	QTB1	QD2
			SOIL	SOIL
			-	-
			9/6/2021 SE220562.067	8/6/2021 SE220562.069
% Moisture	%w/w	1	<1.0	17.2

Soil Texture (AS4419) [AN051] Tested: 15/6/2021

PARAMETER	UOM	LOR	BH1M-0.9-1.0	BH1M-1.9-2.0	BH1M-2.9-3.0	BH1M-3.9-4.0	BH1M-4.9-5.0
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021	7/6/2021	7/6/2021	7/6/2021	7/6/2021
			SE220562.002	SE220562.003	SE220562.004	SE220562.005	SE220562.006
Texture Classification*	No unit	1	Medium Clay	Heavy Clay	Medium Clay	Medium Clay	Clay Loam

PARAMETER	UOM	LOR	BH1M-5.9-6.0	BH1M_0.4-0.5	BH1M_1.4-1.5	BH1M_2.4-2.5	BH1M_3.4-3.5
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021	7/6/2021	7/6/2021	7/6/2021	7/6/2021
			SE220562.007	SE220562.020	SE220562.021	SE220562.022	SE220562.023
Texture Classification*	No unit	1	Medium Clay	Heavy Clay	Heavy Clay	Medium Clay	Medium Clay

PARAMETER	UOM	LOR	BH1M_4.4-4.5	BH25M_0.8-0.9	BH25M_1.8-1.9	BH25M_2.8-2.9	BH25M_3.8-3.9
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021	8/6/2021	8/6/2021	8/6/2021	8/6/2021
			SE220562.024	SE220562.044	SE220562.045	SE220562.046	SE220562.047
Texture Classification*	No unit	1	Light Clay	Heavy Clay	Heavy Clay	Medium Clay	Medium Clay

PARAMETER	UOM	LOR	BH25M_4.8-4.9	BH25M_5.6-5.7	BH29M_0.9-1.0	BH29M_1.9-2.0	BH29M_2.9-3.0
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021	8/6/2021	8/6/2021	8/6/2021	8/6/2021
			SE220562.048	SE220562.049	SE220562.055	SE220562.056	SE220562.057
Texture Classification*	No unit	1	Clay Loam	Clay Loam	Medium Clay	Medium Clay	Medium Clay

Fibre Identification in soil [AN602] Tested: 16/6/2021

PARAMETER	UOM	LOR	BH1M-0.1-0.2	BH2-0.1-0.2	BH3-0.1-0.2	BH4_0.1-0.2	BH5_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.001	7/6/2021 SE220562.008	7/6/2021 SE220562.009	7/6/2021 SE220562.010	8/6/2021 SE220562.012
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH6_0.1-0.2	BH7_0.1-0.2	BH8_0.1-0.2	BH9_0.2-0.3	BH10_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.013	8/6/2021 SE220562.014	7/6/2021 SE220562.015	7/6/2021 SE220562.017	7/6/2021 SE220562.018
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH11M_0.1-0.2	BH12_0.1-0.2	BH13_0.2-0.3	BH14_0.3-0.4	BH15_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			7/6/2021 SE220562.019	7/6/2021 SE220562.025	8/6/2021 SE220562.027	8/6/2021 SE220562.029	8/6/2021 SE220562.030
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH16_0.3-0.4	BH17_0.2-0.3	BH18_0.1-0.2	BH19_0.2-0.3	BH20_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.031	8/6/2021 SE220562.032	8/6/2021 SE220562.033	8/6/2021 SE220562.034	8/6/2021 SE220562.035
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH21_0.2-0.3	BH22_0.15-0.2	BH23_0.2-0.3	BH24_0.2-0.3	BH25M_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.037	8/6/2021 SE220562.038	7/6/2021 SE220562.040	8/6/2021 SE220562.041	8/6/2021 SE220562.043
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH26_0.3-0.4	BH27_0.2-0.3	BH28_0.2-0.3	BH29M_0.3-0.4	BH30_0.2-0.3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			8/6/2021 SE220562.050	8/6/2021 SE220562.051	8/6/2021 SE220562.053	8/6/2021 SE220562.054	8/6/2021 SE220562.058
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH31_0.3-0.4	BH32_0.3-0.4	BH33_0.2-0.3
			SOIL	SOIL	SOIL
			-	-	-
			8/6/2021 SE220562.060	8/6/2021 SE220562.061	8/6/2021 SE220562.063
Asbestos Detected	No unit	-	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01



ANALYTICAL RESULTS

SE220562 R0

VOCs in Water [AN433] Tested: 11/6/2021

			QR1
			WATER
			-
			7/6/2021
PARAMETER	UOM	LOR	SE220562.066
Benzene	µg/L	0.5	<0.5
Toluene	µg/L	0.5	<0.5
Ethylbenzene	µg/L	0.5	<0.5
m/p-xylene	µg/L	1	<1
o-xylene	µg/L	0.5	<0.5
Total Xylenes	µg/L	1.5	<1.5
Total BTEX	µg/L	3	<3
Naphthalene	µg/L	0.5	<0.5



ANALYTICAL RESULTS

SE220562 R0

Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 11/6/2021

			QR1
			WATER
			-
			7/6/2021
PARAMETER	UOM	LOR	SE220562.066
TRH C6-C9	µg/L	40	<40
Benzene (F0)	µg/L	0.5	<0.5
TRH C6-C10	µg/L	50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	50	<50

TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 15/6/2021

			QR1
			WATER
			-
			7/6/2021
			SE220562.066
PARAMETER	UOM	LOR	
TRH C10-C14	µg/L	50	<50
TRH C15-C28	µg/L	200	<200
TRH C29-C36	µg/L	200	<200
TRH C37-C40	µg/L	200	<200
TRH >C10-C16	µg/L	60	<60
TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60
TRH >C16-C34 (F3)	µg/L	500	<500
TRH >C34-C40 (F4)	µg/L	500	<500
TRH C10-C40	µg/L	320	<320



ANALYTICAL RESULTS

SE220562 R0

Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 10/6/2021

			QR1
			WATER
			-
			7/6/2021
PARAMETER	UOM	LOR	SE220562.066
Arsenic, As	µg/L	1	<1
Cadmium, Cd	µg/L	0.1	<0.1
Chromium, Cr	µg/L	1	<1
Copper, Cu	µg/L	1	<1
Lead, Pb	µg/L	1	<1
Nickel, Ni	µg/L	1	<1
Zinc, Zn	µg/L	5	<5



ANALYTICAL RESULTS

SE220562 R0

Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 10/6/2021

			QR1
			WATER
			-
			7/6/2021
PARAMETER	UOM	LOR	SE220562.066
Mercury	mg/L	0.0001	<0.0001

METHOD

METHODOLOGY SUMMARY

AN002/AN135

Alkalinity (and forms of) by Titration: The sample is extracted 1 to 5 in deionised water and the extract titrated with standard acid to pH 8.3 (P titre) and pH 4.5 (T titre) and permanent and/or total alkalinity calculated. The results are expressed as equivalents of calcium carbonate or recalculated as bicarbonate, carbonate and hydroxide. Reference APHA 2320. Internal Reference AN135

AN002

The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.

AN020

Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.

AN040/AN320

A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.

AN040

A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by ASS or ICP as per USEPA Method 200.8.

AN051

A small sample of soil is kneaded with water and then pressed out into a ribbon. The behaviour of this ribbon is used to classify the soil into one of the texture classes in AS4419.

AN101

pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode and is calibrated against 3 buffers purchased commercially. For soils, sediments and sludges, an extract with water (or 0.01M CaCl₂) is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA 4500-H+.

AN106

Conductivity and TDS by Calculation: Conductivity is measured by meter with temperature compensation and is calibrated against a standard solution of potassium chloride. Conductivity is generally reported as µmhos/cm or µS/cm @ 25°C. For soils, an extract of as received sample with water is made at a ratio of 1:5 and the EC determined and reported on the extract, or calculated back to the as-received sample. Salinity can be estimated from conductivity using a conversion factor, which for natural waters, is in the range 0.55 to 0.75. Reference APHA 2510 B.

AN122

Exchangeable Cations, CEC and ESP: Soil sample is extracted in 1M Ammonium Acetate at pH=7 (or 1M Ammonium Chloride at pH=7) with cations (Na, K, Ca & Mg) then determined by ICP OES/ICP MS and reported as Exchangeable Cations. For saline soils, these results can be corrected for water soluble cations and reported as Exchangeable cations in meq/100g or soil can be pre-treated (aqueous ethanol/aqueous glycerol) prior to extraction. Cation Exchange Capacity (CEC) is the sum of the exchangeable cations in meq/100g.

AN122

The Exchangeable Sodium Percentage (ESP) is calculated as the exchangeable sodium divided by the CEC (all in meq/100g) times 100.

ESP can be used to categorise the sodicity of the soil as below:

ESP < 6%	non-sodic
ESP 6-15%	sodic
ESP > 15%	strongly sodic

Method is referenced to Rayment and Lyons, 2011, sections 15D3 and 15N1.-

AN245

Anions by Ion Chromatography: A water sample is injected into an eluent stream that passes through the ion chromatographic system where the anions of interest ie Br, Cl, NO₂, NO₃ and SO₄ are separated on their relative affinities for the active sites on the column packing material. Changes to the conductivity and the UV-visible absorbance of the eluent enable identification and quantitation of the anions based on their retention time and peak height or area. APHA 4110 B

AN289

Analysis of Total Phenols in Soil Sediment and Water: Steam distillable phenols react with 4-aminoantipyrine at pH 7.9±0.1 in the presence of potassium ferricyanide to form a coloured antipyrine dye analysed by Discrete Analyser. Reference APHA 5530 B/D.

AN311(Perth)/AN312

Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.

AN312

Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500

AN318

Determination of elements at trace level in waters by ICP-MS technique,, referenced to USEPA 6020B and USEPA 200.8 (5.4).

AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is reported directly and also corrected by subtracting Naphthalene (from VOC method AN433) where available.
AN403	Additionally, the volatile C6-C9 fraction may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRH-Si) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents.
AN403	The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.
AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN420	SVOC Compounds: Semi-Volatile Organic Compounds (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN433	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.
AN602	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic 'clues', which provide a reasonable degree of certainty, dispersion staining is a mandatory 'clue' for positive identification. If sufficient 'clues' are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
AN602	Fibres/material that cannot be unequivocally identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf). The fibres detected may or may not be asbestos fibres.
AN602	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states: "Depending upon sample condition and fibre type, the detection/reporting limit (RL) of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."
AN602	The sample can be reported "no asbestos found at the reporting limit (RL) of 0.1 g/kg" (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (a) no trace asbestos fibres have been detected (i.e. no 'respirable' fibres); (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg; and (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
**	Indicative data, theoretical holding time exceeded.	NVL	Not validated.	LOR	Limit of Reporting.
***	Indicates that both * and ** apply.	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
		LNR	Sample listed, but not received.		

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the "Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.

Note that in terms of units of radioactivity:

- 1 Bq is equivalent to 27 pCi
- 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

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STATEMENT OF QA/QC PERFORMANCE

SE220562 R0

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Order Number **E24711**
Samples 69

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SGS Reference **SE220562 R0**
Date Received 09 Jun 2021
Date Reported 17 Jun 2021

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.

This QA/QC Statement must be read in conjunction with the referenced Analytical Report.

The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

Extraction Date	Alkalinity in Soil	20 items
	Conductivity and TDS by Calculation - Soil	20 items
	pH in soil (1:5)	20 items
	Soluble Anions (1:5) in Soil/Solids by Ion Chromatography	20 items
	TRH (Total Recoverable Hydrocarbons) in Water	1 item
Analysis Date	Conductivity and TDS by Calculation - Soil	20 items
Duplicate	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item

SAMPLE SUMMARY

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Alkalinity in Soil

Method: ME-(AU)-ENV/JAN002/AN135

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-0.9-1.0	SE220562.002	LB226939	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH1M-1.9-2.0	SE220562.003	LB226939	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH1M-2.9-3.0	SE220562.004	LB226939	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH1M-3.9-4.0	SE220562.005	LB226939	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH1M-4.9-5.0	SE220562.006	LB226939	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH1M-5.9-6.0	SE220562.007	LB226939	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH11M_0.4-0.5	SE220562.020	LB226939	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH11M_1.4-1.5	SE220562.021	LB226939	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH11M_2.4-2.5	SE220562.022	LB226939	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH11M_3.4-3.5	SE220562.023	LB226939	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH11M_4.4-4.5	SE220562.024	LB226939	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH25M_0.8-0.9	SE220562.044	LB226939	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH25M_1.8-1.9	SE220562.045	LB226939	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH25M_2.8-2.9	SE220562.046	LB226939	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH25M_3.8-3.9	SE220562.047	LB226939	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH25M_4.8-4.9	SE220562.048	LB226939	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH25M_5.6-5.7	SE220562.049	LB226939	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH29M_0.9-1.0	SE220562.055	LB226939	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH29M_1.9-2.0	SE220562.056	LB226939	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021
BH29M_2.9-3.0	SE220562.057	LB226939	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	01 Jul 2021	17 Jun 2021

Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-ENV/JAN106

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-0.9-1.0	SE220562.002	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	14 Jun 2021	17 Jun 2021†
BH1M-1.9-2.0	SE220562.003	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	14 Jun 2021	17 Jun 2021†
BH1M-2.9-3.0	SE220562.004	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	14 Jun 2021	17 Jun 2021†
BH1M-3.9-4.0	SE220562.005	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	14 Jun 2021	17 Jun 2021†
BH1M-4.9-5.0	SE220562.006	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	14 Jun 2021	17 Jun 2021†
BH1M-5.9-6.0	SE220562.007	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	14 Jun 2021	17 Jun 2021†
BH11M_0.4-0.5	SE220562.020	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	14 Jun 2021	17 Jun 2021†
BH11M_1.4-1.5	SE220562.021	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	14 Jun 2021	17 Jun 2021†
BH11M_2.4-2.5	SE220562.022	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	14 Jun 2021	17 Jun 2021†
BH11M_3.4-3.5	SE220562.023	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	14 Jun 2021	17 Jun 2021†
BH11M_4.4-4.5	SE220562.024	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	14 Jun 2021	17 Jun 2021†
BH25M_0.8-0.9	SE220562.044	LB226920	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	15 Jun 2021	17 Jun 2021†
BH25M_1.8-1.9	SE220562.045	LB226920	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	15 Jun 2021	17 Jun 2021†
BH25M_2.8-2.9	SE220562.046	LB226920	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	15 Jun 2021	17 Jun 2021†
BH25M_3.8-3.9	SE220562.047	LB226920	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	15 Jun 2021	17 Jun 2021†
BH25M_4.8-4.9	SE220562.048	LB226920	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	15 Jun 2021	17 Jun 2021†
BH25M_5.6-5.7	SE220562.049	LB226920	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	15 Jun 2021	17 Jun 2021†
BH29M_0.9-1.0	SE220562.055	LB226920	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	15 Jun 2021	17 Jun 2021†
BH29M_1.9-2.0	SE220562.056	LB226920	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	15 Jun 2021	17 Jun 2021†
BH29M_2.9-3.0	SE220562.057	LB226920	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	15 Jun 2021	17 Jun 2021†

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR)

Method: ME-(AU)-ENV/JAN122

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-0.9-1.0	SE220562.002	LB226827	07 Jun 2021	09 Jun 2021	05 Jul 2021	16 Jun 2021	05 Jul 2021	17 Jun 2021
BH1M-1.9-2.0	SE220562.003	LB226827	07 Jun 2021	09 Jun 2021	05 Jul 2021	16 Jun 2021	05 Jul 2021	17 Jun 2021
BH1M-2.9-3.0	SE220562.004	LB226827	07 Jun 2021	09 Jun 2021	05 Jul 2021	16 Jun 2021	05 Jul 2021	17 Jun 2021
BH1M-3.9-4.0	SE220562.005	LB226827	07 Jun 2021	09 Jun 2021	05 Jul 2021	16 Jun 2021	05 Jul 2021	17 Jun 2021
BH1M-4.9-5.0	SE220562.006	LB226827	07 Jun 2021	09 Jun 2021	05 Jul 2021	16 Jun 2021	05 Jul 2021	17 Jun 2021
BH1M-5.9-6.0	SE220562.007	LB226827	07 Jun 2021	09 Jun 2021	05 Jul 2021	16 Jun 2021	05 Jul 2021	17 Jun 2021
BH11M_0.4-0.5	SE220562.020	LB226827	07 Jun 2021	09 Jun 2021	05 Jul 2021	16 Jun 2021	05 Jul 2021	17 Jun 2021
BH11M_1.4-1.5	SE220562.021	LB226827	07 Jun 2021	09 Jun 2021	05 Jul 2021	16 Jun 2021	05 Jul 2021	17 Jun 2021
BH11M_2.4-2.5	SE220562.022	LB226827	07 Jun 2021	09 Jun 2021	05 Jul 2021	16 Jun 2021	05 Jul 2021	17 Jun 2021
BH11M_3.4-3.5	SE220562.023	LB226827	07 Jun 2021	09 Jun 2021	05 Jul 2021	16 Jun 2021	05 Jul 2021	17 Jun 2021
BH11M_4.4-4.5	SE220562.024	LB226827	07 Jun 2021	09 Jun 2021	05 Jul 2021	16 Jun 2021	05 Jul 2021	17 Jun 2021
BH25M_0.8-0.9	SE220562.044	LB226827	08 Jun 2021	09 Jun 2021	06 Jul 2021	16 Jun 2021	06 Jul 2021	17 Jun 2021
BH25M_1.8-1.9	SE220562.045	LB226827	08 Jun 2021	09 Jun 2021	06 Jul 2021	16 Jun 2021	06 Jul 2021	17 Jun 2021
BH25M_2.8-2.9	SE220562.046	LB226827	08 Jun 2021	09 Jun 2021	06 Jul 2021	16 Jun 2021	06 Jul 2021	17 Jun 2021
BH25M_3.8-3.9	SE220562.047	LB226827	08 Jun 2021	09 Jun 2021	06 Jul 2021	16 Jun 2021	06 Jul 2021	17 Jun 2021



HOLDING TIME SUMMARY

SE220562 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR) (continued)

Method: ME-(AU)-ENVJAN122

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH25M_4.8-4.9	SE220562.048	LB226827	08 Jun 2021	09 Jun 2021	06 Jul 2021	16 Jun 2021	06 Jul 2021	17 Jun 2021
BH25M_5.6-5.7	SE220562.049	LB226827	08 Jun 2021	09 Jun 2021	06 Jul 2021	16 Jun 2021	06 Jul 2021	17 Jun 2021
BH29M_0.9-1.0	SE220562.055	LB226827	08 Jun 2021	09 Jun 2021	06 Jul 2021	16 Jun 2021	06 Jul 2021	17 Jun 2021
BH29M_1.9-2.0	SE220562.056	LB226827	08 Jun 2021	09 Jun 2021	06 Jul 2021	16 Jun 2021	06 Jul 2021	17 Jun 2021
BH29M_2.9-3.0	SE220562.057	LB226827	08 Jun 2021	09 Jun 2021	06 Jul 2021	16 Jun 2021	06 Jul 2021	17 Jun 2021

Fibre Identification in soil

Method: ME-(AU)-ENVJAN602

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-0.1-0.2	SE220562.001	LB226837	07 Jun 2021	09 Jun 2021	07 Jun 2022	16 Jun 2021	07 Jun 2022	17 Jun 2021
BH2-0.1-0.2	SE220562.008	LB226837	07 Jun 2021	09 Jun 2021	07 Jun 2022	16 Jun 2021	07 Jun 2022	17 Jun 2021
BH3-0.1-0.2	SE220562.009	LB226837	07 Jun 2021	09 Jun 2021	07 Jun 2022	16 Jun 2021	07 Jun 2022	17 Jun 2021
BH4_0.1-0.2	SE220562.010	LB226837	07 Jun 2021	09 Jun 2021	07 Jun 2022	16 Jun 2021	07 Jun 2022	17 Jun 2021
BH5_0.3-0.4	SE220562.012	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH6_0.1-0.2	SE220562.013	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH7_0.1-0.2	SE220562.014	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH8_0.1-0.2	SE220562.015	LB226837	07 Jun 2021	09 Jun 2021	07 Jun 2022	16 Jun 2021	07 Jun 2022	17 Jun 2021
BH9_0.2-0.3	SE220562.017	LB226837	07 Jun 2021	09 Jun 2021	07 Jun 2022	16 Jun 2021	07 Jun 2022	17 Jun 2021
BH10_0.2-0.3	SE220562.018	LB226837	07 Jun 2021	09 Jun 2021	07 Jun 2022	16 Jun 2021	07 Jun 2022	17 Jun 2021
BH11M_0.1-0.2	SE220562.019	LB226837	07 Jun 2021	09 Jun 2021	07 Jun 2022	16 Jun 2021	07 Jun 2022	17 Jun 2021
BH12_0.1-0.2	SE220562.025	LB226837	07 Jun 2021	09 Jun 2021	07 Jun 2022	16 Jun 2021	07 Jun 2022	17 Jun 2021
BH13_0.2-0.3	SE220562.027	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH14_0.3-0.4	SE220562.029	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH15_0.2-0.3	SE220562.030	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH16_0.3-0.4	SE220562.031	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH17_0.2-0.3	SE220562.032	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH18_0.1-0.2	SE220562.033	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH19_0.2-0.3	SE220562.034	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH20_0.2-0.3	SE220562.035	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH21_0.2-0.3	SE220562.037	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH22_0.15-0.2	SE220562.038	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH23_0.2-0.3	SE220562.040	LB226837	07 Jun 2021	09 Jun 2021	07 Jun 2022	16 Jun 2021	07 Jun 2022	17 Jun 2021
BH24_0.2-0.3	SE220562.041	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH25M_0.3-0.4	SE220562.043	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH26_0.3-0.4	SE220562.050	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH27_0.2-0.3	SE220562.051	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH28_0.2-0.3	SE220562.053	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH29M_0.3-0.4	SE220562.054	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH30_0.2-0.3	SE220562.058	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH31_0.3-0.4	SE220562.060	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH32_0.3-0.4	SE220562.061	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021
BH33_0.2-0.3	SE220562.063	LB226837	08 Jun 2021	09 Jun 2021	08 Jun 2022	16 Jun 2021	08 Jun 2022	17 Jun 2021

Mercury (dissolved) in Water

Method: ME-(AU)-ENVJAN311(Perth)/AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR1	SE220562.066	LB226528	07 Jun 2021	09 Jun 2021	05 Jul 2021	10 Jun 2021	05 Jul 2021	10 Jun 2021

Mercury in Soil

Method: ME-(AU)-ENVJAN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-0.1-0.2	SE220562.001	LB226748	07 Jun 2021	09 Jun 2021	05 Jul 2021	15 Jun 2021	05 Jul 2021	17 Jun 2021
BH1M-0.9-1.0	SE220562.002	LB226748	07 Jun 2021	09 Jun 2021	05 Jul 2021	15 Jun 2021	05 Jul 2021	17 Jun 2021
BH2-0.1-0.2	SE220562.008	LB226748	07 Jun 2021	09 Jun 2021	05 Jul 2021	15 Jun 2021	05 Jul 2021	17 Jun 2021
BH3-0.1-0.2	SE220562.009	LB226748	07 Jun 2021	09 Jun 2021	05 Jul 2021	15 Jun 2021	05 Jul 2021	17 Jun 2021
BH4_0.1-0.2	SE220562.010	LB226748	07 Jun 2021	09 Jun 2021	05 Jul 2021	15 Jun 2021	05 Jul 2021	17 Jun 2021
BH4_0.6-0.7	SE220562.011	LB226748	07 Jun 2021	09 Jun 2021	05 Jul 2021	15 Jun 2021	05 Jul 2021	17 Jun 2021
BH5_0.3-0.4	SE220562.012	LB226748	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH6_0.1-0.2	SE220562.013	LB226748	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH7_0.1-0.2	SE220562.014	LB226748	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH8_0.1-0.2	SE220562.015	LB226748	07 Jun 2021	09 Jun 2021	05 Jul 2021	15 Jun 2021	05 Jul 2021	17 Jun 2021
BH8_0.7-0.8	SE220562.016	LB226748	07 Jun 2021	09 Jun 2021	05 Jul 2021	15 Jun 2021	05 Jul 2021	17 Jun 2021
BH9_0.2-0.3	SE220562.017	LB226748	07 Jun 2021	09 Jun 2021	05 Jul 2021	15 Jun 2021	05 Jul 2021	17 Jun 2021

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Mercury in Soil (continued)

Method: ME-(AU)-ENVJAN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH10_0.2-0.3	SE220562.018	LB226748	07 Jun 2021	09 Jun 2021	05 Jul 2021	15 Jun 2021	05 Jul 2021	17 Jun 2021
BH11M_0.1-0.2	SE220562.019	LB226748	07 Jun 2021	09 Jun 2021	05 Jul 2021	15 Jun 2021	05 Jul 2021	17 Jun 2021
BH12_0.1-0.2	SE220562.025	LB226749	07 Jun 2021	09 Jun 2021	05 Jul 2021	15 Jun 2021	05 Jul 2021	17 Jun 2021
BH12_0.4-0.5	SE220562.026	LB226749	07 Jun 2021	09 Jun 2021	05 Jul 2021	15 Jun 2021	05 Jul 2021	17 Jun 2021
BH13_0.2-0.3	SE220562.027	LB226749	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH13_0.7-0.8	SE220562.028	LB226749	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH14_0.3-0.4	SE220562.029	LB226749	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH15_0.2-0.3	SE220562.030	LB226749	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH16_0.3-0.4	SE220562.031	LB226749	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH17_0.2-0.3	SE220562.032	LB226749	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH18_0.1-0.2	SE220562.033	LB226749	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH19_0.2-0.3	SE220562.034	LB226749	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH20_0.2-0.3	SE220562.035	LB226749	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH20_1.8-1.9	SE220562.036	LB226749	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH21_0.2-0.3	SE220562.037	LB226749	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH22_0.15-0.2	SE220562.038	LB226749	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH22_0.4-0.5	SE220562.039	LB226750	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH23_0.2-0.3	SE220562.040	LB226750	07 Jun 2021	09 Jun 2021	05 Jul 2021	15 Jun 2021	05 Jul 2021	17 Jun 2021
BH24_0.2-0.3	SE220562.041	LB226750	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH24_0.8-0.9	SE220562.042	LB226750	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH25M_0.3-0.4	SE220562.043	LB226750	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH25M_0.8-0.9	SE220562.044	LB226750	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH25M_1.8-1.9	SE220562.045	LB226750	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH26_0.3-0.4	SE220562.050	LB226750	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH27_0.2-0.3	SE220562.051	LB226750	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH27_0.7-0.8	SE220562.052	LB226750	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH28_0.2-0.3	SE220562.053	LB226750	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH29M_0.3-0.4	SE220562.054	LB226750	08 Jun 2021	09 Jun 2021	06 Jul 2021	15 Jun 2021	06 Jul 2021	17 Jun 2021
BH30_0.2-0.3	SE220562.058	LB226927	08 Jun 2021	09 Jun 2021	06 Jul 2021	17 Jun 2021	06 Jul 2021	17 Jun 2021
BH30_0.7-0.8	SE220562.059	LB226927	08 Jun 2021	09 Jun 2021	06 Jul 2021	17 Jun 2021	06 Jul 2021	17 Jun 2021
BH31_0.3-0.4	SE220562.060	LB226927	08 Jun 2021	09 Jun 2021	06 Jul 2021	17 Jun 2021	06 Jul 2021	17 Jun 2021
BH32_0.3-0.4	SE220562.061	LB226927	08 Jun 2021	09 Jun 2021	06 Jul 2021	17 Jun 2021	06 Jul 2021	17 Jun 2021
BH32_0.8-0.9	SE220562.062	LB226927	08 Jun 2021	09 Jun 2021	06 Jul 2021	17 Jun 2021	06 Jul 2021	17 Jun 2021
BH33_0.2-0.3	SE220562.063	LB226927	08 Jun 2021	09 Jun 2021	06 Jul 2021	17 Jun 2021	06 Jul 2021	17 Jun 2021
BH33_0.6-0.7	SE220562.064	LB226927	08 Jun 2021	09 Jun 2021	06 Jul 2021	17 Jun 2021	06 Jul 2021	17 Jun 2021
QD1	SE220562.065	LB226927	07 Jun 2021	09 Jun 2021	05 Jul 2021	17 Jun 2021	05 Jul 2021	17 Jun 2021
QD2	SE220562.069	LB226927	08 Jun 2021	09 Jun 2021	06 Jul 2021	17 Jun 2021	06 Jul 2021	17 Jun 2021

Moisture Content

Method: ME-(AU)-ENVJAN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-0.1-0.2	SE220562.001	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH1M-0.9-1.0	SE220562.002	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH1M-1.9-2.0	SE220562.003	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH1M-2.9-3.0	SE220562.004	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH1M-3.9-4.0	SE220562.005	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH1M-4.9-5.0	SE220562.006	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH1M-5.9-6.0	SE220562.007	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH2-0.1-0.2	SE220562.008	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH3-0.1-0.2	SE220562.009	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH4_0.1-0.2	SE220562.010	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH4_0.6-0.7	SE220562.011	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH5_0.3-0.4	SE220562.012	LB226707	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH6_0.1-0.2	SE220562.013	LB226707	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH7_0.1-0.2	SE220562.014	LB226707	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH8_0.1-0.2	SE220562.015	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH8_0.7-0.8	SE220562.016	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH9_0.2-0.3	SE220562.017	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH10_0.2-0.3	SE220562.018	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH11M_0.1-0.2	SE220562.019	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH11M_0.4-0.5	SE220562.020	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Moisture Content (continued)

Method: ME-(AU)-ENVJAN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH11M_1.4-1.5	SE220562.021	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH11M_2.4-2.5	SE220562.022	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH11M_3.4-3.5	SE220562.023	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH11M_4.4-4.5	SE220562.024	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH12_0.1-0.2	SE220562.025	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH12_0.4-0.5	SE220562.026	LB226707	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH13_0.2-0.3	SE220562.027	LB226707	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH13_0.7-0.8	SE220562.028	LB226707	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH14_0.3-0.4	SE220562.029	LB226707	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH15_0.2-0.3	SE220562.030	LB226707	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH16_0.3-0.4	SE220562.031	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH17_0.2-0.3	SE220562.032	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH18_0.1-0.2	SE220562.033	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH19_0.2-0.3	SE220562.034	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH20_0.2-0.3	SE220562.035	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH20_1.8-1.9	SE220562.036	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH21_0.2-0.3	SE220562.037	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH22_0.15-0.2	SE220562.038	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH22_0.4-0.5	SE220562.039	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH23_0.2-0.3	SE220562.040	LB226706	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH24_0.2-0.3	SE220562.041	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH24_0.8-0.9	SE220562.042	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH25M_0.3-0.4	SE220562.043	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH25M_0.8-0.9	SE220562.044	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH25M_1.8-1.9	SE220562.045	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH25M_2.8-2.9	SE220562.046	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH25M_3.8-3.9	SE220562.047	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH25M_4.8-4.9	SE220562.048	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH25M_5.6-5.7	SE220562.049	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH26_0.3-0.4	SE220562.050	LB226706	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH27_0.2-0.3	SE220562.051	LB226725	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH27_0.7-0.8	SE220562.052	LB226725	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH28_0.2-0.3	SE220562.053	LB226725	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH29M_0.3-0.4	SE220562.054	LB226725	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH29M_0.9-1.0	SE220562.055	LB226725	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH29M_1.9-2.0	SE220562.056	LB226725	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH29M_2.9-3.0	SE220562.057	LB226725	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH30_0.2-0.3	SE220562.058	LB226725	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH30_0.7-0.8	SE220562.059	LB226725	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH31_0.3-0.4	SE220562.060	LB226725	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH32_0.3-0.4	SE220562.061	LB226725	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH32_0.8-0.9	SE220562.062	LB226725	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH33_0.2-0.3	SE220562.063	LB226725	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
BH33_0.6-0.7	SE220562.064	LB226725	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
QD1	SE220562.065	LB226725	07 Jun 2021	09 Jun 2021	21 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
QTB1	SE220562.067	LB226725	09 Jun 2021	09 Jun 2021	23 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021
QD2	SE220562.069	LB226725	08 Jun 2021	09 Jun 2021	22 Jun 2021	15 Jun 2021	20 Jun 2021	16 Jun 2021

OC Pesticides in Soil

Method: ME-(AU)-ENVJAN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-0.1-0.2	SE220562.001	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH1M-0.9-1.0	SE220562.002	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH2-0.1-0.2	SE220562.008	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH3-0.1-0.2	SE220562.009	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH4_0.1-0.2	SE220562.010	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH4_0.6-0.7	SE220562.011	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH5_0.3-0.4	SE220562.012	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH6_0.1-0.2	SE220562.013	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH7_0.1-0.2	SE220562.014	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH8_0.1-0.2	SE220562.015	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

OC Pesticides in Soil (continued)

Method: ME-(AU)-ENVJAN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH8_0.7-0.8	SE220562.016	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH9_0.2-0.3	SE220562.017	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH10_0.2-0.3	SE220562.018	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH11M_0.1-0.2	SE220562.019	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH12_0.1-0.2	SE220562.025	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH12_0.4-0.5	SE220562.026	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH13_0.2-0.3	SE220562.027	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH13_0.7-0.8	SE220562.028	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH14_0.3-0.4	SE220562.029	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH15_0.2-0.3	SE220562.030	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH16_0.3-0.4	SE220562.031	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH17_0.2-0.3	SE220562.032	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH18_0.1-0.2	SE220562.033	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH19_0.2-0.3	SE220562.034	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH20_0.2-0.3	SE220562.035	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH20_1.8-1.9	SE220562.036	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH21_0.2-0.3	SE220562.037	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH22_0.15-0.2	SE220562.038	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH22_0.4-0.5	SE220562.039	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH23_0.2-0.3	SE220562.040	LB226677	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH24_0.2-0.3	SE220562.041	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH24_0.8-0.9	SE220562.042	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH25M_0.3-0.4	SE220562.043	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH25M_0.8-0.9	SE220562.044	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH25M_1.8-1.9	SE220562.045	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH26_0.3-0.4	SE220562.050	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH27_0.2-0.3	SE220562.051	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH27_0.7-0.8	SE220562.052	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH28_0.2-0.3	SE220562.053	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH29M_0.3-0.4	SE220562.054	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH30_0.2-0.3	SE220562.058	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH30_0.7-0.8	SE220562.059	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH31_0.3-0.4	SE220562.060	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH32_0.3-0.4	SE220562.061	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH32_0.8-0.9	SE220562.062	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH33_0.2-0.3	SE220562.063	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH33_0.6-0.7	SE220562.064	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
QD1	SE220562.065	LB226678	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
QD2	SE220562.069	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021

OP Pesticides in Soil

Method: ME-(AU)-ENVJAN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.1-0.2	SE220562.001	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH1M_0.9-1.0	SE220562.002	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH2_0.1-0.2	SE220562.008	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH3_0.1-0.2	SE220562.009	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH4_0.1-0.2	SE220562.010	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH4_0.6-0.7	SE220562.011	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH5_0.3-0.4	SE220562.012	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH6_0.1-0.2	SE220562.013	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH7_0.1-0.2	SE220562.014	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH8_0.1-0.2	SE220562.015	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH8_0.7-0.8	SE220562.016	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH9_0.2-0.3	SE220562.017	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH10_0.2-0.3	SE220562.018	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH11M_0.1-0.2	SE220562.019	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH12_0.1-0.2	SE220562.025	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH12_0.4-0.5	SE220562.026	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH13_0.2-0.3	SE220562.027	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH13_0.7-0.8	SE220562.028	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

OP Pesticides in Soil (continued)

Method: ME-(AU)-ENVJAN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH14_0.3-0.4	SE220562.029	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH15_0.2-0.3	SE220562.030	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH16_0.3-0.4	SE220562.031	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH17_0.2-0.3	SE220562.032	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH18_0.1-0.2	SE220562.033	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH19_0.2-0.3	SE220562.034	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH20_0.2-0.3	SE220562.035	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH20_1.8-1.9	SE220562.036	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH21_0.2-0.3	SE220562.037	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH22_0.15-0.2	SE220562.038	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH22_0.4-0.5	SE220562.039	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH23_0.2-0.3	SE220562.040	LB226677	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH24_0.2-0.3	SE220562.041	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH24_0.8-0.9	SE220562.042	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH25M_0.3-0.4	SE220562.043	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH25M_0.8-0.9	SE220562.044	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH25M_1.8-1.9	SE220562.045	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH26_0.3-0.4	SE220562.050	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH27_0.2-0.3	SE220562.051	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH27_0.7-0.8	SE220562.052	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH28_0.2-0.3	SE220562.053	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH29M_0.3-0.4	SE220562.054	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH30_0.2-0.3	SE220562.058	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH30_0.7-0.8	SE220562.059	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH31_0.3-0.4	SE220562.060	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH32_0.3-0.4	SE220562.061	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH32_0.8-0.9	SE220562.062	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH33_0.2-0.3	SE220562.063	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH33_0.6-0.7	SE220562.064	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
QD1	SE220562.065	LB226678	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
QD2	SE220562.069	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-ENVJAN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-0.1-0.2	SE220562.001	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH1M-0.9-1.0	SE220562.002	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH2-0.1-0.2	SE220562.008	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH3-0.1-0.2	SE220562.009	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH4_0.1-0.2	SE220562.010	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH4_0.6-0.7	SE220562.011	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH5_0.3-0.4	SE220562.012	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH6_0.1-0.2	SE220562.013	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH7_0.1-0.2	SE220562.014	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH8_0.1-0.2	SE220562.015	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH8_0.7-0.8	SE220562.016	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH9_0.2-0.3	SE220562.017	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH10_0.2-0.3	SE220562.018	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH11M_0.1-0.2	SE220562.019	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH12_0.1-0.2	SE220562.025	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH12_0.4-0.5	SE220562.026	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH13_0.2-0.3	SE220562.027	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH13_0.7-0.8	SE220562.028	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH14_0.3-0.4	SE220562.029	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH15_0.2-0.3	SE220562.030	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH16_0.3-0.4	SE220562.031	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH17_0.2-0.3	SE220562.032	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH18_0.1-0.2	SE220562.033	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH19_0.2-0.3	SE220562.034	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH20_0.2-0.3	SE220562.035	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH20_1.8-1.9	SE220562.036	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-ENV/JAN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH21_0.2-0.3	SE220562.037	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH22_0.15-0.2	SE220562.038	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH22_0.4-0.5	SE220562.039	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH23_0.2-0.3	SE220562.040	LB226677	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH24_0.2-0.3	SE220562.041	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH24_0.8-0.9	SE220562.042	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH25M_0.3-0.4	SE220562.043	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH25M_0.8-0.9	SE220562.044	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH25M_1.8-1.9	SE220562.045	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH26_0.3-0.4	SE220562.050	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH27_0.2-0.3	SE220562.051	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH27_0.7-0.8	SE220562.052	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH28_0.2-0.3	SE220562.053	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH29M_0.3-0.4	SE220562.054	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH30_0.2-0.3	SE220562.058	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH30_0.7-0.8	SE220562.059	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH31_0.3-0.4	SE220562.060	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH32_0.3-0.4	SE220562.061	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH32_0.8-0.9	SE220562.062	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH33_0.2-0.3	SE220562.063	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH33_0.6-0.7	SE220562.064	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
QD1	SE220562.065	LB226678	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
QD2	SE220562.069	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021

