AGENDA

Extraordinary Council Meeting

Date: Monday, 9 September 2024

Time: 5 pm

Location: Cowra Council Chambers
116 Kendal Street, Cowra

Paul Devery

General Manager

Order Of Business

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1 INTRODUCTION

1.1 Recording & Publishing

In accordance with the Local Government Act (1993), Cowra Council is recording this meeting and will upload the recording to Council's website. By speaking at this meeting, you agree to being recorded and having that recording published in the public domain. Please ensure that when you speak at Council meetings you are respectful to others and use appropriate language at all times. Cowra Council accepts no liability for any defamatory or offensive remarks or gestures made during the course of this meeting.

1.2 Acknowledgement of Country

We acknowledge the traditional custodians of the land on which we gather, the Wiradjuri people, and pay our respects to elders both past and present.

1.3 Apologies and Applications for Leave of Absence by Councillors

List of apologies for the meeting.

1.4 Disclosures of Interest

Councillors and staff please indicate in relation to any interests you need to declare:

a. What report/item you are declaring an interest in?
b. Whether the interest is pecuniary or non-pecuniary?
c. What is the nature of the interest?

1.5 Presentations

1.6 Public Forum

I invite any member of the public wishing to speak on an item in the agenda to please come to the lectern, introduce yourself, state the item you wish to speak on and allow time for any councillor or member of staff if they have declared an interest in the item to manage that conflict which may include them leaving the chamber during your presentation.

2 DIRECTOR-ENVIRONMENTAL SERVICES

2.1 Development Application No. 68/2024, Lot 291 DP 45349, Lot 292 DP 46474, 14 Short Street Cowra, centre-based child care facility (preschool care), lodged by S D'souza

File Number: D24/1428

Author: Larissa Hackett, Director - Environmental Services

RECOMMENDATION

1. That Council notes that the reason for the decision is that the proposal largely complies with Section 4.15 of the Environmental Planning and Assessment Act 1979. The variation to Part N.2 of Council's Development Control Plan 2021 is sufficiently justified and the application was publicly notified and no submissions were received; and

2. That Council approves a variation to Part N.2 of Part N of Council's Development Control Plan 2021 for this development to allow the provision of a landscape plan after the determination of the application; and

3. That Development Application No. 68/2024, for the construction of a centre-based child care facility (preschool care) on Lot 291 DP 45349, Lot 292 DP 46474, 14 Short Street Cowra be approved subject to the following conditions:

GENERAL CONDITIONS

1. Development is to be in accordance with the approved plans. The development is to be implemented in accordance with the plans and supporting documents stamped and approved and set out in the following table except where modified by any conditions of this consent.

Plan No./ Supporting Document	Prepared by/Reference Details	Cowra Shire Council Reference
Cover Plan Drawing TP01	HJL Architecture Pty Ltd 7/08/2024	Received 13 August 2024 Stamped No. 10.2024.68.1
Site Plan Drawing TP02	HJL Architecture Pty Ltd 7/08/2024	Received 13 August 2024 Stamped No. 10.2024.68.1
Site Plan Parking & Drive Detail Drawing TP03	HJL Architecture Pty Ltd 7/08/2024	Received 13 August 2024 Stamped No. 10.2024.68.1
Site Analysis Plan Drawing TP04	HJL Architecture Pty Ltd	Received 13 August 2024

	7/08/2024	**Stamped No. 10.2024.68.1**
Existing Site & Demolition Plan Drawing TP05	**HJL Architecture Pty Ltd 7/08/2024**	**Received 13 August 2024 Stamped No. 10.2024.68.1**
Floor Plan Drawing TP06	**HJL Architecture Pty Ltd 7/08/2024**	**Received 13 August 2024 Stamped No. 10.2024.68.1**
Roof Plan Drawing TP07	**HJL Architecture Pty Ltd 7/08/2024**	**Received 13 August 2024 Stamped No. 10.2024.68.1**
Building Elevations Drawing TP08	**HJL Architecture Pty Ltd 7/08/2024**	**Received 13 August 2024 Stamped No. 10.2024.68.1**
Boundary Elevations Drawing TP09	**HJL Architecture Pty Ltd 7/08/2024**	**Received 13 August 2024 Stamped No. 10.2024.68.1**
Building Sections & Details Drawing TP10	**HJL Architecture Pty Ltd 7/08/2024**	**Received 13 August 2024 Stamped No. 10.2024.68.1**
Building Details Drawing TP11	**HJL Architecture Pty Ltd 7/08/2024**	**Received 13 August 2024 Stamped No. 10.2024.68.1**
3D Images Drawing TP12	**HJL Architecture Pty Ltd 7/08/2024**	**Received 13 August 2024 Stamped No. 10.2024.68.1**
3D Images Drawing TP13	**HJL Architecture Pty Ltd 7/08/2024**	**Received 13 August 2024 Stamped No. 10.2024.68.1**
Detailed contamination investigation Phase A of the proposed Early Childhood Precinct Rev 0	**Barnson Pty Ltd 9/05/2024**	**Received 13 August 2024 Stamped No. 10.2024.68.1**

R43874c		
Detailed contamination investigation **Phase B of the proposed Early Childhood Precinct** **Rev 0** **R43874c1**	**Barnson Pty Ltd** **4/07/2024**	**Received** **13 August 2024** **Stamped** **No. 10.2024.68.1**
Stormwater Management Plan **Ref: 24116**	**Engineering Project Solutions** **August 2024**	**Received** **13 August 2024** **Stamped** **No. 10.2024.68.1**
Waste Management Plan **Ref: 24191W** **Version F01**	**Sustainable Transport Surveys Pty Ltd** **9 August 2024**	**Received** **13 August 2024** **Stamped** **No. 10.2024.68.1**
Traffic Impact Assessment Report **Ref: 24191T** **Version F01**	**Sustainable Transport Surveys Pty Ltd** **9 August 2024**	**Received** **13 August 2024** **Stamped** **No. 10.2024.68.1**
Statement of Environmental Effects **Ref: 21235P**	**Ratio Consultants Pty Ltd** **12 August 2024**	**Received** **13 August 2024** **Stamped** **No. 10.2024.68.1**

In the event of any inconsistency between conditions of this development consent and the plans/supporting documents referred to above, the conditions of this development consent prevail.

2. **The applicant shall comply with all relevant prescribed conditions of development consent under Part 4, Division 2 of the Environmental Planning and Assessment Regulation 2021 (see attached Advisory Note).**

3. **Any cutting and filling on the site shall be either battered at a maximum slope of one vertical to two horizontal (1V:2H) and revegetated or suitably retained by a retaining structure, designed and constructed to appropriate engineering standards. A retaining wall that does not comply with State Environmental Planning Policy (Exempt & Complying Development Codes) 2008 will require the prior consent of Council. The erection of retaining walls may require the approval and certification of a suitably qualified structural engineer. All works are to be carried out within the boundaries of the property and without affecting the structural integrity of boundary fencing or neighbouring structures.**

4. **Where the proposed building works necessitate the cutting-in of new stormwater outlets into the existing street kerb, the Applicant and plumbing/drainage contractor shall ensure that the following procedures are carried out:**

(i) A kerb adaptor suitable for the particular kerb profile and capable of withstanding vehicle loadings is to be utilised;

(ii) The opening in the kerb is created by either a saw cut or bored hole only. Breaking out the kerb by impact methods is not permitted;

(iii) The kerb adaptor is to be kept flush with the top and outside face of the kerb; and

(iv) The fixing of the kerb adapter and filling in of side gaps is to be undertaken by the use of an epoxy resin. Mortar or concrete is not to be used.

5. Remediation of the site is to be carried out in accordance with the recommendations of the 'Detailed contamination investigation Phase B of the proposed Early Childhood Precinct' (Ref R4387c1) prepared by Barnson Pty Ltd and dated 4/07/2024.

6. All traffic movements in and out of the development are to be in a forward direction.

7. Liquid trade waste material is not to be discharged into the sewerage system without first obtaining the approval of Cowra Shire Council. An approval is needed if liquid trade waste is being discharged into the sewer. A liquid trade waste notification is required if it is produced, but not discharged into Council's sewer system.

8. The approved hours of operation are as follows:

- **6:30am to 7:00pm Monday to Friday**

CONDITIONS TO BE COMPLIED WITH PRIOR TO THE ISSUE OF A CONSTRUCTION CERTIFICATE

9. Prior to the issue of a Construction Certificate, notice is to be provided to Council in accordance with Section 4.15 of State Environmental Planning Policy (Resilience and Hazards) 2021 which includes a validation assessment confirming that the site is suitable for the proposed childcare land use.

10. Prior to the issue of a Construction Certificate, the Applicant must demonstrate that the development complies with firefighting capabilities in accordance with AS 2419.1:2021, Fire Hydrant Installations, and Fire and Rescue NSW (FRNSW) guidelines. If required, prior to the issue of a Construction Certificate, a separate application is to be made to Council, with the appropriate fee being paid, for the provision of a 25mm water service to the development. All costs associated with the augmentation of water reticulation relating to the development shall be borne by the Applicant and at no cost to Council.

11. Prior to the issue of a Construction Certificate, the Applicant is to submit a Landscape Plan for the approval of the Principal Certifier which includes details of the proposed plant species and maintenance schedule. The plan is to be prepared in accordance with Part N of Cowra Council Development Control Plan 2021.

12. Pursuant to Section 7.12 (formerly Section 94A) of the Environmental Planning & Assessment Act 1979, the monetary contribution set out in the following table is to be paid to Council prior to the issue of a Construction Certificate. The contribution is current as at the date of this consent and is levied in accordance with the Cowra Section 94A Contributions Plan 2016 adopted on 26 April 2016. The contribution payable will be calculated in accordance with the contributions plan current at the time of payment, and will be adjusted at the time of payment in accordance with the Consumer Price Index (CPI) (All Groups Index for Sydney) published by the Australian Bureau of Statistic (ABS). Contribution amounts will be adjusted by Council each financial year.

Contribution Type	Proposed Cost of Development[1]	Levy Percentage	Total Contribution	Contribution Rate Remains Current Until
Section 94A Contribution[2]	$3,693,252.00	1%	$36,932.52	30 June 2025

Notes

[1] As shown on the Development Application/Construction Certificate Application/Complying Development Certificate Application

[2] Council's Section 94A Contributions Plan 2016 may be viewed during office hours at Council's Customer Service Centre, 116 Kendal Street Cowra, or on Council's website www.cowracouncil.com.au

13. Prior to the issue of the Construction Certificate, the Applicant must obtain consent from Council pursuant to Section 138 of the Roads Act 1993 for the demolition and remediation of the existing access crossing and kerb and gutter from Short Street and the construction of a new access crossing to the development site from Short Street. Construction is to be in accordance with Cowra Shire Council's Engineering Standards.

CONDITIONS TO BE COMPLIED WITH PRIOR TO THE COMMENCEMENT OF WORKS

14. The Applicant is to obtain a Construction Certificate from either Council or an Accredited Certifier, certifying that the proposed works are in accordance with the Building Code of Australia and applicable Council Engineering Standards prior to any building and or subdivision works commencing. No building, engineering or excavation work is to be carried out in relation to this development until the necessary construction certificates have been obtained. It is the responsibility of the Applicant to ensure that the development complies with the Building Code of Australia and applicable engineering standards in the case of building work and the applicable Council Engineering Standards in the case of subdivision works. This may entail alterations to the proposal so that it complies with these standards.

15. It is the responsibility of the Applicant to ensure that the development complies with the Building Code of Australia and applicable engineering standards in the case of building work.

16. The Applicant is to submit to Cowra Shire Council, at least two days prior to the commencement of any works, a 'Notice of Commencement of Building or Subdivision Works' and 'Appointment of Principal Certifier'.

17. Prior to the commencement of work on the site, all erosion and sediment control measures shall be implemented and maintained prior to, during and after the construction phase of the development. The erosion and sediment control measures are to comply with the approved plans and Part B of Cowra Shire Council Development Control Plan 2021 at all times.

CONDITIONS TO BE COMPLIED WITH DURING CONSTRUCTION

18. While building work is being carried out, any such work must not continue after each critical stage inspection unless the principal certifier is satisfied the work may proceed in accordance with this consent and the relevant construction certificate.

19. Any alterations to the ground surface adjacent to the sewerage access chamber in the vicinity/or within the property will require application and payment to Council for alterations to the access chamber level to match the new ground surface level. Access chambers within driveways will require provision of a trafficable lid at the applicant's cost.

20. Any damage caused to footpaths, roadways, utility installations and the like by reason of construction operations shall be made good and repaired to a standard equivalent to that existing prior to commencement of construction. The full cost of restoration/repairs of property or services damaged during the works shall be met by the Applicant.

21. All storage of goods and building materials and the carrying out of building operations related to the development proposal shall be carried out within the confines of the property. All vehicles must be parked legally and no vehicles are permitted to be parked over the public footpath. The unloading of building materials over any part of a public road by means of a lift, hoist or tackle projecting over the footway will require separate approval under Section 68 of the Local Government Act 1993.

22. Building activities and excavation work involving the use of electric or pneumatic tools or other noisy operations shall be carried out only between 7.00 am and 6.00 pm on weekdays and 8.00 am and 1.00 pm on Saturdays. No work on Sundays or Public Holidays is permitted.

23. All building rubbish and debris, including that which can be windblown, shall be contained on site in a suitable container for disposal at an approved Waste Landfill Depot. The container shall be erected on the building site prior to work commencing and shall be maintained for the term of the construction to the completion of the project. No building rubbish or debris shall be placed or permitted to be placed on any adjoining public reserve, footway or road. The waste container shall be regularly cleaned to ensure proper containment of the building wastes generated on the construction site.

24. Stormwater infrastructure is to comply with the following:

1. That:
- **a) Stormwater runoff volumes and detention; and**
- **b) Stormwater quality treatment measures; and**

c) Erosion and Sedimentation Control,

be addressed as stated in the Stormwater Management Report submitted by Engineering Project Solutions for the proposed Childcare Development at 14 Short Street; and

2. The detention basin be designed to have a minimum slope of 1% to the discharge control pit; and

3. That the development stormwater runoff will discharge directly into the existing council stormwater reticulation network at the corner of Main Street and Short Street. It is to be a direct connection into the existing pit.

25. Car parking facilities, including all internal parking and manoeuvring areas are to be constructed and sealed in accordance with Australian Standard 2890.1 Off-Street Car Parking and Australian Standard 2890.2 Commercial Vehicle Facilities and are to include all necessary line marking, directional arrows and signage to delineate parking spaces, traffic flow and traffic priority. All costs associated with the construction of the parking area shall be borne by the Applicant.

26. Parking for disabled persons is to be provided and signposted in accordance with the approved plans and the requirements of Australian Standard 2890.1. The access linking such parking areas to their associated developments shall generally not have gradients steeper than 1:14.

27. The primary entrances and pathways to the building are to comply with the requirements of the Disability (Access to Premises – Buildings) Standards 2010 and Australian Standard 1428.1-2021 Design for Access and mobility.

28. All plumbing work shall be carried out by a licensed plumber and drainer and to the requirements of the Plumbing Code of Australia. The licensed plumber or drainer must submit a Notice of Works form to Council prior to the commencement of any plumbing and drainage works and a Certificate of Compliance at the completion of the works. The plumbing and drainage works must be inspected by Council at the time specified below:

(a) Internal Drainage: When all internal drainage work is installed and prior to concealment. Pipes should be under water test.

(b) External Drainage: When all external drainage work is installed and prior to concealment. Pipes should be under water test.

(c) Water Supply: Hot and cold water supply pipework, when the pipework is installed and prior to concealment. Pipes should be under pressure test.

(d) Stormwater: When the stormwater and roof water drainage system has been completed.

CONDITIONS TO BE COMPLIED WITH PRIOR TO OCCUPATION OR COMMENCEMENT OF USE

29. The Applicant must not commence occupation or use of the premises until a

Whole or Partial Occupation Certificate has been issued from the Principal Certifier appointed for the subject development.

30. **Prior to issue of any Occupation Certificate, the Applicant shall construct the access crossing to the development site from Short Street and remediate the existing crossing in accordance with consent from the road's authority pursuant to Section 138 of the Roads Act 1993 for the carrying out of works in a road reserve. The driveway is to be constructed in accordance with the Section 138 Permit. All costs associated with the construction of the access driveway(s) shall be borne by the Applicant.**

31. **Prior to issue of the Occupation Certificate, the applicant shall connect to Council's Reticulated Water Supply System and to the satisfaction of the relevant service provider, being Cowra Shire Council.**

32. **Prior to issue of the Occupation Certificate, the applicant shall connect to Council's Reticulated Sewer Supply System and to the satisfaction of the relevant service provider, being Cowra Shire Council.**

33. **Prior to the issue of any Occupation Certificate, the Applicant shall replace kerb and gutter in the location of the existing Short Street crossover and reinstate a level footpath area. The kerb and gutter shall be constructed in accordance with Cowra Infrastructure and Operations Engineering Standards.**

34. **Prior to the issue of an Occupation Certificate, the Applicant shall construct a concrete footpath in Short Street for the full frontage of the development site. The footpath shall be constructed in accordance with Cowra Infrastructure and Operations Engineering Standards. Full engineering plans and details of the footpath are to be provided to Cowra Shire Council's Infrastructure and Operations Department for approval prior to the commencement of the work. The footpath in front of the allotment shall be made level with the profile of kerb and guttering.**

35. **Prior to the issue of any Occupation Certificate the Applicant shall pave/seal and line-mark and provide concrete edging around all car parking areas in accordance with Cowra Council's Development Control Plan 2021 and Cowra Infrastructure and Operations Engineering Standards. All costs associated with the sealing of the car parking areas and construction of concrete edging shall be borne by the Applicant and at no cost to Council.**

36. **Prior to the issue of a Whole Occupation Certificate, all landscape works shall be completed in accordance with the approved plans.**

37. **A Fire Safety Certificate shall be furnished to the Principle Certifying Authority for all the Essential Fire Safety Measures specified in the current fire safety schedule for the building, prior to issue of an Occupation Certificate. A copy of the Fire Safety Certificate must be submitted to Council by the PCA with the Occupation Certificate. An electronic copy of the Final Fire Safety Certificate (together with a copy of the current Fire Safety Schedule) shall also be forwarded to the Fire Commissioner via the following dedicated email address: afss@fire.nsw.gov.au**

38. **An Annual Fire Safety Statement for all the Essential Fire Safety Measures**

applicable to the building must be given to Council and a copy forwarded to the Fire Commissioner via the dedicated email address afss@fire.nsw.gov.au:

(i) within 12 months after the date on which an annual fire safety statement was previously given, or

(ii) if a fire safety certificate has been issued within the previous 12 months, within 12 months after the fire safety certificate was issued, whichever is the later.

A copy of the Annual Fire Safety Statement (together with a copy of the current fire safety schedule) must also be prominently displayed in the building.

39. The Applicant is required to obtain a Certificate of Compliance pursuant to Section 64 of the Local Government Act 1993 certifying that all works, fees and charges required in connection with the provision of water and sewer supply to the development have been undertaken and complied with in full. The certificate shall include all relevant works verified by appropriate inspections, fees and charges that are currently being applied at the time of the issue of any Occupation Certificate.

Water reticulation mains and metered services and sewer reticulation mains must be physically provided to the development in accordance with Cowra Infrastructure and Operations Engineering Standards. Council will not issue any Occupation Certificate until a Compliance Certificate has been issued, verifying that all works have been satisfactorily completed. All monetary contributions in relation to the augmentation of reticulated water and sewer supply must be paid in full to Cowra Shire Council before any Occupation Certificate will be issued. Necessary inspections must be arranged at least 48 hours in advance. Contact Cowra Infrastructure and Operations on (02) 6340 2070.

ADVICE

If, during work, an Aboriginal object is uncovered then WORK IS TO CEASE IMMEDIATELY and the Office of Environment & Heritage is to be contacted urgently on (02) 6883 5300. Under the National Parks and Wildlife Act 1974 it is an offence to harm an Aboriginal object or place without an 'Aboriginal heritage impact permit' (AHIP). Before making an application for an AHIP, the applicant must undertake Aboriginal community consultation in accordance with clause 80C of the NPW Regulation

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INTRODUCTION

Development Application No. 68/2024 proposes a centre-based child care facility (preschool care) on Lot 291 DP 45349, Lot 292 DP 46474, 14 Short Street Cowra. The application was lodged with Council by S D'souza on 13 August 2024. The property is owned by Crown Lands.

The application is being reported to Council because the estimated development cost of approximately $3.7 million exceeds staff delegations. There is also a variation to Part N.2 of Part N of Council's Development Control Plan 2021.

A copy of the site and elevation plans of the proposed centre-based child care facility (preschool care) are included in Attachment '1' to this report and a copy of the Statement of Environmental Effects is included in Attachment '2'.

Description of Site

Lot 291 DP 45349 & Lot 292 DP 46474, 14 Short Street Cowra are adjoining lots that total approximately 1.06 hectares and are located on the corner of Short Street and Main Street. The irregularly shaped site slopes down in a S/SE direction towards the south-eastern corner. It is located in the R1 General Residential zone under Cowra Local Environmental Plan (LEP) 2012.

The site previously contained a number of buildings used by Essential Energy which were demolished under DA 20/2022. The site is currently vacant with the exception of some trees in the corners of the site. There are two existing access crossovers, one each on the Main and Short Street frontages. Bellevue Reserve adjoins the north and west of the site and residential land uses adjoin the south and east.

A location map is included in Attachment '3' and an aerial photograph is included in Attachment '4' to this report.

Description of Proposal

The applicant proposes to construct a centre-based child care facility (preschool care). The proposal represents what is referred to in the application as Phase A of a master plan for the site. Subsequent additions (Phase B) will require separate development consent. This stage consists of a single storey preschool centre and associated car parking, landscaping and fencing. The pre-school has been designed to cater for up to 60 child places. It will accommodate 6 staff. Other components include:

- The removal of the existing access crossover to Short Street.
- The removal of two trees within the Short Street road reserve to facilitate the construction of a new crossover.
- Stone retaining walls.
- Two business identification signs.

Environmental Impact Assessment

In determining a development application, a consent authority is to take into consideration such matters as are of relevance to the development in accordance with Section 4.15(1) of the Environmental Planning and Assessment Act 1979. The following section provides an evaluation of the relevant Section 4.15 Matters for consideration for DA 68/2024:

S4.15(1)(a)(i) Any Environmental Planning Instrument

Cowra Local Environmental Plan 2012

2.1 Land Use Zones

The subject land is zoned R1 General Residential under the provisions of the Cowra Local Environmental Plan (LEP) 2012.



2 Permitted without consent

Environmental protection works; Home occupations

3 Permitted with consent

Attached dwellings; Boarding houses; Building identification signs; Business identification signs; **Centre-based child care facilities;** Community facilities; Dwelling houses; Food and drink premises; Group homes; Home industries; Hostels; Kiosks; Multi dwelling housing; Neighbourhood shops; Oyster aquaculture; Places of public worship; Pond-based aquaculture; Residential flat buildings; Respite day care centres; Roads; Semi-detached dwellings; Seniors housing; Shop top housing; Tank-based aquaculture; Any other development not specified in item 2 or 4

4 Prohibited

Agriculture; Air transport facilities; Airstrips; Amusement centres; Animal boarding or training establishments; Biosolids treatment facilities; Boat building and repair facilities; Boat launching ramps; Boat sheds; Car parks; Charter and tourism boating facilities; Commercial premises; Correctional centres; Crematoria; Depots; Extractive industries; Farm buildings; Farm stay accommodation; Forestry; Freight transport facilities; Heavy industrial storage establishments; Helipads; Highway service centres; Industrial retail outlets; Industrial training facilities; Industries; Jetties; Local distribution premises; Marinas; Mooring pens; Moorings; Mortuaries; Open cut mining; Public administration buildings; Recreation facilities (major); Research stations; Restricted premises; Rural industries; Rural workers' dwellings; Service stations; Sewage treatment plants; Sex services premises; Signage; Storage premises; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Warehouse or distribution centres; Waste or resource management facilities; Water treatment facilities; Wharf or boating facilities; Wholesale supplies

Comment: The proposed development of a centre-based child care facility is permitted in the zone with development consent.

2.3 Zone objectives

1 Objectives of the Zone

Objective	**Comment**
• To provide for the housing needs of the community.	N/A
• To provide for a variety of housing types and densities.	N/A
• To enable other land uses that provide facilities or services to meet the day to day needs of residents.	Complies
• To provide attractive, affordable, well located and market-responsive residential land.	N/A
• To ensure that any non-residential land uses permitted within the zone are compatible with the amenity of the area.	Complies
• To ensure that housing densities are broadly concentrated in locations accessible to public transport, employment, services and facilities.	N/A
• To maximise public transport patronage and encourage walking and cycling.	Not inconsistent

5.10 Heritage conservation

There are no heritage items located on the site (identified on either the SHR or in the LEP), and the site is not located in a HCA.

5.11 Bushfire

Bush fire hazard reduction work authorised by the Rural Fires Act 1997 may be carried out without development consent.

5.21 Flood planning

The land is not in the flood planning area. It is considered the risk from flood to be minimal.

Part 6 Urban release areas

The site is not identified as being within an urban release area.

7.1 Earthworks

The site has a slight to moderate fall in a south easterly direction. The development plans indicate minimal fill and a maximum of approximately 2.2m of cut with a battered slope to the rear and retaining walls closer to the building. The submitted Soil and Water

Management Plan which is recommended for approval includes a soil and erosion control plan in accordance with Council policy.