PCBs in Soil

Method: ME-(AU)-ENV/JAN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-0.1-0.2	SE220562.001	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH1M-0.9-1.0	SE220562.002	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH2-0.1-0.2	SE220562.008	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH3-0.1-0.2	SE220562.009	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH4_0.1-0.2	SE220562.010	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH4_0.6-0.7	SE220562.011	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH5_0.3-0.4	SE220562.012	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH6_0.1-0.2	SE220562.013	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH7_0.1-0.2	SE220562.014	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH8_0.1-0.2	SE220562.015	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH8_0.7-0.8	SE220562.016	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH9_0.2-0.3	SE220562.017	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH10_0.2-0.3	SE220562.018	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH11M_0.1-0.2	SE220562.019	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH12_0.1-0.2	SE220562.025	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH12_0.4-0.5	SE220562.026	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH13_0.2-0.3	SE220562.027	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH13_0.7-0.8	SE220562.028	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH14_0.3-0.4	SE220562.029	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH15_0.2-0.3	SE220562.030	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH16_0.3-0.4	SE220562.031	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH17_0.2-0.3	SE220562.032	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH18_0.1-0.2	SE220562.033	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH19_0.2-0.3	SE220562.034	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH20_0.2-0.3	SE220562.035	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH20_1.8-1.9	SE220562.036	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH21_0.2-0.3	SE220562.037	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH22_0.15-0.2	SE220562.038	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH22_0.4-0.5	SE220562.039	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH23_0.2-0.3	SE220562.040	LB226677	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH24_0.2-0.3	SE220562.041	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH24_0.8-0.9	SE220562.042	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH25M_0.3-0.4	SE220562.043	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH25M_0.8-0.9	SE220562.044	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

PCBs in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH25M_1.8-1.9	SE220562.045	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH26_0.3-0.4	SE220562.050	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH27_0.2-0.3	SE220562.051	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH27_0.7-0.8	SE220562.052	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH28_0.2-0.3	SE220562.053	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH29M_0.3-0.4	SE220562.054	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH30_0.2-0.3	SE220562.058	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH30_0.7-0.8	SE220562.059	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH31_0.3-0.4	SE220562.060	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH32_0.3-0.4	SE220562.061	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH32_0.8-0.9	SE220562.062	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
BH33_0.2-0.3	SE220562.063	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH33_0.6-0.7	SE220562.064	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
QD1	SE220562.065	LB226678	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021
QD2	SE220562.069	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	17 Jun 2021

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-0.9-1.0	SE220562.002	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH1M-1.9-2.0	SE220562.003	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH1M-2.9-3.0	SE220562.004	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH1M-3.9-4.0	SE220562.005	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH1M-4.9-5.0	SE220562.006	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH1M-5.9-6.0	SE220562.007	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH11M_0.4-0.5	SE220562.020	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH11M_1.4-1.5	SE220562.021	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH11M_2.4-2.5	SE220562.022	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH11M_3.4-3.5	SE220562.023	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH11M_4.4-4.5	SE220562.024	LB226920	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH25M_0.8-0.9	SE220562.044	LB226920	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH25M_1.8-1.9	SE220562.045	LB226920	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH25M_2.8-2.9	SE220562.046	LB226920	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH25M_3.8-3.9	SE220562.047	LB226920	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH25M_4.8-4.9	SE220562.048	LB226920	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH25M_5.6-5.7	SE220562.049	LB226920	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH29M_0.9-1.0	SE220562.055	LB226920	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH29M_1.9-2.0	SE220562.056	LB226920	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021
BH29M_2.9-3.0	SE220562.057	LB226920	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	18 Jun 2021	17 Jun 2021

Soil Texture (AS4419)

Method: ME-(AU)-[ENV]AN051

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-0.9-1.0	SE220562.002	LB226753	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	15 Jun 2021
BH1M-1.9-2.0	SE220562.003	LB226753	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	15 Jun 2021
BH1M-2.9-3.0	SE220562.004	LB226753	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	15 Jun 2021
BH1M-3.9-4.0	SE220562.005	LB226753	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	15 Jun 2021
BH1M-4.9-5.0	SE220562.006	LB226753	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	15 Jun 2021
BH1M-5.9-6.0	SE220562.007	LB226753	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	15 Jun 2021
BH11M_0.4-0.5	SE220562.020	LB226753	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	15 Jun 2021
BH11M_1.4-1.5	SE220562.021	LB226753	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	15 Jun 2021
BH11M_2.4-2.5	SE220562.022	LB226753	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	15 Jun 2021
BH11M_3.4-3.5	SE220562.023	LB226753	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	15 Jun 2021
BH11M_4.4-4.5	SE220562.024	LB226753	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	15 Jun 2021
BH25M_0.8-0.9	SE220562.044	LB226753	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	15 Jun 2021
BH25M_1.8-1.9	SE220562.045	LB226753	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	15 Jun 2021
BH25M_2.8-2.9	SE220562.046	LB226753	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	15 Jun 2021
BH25M_3.8-3.9	SE220562.047	LB226753	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	15 Jun 2021
BH25M_4.8-4.9	SE220562.048	LB226753	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	15 Jun 2021
BH25M_5.6-5.7	SE220562.049	LB226753	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	15 Jun 2021
BH29M_0.9-1.0	SE220562.055	LB226753	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	15 Jun 2021
BH29M_1.9-2.0	SE220562.056	LB226753	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	15 Jun 2021
BH29M_2.9-3.0	SE220562.057	LB226753	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	15 Jun 2021



HOLDING TIME SUMMARY

SE220562 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Soluble Anions (1:5) in Soil/Solids by Ion Chromatography

Method: ME-(AU)-[ENV]AN245

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-0.9-1.0	SE220562.002	LB226917	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH1M-1.9-2.0	SE220562.003	LB226917	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH1M-2.9-3.0	SE220562.004	LB226917	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH1M-3.9-4.0	SE220562.005	LB226917	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH1M-4.9-5.0	SE220562.006	LB226917	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH1M-5.9-6.0	SE220562.007	LB226917	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH11M_0.4-0.5	SE220562.020	LB226917	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH11M_1.4-1.5	SE220562.021	LB226917	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH11M_2.4-2.5	SE220562.022	LB226917	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH11M_3.4-3.5	SE220562.023	LB226917	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH11M_4.4-4.5	SE220562.024	LB226917	07 Jun 2021	09 Jun 2021	14 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH25M_0.8-0.9	SE220562.044	LB226917	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH25M_1.8-1.9	SE220562.045	LB226917	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH25M_2.8-2.9	SE220562.046	LB226917	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH25M_3.8-3.9	SE220562.047	LB226917	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH25M_4.8-4.9	SE220562.048	LB226917	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH25M_5.6-5.7	SE220562.049	LB226917	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH29M_0.9-1.0	SE220562.055	LB226917	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH29M_1.9-2.0	SE220562.056	LB226917	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021
BH29M_2.9-3.0	SE220562.057	LB226917	08 Jun 2021	09 Jun 2021	15 Jun 2021	17 Jun 2021†	15 Jul 2021	17 Jun 2021

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN289

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-0.1-0.2	SE220562.001	LB226821	07 Jun 2021	09 Jun 2021	21 Jun 2021	16 Jun 2021	21 Jun 2021	16 Jun 2021
BH6_0.1-0.2	SE220562.013	LB226821	08 Jun 2021	09 Jun 2021	22 Jun 2021	16 Jun 2021	22 Jun 2021	16 Jun 2021
BH17_0.2-0.3	SE220562.032	LB226821	08 Jun 2021	09 Jun 2021	22 Jun 2021	16 Jun 2021	22 Jun 2021	16 Jun 2021
BH19_0.2-0.3	SE220562.034	LB226821	08 Jun 2021	09 Jun 2021	22 Jun 2021	16 Jun 2021	22 Jun 2021	16 Jun 2021
BH25M_0.3-0.4	SE220562.043	LB226821	08 Jun 2021	09 Jun 2021	22 Jun 2021	16 Jun 2021	22 Jun 2021	16 Jun 2021
BH25M_0.8-0.9	SE220562.044	LB226821	08 Jun 2021	09 Jun 2021	22 Jun 2021	16 Jun 2021	22 Jun 2021	16 Jun 2021
BH25M_1.8-1.9	SE220562.045	LB226821	08 Jun 2021	09 Jun 2021	22 Jun 2021	16 Jun 2021	22 Jun 2021	16 Jun 2021
BH26_0.3-0.4	SE220562.050	LB226821	08 Jun 2021	09 Jun 2021	22 Jun 2021	16 Jun 2021	22 Jun 2021	16 Jun 2021
BH29M_0.3-0.4	SE220562.054	LB226821	08 Jun 2021	09 Jun 2021	22 Jun 2021	16 Jun 2021	22 Jun 2021	16 Jun 2021
BH33_0.2-0.3	SE220562.063	LB226821	08 Jun 2021	09 Jun 2021	22 Jun 2021	16 Jun 2021	22 Jun 2021	16 Jun 2021

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN40/JAN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-0.1-0.2	SE220562.001	LB226738	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH1M-0.9-1.0	SE220562.002	LB226738	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH1M-1.9-2.0	SE220562.003	LB226738	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH1M-2.9-3.0	SE220562.004	LB226738	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH1M-3.9-4.0	SE220562.005	LB226738	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH1M-4.9-5.0	SE220562.006	LB226738	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH1M-5.9-6.0	SE220562.007	LB226738	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH2-0.1-0.2	SE220562.008	LB226738	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH3-0.1-0.2	SE220562.009	LB226738	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH4_0.1-0.2	SE220562.010	LB226738	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH4_0.6-0.7	SE220562.011	LB226738	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH5_0.3-0.4	SE220562.012	LB226738	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH6_0.1-0.2	SE220562.013	LB226738	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH7_0.1-0.2	SE220562.014	LB226738	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH8_0.1-0.2	SE220562.015	LB226738	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH8_0.7-0.8	SE220562.016	LB226738	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH9_0.2-0.3	SE220562.017	LB226738	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH10_0.2-0.3	SE220562.018	LB226738	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH11M_0.1-0.2	SE220562.019	LB226738	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH11M_0.4-0.5	SE220562.020	LB226739	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH11M_1.4-1.5	SE220562.021	LB226739	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH11M_2.4-2.5	SE220562.022	LB226739	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH11M_3.4-3.5	SE220562.023	LB226739	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH11M_4.4-4.5	SE220562.024	LB226739	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH12_0.1-0.2	SE220562.025	LB226739	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued)

Method: ME-(AU)-ENVJAN040/AN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH12_0.4-0.5	SE220562.026	LB226739	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH13_0.2-0.3	SE220562.027	LB226739	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH13_0.7-0.8	SE220562.028	LB226739	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH14_0.3-0.4	SE220562.029	LB226739	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH15_0.2-0.3	SE220562.030	LB226739	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH16_0.3-0.4	SE220562.031	LB226739	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH17_0.2-0.3	SE220562.032	LB226739	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH18_0.1-0.2	SE220562.033	LB226739	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH19_0.2-0.3	SE220562.034	LB226739	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH20_0.2-0.3	SE220562.035	LB226739	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH20_1.8-1.9	SE220562.036	LB226739	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH21_0.2-0.3	SE220562.037	LB226739	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH22_0.15-0.2	SE220562.038	LB226739	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH22_0.4-0.5	SE220562.039	LB226740	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH23_0.2-0.3	SE220562.040	LB226740	07 Jun 2021	09 Jun 2021	04 Dec 2021	15 Jun 2021	04 Dec 2021	17 Jun 2021
BH24_0.2-0.3	SE220562.041	LB226740	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH24_0.8-0.9	SE220562.042	LB226740	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH25M_0.3-0.4	SE220562.043	LB226740	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH25M_0.8-0.9	SE220562.044	LB226740	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH25M_1.8-1.9	SE220562.045	LB226740	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH25M_2.8-2.9	SE220562.046	LB226740	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH25M_3.8-3.9	SE220562.047	LB226740	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH25M_4.8-4.9	SE220562.048	LB226740	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH25M_5.6-5.7	SE220562.049	LB226740	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH26_0.3-0.4	SE220562.050	LB226740	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH27_0.2-0.3	SE220562.051	LB226740	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH27_0.7-0.8	SE220562.052	LB226740	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH28_0.2-0.3	SE220562.053	LB226740	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH29M_0.3-0.4	SE220562.054	LB226740	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH29M_0.9-1.0	SE220562.055	LB226740	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH29M_1.9-2.0	SE220562.056	LB226740	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH29M_2.9-3.0	SE220562.057	LB226740	08 Jun 2021	09 Jun 2021	05 Dec 2021	15 Jun 2021	05 Dec 2021	17 Jun 2021
BH30_0.2-0.3	SE220562.058	LB226926	08 Jun 2021	09 Jun 2021	05 Dec 2021	17 Jun 2021	05 Dec 2021	17 Jun 2021
BH30_0.7-0.8	SE220562.059	LB226926	08 Jun 2021	09 Jun 2021	05 Dec 2021	17 Jun 2021	05 Dec 2021	17 Jun 2021
BH31_0.3-0.4	SE220562.060	LB226926	08 Jun 2021	09 Jun 2021	05 Dec 2021	17 Jun 2021	05 Dec 2021	17 Jun 2021
BH32_0.3-0.4	SE220562.061	LB226926	08 Jun 2021	09 Jun 2021	05 Dec 2021	17 Jun 2021	05 Dec 2021	17 Jun 2021
BH32_0.8-0.9	SE220562.062	LB226926	08 Jun 2021	09 Jun 2021	05 Dec 2021	17 Jun 2021	05 Dec 2021	17 Jun 2021
BH33_0.2-0.3	SE220562.063	LB226926	08 Jun 2021	09 Jun 2021	05 Dec 2021	17 Jun 2021	05 Dec 2021	17 Jun 2021
BH33_0.6-0.7	SE220562.064	LB226926	08 Jun 2021	09 Jun 2021	05 Dec 2021	17 Jun 2021	05 Dec 2021	17 Jun 2021
QD1	SE220562.065	LB226926	07 Jun 2021	09 Jun 2021	04 Dec 2021	17 Jun 2021	04 Dec 2021	17 Jun 2021
QD2	SE220562.069	LB226926	08 Jun 2021	09 Jun 2021	05 Dec 2021	17 Jun 2021	05 Dec 2021	17 Jun 2021

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-ENVJAN318

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR1	SE220562.066	LB226527	07 Jun 2021	09 Jun 2021	04 Dec 2021	10 Jun 2021	04 Dec 2021	10 Jun 2021

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-ENVJAN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-0.1-0.2	SE220562.001	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH1M-0.9-1.0	SE220562.002	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH2-0.1-0.2	SE220562.008	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH3-0.1-0.2	SE220562.009	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH4_0.1-0.2	SE220562.010	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH4_0.6-0.7	SE220562.011	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH5_0.3-0.4	SE220562.012	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH6_0.1-0.2	SE220562.013	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH7_0.1-0.2	SE220562.014	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH8_0.1-0.2	SE220562.015	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH8_0.7-0.8	SE220562.016	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH9_0.2-0.3	SE220562.017	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

TRH (Total Recoverable Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH10_0.2-0.3	SE220562.018	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH11M_0.1-0.2	SE220562.019	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH12_0.1-0.2	SE220562.025	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH12_0.4-0.5	SE220562.026	LB226676	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH13_0.2-0.3	SE220562.027	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH13_0.7-0.8	SE220562.028	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH14_0.3-0.4	SE220562.029	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH15_0.2-0.3	SE220562.030	LB226676	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH16_0.3-0.4	SE220562.031	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH17_0.2-0.3	SE220562.032	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH18_0.1-0.2	SE220562.033	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH19_0.2-0.3	SE220562.034	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH20_0.2-0.3	SE220562.035	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH20_1.8-1.9	SE220562.036	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH21_0.2-0.3	SE220562.037	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH22_0.15-0.2	SE220562.038	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH22_0.4-0.5	SE220562.039	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH23_0.2-0.3	SE220562.040	LB226677	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH24_0.2-0.3	SE220562.041	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH24_0.8-0.9	SE220562.042	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH25M_0.3-0.4	SE220562.043	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH25M_0.8-0.9	SE220562.044	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH25M_1.8-1.9	SE220562.045	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH26_0.3-0.4	SE220562.050	LB226677	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH27_0.2-0.3	SE220562.051	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH27_0.7-0.8	SE220562.052	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH28_0.2-0.3	SE220562.053	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH29M_0.3-0.4	SE220562.054	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH30_0.2-0.3	SE220562.058	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH30_0.7-0.8	SE220562.059	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH31_0.3-0.4	SE220562.060	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH32_0.3-0.4	SE220562.061	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH32_0.8-0.9	SE220562.062	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH33_0.2-0.3	SE220562.063	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH33_0.6-0.7	SE220562.064	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
QD1	SE220562.065	LB226678	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
QD2	SE220562.069	LB226678	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR1	SE220562.066	LB226700	07 Jun 2021	09 Jun 2021	14 Jun 2021	15 Jun 2021†	25 Jul 2021	17 Jun 2021

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-0.1-0.2	SE220562.001	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH1M-0.9-1.0	SE220562.002	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH2-0.1-0.2	SE220562.008	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH3-0.1-0.2	SE220562.009	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH4_0.1-0.2	SE220562.010	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH4_0.6-0.7	SE220562.011	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH5_0.3-0.4	SE220562.012	LB226669	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH6_0.1-0.2	SE220562.013	LB226669	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH7_0.1-0.2	SE220562.014	LB226669	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH8_0.1-0.2	SE220562.015	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH8_0.7-0.8	SE220562.016	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH9_0.2-0.3	SE220562.017	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH10_0.2-0.3	SE220562.018	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH11M_0.1-0.2	SE220562.019	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH12_0.1-0.2	SE220562.025	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH12_0.4-0.5	SE220562.026	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH13_0.2-0.3	SE220562.027	LB226669	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH13_0.7-0.8	SE220562.028	LB226669	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH14_0.3-0.4	SE220562.029	LB226669	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH15_0.2-0.3	SE220562.030	LB226669	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH16_0.3-0.4	SE220562.031	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH17_0.2-0.3	SE220562.032	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH18_0.1-0.2	SE220562.033	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH19_0.2-0.3	SE220562.034	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH20_0.2-0.3	SE220562.035	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH20_1.8-1.9	SE220562.036	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH21_0.2-0.3	SE220562.037	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH22_0.15-0.2	SE220562.038	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH22_0.4-0.5	SE220562.039	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH23_0.2-0.3	SE220562.040	LB226681	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH24_0.2-0.3	SE220562.041	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH24_0.8-0.9	SE220562.042	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH25M_0.3-0.4	SE220562.043	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH25M_0.8-0.9	SE220562.044	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH25M_1.8-1.9	SE220562.045	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH26_0.3-0.4	SE220562.050	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH27_0.2-0.3	SE220562.051	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH27_0.7-0.8	SE220562.052	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH28_0.2-0.3	SE220562.053	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH29M_0.3-0.4	SE220562.054	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH30_0.2-0.3	SE220562.058	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH30_0.7-0.8	SE220562.059	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH31_0.3-0.4	SE220562.060	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH32_0.3-0.4	SE220562.061	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH32_0.8-0.9	SE220562.062	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH33_0.2-0.3	SE220562.063	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH33_0.6-0.7	SE220562.064	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
QD1	SE220562.065	LB226684	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
QTB1	SE220562.067	LB226684	07 Jun 2021	09 Jun 2021	23 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
QTS1	SE220562.068	LB226684	09 Jun 2021	09 Jun 2021	23 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
QD2	SE220562.069	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR1	SE220562.066	LB226623	07 Jun 2021	09 Jun 2021	14 Jun 2021	11 Jun 2021	21 Jul 2021	15 Jun 2021

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-0.1-0.2	SE220562.001	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH1M-0.9-1.0	SE220562.002	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH2-0.1-0.2	SE220562.008	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH3-0.1-0.2	SE220562.009	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH4_0.1-0.2	SE220562.010	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH4_0.6-0.7	SE220562.011	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH5_0.3-0.4	SE220562.012	LB226669	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH6_0.1-0.2	SE220562.013	LB226669	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH7_0.1-0.2	SE220562.014	LB226669	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH8_0.1-0.2	SE220562.015	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH8_0.7-0.8	SE220562.016	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH9_0.2-0.3	SE220562.017	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH10_0.2-0.3	SE220562.018	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH11M_0.1-0.2	SE220562.019	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH12_0.1-0.2	SE220562.025	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH12_0.4-0.5	SE220562.026	LB226669	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH13_0.2-0.3	SE220562.027	LB226669	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH13_0.7-0.8	SE220562.028	LB226669	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021



HOLDING TIME SUMMARY

SE220562 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Volatile Petroleum Hydrocarbons in Soil (continued)

Method: ME-(AU)-ENVJAN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH14_0.3-0.4	SE220562.029	LB226669	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH15_0.2-0.3	SE220562.030	LB226669	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH16_0.3-0.4	SE220562.031	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH17_0.2-0.3	SE220562.032	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH18_0.1-0.2	SE220562.033	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH19_0.2-0.3	SE220562.034	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH20_0.2-0.3	SE220562.035	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH20_1.8-1.9	SE220562.036	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH21_0.2-0.3	SE220562.037	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH22_0.15-0.2	SE220562.038	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH22_0.4-0.5	SE220562.039	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH23_0.2-0.3	SE220562.040	LB226681	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH24_0.2-0.3	SE220562.041	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH24_0.8-0.9	SE220562.042	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH25M_0.3-0.4	SE220562.043	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH25M_0.8-0.9	SE220562.044	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH25M_1.8-1.9	SE220562.045	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH26_0.3-0.4	SE220562.050	LB226681	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH27_0.2-0.3	SE220562.051	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH27_0.7-0.8	SE220562.052	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH28_0.2-0.3	SE220562.053	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH29M_0.3-0.4	SE220562.054	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH30_0.2-0.3	SE220562.058	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH30_0.7-0.8	SE220562.059	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH31_0.3-0.4	SE220562.060	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH32_0.3-0.4	SE220562.061	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH32_0.8-0.9	SE220562.062	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH33_0.2-0.3	SE220562.063	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
BH33_0.6-0.7	SE220562.064	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
QD1	SE220562.065	LB226684	07 Jun 2021	09 Jun 2021	21 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
QTB1	SE220562.067	LB226684	09 Jun 2021	09 Jun 2021	23 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
QTS1	SE220562.068	LB226684	09 Jun 2021	09 Jun 2021	23 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021
QD2	SE220562.069	LB226684	08 Jun 2021	09 Jun 2021	22 Jun 2021	11 Jun 2021	21 Jul 2021	16 Jun 2021

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-ENVJAN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR1	SE220562.066	LB226623	07 Jun 2021	09 Jun 2021	14 Jun 2021	11 Jun 2021	21 Jul 2021	15 Jun 2021

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	BH1M-0.1-0.2	SE220562.001	%	60 - 130%	115
	BH2-0.1-0.2	SE220562.008	%	60 - 130%	116
	BH3-0.1-0.2	SE220562.009	%	60 - 130%	123
	BH4_0.1-0.2	SE220562.010	%	60 - 130%	119
	BH5_0.3-0.4	SE220562.012	%	60 - 130%	117
	BH6_0.1-0.2	SE220562.013	%	60 - 130%	115
	BH7_0.1-0.2	SE220562.014	%	60 - 130%	119
	BH8_0.1-0.2	SE220562.015	%	60 - 130%	121
	BH9_0.2-0.3	SE220562.017	%	60 - 130%	127
	BH10_0.2-0.3	SE220562.018	%	60 - 130%	106
	BH11M_0.1-0.2	SE220562.019	%	60 - 130%	127
	BH12_0.1-0.2	SE220562.025	%	60 - 130%	125
	BH13_0.2-0.3	SE220562.027	%	60 - 130%	125
	BH14_0.3-0.4	SE220562.029	%	60 - 130%	110
	BH15_0.2-0.3	SE220562.030	%	60 - 130%	125
	BH16_0.3-0.4	SE220562.031	%	60 - 130%	109
	BH17_0.2-0.3	SE220562.032	%	60 - 130%	110
	BH18_0.1-0.2	SE220562.033	%	60 - 130%	114
	BH19_0.2-0.3	SE220562.034	%	60 - 130%	127
	BH20_0.2-0.3	SE220562.035	%	60 - 130%	112
	BH21_0.2-0.3	SE220562.037	%	60 - 130%	114
	BH22_0.15-0.2	SE220562.038	%	60 - 130%	109
	BH23_0.2-0.3	SE220562.040	%	60 - 130%	113
	BH24_0.2-0.3	SE220562.041	%	60 - 130%	113
	BH25M_0.3-0.4	SE220562.043	%	60 - 130%	113
	BH26_0.3-0.4	SE220562.050	%	60 - 130%	110
	BH27_0.2-0.3	SE220562.051	%	60 - 130%	113
	BH28_0.2-0.3	SE220562.053	%	60 - 130%	108
	BH29M_0.3-0.4	SE220562.054	%	60 - 130%	111
	BH30_0.2-0.3	SE220562.058	%	60 - 130%	111
	BH31_0.3-0.4	SE220562.060	%	60 - 130%	115
	BH32_0.3-0.4	SE220562.061	%	60 - 130%	110
	BH33_0.2-0.3	SE220562.063	%	60 - 130%	110

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH1M-0.1-0.2	SE220562.001	%	60 - 130%	72
	BH2-0.1-0.2	SE220562.008	%	60 - 130%	76
	BH3-0.1-0.2	SE220562.009	%	60 - 130%	82
	BH4_0.1-0.2	SE220562.010	%	60 - 130%	78
	BH5_0.3-0.4	SE220562.012	%	60 - 130%	72
	BH6_0.1-0.2	SE220562.013	%	60 - 130%	78
	BH7_0.1-0.2	SE220562.014	%	60 - 130%	80
	BH8_0.1-0.2	SE220562.015	%	60 - 130%	72
	BH9_0.2-0.3	SE220562.017	%	60 - 130%	80
	BH10_0.2-0.3	SE220562.018	%	60 - 130%	80
	BH11M_0.1-0.2	SE220562.019	%	60 - 130%	82
	BH12_0.1-0.2	SE220562.025	%	60 - 130%	82
	BH13_0.2-0.3	SE220562.027	%	60 - 130%	84
	BH14_0.3-0.4	SE220562.029	%	60 - 130%	78
	BH15_0.2-0.3	SE220562.030	%	60 - 130%	78
	BH16_0.3-0.4	SE220562.031	%	60 - 130%	89
	BH17_0.2-0.3	SE220562.032	%	60 - 130%	93
	BH18_0.1-0.2	SE220562.033	%	60 - 130%	82
	BH19_0.2-0.3	SE220562.034	%	60 - 130%	93
	BH20_0.2-0.3	SE220562.035	%	60 - 130%	85
	BH21_0.2-0.3	SE220562.037	%	60 - 130%	87
	BH22_0.15-0.2	SE220562.038	%	60 - 130%	91
	BH23_0.2-0.3	SE220562.040	%	60 - 130%	92
	BH24_0.2-0.3	SE220562.041	%	60 - 130%	94
	BH25M_0.3-0.4	SE220562.043	%	60 - 130%	90

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OP Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]JAN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH26_0.3-0.4	SE220562.050	%	60 - 130%	104
	BH27_0.2-0.3	SE220562.051	%	60 - 130%	76
	BH28_0.2-0.3	SE220562.053	%	60 - 130%	87
	BH29M_0.3-0.4	SE220562.054	%	60 - 130%	84
	BH30_0.2-0.3	SE220562.058	%	60 - 130%	84
	BH31_0.3-0.4	SE220562.060	%	60 - 130%	87
	BH32_0.3-0.4	SE220562.061	%	60 - 130%	88
	BH33_0.2-0.3	SE220562.063	%	60 - 130%	80
d14-p-terphenyl (Surrogate)	BH1M-0.1-0.2	SE220562.001	%	60 - 130%	90
	BH2-0.1-0.2	SE220562.008	%	60 - 130%	84
	BH3-0.1-0.2	SE220562.009	%	60 - 130%	88
	BH4_0.1-0.2	SE220562.010	%	60 - 130%	84
	BH5_0.3-0.4	SE220562.012	%	60 - 130%	82
	BH6_0.1-0.2	SE220562.013	%	60 - 130%	90
	BH7_0.1-0.2	SE220562.014	%	60 - 130%	86
	BH8_0.1-0.2	SE220562.015	%	60 - 130%	86
	BH9_0.2-0.3	SE220562.017	%	60 - 130%	82
	BH10_0.2-0.3	SE220562.018	%	60 - 130%	82
	BH11M_0.1-0.2	SE220562.019	%	60 - 130%	86
	BH12_0.1-0.2	SE220562.025	%	60 - 130%	94
	BH13_0.2-0.3	SE220562.027	%	60 - 130%	88
	BH14_0.3-0.4	SE220562.029	%	60 - 130%	88
	BH15_0.2-0.3	SE220562.030	%	60 - 130%	90
	BH16_0.3-0.4	SE220562.031	%	60 - 130%	92
	BH17_0.2-0.3	SE220562.032	%	60 - 130%	94
	BH18_0.1-0.2	SE220562.033	%	60 - 130%	84
	BH19_0.2-0.3	SE220562.034	%	60 - 130%	92
	BH20_0.2-0.3	SE220562.035	%	60 - 130%	83
	BH21_0.2-0.3	SE220562.037	%	60 - 130%	89
	BH22_0.15-0.2	SE220562.038	%	60 - 130%	86
	BH23_0.2-0.3	SE220562.040	%	60 - 130%	86
	BH24_0.2-0.3	SE220562.041	%	60 - 130%	94
	BH25M_0.3-0.4	SE220562.043	%	60 - 130%	78
	BH26_0.3-0.4	SE220562.050	%	60 - 130%	96
	BH27_0.2-0.3	SE220562.051	%	60 - 130%	86
	BH28_0.2-0.3	SE220562.053	%	60 - 130%	97
	BH29M_0.3-0.4	SE220562.054	%	60 - 130%	91
	BH30_0.2-0.3	SE220562.058	%	60 - 130%	91
	BH31_0.3-0.4	SE220562.060	%	60 - 130%	93
	BH32_0.3-0.4	SE220562.061	%	60 - 130%	97
	BH33_0.2-0.3	SE220562.063	%	60 - 130%	91

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]JAN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH1M-0.1-0.2	SE220562.001	%	70 - 130%	72
	BH1M-0.9-1.0	SE220562.002	%	70 - 130%	82
	BH2-0.1-0.2	SE220562.008	%	70 - 130%	76
	BH3-0.1-0.2	SE220562.009	%	70 - 130%	82
	BH4_0.1-0.2	SE220562.010	%	70 - 130%	78
	BH4_0.6-0.7	SE220562.011	%	70 - 130%	74
	BH5_0.3-0.4	SE220562.012	%	70 - 130%	72
	BH6_0.1-0.2	SE220562.013	%	70 - 130%	78
	BH7_0.1-0.2	SE220562.014	%	70 - 130%	80
	BH8_0.1-0.2	SE220562.015	%	70 - 130%	72
	BH8_0.7-0.8	SE220562.016	%	70 - 130%	78
	BH9_0.2-0.3	SE220562.017	%	70 - 130%	80
	BH10_0.2-0.3	SE220562.018	%	70 - 130%	80
	BH11M_0.1-0.2	SE220562.019	%	70 - 130%	82
	BH12_0.1-0.2	SE220562.025	%	70 - 130%	82
	BH12_0.4-0.5	SE220562.026	%	70 - 130%	72
	BH13_0.2-0.3	SE220562.027	%	70 - 130%	84

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]JAN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH13_0.7-0.8	SE220562.028	%	70 - 130%	82
	BH14_0.3-0.4	SE220562.029	%	70 - 130%	78
	BH15_0.2-0.3	SE220562.030	%	70 - 130%	78
	BH16_0.3-0.4	SE220562.031	%	70 - 130%	89
	BH17_0.2-0.3	SE220562.032	%	70 - 130%	93
	BH18_0.1-0.2	SE220562.033	%	70 - 130%	82
	BH19_0.2-0.3	SE220562.034	%	70 - 130%	93
	BH20_0.2-0.3	SE220562.035	%	70 - 130%	85
	BH20_1.8-1.9	SE220562.036	%	70 - 130%	86
	BH21_0.2-0.3	SE220562.037	%	70 - 130%	87
	BH22_0.15-0.2	SE220562.038	%	70 - 130%	91
	BH22_0.4-0.5	SE220562.039	%	70 - 130%	85
	BH23_0.2-0.3	SE220562.040	%	70 - 130%	92
	BH24_0.2-0.3	SE220562.041	%	70 - 130%	94
	BH24_0.8-0.9	SE220562.042	%	70 - 130%	88
	BH25M_0.3-0.4	SE220562.043	%	70 - 130%	90
	BH25M_0.8-0.9	SE220562.044	%	70 - 130%	88
	BH25M_1.8-1.9	SE220562.045	%	70 - 130%	98
	BH26_0.3-0.4	SE220562.050	%	70 - 130%	104
	BH27_0.2-0.3	SE220562.051	%	70 - 130%	76
	BH27_0.7-0.8	SE220562.052	%	70 - 130%	74
	BH28_0.2-0.3	SE220562.053	%	70 - 130%	87
	BH29M_0.3-0.4	SE220562.054	%	70 - 130%	84
	BH30_0.2-0.3	SE220562.058	%	70 - 130%	84
	BH30_0.7-0.8	SE220562.059	%	70 - 130%	86
	BH31_0.3-0.4	SE220562.060	%	70 - 130%	87
	BH32_0.3-0.4	SE220562.061	%	70 - 130%	88
	BH32_0.8-0.9	SE220562.062	%	70 - 130%	83
	BH33_0.2-0.3	SE220562.063	%	70 - 130%	80
	BH33_0.6-0.7	SE220562.064	%	70 - 130%	87
d14-p-terphenyl (Surrogate)	BH1M-0.1-0.2	SE220562.001	%	70 - 130%	90
	BH1M-0.9-1.0	SE220562.002	%	70 - 130%	86
	BH2-0.1-0.2	SE220562.008	%	70 - 130%	84
	BH3-0.1-0.2	SE220562.009	%	70 - 130%	88
	BH4_0.1-0.2	SE220562.010	%	70 - 130%	84
	BH4_0.6-0.7	SE220562.011	%	70 - 130%	86
	BH5_0.3-0.4	SE220562.012	%	70 - 130%	82
	BH6_0.1-0.2	SE220562.013	%	70 - 130%	90
	BH7_0.1-0.2	SE220562.014	%	70 - 130%	86
	BH8_0.1-0.2	SE220562.015	%	70 - 130%	86
	BH8_0.7-0.8	SE220562.016	%	70 - 130%	84
	BH9_0.2-0.3	SE220562.017	%	70 - 130%	82
	BH10_0.2-0.3	SE220562.018	%	70 - 130%	82
	BH11M_0.1-0.2	SE220562.019	%	70 - 130%	86
	BH12_0.1-0.2	SE220562.025	%	70 - 130%	94
	BH12_0.4-0.5	SE220562.026	%	70 - 130%	88
	BH13_0.2-0.3	SE220562.027	%	70 - 130%	88
	BH13_0.7-0.8	SE220562.028	%	70 - 130%	84
	BH14_0.3-0.4	SE220562.029	%	70 - 130%	88
	BH15_0.2-0.3	SE220562.030	%	70 - 130%	90
	BH16_0.3-0.4	SE220562.031	%	70 - 130%	92
	BH17_0.2-0.3	SE220562.032	%	70 - 130%	94
	BH18_0.1-0.2	SE220562.033	%	70 - 130%	84
	BH19_0.2-0.3	SE220562.034	%	70 - 130%	92
	BH20_0.2-0.3	SE220562.035	%	70 - 130%	83
	BH20_1.8-1.9	SE220562.036	%	70 - 130%	86
	BH21_0.2-0.3	SE220562.037	%	70 - 130%	89
	BH22_0.15-0.2	SE220562.038	%	70 - 130%	86
	BH22_0.4-0.5	SE220562.039	%	70 - 130%	89
	BH23_0.2-0.3	SE220562.040	%	70 - 130%	86
	BH24_0.2-0.3	SE220562.041	%	70 - 130%	94