7.3 Terrestrial biodiversity

This clause applies to land that is identified as biodiversity land on the Terrestrial Biodiversity Map and the site is not mapped as being affected. Two large deciduous trees within the road reserve (shown below) are proposed to be removed to facilitate access to the development.



These are exotic trees (likely to be mature Black Poplar) and no adverse impacts on the ecological value and significance of flora and fauna is considered likely as a result of the tree removal. A recommended condition of consent requires the provision of a landscape plan for the development.

7.4 Riparian land and watercourses

This clause applies to land that is identified as a watercourse on the Watercourses Map, or is within 40 metres of a mapped watercourse; the site is not mapped as being affected; accordingly, this clause is not applicable.

7.5 Wetlands

This clause applies to land identified on the wetlands map; the site is not identified as being affected; accordingly, this clause is not applicable.

7.6 Groundwater vulnerability

This clause applies to land that is identified as groundwater vulnerable on the Groundwater Vulnerability Map, and the site is not mapped as being affected.

7.7 Airspace operations

This clause applies to developments that penetrate the Limitation or Operations Surface of the Cowra Airport. Works carried out on the site will not project into the Airport airspace.

7.8 Essential Services

Water	Reticulated water is available for connection.
Electricity	Electricity is available to the site.
Sewage	Reticulated sewer is available for connection.
Stormwater	Stormwater can be discharged to Council's street stormwater management system through a system of pits and pipes with the addition of a 164m³ detention basin to ensure that post development discharge rates do not exceed pre-development discharge rates.
Access	The site is a corner allotment and will be accessed via the existing access on Main Street and a new access crossing on Short Street. The existing access on Short Street will be removed.

7.11 Development on land in karst areas

This clause applies to land that is identified as karst environment on the Natural Resources Sensitivity – Land Map. The land is not mapped as being affected; accordingly, this clause is not applicable.

Education and Care Services National Regulations

Clause 107 requires the provision of at least 3.25m^2 of unencumbered indoor space for each child being educated and cared for by the service. Based on that calculation a total indoor space of 195 m^2 is required within the proposed child care premise to accommodate a maximum number of 60 children. The proposed child care building includes a total of 195m^2 of unencumbered indoor space which satisfactorily fulfils that requirement.

The Child care centre premise requires at least 7m^2 of unencumbered outdoor space for each child as per Clause 108 of this regulation. That proposal contains 420m^2 of unencumbered outdoor space to service a maximum number of 60 children which is consistent with the requirement.

The proposal is considered consistent with other clauses of this regulation.

State Environmental Planning Policies

SEPP	COMMENTS
SEPP (Biodiversity and Conservation) 2021	Two trees require removal. See comment below.
SEPP (Exempt and Complying Development Codes) 2008	Not applicable
SEPP (Housing) 2021	Not applicable
SEPP (Industry and Employment) 2021	The application includes proposed signage. See comment below.
SEPP (Planning Systems) 2021	Not applicable
SEPP (Precincts – Central River City) 2021	Not applicable
SEPP (Precincts – Eastern Harbour City) 2021	Not applicable
SEPP (Precincts - Regional) 2021	Not applicable
SEPP (Precincts – Western Parkland City) 2021	Not applicable
SEPP (Primary Production) 2021	Not applicable
SEPP (Resilience and Hazards) 2021	Includes the former SEPP 55 – Remediation of Land. See comment below.
SEPP (Resources and Energy) 2021	Not applicable
SEPP (Sustainable Buildings) 2022	Not applicable
SEPP (Transport and Infrastructure) 2021	This SEPP includes provisions for Child Care Centres. See comment below.

SEPP (BIODIVERSITY AND CONSERVATION) 2021

The proposal does not seek to undertake any vegetation removal on land identified within the Biodiversity Values Map. The proposal does seek to remove 2 street trees on the eastern site frontage to Short Street to enable construction of the new access crossover as previously discussed in this report. No adverse impacts on biodiversity is anticipated.

SEPP (INDUSTRY AND EMPLOYMENT) 2021

The SEPP includes provisions for advertising and signage. The proposal includes two business identification signs – one 6m² vinyl decal attached to a window and one free standing sign, approximately 2m² in area, consisting of acrylic letters within the landscaping at the front of the building. It is assessed that the proposed signage complies with the objectives of the SEPP and with the assessment criteria contained in Schedule 5.

SEPP (RESILIENCE AND HAZARDS) 2021

Under Clause 4.6 a consent authority must not consent to the carrying out of any development on land unless:

(a) it has considered whether the land is contaminated, and

(b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and

(c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose

Detailed contamination investigations of the site have been carried out by Barnson Pty Ltd and submitted with this development application. The site was previously used as an Essential Energy Depot and previous assessments indicate that residual contamination is located throughout the site, although predominantly in the southern parts of the site.

Soil sampling was undertaken and analysed for contaminants of concern. The soil sampling program did not detect elevated levels of heavy metals. Threshold exceedances for hydrocarbons were identified in several sampling locations with four areas of environmental concern identified.

The report recommends that "remediation of the identified areas of environmental concern should be undertaken in accordance with a Remedial Action Plan (RAP) and supervised by a suitably qualified environmental scientist. Remedial options for the hydrocarbon contaminated soil include excavation and transport to landfill. A validation assessment should be undertaken following remedial works to confirm effectiveness and suitability for the proposed childcare land-use. An unexpected finds procedure should be adopted for site development works".

It is noted that two contamination investigation reports have been submitted with the application and are included in Attachments '5' and '6'. One each for the areas occupied by Phases A and B of the development. However, since the reports were undertaken the design of the development has changed. Due to site levels the development has been moved further south and Phase A of the development will now encroach into areas identified in Phase B in the contamination reports which contains the 'areas of environmental concern'. Therefore, the recommendations of the Phase B report will apply to this first phase of the development.

Following validated remediation works it is assessed that the site will be suitable for the proposed use.

SEPP (TRANSPORT & INFRASTRUCTURE) 2021

Chapter 3 of the SEPP applies to educational establishments and child care facilities. The aims of the chapter are set out below:

3.1 Aims of Chapter

The aim of this Chapter is to facilitate the effective delivery of educational establishments and early education and care facilities across the State by—

(a) improving regulatory certainty and efficiency through a consistent planning regime for educational establishments and early education and care facilities, and

(b) simplifying and standardising planning approval pathways for educational establishments and early education and care facilities (including identifying certain development of minimal environmental impact as exempt development), and

(c) establishing consistent State-wide assessment requirements and design considerations for educational establishments and early education and care facilities to improve the quality of infrastructure delivered and to minimise impacts on surrounding areas, and

(d) allowing for the efficient development, redevelopment or use of surplus government-owned land (including providing for consultation with communities regarding educational establishments in their local area), and

(e) providing for consultation with relevant public authorities about certain development during the assessment process or prior to development commencing, and

(f) aligning the NSW planning framework with the National Quality Framework that regulates early education and care services, and

(g) ensuring that proponents of new developments or modified premises meet the applicable requirements of the National Quality Framework for early education and care services, and of the corresponding regime for State regulated education and care services, as part of the planning approval and development process, and

(h) encouraging proponents of new developments or modified premises and consent authorities to facilitate the joint and shared use of the facilities of educational establishments with the community through appropriate design.

The following sections are of particular relevance for Council's consideration:

3.23 Centre-based child care facility—matters for consideration by consent authorities

Before determining a development application for development for the purpose of a centre-based child care facility, the consent authority must take into consideration any applicable provisions of the Child Care Planning Guideline, in relation to the proposed development.

Comment: The provisions of the Guideline have been taken into consideration with no issues of non-compliance identified.

3.24 Centre-based child care facility in certain zones—additional matters for consideration by consent authorities

(1) The object of this section is to minimise land use conflicts with existing developments on surrounding land and to ensure the safety and health of people using or visiting a centre-based child care facility on land in a prescribed zone.

(2) The consent authority must consider the following matters before determining a development application for development for the purpose of a centre-based child care facility on land in a prescribed zone—

(a) whether the proposed development is compatible with neighbouring land uses, including its proximity to restricted premises, sex services premises or hazardous land uses,

(b) whether the proposed development has the potential to restrict the operation of existing industrial land uses,

(c) whether the location of the proposed development will pose a health or safety risk to children, visitors or staff.

Comment: The proposal is satisfactory with regard to the above considerations, being located on the fringe of a residential area and not in proximity to restricted premises, sex services premises, hazardous land uses or industrial land uses. Following some remediation works, the location will not pose a health or safety risk to children, visitors or staff.

(3) The matters referred to in subsection (2) are in addition to any other matter that the consent authority must consider before determining a development application for development for the purpose of a centre-based child care facility.

3.26 Centre-based child care facility—non-discretionary development standards

Comment: The proposed development complies with subclauses (1) to (3) which relate to location, indoor or outdoor space, site area and site dimensions, and colour of building materials or shade structures.

The proposed development complies with all relevant remaining sections of Chapter 3.

S 4.15(1)(a)(ii) provisions of any draft Environmental Planning Instrument(s)

There are no draft Environmental Planning Instrument(s) that are relevant to the site.

S 4.15(1)(a)(iii) provisions of any Development Control Plan(s)

Cowra Council Development Control Plan 2021

PART B – LAND MANAGEMENT

Appropriate erosion and sediment controls to be implemented prior to the commencement of works.

PART C – BIODIVERSITY MANAGEMENT

The development area is clear of vegetation. Two trees in the road reserve require removal for access construction as previously discussed in this report. It is assessed that there are no unsatisfactory flora and fauna impacts.

PART L – ADVERTISING SIGNAGE

The proposal is assessed to comply with the relevant signage controls contained in Part L.

PART M – PARKING, ACCESS AND MOBILITY

Complies. Part M requires the provision of 19 car parking spaces for the development and 26 spaces are provided. The applicant states that car parking provision is designed to accommodate all stages of the development.

Parking, access and mobility will comply with all relevant DCP provisions and Australian Standards as conditioned.

PART N – LANDSCAPING

Note the following variation:

Part N.2 of Part N of Council's Development Control Plan 2021 requires the submission of a landscape plan with a development application for a child care centre as well as other forms of commercial and community developments. The applicant states that, due to time constraints, a landscape plan was not able to be finalised in time for lodgement. The applicant requests that the provision of a landscape plan be delayed until after the determination of the development application.

It is assessed that there is sufficient room on site for appropriate landscaping works to be incorporated into the development and there are unlikely to be any adverse effects associated with the applicant's request. In this regard, a condition of consent is recommended which requires the submission of a landscape plan prior to the issue of a construction certificate. All landscape works will be required to be completed prior to the issue of a final occupation certificate.

PART O – ENVIRONMENTAL HAZARD MANAGEMENT

The subject land is not mapped as flood prone.

The subject land is not mapped as bushfire prone.

The remediation of contaminated land is discussed previously in this report.

PART P – CPTED PRINCIPLES

The proposed development is assessed as consistent with the CPTED controls within the DCP. The proposed development is designed to ensure natural surveillance of spaces around the building, with windows on each interface, and includes perimeter security fencing. Appropriate security measures will restrict unauthorised access to the building and there will be appropriate lighting to entrances and exits, pathways and the carpark.

S 4.15(1)(a)(iii)(a) provisions of any Planning Agreement(s)

There is no planning agreement that has been entered into under Section 7.4 of the Environmental Planning and Assessment Act 1979 by the applicant in relation to the development proposal. Similarly, the applicant has not volunteered to enter into a draft planning agreement for the development proposal.

S 4.15(1)(a)(iv) any matters prescribed by the regulations

Section 4.15(1)(a)(iv) requires the Council to also consider Clauses 61, 62, 63 and 64 of the Environmental Planning and Assessment Regulation 2021. The following provides an assessment of the relevant Clauses of the Regulation:

- Clause 61 –The proposal does not involve demolition of a building and therefore the requirements of AS 2601-2001 are not required to be considered in accordance with Clause 61(1).

- Clause 62 – The proposal does not involve the change of a building use for an existing building, or the use of an existing building as a place of public entertainment and therefore the requirement to consider fire safety and structural adequacy of buildings in accordance with Clause 62 is unnecessary.

- Clause 63 – The proposal does not involve the erection of a temporary structure and therefore the requirements to consider fire safety and structural adequacy is unnecessary.

- Clause 64 – The proposal does not involve the rebuilding, alteration, enlargement or extension of an existing building or place of public entertainment and therefore the requirement to consider the upgrading of buildings into total or partial conformity with the Building Code of Australia is not required to be undertaken.

S 4.15(1)(b) the likely impact on the natural and built environment(s) and the likely social and/or economic impact on the locality

Section 4.15(1)(b) requires the Council to consider the likely impacts of the development, including environmental impacts on both the natural and built environments as well as the social and economic impacts in the locality. The following provides an assessment of the likely impacts of the development:

Context and Setting

The area is characterised low density residential development and ancillary buildings and the site adjoins a Crown Reserve zoned as RE1 Public Reserve. This single level proposal which will include landscaping would not negatively detract from the existing character of the locality.

Access, Parking, traffic

A new access crossing is proposed from Short Street and an existing access from Short Street will be removed. The works will be subject to a Section 138 Permit as per the recommended condition. The proposal includes 26 car parking spaces (including one disabled space) which exceeds Council's requirements for this stage of the development.

A Traffic Impact Assessment Report has been submitted with the application which confirms the adequacy of the car parking numbers and design. With regard to traffic demand, the assessment estimates the following vehicle movements:

- AM Peak: 84 trips including 42 inbound and 42 outbound vehicles;

- PM Peak: 48 trips including 24 inbound and 24 outbound vehicles.

The assessment states that:

"The addition of up to 42 vehicles associated with the preschool arriving and departing the site in the AM peak hour equates to one vehicle every 86 seconds entering or exiting the site on average. It is expected that this can be readily absorbed by the surrounding road network". The report states the following conclusion:

- The proposal involves development of a new single-storey 60-place preschool. This forms Phase A of the masterplan for a new Early Childhood Services Hub which will also include a long day care centre and administration building (subject to a separate application/s);

- Car parking is to be provided on-site, shared between all buildings involved in the masterplan, thus assessment of parking requires consideration of all buildings. The masterplan has a statutory requirement to provide a total of 26 parking spaces. This is met by the proposal;

- The proposal includes one (1) accessible parking spaces. meeting the requirement of the DCP;

- The proposal includes four (4) bicycle parking spaces. exceeding the statutory requirement of the DCP;

- The car park design and layout comply with the relevant standards of the DCP and Australian Standards, providing efficient and convenient parking for staff, parents and visitors;

- Sufficient provisions have been made for loading and waste collection arrangements;

- The traffic anticipated to be generated by the proposal is not anticipated to have any major adverse impact on the operation of the surrounding road network.

- Therefore, the proposal is supported from a traffic engineering perspective.

Public Domain

The proposal will not have a negative impact on public recreational opportunities or public spaces in the locality.

Utilities

The site is serviced by all required utilities.

Heritage

There are no items listed in schedule 5 of the LEP 2012 as present on the land and a search of the AHIMS records did not reveal any items or places of Aboriginal Cultural Significance identified as present on the land.

Other Land Resources

The land does not contain any recorded mineral deposits and the proposal will not negatively impact any water catchment areas.

Water, Sewerage and Stormwater

Water and sewer services are available for connection. Stormwater disposal associated with the development can be accommodated in accordance with the submitted Stormwater Management Plan.

Soils

Excavation works are required and a recommended condition will apply to require compliance with Council's DCP 2021 with regard to sedimentation and erosion controls.

Air and Microclimate

Minimal amounts of dust may be generated during the construction period. Once construction works are complete the development will not impact on air quality.

Flora and Fauna

The development does not require removal of any significant vegetation other than two existing street trees as previously discussed. There will be no significant impact on native flora & fauna.

Waste

There is a dedicated waste collection area and any construction waste and ongoing waste will be removed from the site and appropriately recycled or catered for at a licensed waste management facility. The applicant proposes to use a private contractor for this purpose.

Energy

No negative impacts.

Noise and Vibration

Some noise will occur during the construction period, but is not expected to adversely impact on any surrounding land uses. Council's standard condition regarding construction hours is recommended. Noise associated with the operation of the facility is not expected to impact adversely on neighbouring land uses.

Natural Hazards

The land is not identified as bushfire or flood prone land.

Technological Hazards

Refer to previous discussion regarding land contamination and remediation works.

Safety, Security and Crime Prevention

It is considered this development will not generate any activity likely to promote any safety or security problems to the subject land or surrounding area (refer to CPTED assessment).

Social and Economic Impacts on the locality

The proposed development will not result in any negative social or economic impacts.

Site Design and Internal Design

The design of the development is satisfactory for the site and without any identified adverse impacts.

Construction

The proposed development will be built in accordance with the Building Code of Australia. No adverse impacts are anticipated to occur as a result of the development.

Cumulative impacts

The proposal is not expected to generate any ongoing negative cumulative impacts.

S4.15(1)(c) The Suitability of the Site for the Development

The development is consistent with the zone objectives and consideration has been given to the impacts the development will have within the locality. It is considered that the proposed

development will not create adverse impacts within its local setting. It is assessed that the development will not impact upon any existing services. The development site is not identified as bushfire or flood prone or otherwise unsatisfactorily constrained by natural features. The site is considered suitable for the development subject to the imposition of appropriate conditions of consent.

S4.15(1)(d) Any Submissions Received

Public Consultation

The subject Development Application was notified to adjoining owners in writing from 14 August 2024 to 28 August 2024, in accordance with Cowra Community Participation Plan 2020. No submissions were received in relation to the proposed development.

Public Authority Consultation:

There are no public authority consultation requirements associated with this development application. Crown Lands has provided owner's consent to lodge the development application.

S4.15(1)(d) The Public Interest

The proposed development has been considered in terms of the context and setting of the locality in previous sections to this report and has been notified to adjoining land owners. The proposed development will positively contribute to the development within the locality and will not impose any identified adverse economic or social impacts on the local community.

S7.12 Fixed development consent levies

No evidence of any prior Section 7.11 Development Contributions being levied on the land have been identified. Therefore, the recommended conditions include Section 7.12 (formerly S94A) development contributions to be levied in accordance with Cowra Council S94A Contributions Plan 2016.

Monetary contributions will also be required under Section 64 of the Local Government Act 1993 in relation to water and sewer headworks under Council's Developer Servicing Plans for Water and Sewer Services 2008.

Conclusion

Development Application No. 68/2024 proposes a centre-based child care facility (preschool care) on Lot 291 DP 45349, Lot 292 DP 46474, 14 Short Street Cowra. The application was lodged with Council by S D'souza on 13 August 2024. The property is owned by Crown Lands.

The application was supported by a Statement of Environmental Effects and development plans prepared by the applicant, which provide sufficient information to allow assessment of the proposal.

The proposed development has been assessed to be consistent with the requirements of Cowra Local Environmental Plan 2012 relating to works in the R1 General Residential zone. It is also consistent with existing land-use activities of the locality. The variation to Section N.2 of Cowra Development Control Plan 2021 is acceptable as discussed.

The development application was notified in accordance with Cowra Community Participation Plan 2020. No submissions were received following the consultation process.

Having considered the documentation supplied by the applicant, the findings of site inspection(s) and the comments made from consultation, it is assessed that the impacts of the proposal and the likely environmental interactions between the proposed development and the environment are such that Council should not refuse the development application. Accordingly, a recommendation of conditional approval is listed in the recommendation.

ATTACHMENTS

1. DA 68/2024 - Development Plans ⇩
2. DA 68/2024 - Statement of Environmental Effects ⇩
3. DA 68/2024 - Location map ⇩
4. DA 68/2024 - Aerial view ⇩
5. DA 68/2024 - Contamination Investigation Phase A ⇩
6. DA 68/2024 - Contamination Investigation Phase B ⇩



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PROPERTY GROUP PTY LTD

HJL ARCHITECTURE

VERIFICATION
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Status:
PLANNING APPLICATION

client:
COWRA EARLY CHILHOOD SERVICES COOPERATIVE LIMITED

Project:
Early Childhood Centre

Address:
14 SHORT ST COWRA NSW 2794

Property Details:
291/-/DP45349
292/-/DP46474 10573m²
APPROX.

No.	Description	Date
13	Preliminary DA	02-08-2024
14	Preliminary DA	02-08-2024
15	DA	07-08-2024
16	SWMP Added	07-08-2024

Drawing Name:
COVER

Current Issue Date
07-08-2024

Project number
2402

Scale (A1)
1 : 100

Drawing no.
TP01

DRAWING SCHEDULE	
TP01	COVER
TP02	SITE PLAN
TP04	SITE ANALYSIS PLAN
TP05	EXISTING SITE AND DEMOLITION PLAN
TP06	FLOOR PLAN
TP07	ROOF PLAN
TP08	BUILDING ELEVATIONS
TP09	BOUNDARY ELEVATIONS
TP10	BUILDING SECTIONS & DETAILS
TP12	3D IMAGES
TP13	3D IMAGES
TP11	BUILDING DETAILS
TP03	SITE PLAN PARKING & DRIVE DETAIL

CENTRE COMPLIANCE

THE PROPOSED EARLY LEARNING CENTRE WILL COMPLY WITH ALL REQUIRED CODES AND STANDARDS INCLUDING COMPLIANCE DETAILS SUBJECT TO APPROPRIATE PLANNING PHASE.

- CHILDREN SERVICES REGULATIONS
- EDUCATION AND CARE SERVICES NATIONAL REGULATIONS
- STAYING HEALTHY PREVENTING INFECTIOUS DISEASES IN EARLY CHILDHOOD EDUCATION AND CARE SERVICES
- CHILDCARE PLANNING GUIDELINE - NSW
- NATIONAL CONSTRUCTION CODE

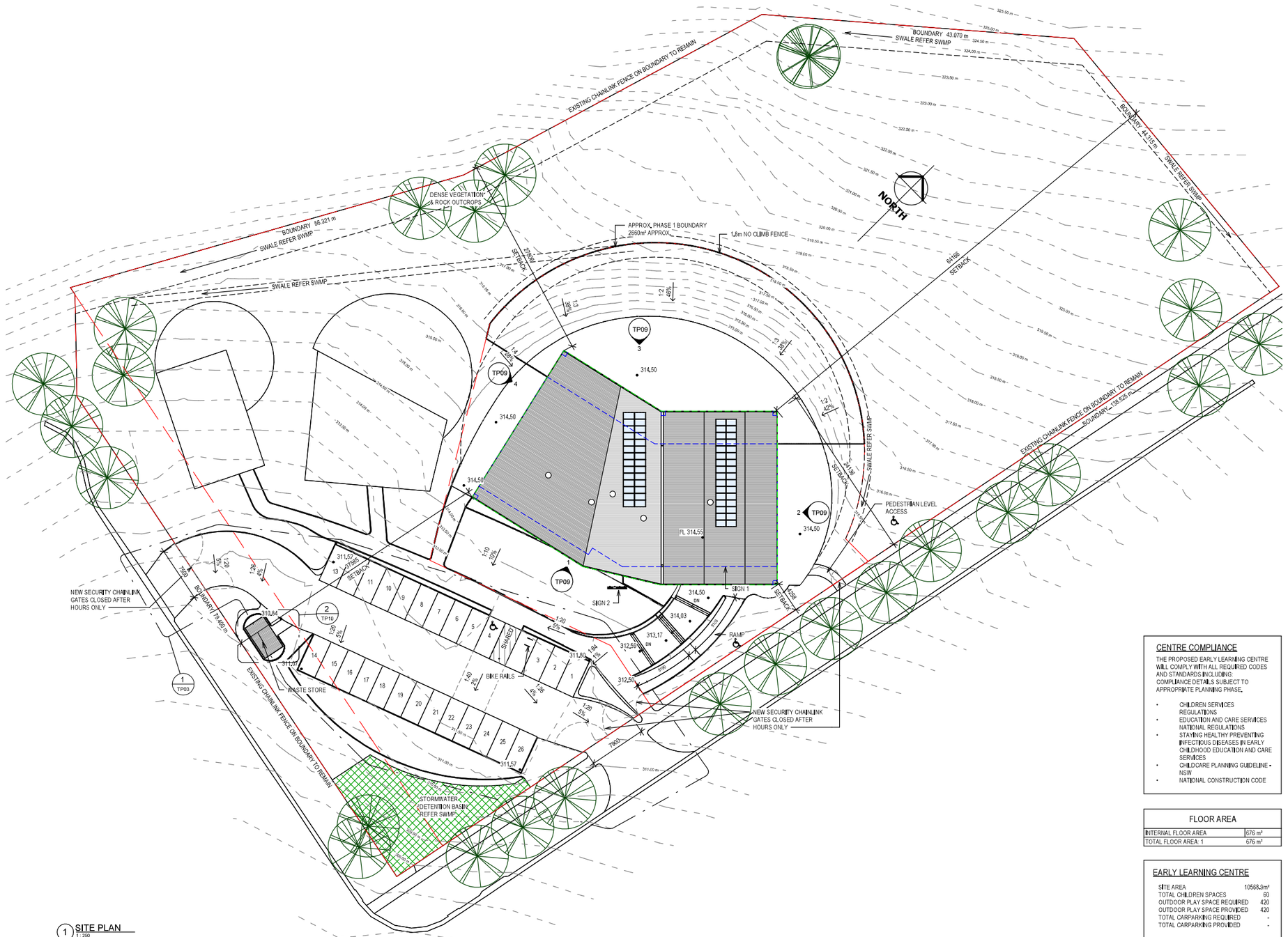
FLOOR AREA	
INTERNAL FLOOR AREA	676 m²
TOTAL FLOOR AREA: 1	676 m²

EARLY LEARNING CENTRE

SITE AREA	10568.9m²
TOTAL CHILDREN SPACES	60
OUTDOOR PLAY SPACE REQUIRED	420
OUTDOOR PLAY SPACE PROVIDED	420
TOTAL CARPARKING REQUIRED	-
TOTAL CARPARKING PROVIDED	-

ROOM NO	AREA	CHILDREN
1	65m²	20
2	65m²	20
3	65m²	20
TOTAL	195m²	60

OPERATIONAL HOURS 6:30am - 7:00pm MONDAY TO FRIDAY



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VERIFICATION
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Status:
PLANNING APPLICATION

client:
COWRA EARLY CHILHOOD SERVICES COOPERATIVE LIMITED

Project:
Early Childhood Centre

Address:
14 SHORT ST COWRA NSW 2794

Property Details:
291/-/DP45349
292/-/DP46474 10573m²
APPROX.