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]JAN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d14-p-terphenyl (Surrogate)	BH24_0.8-0.9	SE220562.042	%	70 - 130%	90
	BH25M_0.3-0.4	SE220562.043	%	70 - 130%	78
	BH25M_0.8-0.9	SE220562.044	%	70 - 130%	84
	BH25M_1.8-1.9	SE220562.045	%	70 - 130%	90
	BH26_0.3-0.4	SE220562.050	%	70 - 130%	96
	BH27_0.2-0.3	SE220562.051	%	70 - 130%	86
	BH27_0.7-0.8	SE220562.052	%	70 - 130%	92
	BH28_0.2-0.3	SE220562.053	%	70 - 130%	97
	BH29M_0.3-0.4	SE220562.054	%	70 - 130%	91
	BH30_0.2-0.3	SE220562.058	%	70 - 130%	91
	BH30_0.7-0.8	SE220562.059	%	70 - 130%	94
	BH31_0.3-0.4	SE220562.060	%	70 - 130%	93
	BH32_0.3-0.4	SE220562.061	%	70 - 130%	97
	BH32_0.8-0.9	SE220562.062	%	70 - 130%	98
	BH33_0.2-0.3	SE220562.063	%	70 - 130%	91
	BH33_0.6-0.7	SE220562.064	%	70 - 130%	96
d5-nitrobenzene (Surrogate)	BH1M-0.1-0.2	SE220562.001	%	70 - 130%	78
	BH1M-0.9-1.0	SE220562.002	%	70 - 130%	74
	BH2-0.1-0.2	SE220562.008	%	70 - 130%	76
	BH3-0.1-0.2	SE220562.009	%	70 - 130%	80
	BH4_0.1-0.2	SE220562.010	%	70 - 130%	76
	BH4_0.6-0.7	SE220562.011	%	70 - 130%	84
	BH5_0.3-0.4	SE220562.012	%	70 - 130%	80
	BH6_0.1-0.2	SE220562.013	%	70 - 130%	82
	BH7_0.1-0.2	SE220562.014	%	70 - 130%	84
	BH8_0.1-0.2	SE220562.015	%	70 - 130%	72
	BH8_0.7-0.8	SE220562.016	%	70 - 130%	78
	BH9_0.2-0.3	SE220562.017	%	70 - 130%	76
	BH10_0.2-0.3	SE220562.018	%	70 - 130%	76
	BH11M_0.1-0.2	SE220562.019	%	70 - 130%	74
	BH12_0.1-0.2	SE220562.025	%	70 - 130%	86
	BH12_0.4-0.5	SE220562.026	%	70 - 130%	82
	BH13_0.2-0.3	SE220562.027	%	70 - 130%	80
	BH13_0.7-0.8	SE220562.028	%	70 - 130%	82
	BH14_0.3-0.4	SE220562.029	%	70 - 130%	84
	BH15_0.2-0.3	SE220562.030	%	70 - 130%	80
	BH16_0.3-0.4	SE220562.031	%	70 - 130%	92
	BH17_0.2-0.3	SE220562.032	%	70 - 130%	99
	BH18_0.1-0.2	SE220562.033	%	70 - 130%	96
	BH19_0.2-0.3	SE220562.034	%	70 - 130%	100
	BH20_0.2-0.3	SE220562.035	%	70 - 130%	93
	BH20_1.8-1.9	SE220562.036	%	70 - 130%	93
	BH21_0.2-0.3	SE220562.037	%	70 - 130%	96
	BH22_0.15-0.2	SE220562.038	%	70 - 130%	94
	BH22_0.4-0.5	SE220562.039	%	70 - 130%	94
	BH23_0.2-0.3	SE220562.040	%	70 - 130%	93
	BH24_0.2-0.3	SE220562.041	%	70 - 130%	96
	BH24_0.8-0.9	SE220562.042	%	70 - 130%	92
	BH25M_0.3-0.4	SE220562.043	%	70 - 130%	100
	BH25M_0.8-0.9	SE220562.044	%	70 - 130%	96
	BH25M_1.8-1.9	SE220562.045	%	70 - 130%	110
	BH26_0.3-0.4	SE220562.050	%	70 - 130%	104
	BH27_0.2-0.3	SE220562.051	%	70 - 130%	80
	BH27_0.7-0.8	SE220562.052	%	70 - 130%	82
	BH28_0.2-0.3	SE220562.053	%	70 - 130%	92
	BH29M_0.3-0.4	SE220562.054	%	70 - 130%	92
	BH30_0.2-0.3	SE220562.058	%	70 - 130%	95
	BH30_0.7-0.8	SE220562.059	%	70 - 130%	93
	BH31_0.3-0.4	SE220562.060	%	70 - 130%	94
	BH32_0.3-0.4	SE220562.061	%	70 - 130%	96
	BH32_0.8-0.9	SE220562.062	%	70 - 130%	96

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]JAN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d5-nitrobenzene (Surrogate)	BH33_0.2-0.3	SE220562.063	%	70 - 130%	91
	BH33_0.6-0.7	SE220562.064	%	70 - 130%	92

PCBs in Soil

Method: ME-(AU)-[ENV]JAN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	BH1M_0.1-0.2	SE220562.001	%	60 - 130%	115
	BH2-0.1-0.2	SE220562.008	%	60 - 130%	116
	BH3-0.1-0.2	SE220562.009	%	60 - 130%	123
	BH4_0.1-0.2	SE220562.010	%	60 - 130%	119
	BH5_0.3-0.4	SE220562.012	%	60 - 130%	117
	BH6_0.1-0.2	SE220562.013	%	60 - 130%	115
	BH7_0.1-0.2	SE220562.014	%	60 - 130%	119
	BH8_0.1-0.2	SE220562.015	%	60 - 130%	121
	BH9_0.2-0.3	SE220562.017	%	60 - 130%	127
	BH10_0.2-0.3	SE220562.018	%	60 - 130%	106
	BH11M_0.1-0.2	SE220562.019	%	60 - 130%	127
	BH12_0.1-0.2	SE220562.025	%	60 - 130%	125
	BH13_0.2-0.3	SE220562.027	%	60 - 130%	125
	BH14_0.3-0.4	SE220562.029	%	60 - 130%	110
	BH15_0.2-0.3	SE220562.030	%	60 - 130%	125
	BH16_0.3-0.4	SE220562.031	%	60 - 130%	109
	BH17_0.2-0.3	SE220562.032	%	60 - 130%	110
	BH18_0.1-0.2	SE220562.033	%	60 - 130%	114
	BH19_0.2-0.3	SE220562.034	%	60 - 130%	127
	BH20_0.2-0.3	SE220562.035	%	60 - 130%	112
	BH21_0.2-0.3	SE220562.037	%	60 - 130%	114
	BH22_0.15-0.2	SE220562.038	%	60 - 130%	109
	BH23_0.2-0.3	SE220562.040	%	60 - 130%	113
	BH24_0.2-0.3	SE220562.041	%	60 - 130%	113
	BH25M_0.3-0.4	SE220562.043	%	60 - 130%	113
	BH26_0.3-0.4	SE220562.050	%	60 - 130%	110
	BH27_0.2-0.3	SE220562.051	%	60 - 130%	113
	BH28_0.2-0.3	SE220562.053	%	60 - 130%	108
	BH29M_0.3-0.4	SE220562.054	%	60 - 130%	111
	BH30_0.2-0.3	SE220562.058	%	60 - 130%	111
	BH31_0.3-0.4	SE220562.060	%	60 - 130%	115
	BH32_0.3-0.4	SE220562.061	%	60 - 130%	110
	BH33_0.2-0.3	SE220562.063	%	60 - 130%	110

VOC's in Soil

Method: ME-(AU)-[ENV]JAN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1M_0.1-0.2	SE220562.001	%	60 - 130%	71
	BH1M_0.9-1.0	SE220562.002	%	60 - 130%	104
	BH2-0.1-0.2	SE220562.008	%	60 - 130%	108
	BH3-0.1-0.2	SE220562.009	%	60 - 130%	97
	BH4_0.1-0.2	SE220562.010	%	60 - 130%	98
	BH4_0.6-0.7	SE220562.011	%	60 - 130%	92
	BH5_0.3-0.4	SE220562.012	%	60 - 130%	101
	BH6_0.1-0.2	SE220562.013	%	60 - 130%	65
	BH7_0.1-0.2	SE220562.014	%	60 - 130%	98
	BH8_0.1-0.2	SE220562.015	%	60 - 130%	95
	BH8_0.7-0.8	SE220562.016	%	60 - 130%	105
	BH9_0.2-0.3	SE220562.017	%	60 - 130%	103
	BH10_0.2-0.3	SE220562.018	%	60 - 130%	97
	BH11M_0.1-0.2	SE220562.019	%	60 - 130%	96
	BH12_0.1-0.2	SE220562.025	%	60 - 130%	96
	BH12_0.4-0.5	SE220562.026	%	60 - 130%	96
	BH13_0.2-0.3	SE220562.027	%	60 - 130%	70
	BH13_0.7-0.8	SE220562.028	%	60 - 130%	103
	BH14_0.3-0.4	SE220562.029	%	60 - 130%	93
	BH15_0.2-0.3	SE220562.030	%	60 - 130%	89
	BH16_0.3-0.4	SE220562.031	%	60 - 130%	79

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]JAN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH17_0.2-0.3	SE220562.032	%	60 - 130%	70
	BH18_0.1-0.2	SE220562.033	%	60 - 130%	72
	BH19_0.2-0.3	SE220562.034	%	60 - 130%	65
	BH20_0.2-0.3	SE220562.035	%	60 - 130%	72
	BH20_1.8-1.9	SE220562.036	%	60 - 130%	77
	BH21_0.2-0.3	SE220562.037	%	60 - 130%	76
	BH22_0.15-0.2	SE220562.038	%	60 - 130%	72
	BH22_0.4-0.5	SE220562.039	%	60 - 130%	79
	BH23_0.2-0.3	SE220562.040	%	60 - 130%	77
	BH24_0.2-0.3	SE220562.041	%	60 - 130%	79
	BH24_0.8-0.9	SE220562.042	%	60 - 130%	76
	BH25M_0.3-0.4	SE220562.043	%	60 - 130%	70
	BH25M_0.8-0.9	SE220562.044	%	60 - 130%	91
	BH25M_1.8-1.9	SE220562.045	%	60 - 130%	69
	BH26_0.3-0.4	SE220562.050	%	60 - 130%	69
	BH27_0.2-0.3	SE220562.051	%	60 - 130%	78
	BH27_0.7-0.8	SE220562.052	%	60 - 130%	75
	BH28_0.2-0.3	SE220562.053	%	60 - 130%	76
	BH29M_0.3-0.4	SE220562.054	%	60 - 130%	73
	BH30_0.2-0.3	SE220562.058	%	60 - 130%	74
	BH30_0.7-0.8	SE220562.059	%	60 - 130%	71
	BH31_0.3-0.4	SE220562.060	%	60 - 130%	71
	BH32_0.3-0.4	SE220562.061	%	60 - 130%	72
	BH32_0.8-0.9	SE220562.062	%	60 - 130%	71
	BH33_0.2-0.3	SE220562.063	%	60 - 130%	74
	BH33_0.6-0.7	SE220562.064	%	60 - 130%	75
	QD1	SE220562.065	%	60 - 130%	71
	QTB1	SE220562.067	%	60 - 130%	77
	QTS1	SE220562.068	%	60 - 130%	69
	QD2	SE220562.069	%	60 - 130%	76
d4-1,2-dichloroethane (Surrogate)	BH1M-0.1-0.2	SE220562.001	%	60 - 130%	79
	BH1M-0.9-1.0	SE220562.002	%	60 - 130%	106
	BH2-0.1-0.2	SE220562.008	%	60 - 130%	109
	BH3-0.1-0.2	SE220562.009	%	60 - 130%	96
	BH4_0.1-0.2	SE220562.010	%	60 - 130%	99
	BH4_0.6-0.7	SE220562.011	%	60 - 130%	92
	BH5_0.3-0.4	SE220562.012	%	60 - 130%	101
	BH6_0.1-0.2	SE220562.013	%	60 - 130%	75
	BH7_0.1-0.2	SE220562.014	%	60 - 130%	97
	BH8_0.1-0.2	SE220562.015	%	60 - 130%	99
	BH8_0.7-0.8	SE220562.016	%	60 - 130%	108
	BH9_0.2-0.3	SE220562.017	%	60 - 130%	108
	BH10_0.2-0.3	SE220562.018	%	60 - 130%	101
	BH11M_0.1-0.2	SE220562.019	%	60 - 130%	99
	BH12_0.1-0.2	SE220562.025	%	60 - 130%	100
	BH12_0.4-0.5	SE220562.026	%	60 - 130%	97
	BH13_0.2-0.3	SE220562.027	%	60 - 130%	79
	BH13_0.7-0.8	SE220562.028	%	60 - 130%	107
	BH14_0.3-0.4	SE220562.029	%	60 - 130%	92
	BH15_0.2-0.3	SE220562.030	%	60 - 130%	90
	BH16_0.3-0.4	SE220562.031	%	60 - 130%	82
	BH17_0.2-0.3	SE220562.032	%	60 - 130%	77
	BH18_0.1-0.2	SE220562.033	%	60 - 130%	78
	BH19_0.2-0.3	SE220562.034	%	60 - 130%	73
	BH20_0.2-0.3	SE220562.035	%	60 - 130%	77
	BH20_1.8-1.9	SE220562.036	%	60 - 130%	71
	BH21_0.2-0.3	SE220562.037	%	60 - 130%	82
	BH22_0.15-0.2	SE220562.038	%	60 - 130%	78
	BH22_0.4-0.5	SE220562.039	%	60 - 130%	88
	BH23_0.2-0.3	SE220562.040	%	60 - 130%	84
	BH24_0.2-0.3	SE220562.041	%	60 - 130%	74

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]JAN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d4-1,2-dichloroethane (Surrogate)	BH24_0.8-0.9	SE220562.042	%	60 - 130%	77
	BH25M_0.3-0.4	SE220562.043	%	60 - 130%	82
	BH25M_0.8-0.9	SE220562.044	%	60 - 130%	83
	BH25M_1.8-1.9	SE220562.045	%	60 - 130%	80
	BH26_0.3-0.4	SE220562.050	%	60 - 130%	79
	BH27_0.2-0.3	SE220562.051	%	60 - 130%	89
	BH27_0.7-0.8	SE220562.052	%	60 - 130%	88
	BH28_0.2-0.3	SE220562.053	%	60 - 130%	89
	BH29M_0.3-0.4	SE220562.054	%	60 - 130%	84
	BH30_0.2-0.3	SE220562.058	%	60 - 130%	88
	BH30_0.7-0.8	SE220562.059	%	60 - 130%	83
	BH31_0.3-0.4	SE220562.060	%	60 - 130%	85
	BH32_0.3-0.4	SE220562.061	%	60 - 130%	86
	BH32_0.8-0.9	SE220562.062	%	60 - 130%	84
	BH33_0.2-0.3	SE220562.063	%	60 - 130%	86
	BH33_0.6-0.7	SE220562.064	%	60 - 130%	88
	QD1	SE220562.065	%	60 - 130%	86
	QTB1	SE220562.067	%	60 - 130%	91
	QTS1	SE220562.068	%	60 - 130%	92
	QD2	SE220562.069	%	60 - 130%	90
d8-toluene (Surrogate)	BH11M_0.1-0.2	SE220562.001	%	60 - 130%	81
	BH11M_0.9-1.0	SE220562.002	%	60 - 130%	105
	BH2-0.1-0.2	SE220562.008	%	60 - 130%	108
	BH3-0.1-0.2	SE220562.009	%	60 - 130%	91
	BH4_0.1-0.2	SE220562.010	%	60 - 130%	95
	BH4_0.6-0.7	SE220562.011	%	60 - 130%	90
	BH5_0.3-0.4	SE220562.012	%	60 - 130%	98
	BH6_0.1-0.2	SE220562.013	%	60 - 130%	77
	BH7_0.1-0.2	SE220562.014	%	60 - 130%	96
	BH8_0.1-0.2	SE220562.015	%	60 - 130%	96
	BH8_0.7-0.8	SE220562.016	%	60 - 130%	108
	BH9_0.2-0.3	SE220562.017	%	60 - 130%	105
	BH10_0.2-0.3	SE220562.018	%	60 - 130%	99
	BH11M_0.1-0.2	SE220562.019	%	60 - 130%	95
	BH12_0.1-0.2	SE220562.025	%	60 - 130%	98
	BH12_0.4-0.5	SE220562.026	%	60 - 130%	96
	BH13_0.2-0.3	SE220562.027	%	60 - 130%	83
	BH13_0.7-0.8	SE220562.028	%	60 - 130%	105
	BH14_0.3-0.4	SE220562.029	%	60 - 130%	87
	BH15_0.2-0.3	SE220562.030	%	60 - 130%	85
	BH16_0.3-0.4	SE220562.031	%	60 - 130%	79
	BH17_0.2-0.3	SE220562.032	%	60 - 130%	80
	BH18_0.1-0.2	SE220562.033	%	60 - 130%	76
	BH19_0.2-0.3	SE220562.034	%	60 - 130%	73
	BH20_0.2-0.3	SE220562.035	%	60 - 130%	73
	BH20_1.8-1.9	SE220562.036	%	60 - 130%	75
	BH21_0.2-0.3	SE220562.037	%	60 - 130%	78
	BH22_0.15-0.2	SE220562.038	%	60 - 130%	72
	BH22_0.4-0.5	SE220562.039	%	60 - 130%	86
	BH23_0.2-0.3	SE220562.040	%	60 - 130%	81
	BH24_0.2-0.3	SE220562.041	%	60 - 130%	79
	BH24_0.8-0.9	SE220562.042	%	60 - 130%	72
	BH25M_0.3-0.4	SE220562.043	%	60 - 130%	85
	BH25M_0.8-0.9	SE220562.044	%	60 - 130%	82
	BH25M_1.8-1.9	SE220562.045	%	60 - 130%	82
	BH26_0.3-0.4	SE220562.050	%	60 - 130%	81
	BH27_0.2-0.3	SE220562.051	%	60 - 130%	88
	BH27_0.7-0.8	SE220562.052	%	60 - 130%	86
	BH28_0.2-0.3	SE220562.053	%	60 - 130%	88
	BH29M_0.3-0.4	SE220562.054	%	60 - 130%	88
	BH30_0.2-0.3	SE220562.058	%	60 - 130%	86

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d8-toluene (Surrogate)	BH30_0.7-0.8	SE220562.059	%	60 - 130%	82
	BH31_0.3-0.4	SE220562.060	%	60 - 130%	83
	BH32_0.3-0.4	SE220562.061	%	60 - 130%	85
	BH32_0.8-0.9	SE220562.062	%	60 - 130%	83
	BH33_0.2-0.3	SE220562.063	%	60 - 130%	91
	BH33_0.6-0.7	SE220562.064	%	60 - 130%	86
	QD1	SE220562.065	%	60 - 130%	84
	QTB1	SE220562.067	%	60 - 130%	96
	QTS1	SE220562.068	%	60 - 130%	94
	QD2	SE220562.069	%	60 - 130%	94

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	QR1	SE220562.066	%	40 - 130%	100
d4-1,2-dichloroethane (Surrogate)	QR1	SE220562.066	%	40 - 130%	102
d8-toluene (Surrogate)	QR1	SE220562.066	%	40 - 130%	100

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1M-0.1-0.2	SE220562.001	%	60 - 130%	71
	BH1M-0.9-1.0	SE220562.002	%	60 - 130%	104
	BH2-0.1-0.2	SE220562.008	%	60 - 130%	108
	BH3-0.1-0.2	SE220562.009	%	60 - 130%	97
	BH4_0.1-0.2	SE220562.010	%	60 - 130%	98
	BH4_0.6-0.7	SE220562.011	%	60 - 130%	92
	BH5_0.3-0.4	SE220562.012	%	60 - 130%	101
	BH6_0.1-0.2	SE220562.013	%	60 - 130%	65
	BH7_0.1-0.2	SE220562.014	%	60 - 130%	98
	BH8_0.1-0.2	SE220562.015	%	60 - 130%	95
	BH8_0.7-0.8	SE220562.016	%	60 - 130%	105
	BH9_0.2-0.3	SE220562.017	%	60 - 130%	103
	BH10_0.2-0.3	SE220562.018	%	60 - 130%	97
	BH11M_0.1-0.2	SE220562.019	%	60 - 130%	96
	BH12_0.1-0.2	SE220562.025	%	60 - 130%	96
	BH12_0.4-0.5	SE220562.026	%	60 - 130%	96
	BH13_0.2-0.3	SE220562.027	%	60 - 130%	70
	BH13_0.7-0.8	SE220562.028	%	60 - 130%	103
	BH14_0.3-0.4	SE220562.029	%	60 - 130%	93
	BH15_0.2-0.3	SE220562.030	%	60 - 130%	89
	BH16_0.3-0.4	SE220562.031	%	60 - 130%	79
	BH17_0.2-0.3	SE220562.032	%	60 - 130%	70
	BH18_0.1-0.2	SE220562.033	%	60 - 130%	72
	BH19_0.2-0.3	SE220562.034	%	60 - 130%	65
	BH20_0.2-0.3	SE220562.035	%	60 - 130%	72
	BH20_1.8-1.9	SE220562.036	%	60 - 130%	77
	BH21_0.2-0.3	SE220562.037	%	60 - 130%	76
	BH22_0.15-0.2	SE220562.038	%	60 - 130%	72
	BH22_0.4-0.5	SE220562.039	%	60 - 130%	79
	BH23_0.2-0.3	SE220562.040	%	60 - 130%	77
	BH24_0.2-0.3	SE220562.041	%	60 - 130%	79
	BH24_0.8-0.9	SE220562.042	%	60 - 130%	76
	BH25M_0.3-0.4	SE220562.043	%	60 - 130%	70
	BH25M_0.8-0.9	SE220562.044	%	60 - 130%	91
	BH25M_1.8-1.9	SE220562.045	%	60 - 130%	69
	BH26_0.3-0.4	SE220562.050	%	60 - 130%	69
	BH27_0.2-0.3	SE220562.051	%	60 - 130%	78
	BH27_0.7-0.8	SE220562.052	%	60 - 130%	75
	BH28_0.2-0.3	SE220562.053	%	60 - 130%	76
	BH29M_0.3-0.4	SE220562.054	%	60 - 130%	73
	BH30_0.2-0.3	SE220562.058	%	60 - 130%	74
	BH30_0.7-0.8	SE220562.059	%	60 - 130%	71
	BH31_0.3-0.4	SE220562.060	%	60 - 130%	71

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Volatile Petroleum Hydrocarbons in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH32_0.3-0.4	SE220562.061	%	60 - 130%	72
	BH32_0.8-0.9	SE220562.062	%	60 - 130%	71
	BH33_0.2-0.3	SE220562.063	%	60 - 130%	74
	BH33_0.6-0.7	SE220562.064	%	60 - 130%	75
	QD1	SE220562.065	%	60 - 130%	71
	QD2	SE220562.069	%	60 - 130%	76
d4-1,2-dichloroethane (Surrogate)	BH1M-0.1-0.2	SE220562.001	%	60 - 130%	79
	BH1M-0.9-1.0	SE220562.002	%	60 - 130%	106
	BH2-0.1-0.2	SE220562.008	%	60 - 130%	109
	BH3-0.1-0.2	SE220562.009	%	60 - 130%	96
	BH4_0.1-0.2	SE220562.010	%	60 - 130%	99
	BH4_0.6-0.7	SE220562.011	%	60 - 130%	92
	BH5_0.3-0.4	SE220562.012	%	60 - 130%	101
	BH6_0.1-0.2	SE220562.013	%	60 - 130%	75
	BH7_0.1-0.2	SE220562.014	%	60 - 130%	97
	BH8_0.1-0.2	SE220562.015	%	60 - 130%	99
	BH8_0.7-0.8	SE220562.016	%	60 - 130%	108
	BH9_0.2-0.3	SE220562.017	%	60 - 130%	108
	BH10_0.2-0.3	SE220562.018	%	60 - 130%	101
	BH11M_0.1-0.2	SE220562.019	%	60 - 130%	99
	BH12_0.1-0.2	SE220562.025	%	60 - 130%	100
	BH12_0.4-0.5	SE220562.026	%	60 - 130%	97
	BH13_0.2-0.3	SE220562.027	%	60 - 130%	79
	BH13_0.7-0.8	SE220562.028	%	60 - 130%	107
	BH14_0.3-0.4	SE220562.029	%	60 - 130%	92
	BH15_0.2-0.3	SE220562.030	%	60 - 130%	90
	BH16_0.3-0.4	SE220562.031	%	60 - 130%	82
	BH17_0.2-0.3	SE220562.032	%	60 - 130%	77
	BH18_0.1-0.2	SE220562.033	%	60 - 130%	78
	BH19_0.2-0.3	SE220562.034	%	60 - 130%	73
	BH20_0.2-0.3	SE220562.035	%	60 - 130%	77
	BH20_1.8-1.9	SE220562.036	%	60 - 130%	71
	BH21_0.2-0.3	SE220562.037	%	60 - 130%	82
	BH22_0.15-0.2	SE220562.038	%	60 - 130%	78
	BH22_0.4-0.5	SE220562.039	%	60 - 130%	88
	BH23_0.2-0.3	SE220562.040	%	60 - 130%	84
	BH24_0.2-0.3	SE220562.041	%	60 - 130%	74
	BH24_0.8-0.9	SE220562.042	%	60 - 130%	77
	BH25M_0.3-0.4	SE220562.043	%	60 - 130%	82
	BH25M_0.8-0.9	SE220562.044	%	60 - 130%	83
	BH25M_1.8-1.9	SE220562.045	%	60 - 130%	80
	BH26_0.3-0.4	SE220562.050	%	60 - 130%	79
	BH27_0.2-0.3	SE220562.051	%	60 - 130%	89
	BH27_0.7-0.8	SE220562.052	%	60 - 130%	88
	BH28_0.2-0.3	SE220562.053	%	60 - 130%	89
	BH29M_0.3-0.4	SE220562.054	%	60 - 130%	84
	BH30_0.2-0.3	SE220562.058	%	60 - 130%	88
	BH30_0.7-0.8	SE220562.059	%	60 - 130%	83
	BH31_0.3-0.4	SE220562.060	%	60 - 130%	85
	BH32_0.3-0.4	SE220562.061	%	60 - 130%	86
	BH32_0.8-0.9	SE220562.062	%	60 - 130%	84
	BH33_0.2-0.3	SE220562.063	%	60 - 130%	86
	BH33_0.6-0.7	SE220562.064	%	60 - 130%	88
	QD1	SE220562.065	%	60 - 130%	86
	QD2	SE220562.069	%	60 - 130%	90
d8-toluene (Surrogate)	BH1M-0.1-0.2	SE220562.001	%	60 - 130%	81
	BH1M-0.9-1.0	SE220562.002	%	60 - 130%	105
	BH2-0.1-0.2	SE220562.008	%	60 - 130%	108
	BH3-0.1-0.2	SE220562.009	%	60 - 130%	91
	BH4_0.1-0.2	SE220562.010	%	60 - 130%	95
	BH4_0.6-0.7	SE220562.011	%	60 - 130%	90

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Volatile Petroleum Hydrocarbons in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d8-toluene (Surrogate)	BH5_0.3-0.4	SE220562.012	%	60 - 130%	98
	BH6_0.1-0.2	SE220562.013	%	60 - 130%	77
	BH7_0.1-0.2	SE220562.014	%	60 - 130%	96
	BH8_0.1-0.2	SE220562.015	%	60 - 130%	96
	BH8_0.7-0.8	SE220562.016	%	60 - 130%	108
	BH9_0.2-0.3	SE220562.017	%	60 - 130%	105
	BH10_0.2-0.3	SE220562.018	%	60 - 130%	99
	BH11M_0.1-0.2	SE220562.019	%	60 - 130%	95
	BH12_0.1-0.2	SE220562.025	%	60 - 130%	98
	BH12_0.4-0.5	SE220562.026	%	60 - 130%	96
	BH13_0.2-0.3	SE220562.027	%	60 - 130%	83
	BH13_0.7-0.8	SE220562.028	%	60 - 130%	105
	BH14_0.3-0.4	SE220562.029	%	60 - 130%	87
	BH15_0.2-0.3	SE220562.030	%	60 - 130%	85
	BH16_0.3-0.4	SE220562.031	%	60 - 130%	79
	BH17_0.2-0.3	SE220562.032	%	60 - 130%	80
	BH18_0.1-0.2	SE220562.033	%	60 - 130%	76
	BH19_0.2-0.3	SE220562.034	%	60 - 130%	73
	BH20_0.2-0.3	SE220562.035	%	60 - 130%	73
	BH20_1.8-1.9	SE220562.036	%	60 - 130%	75
	BH21_0.2-0.3	SE220562.037	%	60 - 130%	78
	BH22_0.15-0.2	SE220562.038	%	60 - 130%	72
	BH22_0.4-0.5	SE220562.039	%	60 - 130%	86
	BH23_0.2-0.3	SE220562.040	%	60 - 130%	81
	BH24_0.2-0.3	SE220562.041	%	60 - 130%	79
	BH24_0.8-0.9	SE220562.042	%	60 - 130%	72
	BH25M_0.3-0.4	SE220562.043	%	60 - 130%	85
	BH25M_0.8-0.9	SE220562.044	%	60 - 130%	82
	BH25M_1.8-1.9	SE220562.045	%	60 - 130%	82
	BH26_0.3-0.4	SE220562.050	%	60 - 130%	81
	BH27_0.2-0.3	SE220562.051	%	60 - 130%	88
	BH27_0.7-0.8	SE220562.052	%	60 - 130%	86
	BH28_0.2-0.3	SE220562.053	%	60 - 130%	88
	BH29M_0.3-0.4	SE220562.054	%	60 - 130%	88
	BH30_0.2-0.3	SE220562.058	%	60 - 130%	86
	BH30_0.7-0.8	SE220562.059	%	60 - 130%	82
	BH31_0.3-0.4	SE220562.060	%	60 - 130%	83
	BH32_0.3-0.4	SE220562.061	%	60 - 130%	85
	BH32_0.8-0.9	SE220562.062	%	60 - 130%	83
	BH33_0.2-0.3	SE220562.063	%	60 - 130%	91
	BH33_0.6-0.7	SE220562.064	%	60 - 130%	86
	QD1	SE220562.065	%	60 - 130%	84
	QD2	SE220562.069	%	60 - 130%	94

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	QR1	SE220562.066	%	40 - 130%	100
d4-1,2-dichloroethane (Surrogate)	QR1	SE220562.066	%	60 - 130%	102
d8-toluene (Surrogate)	QR1	SE220562.066	%	40 - 130%	100

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Alkalinity in Soil

Method: ME-(AU)-[ENV]AN002/AN135

Sample Number	Parameter	Units	LOR	Result
LB226939.001	Total Alkalinity as CaCO ₃ in Soil*	mg/kg	25	<25

Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-[ENV]AN106

Sample Number	Parameter	Units	LOR	Result
LB226920.001	Conductivity of Extract (1:5 as received)	µS/cm	1	<1
	Salinity (by calculation)*	mg/kg	5	<5

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR)

Method: ME-(AU)-[ENV]AN122

Sample Number	Parameter	Units	LOR	Result
LB226827.001	Exchangeable Sodium, Na	mg/kg	2	0
	Exchangeable Potassium, K	mg/kg	2	0
	Exchangeable Calcium, Ca	mg/kg	2	0
	Exchangeable Magnesium, Mg	mg/kg	2	0

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Parth)/AN312

Sample Number	Parameter	Units	LOR	Result
LB226528.001	Mercury	mg/L	0.0001	<0.0001

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result
LB226748.001	Mercury	mg/kg	0.05	<0.05
LB226749.001	Mercury	mg/kg	0.05	<0.05
LB226750.001	Mercury	mg/kg	0.05	<0.05
LB226927.001	Mercury	mg/kg	0.05	<0.05

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result
LB226676.001	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
	Alpha BHC	mg/kg	0.1	<0.1
	Lindane	mg/kg	0.1	<0.1
	Heptachlor	mg/kg	0.1	<0.1
	Aldrin	mg/kg	0.1	<0.1
	Beta BHC	mg/kg	0.1	<0.1
	Delta BHC	mg/kg	0.1	<0.1
	Heptachlor epoxide	mg/kg	0.1	<0.1
	Alpha Endosulfan	mg/kg	0.2	<0.2
	Gamma Chlordane	mg/kg	0.1	<0.1
	Alpha Chlordane	mg/kg	0.1	<0.1
	p,p'-DDE	mg/kg	0.1	<0.1
	Dieldrin	mg/kg	0.2	<0.2
	Endrin	mg/kg	0.2	<0.2
	Beta Endosulfan	mg/kg	0.2	<0.2
	p,p'-DDD	mg/kg	0.1	<0.1
	p,p'-DDT	mg/kg	0.1	<0.1
	Endosulfan sulphate	mg/kg	0.1	<0.1
	Endrin Aldehyde	mg/kg	0.1	<0.1
	Methoxychlor	mg/kg	0.1	<0.1
	Endrin Ketone	mg/kg	0.1	<0.1
	Isodrin	mg/kg	0.1	<0.1
	Mirex	mg/kg	0.1	<0.1
LB226677.001	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	113
	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
	Alpha BHC	mg/kg	0.1	<0.1
	Lindane	mg/kg	0.1	<0.1
	Heptachlor	mg/kg	0.1	<0.1
	Aldrin	mg/kg	0.1	<0.1
	Beta BHC	mg/kg	0.1	<0.1
	Delta BHC	mg/kg	0.1	<0.1

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

OC Pesticides in Soil (continued)

Method: ME-(AU)-ENVJAN420

Sample Number	Parameter	Units	LOR	Result
LB226677.001	Heptachlor epoxide	mg/kg	0.1	<0.1
	Alpha Endosulfan	mg/kg	0.2	<0.2
	Gamma Chlordane	mg/kg	0.1	<0.1
	Alpha Chlordane	mg/kg	0.1	<0.1
	p,p'-DDE	mg/kg	0.1	<0.1
	Dieldrin	mg/kg	0.2	<0.2
	Endrin	mg/kg	0.2	<0.2
	Beta Endosulfan	mg/kg	0.2	<0.2
	p,p'-DDD	mg/kg	0.1	<0.1
	p,p'-DDT	mg/kg	0.1	<0.1
	Endosulfan sulphate	mg/kg	0.1	<0.1
	Endrin Aldehyde	mg/kg	0.1	<0.1
	Methoxychlor	mg/kg	0.1	<0.1
	Endrin Ketone	mg/kg	0.1	<0.1
	Isodrin	mg/kg	0.1	<0.1
	Mirex	mg/kg	0.1	<0.1
Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	100
LB226678.001	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
	Alpha BHC	mg/kg	0.1	<0.1
	Lindane	mg/kg	0.1	<0.1
	Heptachlor	mg/kg	0.1	<0.1
	Aldrin	mg/kg	0.1	<0.1
	Beta BHC	mg/kg	0.1	<0.1
	Delta BHC	mg/kg	0.1	<0.1
	Heptachlor epoxide	mg/kg	0.1	<0.1
	Alpha Endosulfan	mg/kg	0.2	<0.2
	Gamma Chlordane	mg/kg	0.1	<0.1
	Alpha Chlordane	mg/kg	0.1	<0.1
	p,p'-DDE	mg/kg	0.1	<0.1
	Dieldrin	mg/kg	0.2	<0.2
	Endrin	mg/kg	0.2	<0.2
	Beta Endosulfan	mg/kg	0.2	<0.2
	p,p'-DDD	mg/kg	0.1	<0.1
	p,p'-DDT	mg/kg	0.1	<0.1
	Endosulfan sulphate	mg/kg	0.1	<0.1
	Endrin Aldehyde	mg/kg	0.1	<0.1
	Methoxychlor	mg/kg	0.1	<0.1
	Endrin Ketone	mg/kg	0.1	<0.1
	Isodrin	mg/kg	0.1	<0.1
	Mirex	mg/kg	0.1	<0.1
Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	105

OP Pesticides in Soil

Method: ME-(AU)-ENVJAN420

Sample Number	Parameter	Units	LOR	Result
LB226676.001	Dichlorvos	mg/kg	0.5	<0.5
	Dimethoate	mg/kg	0.5	<0.5
	Diazinon (Dimpylate)	mg/kg	0.5	<0.5
	Fenitrothion	mg/kg	0.2	<0.2
	Malathion	mg/kg	0.2	<0.2
	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2
	Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2
	Bromophos Ethyl	mg/kg	0.2	<0.2
	Methidathion	mg/kg	0.5	<0.5
	Ethion	mg/kg	0.2	<0.2
	Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2
	2-fluorobiphenyl (Surrogate)	%	-	82
	d14-p-terphenyl (Surrogate)	%	-	90
LB226677.001	Dichlorvos	mg/kg	0.5	<0.5
	Dimethoate	mg/kg	0.5	<0.5
	Diazinon (Dimpylate)	mg/kg	0.5	<0.5
	Fenitrothion	mg/kg	0.2	<0.2

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

OP Pesticides in Soil (continued)

Method: ME-(AU)-ENVJAN420

Sample Number	Parameter	Units	LOR	Result
LB226677.001	Malathion	mg/kg	0.2	<0.2
	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2
	Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2
	Bromophos Ethyl	mg/kg	0.2	<0.2
	Methidathion	mg/kg	0.5	<0.5
	Ethion	mg/kg	0.2	<0.2
	Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2
	2-fluorobiphenyl (Surrogate)	%	-	91
	d14-p-terphenyl (Surrogate)	%	-	91
LB226678.001	Dichlorvos	mg/kg	0.5	<0.5
	Dimethoate	mg/kg	0.5	<0.5
	Diazinon (Dimpylate)	mg/kg	0.5	<0.5
	Fenitrothion	mg/kg	0.2	<0.2
	Malathion	mg/kg	0.2	<0.2
	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2
	Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2
	Bromophos Ethyl	mg/kg	0.2	<0.2
	Methidathion	mg/kg	0.5	<0.5
	Ethion	mg/kg	0.2	<0.2
Surrogates	Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2
	2-fluorobiphenyl (Surrogate)	%	-	92
	d14-p-terphenyl (Surrogate)	%	-	86

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-ENVJAN420

Sample Number	Parameter	Units	LOR	Result
LB226676.001	Naphthalene	mg/kg	0.1	<0.1
	2-methylnaphthalene	mg/kg	0.1	<0.1
	1-methylnaphthalene	mg/kg	0.1	<0.1
	Acenaphthylene	mg/kg	0.1	<0.1
	Acenaphthene	mg/kg	0.1	<0.1
	Fluorene	mg/kg	0.1	<0.1
	Phenanthrene	mg/kg	0.1	<0.1
	Anthracene	mg/kg	0.1	<0.1
	Fluoranthene	mg/kg	0.1	<0.1
	Pyrene	mg/kg	0.1	<0.1
	Benzo(a)anthracene	mg/kg	0.1	<0.1
	Chrysene	mg/kg	0.1	<0.1
	Benzo(a)pyrene	mg/kg	0.1	<0.1
	Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1
	Dibenzo(ah)anthracene	mg/kg	0.1	<0.1
	Benzo(ghi)perylene	mg/kg	0.1	<0.1
	Total PAH (18)	mg/kg	0.8	<0.8
Surrogates	d5-nitrobenzene (Surrogate)	%	-	88
	2-fluorobiphenyl (Surrogate)	%	-	82
	d14-p-terphenyl (Surrogate)	%	-	90
LB226677.001	Naphthalene	mg/kg	0.1	<0.1
	2-methylnaphthalene	mg/kg	0.1	<0.1
	1-methylnaphthalene	mg/kg	0.1	<0.1
	Acenaphthylene	mg/kg	0.1	<0.1
	Acenaphthene	mg/kg	0.1	<0.1
	Fluorene	mg/kg	0.1	<0.1
	Phenanthrene	mg/kg	0.1	<0.1
	Anthracene	mg/kg	0.1	<0.1
	Fluoranthene	mg/kg	0.1	<0.1
	Pyrene	mg/kg	0.1	<0.1
	Benzo(a)anthracene	mg/kg	0.1	<0.1
	Chrysene	mg/kg	0.1	<0.1
	Benzo(a)pyrene	mg/kg	0.1	<0.1
	Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1
	Dibenzo(ah)anthracene	mg/kg	0.1	<0.1
	Benzo(ghi)perylene	mg/kg	0.1	<0.1

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-ENVJAN420

Sample Number	Parameter	Units	LOR	Result
LB226677.001	Total PAH (18)	mg/kg	0.8	<0.8
	Surrogates			
	d5-nitrobenzene (Surrogate)	%	-	105
	2-fluorobiphenyl (Surrogate)	%	-	91
LB226678.001	d14-p-terphenyl (Surrogate)	%	-	91
	Naphthalene	mg/kg	0.1	<0.1
	2-methylnaphthalene	mg/kg	0.1	<0.1
	1-methylnaphthalene	mg/kg	0.1	<0.1
	Acenaphthylene	mg/kg	0.1	<0.1
	Acenaphthene	mg/kg	0.1	<0.1
	Fluorene	mg/kg	0.1	<0.1
	Phenanthrene	mg/kg	0.1	<0.1
	Anthracene	mg/kg	0.1	<0.1
	Fluoranthene	mg/kg	0.1	<0.1
	Pyrene	mg/kg	0.1	<0.1
	Benzo(a)anthracene	mg/kg	0.1	<0.1
	Chrysene	mg/kg	0.1	<0.1
	Benzo(a)pyrene	mg/kg	0.1	<0.1
	Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1
	Dibenzo(ah)anthracene	mg/kg	0.1	<0.1
	Benzo(ghi)perylene	mg/kg	0.1	<0.1
	Total PAH (18)	mg/kg	0.8	<0.8
	Surrogates			
	d5-nitrobenzene (Surrogate)	%	-	84
	2-fluorobiphenyl (Surrogate)	%	-	92
	d14-p-terphenyl (Surrogate)	%	-	86

PCBs in Soil

Method: ME-(AU)-ENVJAN420

Sample Number	Parameter	Units	LOR	Result
LB226676.001	Arochlor 1016	mg/kg	0.2	<0.2
	Arochlor 1221	mg/kg	0.2	<0.2
	Arochlor 1232	mg/kg	0.2	<0.2
	Arochlor 1242	mg/kg	0.2	<0.2
	Arochlor 1248	mg/kg	0.2	<0.2
	Arochlor 1254	mg/kg	0.2	<0.2
	Arochlor 1260	mg/kg	0.2	<0.2
	Arochlor 1262	mg/kg	0.2	<0.2
	Arochlor 1268	mg/kg	0.2	<0.2
	Total PCBs (Arochlors)	mg/kg	1	<1
	Surrogates			
	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	113
LB226677.001	Arochlor 1016	mg/kg	0.2	<0.2
	Arochlor 1221	mg/kg	0.2	<0.2
	Arochlor 1232	mg/kg	0.2	<0.2
	Arochlor 1242	mg/kg	0.2	<0.2
	Arochlor 1248	mg/kg	0.2	<0.2
	Arochlor 1254	mg/kg	0.2	<0.2
	Arochlor 1260	mg/kg	0.2	<0.2
	Arochlor 1262	mg/kg	0.2	<0.2
	Arochlor 1268	mg/kg	0.2	<0.2
	Total PCBs (Arochlors)	mg/kg	1	<1
	Surrogates			
	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	100
LB226678.001	Arochlor 1016	mg/kg	0.2	<0.2
	Arochlor 1221	mg/kg	0.2	<0.2
	Arochlor 1232	mg/kg	0.2	<0.2
	Arochlor 1242	mg/kg	0.2	<0.2
	Arochlor 1248	mg/kg	0.2	<0.2
	Arochlor 1254	mg/kg	0.2	<0.2
	Arochlor 1260	mg/kg	0.2	<0.2
	Arochlor 1262	mg/kg	0.2	<0.2
	Arochlor 1268	mg/kg	0.2	<0.2
	Total PCBs (Arochlors)	mg/kg	1	<1
	Surrogates			
	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	105

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

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Soluble Anions (1:5) in Soil/Solids by Ion Chromatography

Method: ME-(AU)-[ENV]AN245

Sample Number	Parameter	Units	LOR	Result
LB226917.001	Chloride	mg/kg	0.25	<0.25
	Sulfate	mg/kg	5	<5.0

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN289

Sample Number	Parameter	Units	LOR	Result
LB226821.001	Total Phenols	mg/kg	0.1	<0.1

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result
LB226738.001	Arsenic, As	mg/kg	1	<1
	Calcium, Ca	mg/kg	5	<5
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.5	<0.5
	Copper, Cu	mg/kg	0.5	<0.5
	Potassium, K	mg/kg	10	<10
	Magnesium, Mg	mg/kg	5	<5
	Sodium, Na	mg/kg	5	<5
	Nickel, Ni	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Zinc, Zn	mg/kg	2	<2.0
LB226739.001	Arsenic, As	mg/kg	1	<1
	Calcium, Ca	mg/kg	5	<5
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.5	<0.5
	Copper, Cu	mg/kg	0.5	<0.5
	Potassium, K	mg/kg	10	<10
	Magnesium, Mg	mg/kg	5	<5
	Sodium, Na	mg/kg	5	<5
	Nickel, Ni	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Zinc, Zn	mg/kg	2	<2.0
LB226740.001	Arsenic, As	mg/kg	1	<1
	Calcium, Ca	mg/kg	5	<5
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.5	<0.5
	Copper, Cu	mg/kg	0.5	<0.5
	Potassium, K	mg/kg	10	<10
	Magnesium, Mg	mg/kg	5	<5
	Sodium, Na	mg/kg	5	<5
	Nickel, Ni	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Zinc, Zn	mg/kg	2	<2.0
LB226926.001	Arsenic, As	mg/kg	1	<1
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.5	<0.5
	Copper, Cu	mg/kg	0.5	<0.5
	Nickel, Ni	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Zinc, Zn	mg/kg	2	<2.0

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result
LB226527.001	Arsenic, As	µg/L	1	<1
	Cadmium, Cd	µg/L	0.1	<0.1
	Chromium, Cr	µg/L	1	<1
	Copper, Cu	µg/L	1	<1
	Lead, Pb	µg/L	1	<1
	Nickel, Ni	µg/L	1	<1
	Zinc, Zn	µg/L	5	<5

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Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter	Units	LOR	Result
LB226676.001	TRH C10-C14	mg/kg	20	<20
	TRH C15-C28	mg/kg	45	<45
	TRH C29-C36	mg/kg	45	<45
	TRH C37-C40	mg/kg	100	<100
	TRH C10-C36 Total	mg/kg	110	<110
LB226677.001	TRH C10-C14	mg/kg	20	<20
	TRH C15-C28	mg/kg	45	<45
	TRH C29-C36	mg/kg	45	<45
	TRH C37-C40	mg/kg	100	<100
	TRH C10-C36 Total	mg/kg	110	<110
LB226678.001	TRH C10-C14	mg/kg	20	<20
	TRH C15-C28	mg/kg	45	<45
	TRH C29-C36	mg/kg	45	<45
	TRH C37-C40	mg/kg	100	<100
	TRH C10-C36 Total	mg/kg	110	<110

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter	Units	LOR	Result
LB226700.001	TRH C10-C14	µg/L	50	<50
	TRH C15-C28	µg/L	200	<200
	TRH C29-C36	µg/L	200	<200
	TRH C37-C40	µg/L	200	<200

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	
LB226669.001	Fumigants	2,2-dichloropropane	mg/kg	0.1	<0.1	
		1,2-dichloropropane	mg/kg	0.1	<0.1	
		cis-1,3-dichloropropene	mg/kg	0.1	<0.1	
		trans-1,3-dichloropropene	mg/kg	0.1	<0.1	
		1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	
	Halogenated Aliphatics	Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	
		Chloromethane	mg/kg	1	<1	
		Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	
		Bromomethane	mg/kg	1	<1	
		Chloroethane	mg/kg	1	<1	
		Trichlorofluoromethane	mg/kg	1	<1	
		Iodomethane	mg/kg	5	<5	
		1,1-dichloroethene	mg/kg	0.1	<0.1	
		Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	
		Allyl chloride	mg/kg	0.1	<0.1	
		trans-1,2-dichloroethene	mg/kg	0.1	<0.1	
		1,1-dichloroethane	mg/kg	0.1	<0.1	
		cis-1,2-dichloroethene	mg/kg	0.1	<0.1	
		Bromochloromethane	mg/kg	0.1	<0.1	
		1,2-dichloroethane	mg/kg	0.1	<0.1	
		1,1,1-trichloroethane	mg/kg	0.1	<0.1	
		1,1-dichloropropene	mg/kg	0.1	<0.1	
		Carbon tetrachloride	mg/kg	0.1	<0.1	
		Dibromomethane	mg/kg	0.1	<0.1	
		Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	
		1,1,2-trichloroethane	mg/kg	0.1	<0.1	
		1,3-dichloropropane	mg/kg	0.1	<0.1	
		Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	
		1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	
		cis-1,4-dichloro-2-butene	mg/kg	1	<1	
		1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	
		1,2,3-trichloropropane	mg/kg	0.1	<0.1	
		trans-1,4-dichloro-2-butene	mg/kg	1	<1	
		1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	
		Hexachlorobutadiene	mg/kg	0.1	<0.1	
		Halogenated Aromatics	Chlorobenzene	mg/kg	0.1	<0.1
			Bromobenzene	mg/kg	0.1	<0.1

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOC's in Soil (continued)

Method: ME-(AU)-ENVJAN433

Sample Number		Parameter	Units	LOR	Result
LB226669.001	Halogenated Aromatics	2-chlorotoluene	mg/kg	0.1	<0.1
		4-chlorotoluene	mg/kg	0.1	<0.1
		1,3-dichlorobenzene	mg/kg	0.1	<0.1
		1,4-dichlorobenzene	mg/kg	0.1	<0.1
		1,2-dichlorobenzene	mg/kg	0.1	<0.1
		1,2,4-trichlorobenzene	mg/kg	0.1	<0.1
	Monocyclic Aromatic Hydrocarbons	1,2,3-trichlorobenzene	mg/kg	0.1	<0.1
		Benzene	mg/kg	0.1	<0.1
		Toluene	mg/kg	0.1	<0.1
		Ethylbenzene	mg/kg	0.1	<0.1
		m/p-xylene	mg/kg	0.2	<0.2
		o-xylene	mg/kg	0.1	<0.1
		Styrene (Vinyl benzene)	mg/kg	0.1	<0.1
		Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1
		n-propylbenzene	mg/kg	0.1	<0.1
		1,3,5-trimethylbenzene	mg/kg	0.1	<0.1
		tert-butylbenzene	mg/kg	0.1	<0.1
		1,2,4-trimethylbenzene	mg/kg	0.1	<0.1
		sec-butylbenzene	mg/kg	0.1	<0.1
		p-isopropyltoluene	mg/kg	0.1	<0.1
		n-butylbenzene	mg/kg	0.1	<0.1
	Nitrogenous Compounds	Acrylonitrile	mg/kg	0.1	<0.1
		2-nitropropane	mg/kg	10	<10
	Oxygenated Compounds	Acetone (2-propanone)	mg/kg	10	<10
		MIBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1
		Vinyl acetate	mg/kg	10	<10
		MEK (2-butanone)	mg/kg	10	<10
		MIBK (4-methyl-2-pentanone)	mg/kg	1	<1
	Polycyclic VOCs	2-hexanone (MBK)	mg/kg	5	<5
		Naphthalene	mg/kg	0.1	<0.1
	Sulphonated	Carbon disulfide	mg/kg	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	111
		d8-toluene (Surrogate)	%	-	109
		Bromofluorobenzene (Surrogate)	%	-	105
	Totals	Total BTEX	mg/kg	0.6	<0.6
		Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
		Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
	Trihalomethanes	Chloroform	mg/kg	0.1	<0.1
		Bromodichloromethane	mg/kg	0.1	<0.1
		Chlorodibromomethane	mg/kg	0.1	<0.1
		Bromoform	mg/kg	0.1	<0.1
LB226681.001	Fumigants	2,2-dichloropropane	mg/kg	0.1	<0.1
		1,2-dichloropropane	mg/kg	0.1	<0.1
		cis-1,3-dichloropropene	mg/kg	0.1	<0.1
		trans-1,3-dichloropropene	mg/kg	0.1	<0.1
		1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1
	Halogenated Aliphatics	Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1
		Chloromethane	mg/kg	1	<1
		Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1
		Bromomethane	mg/kg	1	<1
		Chloroethane	mg/kg	1	<1
		Trichlorofluoromethane	mg/kg	1	<1
		Iodomethane	mg/kg	5	<5
		1,1-dichloroethene	mg/kg	0.1	<0.1
		Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5
		Allyl chloride	mg/kg	0.1	<0.1
		trans-1,2-dichloroethene	mg/kg	0.1	<0.1
		1,1-dichloroethane	mg/kg	0.1	<0.1
		cis-1,2-dichloroethene	mg/kg	0.1	<0.1
		Bromochloromethane	mg/kg	0.1	<0.1
		1,2-dichloroethane	mg/kg	0.1	<0.1

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOC's in Soil (continued)

Method: ME-(AU)-ENVJAN433

Sample Number		Parameter	Units	LOR	Result
LB226681.001	Halogenated Aliphatics	1,1,1-trichloroethane	mg/kg	0.1	<0.1
		1,1-dichloropropene	mg/kg	0.1	<0.1
		Carbon tetrachloride	mg/kg	0.1	<0.1
		Dibromomethane	mg/kg	0.1	<0.1
		Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1
		1,1,2-trichloroethane	mg/kg	0.1	<0.1
		1,3-dichloropropane	mg/kg	0.1	<0.1
		Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1
		1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1
		cis-1,4-dichloro-2-butene	mg/kg	1	<1
		1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1
		1,2,3-trichloropropane	mg/kg	0.1	<0.1
		trans-1,4-dichloro-2-butene	mg/kg	1	<1
		1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1
		Hexachlorobutadiene	mg/kg	0.1	<0.1
	Halogenated Aromatics	Chlorobenzene	mg/kg	0.1	<0.1
		Bromobenzene	mg/kg	0.1	<0.1
		2-chlorotoluene	mg/kg	0.1	<0.1
		4-chlorotoluene	mg/kg	0.1	<0.1
		1,3-dichlorobenzene	mg/kg	0.1	<0.1
		1,4-dichlorobenzene	mg/kg	0.1	<0.1
		1,2-dichlorobenzene	mg/kg	0.1	<0.1
		1,2,4-trichlorobenzene	mg/kg	0.1	<0.1
		1,2,3-trichlorobenzene	mg/kg	0.1	<0.1
	Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.1	<0.1
		Toluene	mg/kg	0.1	<0.1
		Ethylbenzene	mg/kg	0.1	<0.1
		m/p-xylene	mg/kg	0.2	<0.2
		o-xylene	mg/kg	0.1	<0.1
		Styrene (Vinyl benzene)	mg/kg	0.1	<0.1
		Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1
		n-propylbenzene	mg/kg	0.1	<0.1
		1,3,5-trimethylbenzene	mg/kg	0.1	<0.1
		tert-butylbenzene	mg/kg	0.1	<0.1
		1,2,4-trimethylbenzene	mg/kg	0.1	<0.1
		sec-butylbenzene	mg/kg	0.1	<0.1
		p-isopropyltoluene	mg/kg	0.1	<0.1
		n-butylbenzene	mg/kg	0.1	<0.1
	Nitrogenous Compounds	Acrylonitrile	mg/kg	0.1	<0.1
		2-nitropropane	mg/kg	10	<10
	Oxygenated Compounds	Acetone (2-propanone)	mg/kg	10	<10
		MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1
		Vinyl acetate	mg/kg	10	<10
		MEK (2-butanone)	mg/kg	10	<10
		MIBK (4-methyl-2-pentanone)	mg/kg	1	<1
	Polycyclic VOCs	2-hexanone (MBK)	mg/kg	5	<5
		Naphthalene	mg/kg	0.1	<0.1
	Sulphonated	Carbon disulfide	mg/kg	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	93
		d8-toluene (Surrogate)	%	-	90
		Bromofluorobenzene (Surrogate)	%	-	87
	Totals	Total BTEX	mg/kg	0.6	<0.6
		Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
		Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
	Trihalomethanes	Chloroform	mg/kg	0.1	<0.1
		Bromodichloromethane	mg/kg	0.1	<0.1
		Chlorodibromomethane	mg/kg	0.1	<0.1
		Bromoform	mg/kg	0.1	<0.1
LB226684.001	Fumigants	2,2-dichloropropane	mg/kg	0.1	<0.1
		1,2-dichloropropane	mg/kg	0.1	<0.1
		cis-1,3-dichloropropene	mg/kg	0.1	<0.1

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOC's in Soil (continued)

Method: ME-(AU)-ENVJAN433

Sample Number		Parameter	Units	LOR	Result
LB226684.001	Fumigants	trans-1,3-dichloropropene	mg/kg	0.1	<0.1
		1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1
	Halogenated Aliphatics	Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1
		Chloromethane	mg/kg	1	<1
		Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1
		Bromomethane	mg/kg	1	<1
		Chloroethane	mg/kg	1	<1
		Trichlorofluoromethane	mg/kg	1	<1
		Iodomethane	mg/kg	5	<5
		1,1-dichloroethene	mg/kg	0.1	<0.1
		Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5
		Allyl chloride	mg/kg	0.1	<0.1
		trans-1,2-dichloroethene	mg/kg	0.1	<0.1
		1,1-dichloroethane	mg/kg	0.1	<0.1
		cis-1,2-dichloroethene	mg/kg	0.1	<0.1
		Bromochloromethane	mg/kg	0.1	<0.1
		1,2-dichloroethane	mg/kg	0.1	<0.1
		1,1,1-trichloroethane	mg/kg	0.1	<0.1
		1,1-dichloropropene	mg/kg	0.1	<0.1
		Carbon tetrachloride	mg/kg	0.1	<0.1
		Dibromomethane	mg/kg	0.1	<0.1
		Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1
		1,1,2-trichloroethane	mg/kg	0.1	<0.1
		1,3-dichloropropane	mg/kg	0.1	<0.1
		Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1
		1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1
		cis-1,4-dichloro-2-butene	mg/kg	1	<1
		1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1
		1,2,3-trichloropropane	mg/kg	0.1	<0.1
		trans-1,4-dichloro-2-butene	mg/kg	1	<1
		1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1
		Hexachlorobutadiene	mg/kg	0.1	<0.1
	Halogenated Aromatics	Chlorobenzene	mg/kg	0.1	<0.1
		Bromobenzene	mg/kg	0.1	<0.1
		2-chlorotoluene	mg/kg	0.1	<0.1
		4-chlorotoluene	mg/kg	0.1	<0.1
		1,3-dichlorobenzene	mg/kg	0.1	<0.1
		1,4-dichlorobenzene	mg/kg	0.1	<0.1
		1,2-dichlorobenzene	mg/kg	0.1	<0.1
		1,2,4-trichlorobenzene	mg/kg	0.1	<0.1
		1,2,3-trichlorobenzene	mg/kg	0.1	<0.1
	Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.1	<0.1
		Toluene	mg/kg	0.1	<0.1
		Ethylbenzene	mg/kg	0.1	<0.1
		m/p-xylene	mg/kg	0.2	<0.2
		o-xylene	mg/kg	0.1	<0.1
		Styrene (Vinyl benzene)	mg/kg	0.1	<0.1
		Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1
		n-propylbenzene	mg/kg	0.1	<0.1
		1,3,5-trimethylbenzene	mg/kg	0.1	<0.1
		tert-butylbenzene	mg/kg	0.1	<0.1
		1,2,4-trimethylbenzene	mg/kg	0.1	<0.1
		sec-butylbenzene	mg/kg	0.1	<0.1
		p-isopropyltoluene	mg/kg	0.1	<0.1
		n-butylbenzene	mg/kg	0.1	<0.1
	Nitrogenous Compounds	Acrylonitrile	mg/kg	0.1	<0.1
		2-nitropropane	mg/kg	10	<10
	Oxygenated Compounds	Acetone (2-propanone)	mg/kg	10	<10
		MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1
		Vinyl acetate	mg/kg	10	<10
		MEK (2-butanone)	mg/kg	10	<10

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB226684.001	Oxygenated Compounds	MIBK (4-methyl-2-pentanone)	mg/kg	1	<1
		2-hexanone (MBK)	mg/kg	5	<5
	Polycyclic VOCs	Naphthalene	mg/kg	0.1	<0.1
	Sulphonated	Carbon disulfide	mg/kg	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	91
		d8-toluene (Surrogate)	%	-	90
		Bromofluorobenzene (Surrogate)	%	-	82
	Totals	Total BTEX	mg/kg	0.6	<0.6
		Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
		Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
	Trihalomethanes	Chloroform	mg/kg	0.1	<0.1
		Bromodichloromethane	mg/kg	0.1	<0.1
		Chlorodibromomethane	mg/kg	0.1	<0.1
		Bromoform	mg/kg	0.1	<0.1

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB226623.001	Monocyclic Aromatic Hydrocarbons	Benzene	µg/L	0.5	<0.5
		Toluene	µg/L	0.5	<0.5
		Ethylbenzene	µg/L	0.5	<0.5
		m/p-xylene	µg/L	1	<1
		o-xylene	µg/L	0.5	<0.5
	Polycyclic VOCs	Naphthalene	µg/L	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	101
		d8-toluene (Surrogate)	%	-	99
		Bromofluorobenzene (Surrogate)	%	-	97

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB226669.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	111
LB226681.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	93
LB226684.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	91

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB226623.001		TRH C6-C9	µg/L	40	<40
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	101
		d8-toluene (Surrogate)	%	-	99
		Bromofluorobenzene (Surrogate)	%	-	97

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Alkalinity in Soil

Method: ME-(AU)-[ENV]AN002/AN135

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.007	LB226939.025	Total Alkalinity as CaCO3 in Soil*	mg/kg	25	34	25	100	30
SE220562.057	LB226939.024	Total Alkalinity as CaCO3 in Soil*	mg/kg	25	94	97	41	3

Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-[ENV]AN106

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.007	LB226920.026	Conductivity of Extract (1:5 as received)	µS/cm	1	960	980	30	1
		Salinity (by calculation)*	mg/kg	5	3900	3900	30	1
SE220562.024	LB226920.027	Conductivity of Extract (1:5 as received)	µS/cm	1	590	560	30	6
		Salinity (by calculation)*	mg/kg	5	2200	2100	30	6
SE220562.057	LB226920.025	Conductivity of Extract (1:5 as received)	µS/cm	1	970	980	30	1
		Salinity (by calculation)*	mg/kg	5	3600	3700	30	1

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.066	LB226528.013	Mercury	µg/L	0.0001	<0.0001	<0.0001	200	0

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.015	LB226748.014	Mercury	mg/kg	0.05	<0.05	<0.05	137	0
SE220562.019	LB226748.019	Mercury	mg/kg	0.05	<0.05	<0.05	175	0
SE220562.034	LB226749.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE220562.038	LB226749.019	Mercury	mg/kg	0.05	<0.05	<0.05	168	0
SE220562.052	LB226750.014	Mercury	mg/kg	0.05	0.06	<0.05	130	14
SE220562.054	LB226750.017	Mercury	mg/kg	0.05	<0.05	<0.05	200	0

Moisture Content

Method: ME-(AU)-[ENV]AN002

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.010	LB226707.011	% Moisture	%w/w	1	14.3	15.0	37	5
SE220562.020	LB226707.022	% Moisture	%w/w	1	18.9	19.2	35	1
SE220562.030	LB226707.033	% Moisture	%w/w	1	14.3	16.4	36	14
SE220562.040	LB226706.011	% Moisture	%w/w	1	13.0	13.4	38	2
SE220562.050	LB226706.022	% Moisture	%w/w	1	18.5	18.4	35	1
SE220562.060	LB226725.011	% Moisture	%w/w	1	18.9	17.9	35	5
SE220616.002	LB226725.021	% Moisture	%w/w	1	28.2	27.8	34	1

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.015	LB226676.014	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Lindane	mg/kg	0.1	<0.1	<0.1	200	0
		Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
		Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
		Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
		o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
		Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
		Endrin	mg/kg	0.2	<0.2	<0.2	200	0
		o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
		o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
		Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
		Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

OC Pesticides in Soil (continued)

Method: ME-(AU)-ENVJAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.015	LB226676.014	Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
		Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0
		Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
		Mirex	mg/kg	0.1	<0.1	<0.1	200	0
		Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0
SE220562.040	LB226677.014	Surrogates						
		Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.18	0.18	30	2
		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Lindane	mg/kg	0.1	<0.1	<0.1	200	0
		Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
		Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
		Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
		o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
		Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
		Endrin	mg/kg	0.2	<0.2	<0.2	200	0
		o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
		o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
		Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
		Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
		Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0
		Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
		Mirex	mg/kg	0.1	<0.1	<0.1	200	0
		Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0
		Surrogates						
		Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.17	0.17	30	2
SE220562.050	LB226677.021	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Lindane	mg/kg	0.1	<0.1	<0.1	200	0
		Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
		Aldrin	mg/kg	0.1	<0.1	0.1	159	14
		Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
		o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
		Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
		Endrin	mg/kg	0.2	<0.2	<0.2	200	0
		o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
		o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
		Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
		Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
		Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

OC Pesticides in Soil (continued)

Method: ME-(AU)-ENVJAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.050	LB226677.021	Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
		Mirex	mg/kg	0.1	<0.1	<0.1	200	0
		Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0
		Surrogates	mg/kg	-	0.17	0.17	30	1
SE220562.063	LB226678.014	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Lindane	mg/kg	0.1	<0.1	<0.1	200	0
		Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
		Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
		Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
		o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
		Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
		Endrin	mg/kg	0.2	<0.2	<0.2	200	0
		o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
		o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
		Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
		Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
		Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0
		Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
		Mirex	mg/kg	0.1	<0.1	<0.1	200	0
		Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0
		Surrogates	mg/kg	-	0.17	0.16	30	1
SE220616.002	LB226678.020	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Lindane	mg/kg	0.1	<0.1	<0.1	200	0
		Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
		Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
		Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
		o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
		Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
		Endrin	mg/kg	0.2	<0.2	<0.2	200	0
		o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
		o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
		Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
		Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
		Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0
		Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
		Mirex	mg/kg	0.1	<0.1	<0.1	200	0
		Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

OC Pesticides in Soil (continued)

Method: ME-(AU)-ENVJAN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SF220616.002	LB226678.020	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.18	0.17	30	2

OP Pesticides in Soil

Method: ME-(AU)-ENVJAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE220562.015	LB226676.014	Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0	
		Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0	
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0	
		Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0	
		Malathion	mg/kg	0.2	<0.2	<0.2	200	0	
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0	
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0	
		Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0	
		Methidathion	mg/kg	0.5	<0.5	<0.5	200	0	
		Ethion	mg/kg	0.2	<0.2	<0.2	200	0	
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0	
		Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0	
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	11
	d14-p-terphenyl (Surrogate)		mg/kg	-	0.4	0.5	30	5	
	SE220562.030	LB226676.025	Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
Dimethoate			mg/kg	0.5	<0.5	<0.5	200	0	
Diazinon (Dimpylate)			mg/kg	0.5	<0.5	<0.5	200	0	
Fenitrothion			mg/kg	0.2	<0.2	<0.2	200	0	
Malathion			mg/kg	0.2	<0.2	<0.2	200	0	
Chlorpyrifos (Chlorpyrifos Ethyl)			mg/kg	0.2	<0.2	<0.2	200	0	
Parathion-ethyl (Parathion)			mg/kg	0.2	<0.2	<0.2	200	0	
Bromophos Ethyl			mg/kg	0.2	<0.2	<0.2	200	0	
Methidathion			mg/kg	0.5	<0.5	<0.5	200	0	
Ethion			mg/kg	0.2	<0.2	<0.2	200	0	
Azinphos-methyl (Guthion)			mg/kg	0.2	<0.2	<0.2	200	0	
Total OP Pesticides*			mg/kg	1.7	<1.7	<1.7	200	0	
Surrogates			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	3
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	7	
SE220562.040		LB226677.014	Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
	Dimethoate		mg/kg	0.5	<0.5	<0.5	200	0	
	Diazinon (Dimpylate)		mg/kg	0.5	<0.5	<0.5	200	0	
	Fenitrothion		mg/kg	0.2	<0.2	<0.2	200	0	
	Malathion		mg/kg	0.2	<0.2	<0.2	200	0	
	Chlorpyrifos (Chlorpyrifos Ethyl)		mg/kg	0.2	<0.2	<0.2	200	0	
	Parathion-ethyl (Parathion)		mg/kg	0.2	<0.2	<0.2	200	0	
	Bromophos Ethyl		mg/kg	0.2	<0.2	<0.2	200	0	
	Methidathion		mg/kg	0.5	<0.5	<0.5	200	0	
	Ethion		mg/kg	0.2	<0.2	<0.2	200	0	
	Azinphos-methyl (Guthion)		mg/kg	0.2	<0.2	<0.2	200	0	
	Total OP Pesticides*		mg/kg	1.7	<1.7	<1.7	200	0	
	Surrogates		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	0
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	2
	SE220562.050		LB226677.021	Dichlorvos	mg/kg	0.5	<0.5	<0.5	200
Dimethoate		mg/kg		0.5	<0.5	<0.5	200	0	
Diazinon (Dimpylate)		mg/kg		0.5	<0.5	<0.5	200	0	
Fenitrothion		mg/kg		0.2	<0.2	<0.2	200	0	
Malathion		mg/kg		0.2	<0.2	<0.2	200	0	
Chlorpyrifos (Chlorpyrifos Ethyl)		mg/kg		0.2	<0.2	<0.2	200	0	
Parathion-ethyl (Parathion)		mg/kg		0.2	<0.2	<0.2	200	0	
Bromophos Ethyl		mg/kg		0.2	<0.2	<0.2	200	0	
Methidathion		mg/kg		0.5	<0.5	<0.5	200	0	
Ethion		mg/kg		0.2	<0.2	<0.2	200	0	
Azinphos-methyl (Guthion)		mg/kg		0.2	<0.2	<0.2	200	0	
Total OP Pesticides*		mg/kg		1.7	<1.7	<1.7	200	0	
Surrogates		2-fluorobiphenyl (Surrogate)		mg/kg	-	0.5	0.5	30	2
		d14-p-terphenyl (Surrogate)		mg/kg	-	0.5	0.5	30	6
SE220562.063		LB226678.014		Dichlorvos	mg/kg	0.5	<0.5	<0.5	200

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

OP Pesticides in Soil (continued)

Method: ME-(AU)-ENVJAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.063	LB226678.014	Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
		Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
		Malathion	mg/kg	0.2	<0.2	<0.2	200	0
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
		Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
		Methidathion	mg/kg	0.5	<0.5	<0.5	200	0
		Ethion	mg/kg	0.2	<0.2	<0.2	200	0
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
		Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	1
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	5
		Surrogates						

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-ENVJAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.015	LB226676.014	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
		Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
		Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
		Phenanthrene	mg/kg	0.1	<0.1	0.1	130	18
		Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
		Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
		Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	200	0
		Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	134	0
		Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
		Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	30	13
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	11
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	30	5
		Surrogates						
SE220562.030	LB226676.025	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
		Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
		Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
		Phenanthrene	mg/kg	0.1	<0.1	<0.1	200	0
		Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
		Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
		Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	200	0
		Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	134	0
		Surrogates						

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-ENVJAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.030	LB226676.025	Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
		Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	30	3
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	3
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	7
SE220562.040	LB226677.014	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
		Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
		Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
		Phenanthrene	mg/kg	0.1	0.5	0.4	53	30
		Anthracene	mg/kg	0.1	0.1	<0.1	127	16
		Fluoranthene	mg/kg	0.1	0.7	0.6	45	26
		Pyrene	mg/kg	0.1	0.8	0.6	44	30
		Benzo(a)anthracene	mg/kg	0.1	0.3	0.2	73	25
		Chrysene	mg/kg	0.1	0.3	0.2	72	26
		Benzo(b&j)fluoranthene	mg/kg	0.1	0.2	0.2	83	12
		Benzo(k)fluoranthene	mg/kg	0.1	0.2	0.1	98	31
		Benzo(a)pyrene	mg/kg	0.1	0.2	0.2	80	20
		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.1	<0.1	123	18
		Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	139	0
		Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	0.3	0.2	85	24
		Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	0.4	0.3	91	15
		Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	0.3	0.3	73	19
		Total PAH (18)	mg/kg	0.8	3.4	2.4	57	33
		d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	0
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	0
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	2
SE220562.050	LB226677.021	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
		Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
		Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
		Phenanthrene	mg/kg	0.1	<0.1	<0.1	173	0
		Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Fluoranthene	mg/kg	0.1	0.1	<0.1	155	10
		Pyrene	mg/kg	0.1	0.1	<0.1	155	10
		Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
		Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
		Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	200	0
		Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	134	0
		Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
		Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	4
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	6
SE220562.063	LB226678.014	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
		Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
		Fluorene	mg/kg	0.1	<0.1	<0.1	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-ENVJAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.063	LB226678.014	Phenanthrene	mg/kg	0.1	<0.1	<0.1	200	0
		Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
		Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
		Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	200	0
		Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	134	0
		Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
		Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates						
		d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.4	30	2
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	1
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	5

PCBs in Soil

Method: ME-(AU)-ENVJAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.015	LB226676.014	Arochlor 1016	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1221	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1232	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1242	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1248	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1254	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1260	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1262	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1268	mg/kg	0.2	<0.2	<0.2	200	0
		Total PCBs (Arochlors)	mg/kg	1	<1	<1	200	0
		Surrogates						
		Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	30	2
SE220562.040	LB226677.014	Arochlor 1016	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1221	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1232	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1242	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1248	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1254	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1260	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1262	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1268	mg/kg	0.2	<0.2	<0.2	200	0
		Total PCBs (Arochlors)	mg/kg	1	<1	<1	200	0
		Surrogates						
		Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	30	2
SE220562.050	LB226677.021	Arochlor 1016	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1221	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1232	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1242	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1248	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1254	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1260	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1262	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1268	mg/kg	0.2	<0.2	<0.2	200	0
		Total PCBs (Arochlors)	mg/kg	1	<1	<1	200	0
		Surrogates						
		Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	30	1
SE220562.063	LB226678.014	Arochlor 1016	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1221	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1232	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1242	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1248	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1254	mg/kg	0.2	<0.2	<0.2	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = \frac{|OriginalResult - ReplicateResult|}{Mean} \times 100$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times \frac{SDL}{Mean} + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

PCBs in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.063	LB226678.014	Arochlor 1260	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1262	mg/kg	0.2	<0.2	<0.2	200	0
		Arochlor 1268	mg/kg	0.2	<0.2	<0.2	200	0
		Total PCBs (Arochlors)	mg/kg	1	<1	<1	200	0
		Surrooates	Tetrachloro-m-xylene (TCMX) (Surrogate)	ma/ka	-	0	0	30

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.007	LB226920.026	pH	pH Units	0.1	7.1	6.9	31	2
SE220562.024	LB226920.027	pH	pH Units	0.1	7.7	8.2	31	6
SE220562.057	LB226920.025	pH	pH Units	0.1	7.8	7.7	31	2

Soluble Anions (1:5) in Soil/Solids by Ion Chromatography

Method: ME-(AU)-[ENV]AN245

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.024	LB226917.016	Chloride	mg/kg	0.25	910	860	30	5
		Sulfate	mg/kg	5	80	62	37	25
SE220562.057	LB226917.028	Chloride	mg/kg	0.25	1600	1600	30	0
		Sulfate	mg/kg	5	72	80	37	11

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN289

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.063	LB226821.014	Total Phenols	mg/kg	0.1	<0.1	0.1	200	0

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.010	LB226738.014	Arsenic, As	mg/kg	1	7	7	44	6
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	15	16	33	6
		Copper, Cu	mg/kg	0.5	12	11	34	10
		Nickel, Ni	mg/kg	0.5	6.7	7.2	37	7
		Lead, Pb	mg/kg	1	37	34	33	9
		Zinc, Zn	mg/kg	2	55	42	34	27
SE220562.019	LB226738.024	Arsenic, As	mg/kg	1	8	9	42	5
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	16	15	33	4
		Copper, Cu	mg/kg	0.5	12	13	34	9
		Nickel, Ni	mg/kg	0.5	9.1	9.1	36	0
		Lead, Pb	mg/kg	1	30	38	33	22
		Zinc, Zn	mg/kg	2	30	29	37	2
SE220562.029	LB226739.014	Arsenic, As	mg/kg	1	4	4	54	9
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	11	10	35	5
		Copper, Cu	mg/kg	0.5	20	20	33	1
		Nickel, Ni	mg/kg	0.5	6.3	5.8	38	8
		Lead, Pb	mg/kg	1	29	18	34	46 @
		Zinc, Zn	mg/kg	2	40	33	36	20
SE220562.038	LB226739.024	Arsenic, As	mg/kg	1	3	4	56	28
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	9.5	11	35	15
		Copper, Cu	mg/kg	0.5	21	23	32	9
		Nickel, Ni	mg/kg	0.5	7.2	8.5	36	17
		Lead, Pb	mg/kg	1	19	18	35	7
		Zinc, Zn	mg/kg	2	41	44	35	5
SE220562.048	LB226740.014	Calcium, Ca	mg/kg	5	260	220	32	16
		Potassium, K	mg/kg	10	520	470	32	9
		Magnesium, Mg	mg/kg	5	1400	1400	31	4
		Sodium, Na	mg/kg	5	3000	2800	30	6

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Original	Duplicate	Parameter	Units	LOR
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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Trace Metals (Dissolved) in Water by ICPMS (continued)

Method: ME-(AU)-[ENV]AN318

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.066	LB226527.012	Arsenic, As	µg/L	1	<1	<1	200	0
		Cadmium, Cd	µg/L	0.1	<0.1	<0.1	200	0
		Chromium, Cr	µg/L	1	<1	<1	190	0
		Copper, Cu	µg/L	1	<1	<1	200	0
		Lead, Pb	µg/L	1	<1	<1	200	0
		Nickel, Ni	µg/L	1	<1	<1	200	0
		Zinc, Zn	µg/L	5	<5	<5	200	0