CENTRE COMPLIANCE

THE PROPOSED EARLY LEARNING CENTRE WILL COMPLY WITH ALL REQUIRED CODES AND STANDARDS INCLUDING: COMPLIANCE DETAILS SUBJECT TO APPROPRIATE PLANNING PHASE.

- CHILDREN SERVICES REGULATIONS
- EDUCATION AND CARE SERVICES NATIONAL REGULATIONS
- STAYING HEALTHY PREVENTING INFECTIOUS DISEASES IN EARLY CHILDHOOD EDUCATION AND CARE SERVICES
- CHILDCARE PLANNING GUIDELINE - NSW
- NATIONAL CONSTRUCTION CODE

FLOOR AREA

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TOTAL FLOOR AREA: 1	676 m²

EARLY LEARNING CENTRE

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OUTDOOR PLAY SPACE PROVIDED	420
TOTAL CARPARKING REQUIRED	-
TOTAL CARPARKING PROVIDED	-

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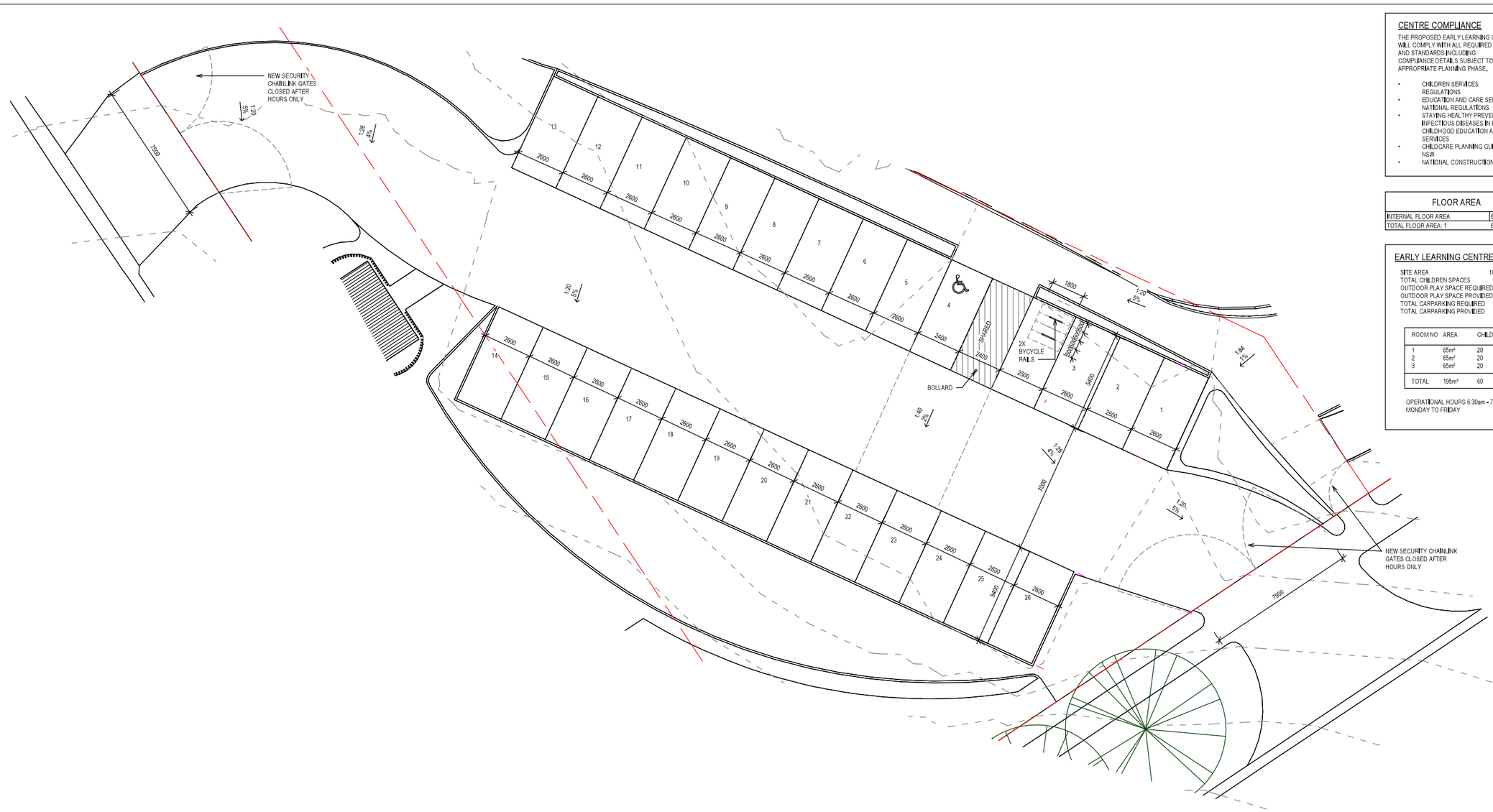
1	65m²	20
2	65m²	20
3	65m²	20
TOTAL	195m²	60

OPERATIONAL HOURS 6:30am - 7:00pm
MONDAY TO FRIDAY

No.	Description	Date
9	Preliminary	13-06-2024
11	Preliminary	18-06-2024
12	Preliminary	29-07-2024
13	Preliminary DA	02-08-2024
14	Preliminary DA	02-08-2024
15	DA	07-08-2024
16	SWMP Added	07-08-2024

Drawing Name:
SITE PLAN

Current Issue Date: 07-08-2024
Project number: 2402
Scale (A1): As indicated
Drawing no.: TP02



1 PART SITE PLAN
1 : 100

CENTRE COMPLIANCE

THE PROPOSED EARLY LEARNING CENTRE WILL COMPLY WITH ALL REQUIRED CODES AND STANDARDS INCLUDING: COMPLIANCE DETAILS SUBJECT TO APPROPRIATE PLANNING PHASE.

- CHILDREN SERVICES REGULATIONS
- EDUCATION AND CARE SERVICES NATIONAL REGULATIONS
- STAYING HEALTHY PREVENTING INFECTIOUS DISEASES IN EARLY CHILDHOOD EDUCATION AND CARE SERVICES
- CHILDCARE PLANNING GUIDELINE - NSW
- NATIONAL CONSTRUCTION CODE

FLOOR AREA

INTERNAL FLOOR AREA	676 m²
TOTAL FLOOR AREA: 1	676 m²

EARLY LEARNING CENTRE

SITE AREA	10568.9m²
TOTAL CHILDREN SPACES	60
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TOTAL CARPARKING REQUIRED	-
TOTAL CARPARKING PROVIDED	-

ROOM NO	AREA	CHILDREN
1	65m²	20
2	65m²	20
3	65m²	20
TOTAL	195m²	60

OPERATIONAL HOURS 6:30am - 7:00pm
MONDAY TO FRIDAY

MOLLARD PROPERTY GROUP PTY LTD

HJL ARCHITECTURE

Status: PLANNING APPLICATION

VERIFICATION
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Client: COWRA EARLY CHILHOOD SERVICES COOPERATIVE LIMITED

Project: Early Childhood Centre

Address: 14 SHORT ST COWRA NSW 2794

Property Details: 291/-/DP45349 292/-/DP46474 10573m² APPROX.

No.	Description	Date
9	Preliminary	13-08-2024
11	Preliminary	18-06-2024
12	Preliminary	29-07-2024
13	Preliminary DA	02-08-2024
14	Preliminary DA	02-08-2024
15	DA	07-08-2024
16	SWMP Added	07-08-2024

Drawing Name: SITE PLAN PARKING & DRIVE DETAIL

Current Issue Date: 07-08-2024

Project number: 2402

Scale (A1): 1 : 100

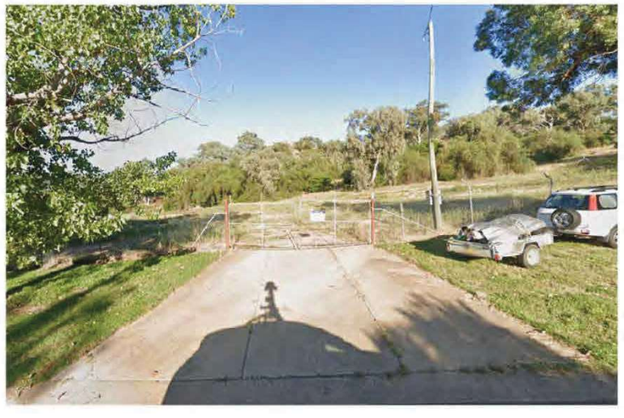
Drawing no.: TP03







EXISTING MAIN STREET CROSSING



EXISTING SHORT STREET CROSSING

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Status:
PLANNING APPLICATION

client:
COWRA EARLY CHILHOOD SERVICES COOPERATIVE LIMITED

Project:
Early Childhood Centre

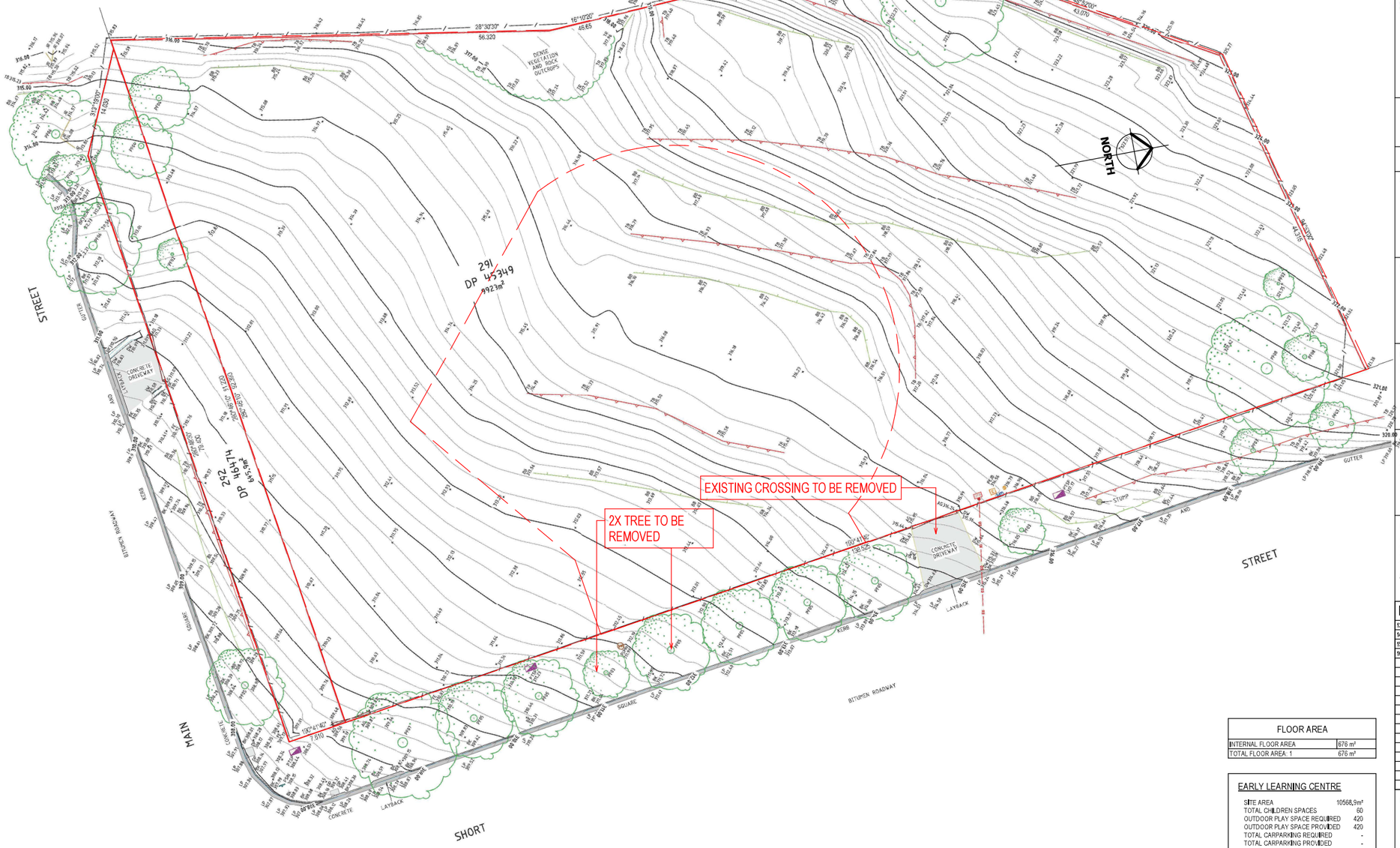
Address:
14 SHORT ST COWRA NSW 2794

Property Details:
291/-/DP45349
292/-/DP46474 10573m²
APPROX.

No.	Description	Date
8	Preliminary	11-06-2024
13	Preliminary DA	02-08-2024
14	Preliminary DA	02-08-2024
15	DA	07-08-2024
16	SWMP Added	07-08-2024

Drawing Name:
SITE ANALYSIS PLAN

Current Issue Date: 07-08-2024
Project number: 2402
Scale (A1)
Drawing no.: TP04



FLOOR AREA	
INTERNAL FLOOR AREA	676 m²
TOTAL FLOOR AREA: 1	676 m²

EARLY LEARNING CENTRE

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TOTAL CARPARKING REQUIRED	-
TOTAL CARPARKING PROVIDED	-

ROOM NO	AREA	CHILDREN
1	65m²	20
2	65m²	20
3	65m²	20
TOTAL	196m²	60

OPERATIONAL HOURS 6:30am - 7:00pm
MONDAY TO FRIDAY

MOLLARD
PROPERTY GROUP PTY LTD

HJL ARCHITECTURE

VERIFICATION
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Project:
Early Childhood Centre

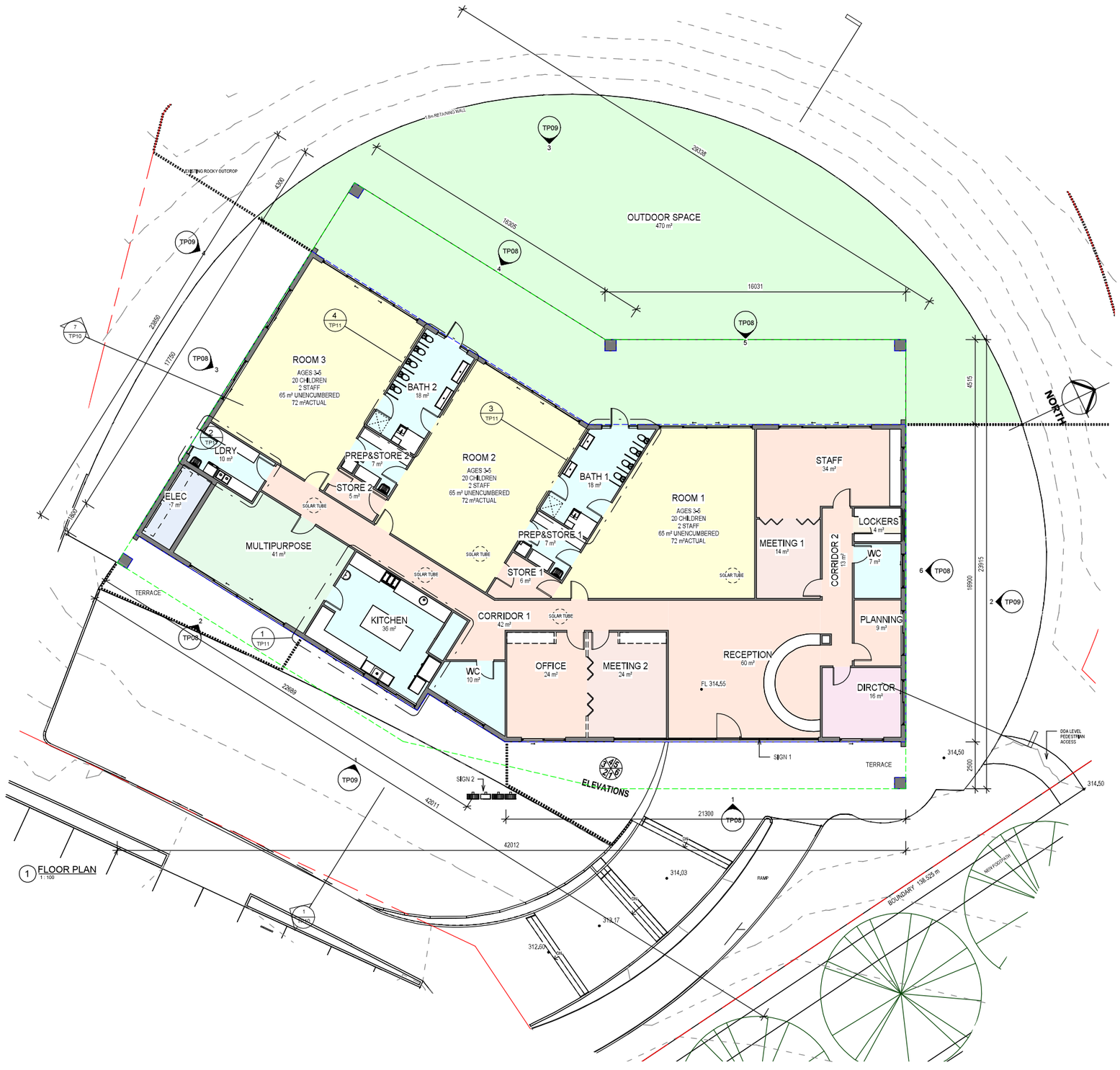
Address:
14 SHORT ST COWRA NSW 2794

Property Details:
291/-/DP45349
292/-/DP46474 10573m² APPROX.

No.	Description	Date
13	Prdiminary DA	02-08-2024
14	Prdiminary DA	02-08-2024
15	DA	07-08-2024
16	SWMP Added	07-08-2024

Drawing Name:
EXISTING SITE AND DEMOLITION PLAN

Current Issue Date: 07-08-2024
Project number: 2402
Scale (A1): As indicated
Drawing no.: TP05



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PROPERTY GROUP PTY LTD

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Status:
PLANNING APPLICATION

client:
COWRA EARLY CHILHOOD SERVICES COOPERATIVE LIMITED

Project:
Early Childhood Centre

Address:
14 SHORT ST COWRA NSW 2794

Property Details:
291/-/DP45349
292/-/DP46474 10573m²
APPROX.

CENTRE COMPLIANCE

THE PROPOSED EARLY LEARNING CENTRE WILL COMPLY WITH ALL REQUIRED CODES AND STANDARDS INCLUDING: COMPLIANCE DETAILS SUBJECT TO APPROPRIATE PLANNING PHASE.

- CHILDREN SERVICES REGULATIONS
- EDUCATION AND CARE SERVICES NATIONAL REGULATIONS
- STAYING HEALTHY PREVENTING INFECTIOUS DISEASES IN EARLY CHILDHOOD EDUCATION AND CARE SERVICES
- CHILDCARE PLANNING GUIDELINE - NSW
- NATIONAL CONSTRUCTION CODE

OUTLINE LEGEND

- BOUNDARY LINE
- ROOF OUTLINE
- GROUND LEVEL OUTLINE

FLOOR AREA

INTERNAL FLOOR AREA	676 m²
TOTAL FLOOR AREA: 1	676 m²

EARLY LEARNING CENTRE

SITE AREA	10568.9m²
TOTAL CHILDREN SPACES	60
OUTDOOR PLAY SPACE REQUIRED	420
OUTDOOR PLAY SPACE PROVIDED	420
TOTAL CARPARKING REQUIRED	-
TOTAL CARPARKING PROVIDED	-

ROOM NO	AREA	CHILDREN
1	65m²	20
2	65m²	20
3	65m²	20
TOTAL	195m²	60

OPERATIONAL HOURS 6:30am - 7:00pm
MONDAY TO FRIDAY

No.	Description	Date
8	Preliminary	11-06-2024
9	Preliminary	13-06-2024
11	Preliminary	19-06-2024
12	Preliminary	29-07-2024
13	Preliminary DA	02-08-2024
14	Preliminary DA	02-08-2024
15	DA	07-08-2024
16	SWMP Added	07-08-2024

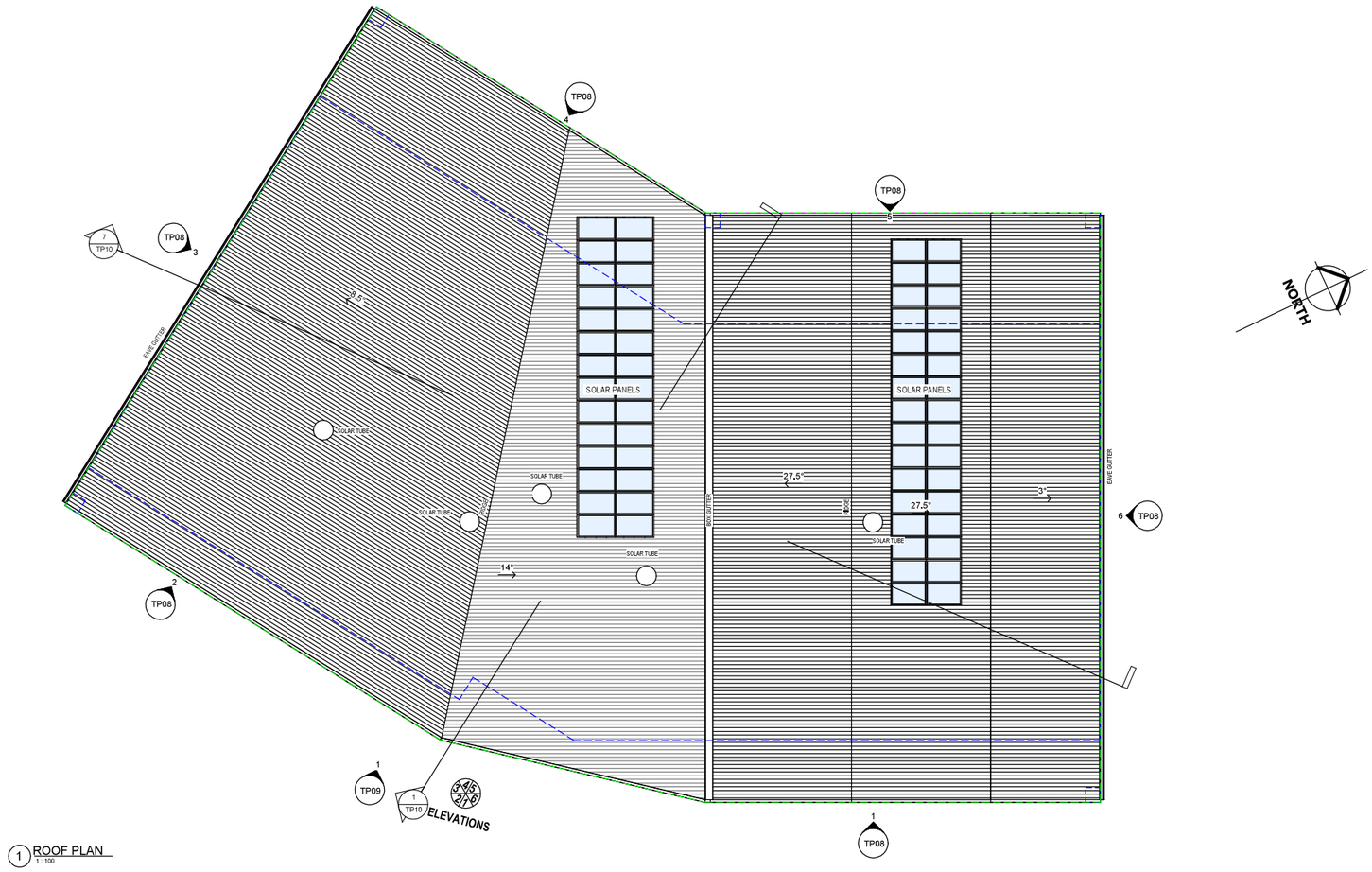
Drawing Name:
FLOOR PLAN

Current Issue Date
07-08-2024

Project number
2402

Scale (A1)
1 : 100

Drawing no.
TP06



1 ROOF PLAN
1 : 100

MOLLARD
PROPERTY GROUP PTY LTD

HJL ARCHITECTURE

VERIFICATION
VERIFY ALL DIMENSIONS, SITING, WINDOW SIZES, POSITIONING AND SETTING OUT ON SITE BEFORE COMMENCING CONSTRUCTION OR MANUFACTURE. DO NOT SCALE FROM THE DRAWINGS, REFER IMMEDIATELY TO HJL ARCHITECTURE FOR INSTRUCTION.

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292/-/DP46474 10573m²
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OUTLINE LEGEND

- BOUNDARY LINE
- ROOF OUTLINE
- GROUND LEVEL OUTLINE

FLOOR AREA

INTERNAL FLOOR AREA	676 m²
TOTAL FLOOR AREA: 1	676 m²

EARLY LEARNING CENTRE

SITE AREA	10568,5m²
TOTAL CHILDREN SPACES	60
OUTDOOR PLAY SPACE REQUIRED	420
OUTDOOR PLAY SPACE PROVIDED	420
TOTAL CARPARKING REQUIRED	-
TOTAL CARPARKING PROVIDED	-

ROOM NO	AREA	CHILDREN
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3	65m²	20
TOTAL	195m²	60

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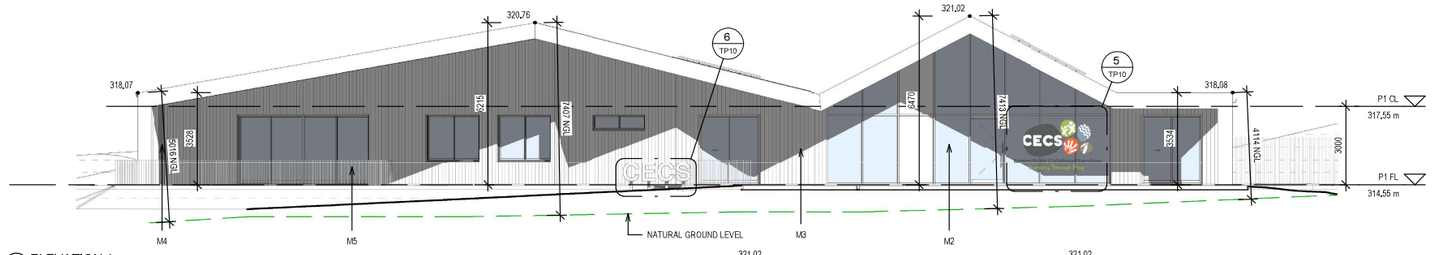
14	Preliminary DA	02-08-2024
15	DA	07-08-2024
16	SWMP Added	07-08-2024

Drawing Name:
ROOF PLAN

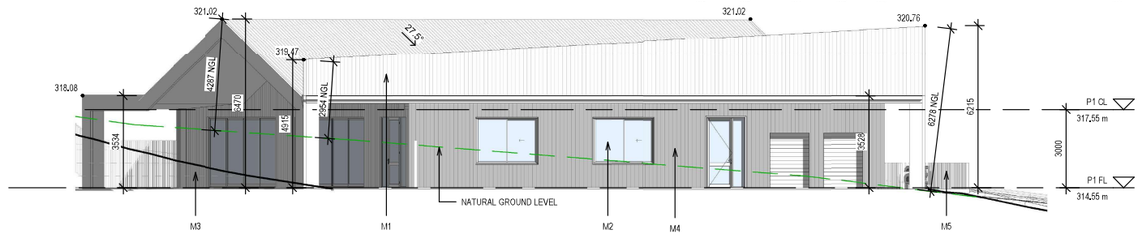
Current Issue Date: 07-08-2024
Project number: 2402
Scale (A1): 1 : 100
Drawing no.: TP07



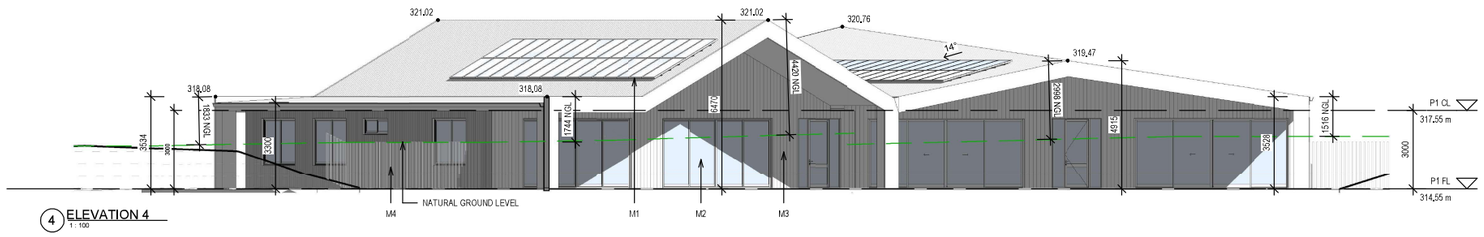
1 ELEVATION 1
1 : 100



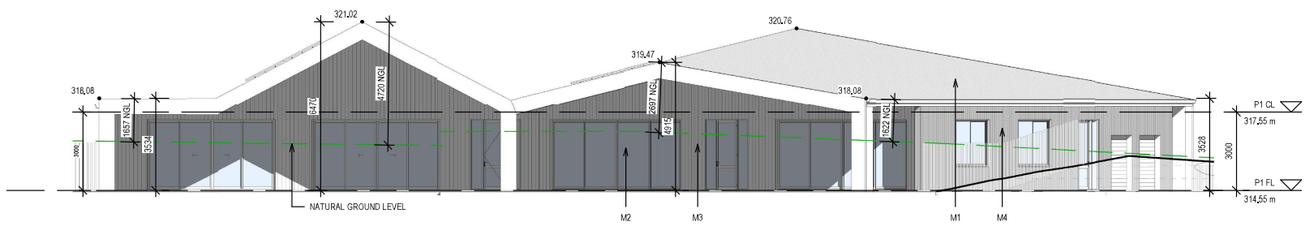
2 ELEVATION 2
1 : 100



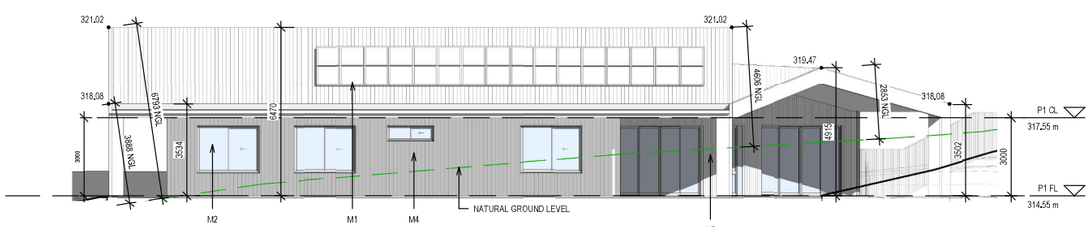
3 ELEVATION 3
1 : 100



4 ELEVATION 4
1 : 100



5 ELEVATION 5
1 : 100



6 ELEVATION 6
1 : 100

EXTERNAL BUILDING MATERIALS AND COLOURS

M1 METAL ROOFING
PROFILE: LYSAGHT LONGLINE
COLOUR MONUMENT

M2 METAL JOINERY
COLOUR : MONUMENT

M3 ALUMINUM TIMBER LOOK VERTICAL CLADDING

M4

M5 STAND ALONE BATTEN FENCING

M6 RETAINING WALLS

FLOOR AREA	
INTERNAL FLOOR AREA	676 m²
TOTAL FLOOR AREA: 1	676 m²

EARLY LEARNING CENTRE

SITE AREA	10568.9m²
TOTAL CHILDREN SPACES	60
OUTDOOR PLAY SPACE REQUIRED	420
OUTDOOR PLAY SPACE PROVIDED	420
TOTAL CARPARKING REQUIRED	-
TOTAL CARPARKING PROVIDED	-

ROOM NO	AREA	CHILDREN
1	65m²	20
2	65m²	20
3	65m²	20
TOTAL	195m²	60

OPERATIONAL HOURS 6:30am - 7:00pm
MONDAY TO FRIDAY

MOLLARD PROPERTY GROUP PTY LTD

HJL ARCHITECTURE

VERIFICATION
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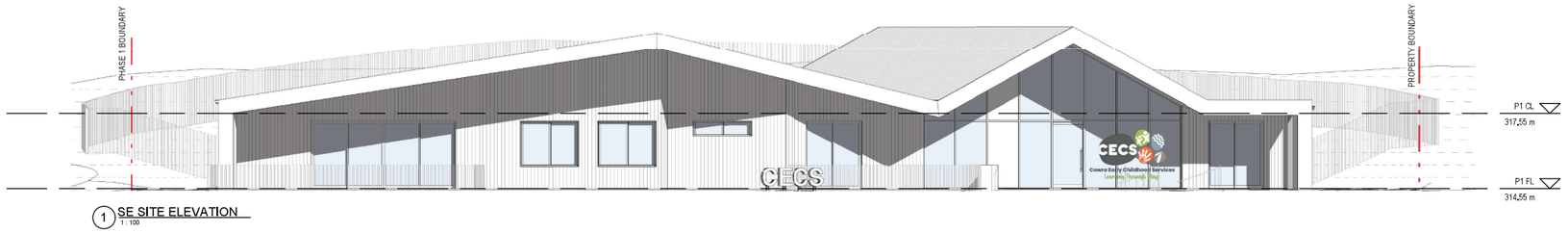
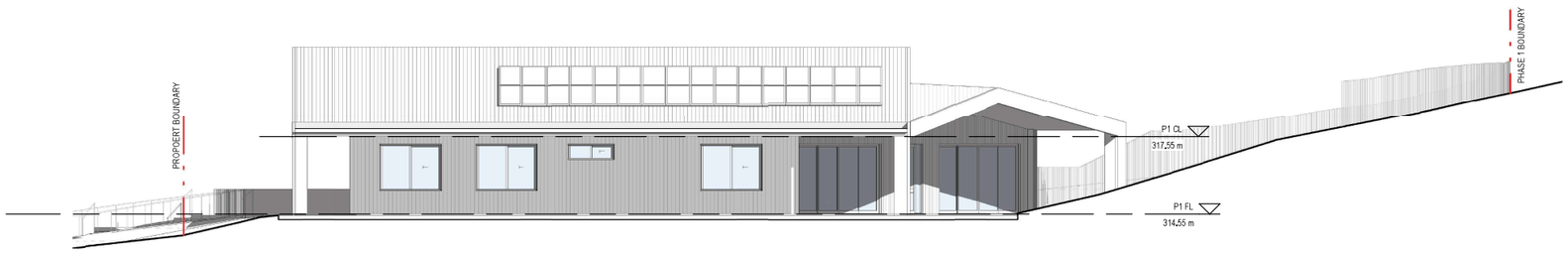
13	Preliminary DA	02-08-2024
14	Preliminary DA	02-08-2024
15	DA	07-08-2024
16	SWMP Added	07-08-2024

Drawing Name:
BUILDING ELEVATIONS

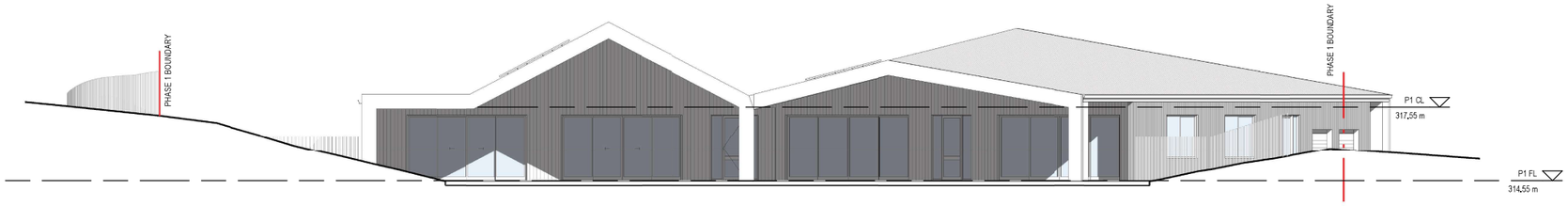
Current Issue Date: 07-08-2024
Project number: 2402
Scale (A1): 1 : 100
Drawing no.: TP08



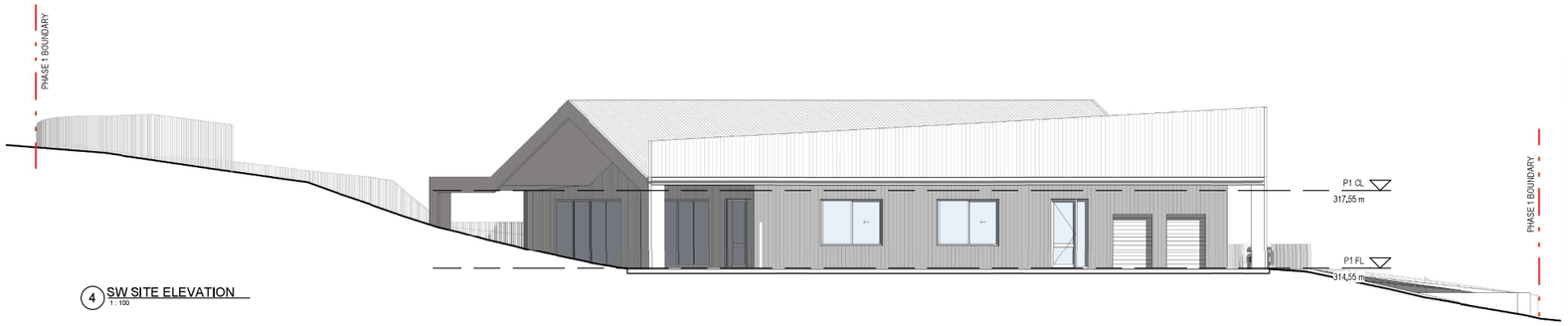
1 SE SITE ELEVATION
1 : 100



2 NE SITE ELEVATION
1 : 100



3 NW SITE ELEVATION
1 : 100



4 SW SITE ELEVATION
1 : 100

FLOOR AREA	
INTERNAL FLOOR AREA	676 m²
TOTAL FLOOR AREA: 1	676 m²

EARLY LEARNING CENTRE

SITE AREA	10568,9m²
TOTAL CHILDREN SPACES	60
OUTDOOR PLAY SPACE REQUIRED	420
OUTDOOR PLAY SPACE PROVIDED	420
TOTAL CARPARKING REQUIRED	-
TOTAL CARPARKING PROVIDED	-

ROOM NO	AREA	CHILDREN
1	65m²	20
2	65m²	20
3	65m²	20
TOTAL	195m²	60

OPERATIONAL HOURS 6:30am - 7:00pm
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MOLLARD PROPERTY GROUP PTY LTD

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291/-/DP45349
292/-/DP46474 10573m² APPROX.

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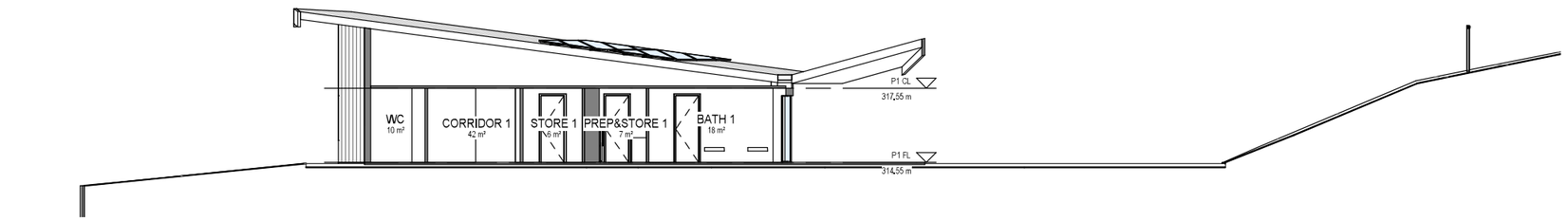
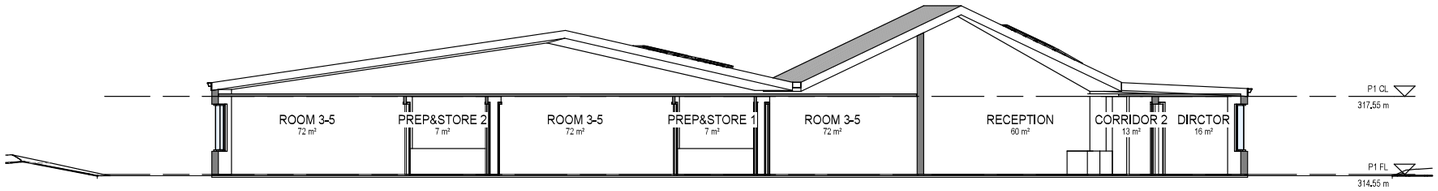
14	Preliminary DA	02-08-2024
15	DA	07-08-2024
16	SWMP Added	07-08-2024

Drawing Name:
BOUNDARY ELEVATIONS

Current Issue Date: 07-08-2024
Project number: 2402
Scale (A1): 1 : 100
Drawing no.: TP09



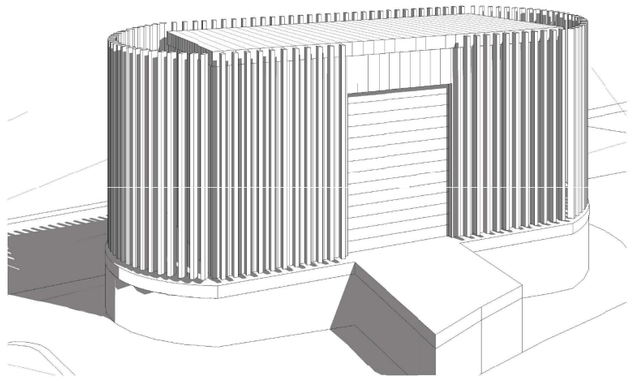
1 SECTION 1
1 : 100



7 SECTION 2
1 : 100



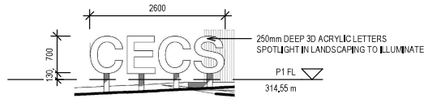
2 WASTE STORE
1 : 50



3 WASTE STORE



5 SIGN 1
1 : 50



6 SIGN 2
1 : 50

CENTRE COMPLIANCE

THE PROPOSED EARLY LEARNING CENTRE WILL COMPLY WITH ALL REQUIRED CODES AND STANDARDS INCLUDING COMPLIANCE DETAILS SUBJECT TO APPROPRIATE PLANNING PHASE.

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FLOOR AREA	
INTERNAL FLOOR AREA	676 m²
TOTAL FLOOR AREA: 1	676 m²

EARLY LEARNING CENTRE

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OUTDOOR PLAY SPACE PROVIDED	420
TOTAL CARPARKING REQUIRED	-
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ROOM NO	AREA	CHILDREN
1	65m²	20
2	65m²	20
3	65m²	20
TOTAL	195m²	60

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MONDAY TO FRIDAY

MOLLARD PROPERTY GROUP PTY LTD

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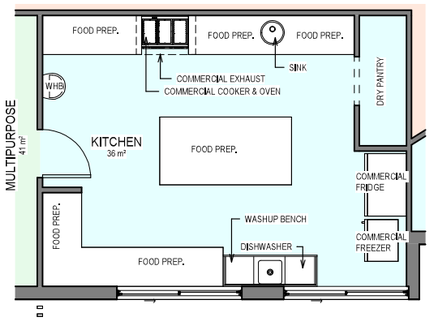
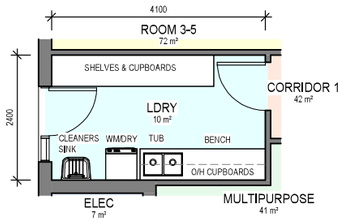
14	Preliminary DA	02-08-2024
15	DA	07-08-2024
16	SWMP Added	07-08-2024

Drawing Name:
BUILDING SECTIONS & DETAILS

Current Issue Date: 07-08-2024
Project number: 2402
Scale (A1): As indicated
Drawing no.: TP10



1 KITCHEN FLOOR PLAN
1 : 50



2 LAUNDRY FLOOR PLAN
1 : 50

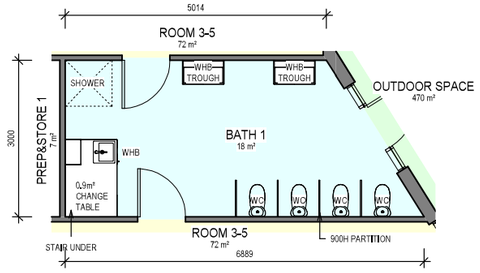
FOOD PREP AREA MATERIALS

IN ACCORDANCE WITH FOOD PREMISES DESIGN CONSTRUCTION AND FIT OUT GUIDE &AS 4674-2004 DESIGN, CONSTRUCTION AND FIOUT OF FOOD PREMISES

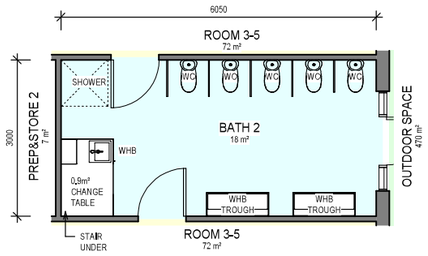
FLOORS: COMMERCIAL GRADE, LIGHT COLOURED, NON SLIP, VINYL SHEET.
FLOORING COVED MIN. 75mm UP WALLS AND JOINERY, WITH MIN. 25mm RADIUS PRE-FORMED BACHING PIECE.

WALLS: COMBINATION
COMMERCIAL GRADE, LIGHT COLOURED, NON SLIP, VINYL SHEET
GLAZED TILES FINISHED FLUSH
STAINLESSS STEEL SPLASHBACK TO BENCHES & BETWEEN CANOPY AND FLOOR COVING BEHIND COOKING APPLIANCE .
IN WET AREAS, THE BOTTOM PLATE IN ALL TIMBER FRAMED PARTITIONS IN FOOD PREPARATION AREAS MUST BE PLACED ON A "DWARF" WALL CONSTRUCTED OF C CONCRETE OR SIMILAR MATERIAL, AND C CONSTRUCTED APPROXIMATELY 70mm ABOVE THE FLOOR.

CEILINGS: SEALED AND WASHABLE PAINT OVER WET AREA PLASTERBOARD.



3 BATHROOM 1 FLOOR PLAN
1 : 50



4 BATHROOM 2 FLOOR PLAN
1 : 50

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TOTAL CARPARKING PROVIDED	-

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3	65m²	20
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16	SWMP Added	07-08-2024

Drawing Name:
BUILDING DETAILS

Current Issue Date: 07-08-2024
Project number: 2402
Scale (A1): As indicated
Drawing no.: TP11





MOLLARD
PROPERTY GROUP PTY LTD

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13	Preliminary DA	02-08-2024
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15	DA	07-08-2024
16	SWMP Added	07-08-2024

Drawing Name:
3D IMAGES

Current Issue Date
07-08-2024

Project number
2402

Scale (A1)

Drawing no.
TP12





MOLLARD
PROPERTY GROUP PTY LTD

HJL ARCHITECTURE

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Drawing Name:
3D IMAGES

Current Issue Date
07-08-2024

Project number
2402

Scale (A1)

Drawing no.
TP13

Client	Date
Cowra Early Childhood Services Cooperative Ltd	12 August 2024

Statement of Environmental Effects

Proposed Pre-School Facility

14 Short Street, Cowra

Planning
Transport
Urban Design
Town Planning

ratio:

ratio.com.au

Project
Proposed Pre-School Facility

Prepared for
Cowra Early Childhood Services Cooperative Ltd

Our reference
21235P

Ratio Consultants Pty Ltd

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Acknowledgement of Country

We acknowledge the Traditional Owners of the land we work, live and travel on, and appreciate the rich cultures of the Aboriginal and Torres Strait Islander Peoples and their enduring connection to country.

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1. Introduction

1.1. Instructions

Ratio Consultants have been engaged by Cowra Early Childhood Services Cooperative Ltd (CECS), the permit applicant, to prepare a Statement of Environmental Effects to accompany a development application to Cowra Shire Council, seeking consent for the construction of 60 place pre-school at 14 Short Street, Cowra (the 'subject site')

The purpose of this Statement is to address the planning issues associated with the development proposal and specifically to assess the likely impact of the development on the environment in response to the requirements of Section 4.15 of the *Environmental Planning & Assessment (EP&A) Act 1979.*

1.2. Background

The permit applicant is a local community based non-for-profit child care operator who currently manages 5 children services; Cowra Family Day Care, Out of School Hours Care (OOSH), Carinya Early Childhood Centre, Mobile Long Day Care; and Mobile Preschool. They have been in operation for 40 years.

CECS have obtained funding from the Department of Education to development a 60 place pre-school. The subject site is Crown land, and CECS has secured the management of the land from Crown Lands.

The permit applicant has undertaken informal preliminary discussions with Cowra Council, and the Council is generally supportive of the proposal.

The development of this pre-school is part of a broader master plan of the subject site to create a children services hub, allowing CECS to relocate all of their existing services into one location and to also expand their service offerings. This proposal forms part of Phase A of the master plan.