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.015	LB226676.014	TRH C10-C14	mg/kg	20	<20	<20	200	0
		TRH C15-C28	mg/kg	45	<45	<45	200	0
		TRH C29-C36	mg/kg	45	<45	<45	200	0
		TRH C37-C40	mg/kg	100	<100	<100	200	0
		TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
		TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands						
		TRH >C10-C16	mg/kg	25	<25	<25	200	0
		TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
		TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
		TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
SE220562.030	LB226676.025	TRH C10-C14	mg/kg	20	<20	<20	200	0
		TRH C15-C28	mg/kg	45	<45	<45	200	0
		TRH C29-C36	mg/kg	45	<45	<45	200	0
		TRH C37-C40	mg/kg	100	<100	<100	200	0
		TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
		TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands						
		TRH >C10-C16	mg/kg	25	<25	<25	200	0
		TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
		TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
		TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
SE220562.040	LB226677.014	TRH C10-C14	mg/kg	20	<20	<20	200	0
		TRH C15-C28	mg/kg	45	<45	<45	200	0
		TRH C29-C36	mg/kg	45	<45	67	116	39
		TRH C37-C40	mg/kg	100	<100	<100	200	0
		TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
		TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands						
		TRH >C10-C16	mg/kg	25	<25	<25	200	0
		TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
		TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
		TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
SE220562.050	LB226677.021	TRH C10-C14	mg/kg	20	<20	<20	200	0
		TRH C15-C28	mg/kg	45	<45	<45	200	0
		TRH C29-C36	mg/kg	45	<45	<45	200	0
		TRH C37-C40	mg/kg	100	<100	<100	200	0
		TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
		TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands						
		TRH >C10-C16	mg/kg	25	<25	<25	200	0
		TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
		TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
		TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
SE220562.063	LB226678.014	TRH C10-C14	mg/kg	20	<20	<20	200	0
		TRH C15-C28	mg/kg	45	53	52	116	2
		TRH C29-C36	mg/kg	45	130	120	66	11
		TRH C37-C40	mg/kg	100	<100	<100	200	0
		TRH C10-C36 Total	mg/kg	110	180	170	92	8
		TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	193	0
		TRH F Bands						
		TRH >C10-C16	mg/kg	25	<25	<25	200	0
		TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
		TRH >C16-C34 (F3)	mg/kg	90	140	120	100	9
		TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = \frac{|OriginalResult - ReplicateResult|}{Mean} \times 100$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times \frac{SDL}{Mean} + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-ENVJAN403

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220536.001	LB226700.030	TRH C10-C14	µg/L	50	<50	<50	200	0
		TRH C15-C28	µg/L	200	390	400	81	2
		TRH C29-C36	µg/L	200	<200	<200	200	0
		TRH C37-C40	µg/L	200	<200	<200	200	0
		TRH C10-C40	µg/L	320	390	400	111	2
		TRH F Bands	µg/L	60	<60	<60	200	0
		TRH >C10-C16	µg/L	60	<60	<60	200	0
		TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	<60	200	0
		TRH >C16-C34 (F3)	µg/L	500	<500	<500	200	0
		TRH >C34-C40 (F4)	µg/L	500	<500	<500	200	0
SE220564.013	LB226700.028	TRH C10-C14	µg/L	50	<50	<50	200	0
		TRH C15-C28	µg/L	200	<200	<200	200	0
		TRH C29-C36	µg/L	200	<200	<200	200	0
		TRH C37-C40	µg/L	200	<200	<200	200	0
		TRH C10-C40	µg/L	320	<320	<320	200	0
		TRH F Bands	µg/L	60	<60	<60	200	0
		TRH >C10-C16	µg/L	60	<60	<60	200	0
		TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	<60	200	0
		TRH >C16-C34 (F3)	µg/L	500	<500	<500	200	0
		TRH >C34-C40 (F4)	µg/L	500	<500	<500	200	0

VOC's in Soil

Method: ME-(AU)-ENVJAN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %		
SE220562.015	LB226669.014	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0		
			Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0	
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0		
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0		
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0		
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0		
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.9	8.0	50	20		
			d8-toluene (Surrogate)	mg/kg	-	9.6	7.3	50	27		
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.5	8.3	50	14		
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0		
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0		
		SE220562.030	LB226669.025	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
					Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200
					Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
	m/p-xylene			mg/kg	0.2	<0.2	<0.2	200	0		
	o-xylene			mg/kg	0.1	<0.1	<0.1	200	0		
Polycyclic	Naphthalene			mg/kg	0.1	<0.1	<0.1	200	0		
Surrogates	d4-1,2-dichloroethane (Surrogate)			mg/kg	-	9.0	9.5	50	5		
	d8-toluene (Surrogate)			mg/kg	-	8.5	9.3	50	9		
	Bromofluorobenzene (Surrogate)			mg/kg	-	8.9	9.4	50	6		
Totals	Total Xylenes			mg/kg	0.3	<0.3	<0.3	200	0		
	Total BTEX			mg/kg	0.6	<0.6	<0.6	200	0		
SE220562.040	LB226681.014			Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
					Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200
					Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0		
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0		
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0		
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.4	7.6	50	10		
			d8-toluene (Surrogate)	mg/kg	-	8.1	7.2	50	12		
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.7	7.0	50	9		
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0		
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0		
		SE220562.050	LB226681.021	Fumigants	2,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	200	0
					1,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	200	0
					cis-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	200	0
trans-1,3-dichloropropene	mg/kg				0.1	<0.1	<0.1	200	0		
1,2-dibromoethane (EDB)	mg/kg				0.1	<0.1	<0.1	200	0		
Halogenated	Dichlorodifluoromethane (CFC-12)			mg/kg	1	<1	<1	200	0		
	Aliphatics			Chloromethane	mg/kg	1	<1	<1	200	0	

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

VOC's in Soil (continued)

Method: ME-(AU)-ENVJAN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.050	LB226681.021	Halogenated	Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	<0.1	200	0
		Aliphatics	Bromomethane	mg/kg	1	<1	<1	200	0
			Chloroethane	mg/kg	1	<1	<1	200	0
			Trichlorofluoromethane	mg/kg	1	<1	<1	200	0
			Iodomethane	mg/kg	5	<5	<5	200	0
			1,1-dichloroethene	mg/kg	0.1	<0.1	<0.1	200	0
			Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	<0.5	200	0
			Allyl chloride	mg/kg	0.1	<0.1	<0.1	200	0
			trans-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	200	0
			1,1-dichloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			cis-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	200	0
			Bromochloromethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,2-dichloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,1,1-trichloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,1-dichloropropene	mg/kg	0.1	<0.1	<0.1	200	0
			Carbon tetrachloride	mg/kg	0.1	<0.1	<0.1	200	0
			Dibromomethane	mg/kg	0.1	<0.1	<0.1	200	0
			Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	<0.1	200	0
			1,1,2-trichloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,3-dichloropropane	mg/kg	0.1	<0.1	<0.1	200	0
			Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	<0.1	200	0
			1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			cis-1,4-dichloro-2-butene	mg/kg	1	<1	<1	200	0
			1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,2,3-trichloropropane	mg/kg	0.1	<0.1	<0.1	200	0
			trans-1,4-dichloro-2-butene	mg/kg	1	<1	<1	200	0
			1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	<0.1	200	0
			Hexachlorobutadiene	mg/kg	0.1	<0.1	<0.1	200	0
		Halogenated	Chlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatics	Bromobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			2-chlorotoluene	mg/kg	0.1	<0.1	<0.1	200	0
			4-chlorotoluene	mg/kg	0.1	<0.1	<0.1	200	0
			1,3-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,4-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
		Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
			Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	<0.1	200	0
			Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	<0.1	200	0
			n-propylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			tert-butylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			sec-butylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			p-isopropyltoluene	mg/kg	0.1	<0.1	<0.1	200	0
			n-butylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
		Nitrogenous	Acrylonitrile	mg/kg	0.1	<0.1	<0.1	200	0
		Compounds	2-nitropropane	mg/kg	10	<10	<10	200	0
		Oxygenated	Acetone (2-propanone)	mg/kg	10	<10	<10	200	0
		Compounds	MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	<0.1	200	0
			Vinyl acetate	mg/kg	10	<10	<10	200	0
			MEK (2-butanone)	mg/kg	10	<10	<10	200	0
			MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	<1	200	0
			2-hexanone (MBK)	mg/kg	5	<5	<5	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Sulphonated	Carbon disulfide	mg/kg	0.5	<0.5	<0.5	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

VOC's in Soil (continued)

Method: ME-(AU)-ENVJAN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE220562.050	LB226681.021	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.9	7.9	50	0	
			d8-toluene (Surrogate)	mg/kg	-	8.1	8.3	50	2	
			Bromofluorobenzene (Surrogate)	mg/kg	-	6.9	7.0	50	1	
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0	
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0	
			Total VOC*	mg/kg	24	<24	<24	200	0	
			Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3	<3	200	0	
			Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	200	0	
			Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	200	0	
			Trihalomethanes	Chloroform	mg/kg	0.1	<0.1	<0.1	200	0
		Bromodichloromethane		mg/kg	0.1	<0.1	<0.1	200	0	
		Chlorodibromomethane		mg/kg	0.1	<0.1	<0.1	200	0	
				Bromoform	mg/kg	0.1	<0.1	<0.1	200	0
SE220562.063	LB226684.014	Fumigants	2,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	200	0	
			1,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	200	0	
			cis-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	200	0	
			trans-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	200	0	
			1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	<0.1	200	0	
		Halogenated Aliphatics	Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	<1	200	0	
			Chloromethane	mg/kg	1	<1	<1	200	0	
			Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	<0.1	200	0	
			Bromomethane	mg/kg	1	<1	<1	200	0	
			Chloroethane	mg/kg	1	<1	<1	200	0	
			Trichlorofluoromethane	mg/kg	1	<1	<1	200	0	
			Iodomethane	mg/kg	5	<5	<5	200	0	
			1,1-dichloroethene	mg/kg	0.1	<0.1	<0.1	200	0	
			Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	<0.5	200	0	
			Allyl chloride	mg/kg	0.1	<0.1	<0.1	200	0	
			trans-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	200	0	
			1,1-dichloroethane	mg/kg	0.1	<0.1	<0.1	200	0	
			cis-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	200	0	
			Bromochloromethane	mg/kg	0.1	<0.1	<0.1	200	0	
			1,2-dichloroethane	mg/kg	0.1	<0.1	<0.1	200	0	
			1,1,1-trichloroethane	mg/kg	0.1	<0.1	<0.1	200	0	
			1,1-dichloropropene	mg/kg	0.1	<0.1	<0.1	200	0	
			Carbon tetrachloride	mg/kg	0.1	<0.1	<0.1	200	0	
			Dibromomethane	mg/kg	0.1	<0.1	<0.1	200	0	
			Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	<0.1	200	0	
			1,1,2-trichloroethane	mg/kg	0.1	<0.1	<0.1	200	0	
			1,3-dichloropropane	mg/kg	0.1	<0.1	<0.1	200	0	
			Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	<0.1	200	0	
			1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	200	0	
			cis-1,4-dichloro-2-butene	mg/kg	1	<1	<1	200	0	
			1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	200	0	
			1,2,3-trichloropropane	mg/kg	0.1	<0.1	<0.1	200	0	
			trans-1,4-dichloro-2-butene	mg/kg	1	<1	<1	200	0	
			1,2-di-bromo-3-chloropropane	mg/kg	0.1	<0.1	<0.1	200	0	
			Hexachlorobutadiene	mg/kg	0.1	<0.1	<0.1	200	0	
			Halogenated Aromatics	Chlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
				Bromobenzene	mg/kg	0.1	<0.1	<0.1	200	0
				2-chlorotoluene	mg/kg	0.1	<0.1	<0.1	200	0
				4-chlorotoluene	mg/kg	0.1	<0.1	<0.1	200	0
				1,3-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
		1,4-dichlorobenzene		mg/kg	0.1	<0.1	<0.1	200	0	
		1,2-dichlorobenzene		mg/kg	0.1	<0.1	<0.1	200	0	
		1,2,4-trichlorobenzene		mg/kg	0.1	<0.1	<0.1	200	0	
		1,2,3-trichlorobenzene		mg/kg	0.1	<0.1	<0.1	200	0	
		Monocyclic Aromatic		Benzene	mg/kg	0.1	<0.1	<0.1	200	0
			Toluene	mg/kg	0.1	<0.1	<0.1	200	0	
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0	
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0	

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

VOC's in Soil (continued)

Method: ME-(AU)-ENVJAN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.063	LB226684.014	Monocyclic Aromatic	o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
			Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	<0.1	200	0
		Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	<0.1	200	0	
		n-propylbenzene	mg/kg	0.1	<0.1	<0.1	200	0	
		1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0	
		tert-butylbenzene	mg/kg	0.1	<0.1	<0.1	200	0	
		1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0	
		sec-butylbenzene	mg/kg	0.1	<0.1	<0.1	200	0	
		p-isopropyltoluene	mg/kg	0.1	<0.1	<0.1	200	0	
		n-butylbenzene	mg/kg	0.1	<0.1	<0.1	200	0	
		Nitrogenous Compounds	Acrylonitrile	mg/kg	0.1	<0.1	<0.1	200	0
			2-nitropropane	mg/kg	10	<10	<10	200	0
		Oxygenated Compounds	Acetone (2-propanone)	mg/kg	10	<10	<10	200	0
		Compounds	MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	<0.1	200	0
			Vinyl acetate	mg/kg	10	<10	<10	200	0
			MEK (2-butanone)	mg/kg	10	<10	<10	200	0
			MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	<1	200	0
			2-hexanone (MBK)	mg/kg	5	<5	<5	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Sulphonated	Carbon disulfide	mg/kg	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.6	8.3	50	3
			d8-toluene (Surrogate)	mg/kg	-	9.1	8.7	50	5
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.4	7.3	50	2
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0
			Total VOC*	mg/kg	24	<24	<24	200	0
			Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3	<3	200	0
			Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	200	0
			Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	200	0
			Trihalomethanes	Chloroform	mg/kg	0.1	<0.1	<0.1	200
		Bromodichloromethane	mg/kg	0.1	<0.1	<0.1	200	0	
		Chlorodibromomethane	mg/kg	0.1	<0.1	<0.1	200	0	
		Bromoform	mg/kg	0.1	<0.1	<0.1	200	0	
SE220562.069	LB226684.020	Monocyclic Aromatic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
			Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.0	8.8	50	2
			d8-toluene (Surrogate)	mg/kg	-	9.4	9.3	50	1
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.6	7.5	50	2
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
Total BTEX	mg/kg		0.6	<0.6	<0.6	200	0		

VOCs in Water

Method: ME-(AU)-ENVJAN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220562.066	LB226623.025	Monocyclic Aromatic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
			Toluene	µg/L	0.5	<0.5	<0.5	200	0
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	µg/L	0.5	<0.5	<0.5	200	0
		Polycyclic Surrogates	Naphthalene	µg/L	0.5	<0.5	<0.5	200	0
			d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.2	9.8	30	4
			d8-toluene (Surrogate)	µg/L	-	10.0	10.2	30	1
			Bromofluorobenzene (Surrogate)	µg/L	-	10.0	10.2	30	2
SE220600.001	LB226623.026	Monocyclic Aromatic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
			Toluene	µg/L	0.5	2.4	2.3	51	7
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	156	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	µg/L	0.5	1.1	1.1	76	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

VOCs in Water (continued)

Method: ME-(AU)-ENVJAN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220600.001	LB226623.026	Polycyclic	Naphthalene	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.4	10.3	30	1
			d8-toluene (Surrogate)	µg/L	-	10.0	10.1	30	1
			Bromofluorobenzene (Surrogate)	µg/L	-	10.2	10.4	30	2

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-ENVJAN433

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE220562.015	LB226669.014	TRH C6-C10	mg/kg	25	<25	<25	200	0	
		TRH C6-C9	mg/kg	20	<20	<20	200	0	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.9	8.0	30	20
			d8-toluene (Surrogate)	mg/kg	-	9.6	7.3	30	27
		VPH F Bands	Bromofluorobenzene (Surrogate)	mg/kg	-	9.5	8.3	30	14
			Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0
SE220562.030	LB226669.025	TRH C6-C10	mg/kg	25	<25	<25	200	0	
		TRH C6-C9	mg/kg	20	<20	<20	200	0	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.0	9.5	30	5
			d8-toluene (Surrogate)	mg/kg	-	8.5	9.3	30	9
		VPH F Bands	Bromofluorobenzene (Surrogate)	mg/kg	-	8.9	9.4	30	6
			Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0
SE220562.040	LB226681.014	TRH C6-C10	mg/kg	25	<25	<25	200	0	
		TRH C6-C9	mg/kg	20	<20	<20	200	0	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.4	7.6	30	10
			d8-toluene (Surrogate)	mg/kg	-	8.1	7.2	30	12
		VPH F Bands	Bromofluorobenzene (Surrogate)	mg/kg	-	7.7	7.0	30	9
			Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0
SE220562.050	LB226681.021	TRH C6-C10	mg/kg	25	<25	<25	200	0	
		TRH C6-C9	mg/kg	20	<20	<20	200	0	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.9	7.9	30	0
			d8-toluene (Surrogate)	mg/kg	-	8.1	8.3	30	2
		VPH F Bands	Bromofluorobenzene (Surrogate)	mg/kg	-	6.9	7.0	30	1
			Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0
SE220562.063	LB226684.014	TRH C6-C10	mg/kg	25	<25	<25	200	0	
		TRH C6-C9	mg/kg	20	<20	<20	200	0	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.6	8.3	30	3
			d8-toluene (Surrogate)	mg/kg	-	9.1	8.7	30	5
		VPH F Bands	Bromofluorobenzene (Surrogate)	mg/kg	-	7.4	7.3	30	2
			Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0
SE220562.069	LB226684.020	TRH C6-C10	mg/kg	25	<25	<25	200	0	
		TRH C6-C9	mg/kg	20	<20	<20	200	0	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.0	8.8	30	2
			d8-toluene (Surrogate)	mg/kg	-	9.4	9.3	30	1
		VPH F Bands	Bromofluorobenzene (Surrogate)	mg/kg	-	7.6	7.5	30	2
			Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-ENVJAN433

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE220562.066	LB226623.025	TRH C6-C10	µg/L	50	<50	<50	200	0	
		TRH C6-C9	µg/L	40	<40	<40	200	0	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.2	9.8	30	4
			d8-toluene (Surrogate)	µg/L	-	10.0	10.2	30	1
			Bromofluorobenzene (Surrogate)	µg/L	-	10.0	10.2	30	2
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
			TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200	0
SE220600.001	LB226623.026	TRH C6-C10	µg/L	50	57	60	116	5	
		TRH C6-C9	µg/L	40	49	49	111	0	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.4	10.3	30	1

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Volatile Petroleum Hydrocarbons in Water (continued)

Method: ME-(AU)-ENVJAN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220600.001	LB226623.026	Surrogates	d8-toluene (Surrogate)	µg/L	-	10.0	10.1	30	1
			Bromofluorobenzene (Surrogate)	µg/L	-	10.2	10.4	30	2
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
			TRH C6-C10 minus BTEX (F1)	µg/L	50	53	56	122	6

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Alkalinity in Soil

Method: ME-(AU)-[ENV]AN002/AN135

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226939.002	Total Alkalinity as CaCO ₃ in Soil*	mg/kg	25	300	297.5	80 - 120	102

Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-[ENV]AN106

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226920.002	Conductivity of Extract (1:5 as received)	µS/cm	1	310	303	85 - 115	101

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR)

Method: ME-(AU)-[ENV]AN122

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226827.002	Exchangeable Sodium, Na	meq/100g	0.01	0.21	0.194	80 - 120	107
	Exchangeable Potassium, K	meq/100g	0.01	0.57	0.63	80 - 120	90
	Exchangeable Calcium, Ca	meq/100g	0.01	6.6	6.3	80 - 120	105
	Exchangeable Magnesium, Mg	meq/100g	0.02	1.1	1.11	80 - 120	103

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226748.002	Mercury	mg/kg	0.05	0.23	0.2	70 - 130	113
LB226749.002	Mercury	mg/kg	0.05	0.21	0.2	70 - 130	104
LB226750.002	Mercury	mg/kg	0.05	0.21	0.2	70 - 130	104
LB226927.002	Mercury	mg/kg	0.05	0.23	0.2	70 - 130	117

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226676.002	Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	120
	Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	114
	Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	119
	Dieldrin	mg/kg	0.2	0.2	0.2	60 - 140	114
	Endrin	mg/kg	0.2	0.3	0.2	60 - 140	129
	p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	122
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.16	0.15	40 - 130
LB226677.002	Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	107
	Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	101
	Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	101
	Dieldrin	mg/kg	0.2	0.2	0.2	60 - 140	104
	Endrin	mg/kg	0.2	0.2	0.2	60 - 140	118
	p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	106
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.15	0.15	40 - 130
LB226678.002	Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	123
	Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	118
	Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	117
	Dieldrin	mg/kg	0.2	0.2	0.2	60 - 140	120
	Endrin	mg/kg	0.2	0.3	0.2	60 - 140	130
	p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	125
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.15	0.15	40 - 130

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB226676.002	Dichlorvos	mg/kg	0.5	1.5	2	60 - 140	73	
	Diazinon (Dimpylate)	mg/kg	0.5	1.7	2	60 - 140	83	
	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.6	2	60 - 140	79	
	Ethion	mg/kg	0.2	1.5	2	60 - 140	76	
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	78
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	80
LB226677.002	Dichlorvos	mg/kg	0.5	1.6	2	60 - 140	79	
	Diazinon (Dimpylate)	mg/kg	0.5	2.2	2	60 - 140	110	
	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	2.1	2	60 - 140	106	
	Ethion	mg/kg	0.2	1.6	2	60 - 140	79	
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	89
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	90
LB226678.002	Dichlorvos	mg/kg	0.5	1.5	2	60 - 140	76	

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

OP Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226678.002	Diazinon (Dimpylate)	mg/kg	0.5	1.7	2	60 - 140	86
	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.7	2	60 - 140	84
	Ethion	mg/kg	0.2	1.6	2	60 - 140	78
	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	86
	d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	80

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226676.002	Naphthalene	mg/kg	0.1	4.0	4	60 - 140	101
	Acenaphthylene	mg/kg	0.1	4.0	4	60 - 140	100
	Acenaphthene	mg/kg	0.1	4.2	4	60 - 140	105
	Phenanthrene	mg/kg	0.1	4.0	4	60 - 140	99
	Anthracene	mg/kg	0.1	4.0	4	60 - 140	101
	Fluoranthene	mg/kg	0.1	4.0	4	60 - 140	99
	Pyrene	mg/kg	0.1	4.1	4	60 - 140	102
	Benzo(a)pyrene	mg/kg	0.1	4.2	4	60 - 140	105
	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	78
	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	78
LB226677.002	d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	80
	Naphthalene	mg/kg	0.1	3.7	4	60 - 140	93
	Acenaphthylene	mg/kg	0.1	4.1	4	60 - 140	102
	Acenaphthene	mg/kg	0.1	3.8	4	60 - 140	96
	Phenanthrene	mg/kg	0.1	4.3	4	60 - 140	109
	Anthracene	mg/kg	0.1	4.1	4	60 - 140	103
	Fluoranthene	mg/kg	0.1	4.0	4	60 - 140	100
	Pyrene	mg/kg	0.1	4.2	4	60 - 140	105
	Benzo(a)pyrene	mg/kg	0.1	3.7	4	60 - 140	93
	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	95
LB226678.002	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	89
	d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	90
	Naphthalene	mg/kg	0.1	4.1	4	60 - 140	103
	Acenaphthylene	mg/kg	0.1	4.1	4	60 - 140	104
	Acenaphthene	mg/kg	0.1	4.4	4	60 - 140	109
	Phenanthrene	mg/kg	0.1	4.1	4	60 - 140	104
	Anthracene	mg/kg	0.1	4.2	4	60 - 140	105
	Fluoranthene	mg/kg	0.1	4.2	4	60 - 140	105
	Pyrene	mg/kg	0.1	4.3	4	60 - 140	108
	Benzo(a)pyrene	mg/kg	0.1	4.3	4	60 - 140	109
LB226678.002	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	82
	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	86
	d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	80

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226676.002	Arochlor 1260	mg/kg	0.2	0.4	0.4	60 - 140	88
LB226677.002	Arochlor 1260	mg/kg	0.2	0.3	0.4	60 - 140	72
LB226678.002	Arochlor 1260	mg/kg	0.2	0.5	0.4	60 - 140	126

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226920.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100

Soluble Anions (1:5) in Soil/Solids by Ion Chromatography

Method: ME-(AU)-[ENV]AN245

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226917.002	Chloride	mg/kg	0.25	94	100	70 - 130	94
	Sulfate	mg/kg	5	94	100	70 - 130	94

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN289

Sample Number	Parameter	Units	LOR
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Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Total Phenolics in Soil (continued)

Method: ME-(AU)-[ENV]AN289

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226821.002	Total Phenols	mg/kg	0.1	2.1	2.5	70 - 130	85

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226738.002	Arsenic, As	mg/kg	1	350	318.22	80 - 120	110
	Calcium, Ca	mg/kg	5	11000	10367	80 - 120	105
	Cadmium, Cd	mg/kg	0.3	5.0	4.81	70 - 130	103
	Chromium, Cr	mg/kg	0.5	42	38.31	80 - 120	109
	Copper, Cu	mg/kg	0.5	330	290	80 - 120	114
	Potassium, K	mg/kg	10	1500	1348	80 - 120	114
	Magnesium, Mg	mg/kg	5	11000	10422	80 - 120	104
	Sodium, Na	mg/kg	5	900	756	80 - 120	118
	Nickel, Ni	mg/kg	0.5	200	187	80 - 120	109
	Lead, Pb	mg/kg	1	98	89.9	80 - 120	109
	Zinc, Zn	mg/kg	2	300	273	80 - 120	109
LB226739.002	Arsenic, As	mg/kg	1	340	318.22	80 - 120	108
	Calcium, Ca	mg/kg	5	11000	10367	80 - 120	103
	Cadmium, Cd	mg/kg	0.3	4.8	4.81	70 - 130	100
	Chromium, Cr	mg/kg	0.5	41	38.31	80 - 120	106
	Copper, Cu	mg/kg	0.5	320	290	80 - 120	110
	Potassium, K	mg/kg	10	1500	1348	80 - 120	111
	Magnesium, Mg	mg/kg	5	11000	10422	80 - 120	102
	Sodium, Na	mg/kg	5	880	756	80 - 120	117
	Nickel, Ni	mg/kg	0.5	200	187	80 - 120	106
	Lead, Pb	mg/kg	1	95	89.9	80 - 120	106
	Zinc, Zn	mg/kg	2	290	273	80 - 120	107
LB226740.002	Arsenic, As	mg/kg	1	340	318.22	80 - 120	108
	Calcium, Ca	mg/kg	5	10000	10367	80 - 120	101
	Cadmium, Cd	mg/kg	0.3	4.7	4.81	70 - 130	97
	Chromium, Cr	mg/kg	0.5	44	38.31	80 - 120	114
	Copper, Cu	mg/kg	0.5	310	290	80 - 120	107
	Potassium, K	mg/kg	10	1500	1348	80 - 120	112
	Magnesium, Mg	mg/kg	5	11000	10422	80 - 120	101
	Sodium, Na	mg/kg	5	890	756	80 - 120	118
	Nickel, Ni	mg/kg	0.5	190	187	80 - 120	104
	Lead, Pb	mg/kg	1	93	89.9	80 - 120	103
	Zinc, Zn	mg/kg	2	290	273	80 - 120	105
LB226926.002	Arsenic, As	mg/kg	1	340	318.22	80 - 120	108
	Cadmium, Cd	mg/kg	0.3	4.4	4.81	70 - 130	91
	Chromium, Cr	mg/kg	0.5	39	38.31	80 - 120	101
	Copper, Cu	mg/kg	0.5	310	290	80 - 120	107
	Nickel, Ni	mg/kg	0.5	200	187	80 - 120	105
	Lead, Pb	mg/kg	1	95	89.9	80 - 120	106
	Zinc, Zn	mg/kg	2	290	273	80 - 120	105

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226527.002	Arsenic, As	µg/L	1	21	20	80 - 120	105
	Cadmium, Cd	µg/L	0.1	22	20	80 - 120	108
	Chromium, Cr	µg/L	1	21	20	80 - 120	104
	Copper, Cu	µg/L	1	20	20	80 - 120	100
	Lead, Pb	µg/L	1	21	20	80 - 120	105
	Nickel, Ni	µg/L	1	22	20	80 - 120	110
	Zinc, Zn	µg/L	5	22	20	80 - 120	108

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226676.002	TRH C10-C14	mg/kg	20	48	40	60 - 140	120
	TRH C15-C28	mg/kg	45	<45	40	60 - 140	110
	TRH C29-C36	mg/kg	45	<45	40	60 - 140	88

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

TRH (Total Recoverable Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]JAN403

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226676.002	TRH F Bands	TRH >C10-C16	mg/kg	25	47	40	60 - 140 118
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140 100
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140 85
LB226677.002		TRH C10-C14	mg/kg	20	37	40	60 - 140 93
		TRH C15-C28	mg/kg	45	<45	40	60 - 140 93
		TRH C29-C36	mg/kg	45	<45	40	60 - 140 78
	TRH F Bands	TRH >C10-C16	mg/kg	25	37	40	60 - 140 93
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140 90
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140 75
LB226678.002		TRH C10-C14	mg/kg	20	50	40	60 - 140 125
		TRH C15-C28	mg/kg	45	45	40	60 - 140 113
		TRH C29-C36	mg/kg	45	<45	40	60 - 140 85
	TRH F Bands	TRH >C10-C16	mg/kg	25	48	40	60 - 140 120
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140 103
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140 80

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]JAN403

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226700.002		TRH C10-C14	µg/L	50	960	1200	60 - 140 80
		TRH C15-C28	µg/L	200	1100	1200	60 - 140 90
		TRH C29-C36	µg/L	200	1400	1200	60 - 140 117
	TRH F Bands	TRH >C10-C16	µg/L	60	1000	1200	60 - 140 84
		TRH >C16-C34 (F3)	µg/L	500	1400	1200	60 - 140 115
		TRH >C34-C40 (F4)	µg/L	500	700	600	60 - 140 117

VOC's in Soil

Method: ME-(AU)-[ENV]JAN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB226669.002	Halogenated	1,1-dichloroethene	mg/kg	0.1	3.5	5	60 - 140	70	
	Aliphatics	1,2-dichloroethane	mg/kg	0.1	3.9	5	60 - 140	77	
		Trichloroethene (Trichloroethylene -TCE)		mg/kg	0.1	3.7	5	60 - 140	74
		Halogenated	Chlorobenzene	mg/kg	0.1	4.3	5	60 - 140	86
	Monocyclic	Benzene	mg/kg	0.1	4.8	5	60 - 140	95	
	Aromatic	Toluene	mg/kg	0.1	4.7	5	60 - 140	95	
		Ethylbenzene	mg/kg	0.1	4.7	5	60 - 140	94	
		m/p-xylene	mg/kg	0.2	9.4	10	60 - 140	94	
	Surrogates	o-xylene	mg/kg	0.1	4.7	5	60 - 140	93	
		d4-1,2-dichloroethane (Surrogate)		mg/kg	-	11.2	10	70 - 130	112
		d8-toluene (Surrogate)		mg/kg	-	10.8	10	70 - 130	108
		Bromofluorobenzene (Surrogate)		mg/kg	-	10.4	10	70 - 130	104
	Trihalomethan	Chloroform	mg/kg	0.1	4.1	5	60 - 140	82	
	LB226681.002	Halogenated	1,1-dichloroethene	mg/kg	0.1	3.4	5	60 - 140	68
Aliphatics		1,2-dichloroethane	mg/kg	0.1	3.8	5	60 - 140	77	
		Trichloroethene (Trichloroethylene -TCE)		mg/kg	0.1	3.7	5	60 - 140	74
		Halogenated	Chlorobenzene	mg/kg	0.1	4.3	5	60 - 140	87
Monocyclic		Benzene	mg/kg	0.1	4.0	5	60 - 140	80	
Aromatic		Toluene	mg/kg	0.1	4.0	5	60 - 140	80	
		Ethylbenzene	mg/kg	0.1	4.3	5	60 - 140	85	
		m/p-xylene	mg/kg	0.2	8.5	10	60 - 140	85	
Surrogates		o-xylene	mg/kg	0.1	4.3	5	60 - 140	85	
		d4-1,2-dichloroethane (Surrogate)		mg/kg	-	9.4	10	70 - 130	94
		d8-toluene (Surrogate)		mg/kg	-	9.2	10	70 - 130	92
		Bromofluorobenzene (Surrogate)		mg/kg	-	8.9	10	70 - 130	89
Trihalomethan		Chloroform	mg/kg	0.1	4.0	5	60 - 140	80	
LB226684.002		Halogenated	1,1-dichloroethene	mg/kg	0.1	3.9	5	60 - 140	78
	Aliphatics	1,2-dichloroethane	mg/kg	0.1	4.1	5	60 - 140	81	
		Trichloroethene (Trichloroethylene -TCE)		mg/kg	0.1	3.9	5	60 - 140	78
		Halogenated	Chlorobenzene	mg/kg	0.1	4.5	5	60 - 140	91
	Monocyclic	Benzene	mg/kg	0.1	4.2	5	60 - 140	83	
	Aromatic	Toluene	mg/kg	0.1	4.1	5	60 - 140	82	
		Ethylbenzene	mg/kg	0.1	4.5	5	60 - 140	89	
		m/p-xylene	mg/kg	0.2	8.9	10	60 - 140	89	
		o-xylene	mg/kg	0.1	4.5	5	60 - 140	89	

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226684.002	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.4	10	70 - 130 94
		d8-toluene (Surrogate)	mg/kg	-	9.6	10	70 - 130 96
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.7	10	70 - 130 97
	Trihalomethan	Chloroform	mg/kg	0.1	4.3	5	60 - 140 87

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226623.002	Monocyclic	Benzene	µg/L	0.5	51	45.45	60 - 140 111
		Toluene	µg/L	0.5	50	45.45	60 - 140 110
	Aromatic	Ethylbenzene	µg/L	0.5	50	45.45	60 - 140 111
		m/p-xylene	µg/L	1	100	90.9	60 - 140 111
		o-xylene	µg/L	0.5	50	45.45	60 - 140 110
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.0	10	60 - 140 100
		d8-toluene (Surrogate)	µg/L	-	9.6	10	70 - 130 97
		Bromofluorobenzene (Surrogate)	µg/L	-	9.7	10	70 - 130 97

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB226669.002	TRH C6-C10	mg/kg	25	77	92.5	60 - 140	84	
	TRH C6-C9	mg/kg	20	68	80	60 - 140	85	
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11.2	10	70 - 130	112
		Bromofluorobenzene (Surrogate)	mg/kg	-	10.4	10	70 - 130	104
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	49	62.5	60 - 140	78
LB226681.002	TRH C6-C10	mg/kg	25	74	92.5	60 - 140	80	
	TRH C6-C9	mg/kg	20	66	80	60 - 140	82	
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.4	10	70 - 130	94
		Bromofluorobenzene (Surrogate)	mg/kg	-	8.9	10	70 - 130	89
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	49	62.5	60 - 140	79
LB226684.002	TRH C6-C10	mg/kg	25	67	92.5	60 - 140	72	
	TRH C6-C9	mg/kg	20	59	80	60 - 140	73	
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.4	10	70 - 130	94
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.7	10	70 - 130	97
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	41	62.5	60 - 140	65

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB226623.002	TRH C6-C10	µg/L	50	850	946.63	60 - 140	90	
	TRH C6-C9	µg/L	40	730	818.71	60 - 140	89	
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.0	10	60 - 140	100
		d8-toluene (Surrogate)	µg/L	-	9.6	10	70 - 130	97
		Bromofluorobenzene (Surrogate)	µg/L	-	9.7	10	70 - 130	97
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	550	639.67	60 - 140	86

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220562.001	LB226748.004	Mercury	mg/kg	0.05	0.27	<0.05	0.2	127
SE220562.025	LB226749.004	Mercury	mg/kg	0.05	0.27	0.06	0.2	105
SE220562.039	LB226750.004	Mercury	mg/kg	0.05	0.23	<0.05	0.2	95
SE220562.058	LB226927.004	Mercury	mg/kg	0.05	0.30	0.09	0.2	107

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220562.001	LB226676.004	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	-	-
		Alpha BHC	mg/kg	0.1	<0.1	<0.1	-	-
		Lindane	mg/kg	0.1	<0.1	<0.1	-	-
		Heptachlor	mg/kg	0.1	0.2	<0.1	0.2	90
		Aldrin	mg/kg	0.1	0.2	<0.1	0.2	93
		Beta BHC	mg/kg	0.1	<0.1	<0.1	-	-
		Delta BHC	mg/kg	0.1	0.2	<0.1	0.2	76
		Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	-	-
		o,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
		Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
		Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
		Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	-	-
		p,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
		Dieldrin	mg/kg	0.2	<0.2	<0.2	0.2	95
		Endrin	mg/kg	0.2	0.2	<0.2	0.2	107
		o,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
		o,p'-DDT	mg/kg	0.1	<0.1	<0.1	-	-
		Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
		p,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
		p,p'-DDT	mg/kg	0.1	0.2	<0.1	0.2	103
		Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	-	-
		Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	-	-
		Methoxychlor	mg/kg	0.1	<0.1	<0.1	-	-
		Endrin Ketone	mg/kg	0.1	<0.1	<0.1	-	-
		Isodrin	mg/kg	0.1	<0.1	<0.1	-	-
		Mirex	mg/kg	0.1	<0.1	<0.1	-	-
		Total CLP OC Pesticides	mg/kg	1	1	<1	-	-
SE220562.031	LB226677.004	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.17	92
		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	-	-
		Alpha BHC	mg/kg	0.1	<0.1	<0.1	-	-
		Lindane	mg/kg	0.1	<0.1	<0.1	-	-
		Heptachlor	mg/kg	0.1	0.2	<0.1	0.2	111
		Aldrin	mg/kg	0.1	0.2	<0.1	0.2	106
		Beta BHC	mg/kg	0.1	<0.1	<0.1	-	-
		Delta BHC	mg/kg	0.1	0.2	<0.1	0.2	106
		Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	-	-
		o,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
		Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
		Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
		Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	-	-
		p,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
		Dieldrin	mg/kg	0.2	0.2	<0.2	0.2	107
		Endrin	mg/kg	0.2	0.2	<0.2	0.2	121
		o,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
		o,p'-DDT	mg/kg	0.1	<0.1	<0.1	-	-
		Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
		p,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
		p,p'-DDT	mg/kg	0.1	0.2	<0.1	0.2	83
		Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	-	-
		Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	-	-
		Methoxychlor	mg/kg	0.1	<0.1	<0.1	-	-
		Endrin Ketone	mg/kg	0.1	<0.1	<0.1	-	-