1.3. Accompanying Documentation

This Statement of Environmental Effects report is to be read in conjunction with:

Document	Relevant Author	Issue / Version	Date
Architectural Plans	HJL Architecture		
Crown Title Plan	-	-	08/11/2022
Appointment of Crown Land Manager – Gazettal Document	Minister for Lands and Water	-	02/03/2023
Crown Land Owners Consent	Department of Planning & Environment – Crown Land	-	08/05/2023
Council Confirmation Regarding Landscape Plan	Cowra Shire Council	-	12/07/2024
Estimated Development Cost Plan	MCG Quantity Surveyors	-	08/08/2024
Phase A Detailed Contamination Investigation	Barnson Pty Ltd	0	09/05/2024
Phase B (Rest of Site) Detailed Contamination Investigation	Barnson Pty Ltd	0	04/07/2024
Stormwater Management Plan	EPS Engineering Project Solutions	-	08/2024
Traffic Impact Assessment	Salt3	F01	09/08/2024
Waste Management Plan	Salt3	F01	09/08/2024

2. Site Analysis

2.1. Subject Site

The subject site is located at No. 14 Short Street, Cowra, on the western side of Short Street, approximately 70m west of Lynch Street, and approximately 1.45 kilometres north-east of the intersection between Kendal Street and Redfern Street.

The site is an irregular shaped allotment comprising an approximate 146.13m wide frontage to Short Street and a boundary of approximately 93.43m wide to the Main Street interface. It is a large property, canvasing an area of approximately 10,569sqm.

Figure 1 – Cadastral Image of the Subject Site



Source: Nearmap (September 2023)

The key features of the existing site are summarised as follows:

— The site has been recently cleared and generally devoid of any vegetation, except for some stand alone trees at the south west, north-east and north-west corners.

— Access to the property is provided via two single-width vehicle crossovers located centrally to the southern and eastern boundaries, providing access to Main and Short Streets respectively.

— No easements are present on the site.

— The site features a gentle slope from the north west to the south east of the site, falling approximately 16-18m.

— The site previously contained a series of buildings that were used by Essential Energy.

Established street trees extend along both road frontages.

Figure 2 – Historic Aerial Photograph



Source: Nearmap taken 16 November 2022

2.2. Site Surrounds

The site is located on the edge of a linear established residential area at the eastern edge the main Cowra township. The surrounding residential area is characterised by low scale detached dwellings on lots ranging between 700-1,600sqm. . Dwellings are predominantly of a 'post-war' architectural style.

The immediate context also comprises a public parkland/reserve, a NSW Government Local Land Services building, a train line and motel proximate to the subject site.

The immediate interfaces of the subject site are described as follows:

NORTH & WEST

Immediately adjoining the subject site to the north and to the west of the subject site is open bushland, an extension of the Bellevue Park Reserve, which hosts tourist accessibility to the south west. The reserve is densely vegetated and features scattered walking / hiking / mountain bike tracks. The land rises to the north and west.

The reserve is identified as having high biodiversity value within the Biodiversity Value Map.

Figure 3: Excerpt from Biodiversity Value Map (2020 base aerial image)



EAST

To the immediate east of the subject site is Short Street, a two way local road running north-south between Binni Street (north) and Mid Western Highway (south).

Further east, the site is opposite No.'s 1, 3-5, 7 & 9 Short Street and 12 Main Street. Dwellings along this stretch are typically single storey homes, set within large landscaped allotments. Built form is typically constructed of brick or weatherboard, with corrugated iron or tiled roofing, reflective of the time period in which they were constructed.

Property boundaries are typically setback from the street by approximately 10-12m and feature street vegetation. Dwelling setbacks are varied however are generally between 3m and 10m from their primary street frontage.

Figure 4: No. 3-5 Short Street



SOUTH

To the immediate south of the subject site is Main Street. Main Street is a short cul-de-sac running east-west across Short Street. Main Street features scattered street trees adjacent and on the opposite side of the road, to the site.

Further south, the site is opposite Nos 3 and 5 Main Street and 12 Short Street. The dwellings are each single storey, constructed of weatherboard or brick and feature corrugated iron or tiled roofs. Each of the properties features modest vegetation, predominantly located within the rear setback.

To the south-west is a NSW Government Local Land Services facility, comprising a single level building that fronts Lynch Street (Mid Western Highway). Informal 45degree angled parking is located along Short Street.

Figure 5: View of Main Street from south-east corner of Subject Site



2.3. Locality and Context

The subject site is positioned near the eastern end of the Cowra township that stretches alongside Mid Western Highway, which connects to the larger towns of Orange and Bathurst.

It forms part of an established residential area of Cowra and is well located and connected to a range of public transport options, open space, commercial, retail and recreational facilities, of note (measured as the crow flies):

- Cowra Public School located approx. 1.1km south-west.
- St Raphael's Catholic School located approx. 1.2km west.
- Holman Place Public School located approx. 850m north-west.
- Goodstart Early Learning Cowra located approx. 1.0km north-west.
- TAFE NSW Cowra located approx. 270m south-west.
- Bellevue Hill Reserve Lookout and Adventure Playground located approx. 540m west.
- Short Street at Lynch Street bus stop, which services bus route 543 (Cowra to East Cowra – Loop Service) located approx. 80m south.
- Cowra Railway Station located approx. 420m south.
- Cowra's main commercial core, along Kendall Street, including a range of retail, food and beverage tenancies, places of worship, community facilities, and commercial businesses, located approx. 1.0km to the south-west.

Figure 6: Subject Site and Surrounds



Source: Nearmap (dated September 2023)

3. The Proposal

3.1. Overview

The proposal seeks development permission from Cowra Council for the use and development of a single storey purpose built preschool centre, and associated car parking, as part of a large scale masterplan for the subject site. This development will form 'Phase A' of the master plan, with later stages to applied for separately at a later date.

The proposal is summarised as follows:

3.2. Proposed Use

The proposal seeks development permission for the use of the land for 'Centre-based child care facilities' (preschool care), noting that under Zone R1 General Residential, 'centre-based child care facilities' are permitted with consent.

Further details of the child care centre operations are:

— The preschool has been designed to cater up to 60 child places.

— The proposed centre provides 3 x indoor play areas, and 1 x large outdoor play area, as detailed below:

Indoor Play Areas

- Play Room 1 (20 places): 65sqm (unencumbered)
- Play Room 2 (20 places): 65sqm (unencumbered)
- Play Room 3 (20 places): 65sqm (unencumbered)

Outdoor Play Areas

- Outdoor Space 1: 470sqm (unencumbered)

— The centre is to operate between the hours of 6:30am and 7:00pm on weekdays. The centre is closed on weekends and gazetted public holidays.

An Operational Management Plan can be readily prepared with any further details, should it be required by the Council.

3.3. Proposed Works

The development seeks to construct a purpose built preschool centre with associated car park (noting the car parking will be constructed in anticipation of the whole masterplan). Specifics of the development are as follows:

— The kindergarten will comprise 3 x play rooms dedicated to children; 1 x dedicated outdoor play areas; a multi-purpose room; assorted staff meeting rooms and offices; separated bathrooms for children and staff; reception, admin and director areas; laundry; and external waste area.

— The development will comprise a maximum height of 7.965m from NGL, however, noting the significant slope of the site, and extent of cut and fill proposed, the maximum building height will sit at 6.47m.

— The proposed building is generally sited centrally to the site and features setbacks of:

- 4.258m to the eastern title boundary (Short Street);
- 37.585m to the southern title boundary (Main Street);
- 27.806m to the western title boundary; and
- 64.166m to the northern boundary.

— A 1.8m tall non-climbable fence is proposed to enclose the outdoor play area to the rear of the pre-school building.

— The proposal seeks to remove the existing crossover servicing Short Street as well as two (2) trees along the same interface, to facilitate the provision of a new crossover providing vehicular access to the car park.

— Dedicated areas for landscaping have been included throughout the subject site, noting most of the site is not to host any built form. Details of proposed landscaping are to be provided via a formal Landscape Plan, to be submitted in due course, as permitted / confirmed with Council.

— The design of the centre is contemporary. It incorporates a low profile pitched metal roof form and aluminium cladding to the main walls with a vertical timber look profile of various colours. Batten fencing and stone retaining walls are also proposed.

Proposed Signage

The proposal seeks to incorporate 2 x 'business identification' signs with one to be of an illuminated nature.

Specifically:

— **Sign 1:** a vinyl decal affixed to the glazing at the primary entrance to the building, measuring 2.0m x 3.36m (6.72sqm); and

— **Sign 2:** 3D acrylic lettering reading 'CECS' (Cowra Early Childhood Services). The sign is located within a landscaped bed between the car parking area and the main building, and will be illuminated via small spotlights within the landscaping directed at the lettering, and will measure 0.7m x 2.6m (1.82sqm).

Figure 7: Render of Proposed Development



4. Environmental Planning Assessment

4.1. State Environmental Planning Policy (SEPP) Assessment

SEPP (RESILIENCE AND HAZARDS) 2021

Chapter 4 of the Resilience and Hazards SEPP contains a state-wide planning framework for the remediation of contaminated land and to minimise the risk of harm. This SEPP aims to provide a State-wide planning approach to the remediation of contaminated land, and in particular, promotes the remediation of contaminated land for the purpose of reducing risk of harm to human health or the environment.

The Detailed Contamination Investigation undertaken by Barnson Pty Ltd identifies that the site was historically used as an Essential Energy Depot, and previous assessments indicate residual contamination is located at the throughout the site, primarily south of the 'investigation area' (where the proposal is sited). The soil sampling program did not detect elevated levels of heavy metals or hydrocarbons in the soil samples analysed from the general site and from the former building locations.

The findings of the report indicate that "the investigation area comprising Phase A is considered suitable for the proposed development" and recommends "the remaining building materials identified on the site surface should be removed as they represent an amenity issue".

Any potential contamination of the land can be successfully remediated to allow the development to proceed. Given the above, we do not consider there to be any concern associated with the development and future use of the site.

SEPP (BIODIVERSITY AND CONSERVATION) 2021

Chapter 2 of the Biodiversity and Conservation SEPP outlines the key objectives being *"to protect the biodiversity values of trees and other vegetation in non-rural areas of the State, and to preserve the amenity of non-rural areas of the State through the preservation of trees and other vegetation".*

As previously identified, the subject site features small portions of land identified within the Biodiversity Values Map. The proposal does not seek to undertake any works, vegetation removal or cut and fill within these areas, and is therefore of no consequence to the areas outlined.

The proposal does seek to remove two (2) street trees along the eastern frontage to Short Street for the purposes of a new crossover. The removal of these trees can be adequately

offset by the planting of new street trees and a new landscaping regime on the site. There are significant opportunities for new trees to be planted throughout the site.

SEPP (INDUSTRY AND EMPLOYMENT) 2021

Chapter 3 of the Industry and Employment SEPP outlines provisions for applications relating to advertising and signage. The criteria for signage applies to all advertising signage visible from a public place whether it requires development consent or not.

The objectives of Section 3.1(1)(a) are as follows:

"(a) to ensure that signage (including advertising)—

(i) is compatible with the desired amenity and visual character of an area, and

(ii) provides effective communication in suitable locations, and

(iii) is of high quality design and finish"

The proposed signage is modest in dimensions and commensurate to the developments size. The signage has been designed to be of a simple nature and feature low level, inconsequential illuminated aspects, ensuring that the proposed signs will contribute positively to the desired amenity and visual character of the area.

Similarly, the proposal is to be constructed of high quality materials and finishes, that will ensure they are durable and will last for years to come, whilst maintaining clear and effective communication of the business.

An assessment against the matters for consideration in Schedule 5 to the SEPP has been detailed at **Appendix A**.

SEPP (TRANSPORT AND INFRASTRUCTURE) 2021

Chapter 3 of the Transport and Infrastructure SEPP outlines the planning provisions for Educational Establishments and Child Care Facilities. A complete assessment against relevant provisions has been provided at **Appendix B**:

4.2. Cowra Local Environmental Plan 2012

As outlined below, the subject site is located within the R1 General Residential Zone and is not subject to a maximum height control under the CLEP2012. A minimum lot size of 700sqm applies to the surrounding residential area.

Centre-based child care facilities are permissible with consent, subject to the R1 Zone controls. As previously outlined, the proposal is consistent with the definition of a centre-based child care facility, which includes preschool care.

Figure 8: Zoning Map



The table at **Appendix C** provides details of the development standards, pursuant to the CLEP2012, relevant to the proposal.

The following table provides a response to the relevant objectives of the General Residential Zone (R1):

Objective	Response
To enable other land uses that provide facilities or services to meet the day to day needs of residents.	A preschool centre is an important community facility and is often located within or close to residential areas, being accessible to where people live. This proposal seeks to offer a new preschool facility (as part of an education hub) to the local residential community area. Population growth and changing household needs/structures generates the need for more early childhood education facilities to be provided. As such, the provision of a new preschool facility at a site that is suitably sized for redevelopment, and proximate to other educational and community facilities is considered appropriate.
To maintain the existing low density residential character of the area.	The development of a single storey building on this large allotment will maintain the low density character of the area. The building is centrally positioned

	on the site, providing generous setbacks to perimeter boundaries and will maintain a sense of spaciousness and openness. The single storey height combined with its low profile pitched roof will also reinforce the area's low scale character. The building also responds to the slope of the land, being positioned on the flattest portion of the land. The metal roof and timber look cladding maintain a domestic appearance that references its residential setting. Architectural elements include angled walls and varying roof pitch angles provide a contemporary appearance that will nestle successfully into this sloped site and showcases a simple and refined design.
To ensure that any non-residential land uses permitted within the zone are compatible with the amenity of the area.	The proposed development for a preschool centre is unlikely to have any unreasonable amenity impacts to the surrounds. The site has historically been used for non-residential purposes and is anomalously large in size that can readily accommodate a 60 place pre-school development. There are also no direct abuttals to residential properties. The proposed single storey development maintains the low scale residential character, and incorporates design detail and material/finishes reflective of a domestic appearance. The contemporary architect will make a positive contribution to the area and on this vacant allotment. A pre-school use is often found in residential areas highlighting its complementary nature and its innocuous characteristics. Similarly the proposal features landscaping provisions to the mitigate

	visual bulk impacts as presented to the public realm Additionally, outdoor play areas, are sited internal to the site so to mitigate any noise impacts, and appropriate setbacks have been implemented to ensure that no unreasonable bulk or overshadowing impacts are dealt to nearby properties. Adequate car parking has also been provided on the site.

4.3. Cowra Shire Development Control Plan 2021

All relevant provisions of Cowra Shire DCP have been identified and considered in the table at **Appendix D**.

In the absence of specific controls relevant to a centre-based childcare facility (preschool care), first principles should be applied to determine if the proposal is an appropriate response on the subject site.

Land Use

The subject site benefits from its general separation from abutting residential properties, noting the northern and western boundaries are shared with the Bellevue Hill Reserve, whilst the southern and eastern boundaries front Main Street and Short Street respectively. It is also a large parcel of land that has historically be used for non-residential purposes, and therefore can contemplate another non-residential use such as a pre-school. Educational uses such as child care centre, primary and secondary schools are often located within residential areas, making them highly accessible and integrated with local communities. They are also very important and highly sought community facilities.

Built Form

The subject site comprises a large, cleared allotment that has historically be used for non-residential purposes. It is also a site that is separated from nearby residential properties by the existing road network. It presents an array of development opportunities and to also accommodate educational facilities that will benefit the local community.

The proposal has been designed in a manner that is site responsive, and this is demonstrated by the following:

— This purpose built single storey building features a gable roof design with varying low pitch angles. It provides an undulating roof appearance that takes its cues from the slope of the site and its broader surrounds, and provides visual interest in a simple and refined manner.

— The contemporary architecture showcases the pre-school land use while incorporating design elements reflective of its residential setting, which includes a pitched roof and

domestic materiality. The proposal is appropriately articulated through a visually interesting architectural form, varying materials, glazing to street frontages, and landscaping, to ensure that the presentation to the streetscape is one that is viewed positively, and will contribute to the public realm.

- The angled siting of the building is a minimum 4.3m from Short Street, receding further away as one moves either side along the street. The building is setback 37.5m from Main Street, separating by at-grade car parking and landscaped areas. The overall siting of the building allows for frontage planting, noting that most of the northern half of the site will remain untouched.
- Appropriate provisions for landscaping throughout the site have been made, particularly to the east of the building and to the outer sides of the car park, ensuring that the development responds appropriately to the landscape character of this residential pocket of Cowra and its interface with Bellevue Hill Reserve to the north and west..
- The proposed building is designed in a manner will provide a high quality level of amenity to preschool students and staff. Indoor play areas are provided at a rate of 3.25sqm per child, whilst expansive nature set outdoor play areas are provided at a rate of 7.83sqm per child. Staff are provided with a number of internal meeting and staff rooms, offices, lockers, multipurpose areas and laundries to ensure a smooth and functional space is achieved.
- The site context combined with the design, scale and siting of the proposed development effectively limits potential external amenity impacts by way of visual bulk, overlooking and overshadowing.
- The outdoor play area has been sited internally to the site, at the rear of the building, so to mitigate any potential noise impacts to nearby dwellings, the nearest being over 50m away. The separation distances also ensure that there are no overlooking impacts.
- In a similar vein, the single level height of the building and its perimeter setbacks ensures that any overshadowing impacts are contained generally to the subject site, and marginally to the road reserve. No overshadowing occurs to nearby residential properties.

Signage

- The proposed signage has been designed to integrate into the landscape and affixed to the front of the building in a sophisticated yet simple manner. . Sign 1 comprises business identification information together with logos, affixed to the glazing adjacent to the main entry point of the building. Sign 2 comprises individual lettering of CECS within a landscaped garden bed fronting the car parking area. The sign will be illuminated via small spotlights directed at the letters.
- The overall signage to the development is limited to two signs, noting that Sign 2 will provide broader identification of the site when later stages are completed as part of the master plan development. The dimensions of both signs are sufficient in size to provide adequate identification of the site and will integrate appropriately in their respective locations.
- The signs are positioned at the front of the building, ensuring that they clearly identify the child services use from the public realm. The type of illumination to Sign 2 is appropriate in

this residential setting given it comprises spotlights within the landscape, ensuring that the light spill is directed to the signs and away from sensitive interfaces. These signs are compatible within this residential setting.

Conclusion

Given the above, the use and development the proposal is clearly well considered and appropriate in this residential locality. A pre-school facility is a complementary use within a residential setting and one that will deliver benefits to the local community.

4.4. Childcare Planning Guidelines

Under Chapter 3 of the Transport and Infrastructure SEPP, the Child Care Planning Guideline is to be taken into consideration when undertaking a development for a centre-based child care (preschool care) facility.

The planning guideline also takes precedence over a Development Control Plan, with some exceptions, where the two overlap in relation to a child care facility.

The table at **Appendix E** provides detail on the relevant development standards relevant to the current proposal.

4.5. National Quality Framework for Early Childhood Education and Care Facilities

In preparing this development application and in the design development of the proposal, regard has been had to not only the relevant Cowra Shire Council controls and guidelines, but also to the Education and Care Services National Regulations 2012 (National Regulations).

It is noted that a large portion of the controls have been addressed in Chapter 3 of the State Environmental Planning Policy (Transport and Infrastructure) 2021 and the Child Care Guidelines, and therefore, only the relevant controls will be addressed in the table at **Appendix F**.

5. Conclusion

Based upon all the relevant assessments, this proposal represents an appropriate development as it is compliant with relevant guidelines and requirements.

This proposal seeks to make appropriate use of a vacant site, in a manner that will positively contribute to the local area. The provision of a preschool, and future associated child services operations/uses, in a location close to a major arterial road and proximate to other non-residential uses, with limited external amenity impacts is considered entirely appropriate and a beneficial addition to the local community.

The subject site is suitably sized for the development, noting that relevant built form controls have been complied with, with regards to the building envelope, as well as the Child Care Guideline requirements. In particular, the development is compliant with height and setback requirements. The site's size, and siting of the proposed building also result in limited external amenity impacts to the adjoining properties, noting the site benefits from no sensitive residential abuttals.

The design of this purpose-built preschool centre adopts a contemporary architectural style that is of high quality. It will integrate respectfully in this residential setting as it incorporates design elements and finishes that are domestic in nature. The single storey scale and mass of the building is consistent with the existing low-scale residential context and has been carefully sited to respond to the slope of the site and to provide an appropriate landscape setting.

This new preschool provides adequate car parking on -site (noting the car park is to service the additions part of the masterplan). The proposed signage provides important business identification of the preschool and is limited to two modest signs. The illuminated nature of one of the signs is appropriate in this residential context as it enhances its visibility without causing unreasonable light spill to nearby residential properties.

The proposal, contextually, is an appropriate response, noting that the site benefits from a close proximity to a range of commercial land uses, education facilities, open space areas and parklands, public transport opportunities, and benefits from close accessibility to a key collector road. Its physical context supports a new purpose-built preschool centre, and one that will make a positive contribution to the area and its local community.

An array of consultant reports has been prepared which further supports the development of this child care facility.

This is an application worthy of Council's support.

Ratio Consultants

Appendix A – SEPP (Industry & Employment)

SEPP	Comment
Schedule 5 Assessment Criteria	
1 Character of the Area	
Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located?	The character of the area is predominantly residential with some commercial uses positioned along Lynch Street/Mid Western Highway. This linear residential area is also adjacent to expansive public open space. Notably, the site has historically been used for non-residential purposes. The signage is unobtrusive, given its siting within a landscaped bed, and affixed to the building façade. The signs are simple in nature, and have no unreasonable visual impacts to the surrounds. The signage to be of a high quality design and finish. One sign is to be illuminated, however is proposed to be of a standard lighting level, set within a landscaped bed, and only on during operating hours. As such it is unlikely to have any unreasonable impacts to the locality.
Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?	Not applicable.
2 Special Areas	
Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?	No. The signage proposed is of a sensitive design, noting the; low level and scheduled illuminated nature; the location, being set within a landscaped area and setback from the street, further away from the open space to the north and west of the site.
3 Views and Vistas	
Does the proposal obscure or compromise important views?	No.
Does the proposal dominate the skyline and reduce the quality of vistas?	No. The signs are positioned on the building façade and within the landscaped garden beds.
Does the proposal respect the viewing rights of other advertisers?	Not applicable. There are no other advertisements in the vicinity.
4 Streetscape, Setting or Landscape	
Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?	Yes. The proposed scale and size of the signage is proportionate to the overall development. Sign 1 is centrally located to the wall it's affixed to, and Sign 2 is located along the main entrance walkway. Both signs equate to a total display area of 8.54sqm, which in the grand scheme of the development is an appropriate outcome, noting the signage is a simple design and effectively communicates the preschool operations.
Does the proposal contribute to the visual interest of the streetscape, setting or landscape?	The proposed signage is an appropriate design response in relation to the future master planof the entire site..

	Given the development is a contemporary design, and the signage is integrated into the design, there will be a level of visual intrusion as viewed from the streetscape, however it is noted that the signage is not designed to be visually prominent.
Does the proposal reduce clutter by rationalising and simplifying existing advertising?	The proposed site does not feature any existing signage. The proposed signage is designed to be simple and will have no impact to clutter at the site nor its surrounds.
Does the proposal screen unsightliness?	No.
Does the proposal protrude above buildings, structures or tree canopies in the area or locality?	No.
Does the proposal require ongoing vegetation management?	No. Sign 2 is situated within a garden bed along the main walkway connecting the car park and the building entrance. The proposed signage does not however require any additional vegetation management not normal to the garden bed.
5 Site and Building	
Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located?	Yes. As previously discussed, the proposed Sign 1 is affixed to the façade of the development and takes up a minor portion of this façade. Similarly, Sign 2 is located within a large, landscaped bed, and is of a simple design, so not to detract from the building. The low level illumination will further complement the built form. In scale of the entire development, the proposed sign's size and scale are modest, and will positively integrate into the development, with respect to the architectural design, landscape setting and overall siting of the site.
Does the proposal respect important features of the site or building, or both?	Yes. The proposed signage has been designed and located to ensure that the architectural features and site landscaping remain at the forefront of views from the public realm.
Does the proposal show innovation and imagination in its relationship to the site or building, or both?	The proposed signage is designed to be simple and communicatively efficient, as such, innovation in its design is not necessary.
6 Associated Devices and Logos with Advertisements and Advertising Structures	
Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?	External lighting within the garden bed for Sign 2 has been designed to be visually minimal and integrated into the landscaping.
7 Illumination	
Would illumination result in unacceptable glare?	No.
Would illumination affect safety for pedestrians, vehicles or aircraft?	Lights associated with Sign 2 are aimed away from pedestrian and vehicular movement areas and are of a low level. The location of the sign internally to the site will not result in any unreasonable external amenity impacts.
Would illumination detract from the amenity of any residence or other form of accommodation?	If required, lights to the proposed signage can be made adjustable. Illumination of the sign will be limited to operating hours of the preschool.
Can the intensity of the illumination be adjusted, if necessary?	
Is the illumination subject to a curfew?	
8 Safety	
Would the proposal reduce the safety for any public road?	No.

Would the proposal reduce the safety for pedestrians or bicyclists?	No.
Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?	No.

Appendix B – SEPP (Transport & Infrastructure) 2021

SEPP	Comment
Part 3.1 Preliminary	
3.1 Aims of Chapter *centre-based child care facility* means— (a) a building or place used for the education and care of children that provides any one or more of the following— (i) long day care, (ii) occasional child care, (iii) out-of-school-hours care (including vacation care), (iv) preschool care, or (b) an approved family day care venue (within the meaning of the Children (Education and Care Services) National Law (NSW)), Note— An approved family day care venue is a place, other than a residence, where an approved family day care service (within the meaning of the Children (Education and Care Services) National Law (NSW)) is provided. but does not include— (c) a building or place used for home-based child care or school-based child care, or (d) an office of a family day care service (within the meanings of the Children (Education and Care Services) National Law (NSW)), or (e) a babysitting, playgroup or child-minding service that is organised informally by the parents of the children concerned, or (f) a child-minding service that is provided in connection with a recreational or commercial facility (such as a gymnasium) to care for children while the children's parents are using the facility, or (g) a service that is concerned primarily with providing lessons or coaching in, or providing for participation in, a cultural, recreational, religious or sporting activity, or providing private tutoring, or (h) a child-minding service that is provided by or in a health services facility, but only if the service is established, registered or licensed as part of the institution operating in the facility.	The proposed preschool facility is consistent with the definition of 'centre-based child care facility' contained within the SEPP.