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OC Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220562.031	LB226677.004	Isodrin	mg/kg	0.1	<0.1	<0.1	-	-
		Mirex	mg/kg	0.1	<0.1	<0.1	-	-
		Total CLP OC Pesticides	mg/kg	1	1	<1	-	-
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.16	0.16	106
SE220562.051	LB226678.004	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	-	-
		Alpha BHC	mg/kg	0.1	<0.1	<0.1	-	-
		Lindane	mg/kg	0.1	<0.1	<0.1	-	-
		Heptachlor	mg/kg	0.1	0.2	<0.1	0.2	121
		Aldrin	mg/kg	0.1	0.2	<0.1	0.2	116
		Beta BHC	mg/kg	0.1	<0.1	<0.1	-	-
		Delta BHC	mg/kg	0.1	0.2	<0.1	0.2	115
		Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	-	-
		o,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
		Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
		Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
		Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	-	-
		p,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
		Dieldrin	mg/kg	0.2	0.2	<0.2	0.2	113
		Endrin	mg/kg	0.2	0.2	<0.2	0.2	119
		o,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
		o,p'-DDT	mg/kg	0.1	<0.1	<0.1	-	-
		Beta Endosulfan	mg/kg	0.2	0.2	<0.2	-	-
		p,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
		p,p'-DDT	mg/kg	0.1	0.2	<0.1	0.2	97
		Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	-	-
		Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	-	-
		Methoxychlor	mg/kg	0.1	<0.1	<0.1	-	-
		Endrin Ketone	mg/kg	0.1	<0.1	<0.1	-	-
		Isodrin	mg/kg	0.1	<0.1	<0.1	-	-
		Mirex	mg/kg	0.1	<0.1	<0.1	-	-
		Total CLP OC Pesticides	mg/kg	1	2	<1	-	-
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.16	0.17	108

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220562.001	LB226676.004	Dichlorvos	mg/kg	0.5	1.4	<0.5	2	68
		Dimethoate	mg/kg	0.5	<0.5	<0.5	-	-
		Diazinon (Dimpylate)	mg/kg	0.5	1.7	<0.5	2	85
		Fenitrothion	mg/kg	0.2	<0.2	<0.2	-	-
		Malathion	mg/kg	0.2	<0.2	<0.2	-	-
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.7	<0.2	2	83
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	-	-
		Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	-	-
		Methidathion	mg/kg	0.5	<0.5	<0.5	-	-
		Ethion	mg/kg	0.2	1.5	<0.2	2	77
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	-	-
		Total OP Pesticides*	mg/kg	1.7	6.3	<1.7	-	-
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	82
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	-	76
SE220562.031	LB226677.004	Dichlorvos	mg/kg	0.5	1.6	<0.5	2	78
		Dimethoate	mg/kg	0.5	<0.5	<0.5	-	-
		Diazinon (Dimpylate)	mg/kg	0.5	2.1	<0.5	2	104
		Fenitrothion	mg/kg	0.2	<0.2	<0.2	-	-
		Malathion	mg/kg	0.2	<0.2	<0.2	-	-
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	2.1	<0.2	2	105
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	-	-
		Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	-	-
		Methidathion	mg/kg	0.5	<0.5	<0.5	-	-
		Ethion	mg/kg	0.2	1.4	<0.2	2	71
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	-	-

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OP Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220562.031	LB226677.004	Total OP Pesticides*	mg/kg	1.7	7.2	<1.7	-	-
		Surrogates 2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.4	-	92
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	-	83
SE220562.051	LB226678.004	Dichlorvos	mg/kg	0.5	1.4	<0.5	2	67
		Dimethoate	mg/kg	0.5	<0.5	<0.5	-	-
		Diazinon (Dimpylate)	mg/kg	0.5	1.7	<0.5	2	86
		Fenitrothion	mg/kg	0.2	<0.2	<0.2	-	-
		Malathion	mg/kg	0.2	<0.2	<0.2	-	-
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.7	<0.2	2	84
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	-	-
		Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	-	-
		Methidathion	mg/kg	0.5	<0.5	<0.5	-	-
		Ethion	mg/kg	0.2	1.6	<0.2	2	78
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	-	-
		Total OP Pesticides*	mg/kg	1.7	6.3	<1.7	-	-
		Surrogates 2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	82
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	82

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220562.001	LB226676.004	Naphthalene	mg/kg	0.1	3.9	<0.1	4	97
		2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		Acenaphthylene	mg/kg	0.1	3.8	<0.1	4	95
		Acenaphthene	mg/kg	0.1	4.1	<0.1	4	101
		Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
		Phenanthrene	mg/kg	0.1	3.8	<0.1	4	95
		Anthracene	mg/kg	0.1	4.2	<0.1	4	104
		Fluoranthene	mg/kg	0.1	3.9	<0.1	4	98
		Pyrene	mg/kg	0.1	4.0	<0.1	4	101
		Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
		Chrysene	mg/kg	0.1	<0.1	<0.1	-	-
		Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
		Benzo(a)pyrene	mg/kg	0.1	4.0	<0.1	4	101
		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	-	-
		Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
		Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	-	-
		Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	4.0	<0.2	-	-
		Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	4.2	<0.3	-	-
		Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	4.1	<0.2	-	-
		Total PAH (18)	mg/kg	0.8	32	<0.8	-	-
		Surrogates d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	-	80
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	82
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	-	76
SE220562.031	LB226677.004	Naphthalene	mg/kg	0.1	3.9	<0.1	4	96
		2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		Acenaphthylene	mg/kg	0.1	4.4	<0.1	4	110
		Acenaphthene	mg/kg	0.1	3.8	<0.1	4	96
		Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
		Phenanthrene	mg/kg	0.1	4.5	<0.1	4	111
		Anthracene	mg/kg	0.1	4.1	<0.1	4	103
		Fluoranthene	mg/kg	0.1	4.1	<0.1	4	104
		Pyrene	mg/kg	0.1	4.3	<0.1	4	108
		Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
		Chrysene	mg/kg	0.1	<0.1	<0.1	-	-
		Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
		Benzo(a)pyrene	mg/kg	0.1	3.6	<0.1	4	90
		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	-	-

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220562.031	LB226677.004	Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
		Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	-	-
		Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	3.6	<0.2	-	-
		Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	3.7	<0.3	-	-
		Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	3.7	<0.2	-	-
		Total PAH (18)	mg/kg	0.8	33	<0.8	-	-
		Surrogates						
		d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	-	94
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.4	-	92
SE220562.051	LB226678.004	d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	-	83
		Naphthalene	mg/kg	0.1	4.5	<0.1	4	113
		2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		Acenaphthylene	mg/kg	0.1	4.3	<0.1	4	108
		Acenaphthene	mg/kg	0.1	4.3	<0.1	4	107
		Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
		Phenanthrene	mg/kg	0.1	4.0	<0.1	4	101
		Anthracene	mg/kg	0.1	4.4	<0.1	4	111
		Fluoranthene	mg/kg	0.1	4.2	<0.1	4	106
		Pyrene	mg/kg	0.1	4.3	<0.1	4	108
		Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
		Chrysene	mg/kg	0.1	<0.1	<0.1	-	-
		Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
		Benzo(a)pyrene	mg/kg	0.1	4.2	<0.1	4	105
		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	-	-
		Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
		Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	-	-
		Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	4.2	<0.2	-	-
		Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	4.3	<0.3	-	-
		Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	4.3	<0.2	-	-
		Total PAH (18)	mg/kg	0.8	34	<0.8	-	-
		Surrogates						
		d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	-	78
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	82
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	82

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220562.001	LB226676.004	Arochlor 1016	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1221	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1232	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1242	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1248	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1254	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1260	mg/kg	0.2	0.4	<0.2	0.4	94
		Arochlor 1262	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1268	mg/kg	0.2	<0.2	<0.2	-	-
		Total PCBs (Arochlors)	mg/kg	1	<1	<1	-	-
		Surrogates						
SE220562.031	LB226677.004	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	-	114
		Arochlor 1016	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1221	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1232	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1242	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1248	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1254	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1260	mg/kg	0.2	0.3	<0.2	0.4	86
		Arochlor 1262	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1268	mg/kg	0.2	<0.2	<0.2	-	-
		Total PCBs (Arochlors)	mg/kg	1	<1	<1	-	-
SE220562.051	LB226678.004	Surrogates						
		Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	-	106
		Arochlor 1016	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1221	mg/kg	0.2	<0.2	<0.2	-	-

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

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PCBs in Soil (continued)

Method: ME-(AU)-[ENV]AN20

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220562.051	LB226678.004	Arochlor 1232	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1242	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1248	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1254	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1260	mg/kg	0.2	0.5	<0.2	0.4	115
		Arochlor 1262	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1268	mg/kg	0.2	<0.2	<0.2	-	-
		Total PCBs (Arochlors)		mg/kg	1	<1	<1	-
Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	-	108	

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220562.001	LB226738.004	Arsenic, As	mg/kg	1	49	3	50	92
		Cadmium, Cd	mg/kg	0.3	43	<0.3	50	85
		Chromium, Cr	mg/kg	0.5	54	8.3	50	92
		Copper, Cu	mg/kg	0.5	54	7.0	50	94
		Nickel, Ni	mg/kg	0.5	52	5.4	50	93
		Lead, Pb	mg/kg	1	59	16	50	84
		Zinc, Zn	mg/kg	2	79	32	50	95
SE220562.039	LB226740.004	Arsenic, As	mg/kg	1	48	2	50	92
		Cadmium, Cd	mg/kg	0.3	43	<0.3	50	86
		Chromium, Cr	mg/kg	0.5	64	19	50	89
		Copper, Cu	mg/kg	0.5	58	9.5	50	96
		Nickel, Ni	mg/kg	0.5	55	12	50	86
		Lead, Pb	mg/kg	1	58	16	50	83
		Zinc, Zn	mg/kg	2	100	61	50	87
SE220562.058	LB226926.004	Arsenic, As	mg/kg	1	51	5	50	92
		Cadmium, Cd	mg/kg	0.3	43	<0.3	50	86
		Chromium, Cr	mg/kg	0.5	59	16	50	87
		Copper, Cu	mg/kg	0.5	75	32	50	86
		Nickel, Ni	mg/kg	0.5	57	14	50	85
		Lead, Pb	mg/kg	1	77	35	50	84
		Zinc, Zn	mg/kg	2	110	65	50	80

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%	
SE220562.001	LB226676.004	TRH C10-C14	mg/kg	20	48	<20	40	120	
		TRH C15-C28	mg/kg	45	<45	<45	40	110	
		TRH C29-C36	mg/kg	45	<45	<45	40	88	
		TRH C37-C40	mg/kg	100	<100	<100	-	-	
		TRH C10-C36 Total	mg/kg	110	<110	<110	-	-	
		TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	-	-	
		TRH F Bands	TRH >C10-C16	mg/kg	25	47	<25	40	118
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	47	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	103
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE220562.031	LB226677.004	TRH C10-C14	mg/kg	20	34	<20	40	85	
		TRH C15-C28	mg/kg	45	<45	<45	40	85	
		TRH C29-C36	mg/kg	45	<45	<45	40	83	
		TRH C37-C40	mg/kg	100	<100	<100	-	-	
		TRH C10-C36 Total	mg/kg	110	<110	<110	-	-	
		TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	-	-	
		TRH F Bands	TRH >C10-C16	mg/kg	25	34	<25	40	85
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	30	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	93
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE220562.051	LB226678.004	TRH C10-C14	mg/kg	20	48	<20	40	120	
		TRH C15-C28	mg/kg	45	46	<45	40	115	
		TRH C29-C36	mg/kg	45	<45	<45	40	80	
		TRH C37-C40	mg/kg	100	<100	<100	-	-	
		TRH C10-C36 Total	mg/kg	110	<110	<110	-	-	
		TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	-	-	

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TRH (Total Recoverable Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]JAN403

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220562.051	LB226678.004	TRH F	TRH >C10-C16	mg/kg	25	47	<25	40	118
		Bands	TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	47	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	103
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-

VOC's in Soil

Method: ME-(AU)-[ENV]JAN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220562.001	LB226669.004	Monocyclic	Benzene	mg/kg	0.1	3.7	<0.1	5	74
			Aromatic	Toluene	mg/kg	0.1	3.9	<0.1	5
		Ethylbenzene		mg/kg	0.1	4.1	<0.1	5	82
		m/p-xylene		mg/kg	0.2	8.4	<0.2	10	84
		o-xylene		mg/kg	0.1	4.2	<0.1	5	84
		Polycyclic		Naphthalene	mg/kg	0.1	<0.1	<0.1	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.3	7.9	10	93
			d8-toluene (Surrogate)	mg/kg	-	9.5	8.1	10	95
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.2	7.1	10	72
		Totals	Total Xylenes	mg/kg	0.3	13	<0.3	-	-
			Total BTEX	mg/kg	0.6	24	<0.6	-	-
SE220562.031	LB226681.004	Monocyclic	Benzene	mg/kg	0.1	3.5	<0.1	5	70
			Aromatic	Toluene	mg/kg	0.1	3.6	<0.1	5
		Ethylbenzene		mg/kg	0.1	3.9	<0.1	5	77
		m/p-xylene		mg/kg	0.2	7.7	<0.2	10	77
		o-xylene		mg/kg	0.1	3.9	<0.1	5	78
		Polycyclic		Naphthalene	mg/kg	0.1	<0.1	<0.1	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.5	8.2	10	85
			d8-toluene (Surrogate)	mg/kg	-	8.3	7.9	10	83
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.0	7.9	10	80
		Totals	Total Xylenes	mg/kg	0.3	12	<0.3	-	-
			Total BTEX	mg/kg	0.6	23	<0.6	-	-
SE220562.051	LB226684.004	Monocyclic	Benzene	mg/kg	0.1	3.1	<0.1	5	62
			Aromatic	Toluene	mg/kg	0.1	3.2	<0.1	5
		Ethylbenzene		mg/kg	0.1	3.6	<0.1	5	71
		m/p-xylene		mg/kg	0.2	7.3	<0.2	10	72
		o-xylene		mg/kg	0.1	3.7	<0.1	5	73
		Polycyclic		Naphthalene	mg/kg	0.1	<0.1	<0.1	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.6	8.9	10	96
			d8-toluene (Surrogate)	mg/kg	-	9.6	8.8	10	96
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.6	7.8	10	96
		Totals	Total Xylenes	mg/kg	0.3	11	<0.3	-	-
			Total BTEX	mg/kg	0.6	21	<0.6	-	-

VOCs in Water

Method: ME-(AU)-[ENV]JAN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220471.002	LB226623.027	Monocyclic	Benzene	µg/L	0.5	52	<0.5	45.45	115
			Aromatic	Toluene	µg/L	0.5	53	<0.5	45.45
			Ethylbenzene	µg/L	0.5	52	<0.5	45.45	114
			m/p-xylene	µg/L	1	100	<1	90.9	114
			o-xylene	µg/L	0.5	52	<0.5	45.45	114
		Polycyclic	Naphthalene	µg/L	0.5	54	<0.5	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10	10.1	-	101
			d8-toluene (Surrogate)	µg/L	-	10	10.1	-	100
			Bromofluorobenzene (Surrogate)	µg/L	-	10	10.0	-	102

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]JAN433

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%	
SE220562.001	LB226669.004	TRH C6-C10	mg/kg	25	71	<25	92.5	73	
		TRH C6-C9	mg/kg	20	56	<20	80	66	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.3	7.9	10	93
			d8-toluene (Surrogate)	mg/kg	-	9.5	8.1	10	95
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.2	7.1	-	72
		VPH F	Benzene (F0)	mg/kg	0.1	3.7	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	47	<25	62.5	70

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Volatile Petroleum Hydrocarbons in Soil (continued)

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220562.031	LB226681.004	TRH C6-C10	mg/kg	25	66	<25	92.5	71
		TRH C6-C9	mg/kg	20	58	<20	80	73
		Surrogates						
		d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.5	8.2	10	85
		d8-toluene (Surrogate)	mg/kg	-	8.3	7.9	10	83
		Bromofluorobenzene (Surrogate)	mg/kg	-	8.0	7.9	-	80
		VPH F						
		Benzene (F0)	mg/kg	0.1	3.5	<0.1	-	-
SE220562.051	LB226684.004	Bands						
		TRH C6-C10 minus BTEX (F1)	mg/kg	25	43	<25	62.5	69
		TRH C6-C10	mg/kg	25	73	<25	92.5	78
		TRH C6-C9	mg/kg	20	56	<20	80	69
		Surrogates						
		d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.6	8.9	10	96
		d8-toluene (Surrogate)	mg/kg	-	9.6	8.8	10	96
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.6	7.8	-	96
		VPH F						
		Benzene (F0)	mg/kg	0.1	3.1	<0.1	-	-
		Bands						
		TRH C6-C10 minus BTEX (F1)	mg/kg	25	52	<25	62.5	82

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220471.002	LB226623.027	TRH C6-C10	µg/L	50	950	<50	946.63	100
		TRH C6-C9	µg/L	40	830	<40	818.71	101
		Surrogates						
		d4-1,2-dichloroethane (Surrogate)	µg/L	-	10	10.1	-	101
		d8-toluene (Surrogate)	µg/L	-	10	10.1	-	100
		Bromofluorobenzene (Surrogate)	µg/L	-	10	10.0	-	102
		VPH F						
		Benzene (F0)	µg/L	0.5		<0.5	-	-
		Bands						
		TRH C6-C10 minus BTEX (F1)	µg/L	50	640	<50	639.67	100

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here : <https://www.sgs.com.au/~media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf>

- * NATA accreditation does not cover the performance of this service .
- ** Indicative data, theoretical holding time exceeded.
- *** Indicates that both * and ** apply.
- Sample not analysed for this analyte.
- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
- QFL QC result is below the lower tolerance.
- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- ③ Results less than 5 times LOR preclude acceptance criteria for RPD.
- ④ Recovery failed acceptance criteria due to matrix interference.
- ⑤ Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- ⑥ LOR was raised due to sample matrix interference.
- ⑦ LOR was raised due to dilution of significantly high concentration of analyte in sample.
- ⑧ Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
- ⑨ Recovery failed acceptance criteria due to sample heterogeneity.
- ⑩ LOR was raised due to high conductivity of the sample (required dilution).
- † Refer to relevant report comments for further information.

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Project **E24711 22-32 Queen Street, Campbelltown**
 Order Number **E24711**
 Samples 33

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SGS Reference **SE220562 R0**
 Date Received 09 Jun 2021
 Date Reported 17 Jun 2021

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

No respirable fibres detected in all soil samples using trace analysis technique.

Asbestos analysed by Approved Identifiers Ravee Sivasubramaniam and Yusuf Kuthupudin .

SIGNATORIES



Akheeque BENIAMEEN
Chemist



Huong CRAWFORD
Production Manager



Kamrul AHSAN
Senior Chemist



Ly Kim HA
Organic Section Head



Ravee SIVASUBRAMANIAM
Hygiene Team Leader

RESULTS

Fibre Identification in soil

Method AN602

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Fibre Identification	Est.%w/w*
SE220562.001	BH1M-0.1-0.2	Soil	179g Sand,Soil,Rocks	07 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.008	BH2-0.1-0.2	Soil	154g Clay,Sand,Soil,Rocks	07 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.009	BH3-0.1-0.2	Soil	160g Clay,Soil,Rocks	07 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.010	BH4_0.1-0.2	Soil	140g Clay,Sand,Soil,Rocks	07 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.012	BH5_0.3-0.4	Soil	156g Clay,Sand,Rocks	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.013	BH6_0.1-0.2	Soil	222g Clay,Sand,Rocks	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.014	BH7_0.1-0.2	Soil	157g Clay,Sand,Soil,Rocks	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.015	BH8_0.1-0.2	Soil	243g Clay,Sand,Soil,Rocks	07 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.017	BH9_0.2-0.3	Soil	195g Clay,Sand,Rocks,Cement Mixer	07 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.018	BH10_0.2-0.3	Soil	272g Clay,Sand,Rocks,Cement Mixer	07 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.019	BH11M_0.1-0.2	Soil	194g Clay,Rocks	07 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.025	BH12_0.1-0.2	Soil	138g Clay,Sand,Rocks	07 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.027	BH13_0.2-0.3	Soil	144g Clay,Sand,Rocks	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.029	BH14_0.3-0.4	Soil	178g Clay,Sand,Rocks	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.030	BH15_0.2-0.3	Soil	157g Clay,Sand,Rocks	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.031	BH16_0.3-0.4	Soil	135g Clay	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.032	BH17_0.2-0.3	Soil	223g Clay,Sand,Rocks	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.033	BH18_0.1-0.2	Soil	284g Clay,Sand,Rocks	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg Organic Fibres Detected	<0.01
SE220562.034	BH19_0.2-0.3	Soil	183g Clay,Sand,Rocks	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.035	BH20_0.2-0.3	Soil	167g Clay,Sand,Rocks	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.037	BH21_0.2-0.3	Soil	190g Clay,Rocks	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01

RESULTS

Fibre Identification in soil

Method AN602

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Fibre Identification	Est.%w/w*
SE220562.038	BH22_0.15-0.2	Soil	152g Clay,Sand,Rock s,Cement Mixer	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg Organic Fibres Detected	<0.01
SE220562.040	BH23_0.2-0.3	Soil	253g Clay,Sand,Rock s,Cement Mixer	07 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.041	BH24_0.2-0.3	Soil	187g Clay,Sand,Rock s	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.043	BH25M_0.3-0.4	Soil	152g Clay,Sand,Rock s	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.050	BH26_0.3-0.4	Soil	218g Clay,Sand,Rock s	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg Organic Fibres Detected	<0.01
SE220562.051	BH27_0.2-0.3	Soil	169g Clay,Sand,Rock s	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.053	BH28_0.2-0.3	Soil	75g Clay,Sand,Rock s	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.054	BH29M_0.3-0.4	Soil	253g Clay,Sand,Rock s	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.058	BH30_0.2-0.3	Soil	162g Clay,Sand,Rock s	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.060	BH31_0.3-0.4	Soil	163g Clay,Sand,Rock s	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE220562.061	BH32_0.3-0.4	Soil	208g Clay,Sand,Rock s,Cement Mixer	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg Organic Fibres Detected	<0.01
SE220562.063	BH33_0.2-0.3	Soil	194g Clay,Rocks	08 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01

METHOD

METHODOLOGY SUMMARY

AN602	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic 'clues', which provide a reasonable degree of certainty, dispersion staining is a mandatory 'clue' for positive identification. If sufficient 'clues' are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
AN602	Fibres/material that cannot be unequivocally identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.
AN602	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states: "Depending upon sample condition and fibre type, the detection/reporting limit (RL) of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."
AN602	The sample can be reported "no asbestos found at the reporting limit (RL) of 0.1 g/kg" (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (a) no trace asbestos fibres have been detected (i.e. no 'respirable' fibres); (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg; and (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

FOOTNOTES

Amosite	-	Brown Asbestos	NA	-	Not Analysed
Chrysotile	-	White Asbestos	LNR	-	Listed, Not Required
Crocidolite	-	Blue Asbestos	*	-	NATA accreditation does not cover the performance of this service.
Amphiboles	-	Amosite and/or Crocidolite	**	-	Indicative data, theoretical holding time exceeded.
			***	-	Indicates that both * and ** apply.

(In reference to soil samples only) This report does not comply with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment and Remediation and Management of Asbestos Contaminated sites in Western Australia - May 2009.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.

Where reported: 'Asbestos Detected': Asbestos detected by polarised light microscopy, including dispersion staining.

Where reported: 'No Asbestos Found': No Asbestos Found by polarised light microscopy, including dispersion staining.

Where reported: 'UMF Detected': Mineral fibres of unknown type detected by polarised light microscopy, including dispersion staining. Confirmation by another independent analytical technique may be necessary.

Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos-containing bulk materials using polarised light microscopy. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

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CERTIFICATE OF ANALYSIS 271249

Client Details

Client	El Australia
Attention	Lab Email
Address	Suite 6.01, 55 Miller Street, Pyrmont, NSW, 2009

Sample Details

Your Reference	<u>E24711, Campbelltown</u>
Number of Samples	1 soil
Date samples received	09/06/2021
Date completed instructions received	09/06/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

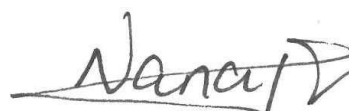
Report Details

Date results requested by	17/06/2021
Date of Issue	16/06/2021
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *	

Results Approved By

Giovanni Agosti, Group Technical Manager
Steven Luong, Organics Supervisor
Thomas Beenie, Lab Technician

Authorised By



Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		271249-1
Your Reference	UNITS	QT1
Date Sampled		07/06/2021
Type of sample		soil
Date extracted	-	11/06/2021
Date analysed	-	11/06/2021
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
naphthalene	mg/kg	<1
Total +ve Xylenes	mg/kg	<3
Surrogate aaa-Trifluorotoluene	%	105

svTRH (C10-C40) in Soil		
Our Reference		271249-1
Your Reference	UNITS	QT1
Date Sampled		07/06/2021
Type of sample		soil
Date extracted	-	11/06/2021
Date analysed	-	12/06/2021
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	%	76

Acid Extractable metals in soil		
Our Reference		271249-1
Your Reference	UNITS	QT1
Date Sampled		07/06/2021
Type of sample		soil
Date prepared	-	15/06/2021
Date analysed	-	15/06/2021
Arsenic	mg/kg	<4
Cadmium	mg/kg	<0.4
Chromium	mg/kg	10
Copper	mg/kg	22
Lead	mg/kg	100
Mercury	mg/kg	<0.1
Nickel	mg/kg	17
Zinc	mg/kg	42

Moisture		
Our Reference		271249-1
Your Reference	UNITS	QT1
Date Sampled		07/06/2021
Type of sample		soil
Date prepared	-	11/06/2021
Date analysed	-	15/06/2021
Moisture	%	16

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTX 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.

Client Reference: E24711, Campbelltown

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-9	[NT]
Date extracted	-			11/06/2021	[NT]	[NT]	[NT]	[NT]	11/06/2021	[NT]
Date analysed	-			11/06/2021	[NT]	[NT]	[NT]	[NT]	11/06/2021	[NT]
TRH C ₆ - C ₉	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	75	[NT]
TRH C ₆ - C ₁₀	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	75	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	79	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	74	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	72	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	74	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	73	[NT]
naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	110	[NT]	[NT]	[NT]	[NT]	97	[NT]

Client Reference: E24711, Campbelltown

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-9	[NT]
Date extracted	-			11/06/2021	[NT]	[NT]	[NT]	[NT]	11/06/2021	[NT]
Date analysed	-			12/06/2021	[NT]	[NT]	[NT]	[NT]	12/06/2021	[NT]
TRH C ₁₀ - C ₁₄	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	118	[NT]
TRH C ₁₅ - C ₂₈	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	95	[NT]
TRH C ₂₉ - C ₃₆	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	83	[NT]
TRH >C ₁₀ -C ₁₆	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	118	[NT]
TRH >C ₁₆ -C ₃₄	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	95	[NT]
TRH >C ₃₄ -C ₄₀	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	83	[NT]
Surrogate o-Terphenyl	%		Org-020	75	[NT]	[NT]	[NT]	[NT]	102	[NT]

Client Reference: E24711, Campbelltown

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-9	[NT]
Date prepared	-			15/06/2021	[NT]	[NT]	[NT]	[NT]	15/06/2021	[NT]
Date analysed	-			15/06/2021	[NT]	[NT]	[NT]	[NT]	15/06/2021	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	94	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	92	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	110	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	120	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	93	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

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Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

CERTIFICATE OF ANALYSIS 271375

Client Details

Client	El Australia
Attention	Accounts Email, Lab Email
Address	Suite 6.01, 55 Miller Street, Pyrmont, NSW, 2009

Sample Details

Your Reference	<u>E24711, Campbelltown</u>
Number of Samples	1 soil
Date samples received	10/06/2021
Date completed instructions received	10/06/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

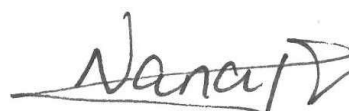
Report Details

Date results requested by	18/06/2021
Date of Issue	16/06/2021
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *	

Results Approved By

Giovanni Agosti, Group Technical Manager
Steven Luong, Organics Supervisor
Thomas Beenie, Lab Technician

Authorised By



Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		271375-1
Your Reference	UNITS	QT2
Date Sampled		08/06/2021
Type of sample		soil
Date extracted	-	11/06/2021
Date analysed	-	11/06/2021
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
naphthalene	mg/kg	<1
Total +ve Xylenes	mg/kg	<3
Surrogate aaa-Trifluorotoluene	%	95

svTRH (C10-C40) in Soil		
Our Reference		271375-1
Your Reference	UNITS	QT2
Date Sampled		08/06/2021
Type of sample		soil
Date extracted	-	11/06/2021
Date analysed	-	12/06/2021
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	%	87

Acid Extractable metals in soil		
Our Reference		271375-1
Your Reference	UNITS	QT2
Date Sampled		08/06/2021
Type of sample		soil
Date prepared	-	15/06/2021
Date analysed	-	15/06/2021
Arsenic	mg/kg	<4
Cadmium	mg/kg	<0.4
Chromium	mg/kg	12
Copper	mg/kg	18
Lead	mg/kg	20
Mercury	mg/kg	<0.1
Nickel	mg/kg	8
Zinc	mg/kg	24

Moisture		
Our Reference		271375-1
Your Reference	UNITS	QT2
Date Sampled		08/06/2021
Type of sample		soil
Date prepared	-	11/06/2021
Date analysed	-	15/06/2021
Moisture	%	15

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTX 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.

Client Reference: E24711, Campbelltown

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-9	[NT]
Date extracted	-			11/06/2021	[NT]	[NT]	[NT]	[NT]	11/06/2021	[NT]
Date analysed	-			11/06/2021	[NT]	[NT]	[NT]	[NT]	11/06/2021	[NT]
TRH C ₆ - C ₉	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	75	[NT]
TRH C ₆ - C ₁₀	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	75	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	79	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	74	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	72	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	74	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	73	[NT]
naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	110	[NT]	[NT]	[NT]	[NT]	97	[NT]

Client Reference: E24711, Campbelltown

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-9	[NT]
Date extracted	-			11/06/2021	[NT]	[NT]	[NT]	[NT]	11/06/2021	[NT]
Date analysed	-			12/06/2021	[NT]	[NT]	[NT]	[NT]	12/06/2021	[NT]
TRH C ₁₀ - C ₁₄	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	118	[NT]
TRH C ₁₅ - C ₂₈	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	95	[NT]
TRH C ₂₉ - C ₃₆	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	83	[NT]
TRH >C ₁₀ -C ₁₆	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	118	[NT]
TRH >C ₁₆ -C ₃₄	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	95	[NT]
TRH >C ₃₄ -C ₄₀	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	83	[NT]
Surrogate o-Terphenyl	%		Org-020	75	[NT]	[NT]	[NT]	[NT]	102	[NT]

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QUALITY CONTROL: Acid Extractable metals in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-9	[NT]
Date prepared	-			15/06/2021	[NT]	[NT]	[NT]	[NT]	15/06/2021	[NT]
Date analysed	-			15/06/2021	[NT]	[NT]	[NT]	[NT]	15/06/2021	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	94	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	92	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	110	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	120	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	93	[NT]

Result Definitions	
NT	Not tested
NA	Test not required
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PQL	Practical Quantitation Limit
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Laboratory Acceptance Criteria

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Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

CLIENT DETAILS

Contact Li Wei
 Client EI AUSTRALIA
 Address SUITE 6.01
 55 MILLER STREET
 PYRMONT NSW 2009

Telephone 61 2 95160722
 Facsimile (Not specified)
 Email li.wei@eiaustralia.com.au

Project **E24711 22-32 Queen Street, Campbelltown**
 Order Number **E24711**
 Samples 8

LABORATORY DETAILS

Manager Huong Crawford
 Laboratory SGS Alexandria Environmental
 Address Unit 16, 33 Maddox St
 Alexandria NSW 2015

Telephone +61 2 8594 0400
 Facsimile +61 2 8594 0499
 Email au.environmental.sydney@sgs.com

SGS Reference **SE220691 R0**
 Date Received 15/6/2021
 Date Reported 22/6/2021

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

SIGNATORIES



Dong LIANG
 Metals/Inorganics Team Leader



Ly Kim HA
 Organic Section Head



Shane MCDERMOTT
 Inorganic/Metals Chemist



Teresa NGUYEN
 Organic Chemist



ANALYTICAL RESULTS

SE220691 R0

VOC's in Soil [AN433] Tested: 17/6/2021

PARAMETER	UOM	LOR	GWTB1	GWTS1
			SOIL	SOIL
			-	-
			15/6/2021 SE220691.007	15/6/2021 SE220691.008
Benzene	mg/kg	0.1	<0.1	[89%]
Toluene	mg/kg	0.1	<0.1	[90%]
Ethylbenzene	mg/kg	0.1	<0.1	[91%]
m/p-xylene	mg/kg	0.2	<0.2	[91%]
o-xylene	mg/kg	0.1	<0.1	[91%]
Naphthalene	mg/kg	0.1	<0.1	-
Total Xylenes	mg/kg	0.3	<0.3	-
Total BTEX	mg/kg	0.6	<0.6	-



ANALYTICAL RESULTS

SE220691 R0

Moisture Content [AN002] Tested: 21/6/2021

			GWTB1
			SOIL
			-
			15/6/2021
PARAMETER	UOM	LOR	SE220691.007
% Moisture	%w/w	1	<1.0

VOCs in Water [AN433] Tested: 16/6/2021

PARAMETER	UOM	LOR	BH1M	BH11M	BH25M	BH29M	GWQD1
			WATER - 15/6/2021 SE220691.001	WATER - 15/6/2021 SE220691.002	WATER - 15/6/2021 SE220691.003	WATER - 15/6/2021 SE220691.004	WATER - 15/6/2021 SE220691.005
Benzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-xylene	µg/L	1	<1	<1	<1	<1	<1
o-xylene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Xylenes	µg/L	1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Total BTEX	µg/L	3	<3	<3	<3	<3	<3
Naphthalene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane (CFC-12)	µg/L	5	<5	<5	<5	<5	-
Chloromethane	µg/L	5	<5	<5	<5	<5	-
Vinyl chloride (Chloroethene)	µg/L	0.3	<0.3	<0.3	<0.3	<0.3	-
Bromomethane	µg/L	10	<10	<10	<10	<10	-
Chloroethane	µg/L	5	<5	<5	<5	<5	-
Trichlorofluoromethane	µg/L	1	<1	<1	<1	<1	-
Acetone (2-propanone)	µg/L	10	<10	<10	<10	<10	-
Iodomethane	µg/L	5	<5	<5	<5	<5	-
1,1-dichloroethene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Acrylonitrile	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Dichloromethane (Methylene chloride)	µg/L	5	<5	<5	<5	<5	-
Allyl chloride	µg/L	2	<2	<2	<2	<2	-
Carbon disulfide	µg/L	2	<2	<2	<2	<2	-
trans-1,2-dichloroethene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
MtBE (Methyl-tert-butyl ether)	µg/L	2	<2	<2	<2	<2	-
1,1-dichloroethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Vinyl acetate	µg/L	10	<10	<10	<10	<10	-
MEK (2-butanone)	µg/L	10	<10	<10	<10	<10	-
cis-1,2-dichloroethene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Bromochloromethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Chloroform (THM)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
2,2-dichloropropane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2-dichloroethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,1,1-trichloroethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,1-dichloropropene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Carbon tetrachloride	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Dibromomethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2-dichloropropane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
2-nitropropane	µg/L	100	<100	<100	<100	<100	-
Bromodichloromethane (THM)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
MIBK (4-methyl-2-pentanone)	µg/L	5	<5	<5	<5	<5	-
cis-1,3-dichloropropene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
trans-1,3-dichloropropene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,1,2-trichloroethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,3-dichloropropane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Dibromochloromethane (THM)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
2-hexanone (MBK)	µg/L	5	<5	<5	<5	<5	-
1,2-dibromoethane (EDB)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Tetrachloroethene (Perchloroethylene,PCE)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,1,1,2-tetrachloroethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Chlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Bromoform (THM)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
cis-1,4-dichloro-2-butene	µg/L	1	<1	<1	<1	<1	-
Styrene (Vinyl benzene)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,1,2,2-tetrachloroethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2,3-trichloropropane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
trans-1,4-dichloro-2-butene	µg/L	1	<1	<1	<1	<1	-

VOCs in Water [AN433] Tested: 16/6/2021 (continued)

PARAMETER	UOM	LOR	BH1M	BH11M	BH25M	BH29M	GWQD1
			WATER	WATER	WATER	WATER	WATER
			15/6/2021 SE220691.001	15/6/2021 SE220691.002	15/6/2021 SE220691.003	15/6/2021 SE220691.004	15/6/2021 SE220691.005
Isopropylbenzene (Cumene)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Bromobenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
n-propylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
2-chlorotoluene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
4-chlorotoluene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,3,5-trimethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
tert-butylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2,4-trimethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
sec-butylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,3-dichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,4-dichlorobenzene	µg/L	0.3	<0.3	<0.3	<0.3	<0.3	-
p-isopropyltoluene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2-dichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
n-butylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2-dibromo-3-chloropropane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2,4-trichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Hexachlorobutadiene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2,3-trichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Total VOC	µg/L	10	<10	<10	<10	<10	-

VOCs in Water [AN433] Tested: 16/6/2021 (continued)