Part 3.3 Early Education and Care Facilities – Specific Development Controls	
3.23 Centre-based child care facility—matters for consideration by consent authorities Before determining a development application for development for the purpose of a centre-based child care facility, the consent authority must take into consideration any applicable provisions of the Child Care Planning Guideline, in relation to the proposed development.	An assessment against the Child Care Planning Guidelines has been addressed further below.
3.26 Centre-based child care facility—non-discretionary development standards (1) The object of this section is to identify development standards for particular matters relating to a centre-based child care facility that, if complied with, prevent the consent authority from requiring more onerous standards for those matters. (2) The following are non-discretionary development standards for the purposes of section 4.15(2) and (3) of the Act in relation to the carrying out of development for the purposes of a centre-based child care facility— (a) location—the development may be located at any distance from an existing or proposed early education and care facility, (b) indoor or outdoor space (i) for development to which regulation 107 (indoor unencumbered space requirements) or 108 (outdoor unencumbered space requirements) of the Education and Care Services National Regulations applies—the unencumbered area of indoor space and the unencumbered area of outdoor space for the development complies with the requirements of those regulations, or (ii) for development to which clause 28 (unencumbered indoor space and useable outdoor play space) of the Children (Education and Care Services) Supplementary Provisions Regulation 2012 applies—the development complies with the indoor space requirements or the useable outdoor play space requirements in that clause, (c) site area and site dimensions—the development may be located on a site of any size and have any length of street frontage or any allotment depth, (d) colour of building materials or shade structures—the development may be of any colour or colour scheme unless it is a State or local heritage item or in a heritage conservation area. (3) To remove doubt, this section does not prevent a consent authority from— (a) refusing a development application in relation to a matter not specified in subsection (2), or (b) granting development consent even though any standard specified in subsection (2) is not complied with.	(1) Noted. (2) (a)There are no restrictions relevant to the site. (b) (i) The proposed preschool facility provides 195sqm or 3.25sqm per child of unencumbered indoor play space and 470sqm or 7.83sqm per child of unencumbered outdoor play space which is consistent with the indoor and outdoor unencumbered space requirements of the Education and Care Service National Regulations. (c) The proposal is provided appropriate side, front and rear setbacks, complementary of the surrounds, and includes landscaping to boundaries, achieving a site responsive outcome. (d) The neutral colour palette and materiality of the development has been done so in a manner that is reflective of the surrounding residential context. (3) Noted.
3.27 Centre-based child care facility—development control plans (1) A provision of a development control plan that specifies a requirement, standard or control in relation to any of the following matters (including by reference to ages, age ratios, groupings, numbers or the like, of children) does not apply to development for the purpose of a centre-based child care facility—	(1) Noted. Clause 3.27(1) (a) – (d) is not applicable to the proposal for a centre-based child care facility.

(a) operational or management plans or arrangements (including hours of operation),

(b) demonstrated need or demand for child care services,

(c) proximity of facility to other early education and care facilities,

(d) any matter relating to development for the purpose of a centre-based child care facility contained in—

(i) the design principles set out in Part 2 of the Child Care Planning Guideline, or

(ii) the matters for consideration set out in Part 3 or the regulatory requirements set out in Part 4 of that Guideline (other than those concerning building height, side and rear setbacks or car parking rates).

(2) This section applies regardless of when the development control plan was made.

Appendix C – Cowra Shire LEP Assessment

Clause	Control	Comment	Complies
Zone	R1 – General Residential	'Centre Based Child Care Facilities' are permissible with Council consent in the R1 Zone.	✓
Part 2 – Permitted or Prohibited Development			
2.3	Zone objectives and Land Use Table	The proposal is consistent with the objectives of the R1 Zone, as discussed above.	✓
Part 4 Principal Development Standards			
4.3	Height of Buildings	Cowra Local Environmental Plan has not adopted Height of Building provisions.	N/A
4.4	Floor Space Ratio	Cowra Local Environmental Plan has not adopted Floor Space Ratio provisions.	N/A
Part 5 Miscellaneous Provisions			
5.10	Heritage Conservation	The subject site is not affected by any heritage controls.	N/A
5.21	Flood Planning	The subject site is not located within an area of flood risk.	N/A

Appendix D – Cowra Shire DCP Assessment

Clause	Control	Comment	Complies
Part B – Land Management			
Part B.1	**Erosion + Sedimentation**		
		A Detailed Contamination Investigation has been undertaken by Barnson Pty Ltd, and appropriately responds to the requirements of Part B.1 of the CDCP.	✓
Part C – Biodiversity Management			
C.1.5.3	**Biodiversity Assessment Objectives**		
	a) To ensure that any biodiversity values that may be impacted by the proposed development are identified.	The proposal has been designed and sited in a manner that is setback from land identified within the Biodiversity Value map, pursuant to the CLEP2015 and does not propose any clearing of vegetation within these areas. Given the above, it is unlikely that the proposal will have any unreasonable impact on valued biodiversity.	✓
	b) To ensure that any potential impacts on biodiversity are avoided, minimised, and/or offset.	As above.	✓
	c) To inform the decision-making process in a timely and efficient manner.	As above.	✓
C.1.5.4	**Development Application Requirements**		
	a) For development that does not exceed the BOS threshold: *i) Information demonstrating the conclusion that the proposal does not exceed the BOS threshold.* *ii) A response to the threatened species test of significance set out under s7.3(1) of the BC Act.*	The proposal does not exceed the BOS threshold, noting that only two (2) trees along the Short Street frontage are proposed for removal.	✓
Part L – Advertising Signage			
L.1.4.	**Guiding Principles**		
	a) a. Advertising and signage should: *i. Be compatible with the character of the surrounding area.* *ii. Be compatible with the theme for outdoor advertising, where this exists.*	The signage proposed as part of this DA is considered entirely appropriate with regards to the subject site's physical context, and the proposal, specifically, it is noted: i. The proposed signage has been designed in a minimalistic nature, and in a manner that integrates with the building design, ensuring an appropriate response to the character of the area.	✓

	iii. Not detract from the amenity or visual quality of any hertiage areas, open space areas or residential areas. *iv. Not compromise important views, or dominate the skyline.* *v. Have a scale, proportion and form that is appropriate for streetscape, setting or landscape within which it is proposed to be placed.* *vi. Have a scale, proportion and form that is appropriate for the site or building on which it is proposed to be placed.* *vii. Reduce clutter by rationalising and simplifying existing advertising. Screen unsightliness.* *viii. Not contain illumination that will result in unacceptable glare for pedestrians, motor vehicles or aircraft.* *ix. Not contain illumination that will detract from the amenity of any nearby residence or other form of accommodation.*	The proposed signage is an appropriate addition to the proposal and is entirely compatible with the surrounding area. Education centres are often in residential areas and it is appropriate for adequate identification to be installed. ii. There is no applicable outdoor advertising theme. iii. The signs are discreetly positioned andwill not have any unreasonable amenity or visual impacts open space areas or residential areas. iv. The proposed signage will not compromise any important views, nor will result in a domination of the skyline. v. The proposed signage is of a modest size and scale, ensuring that the signage will be read as complementary to the greater site, and appropriately presented to the streetscape. vi. The proposed signage is of an appropriate scale and proportionate to the host building and will be viewed as a secondary element to the built form, that complements the contemporary architectural form. vii. The proposed signage will not result in any visual clutter or unsightliness. viii. The proposed illumination of Sign 2 will not result in unacceptable glare for pedestrians, motor vehicles or aircrafts. ix. The proposed illumination is of a low level and directed at the sign which is away from nearby dwellings..	
L.1.5.	**<u>General Signage Controls</u>**		
	a) Where multiple tenancies are located within a building, a co-ordinated signage strategy should be prepared and submitted with a DA.	Not applicable. The proposal is not for multiple tenancies.	N/A
	b) Flag signage should be avoided in the Central Business District.	Not applicable. The subject site is not within the Central Business District.	N/A
	c) Advertising and signage should not project lights or images onto a pedestrian footpath or public space.	The proposed advertising signage will not project any light or images onto pedestrian footpaths or public spaces. Sign 2 is proposed to be set well within the subject site, and illuminated at a low level with light directed at the sign.	✓
	d) Temporary signage is permitted to be erected (without consent) in all zones under Cowra Local Environmental Plan 2012, provided: *i. It is a real estate sign, or relates to a local event of a religous, educational, cultural, political, social, sporting or recreational nature.* *ii. It is not displayed for more than 28 days before or after the event.* *iii. There is only one sign per frontage of the property or site.* *iv. It does not include advertising of a commercial nature (except for the nsmae of a sponser etc).*	Not applicable. The proposal does not include temporary signage.	N/A

Part M – Parking, Access + Mobility

M.1.5.5	**Community Land Use Types**		
	Preschool Care (Centre Based Child Care Centre) *1 space per 4 children + 1 space per 2 staff.*	The proposal for a 60-place preschool care facility, supporting 6 staff members, contains a car parking area designed to meet the demand of the future development of the subject site, including the proposed pre-school facility. The car parking area includes the provision of 26 x car parking spaces, which exceeds the immediate numerical requirement of 1 space per 4 children + 1 space per 2 staff (total of 19 required). Importantly, the provision of 26 x car parking spaces at the site meets the requirement for the complete master planned development of the site. Refer to the Transport Impact Assessment, prepared by Salt3 for further details.	✓
M.3.	**Parking & Access Design – Non Residential Uses**		
		The proposed car parking area has been designed to appropriately comply with all relevant Australian Standards. Referto the Transport Impact Assessment, prepared by Salt3 for further details, and an assessment of the car parking area design.	✓
M.4.	**Access and Mobility Code**		
		The development has been designed in a manner that complies with all relevant Australian Standards for the car park area pertaining to Access and Mobility. Refer to the Transport Impact Assessment, prepared by Salt3 for further details with regard to the access and mobility code.	✓
Part N – Landscaping			
N.2.	**Landscape Plan Requirements**		
		Council has agreed for the proposed landscape plan to be prepared and submitted at a later date and will be accompanied by an assessment against the relevant criteria, outset within Part N of the CDCP. Please refer to correspondence between our client and Council, which has been submitted alongside this application.	N/A
Part P – CPTED Principles			
P.2.1.	**Objectives**		
	To allow natural surveillance of the spaces around a building by the occupants and users.	The proposal has been designed to ensure natural surveillance of spaces around the building is achievable. The outdoor play area is surrounded by 1.8m high fencing, which maintains a level of visual permeability to the general surrounds to the rear of the building. Similarly, no tall structures or fencing are proposed that will limit the views between the building and the car park area and furthermore the street. Finally, the building is provided with windows to each interface, which will further allow for natural and ongoing surveillance of the surrounds.	✓
	To locate and design new buildings in such a way that they do not allow intruders to climb into any buildings or properties.	The proposed building has been designed in a manner that appropriately mitigates opportunities for intruders to climb into the property.	✓
	To use building materials which minimise opportunities for vandalism.	The proposed building materials and finishes schedule seeks to incorporate aluminum timber look cladding in natural and black, and stone retaining walls which are considered appropriate to mitigate opportunities for vandalism.	✓
	To reduce opportunities for unauthorised access to buildings, individual dwellings and communal	Appropriate security measures will be implemented into the development, to limit unauthorized access into any part of the building and facilities.	✓

	areas by the use of appropriate security measures, hardware or human resources.		
	To provide adequate lighting of entrances and exits, service areas, communal spaces, public areas, pathways, car parks, other areas that are used after dark and places where intruders may hide.	Appropriate lighting to entrances and exits, pedestrian pathways, and the carpark will be implemented so not to create any areas where intruders may hide.	✓
	To provide adequate lighting to open space and public spaces.	As above.	✓
P.2.2.	**Building Orientation**		
	Rear lanes should not be relied upon for primary vehicle or pedestrian access to residential dwellings or commercial developments.	The proposal does not rely on a rear lane for vehicular or pedestrian access.	✓
	Office and administration areas in industrial developments should be located at the front of the building overlooking the street and any car parking areas.	The proposal includes a reception area at the front of the building, with clear and uninterrupted views to the car parking area.	✓
P.2.3.	**Entrances**		
	Building entrances should be in prominent positions, and at the front of the site facing the street where possible.	The building entrance is positioned at the front of the building, facing towards both Short and Main Streets. It is also highly visible from the car park area. The entrance is highly visible as one enters the site, either via vehicle or on foot.	✓
	Entrances should be designed to allow users to see into the building before entering.	The front entrances comprises a large glazed façade, which allows for views into the building from the street and car parking areas, before entering.	✓
	Entrances should be easily recognisable through design features and directional signage.	The entrance is highly legible due to its positioning and design. The installation of signage will also highlight the entry point into the building together with the layout of pedestrian pathways. There is clear wayfinding to the front entrance.	✓
	The number of entry points to a building should be minimised as far as practical.	The proposal only includes one main entry point.	✓
	Where separate staff entrances are required, they should be located to maximise opportunities for natural surveillance from the street.	Not applicable.	N/A
	Blank walls facing or abutting the street should be avoided, particularly in commercial or industrial developments.	The proposal does not propose any blank walls facing Short Street. Facades generally directed toward the street are provided with a level of articulation and visual interest through the use of varying materiality, finishes and glazing.	✓
P.2.4.	**Communal and Public Areas**		
	Communical areas and utilities, such as laundries and garbage bays should be easily seen and well lit.	The proposal's inclusion of a waste area located on the opposite side of the car parking area ensures that the area is easily visible, and will be fitted with appropriate lighting.	✓

	Different spaces should be defined with physical and / or psychological barriers, such as low or open form fences, gardens, lawn strips or varying textured surfaces.	The proposal has been appropriately designed to provide delineation between different areas throughout the site. Landscaping areas are proposed in between the main building and the car parking area, to soften the visual impact of the development as presented from within and from the streetscape. Furthermore, the building's verandah is provided with a low level timber batten fencing so to provide a physical barrier and provide a 'break' between the different areas.	✓
	Pathways should be direct, follow pedestrian desire lines and avoid blind corners.	The pedestrian pathways provide direct connectivity to the front entrance from either the car park or the pedestrian footpath along Short Street. The site's frontage is open, providing clear and direct sightlines from the public realm.	✓
P.2.5.	**Blind Corners**		
	Pathways should be direct. All barriers beside pathways should be low in height or permeable (i.e. see through), including landscaping and fencing etc.	As above. The proposed pedestrian pathway is direct and features low height barriers on each side enclosing landscaped beds.	✓
P.2.6.	**Building Materials**		
	Opportunities for vandalism should be reduced through the use of materials such as strong, wear resistant laminate, impervious glazed ceramics, treated masonry products, stainless steel materials, anti-graffiti paints or clear oversprays.	The proposed material schedule, including aluminum timber-look cladding in a natural tone and black colour, will actively mitigate vandalism.	✓
	Planting should be used to screen large blank walls. Alternatively, walls are modulated using dark colours.	The proposal does not result in any large blank walls.	✓
	External lighting should be vandal resistant, mounted in a high position or protected from vandalism.	Any external lighting implemented will be mounted in a high position and will be appropriately designed and protected from vandalism.	✓
P.2.7.	**Security Measures**		
	Quality locks should be installed on external windows and doors.	Quality locks will be installed on all external windows and doors prior to occupation of the building.	✓
	Intruder alarm systems, security screens, door and window locks and intruder resistant materials should comply with relevant Australian Standards.	Intruder alarm systems, security screens, door and window locks and intruder resistant materials will be designed in a manner to ensure compliance with relevant Australian Standards.	✓
	External storage areas and yards should be secured and well lit.	External storage and waste areas will be secured and well lit.	✓
P.2.8.	**Building Identification**		
	Each building should clearly display its street number.	The proposal does not include any 'street number' signage. It is large property in a prominent location that will contain signage to clearly identify its operations. Should street numbering be required, this can be addressed by way of a condition.	N/A
	Street numbers should be at least 150mm high, and positioned between 600mm and 1.5m above ground level on the street frontage.	As above.	N/A

	Street numbers should be made of durable materials, preferably reflective or luminous, and are positioned so they will not be obstructed by foliage.	As above.	N/A
P.2.9.	**Lighting**		
	Lights should be directed towards access / egress routes to illuminate potential offenders, rather than towards buildings or occupant observation points.	Outdoor lighting will be appropriately placed throughout external areas of the proposed building and car park, to ensure that the subject site is appropriately illuminated, to deter potential offenders and promote safe pathways and movement pattems, without compromising any external amenity to surrounding properties.	✓
	Lighting should have a wide beam of illumination, which reaches to the beam of the next light or perimeter of the area under surveillances or covers the full length of any pathway.	As above.	✓
	Pathways and access to open spaces and public areas should be appropriately illuminated.	As above.	✓
	Brighter lights are used in highly used areas.	As above.	✓

Appendix E - Childcare Planning Guidelines

Part 2 Design Quality Principles

Principle 1 – Context *Good design responds and contributes to its context, including the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions. Well-designed child care facilities respond to and enhance the qualities and identity of the area including adjacent sites, streetscapes and neighbourhood. Well-designed child care facilities take advantage of its context by optimising access by walking and public transport, public facilities and centres, respecting local heritage, and being responsive to the demographic, cultural and socio-economic makeup of the facility users and surrounding communities.*	The proposal has been carefully designed to be compatible in scale and design with the existing and emerging streetscape along Short Street and continues to reflect the built form patterns of the wider contextual area. It is also appropriately located within a residential setting, ensuring that it is highly accessible to the local Cowra community. The proposal adopts good design principles. It contains generous setbacks to all perimeter boundaries allowing for landscaping opportunities and maintaining adequate separation to nearby residential properties. The design of the single storey building responds to the slope of the land and will integrate sympathetically into this large property that has been historically used for non-residential activities. The proposal maintains a spacious setting, acknowledging its abuttal to a large reserve and its residential setting. It will make good use of this vacant allotment, allowing an established child care provider to locate to purpose built facilities. The subject site is located proximate to: — Cowra Public School. — St Raphael's Catholic School. — Holman Place Public School. — Goodstart Early Learning Cowra. — TAFE NSW Cowra. — Bellevue Hill Reserve Lookout and Adventure Playground. —Bus stop for route 543 (Cowra to East Cowra – Loop Service). — Cowra Railway Station.
Principle 2 – Built Form *Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the surrounding area. Good design achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements. Good design also uses a variety of materials, colours and textures. Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook. Contemporary facility design can be distinctive and unique to support innovative approaches to teaching and learning, while still achieving a visual appearance that is aesthetically pleasing,*	The development proposes a single storey built form that maintains the low scale character of the area. It adopts meaningful setbacks to provide both landscaping opportunities and good separation to nearby residential properties. The architectural form is deliberately contemporary to reflect current styles while incorporating materiality and design detail that reflects its residential setting. The building is well articulated, incorporating a variety of domestic materials and finishes and earthy colours, and a contemporary gable form roof with varying roof pitches. The building is also positioned on the flattest portion of the site, minimising the extent of earthworks while also ensuring that it responds successfully to the slope of the land. Overall, the design response is compatible in this residential setting. Please refer to Section 4.2 of this Statement of Environment Effects for further details of the proposal's built form response.

complements the surrounding areas, and contributes positively to the public realm.

Principle 3 – Adaptive Learning Spaces *Good facility design delivers high quality learning spaces and achieves a high level of amenity for children and staff, resulting in buildings and associated infrastructure that are fit-for-purpose, enjoyable and easy to use. This is achieved through site layout, building design, and learning spaces' fit-out. Good design achieves a mix of inclusive learning spaces to cater for all children and different modes of learning. This includes appropriately designed physical spaces offering a variety of settings, technology and opportunities for interaction.*	The play spaces have been designed to provide a variety of experiences to children, to facilitate the development of cognitive and physical skills, provide opportunities for social interaction and appreciation of the natural environment for all children.
Principle 4 – Sustainability *Sustainable design combines positive environmental, social and economic outcomes. This includes use of natural cross ventilation, sunlight and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and re-use of materials and waste, use of sustainable materials and deep soil zones for groundwater recharge and vegetation. Well-designed facilities are durable and embed resource efficiency into building and site design, resulting in less energy and water consumption, less generation of waste and air emissions and reduced operational costs.*	Th development is proposed and designed in a manner that will allow for natural cross ventilation of rooms and natural light and solar access. The proposal makes use of north facing outdoor play areas, and windows to internal play areas, to ensure that solar access is achievable.
Principle 5 - Landscape *Landscape and buildings should operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A contextual fit of well-designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood. Well-designed landscapes make outdoor spaces assets for learning. This includes designing for diversity in function and use, age-appropriateness and amenity. Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, co-ordinating water and soil management, solar access, micro-climate, tree canopy, habitat values and preserving green networks.*	The development allows for a landscaping outcome that is respectful to, and reflective of, the bushland character of this part of Cowra. Much of the north side of the site is to be retained in its natural form, seamlessly integrating with the nature reserve to the north and west of the site. Similarly, the proposal is set to incorporate areas of high quality landscaping throughout the site, effectively softening the areas of hardstand and built form, resulting in a development that continues to positively contribute to the landscape character of the area, as well as enhance the visual appearance of the site, noting that the site has been recently cleared and mostly devoid of vegetation.. As previously discussed, a Landscape Plan is to be submitted to Council in due course (as confirmed by Council), which will provide further information relating to the proposed landscaping outcome.
Principle 6 - Amenity *Good design positively influences internal and external amenity for children, staff and neighbours. Achieving good amenity contributes to positive learning environments and the well-being of children and staff. Good amenity combines appropriate and efficient indoor and outdoor learning spaces, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, service areas and ease of access for all age groups and degrees of mobility.*	As previously discussed, the subject site is separated from the neighbouring sites. Whilst the subject site benefits from having no immediate sensitive abuttals, the proposal has been appropriately designed to ensure the best possible amenity outcomes are delivered for the operators and children within the site, will limited impacts to nearby properties. The development has been designed and oriented to ensure that indoor and outdoor play areas are generally north facing, and will receive the best possible solar access. The siting of indoor play areas further ensures that a high level of natural ventilation can be achieved.

	Outdoor play areas have been located internally to the site at the rear of the building, and generally further away from adjoining properties. The design choice ensure that no unreasonable acoustic impacts are dealt as a result of the preschool operations throughout the day, whilst achieving visual privacy and safety for the children and staff within. The development provides an appropriate level of storage throughout the building, as well as being designed to ensure people of all mobilities can access the development.
Principle 7 - Safety *Well-designed child care facilities optimise the use of the built and natural environment for learning and play, while utilising equipment, vegetation and landscaping that has a low health and safety risk, and can be checked and maintained efficiently and appropriately. Good child care facility design balances safety and security with the need to create a welcoming and accessible environment. It provides for quality public and private spaces that are inviting, clearly defined and allow controlled access for members of the community. Well-designed child care facilities incorporate passive surveillance and Crime Prevention Through Environmental Design (CPTED). Well designed vehicular parking and access minimise traffic safety risks on children and staff.*	The development has been designed in a manner that will positively contribute to and optimize the safety of children within the facility. The proposal incorporates appropriate fencing, landscaping areas and built form elements to clearly delineate the public and private realms. Further the proposal incorporates a high level of glazing and windows to provide an active frontage to Short Street, and allow for passive surveillance of the street.

Part 3 Matters for Consideration		
3.1 Site Selection and Location		
C1	For proposed developments in or adjacent to a residential zone, particularly if that zone is for low density residential uses consider: — the acoustic and privacy impacts of the proposed development on the residential properties — the setbacks and siting of buildings within the residential context — visual amenity impacts (e.g. additional building bulk and overshadowing, local character) — traffic and parking impacts of the proposal on residential amenity and road safety	As previously discussed, the subject site is separated from residentially used properties, noting each of its immediate abuttals are the Bellevue Hill Reserve, Main Street or Short Street. As such, the site benefits from existing 'buffer distances' aiding potential amenity impacts. With consideration to relevant external amenity impacts, it is noted: — The proposed built form is designed in a manner that sites the outdoor play area to the rear of the building, approx. 53m away from the nearest residential building. Given the distance it is unlikely that any unreasonable noise impacts will be dealt to the surrounding properties. — The development has been sited to ensure a low-scale, single storey form and a street setback that is reflective of the surrounding context. The development makes use of high quality landscaping throughout the site to minimise visual amenity impacts and to reinforce a landscape setting.. — Traffic and car parking considerations have been undertaken and is deemed appropriate with regards to the capacity and development potential of the site.
C2	When selecting a site, ensure that: — the location and surrounding uses are compatible with the proposed development or use — the site is environmentally safe including risks such as flooding, land slip, bushfires, coastal hazards — there are no potential environmental contaminants on the land, in the building or the	— Centre-based child care (preschool care) facilities are a permissible and compatible land use within the R1 – General Residential Zone. — The subject site is not affected by any environmental hazards. — To our understanding, there are no potential environmental contaminants on the site. We defer to the Detailed Contamination Investigation report for further information. — The subject site is suitably sized to support the development, with an approximate frontage of 146.5m to Short Street, a total areas of over 1ha and benefits from no residential properties sharing a boundary. — The proposal is not located within nor will have any impact on an area of environmental sensitivity, and is not proposed to have any adverse environmental impacts on the greater surrounds. — N/A

	general proximity, and whether hazardous materials remediation is needed — the characteristics of the site are suitable for the scale and type of development proposed having regard to: • length of street frontage, lot configuration, dimensions and overall size • number of shared boundaries with residential properties — the development will not have adverse environmental impacts on the surrounding area, particularly in sensitive environmental or cultural areas — where the proposal is to occupy or retrofit an existing premises, the interior and exterior spaces are suitable for the proposed use. Where the proposal relates to any heritage item, the development should retain its historic character and conserve significant fabric, setting or layout of the item. — there are suitable and safe drop off and pick up areas, and off and on street parking — the characteristics of the fronting road or roads (for example its operating speed, road classification, traffic volume, heavy vehicle volumes, presence of parking lanes) is appropriate and safe for the proposed use — the site avoids direct access to roads with high traffic volumes, high operating speeds, or with high heavy vehicle volumes, especially where there are limited pedestrian crossing facilities — it is not located closely to incompatible social activities and uses such as restricted premises, injecting rooms, drug clinics and the like, premises licensed for alcohol or gambling such as hotels, clubs, cellar door premises and sex services premises.	— The subject site and proposed development has been designed in accordance with the DCP regarding car parking spaces, and appropriate areas are provided to permit drop-off and pick up of children throughout the site. — The subject site does not front a classified or arterial road. Short Street and Main Street can support the proposed use given the site's historical commercial use and their proximity to to a collector road. — The subject site is not located proximate to an incompatible social activity or use.
C3	A child care facility should be located: — near compatible social uses such as schools and other educational establishments, parks and other public open space, community facilities, places of public worship — near or within employment areas, town centres, business centres, shops — with access to public transport including rail, buses, ferries	The subject site is located proximate to: — Cowra Public School. — St Raphael's Catholic School. — Holman Place Public School. — Goodstart Early Learning Cowra. — TAFE NSW Cowra. — Bellevue Hill Reserve Lookout and Adventure Playground.

	— in areas with pedestrian connectivity to the local community, businesses, shops, services and the like.	— Bus stop for route 543 (Cowra to East Cowra – Loop Service). — Cowra CBD. — Cowra Railway Station.
C4	A child care facility should be located to avoid environmental conditions arising from: — proximity to: • heavy or hazardous industry, waste transfer depots or landfill sites • Liquefied Petroleum Gas (LPG) tanks or service stations • water cooling and water warming systems • odour (and other air pollutant) generating uses and sources or sites which, due to prevailing land use zoning, may in future accommodate noise or odour generating uses • extractive industries, intensive agriculture, agricultural spraying activities — any other identified environmental hazard or risk relevant to the site and/ or existing buildings within the site	The subject site is not located proximate to any identified physical or environmental hazards.
3.2 Local Character, Streetscape and the Public Domain Interface		
C5	The proposed development should: — contribute to the local area by being designed in such a way to respond to the character of the locality and existing streetscape — build on the valued characteristics of the neighbourhood and draw from the physical surrounds, history and culture of place — reflect the predominant form of surrounding land uses, particularly in low density residential areas — recognise and respond to predominant streetscape qualities, such as building form, scale, materials and colours — include design and architectural treatments that respond to and integrate with the existing streetscape and local character — use landscaping to positively contribute to the streetscape and neighbouring and neighbourhood amenity — integrate car parking into the building and site landscaping design in residential areas — in R2 Low Density Residential zones, limit outdoor play space to the ground level to reduce	The proposed preschool facility is of a single storey form, and incorporates traditional domestic materials, finishes and colours, to reflect on the valued characteristics of the area, and further integrates respectfully with the existing streetscape. The low scale nature of the building ensures that it comfortably fits into the streetscape, and the inclusion of domestic architectural design elements, allows the development to positively contribute to the surrounding context and neighbourhood character. Appropriate levels of landscaping have been included within the development to ensure that it continues to positively contribute to the character of the area. Car parking has been integrated within a landscaped setting, to ensure a positive interaction and activation of the street, and appropriately soften its appearance to the public realm.

	impacts on amenity from acoustic fences/barriers onto adjoining residence, except when good design solutions can be achieved.	
C6	Create a threshold with a clear transition between public and private realms, including: — fencing to ensure safety for children entering and leaving the facility — windows facing from the facility towards the public domain to provide passive surveillance to the street as a safety measure and a connection between the facility and the community — integrating existing and proposed landscaping with fencing.	The proposal incorporates appropriate fencing, landscaping and built form elements to clearly delineate the public and private realms. Further the proposal incorporates a high level of glazing and windows to provide an active frontage to Short Street, and allow for passive surveillance of the street. Proposed landscaping areas along the boundaries and throughout the site will further soften the fencing and built form, integrating the development within the area.
C7	On sites with multiple buildings and/or entries, pedestrian entries and spaces associated with the child care facility should be differentiated to improve legibility for visitors and children by changes in materials, plant species and colours.	The site does not contain more than one building. Primary entry is provided from Short Street and is designed to be clearly visible and legible from the street.
C8	Where development adjoins public parks, open space or bushland, the facility should provide an appealing streetscape frontage by adopting some of the following design solutions: — clearly defined street access, pedestrian paths and building entries — low fences and planting which delineate communal/private open space from adjoining public open space — minimal use of blank walls and high fences	The subject site abuts Bellevue Hill Reserve, to its northern and western boundaries. The proposal providesan appealing streetscape presentation, providing clearly defined vehicular and pedestrian entrance points into and out of the site, an appropriate landscaping response to enhance the bushland nature of the area. The existing chainlink fence is to be retained to provide security after hours. The fence is visually permeable allowing the development to be visible, while providing a clear delineation between the private and public realm.
C9	Front fences and walls within the front setback should be constructed of visually permeable materials and treatments. Where the site is listed as a heritage item, adjacent to a heritage item or within a conservation area front fencing should be designed in accordance with local heritage provisions.	The existing chainlink fence around the perimeter of the site is to be retained with only a new gate to be provided to the access points along Main Street and Short Street. The fence is visually permeable.
C10	High solid acoustic fencing may be used when shielding the facility from noise on classified roads. The walls should be setback from the property boundary with screen landscaping of a similar height between the wall and the boundary.	Not applicable. The subject site does not front a classified road.

3.3 Building Orientation, Envelope, Building Design and Accessibility

C11	Orient a development on a site and design the building layout to: — ensure visual privacy and minimise potential noise and overlooking impacts on neighbours by • facing doors and windows away from private open space, living rooms and bedrooms in adjoining residential properties • placing play equipment away from common boundaries with residential properties • locating outdoor play areas away from residential dwellings and other sensitive uses — optimise solar access to internal and external play areas — avoid overshadowing of adjoining residential properties — minimise cut and fill — ensure buildings along the street frontage define the street by facing it — ensure where a child care facility is located above ground level, outdoor play areas are protected from wind and other climatic conditions.	— The development has been designed to minimise potential noise and overlooking impacts. The development is single storey in form, and features landscaping throughout the site. The building is sited away from boundaries, generally centered to the site, and combined with the lack of immediately abutting properties, will result in limited opportunity for overlooking. Further, outdoor play areas are screened by appropriate fencing and sited to the rear of the building, to minimise any potential noise impacts to nearby properties. Appropriate siting, reflective height and setbacks of the development to its surrounds, all further contribute to the development minimizing amenity impacts to adjoining properties. — Indoor and outdoor play areas are sited to benefit from optimal northern solar access. — The proposal is appropriately sited on the subject site to minimise any impacts of overshadowing to nearby properties. Irrespective of the lack of sensitive immediate abuttals, the architectural plans demonstrate that the overshadowing occurring as a result of the development is limited only to the road reserve, and only during the winter equinox. Given generally the proposal does not result in adverse overshadowing impacts to the nearby residential properties, it is therefore set to be an appropriately designed development — No unreasonable cut and fill is to occur on site, noting the significant contour of the site. — The subject site fronts Short Street and the development is appropriately sites to define the street. — The proposal is appropriately designed to minimise wind and other climate conditions to upper floor outdoor play areas.
C12	The following matters may be considered to minimise the impacts of the proposal on local character: — building height should be consistent with other buildings in the locality — building height should respond to the scale and character of the street — setbacks should allow for adequate privacy for neighbours and children at the proposed child care facility — setbacks should provide adequate access for building maintenance — setbacks to the street should be consistent with the existing character	The development incorporates a single storey form, which is reflective of the low scale residential form of the surrounds. In combination with the use of traditional materials and finishes, the development is to be an appropriate addition to the character of the area. The development incorporates traditional materials, finishes and colours, to reflect on the valued characteristics of the area, and further intergrates with the existing streetscape.
C13	Where there are no prevailing setback controls minimum setback to a classified road should be 10 metres. On other road frontages where there are existing buildings within 50 metres, the setback should be the average of the two closest buildings.	The proposal incorporates a minimum front setback of 4.258m. There are seven (7) properties fronting Short Street, within 50m of the subject site, and are generally setback between 2.0m and 9.3m. Based on approximate measurements of each site, the average setback calculates to be approx. 4.5m. Given the variations throughout the streetscape, and lack of pattern or consistent outcome seen, the proposed 4.258m setback is an appropriate outcome and will maintain the bushland nature feel of the street, respond appropriately to the presentation of the streetscape, and will not generate any visually

	Where there are no buildings within 50 metres, the same setback is required for the predominant adjoining land use.	dominance. Furthermore the subject site has no residential abuttals and is a large allotment that is separated from residential properties by the existing road layout.
C14	On land in a residential zone, side and rear boundary setbacks should observe the prevailing setbacks required for a dwelling house	The development is compliant with the rear and side setbacks pursuant to Cowra Shire DCP 2021 for a dwelling house.
C15	Entry to the facility should be limited to one secure point which is: — located to allow ease of access, particularly for pedestrians — directly accessible from the street where possible — directly visible from the street frontage — easily monitored through natural or camera surveillance — not accessed through an outdoor play area. — in a mixed-use development, clearly defined and separate from entrances to other uses in the building.	The proposed preschool facility provides a primary entry point from Short Street, with a secondary access point along Main Street. The pedestrian entry point is visible from the site's primary frontage, permits ease of access, is directly accessible from the street level and can easily support the provision of natural or camera surveillance.
C16	Accessible design can be achieved by: — providing accessibility to and within the building in accordance with all relevant legislation — linking all key areas of the site by level or ramped pathways that are accessible to prams and wheelchairs, including between all car parking areas and the main building entry — providing a continuous path of travel to and within the building, including access between the street entry and car parking and main building entrance. Platform lifts should be avoided where possible — minimising ramping by ensuring building entries and ground floors are well located relative to the level of the footpath.	The proposal has been designed to be accessible to and within the building for all visitors. The development provides direct equitable pedestrian access provided via a ramped pathway from Short Street to the facility's primary entrance. The development provides appropriate continuous path of travel to and within the building, including access between the street entry and the main car park.
3.4 Landscaping		
C17	Appropriate planting should be provided along the boundary integrated with fencing. Screen planting should not be included in calculations of unencumbered outdoor space. Use the existing landscape where feasible to provide a high quality landscaped area by: — reflecting and reinforcing the local context	The development has been designed to allow for appropriate landscaping along the front and side boundaries and throughout the site, which is set to positively contribute to the local character. The proposed landscaping areas will create a garden setting that is consistent with the area's landscape character and will improve upon what current exists. A landscape plan is to be submitted to Council in due course.

	— incorporating natural features of the site, such as trees, rocky outcrops and vegetation communities into landscaping.	
C18	Incorporate car parking into the landscape design of the site by: — planting shade trees in large car parking areas to create a cool outdoor environment and reduce summer heat radiating into buildings — taking into account streetscape, local character, pedestrian safety and context when siting car parking areas within the front setback — using low level landscaping to soften and screen parking areas.	The car parking area has been designed at grade, to allow for an effective and efficient use of the site area. The proposal includes appropriate provisions for landscaped areas throughout the car parking area, to ensure that adequate levels of shading, and contribution to a cool outdoor environment is achieved. Furthermore the proposed landscaping areas will positively add to the existing tree line along Main and Short Streets to soften the car parking area, and ensure that an appropriate response to the local character is achieved.
3.5 Visual and Acoustic Privacy		
C19	Open balconies in mixed use developments should not overlook facilities nor overhang outdoor play spaces.	Not applicable.
C20	Minimise direct overlooking of indoor rooms and outdoor play spaces from public areas through: — appropriate site and building layout — suitably locating pathways, windows and doors — permanent screening and landscape design.	The development has been appropriately sited and designed to limit potential overlooking ofindoor rooms and outdoor play areas. They are oriented internal to the site, minimising overlooking potential from public areas.
C21	Minimise direct overlooking of main internal living areas and private open spaces in adjoining developments through: — appropriate site and building layout — suitable location of pathways, windows and doors — landscape design and screening.	Not applicable. The subject site does not directly adjoin any residential properties, and therefore does not directly result in any possibilities for overlooking into internal living areas or private open spaces. Nevertheless, the development has been appropriately sited and designed within the subject site to provide an appropriate streetscape response. Additionally, high quality landscaping is to be proposed, throughout the development and will further contribute to a softening of the built form and mitigation of any views out of the site.
C22	A new development, or development that includes alterations to more than 50 per cent of the existing floor area, and is located adjacent to residential accommodation should: — provide an acoustic fence along any boundary where the adjoining property contains a residential use. An acoustic fence is one that is a solid, gap free fence — ensure that mechanical plant or equipment is screened by solid, gap free material and constructed to reduce noise levels e.g. acoustic fence, building, or enclosure.	The subject site does not directly adjoin land that supports residential accommodation, and therefore does not require any acoustic fencing along the site's boundaries, nor around the outdoor play area. The proposed outdoor play areas are appropriately sited internally to the site, and to the rear of the building, which will appropriately manage any potential noise generation from the play area, without the need for acoustic fencing.

C23	A suitably qualified acoustic professional should prepare an acoustic report which will cover the following matters: — identify an appropriate noise level for a child care facility located in residential and other zones — determine an appropriate background noise level for outdoor play areas during times they are proposed to be in use — determine the appropriate height of any acoustic fence to enable the noise criteria to be met.	An Acoustic Report can be readily prepared, should Council require such.
3.6 Noise and Air Pollution		
C24	Adopt design solutions to minimise the impacts of noise, such as: — creating physical separation between buildings and the noise source — orienting the facility perpendicular to the noise source and where possible buffered by other uses — using landscaping to reduce the perception of noise — limiting the number and size of openings facing noise sources — using double or acoustic glazing, acoustic louvres or enclosed balconies (wintergardens) — using materials with mass and/or sound insulation or absorption properties, such as solid balcony balustrades, external screens and soffits — locating cot rooms, sleeping areas and play areas away from external noise sources.	The proposal has been appropriately designed to minimise impacts of external noise. Furthermore, a range of design measures have been proposed, including appropriate setbacks, use of landscaping and siting of play areas, to minimise noise impacts to neighbouring properties.
C25	An acoustic report should identify appropriate noise levels for sleeping areas and other non-play areas and examine impacts and noise attenuation measures where a child care facility is proposed in any of the following locations: — on industrial zoned land — where the ANEF contour is between 20 and 25 — along a railway or mass transit corridor, as defined by State Environmental Planning Policy (Infrastructure) 2007 — on a major or busy road — other land that is impacted by substantial external noise	Not applicable. The site is not proposed in any of the identified locations. The preschool care facility does not include any sleeping areas, nor non-play areas that would require noise attenuation.

C26	Locate child care facilities on sites which avoid or minimise the potential impact of external sources of air pollution such as major roads and industrial development	The subject site is not located proximate to any industrial development nor is it proximate to a road that would generate an unreasonable level of air pollution.
C27	A suitably qualified air quality professional should prepare an air quality assessment report to demonstrate that proposed child care facilities close to major roads or industrial developments can meet air quality standards in accordance with relevant legislation and guidelines. The air quality assessment report should evaluate design considerations to minimise air pollution such as: — creating an appropriate separation distance between the facility and the pollution source. The location of play areas, sleeping areas and outdoor areas should be as far as practicable from the major source of air pollution — using landscaping to act as a filter for air pollution generated by traffic and industry. Landscaping has the added benefit of improving aesthetics and minimising visual intrusion from an adjacent roadway — incorporating ventilation design into the design of the facility	The subject site is not located on a major road, nor proximate to industrial developments, and therefore an air quality assessment is not deemed necessary. An Air Quality Assessment Report can be prepared, should it be a requirement of the Council.
3.7 Hours of Operation		
C28	Hours of operation where the predominant land use is residential should be confined to the core hours of 7.00am to 7.00pm weekdays. The hours of operation of the proposed child care facility may be extended if it adjoins or is adjacent to nonresidential land uses.	The proposal seeks operation hours of 6:30am to 7:00pm Monday to Friday, which is generally consistent with the guidelines.
C29	Within mixed use areas or predominantly commercial areas, the hours of operation for each child care facility should be assessed with respect to its compatibility with adjoining and co-located land uses.	Not applicable. The subject site is not located within a mixed-use area.
3.8 Traffic, Parking and Pedestrian Circulation		
C30	Off street car parking should be provided at the rates for child care facilities specified in a Development Control Plan that applies to the land.	The proposal is consistent with the car parking rates pursuant to the Cowra Shire DCP 2021.

	Where a Development Control Plan does not specify car parking rates, off street car parking should be provided at the following rates: Within 400 metres of a railway or Metro station within Greater Sydney: — 1 space per 10 children — 1 space per 2 staff. Staff parking may be stack or tandem parking with no more than 2 spaces in each tandem space. In other areas: — 1 space per 4 children	
C31	In commercial or industrial zones and mixed use developments, on street parking may only be considered where there are no conflicts with adjoining uses, that is, no high levels of vehicle movement or potential conflicts with trucks and large vehicles.	Not applicable. The subject site is not within a commercial or industrial zone, nor is it a mixed-use development.
C32	A Traffic and Parking Study should be prepared to support the proposal to quantify potential impacts on the surrounding land uses, to optimise the safety and convenience of the parking area(s) and demonstrate how impacts on amenity will be minimised. The study should also address any proposed variations to parking rates and demonstrate that: — the amenity of the surrounding area will not be affected — there will be no impacts on the safe operation of the surrounding road network.	The parking scheme has been assessed by a suitable qualified Traffic Engineer to ensure that the parking layout within the basement is usable and will minimise impacts on the surrounding area. Details of which are included within the Traffic Impact Assessment report, prepared by Salt3.
C33	Alternate vehicular access should be provided where child care facilities are on sites fronting: — a classified road — roads which carry freight traffic or transport dangerous goods or hazardous materials. The alternate access must have regard to: — the prevailing traffic conditions — pedestrian and vehicle safety including bicycle movements — the likely impact of the development on traffic.	Not applicable. The subject site does not front a classified road or a road which carriers freight traffic or transport dangerous goods or hazardous materials.
C34	Child care facilities proposed within cul-de-sacs or via narrow lanes or roads should ensure that safe	Not applicable. The subject site is not within a cul-de-sac or along a narrow lane or road.

	access can be provided to and from the site, and to and from the wider locality in times of emergency.	
C35	The following design solutions may be incorporated into a development to help provide a safe pedestrian environment: — separate pedestrian access from the car park to the facility — defined pedestrian crossings and defined/ separate paths included within large car parking areas — separate pedestrian and vehicle entries from the street for parents, children and visitors — pedestrian paths that enable two prams to pass each other — delivery, loading and vehicle turnaround areas located away from the main pedestrian access to the building and in clearly designated, separate facilities — minimise the number of locations where pedestrians and vehicles cross each other — in commercial or industrial zones and mixeduse developments, the path of travel from the car parking to the centre entrance physically separated from any truck circulation or parking areas — vehicles can enter and leave the site in a forward direction — clear sightlines are maintained for drivers to child pedestrians, particularly at crossing locations.	The development appropriately provides separated pedestrian access from the car park to the facility, as well as separate pedestrian and vehicle entry points from the street. The proposal is designed to appropriately allow vehicles to enter and exit the site in a forward direction via either Short or Main Street. The pedestrian landing in front of the building entrance and wide footpaths at grade, allow for appropriate provision for two prams to pass one another. Crossing areas internal to the car park are largely limited, with main access points via the street directly to an internal footpath connecting to the host building.
C36	Mixed use developments should include: — driveway access, manoeuvring areas and parking areas for the facility that are separate to parking and manoeuvring areas used by trucks — drop off and pick up zones that are exclusively available for use during the facility's operating hours with spaces clearly marked accordingly, close to the main entrance and preferably at the same floor level. Alternatively, direct access should avoid crossing driveways or manoeuvring areas used by vehicles accessing other parts of the site — parking that is separate from other uses, located and grouped together and conveniently located near the entrance or access point to the facility.	Not applicable. The proposal is not a mixed use development.
C37	Car parking design should:	The car parking area has been designed in a manner that achieves safe levels of movement throughout the car park and into the building.

— include a child safe fence to separate car parking areas from the building entrance and play areas — provide clearly marked accessible parking as close as possible to the primary entrance to the building in accordance with appropriate Australian Standards — include wheelchair and pram accessible parking.	The car parking area is significantly set away from the outdoor play areas so to ensure that there are limited safety concerns for children to access the car park unaccompanied. Accessible parking has been provided at the car parking space closest to the entrance stairs and ramp and in accordance with Australian Standards.
Part 4 Applying the National Regulations to Development Proposals	
4.1 Indoor Space Requirements	
Regulation 107 Education and Care Services National Regulations Every child being educated and cared for within a facility must have a minimum of 3.25m2 of unencumbered indoor space.	The proposal provides 3.25sqm of indoor play space per child. The play space has been calculated in accordance with the unencumbered guidelines of this Guideline.
Design Guidance – Verandahs as indoor space For a verandah to be included as unencumbered indoor space, any opening must be able to be fully closed during inclement weather. It can only be counted once and therefore cannot be counted as outdoor space as well as indoor space (refer to Figure 1).	No verandah is to be included as unencumbered indoor space. Not applicable.
Design Guidance – Storage Storage areas including joinery units are not to be included in the calculation of indoor space. To achieve a functional unencumbered area free of clutter, storage areas need to be considered when designing and calculating the spatial requirements of the facility. It is recommended that a child care facility provide: — a minimum of 0.3m3 per child of external storage space — a minimum of 0.2m3 per child of internal storage space.	The proposal includes 14sqm of internal storage which is in excess of the required ratio. As such, no external storage has been proposed, which is considered an appropriate outcome on balance.
4.2 Laundry and Hygiene Facilities	
Regulation 106 Education and Care Services National Regulations There must be laundry facilities or access to laundry facilities; or other arrangements for dealing with soiled clothing, nappies and linen, including hygienic facilities for storage prior to their disposal or laundering. The laundry and hygienic facilities must be located and maintained in a way that is not accessible by, and does not pose a risk to, children. Child care facilities must also comply with the requirements for laundry facilities that are contained in the National Construction Code.	On site laundry facilities are provided. The laundry facilities have been designed away from children play areas so to minimize risk to children. The laundry is designed to comply with relevant requirements under the National Construction Code.

Design Guidance – On site laundry On site laundry facilities should contain: — a washer or washers capable of dealing with the heavy requirements of the facility — a dryer — laundry sinks — adequate storage for soiled items prior to cleaning — an on-site laundry cannot be calculated as useable unencumbered play space for children (refer to Figure 2).	The laundry facility is compliant with the requirements.
4.3 Toilet and Hygiene Facilities	
Regulation 109 Education and Care Services National Regulations A service must ensure that adequate, developmentally and age-appropriate toilet, washing and drying facilities are provided for use by children being educated and cared for by the service; and the location and design of the toilet, washing and drying facilities enable safe use and convenient access by the children. Child care facilities must comply with the requirements for sanitary facilities that are contained in the National Construction Code.	Toilet facilities for both the children and staff are provided. Sanitary facilities designed to comply with relevant requirements under the National Construction Code.
4.4 Ventilation and Natural Light	
Regulation 110 Education and Care Services National Regulations Services must be well ventilated, have adequate natural light, and be maintained at a temperature that ensures the safety and wellbeing of children. Child care facilities must comply with the light and ventilation and minimum ceiling height requirements of the National Construction Code. Ceiling height requirements may be affected by the capacity of the facility.	The proposal is designed to achieve high quality cross ventilation, allow for adequate natural light and be temperature controlled to ensure the safety of children. Light, ventilation and minimum ceiling height requirements are designed to comply with relevant requirements under the National Construction Code.
4.5 Administrative Space	
Regulation 111 Education and Care Services National Regulations A service must provide adequate area or areas for the purposes of conducting the administrative functions of the service, consulting with parents of children and conducting private conversations.	Adequate space for administrative tasks being conducted on site are proposed within the office, staff and meeting room.
4.6 Nappy Change Facilities	
Regulation 112 Education and Care Services National Regulations	N/A. The proposal is for a preschool facility, and will cater for children between the ages of 3 and 5.