			GWQR1
			WATER
			-
			15/6/2021
PARAMETER	UOM	LOR	SE220691.006
Benzene	µg/L	0.5	<0.5
Toluene	µg/L	0.5	<0.5
Ethylbenzene	µg/L	0.5	<0.5
m/p-xylene	µg/L	1	<1
o-xylene	µg/L	0.5	<0.5
Total Xylenes	µg/L	1.5	<1.5
Total BTEX	µg/L	3	<3
Naphthalene	µg/L	0.5	<0.5
Dichlorodifluoromethane (CFC-12)	µg/L	5	-
Chloromethane	µg/L	5	-
Vinyl chloride (Chloroethene)	µg/L	0.3	-
Bromomethane	µg/L	10	-
Chloroethane	µg/L	5	-
Trichlorofluoromethane	µg/L	1	-
Acetone (2-propanone)	µg/L	10	-
Iodomethane	µg/L	5	-
1,1-dichloroethene	µg/L	0.5	-
Acrylonitrile	µg/L	0.5	-
Dichloromethane (Methylene chloride)	µg/L	5	-
Allyl chloride	µg/L	2	-
Carbon disulfide	µg/L	2	-
trans-1,2-dichloroethene	µg/L	0.5	-
MtBE (Methyl-tert-butyl ether)	µg/L	2	-
1,1-dichloroethane	µg/L	0.5	-
Vinyl acetate	µg/L	10	-
MEK (2-butanone)	µg/L	10	-
cis-1,2-dichloroethene	µg/L	0.5	-
Bromochloromethane	µg/L	0.5	-
Chloroform (THM)	µg/L	0.5	-
2,2-dichloropropane	µg/L	0.5	-
1,2-dichloroethane	µg/L	0.5	-
1,1,1-trichloroethane	µg/L	0.5	-
1,1-dichloropropene	µg/L	0.5	-
Carbon tetrachloride	µg/L	0.5	-
Dibromomethane	µg/L	0.5	-
1,2-dichloropropane	µg/L	0.5	-
Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	-
2-nitropropane	µg/L	100	-
Bromodichloromethane (THM)	µg/L	0.5	-
MIBK (4-methyl-2-pentanone)	µg/L	5	-
cis-1,3-dichloropropene	µg/L	0.5	-
trans-1,3-dichloropropene	µg/L	0.5	-
1,1,2-trichloroethane	µg/L	0.5	-
1,3-dichloropropane	µg/L	0.5	-
Dibromochloromethane (THM)	µg/L	0.5	-
2-hexanone (MBK)	µg/L	5	-
1,2-dibromoethane (EDB)	µg/L	0.5	-
Tetrachloroethene (Perchloroethylene,PCE)	µg/L	0.5	-
1,1,1,2-tetrachloroethane	µg/L	0.5	-
Chlorobenzene	µg/L	0.5	-
Bromoform (THM)	µg/L	0.5	-
cis-1,4-dichloro-2-butene	µg/L	1	-
Styrene (Vinyl benzene)	µg/L	0.5	-
1,1,2,2-tetrachloroethane	µg/L	0.5	-
1,2,3-trichloropropane	µg/L	0.5	-
trans-1,4-dichloro-2-butene	µg/L	1	-

VOCs in Water [AN433] Tested: 16/6/2021 (continued)

			GWQR1
			WATER
			-
			15/6/2021
PARAMETER	UOM	LOR	SE220691.006
Isopropylbenzene (Cumene)	µg/L	0.5	-
Bromobenzene	µg/L	0.5	-
n-propylbenzene	µg/L	0.5	-
2-chlorotoluene	µg/L	0.5	-
4-chlorotoluene	µg/L	0.5	-
1,3,5-trimethylbenzene	µg/L	0.5	-
tert-butylbenzene	µg/L	0.5	-
1,2,4-trimethylbenzene	µg/L	0.5	-
sec-butylbenzene	µg/L	0.5	-
1,3-dichlorobenzene	µg/L	0.5	-
1,4-dichlorobenzene	µg/L	0.3	-
p-isopropyltoluene	µg/L	0.5	-
1,2-dichlorobenzene	µg/L	0.5	-
n-butylbenzene	µg/L	0.5	-
1,2-dibromo-3-chloropropane	µg/L	0.5	-
1,2,4-trichlorobenzene	µg/L	0.5	-
Hexachlorobutadiene	µg/L	0.5	-
1,2,3-trichlorobenzene	µg/L	0.5	-
Total VOC	µg/L	10	-

Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 16/6/2021

PARAMETER	UOM	LOR	BH1M	BH11M	BH25M	BH29M	GWQD1
			WATER	WATER	WATER	WATER	WATER
			-	-	-	-	-
			15/6/2021 SE220691.001	15/6/2021 SE220691.002	15/6/2021 SE220691.003	15/6/2021 SE220691.004	15/6/2021 SE220691.005
TRH C6-C9	µg/L	40	<40	<40	<40	<40	<40
Benzene (F0)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TRH C6-C10	µg/L	50	<50	<50	<50	<50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	<50	<50	<50

PARAMETER	UOM	LOR	GWQR1
			WATER
			-
			15/6/2021 SE220691.006
TRH C6-C9	µg/L	40	<40
Benzene (F0)	µg/L	0.5	<0.5
TRH C6-C10	µg/L	50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	50	<50

TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 17/6/2021

PARAMETER	UOM	LOR	BH1M	BH11M	BH25M	BH29M	GWQD1
			WATER	WATER	WATER	WATER	WATER
			- 15/6/2021 SE220691.001	- 15/6/2021 SE220691.002	- 15/6/2021 SE220691.003	- 15/6/2021 SE220691.004	- 15/6/2021 SE220691.005
TRH C10-C14	µg/L	50	<50	<50	<50	<50	<50
TRH C15-C28	µg/L	200	<200	<200	<200	<200	<200
TRH C29-C36	µg/L	200	<200	<200	<200	<200	<200
TRH C37-C40	µg/L	200	<200	<200	<200	<200	<200
TRH >C10-C16	µg/L	60	<60	<60	<60	<60	<60
TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	<60	<60	<60	<60
TRH >C16-C34 (F3)	µg/L	500	<500	<500	<500	<500	<500
TRH >C34-C40 (F4)	µg/L	500	<500	<500	<500	<500	<500
TRH C10-C40	µg/L	320	<320	<320	<320	<320	<320

PARAMETER	UOM	LOR	GWQR1
			WATER
			- 15/6/2021 SE220691.006
TRH C10-C14	µg/L	50	<50
TRH C15-C28	µg/L	200	<200
TRH C29-C36	µg/L	200	<200
TRH C37-C40	µg/L	200	<200
TRH >C10-C16	µg/L	60	<60
TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60
TRH >C16-C34 (F3)	µg/L	500	<500
TRH >C34-C40 (F4)	µg/L	500	<500
TRH C10-C40	µg/L	320	<320

PAH (Polynuclear Aromatic Hydrocarbons) in Water [AN420] Tested: 17/6/2021

PARAMETER	UOM	LOR	BH1M	BH11M	BH25M	BH29M
			WATER - 15/6/2021 SE220691.001	WATER - 15/6/2021 SE220691.002	WATER - 15/6/2021 SE220691.003	WATER - 15/6/2021 SE220691.004
Naphthalene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Total PAH (18)	µg/L	1	<1	<1	<1	<1



ANALYTICAL RESULTS

SE220691 R0

Total Phenolics in Water [AN289] Tested: 18/6/2021

			BH1M	BH11M	BH25M	BH29M
			WATER	WATER	WATER	WATER
			-	-	-	-
			15/6/2021	15/6/2021	15/6/2021	15/6/2021
			SE220691.001	SE220691.002	SE220691.003	SE220691.004
PARAMETER	UOM	LOR				
Total Phenols	mg/L	0.01	0.01	0.02	0.01	0.02

Anions by Ion Chromatography in Water [AN245] Tested: 17/6/2021

PARAMETER	UOM	LOR	BH1M	BH11M	BH25M	BH29M
			WATER	WATER	WATER	WATER
			-	-	-	-
			15/6/2021 SE220691.001	15/6/2021 SE220691.002	15/6/2021 SE220691.003	15/6/2021 SE220691.004
Chloride	mg/L	1	8700	5900	8900	8400
Sulfate, SO ₄	mg/L	1	380	260	200	270



ANALYTICAL RESULTS

SE220691 R0

pH in water [AN101] Tested: 16/6/2021

			BH1M	BH11M	BH25M	BH29M
			WATER	WATER	WATER	WATER
			-	-	-	-
			15/6/2021	15/6/2021	15/6/2021	15/6/2021
			SE220691.001	SE220691.002	SE220691.003	SE220691.004
PARAMETER	UOM	LOR				
pH**	No unit	-	5.7	6.1	6.2	6.2



ANALYTICAL RESULTS

SE220691 R0

Conductivity and TDS by Calculation - Water [AN106] Tested: 16/6/2021

			BH1M	BH11M	BH25M	BH29M
			WATER	WATER	WATER	WATER
			-	-	-	-
			15/6/2021	15/6/2021	15/6/2021	15/6/2021
			SE220691.001	SE220691.002	SE220691.003	SE220691.004
PARAMETER	UOM	LOR				
Conductivity @ 25 C	µS/cm	2	20000	15000	27000	20000

Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 16/6/2021

PARAMETER	UOM	LOR	BH1M	BH11M	BH25M	BH29M	GWQD1
			WATER	WATER	WATER	WATER	WATER
			-	-	-	-	-
			15/6/2021 SE220691.001	15/6/2021 SE220691.002	15/6/2021 SE220691.003	15/6/2021 SE220691.004	15/6/2021 SE220691.005
Arsenic, As	µg/L	1	2	<1	<1	<1	2
Cadmium, Cd	µg/L	0.1	0.3	<0.1	<0.1	0.2	0.3
Chromium, Cr	µg/L	1	2	<1	<1	2	2
Copper, Cu	µg/L	1	3	<1	<1	2	2
Lead, Pb	µg/L	1	<1	<1	<1	<1	<1
Nickel, Ni	µg/L	1	57	15	5	8	55
Zinc, Zn	µg/L	5	100	22	47	72	87

PARAMETER	UOM	LOR	GWQR1
			WATER
			-
			15/6/2021 SE220691.006
Arsenic, As	µg/L	1	<1
Cadmium, Cd	µg/L	0.1	<0.1
Chromium, Cr	µg/L	1	<1
Copper, Cu	µg/L	1	<1
Lead, Pb	µg/L	1	<1
Nickel, Ni	µg/L	1	<1
Zinc, Zn	µg/L	5	<5

Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 16/6/2021

PARAMETER	UOM	LOR	BH1M	BH11M	BH25M	BH29M	GWQD1
			WATER	WATER	WATER	WATER	WATER
			-	-	-	-	-
			15/6/2021	15/6/2021	15/6/2021	15/6/2021	15/6/2021
			SE220691.001	SE220691.002	SE220691.003	SE220691.004	SE220691.005
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

PARAMETER	UOM	LOR	GWQR1
			WATER
			-
			15/6/2021
			SE220691.006
Mercury	mg/L	0.0001	<0.0001

METHOD

METHODOLOGY SUMMARY

- AN002** The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
- AN020** Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.
- AN101** pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode (glass plus reference electrode) and is calibrated against 3 buffers purchased commercially. For soils, an extract with water is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA 4500-H+.
- AN106** Conductivity and TDS by Calculation: Conductivity is measured by meter with temperature compensation and is calibrated against a standard solution of potassium chloride. Conductivity is generally reported as µmhos/cm or µS/cm @ 25°C. For soils, an extract with water is made at a ratio of 1:5 and the EC determined and reported on the extract, or calculated back to the as-received sample. Total Dissolved Salts can be estimated from conductivity using a conversion factor, which for natural waters, is in the range 0.55 to 0.75. SGS use 0.6. Reference APHA 2510 B.
- AN106** Salinity may be calculated in terms of NaCl from the sample conductivity. This assumes all soluble salts present, measured by the conductivity, are present as NaCl.
- AN245** Anions by Ion Chromatography: A water sample is injected into an eluent stream that passes through the ion chromatographic system where the anions of interest ie Br, Cl, NO₂, NO₃ and SO₄ are separated on their relative affinities for the active sites on the column packing material. Changes to the conductivity and the UV-visible absorbance of the eluent enable identification and quantitation of the anions based on their retention time and peak height or area. APHA 4110 B
- AN289** Analysis of Total Phenols in Soil Sediment and Water: Steam distillable phenols react with 4-aminoantipyrine at pH 7.9±0.1 in the presence of potassium ferricyanide to form a coloured antipyrine dye analysed by Discrete Analyser. Reference APHA 5530 B/D.
- AN311(Perth)/AN312** Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.
- AN318** Determination of elements at trace level in waters by ICP-MS technique,, referenced to USEPA 6020B and USEPA 200.8 (5.4).
- AN403** Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). Where F2 is corrected for Naphthalene, the VOC data for Naphthalene is used.
- AN403** Additionally, the volatile C6-C9/C6-C10 fractions may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRH-Silica) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents.
- AN403** The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.
- AN420** (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
- AN433** VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
**	Indicative data, theoretical holding time exceeded.	NVL	Not validated.	LOR	Limit of Reporting.
***	Indicates that both * and ** apply.	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
		LNR	Sample listed, but not received.		

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the "Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.

Note that in terms of units of radioactivity:

- 1 Bq is equivalent to 27 pCi
- 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

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STATEMENT OF QA/QC PERFORMANCE

SE220691 R0

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Project **E24711 22-32 Queen Street, Campbelltown**
Order Number **E24711**
Samples 8

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SGS Reference **SE220691 R0**
Date Received 15 Jun 2021
Date Reported 22 Jun 2021

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.

This QA/QC Statement must be read in conjunction with the referenced Analytical Report.

The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met (within the SGS Alexandria Environmental laboratory).

SAMPLE SUMMARY

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	2 Soil, 6 Water
Date documentation received	15/6/2021	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	18°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Anions by Ion Chromatography in Water

Method: ME-(AU)-[ENV]AN245

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M	SE220691.001	LB226918	15 Jun 2021	15 Jun 2021	13 Jul 2021	17 Jun 2021	13 Jul 2021	21 Jun 2021
BH11M	SE220691.002	LB226918	15 Jun 2021	15 Jun 2021	13 Jul 2021	17 Jun 2021	13 Jul 2021	21 Jun 2021
BH25M	SE220691.003	LB226918	15 Jun 2021	15 Jun 2021	13 Jul 2021	17 Jun 2021	13 Jul 2021	21 Jun 2021
BH29M	SE220691.004	LB226918	15 Jun 2021	15 Jun 2021	13 Jul 2021	17 Jun 2021	13 Jul 2021	21 Jun 2021

Conductivity and TDS by Calculation - Water

Method: ME-(AU)-[ENV]AN106

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M	SE220691.001	LB226840	15 Jun 2021	15 Jun 2021	13 Jul 2021	16 Jun 2021	13 Jul 2021	16 Jun 2021
BH11M	SE220691.002	LB226840	15 Jun 2021	15 Jun 2021	13 Jul 2021	16 Jun 2021	13 Jul 2021	16 Jun 2021
BH25M	SE220691.003	LB226840	15 Jun 2021	15 Jun 2021	13 Jul 2021	16 Jun 2021	13 Jul 2021	16 Jun 2021
BH29M	SE220691.004	LB226840	15 Jun 2021	15 Jun 2021	13 Jul 2021	16 Jun 2021	13 Jul 2021	16 Jun 2021

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M	SE220691.001	LB226817	15 Jun 2021	15 Jun 2021	13 Jul 2021	16 Jun 2021	13 Jul 2021	17 Jun 2021
BH11M	SE220691.002	LB226817	15 Jun 2021	15 Jun 2021	13 Jul 2021	16 Jun 2021	13 Jul 2021	17 Jun 2021
BH25M	SE220691.003	LB226817	15 Jun 2021	15 Jun 2021	13 Jul 2021	16 Jun 2021	13 Jul 2021	17 Jun 2021
BH29M	SE220691.004	LB226817	15 Jun 2021	15 Jun 2021	13 Jul 2021	16 Jun 2021	13 Jul 2021	17 Jun 2021
GWQD1	SE220691.005	LB226817	15 Jun 2021	15 Jun 2021	13 Jul 2021	16 Jun 2021	13 Jul 2021	17 Jun 2021
GWQR1	SE220691.006	LB226817	15 Jun 2021	15 Jun 2021	13 Jul 2021	16 Jun 2021	13 Jul 2021	17 Jun 2021

Moisture Content

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
GWTB1	SE220691.007	LB227108	15 Jun 2021	15 Jun 2021	29 Jun 2021	21 Jun 2021	26 Jun 2021	22 Jun 2021

PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M	SE220691.001	LB226914	15 Jun 2021	15 Jun 2021	22 Jun 2021	17 Jun 2021	27 Jul 2021	21 Jun 2021
BH11M	SE220691.002	LB226914	15 Jun 2021	15 Jun 2021	22 Jun 2021	17 Jun 2021	27 Jul 2021	21 Jun 2021
BH25M	SE220691.003	LB226914	15 Jun 2021	15 Jun 2021	22 Jun 2021	17 Jun 2021	27 Jul 2021	21 Jun 2021
BH29M	SE220691.004	LB226914	15 Jun 2021	15 Jun 2021	22 Jun 2021	17 Jun 2021	27 Jul 2021	21 Jun 2021
GWQD1	SE220691.005	LB226914	15 Jun 2021	15 Jun 2021	22 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021
GWQR1	SE220691.006	LB226914	15 Jun 2021	15 Jun 2021	22 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021

pH in water

Method: ME-(AU)-[ENV]AN101

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M	SE220691.001	LB226840	15 Jun 2021	15 Jun 2021	16 Jun 2021	16 Jun 2021	16 Jun 2021	16 Jun 2021
BH11M	SE220691.002	LB226840	15 Jun 2021	15 Jun 2021	16 Jun 2021	16 Jun 2021	16 Jun 2021	16 Jun 2021
BH25M	SE220691.003	LB226840	15 Jun 2021	15 Jun 2021	16 Jun 2021	16 Jun 2021	16 Jun 2021	16 Jun 2021
BH29M	SE220691.004	LB226840	15 Jun 2021	15 Jun 2021	16 Jun 2021	16 Jun 2021	16 Jun 2021	16 Jun 2021

Total Phenolics in Water

Method: ME-(AU)-[ENV]AN289

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M	SE220691.001	LB226984	15 Jun 2021	15 Jun 2021	13 Jul 2021	18 Jun 2021	13 Jul 2021	18 Jun 2021
BH11M	SE220691.002	LB226984	15 Jun 2021	15 Jun 2021	13 Jul 2021	18 Jun 2021	13 Jul 2021	18 Jun 2021
BH25M	SE220691.003	LB226984	15 Jun 2021	15 Jun 2021	13 Jul 2021	18 Jun 2021	13 Jul 2021	18 Jun 2021
BH29M	SE220691.004	LB226984	15 Jun 2021	15 Jun 2021	13 Jul 2021	18 Jun 2021	13 Jul 2021	18 Jun 2021

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M	SE220691.001	LB226813	15 Jun 2021	15 Jun 2021	12 Dec 2021	16 Jun 2021	12 Dec 2021	16 Jun 2021
BH11M	SE220691.002	LB226813	15 Jun 2021	15 Jun 2021	12 Dec 2021	16 Jun 2021	12 Dec 2021	16 Jun 2021
BH25M	SE220691.003	LB226813	15 Jun 2021	15 Jun 2021	12 Dec 2021	16 Jun 2021	12 Dec 2021	16 Jun 2021
BH29M	SE220691.004	LB226813	15 Jun 2021	15 Jun 2021	12 Dec 2021	16 Jun 2021	12 Dec 2021	16 Jun 2021
GWQD1	SE220691.005	LB226813	15 Jun 2021	15 Jun 2021	12 Dec 2021	16 Jun 2021	12 Dec 2021	16 Jun 2021
GWQR1	SE220691.006	LB226813	15 Jun 2021	15 Jun 2021	12 Dec 2021	16 Jun 2021	12 Dec 2021	16 Jun 2021

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M	SE220691.001	LB226914	15 Jun 2021	15 Jun 2021	22 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021
BH11M	SE220691.002	LB226914	15 Jun 2021	15 Jun 2021	22 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021
BH25M	SE220691.003	LB226914	15 Jun 2021	15 Jun 2021	22 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021
BH29M	SE220691.004	LB226914	15 Jun 2021	15 Jun 2021	22 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

TRH (Total Recoverable Hydrocarbons) in Water (continued)

Method: ME-(AU)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
GWQD1	SE220691.005	LB226914	15 Jun 2021	15 Jun 2021	22 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021
GWQR1	SE220691.006	LB226914	15 Jun 2021	15 Jun 2021	22 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
GWTB1	SE220691.007	LB226973	15 Jun 2021	15 Jun 2021	29 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021
GWTS1	SE220691.008	LB226973	15 Jun 2021	15 Jun 2021	29 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M	SE220691.001	LB226894	15 Jun 2021	15 Jun 2021	22 Jun 2021	16 Jun 2021	26 Jul 2021	17 Jun 2021
BH11M	SE220691.002	LB226894	15 Jun 2021	15 Jun 2021	22 Jun 2021	16 Jun 2021	26 Jul 2021	17 Jun 2021
BH25M	SE220691.003	LB226894	15 Jun 2021	15 Jun 2021	22 Jun 2021	16 Jun 2021	26 Jul 2021	17 Jun 2021
BH29M	SE220691.004	LB226894	15 Jun 2021	15 Jun 2021	22 Jun 2021	16 Jun 2021	26 Jul 2021	17 Jun 2021
GWQD1	SE220691.005	LB226894	15 Jun 2021	15 Jun 2021	22 Jun 2021	16 Jun 2021	26 Jul 2021	17 Jun 2021
GWQR1	SE220691.006	LB226894	15 Jun 2021	15 Jun 2021	22 Jun 2021	16 Jun 2021	26 Jul 2021	17 Jun 2021

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M	SE220691.001	LB226894	15 Jun 2021	15 Jun 2021	22 Jun 2021	16 Jun 2021	26 Jul 2021	17 Jun 2021
BH11M	SE220691.002	LB226894	15 Jun 2021	15 Jun 2021	22 Jun 2021	16 Jun 2021	26 Jul 2021	17 Jun 2021
BH25M	SE220691.003	LB226894	15 Jun 2021	15 Jun 2021	22 Jun 2021	16 Jun 2021	26 Jul 2021	17 Jun 2021
BH29M	SE220691.004	LB226894	15 Jun 2021	15 Jun 2021	22 Jun 2021	16 Jun 2021	26 Jul 2021	17 Jun 2021
GWQD1	SE220691.005	LB226894	15 Jun 2021	15 Jun 2021	22 Jun 2021	16 Jun 2021	26 Jul 2021	17 Jun 2021
GWQR1	SE220691.006	LB226894	15 Jun 2021	15 Jun 2021	22 Jun 2021	16 Jun 2021	26 Jul 2021	17 Jun 2021

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH1M	SE220691.001	%	40 - 130%	60
	BH11M	SE220691.002	%	40 - 130%	56
	BH25M	SE220691.003	%	40 - 130%	48
	BH29M	SE220691.004	%	40 - 130%	56
d14-p-terphenyl (Surrogate)	BH1M	SE220691.001	%	40 - 130%	76
	BH11M	SE220691.002	%	40 - 130%	76
	BH25M	SE220691.003	%	40 - 130%	68
	BH29M	SE220691.004	%	40 - 130%	74
d5-nitrobenzene (Surrogate)	BH1M	SE220691.001	%	40 - 130%	52
	BH11M	SE220691.002	%	40 - 130%	52
	BH25M	SE220691.003	%	40 - 130%	42
	BH29M	SE220691.004	%	40 - 130%	50

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	GWTB1	SE220691.007	%	60 - 130%	103
	GWTS1	SE220691.008	%	60 - 130%	100
d4-1,2-dichloroethane (Surrogate)	GWTB1	SE220691.007	%	60 - 130%	110
	GWTS1	SE220691.008	%	60 - 130%	107
d8-toluene (Surrogate)	GWTB1	SE220691.007	%	60 - 130%	109
	GWTS1	SE220691.008	%	60 - 130%	106

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1M	SE220691.001	%	40 - 130%	102
	BH11M	SE220691.002	%	40 - 130%	102
	BH25M	SE220691.003	%	40 - 130%	101
	BH29M	SE220691.004	%	40 - 130%	101
	GWQD1	SE220691.005	%	40 - 130%	102
	GWQR1	SE220691.006	%	40 - 130%	102
d4-1,2-dichloroethane (Surrogate)	BH1M	SE220691.001	%	40 - 130%	102
	BH11M	SE220691.002	%	40 - 130%	100
	BH25M	SE220691.003	%	40 - 130%	101
	BH29M	SE220691.004	%	40 - 130%	100
	GWQD1	SE220691.005	%	40 - 130%	101
	GWQR1	SE220691.006	%	40 - 130%	100
d8-toluene (Surrogate)	BH1M	SE220691.001	%	40 - 130%	95
	BH11M	SE220691.002	%	40 - 130%	97
	BH25M	SE220691.003	%	40 - 130%	97
	BH29M	SE220691.004	%	40 - 130%	97
	GWQD1	SE220691.005	%	40 - 130%	96
	GWQR1	SE220691.006	%	40 - 130%	97

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1M	SE220691.001	%	40 - 130%	102
	BH11M	SE220691.002	%	40 - 130%	102
	BH25M	SE220691.003	%	40 - 130%	101
	BH29M	SE220691.004	%	40 - 130%	101
	GWQD1	SE220691.005	%	40 - 130%	102
	GWQR1	SE220691.006	%	40 - 130%	102
d4-1,2-dichloroethane (Surrogate)	BH1M	SE220691.001	%	60 - 130%	102
	BH11M	SE220691.002	%	60 - 130%	100
	BH25M	SE220691.003	%	60 - 130%	101
	BH29M	SE220691.004	%	60 - 130%	100
	GWQD1	SE220691.005	%	60 - 130%	101
	GWQR1	SE220691.006	%	60 - 130%	100
d8-toluene (Surrogate)	BH1M	SE220691.001	%	40 - 130%	95
	BH11M	SE220691.002	%	40 - 130%	97
	BH25M	SE220691.003	%	40 - 130%	97
	BH29M	SE220691.004	%	40 - 130%	97
	GWQD1	SE220691.005	%	40 - 130%	96

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Volatile Petroleum Hydrocarbons in Water (continued)**Method: ME-(AU)-[ENV]AN433**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d8-toluene (Surrogate)	GWQR1	SE220691.006	%	40 - 130%	97

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Anions by Ion Chromatography in Water

Method: ME-(AU)-[ENV]AN245

Sample Number	Parameter	Units	LOR	Result
LB226918.001	Chloride	mg/L	1	<1.0
	Sulfate, SO4	mg/L	1	<1.0

Conductivity and TDS by Calculation - Water

Method: ME-(AU)-[ENV]AN106

Sample Number	Parameter	Units	LOR	Result
LB226840.001	Conductivity @ 25 C	µS/cm	2	<2

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Sample Number	Parameter	Units	LOR	Result
LB226817.001	Mercury	mg/L	0.0001	<0.0001

PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result
LB226914.001	Naphthalene	µg/L	0.1	<0.1
	2-methylnaphthalene	µg/L	0.1	<0.1
	1-methylnaphthalene	µg/L	0.1	<0.1
	Acenaphthylene	µg/L	0.1	<0.1
	Acenaphthene	µg/L	0.1	<0.1
	Fluorene	µg/L	0.1	<0.1
	Phenanthrene	µg/L	0.1	<0.1
	Anthracene	µg/L	0.1	<0.1
	Fluoranthene	µg/L	0.1	<0.1
	Pyrene	µg/L	0.1	<0.1
	Benzo(a)anthracene	µg/L	0.1	<0.1
	Chrysene	µg/L	0.1	<0.1
	Benzo(a)pyrene	µg/L	0.1	<0.1
	Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1
	Dibenzo(ah)anthracene	µg/L	0.1	<0.1
	Benzo(ghi)perylene	µg/L	0.1	<0.1
Surrogates	d5-nitrobenzene (Surrogate)	%	-	54
	2-fluorobiphenyl (Surrogate)	%	-	62
	d14-p-terphenyl (Surrogate)	%	-	74

Total Phenolics in Water

Method: ME-(AU)-[ENV]AN289

Sample Number	Parameter	Units	LOR	Result
LB226984.001	Total Phenols	mg/L	0.01	<0.01

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result
LB226813.001	Arsenic, As	µg/L	1	<1
	Cadmium, Cd	µg/L	0.1	<0.1
	Chromium, Cr	µg/L	1	<1
	Copper, Cu	µg/L	1	<1
	Lead, Pb	µg/L	1	<1
	Nickel, Ni	µg/L	1	<1
	Zinc, Zn	µg/L	5	<5

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter	Units	LOR	Result
LB226914.001	TRH C10-C14	µg/L	50	<50
	TRH C15-C28	µg/L	200	<200
	TRH C29-C36	µg/L	200	<200
	TRH C37-C40	µg/L	200	<200

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number	Parameter	Units	LOR
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Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOC's in Soil (continued)

Method: ME-(AU)-ENVJAN433

Sample Number	Parameter	Units	LOR	Result
LB226973.001	Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.1
		Toluene	mg/kg	0.1
		Ethylbenzene	mg/kg	0.1
		m/p-xylene	mg/kg	0.2
		o-xylene	mg/kg	0.1
	Polycyclic VOCs	Naphthalene	mg/kg	0.1
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-
		d8-toluene (Surrogate)	%	-
		Bromofluorobenzene (Surrogate)	%	-
	Totals	Total BTEX	mg/kg	0.6

VOCs in Water

Method: ME-(AU)-ENVJAN433

Sample Number	Parameter	Units	LOR	Result
LB226894.001	Fumigants	2,2-dichloropropane	µg/L	0.5
		1,2-dichloropropane	µg/L	0.5
		cis-1,3-dichloropropene	µg/L	0.5
		trans-1,3-dichloropropene	µg/L	0.5
		1,2-dibromoethane (EDB)	µg/L	0.5
	Halogenated Aliphatics	Dichlorodifluoromethane (CFC-12)	µg/L	5
		Chloromethane	µg/L	5
		Vinyl chloride (Chloroethene)	µg/L	0.3
		Bromomethane	µg/L	10
		Chloroethane	µg/L	5
		Trichlorofluoromethane	µg/L	1
		Iodomethane	µg/L	5
		1,1-dichloroethene	µg/L	0.5
		Dichloromethane (Methylene chloride)	µg/L	5
		Allyl chloride	µg/L	2
		trans-1,2-dichloroethene	µg/L	0.5
		1,1-dichloroethane	µg/L	0.5
		cis-1,2-dichloroethene	µg/L	0.5
		Bromochloromethane	µg/L	0.5
		1,2-dichloroethane	µg/L	0.5
		1,1,1-trichloroethane	µg/L	0.5
		1,1-dichloropropene	µg/L	0.5
		Carbon tetrachloride	µg/L	0.5
		Dibromomethane	µg/L	0.5
		Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5
		1,1,2-trichloroethane	µg/L	0.5
		1,3-dichloropropane	µg/L	0.5
		Tetrachloroethene (Perchloroethylene,PCE)	µg/L	0.5
		1,1,1,2-tetrachloroethane	µg/L	0.5
		cis-1,4-dichloro-2-butene	µg/L	1
		1,1,2,2-tetrachloroethane	µg/L	0.5
		1,2,3-trichloropropane	µg/L	0.5
		trans-1,4-dichloro-2-butene	µg/L	1
		1,2-dibromo-3-chloropropane	µg/L	0.5
		Hexachlorobutadiene	µg/L	0.5
	Halogenated Aromatics	Chlorobenzene	µg/L	0.5
		Bromobenzene	µg/L	0.5
		2-chlorotoluene	µg/L	0.5
		4-chlorotoluene	µg/L	0.5
		1,3-dichlorobenzene	µg/L	0.5
		1,4-dichlorobenzene	µg/L	0.3
		1,2-dichlorobenzene	µg/L	0.5
		1,2,4-trichlorobenzene	µg/L	0.5
		1,2,3-trichlorobenzene	µg/L	0.5
	Monocyclic Aromatic Hydrocarbons	Benzene	µg/L	0.5
		Toluene	µg/L	0.5
		Ethylbenzene	µg/L	0.5
		m/p-xylene	µg/L	1

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOCs in Water (continued)

Method: ME-(AU)-ENVJAN433

Sample Number		Parameter	Units	LOR	Result
LB226894.001	Monocyclic Aromatic Hydrocarbons	o-xylene	µg/L	0.5	<0.5
		Styrene (Vinyl benzene)	µg/L	0.5	<0.5
		Isopropylbenzene (Cumene)	µg/L	0.5	<0.5
		n-propylbenzene	µg/L	0.5	<0.5
		1,3,5-trimethylbenzene	µg/L	0.5	<0.5
		tert-butylbenzene	µg/L	0.5	<0.5
		1,2,4-trimethylbenzene	µg/L	0.5	<0.5
		sec-butylbenzene	µg/L	0.5	<0.5
		p-isopropyltoluene	µg/L	0.5	<0.5
		n-butylbenzene	µg/L	0.5	<0.5
	Nitrogenous Compounds	Acrylonitrile	µg/L	0.5	<0.5
	Oxygenated Compounds	Acetone (2-propanone)	µg/L	10	<10
		MtBE (Methyl-tert-butyl ether)	µg/L	2	<1
		Vinyl acetate	µg/L	10	<10
		MEK (2-butanone)	µg/L	10	<10
		MIBK (4-methyl-2-pentanone)	µg/L	5	<5
		2-hexanone (MBK)	µg/L	5	<5
	Polycyclic VOCs	Naphthalene	µg/L	0.5	<0.5
	Sulphonated	Carbon disulfide	µg/L	2	<2
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	97
		d8-toluene (Surrogate)	%	-	95
		Bromofluorobenzene (Surrogate)	%	-	98
	Trihalomethanes	Chloroform (THM)	µg/L	0.5	<0.5
		Bromodichloromethane (THM)	µg/L	0.5	<0.5
		Dibromochloromethane (THM)	µg/L	0.5	<0.5
		Bromoform (THM)	µg/L	0.5	<0.5

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-ENVJAN433

Sample Number	Parameter	Units	LOR	Result	
LB226894.001	TRH C6-C9	µg/L	40	<40	
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	97
		d8-toluene (Surrogate)	%	-	95
		Bromofluorobenzene (Surrogate)	%	-	98

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Anions by Ion Chromatography in Water

Method: ME-(AU)-[ENV]AN245

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220660.001	LB226918.015	Chloride	mg/L	1	14	14	15	0
SE220741.001	LB226918.024	Sulfate, SO4	mg/L	1	48	46	17	5

Conductivity and TDS by Calculation - Water

Method: ME-(AU)-[ENV]AN106

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220691.004	LB226840.008	Conductivity @ 25 C	µS/cm	2	20000	20000	15	1

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220691.006	LB226817.012	Mercury	µg/L	0.0001	<0.0001	<0.0001	200	197

pH in water

Method: ME-(AU)-[ENV]AN101

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220691.004	LB226840.008	pH**	pH Units	-	6.2	6.2	17	0

Total Phenolics in Water

Method: ME-(AU)-[ENV]AN289

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220623.001	LB226984.013	Total Phenols	mg/L	0.01	0.01	0.01	200	0

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220691.006	LB226914.028	TRH C10-C14	µg/L	50	<50	<50	200	0
		TRH C15-C28	µg/L	200	<200	<200	200	0
		TRH C29-C36	µg/L	200	<200	<200	200	0
		TRH C37-C40	µg/L	200	<200	<200	200	0
		TRH C10-C40	µg/L	320	<320	<320	200	0
		TRH F Bands	µg/L	60	<60	<60	200	0
		TRH >C10-C16	µg/L	60	<60	<60	200	0
		TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	<60	200	0
		TRH >C16-C34 (F3)	µg/L	500	<500	<500	200	0
		TRH >C34-C40 (F4)	µg/L	500	<500	<500	200	0

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220701.002	LB226973.014	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
			Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.7	10.5	50	2
			d8-toluene (Surrogate)	mg/kg	-	10.8	10.6	50	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	10.5	10.3	50	2
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220656.006	LB226894.024	Fumigants	2,2-dichloropropane	µg/L	0.5	<0.5	<0.5	200	0
			1,2-dichloropropane	µg/L	0.5	<0.5	<0.5	200	0
			cis-1,3-dichloropropene	µg/L	0.5	<0.5	<0.5	200	0
			trans-1,3-dichloropropene	µg/L	0.5	<0.5	<0.5	200	0
			1,2-dibromoethane (EDB)	µg/L	0.5	<0.5	<0.5	200	0
		Halogenated	Dichlorodifluoromethane (CFC-12)	µg/L	5	<5	<5	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

VOCs in Water (continued)

Method: ME-(AU)-ENVJAN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220656.006	LB226894.024	Halogenated	Chloromethane	µg/L	5	<5	<5	200	0
		Aliphatics	Vinyl chloride (Chloroethene)	µg/L	0.3	<0.3	<0.3	200	0
			Bromomethane	µg/L	10	<10	<10	200	0
			Chloroethane	µg/L	5	<5	<5	200	0
			Trichlorofluoromethane	µg/L	1	<1	<1	200	0
			Iodomethane	µg/L	5	<5	<5	200	0
			1,1-dichloroethene	µg/L	0.5	<0.5	<0.5	200	0
			Dichloromethane (Methylene chloride)	µg/L	5	<5	<5	200	0
			Allyl chloride	µg/L	2	<2	<2	200	0
			trans-1,2-dichloroethene	µg/L	0.5	<0.5	<0.5	200	0
			1,1-dichloroethane	µg/L	0.5	<0.5	<0.5	200	0
			cis-1,2-dichloroethene	µg/L	0.5	<0.5	<0.5	200	0
			Bromochloromethane	µg/L	0.5	<0.5	<0.5	200	0
			1,2-dichloroethane	µg/L	0.5	<0.5	<0.5	200	0
			1,1,1-trichloroethane	µg/L	0.5	<0.5	<0.5	200	0
			1,1-dichloropropene	µg/L	0.5	<0.5	<0.5	200	0
			Carbon tetrachloride	µg/L	0.5	<0.5	<0.5	200	0
			Dibromomethane	µg/L	0.5	<0.5	<0.5	200	0
			Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	<0.5	<0.5	200	0
			1,1,2-trichloroethane	µg/L	0.5	<0.5	<0.5	200	0
			1,3-dichloropropane	µg/L	0.5	<0.5	<0.5	200	0
			Tetrachloroethene (Perchloroethylene,PCE)	µg/L	0.5	<0.5	<0.5	200	0
			1,1,1,2-tetrachloroethane	µg/L	0.5	<0.5	<0.5	200	0
			cis-1,4-dichloro-2-butene	µg/L	1	<1	<1	200	0
			1,1,2,2-tetrachloroethane	µg/L	0.5	<0.5	<0.5	200	0
			1,2,3-trichloropropane	µg/L	0.5	<0.5	<0.5	200	0
			trans-1,4-dichloro-2-butene	µg/L	1	<1	<1	200	0
			1,2-dibromo-3-chloropropane	µg/L	0.5	<0.5	<0.5	200	0
			Hexachlorobutadiene	µg/L	0.5	<0.5	<0.5	200	0
		Halogenated	Chlorobenzene	µg/L	0.5	<0.5	<0.5	200	0
		Aromatics	Bromobenzene	µg/L	0.5	<0.5	<0.5	200	0
			2-chlorotoluene	µg/L	0.5	<0.5	<0.5	200	0
			4-chlorotoluene	µg/L	0.5	<0.5	<0.5	200	0
			1,3-dichlorobenzene	µg/L	0.5	<0.5	<0.5	200	0
			1,4-dichlorobenzene	µg/L	0.3	<0.3	<0.3	200	0
			1,2-dichlorobenzene	µg/L	0.5	<0.5	<0.5	200	0
			1,2,4-trichlorobenzene	µg/L	0.5	<0.5	<0.5	200	0
			1,2,3-trichlorobenzene	µg/L	0.5	<0.5	<0.5	200	0
		Monocyclic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
		Aromatic	Toluene	µg/L	0.5	<0.5	<0.5	200	0
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	µg/L	0.5	<0.5	<0.5	200	0
			Styrene (Vinyl benzene)	µg/L	0.5	<0.5	<0.5	200	0
			Isopropylbenzene (Cumene)	µg/L	0.5	<0.5	<0.5	200	0
			n-propylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			1,3,5-trimethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			tert-butylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			1,2,4-trimethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			sec-butylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			p-isopropyltoluene	µg/L	0.5	<0.5	<0.5	200	0
			n-butylbenzene	µg/L	0.5	<0.5	<0.5	200	0
		Nitrogenous	Acrylonitrile	µg/L	0.5	<0.5	<0.5	200	0
		Oxygenated	Acetone (2-propanone)	µg/L	10	<10	<10	200	0
		Compounds	MtBE (Methyl-tert-butyl ether)	µg/L	2	<2	<0.5	200	0
			Vinyl acetate	µg/L	10	<10	<10	200	0
			MEK (2-butanone)	µg/L	10	<10	<10	200	0
			MIBK (4-methyl-2-pentanone)	µg/L	5	<5	<5	200	0
			2-hexanone (MBK)	µg/L	5	<5	<5	200	0
		Polycyclic	Naphthalene	µg/L	0.5	<0.5	<0.5	200	0
		Sulphonated	Carbon disulfide	µg/L	2	<2	<2	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

VOCs in Water (continued)

Method: ME-(AU)-ENVJAN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220656.006	LB226894.024	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.9	9.6	30	3
			d8-toluene (Surrogate)	µg/L	-	9.5	9.5	30	0
			Bromofluorobenzene (Surrogate)	µg/L	-	10.1	10.0	30	1
		Trihalomethanes	Chloroform (THM)	µg/L	0.5	<0.5	<0.5	200	0
			Bromodichloromethane (THM)	µg/L	0.5	<0.5	<0.5	200	0
			Dibromochloromethane (THM)	µg/L	0.5	<0.5	<0.5	200	0
			Bromoform (THM)	µg/L	0.5	<0.5	<0.5	200	0
SE220691.001	LB226894.025	Fumigants	2,2-dichloropropane	µg/L	0.5	<0.5	<0.5	200	0
			1,2-dichloropropane	µg/L	0.5	<0.5	<0.5	200	0
			cis-1,3-dichloropropene	µg/L	0.5	<0.5	<0.5	200	0
			trans-1,3-dichloropropene	µg/L	0.5	<0.5	<0.5	200	0
			1,2-dibromoethane (EDB)	µg/L	0.5	<0.5	<0.5	200	0
		Halogenated Aliphatics	Dichlorodifluoromethane (CFC-12)	µg/L	5	<5	<5	200	0
			Chloromethane	µg/L	5	<5	<5	200	0
			Vinyl chloride (Chloroethene)	µg/L	0.3	<0.3	<0.3	200	0
			Bromomethane	µg/L	10	<10	<10	200	0
			Chloroethane	µg/L	5	<5	<5	200	0
			Trichlorofluoromethane	µg/L	1	<1	<1	200	0
			Iodomethane	µg/L	5	<5	<5	200	0
			1,1-dichloroethene	µg/L	0.5	<0.5	<0.5	200	0
			Dichloromethane (Methylene chloride)	µg/L	5	<5	<5	200	0
			Allyl chloride	µg/L	2	<2	<2	200	0
			trans-1,2-dichloroethene	µg/L	0.5	<0.5	<0.5	200	0
			1,1-dichloroethane	µg/L	0.5	<0.5	<0.5	200	0
			cis-1,2-dichloroethene	µg/L	0.5	<0.5	<0.5	200	0
			Bromochloromethane	µg/L	0.5	<0.5	<0.5	200	0
			1,2-dichloroethane	µg/L	0.5	<0.5	<0.5	200	0
			1,1,1-trichloroethane	µg/L	0.5	<0.5	<0.5	200	0
			1,1-dichloropropene	µg/L	0.5	<0.5	<0.5	200	0
			Carbon tetrachloride	µg/L	0.5	<0.5	<0.5	200	0
			Dibromomethane	µg/L	0.5	<0.5	<0.5	200	0
			Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	<0.5	<0.5	200	0
		1,1,2-trichloroethane	µg/L	0.5	<0.5	<0.5	200	0	
		1,3-dichloropropane	µg/L	0.5	<0.5	<0.5	200	0	
		Tetrachloroethene (Perchloroethylene,PCE)	µg/L	0.5	<0.5	<0.5	200	0	
		1,1,1,2-tetrachloroethane	µg/L	0.5	<0.5	<0.5	200	0	
		cis-1,4-dichloro-2-butene	µg/L	1	<1	<1	200	0	
		1,1,2,2-tetrachloroethane	µg/L	0.5	<0.5	<0.5	200	0	
		1,2,3-trichloropropane	µg/L	0.5	<0.5	<0.5	200	0	
		trans-1,4-dichloro-2-butene	µg/L	1	<1	<1	200	0	
		1,2-dibromo-3-chloropropane	µg/L	0.5	<0.5	<0.5	200	0	
		Hexachlorobutadiene	µg/L	0.5	<0.5	<0.5	200	0	
		Halogenated Aromatics	Chlorobenzene	µg/L	0.5	<0.5	<0.5	200	0
			Bromobenzene	µg/L	0.5	<0.5	<0.5	200	0
			2-chlorotoluene	µg/L	0.5	<0.5	<0.5	200	0
			4-chlorotoluene	µg/L	0.5	<0.5	<0.5	200	0
			1,3-dichlorobenzene	µg/L	0.5	<0.5	<0.5	200	0
			1,4-dichlorobenzene	µg/L	0.3	<0.3	<0.3	200	0
			1,2-dichlorobenzene	µg/L	0.5	<0.5	<0.5	200	0
			1,2,4-trichlorobenzene	µg/L	0.5	<0.5	<0.5	200	0
			1,2,3-trichlorobenzene	µg/L	0.5	<0.5	<0.5	200	0
			Benzene	µg/L	0.5	<0.5	<0.5	200	0
			Toluene	µg/L	0.5	<0.5	<0.5	200	0
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
		Monocyclic Aromatic	m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	µg/L	0.5	<0.5	<0.5	200	0
			Styrene (Vinyl benzene)	µg/L	0.5	<0.5	<0.5	200	0
			Isopropylbenzene (Cumene)	µg/L	0.5	<0.5	<0.5	200	0
			n-propylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			1,3,5-trimethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			tert-butylbenzene	µg/L	0.5	<0.5	<0.5	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times SDL / Mean + LR$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

VOCs in Water (continued)

Method: ME-(AU)-ENVJAN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220691.001	LB226894.025	Monocyclic	1,2,4-trimethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
		Aromatic	sec-butylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			p-isopropyltoluene	µg/L	0.5	<0.5	<0.5	200	0
			n-butylbenzene	µg/L	0.5	<0.5	<0.5	200	0
		Nitrogenous	Acrylonitrile	µg/L	0.5	<0.5	<0.5	200	0
		Oxygenated	Acetone (2-propanone)	µg/L	10	<10	<10	200	0
		Compounds	MtBE (Methyl-tert-butyl ether)	µg/L	2	<2	<0.5	200	0
			Vinyl acetate	µg/L	10	<10	<10	200	0
			MEK (2-butanone)	µg/L	10	<10	<10	200	0
			MIBK (4-methyl-2-pentanone)	µg/L	5	<5	<5	200	0
			2-hexanone (MBK)	µg/L	5	<5	<5	200	0
		Polycyclic	Naphthalene	µg/L	0.5	<0.5	<0.5	200	0
		Sulphonated	Carbon disulfide	µg/L	2	<2	<2	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.2	10.0	30	2
			d8-toluene (Surrogate)	µg/L	-	9.5	9.7	30	2
			Bromofluorobenzene (Surrogate)	µg/L	-	10.2	10.2	30	0
		Trihalomethanes	Chloroform (THM)	µg/L	0.5	<0.5	<0.5	200	0
			Bromodichloromethane (THM)	µg/L	0.5	<0.5	<0.5	200	0
			Dibromochloromethane (THM)	µg/L	0.5	<0.5	<0.5	200	0
			Bromoform (THM)	µg/L	0.5	<0.5	<0.5	200	0

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-ENVJAN433

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220656.006	LB226894.024	TRH C6-C10	µg/L	50	<50	<50	200	0
		TRH C6-C9	µg/L	40	<40	<40	200	0
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.9	9.6	30	3
		d8-toluene (Surrogate)	µg/L	-	9.5	9.5	30	0
		Bromofluorobenzene (Surrogate)	µg/L	-	10.1	10.0	30	1
	VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
		TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200	0
SE220691.001	LB226894.025	TRH C6-C10	µg/L	50	<50	<50	200	0
		TRH C6-C9	µg/L	40	<40	<40	200	0
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.2	10.0	30	2
		d8-toluene (Surrogate)	µg/L	-	9.5	9.7	30	2
		Bromofluorobenzene (Surrogate)	µg/L	-	10.2	10.2	30	0
	VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
		TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200	0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Anions by Ion Chromatography in Water

Method: ME-(AU)-[ENV]JAN245

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226918.002	Chloride	mg/L	1	19	20	80 - 120	95
	Sulfate, SO4	mg/L	1	19	20	80 - 120	95

Conductivity and TDS by Calculation - Water

Method: ME-(AU)-[ENV]JAN106

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226840.002	Conductivity @ 25 C	µS/cm	2	310	303	90 - 110	101

PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-[ENV]JAN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226914.002	Naphthalene	µg/L	0.1	27	40	60 - 140	67
	Acenaphthylene	µg/L	0.1	33	40	60 - 140	82
	Acenaphthene	µg/L	0.1	29	40	60 - 140	73
	Phenanthrene	µg/L	0.1	37	40	60 - 140	92
	Anthracene	µg/L	0.1	36	40	60 - 140	89
	Fluoranthene	µg/L	0.1	38	40	60 - 140	95
	Pyrene	µg/L	0.1	39	40	60 - 140	98
	Benzo(a)pyrene	µg/L	0.1	37	40	60 - 140	92
	Surrogates						
	d5-nitrobenzene (Surrogate)	µg/L	-	0.3	0.5	40 - 130	52
	2-fluorobiphenyl (Surrogate)	µg/L	-	0.3	0.5	40 - 130	66
	d14-p-terphenyl (Surrogate)	µg/L	-	0.4	0.5	40 - 130	80

pH in water

Method: ME-(AU)-[ENV]JAN101

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226840.003	pH**	No unit	-	7.4	7.415	98 - 102	100

Total Phenolics in Water

Method: ME-(AU)-[ENV]JAN289

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226984.002	Total Phenols	mg/L	0.01	0.22	0.25	80 - 120	89

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]JAN318

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226813.002	Arsenic, As	µg/L	1	21	20	80 - 120	103
	Cadmium, Cd	µg/L	0.1	21	20	80 - 120	104
	Chromium, Cr	µg/L	1	22	20	80 - 120	108
	Copper, Cu	µg/L	1	22	20	80 - 120	110
	Lead, Pb	µg/L	1	23	20	80 - 120	113
	Nickel, Ni	µg/L	1	21	20	80 - 120	106
	Zinc, Zn	µg/L	5	22	20	80 - 120	110

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]JAN403

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226914.002	TRH C10-C14	µg/L	50	980	1200	60 - 140	82
	TRH C15-C28	µg/L	200	1200	1200	60 - 140	103
	TRH C29-C36	µg/L	200	1200	1200	60 - 140	103
	TRH F Bands						
	TRH >C10-C16	µg/L	60	1100	1200	60 - 140	93
	TRH >C16-C34 (F3)	µg/L	500	1300	1200	60 - 140	107
	TRH >C34-C40 (F4)	µg/L	500	620	600	60 - 140	103

VOC's in Soil

Method: ME-(AU)-[ENV]JAN433

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226973.002	Monocyclic						
	Benzene	mg/kg	0.1	4.8	5	60 - 140	97
	Aromatic						
	Toluene	mg/kg	0.1	4.9	5	60 - 140	97
	Ethylbenzene	mg/kg	0.1	5.0	5	60 - 140	100
	m/p-xylene	mg/kg	0.2	9.9	10	60 - 140	99
	o-xylene	mg/kg	0.1	5.0	5	60 - 140	99
	Surrogates						
	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11.4	10	70 - 130	114
	d8-toluene (Surrogate)	mg/kg	-	11.1	10	70 - 130	111

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]JAN433

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226973.002	Surrogates	Bromofluorobenzene (Surrogate)	mg/kg	-	10.3	10	70 - 130

VOCs in Water

Method: ME-(AU)-[ENV]JAN433

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226894.002	Halogenated	1,1-dichloroethene	µg/L	0.5	38	45.45	60 - 140
	Aliphatics	1,2-dichloroethane	µg/L	0.5	44	45.45	60 - 140
		Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	41	45.45	60 - 140
	Halogenated	Chlorobenzene	µg/L	0.5	45	45.45	60 - 140
	Monocyclic	Benzene	µg/L	0.5	50	45.45	60 - 140
	Aromatic	Toluene	µg/L	0.5	49	45.45	60 - 140
		Ethylbenzene	µg/L	0.5	49	45.45	60 - 140
		m/p-xylene	µg/L	1	98	90.9	60 - 140
		o-xylene	µg/L	0.5	49	45.45	60 - 140
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.3	10	60 - 140
		d8-toluene (Surrogate)	µg/L	-	10.1	10	70 - 130
		Bromofluorobenzene (Surrogate)	µg/L	-	9.7	10	70 - 130
	Trihalomethan	Chloroform (THM)	µg/L	0.5	48	45.45	60 - 140

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]JAN433

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226894.002		TRH C6-C10	µg/L	50	870	946.63	60 - 140
		TRH C6-C9	µg/L	40	670	818.71	60 - 140
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.3	10	60 - 140
		d8-toluene (Surrogate)	µg/L	-	10.1	10	70 - 130
		Bromofluorobenzene (Surrogate)	µg/L	-	9.7	10	70 - 130
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	570	639.67	60 - 140

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Anions by Ion Chromatography in Water

Method: ME-(AU)-[ENV]JAN245

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220625.004	LB226918.005	Sulfate, SO4	mg/L	1	20	<1.0	20	95

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]JAN311(Perth)/JAN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220683.040	LB226817.004	Mercury	mg/L	0.0001	0.0020	<0.00005	0.008	98

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]JAN318

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220640.001	LB226813.004	Arsenic, As	µg/L	1	23	<1	20	115
		Cadmium, Cd	µg/L	0.1	21	<0.1	20	105
		Chromium, Cr	µg/L	1	22	<1	20	106
		Copper, Cu	µg/L	1	23	1	20	108
		Lead, Pb	µg/L	1	23	<1	20	112
		Nickel, Ni	µg/L	1	22	<1	20	105
		Zinc, Zn	µg/L	5	94	73	20	104

VOC's in Soil

Method: ME-(AU)-[ENV]JAN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220797.001	LB226973.004	Monocyclic	Benzene	mg/kg	0.1	4.4	0.00848817103	5	88
			Aromatic	Toluene	mg/kg	0.1	4.5	0.01110125494	5
		Ethylbenzene		mg/kg	0.1	4.8	0.01266295169	5	95
		m/p-xylene		mg/kg	0.2	9.6	0.03028498690	10	95
		o-xylene		mg/kg	0.1	4.8	0.01621516406	5	96
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	0.00367341124	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11.3	10.54999255131	10	113
			d8-toluene (Surrogate)	mg/kg	-	11.0	10.40408425173	10	110
			Bromofluorobenzene (Surrogate)	mg/kg	-	10.4	10.22160766635	10	104
		Totals	Total Xylenes	mg/kg	0.3	14	0.04650015097	-	-
			Total BTEX	mg/kg	0.6	28	0	-	-

VOCs in Water

Method: ME-(AU)-[ENV]JAN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220656.001	LB226894.023	Monocyclic	Benzene	µg/L	0.5	51	<0.5	45.45	111
			Aromatic	Toluene	µg/L	0.5	49	<0.5	45.45
		Ethylbenzene		µg/L	0.5	48	<0.5	45.45	105
		m/p-xylene		µg/L	1	95	<1	90.9	104
		o-xylene		µg/L	0.5	48	<0.5	45.45	106
		Polycyclic	Naphthalene	µg/L	0.5	54	<0.5	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.9	10.2	-	109
			d8-toluene (Surrogate)	µg/L	-	10.3	9.4	-	103
			Bromofluorobenzene (Surrogate)	µg/L	-	9.9	10.2	-	99

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]JAN433

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%	
SE220656.001	LB226894.023	TRH C6-C10	µg/L	50	840	<50	946.63	89	
		TRH C6-C9	µg/L	40	750	<40	818.71	91	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.9	10.2	-	109
			d8-toluene (Surrogate)	µg/L	-	10.3	9.4	-	103
			Bromofluorobenzene (Surrogate)	µg/L	-	9.9	10.2	-	99
		VPH F	Benzene (F0)	µg/L	0.5	<0.5	-	-	
			Bands	TRH C6-C10 minus RTEX (F1)	µg/L	50	550	<50	639.67

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here : <https://www.sgs.com.au/~media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf>

- * NATA accreditation does not cover the performance of this service .
- ** Indicative data, theoretical holding time exceeded.
- *** Indicates that both * and ** apply.
- Sample not analysed for this analyte.
- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
- QFL QC result is below the lower tolerance.
- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- ③ Results less than 5 times LOR preclude acceptance criteria for RPD.
- ④ Recovery failed acceptance criteria due to matrix interference.
- ⑤ Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- ⑥ LOR was raised due to sample matrix interference.
- ⑦ LOR was raised due to dilution of significantly high concentration of analyte in sample.
- ⑧ Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
- ⑨ Recovery failed acceptance criteria due to sample heterogeneity.
- ⑩ LOR was raised due to high conductivity of the sample (required dilution).
- † Refer to relevant report comments for further information.

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CERTIFICATE OF ANALYSIS 271797

Client Details

Client	El Australia
Attention	Lab Email
Address	Suite 6.01, 55 Miller Street, Pyrmont, NSW, 2009

Sample Details

Your Reference	<u>E24711, 23-32 Queen St, Campbelltown</u>
Number of Samples	1 Water
Date samples received	16/06/2021
Date completed instructions received	16/06/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

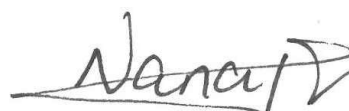
Report Details

Date results requested by	23/06/2021
Date of Issue	21/06/2021
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Results Approved By

Dragana Tomas, Senior Chemist
Giovanni Agosti, Group Technical Manager

Authorised By



Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Water		
Our Reference		271797-1
Your Reference	UNITS	GWQT1
Date Sampled		15/06/2021
Type of sample		Water
Date extracted	-	17/06/2021
Date analysed	-	17/06/2021
TRH C ₆ - C ₉	µg/L	<10
TRH C ₆ - C ₁₀	µg/L	<10
TRH C ₆ - C ₁₀ less BTEX (F1)	µg/L	<10
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	101
Surrogate toluene-d8	%	100
Surrogate 4-BFB	%	100

svTRH (C10-C40) in Water		
Our Reference		271797-1
Your Reference	UNITS	GWQT1
Date Sampled		15/06/2021
Type of sample		Water
Date extracted	-	17/06/2021
Date analysed	-	17/06/2021
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 ₁₀ - C ₁₆ less Naphthalene (F2)	µg/L	<50
TRH >C ₁₆ - C ₃₄	µg/L	<100
TRH >C ₃₄ - C ₄₀	µg/L	<100
Surrogate o-Terphenyl	%	84

HM in water - dissolved		
Our Reference		271797-1
Your Reference	UNITS	GWQT1
Date Sampled		15/06/2021
Type of sample		Water
Date prepared	-	17/06/2021
Date analysed	-	17/06/2021
Arsenic-Dissolved	µg/L	<1
Cadmium-Dissolved	µg/L	0.4
Chromium-Dissolved	µg/L	1
Copper-Dissolved	µg/L	3
Lead-Dissolved	µg/L	<1
Mercury-Dissolved	µg/L	<0.05
Nickel-Dissolved	µg/L	63
Zinc-Dissolved	µg/L	110

Method ID	Methodology Summary
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-023	Water samples are analysed directly by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			17/06/2021	[NT]	[NT]	[NT]	[NT]	17/06/2021	[NT]
Date analysed	-			17/06/2021	[NT]	[NT]	[NT]	[NT]	17/06/2021	[NT]
TRH C ₆ - C ₉	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	84	[NT]
TRH C ₆ - C ₁₀	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	84	[NT]
Benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	80	[NT]
Toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	81	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	85	[NT]
m+p-xylene	µg/L	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	86	[NT]
o-xylene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	82	[NT]
Naphthalene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	104	[NT]	[NT]	[NT]	[NT]	101	[NT]
Surrogate toluene-d8	%		Org-023	100	[NT]	[NT]	[NT]	[NT]	99	[NT]
Surrogate 4-BFB	%		Org-023	101	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			17/06/2021	[NT]	[NT]	[NT]	[NT]	17/06/2021	[NT]
Date analysed	-			17/06/2021	[NT]	[NT]	[NT]	[NT]	17/06/2021	[NT]
TRH C ₁₀ - C ₁₄	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	94	[NT]
TRH C ₁₅ - C ₂₈	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	94	[NT]
TRH C ₂₉ - C ₃₆	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	64	[NT]
TRH >C ₁₀ - C ₁₆	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	94	[NT]
TRH >C ₁₆ - C ₃₄	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	94	[NT]
TRH >C ₃₄ - C ₄₀	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	64	[NT]
Surrogate o-Terphenyl	%		Org-020	74	[NT]	[NT]	[NT]	[NT]	75	[NT]

QUALITY CONTROL: HM in water - dissolved					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			17/06/2021	[NT]	[NT]	[NT]	[NT]	17/06/2021	[NT]
Date analysed	-			17/06/2021	[NT]	[NT]	[NT]	[NT]	17/06/2021	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	[NT]	[NT]	[NT]	[NT]	101	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Appendix I – QA/QC Assessment

11.1 Quality Assurance / Quality Control Program

Quality assurance comprises an assessment of the reliability of the field procedures and laboratory results against standard industry practices and the SAQP. A summary of the project QA/QC measures incorporated into this DSI is presented in **Table I-1**.

Table I-1 Project QC Measures

Task	Description	Project
Field QA/QC		
General	Work was to be undertaken following standard field procedures which are based on industry accepted standard practice.	Soil samples were collected directly from the augers. Soil samples were placed in 250 gram glass jars, which were filled to minimise headspace, and sealed using Teflon-coated lids. Groundwater samples were obtained using sample bottles/jars/vials provided by the laboratory.
	All fieldwork was supervised by a suitably qualified and experienced scientist or engineer.	Yes
Soil Screening with PID	The PID was serviced and calibrated as per manufacturer requirements. PID calibrated at the beginning of each day of fieldwork.	Yes See Appendix F for calibration documentation.
Equipment Decontamination	Sampling equipment to be decontaminated after the collection of each soil sample by washing with phosphate-free detergent (such as Decon 90 or Alconox) and potable water, followed by a final distilled water rinse. One rinsate blank would be collected and analysed for the primary contaminants. All results should be non-detect.	Yes Two rinsate samples were collected in total. One was collected during the soil investigations on 7 June 2021 (QR1), with the other being collected during the groundwater monitoring event on 15 June 2021 (GWQR1). All results were non-detect.
Transport	Samples were stored in a chilled (with ice) cooler box and transported to the laboratories. To ensure the integrity of the samples from collection to receipt by the analytical laboratory, samples were sent by courier to the laboratories under 'chain of custody' describing sample preservation and transport duration.	Yes
Trip Blanks	Trip Blank (TB) samples were to be prepared and analysed by the primary laboratory for BTEX. Analytical results for this sample were below the laboratory LOR, indicating that ideal sample transport and handling conditions were achieved.	Two trip blank samples (QTB1 and GWTB1) prepared by the primary laboratory, were analysed for BTEX during soil and groundwater testing. The results were reported below the laboratory LOR, indicating that ideal sample transport and handling conditions were achieved.

Task	Description	Project
Trip Spikes	Trip spike (TS) samples were to be submitted to the primary laboratory for BTEX analysis, the results for which were reported within the RPD acceptance levels for trip spike recovery. It was therefore concluded that satisfactory sample transport and handling conditions were achieved.	Two trip spike samples (QTS1 and GWTS1) were submitted to the primary laboratory for BTEX analysis, the results of which were reported within the RPD acceptance levels for trip spike recovery. It was therefore concluded that satisfactory sample transport and handling conditions were achieved.
Duplicates	Field duplicate samples were analysed as follows: ▪ intra-laboratory duplicate samples at a rate of 1 in 20 primary samples (as per NEPM); and ▪ inter-laboratory duplicate samples at a rate of 1 in 20 primary samples (as per NEPM). Field and laboratory acceptable limits between 30-50% RPD as stated by AS4482.1–2005. RPDs that exceed this range may be considered acceptable where: ▪ Results are less than 10 times the limits of reporting (LOR); ▪ Results are less than 20 times the LOR and the RPD is less than 50%; or ▪ Heterogeneous materials or volatile compounds are encountered. Non-compliance is to be documented in the report and the sample re-analysed or a higher level conservatively adopted.	The required sampling density of 1 per 20 duplicated primary samples was achieved and sufficient for the investigation. Generally, samples complied with RPD calculations. Soil results can exhibit wide variations in results due to sample heterogeneity, which can in turn exaggerate RPDs. Additionally, some RPD exceedance calculations can be attributed to low limits of reporting. Field QC samples and calculated RPD values are presented in Table I-5. Copies of laboratory reports are included in Appendix H.
Laboratory QA/QC		
Laboratory Analysis	The laboratories selected are NATA accredited for the analytes selected and perform their own internal QA/QC programs.	Yes SGS - primary laboratory EnviroLab - secondary laboratory Laboratory QA/QC analyses are included in Appendix J.
	Appropriate detection limits were used for the analyses to be undertaken.	Practical Quantitation Limits for all tested parameters during the DSI are presented in summary tables Table QC3 in Appendix J.
Holding Times	Holding times are the maximum permissible elapsed time in days from the collection of the sample to its extraction and/or analysis. All extraction and analyses should be completed within standard guidelines.	Assessment of holding times has been undertaken by the laboratory.

Task	Description	Project
Method Blanks	The method blank sample is laboratory prepared, containing the reagents used to prepare the sample for final analysis. The purpose of this procedure is to identify contamination in the reagent materials and assess potential bias in the sample analysis due to contaminated reagents. The QC criterion aims to find no detectable contamination in the reagents. Each analysis procedure should be subject to a method blank analysis. The results of each should indicate that contaminants were not detected.	Assessment of method blanks has been undertaken by the laboratory.
Laboratory Duplicates	Laboratory duplicates are field samples that are split in the laboratory and subsequently analysed a number of times in the same batch. These sub-samples are selected by the laboratory to assess the accuracy and precision of the analytical method. The selected laboratories should undertake QA/QC procedures such as calibration standards, laboratory control samples, surrogates, reference materials, sample duplicates and matrix spikes. Intra-laboratory duplicates should be performed at a frequency of 1 per 10 samples.	Assessment of laboratory duplicates has been undertaken by the laboratory.
Laboratory Control Standard	A laboratory control standard is a standard reference material used in preparing primary standards. The concentration should be equivalent to a mid-range standard to confirm the primary calibration. Laboratory control samples should be performed on a frequency of 1 per 20 samples or at least one per analytical run.	Assessment of laboratory control standards has been undertaken by the laboratory.
Matrix Spikes / Matrix Spike Duplicates	Matrix spikes are field samples to which a predetermined stock solution of known concentration has been added. The samples are then analysed for recovery of the known addition. Recoveries should be within the stated laboratory control limits of 70 to 130% and duplicates should have RPDs of less than 50%.	Assessment of matrix spikes has been undertaken by the laboratory.

Task	Description	Project
Surrogate Spikes	Surrogate spikes provide a means of checking, for every analysis that no gross errors have occurred at any stage of the procedure leading to significant analyte loss. Recoveries should be within the stated laboratory control limits of 70 to 130%.	Assessment of surrogate spikes has been undertaken by the laboratory.
Conclusion	The QA/QC indicators should either all comply with the required standards or showed no variations that would have no significant effect on the quality of the data.	Assessment of the investigation QA/QC is presented in the following sections.

11.2 Calculation of Relative Percentage Difference

The RPD values were calculated using the following equation:

$$RPD = \frac{|C_O - C_R|}{[(C_O + C_R)/2]} \times 100$$

Where:

C_O = Concentration obtained for the primary sample; and

C_R = Concentration obtained for the blind replicate or split duplicate sample.

12.1 Field QA/QC

The field (intra- / inter- laboratory) duplicate samples collected during the works are summarised in **Table I-2**. Inter-lab duplicates were analysed by the secondary laboratory, Envirolab.

Table I-2 Field QC Sampling Program

Matrix	Primary QA Sample	Duplicate (Primary Lab)	Triplicate (Secondary Lab)	Total Duplicates
Soil	BH3_0.1-0.2	QD1	QT1	2
	BH32_0.3-0.4	QD2	QT2	2
Groundwater	BH1M	GWQD1	GWQT1	2

12.2 Field Data Quality Indicators

A discussion of the field data quality indicators is presented in **Table I-3** below.

Table I-3 Field Data Quality Indicators

DQI	Item	Conformance
Precision Measure of the variability (or reproducibility) of data.	SOPs appropriate and complied with	Yes
Accuracy Quantitative measure of the closeness of reported data to the true values.	SOPs appropriate and complied with	Yes
	Calibration of instruments against known standards	Yes
Representativeness Confidence the data are representative of each media present on the site.	Appropriate media sampled according to SAQP	Yes
	Each media identified in SAQP sampled	Yes
Completeness Percentage of useable data from sampling episode (set).	Each critical location sampled	Yes
	SAQP appropriate and complied with	Yes
	Appropriate number of field duplicate samples taken	Yes
	Experienced sampler	Yes
	Field documentation correct	Yes
Comparability Confidence [expressed qualitatively] that data may be considered to be equivalent for each sampling and analytical event.	Same sampling method used on each occasion/location	Yes
	Experienced sampler	Yes
	Same type of samples collected (filtered, size, fractions)	Yes

12.3 Conclusion for the Field QA/QC

All field work, including equipment decontamination and sample preservation and transport, was conducted in accordance with the SAQP and SOPs, which were devised with reference to industry-approved guidelines. Appropriate QC measures were integrated into each sampling event and the DQI were met, or if not, the variability was suitably justified.

All samples, including field QC samples, were transported to the primary and secondary laboratories under refrigerated conditions, using strict COC procedures. Relevant documents (COC forms) were presented with the samples at the times of delivery. All supporting documents (COCs and SRAs) were completed in full and signed, where appropriate. Copies of these were included in **Appendix G**. EI considered the field QA/QC program carried out during the DSI to be appropriate.

12.4 Laboratory QA/QC

Primary and intra-laboratory duplicate samples were analysed by SGS (located in Alexandria NSW), with inter-laboratory duplicate samples analysed by Envirolab (located in Chatswood NSW). All laboratories are accredited by NATA for the analyses undertaken. A discussion of the laboratory DQIs is presented below.

Table I-4 Laboratory Data Quality Indicators

DQI	Item	Conformance
Completeness A measure of the amount of useable data (expressed as %) from a data collection activity	All critical samples analysed according to SAQP and proposal	Yes
	All analytes analysed according to SAQP in proposal	Yes
	Appropriate methods and PQLs	Yes
	Sample documentation complete	Yes
	Sample holding times complied with	Partial Holding time exceedance before preparation of samples for salinity parameters. Minor non-conformance.
Comparability The confidence (expressed qualitatively) that data may be considered to be equivalent for each sampling and analytical event	Sample analytical methods used (including clean-up)	Yes
	Sample PQLs (justify/ quantify if different)	Yes
	Same laboratories (justify/ quantify if different)	Yes
	Same units (justify/ quantify if different)	Yes
Representativeness Confidence that data are representative of each media	All key samples analysed according to SAQP in the proposal	Yes
Precision A quantitative measure of the variability (or reproducibility) of data	Analysis of laboratory duplicates	Yes
	Analysis of field duplicates	Yes
	Analysis of laboratory-prepared volatile trip spikes	Yes
Accuracy A quantitative measure of the closeness of reported data to the true value	Analysis of field blanks	Yes
	Analysis of rinsate blanks	Yes
	Analysis of method blanks	Yes
	Analysis of matrix spikes (MS)	Yes
	Analysis of matrix spike duplicates (MSD)	Yes
	Analysis of surrogate spikes	Yes
	Analysis of reference materials	Not applicable
	Analysis of laboratory control samples	Yes

12.5 Conclusions for the Laboratory QA/QC

All contracted laboratories (SGS and Envirolab) were accredited by NATA for the analyses undertaken. All analytical procedures used were industry recognised and endorsed standard methods. Appropriate QC measures were integrated into each testing batch and the DQI were

met, or if not, the variability was suitably justified. All final reports were submitted in full and included all requested analyses, as per the signed COC forms. EI considered the laboratory QA/QC programs carried out during the DSI to be appropriate.

12.6 Summary of Project QA/QC

The project DQOs specified in **Section 6, Table 6-1** were considered to have been achieved. The adopted QA/QC program ensured that the data collated during the DSI were accurate, precise and representative of the (final) site conditions. It was therefore considered that the data were sufficiently precise and accurate and that the results could be used for DSI interpretative purposes.

Appendix J – Laboratory QA/QC and DQOs

Table I-5 Summary of QA/QC results for Investigation samples

Sample Identification	Sampled Date	Description	TRH				BTEX			Heavy Metals								
			F1*	F2**	F3 (>C ¹⁶ - C ³⁴)	F4 (>C ³⁴ - C ⁴⁰)	Benzene	Toluene	Ethylbenzene	Xylene (total)	Arsenic	Cadmium	Chromium (Total)	Copper	Lead	Mercury	Nickel	Zinc
Intra-laboratory Duplicate																		
BH3_0.1-0.2	7/6/2021	Fill	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	7	<0.3	15	18	72	0.07	13	77
QD1		Duplicate of BH3_0.1-0.2	<25	25	150	<120	<0.1	<0.1	<0.1	<0.3	6	<0.3	14	51	74	0.07	37	63
RPD																		
BH32_0.3-0.4	8/6/2021	Fill	<25	<25	140	<120	<0.1	<0.1	<0.1	<0.3	5	<0.3	14	32	20	<0.05	13	94
QD2		Duplicate of BH32_0.3-0.4	<25	<25	210	120	<0.1	<0.1	<0.1	<0.3	6	<0.3	13	24	21	<0.05	12	59
RPD																		
BH1M	15/6/2021	Groundwater	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	2	0.3	2	3	<1	<0.1	57	100
GWQD1		Duplicate of BH1M	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	2	0.3	2	2	<1	<0.1	55	87
RPD																		
BH3_0.1-0.2	7/6/2021	Fill	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	7	<0.3	15	18	72	0.07	13	77
QT1		Duplicate of BH3_0.1-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<4	<0.4	10	22	100	<0.1	17	42
RPD																		
BH32_0.3-0.4	8/6/2021	Fill	<25	<25	140	<120	<0.1	<0.1	<0.1	<0.3	5	<0.3	14	32	20	<0.05	13	94
QT2		Duplicate of BH32_0.3-0.4	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<4	<0.4	12	18	20	<0.1	8	24
RPD																		
BH1M	15/6/2021	Groundwater	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	2	0.3	2	3	<1	<0.1	57	100
GWQT1		Duplicate of BH1M	<10	<50	<100	<100	<1	<1	<1	<3	<1	0.4	1	3	<1	<0.05	63	110
RPD																		
QTB1	7/06/2021	Trip blank	-	-	-	-	<0.1	<0.1	<0.1	<0.3	-	-	-	-	-	-	-	-
QTS1		Trip spike	-	-	-	-	[100%]	[99%]	[101%]	[102%]	-	-	-	-	-	-	-	-
QR1		Rinsate	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	<1	<0.1	<1	<1	<1	<0.1	<1	<5
GWTB1		Trip blank	-	-	-	-	<0.1	<0.1	<0.1	<0.3	-	-	-	-	-	-	-	-
GWTS1	15/06/2021	Trip spike	-	-	-	-	[89%]	[90%]	[91%]	[91%]	-	-	-	-	-	-	-	-
GWQR1		Rinsate	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	<1	<0.1	<1	<1	<1	<0.1	<1	<5

Indicates values where a single result is found to be less than detection, with the duplicate sample found to be over the detection limit.

RPD exceeds 30-50% range referenced from AS4482.1 (2005)

NOTE:

All soil results are reported in mg/kg . All water results are reported in µg/L.

* - to obtain F1 subtract the sum of BTEX concentrations from the C₆-C₁₀ fraction

** - to obtain F2 subtract naphthalene from the > C₁₀-C₁₈ fraction