Child care facilities must provide for children who wear nappies, including appropriate hygienic facilities for nappy changing and bathing. All nappy changing facilities should be designed and located in an area that prevents unsupervised access by children. Child care facilities must also comply with the requirements for nappy changing and bathing facilities that are contained in the National Construction Code	
4.7 Premises Design to Facilitate Supervision	
Regulation 115 Education and Care Services National Regulations A centre-based service must ensure that the rooms and facilities within the premises (including toilets, nappy change facilities, indoor and outdoor activity rooms and play spaces) are designed to facilitate adequate supervision of children at all times, having regard to the need to maintain their rights and dignity. Child care facilities must also comply with any requirements regarding the ability to facilitate supervision that are contained in the National Construction Code.	The proposed development is designed to ensure that adequate supervision views are maximized throughout the development.
4.8 Emergency and Evacuation Procedures	
Regulations 97 and 168 Education and Care Services National Regulations Regulation 168 sets out the list of procedures that an education and care service must have, including procedures for emergency and evacuation. Regulation 97 sets out the detail for what those procedures must cover including: — instructions for what must be done in the event of an emergency — an emergency and evacuation floor plan, a copy of which is displayed in a prominent position near each exit — a risk assessment to identify potential emergencies that are relevant to the service.	The proposed preschool facility has been appropriately designed to encompass features that provide for the safe evacuation of children and staff from the facility in the event of an emergency. This includes an emergency first floor access along the western side of the building. An Emergency and Evacuation Plan will be prepared in accordance with Regulation 97 and design guidance contained within this Guideline prior to operations commencing.
4.9 Outdoor Space Requirements	
Regulation 108 Education and Care Services National Regulations An education and care service premises must provide for every child being educated and cared for within the facility to have a minimum of 7.0m2 of unencumbered outdoor space.	The proposal provides 7.83sqm per child of unencumbered outdoor play space and has been calculated in accordance with the unencumbered guidelines of this guideline.

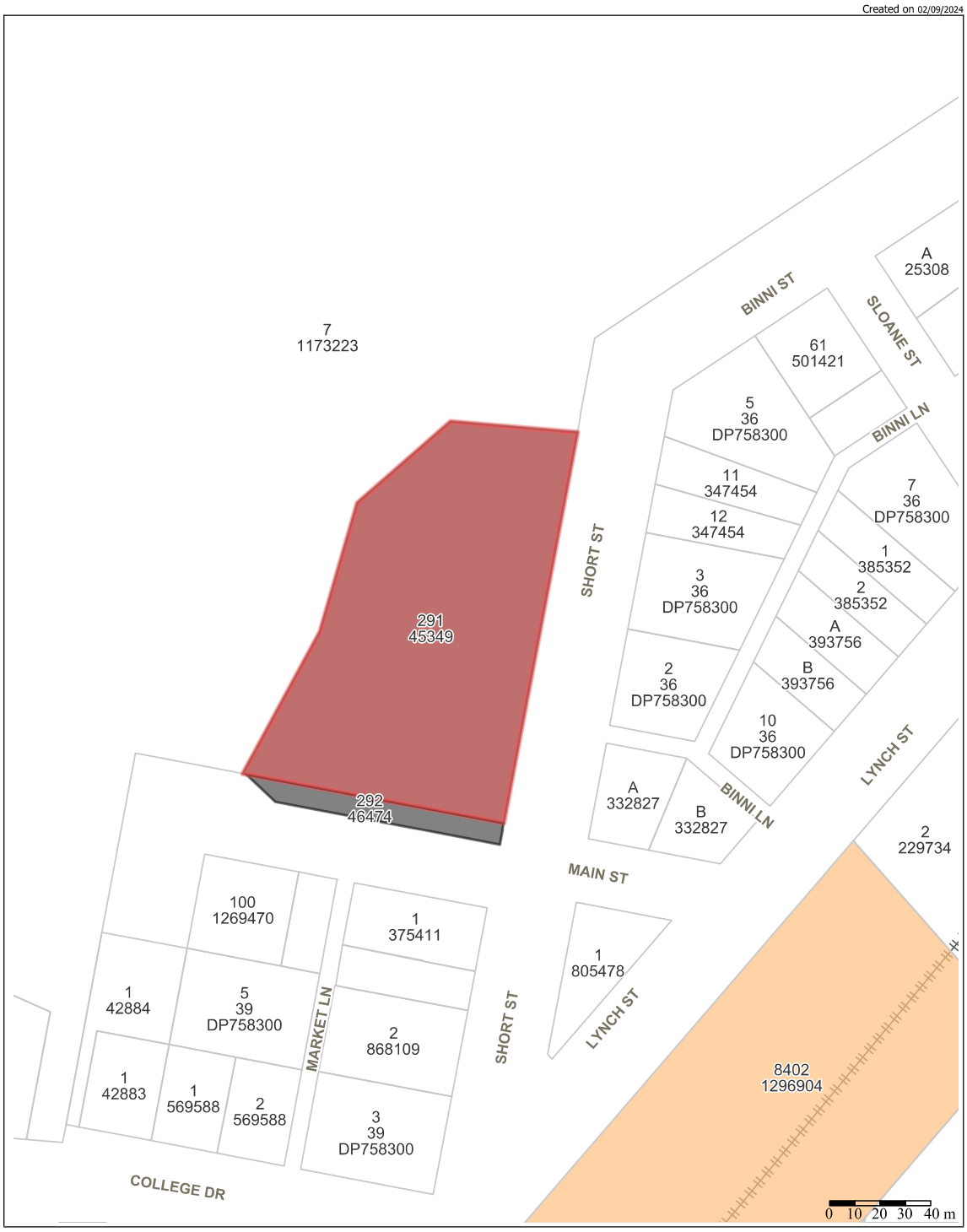
If this requirement is not met, the concurrence of the regulatory authority is required under the Education SEPP. Unencumbered outdoor space excludes any of the following: — pathway or thoroughfare, except where used by children as part of the education and care program — car parking area — storage shed or other storage area — laundry — other space that is not suitable for children.	
4.10 Natural Environment	
Regulation 113 Education and Care Services National Regulations The approved provider of a centre-based service must ensure that the outdoor spaces allow children to safely explore and experience the natural environment.	The facility will foster exploration and learning within the outdoor play area through the use of facilities such as the outdoor play equipment.
4.11 Shade	
Regulation 114 Education and Care Services National Regulations The approved provider of a centre-based service must ensure that outdoor spaces include adequate shaded areas to protect children from overexposure to ultraviolet radiation from the sun. Outdoor play areas should: — have a minimum of 2 hours of solar access between 8.00am and 4.00pm during winter months, for at least 30% (or 2.1m2) of the 7.0m2 of outdoor space per child required. — adequate shade for outdoor play areas is to be provided in the form of natural shade such as trees or built shade structures giving protection from ultraviolet radiation to at least 30 per cent of the outdoor play area — have evenly distributed shade structures over different activity spaces.	Appropriate shade structures (natural and built) are incorporated into the design of the preschool facility that will contribute towards protecting children from the sun. The proposal is appropriate with regard to the numerical requirements for solar access given that both outdoor play areas benefit from northern solar access.
4.12 Fencing	
Regulation 104 Education and Care Services National Regulations Any outdoor space used by children must be enclosed by a fence or barrier that is of a height and design that children preschool age or under cannot go through, over or under it.	Appropriate fencing has been proposed throughout the development to ensure that children cannot go through, over or under it. All fencing proposed will be compliant with relevant National Construction Code.

This Regulation does not apply to a centre-based service that primarily provides education and care to children over preschool age, including a family day care venue where all children are over preschool age. Child care facilities must also comply with the requirements for fencing and protection of outdoor play spaces that are contained in the National Construction Code.	
4.13 Soil Assessment	
Regulation 25 Education and Care Services National Regulations Subclause (d) of Regulation 25 requires an assessment of soil at a proposed site, and in some cases, sites already in use for such purposes as part of an application for service approval. With every service application one of the following is required: — a soil assessment for the site of the proposed education and care service premises — if a soil assessment for the site of the proposed child care facility has previously specifying when the soil assessment was undertaken — a statement made by the applicant that states, to the best of the applicant's knowledge, the site history does not indicate that the site is likely to be contaminated in a way that poses an unacceptable risk to the health of children	It is understood that no contamination of the soil is present, rather only material contamination in the form of debris exists at the site. Refer to the Detailed Soil Investigation prepared by Barnson Pty Ltd for further details.

Appendix F - National Quality Framework for Early Childhood Education and Care Facilities

Clause	Control	Comment	Complies
Part 4.3 Physical Environment			
Division 1 Centre-Based Services and Family Day Care Services			
104	Fencing	Appropriate fencing has been proposed enclosing the outdoor play areas.	✓
106	Laundry and Hygiene Facilities	A laundry has been provided within the proposed development.	✓
107	Space Requirements – Indoor Space	The proposal provides 3.25sqm of unencumbered indoor play space per child.	✓
108	Space Requirements – Outdoor Space	The proposal provides 7.83sqm per child of unencumbered outdoor play space.	✓
109	Toilet and Hygiene Facilities	Appropriate toilet and washing facilities for each age group has been provided.	✓
110	Ventilation and Natural Light	The development will receive appropriate levels of ventilation and natural light, as addressed in the SEPP and Child Care Guidelines previously.	✓
Division 2 Additional Requirements for Centre-Based Services			
111	Administrative Space	Staff, office and planning areas have all been provided within the development for administrative requirements.	✓
112	Nappy Change Facilities	Not Applicable. The proposed preschool facility will only cater for children between the ages of 3 and 5.	N/A
113	Outdoor Space – Natural Environment	The proposal incorporates outdoor space that will allow children to interact with the natural environment.	✓
114	Outdoor Space - Shade	The proposal includes appropriate levels of natural and built shading.	✓
Part 4.4 Staffing Requirements			
123	Educator to Child Ratios	Clause 123 provides minimum staff requirements for child care facilities in **Australia**: — 3-5 Years – 1 employee per 11 children However, we note that Clause 271 overrides the ratio for the 3-5 age group for child care centres in **New South Wales**. Therefore, the ratios for the proposal are as follows: — 3-5 Years – 1 employee per 10 children The proposal seeks the following breakdown of children:	✓

		— 3-5 Years – 60 children (6 staff) The proposal nominates a minimum of 6 x staff members which is compliant with the National Quality Framework.	
Part 7.3 New South Wales – Special Provisions			
271	Educator to child ratios—children aged 36 months or more but less than 6 years	(1) Regulation 123(1)(c) applies as modified by this section. (2) The educator to child ratio for children aged 36 months or more but less than 6 years of age is 1 educator to 10 children. Please refer to the above.	✓



Cowra Council

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DA 68/2024 - 14 Short Street Cowra



DA 68/2024 – 14 Short Street Cowra

Detailed contamination investigation
Phase A of the proposed *Early Childhood Precinct*, 14 Short Street, Cowra NSW



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Summary report

Background

An Early Childhood Precinct is proposed for 14 Short Street, Cowra NSW. The first stage of the development (Phase A) comprises the northern section of the lot. The site is a former Essential Energy depot which included aboveground storage tanks (AST), underground storage tanks (UST), infrastructure and pole storage areas. Previous assessments of the site identified historic and current contamination sources. Hydrocarbon impacted soil was identified in one location and was remediated by removing to the practical extent at the time of the remediation. An Environmental Management Plan (EMP) was adopted to manage the residual contamination. All structures on the site have been removed including asbestos cement pipe. Clearance certificates were issued for the asbestos removal works. No details are available as to whether the demolition works complied with the EMP.

Review of previous reports has identified data gaps where contaminants may be present. A contamination assessment is required to complete data gaps and determine suitability for the early childhood service.

Objectives of investigation

The objective of the investigation was to complete data gaps identified in previous investigations and determine suitability of the site for the proposed land-use.

Scope

The scope was to conduct a detailed contamination investigation, identify past potentially contaminating activities, identify potential contamination types, discuss the site condition, provide an assessment of site contamination and assess the need for remediation or suitability for the proposed land-use. The scope of works included site inspection, review of available information, soil sampling and analysis in order to complete data gaps from previous assessments.

Data gaps over the Phase A development were targeted during the investigation including:

- Absence of a systematic grid sampling pattern overt the lot. Previous sampling targeted only potential sources of contamination.
- Absence of assessment of the former buildings footprint which were inaccessible during the former investigations.

Summary

An inspection of the site was made on 3 April 2024. Historical land-use was as an Essential Energy depot. Previous assessments indicated that residual contamination is located within the greater lot to the south of the investigation area.

Surface cover was generally 70%. The site surface comprised grasses, broadleaved weeds and areas of exposed soil and gravel. Fragments of timber, tiles and concrete comprising rubble from the demolition works were identified over the site. No cement sheet was identified within the investigation area.

Soils identified on-site consisted of a non-contiguous layer of fill of brown silty to gravelly sand ranging from 0.1 to 0.3m over brown to reddish brown silty sand overlying brown clayey to silty sand and silty clay to the drilling depth.

Assessment of the Phase A area comprised eleven boreholes drilled on the general site on an approximate 20m grid pattern and six boreholes drilled on the former building locations on an approximate 6m grid pattern. Soil samples were collected from below the surface (0.1m) and drilling depth (0.5m) and analysed for the contaminants of concern. Contaminants of concern within the general area are heavy

metals, total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN) and polycyclic aromatic hydrocarbons (PAH).

The soil sampling program did not detect elevated levels of heavy metals or hydrocarbons in the soil samples analysed from the general site and from the former building locations.

Recommendations
The remaining building materials identified on the site surface should be removed as they represent an amenity issue.

An unexpected finds procedure should be adopted for site development works due to potential for foreign material and asbestos containing material under the surface.

Barnson Pty Ltd R43874c

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1. Introduction

An Early Childhood Precinct is proposed for 14 Short Street, Cowra NSW. The first stage of the development (Phase A) comprises the northern section of the lot. The site is a former Essential Energy depot which included aboveground storage tanks (AST), underground storage tanks (UST), infrastructure and pole storage areas. Previous assessments of the site identified historic and current contamination sources. Hydrocarbon impacted soil was identified in one location and was remediated by removing to the practical extent at the time of the remediation. An Environmental Management Plan (EMP) was adopted to manage the residual contamination. All structures on the site have been removed including asbestos cement pipe. Clearance certificates were issued for the asbestos removal works. No details are available as to whether the demolition works complied with the EMP.

Review of previous reports has identified data gaps where contaminants may be present. A contamination assessment is required to complete data gaps and determine suitability for the early childhood service.

2. Objectives

The objective of the investigation was to complete data gaps identified on previous reports and determine suitability of the site for the proposed land-use.

3. Scope of work

Barnson Pty Ltd was commissioned by Cowra Early Childhood Services to undertake a detailed contamination investigation, in accordance with the contaminated land management planning guidelines, from the *Contaminated Land Management Act 1997* and the *SEPP (Resilience and Hazards)* of proposed Phase A of the proposed Early Childhood Service Centre located at 14 Short Street, Cowra NSW. The scope of works included site inspection, review of available information, soil sampling and analysis in order to complete data gaps identified in previous investigations.

Data gaps over the Phase A development area were targeted during the investigation including:

- Absence of a systematic grid sampling pattern overt the lot. Previous sampling targeted only potential sources of contamination.
- Absence of assessment of the former buildings footprint which were inaccessible during the former investigations.

4. Site identification

Address	Proposed Phase A of Cowra Early Childhood Precinct 14 Short Street Cowra NSW
Deposited plans	Lot 291 DP45349
Latitude and longitude	-33.83^{o} 148.70^{o}
Geographic coordinates	55H E657488m N6255418m
Client	Cowra Early Childhood Services
Owner	Crown Lands

Current occupier	Vacant
Area	Phase A – 0.50 hectares Greater lot – 1.06 hectares
Local government area	Cowra Shire Council
Current zoning	R1 – General residential (Cowra LEP 2012)
Trigger for investigation	Change in land-use
Locality map	Figure 1

5. Site history

5.1 Land-uses

The site was vacant at the time of inspection. Historical land-use is as an Essential Energy depot.

5.2 Summary of council records

None known.

5.3 EPA databases

The site is not listed on the NSW EPA register of contaminated sites (29 April 2024) or sites notified to the EPA (8 April 2024).

Two sites listed on the register of contaminated sites and sites notified to the EPA have been identified within 1km of the site. The former gasworks and Shell depot are located approximately 1km south of the site. The former gasworks is currently under approved voluntary management proposal (notice 20221713). The Shell depot completed a voluntary management plan in 2015 and has no current notices (notice 201517-7-01). The contaminated sites are not expected to impact the investigation area due to the location downslope.

Lowes Petroleum (former BP Cowra depot) is listed as a site notified to EPA. The site is located 870m south of the investigation area. Contamination from the depot is not expected to impact the investigation area due to be located downslope.

5.4 Safework NSW Storage of hazardous chemicals

A search of the SafeWork dangerous goods database was undertaken in previous investigations in 2015. The search identified underground storage tanks located south of the Phase A area.

The search identified applications dated 17/12/1949 and 22/03/1962 held by Central West County Council electricity supply depicting one 500 gallon underground tank used for storage of mineral spirit.

One application form held by Central West County Council trading as Central West Electricity from 11/10/1991 depicts two USTs containing diesel and ULP in the southern section of the greater lot and a magazine. The tanks volume listed is 5,000L each.

Applications dated from 1993 to 1997 depicts one 5,000L petrol underground tank and a magazine.

No changes in the status of the dangerous goods are expected since the 2015 search.

Previous investigations unsuccessfully attempted to locate historical UST's. The tanks are expected to have been removed from the site.

5.5 POEO public register

No current or delicensed and former licensed activities under the POEO Act 1997 have been identified for the site.

Two POEO licenses have been identified on the NSW EPA POEO public register within 1km of the site. The licenses include:

- Cowra Water Treatment Plan located approximately 730m west of the site at Brisbane Street holds a license for miscellaneous discharge to waters (at any time) (EPL 1572).
- Hanson Construction Materials Pty Ltd located approximately 240m east of the site at Day Street holds a license for concrete works (EPL 1456).

The licensed activities are not expected to have impacted on the contamination status of the site. Potential contamination originating from the licensed facilities is regulated by the EPA and subject to ongoing monitoring.

5.6 Other government agency databases

The site is not listed on the following databases:

- National Waste Management Site database
- National Liquid Fuel Facilities database
- NSW EPA former gasworks sites
- The NSW Government PFAS Investigation Program
- Defence PFAS Investigation and Management Program
- Airservices Australia National PFAS Management Program

One fuel depot listed on the National Liquid Fuel Facilities database has been identified within 1km of the investigation area. Lowes Petroleum (former BP Cowra depot) is located at 12 Campbell Street, 870m south of the site.

The former gasworks site located at 30 Brougham Street is located approximately 1km south of the site.

Contamination from the fuel depot and gasworks is not expected to impact the investigation area due to the downslope location.

No additional sites listed on government agency databases have been identified within 1km of the investigation area.

5.7 Sources of information

Site inspection 3 April 2024 by Felipe Canavez of Barnson Pty Ltd
NSW EPA records of public notices under the CLM Act 1997
Soil and geological maps
Historical aerial photographs including NSW Government historical imagery and Google Earth
Cowra LEP 2012

5.8 Review of historic aerial photographs, maps and plans

5.8.1 Aerial photographs

Year	Visual observations on site	Surrounding area
1964	The site is located in the north eastern outskirts of Cowra township. Infrastructure comprising buildings and internal roads are identifiable.	Areas located to the north and west appears to be vacant. Land-use to the east and south is residential.
1982	An additional structure is located to the north east of the site. Foreign materials appear to be stored on the eastern section of the greater lot.	The current NSW Local Land Services building has been built to the south east of the site.
1989	The brick building is identifiable in the central section of the greater lot. Low resolution limits interpretations.	No obvious changes are evident in the surrounding area.
1993	The roads coverage is bitumen. An area of hardstand is identifiable to the south of the brick building.	No obvious changes are evident in the surrounding area.
1998	No obvious changes on-site.	No obvious changes are evident in the surrounding area.
2006	Light poles are identifiable stored in the southern section of the greater lot.	No obvious changes are evident in the surrounding area.
2010	Vehicle movement is identified within the site.	No obvious changes are evident in the surrounding area.
2012	No obvious changes on-site.	No obvious changes are evident in the surrounding area.
2020	No obvious changes on-site.	No obvious changes are evident in the surrounding area.
2023	No infrastructure is identifiable on-site. Infrastructure over the greater lot has been removed.	No obvious changes are evident in the surrounding area.

5.8.2 Topographic maps

The 1980 Cowra topographic map based on 1976 aerial imagery and field revision in 1977 depicts the site as a built-up area.

The current topographic map (SIX Maps) depicts the site as a built-up area.

5.8.3 Historical parish maps

The site is situated in the parish of Cowra, County of Bathurst. The maps depict the area as part of a reserve named *"Cowra Rocks"* and reserved from sale for public recreation.

Map date	Owner	Details
1884	No details	*"Cowra Rocks"*. Reserved from sale for public recreation (R18374).
1894	No details	Reserved from sale for public recreation (R18374). Notified 12th of August 1893
1901	No details	Reserved from sale for public recreation (R18374). Notified 12th of August 1893
1914	No details	Reserved from sale for public recreation (R18374). Notified 12th of August 1893
1927	No details	*"Cowra Rocks",* R14202.1603
1941	No details	*"Cowra Rocks",* R14202.1603

5.9 Interview with client representative

The client representative reported that Essential Energy would have operated for approximately 20 years on the site and that it was decommissioned in 2012. The site has been vacant since. Demolition works

were undertaken from March to May 2023. Asbestos clearance reports were issued for the asbestos containing materials (ACM) including building materials and asbestos pipes identified on-site.

No information was found regarding demolition works being undertaken in accordance with the existing environmental management plan (EMP) (ERM 2018, report number 0370048_EMP) and if underground services were disconnected or removed.

5.10 Chronological list of site uses

The site has been decommissioned in 2012 and is currently vacant. Demolition works were undertaken in 2023.

The site was historically used as an electrical service depot by Essential Energy from the decade of 1990's to 2010's.

Safework identified Central West County Council was located on the site from at least 1949. They would have been a predecessor to Essential Energy. Part of the previously existing infrastructure was constructed prior to 1964 and the final layout of the buildings was from 1989. Two USTs were historically located south of the investigation area.

5.11 Heritage listings

The site is not listed on the following government heritage databases:

- Commonwealth Heritage List
- National Heritage List
- State Heritage Register
- Local Environmental Plan (Cowra LEP 2012)

The site is identified as being within 1km of six general items on the Cowra LEP (2012) heritage map. The sites include ANZ building (I1), Courthouse (I6), Infracombe building (I32), Cowra Fire Station (I38), Cowra Japanese Garden (I72) and Stone Building (I34).

The site is identified as being within 1km of two items on the State Heritage Register. The sites are Cowra Railway Station (619) and Cowra Prisoner of War Campsite (619).

The heritage listings are not expected to have impacted on the contamination status of the site. No items listed on the Commonwealth Heritage List and National Heritage List are located within 1km of the site.

5.12 Buildings and infrastructure

Infrastructure previously existing on-site was demolished and removed in 2023. The site was fenced. Access to the site was from Main Street and Short Street.

The site surface was formerly covered in a combination of buildings, hardstand concrete or asphalt, unsealed surfaces and vegetated areas.

The main buildings located over the greater lot were: a two storey brick office building, several corrugated iron buildings used as workshops and storage areas, a magazine composed of brick, concrete and timber used for explosives storage, a truck wash area and associated oil drainage sump, a sealed electrical equipment storage area, a underground storage tank (UST) area formerly containing two 5kL USTs (diesel and ULP) which were reportedly decommissioned and two areas containing above ground creosote tanks (AST). The buildings floor was expected to be generally concrete.

5.13 Spills, losses or discharges

No records for spills or losses on the site were available. Previous investigations detected levels of hydrocarbons above the health screening levels over the site adjacent to the USTs and creosote ASTs to the south.

5.14 Relevant complaint history

None expected.

5.15 Previous investigations

The areas of contamination referred in previous investigations are located in the southern and central sections of the greater lot and outside the investigation area determined as Phase A (Figure 2).

5.15.1 GHD (2011) *Essential Energy Contaminated Land Strategy – Stage 1 Preliminary Site investigations,* NSW Summary Report

No intrusive work was undertaken for the assessment. The site was identified as moderate environmentally sensitive land due to neighbouring land-uses. A range of potentially contaminating sources were identified during the inspection which included asbestos containing materials, former creosote storage, UST's, chemical storage, workshops, transformer storage, an oil sump, electrical equipment and pole storage/maintenance. Further intrusive works were recommended.

5.15.2 ERM (2015) *Detailed Site Investigation – Cowra Former Depot (COWR1740) 14 Short Street Cowra, NSW,* for Essential Energy, dated November 2015 (report number 0302409)

The study identified the primary sources of contamination over the site were potential asbestos containing materials used in the buildings, former creosote storage tanks, former diesel and petrol UST's, former chemical storage (explosives), former workshops, former transformer storage, oil sump and electrical equipment and pole storage and maintenance areas.

Levels of hydrocarbons above the human screening levels were identified adjacent the former creosote AST and former USTs. Asbestos was not detected in soil samples.

The site was deemed suitable for commercial land-use subject to management controls. Recommendations were made regarding the necessity of further investigation and potential remediation in the case of a change in the land-use due to the exceedances identified.

Representatives of Essential Energy, ERM and EPA agreed that further investigation and remediation works were required prior to formal site notification under the CLM Act.

5.15.3 ERM (2017) *Validation Report – Former Cowra Depot, 14 Short Street, Cowra, NSW,* for Essential Energy, dated September 2017 (report number 0372941)

Remediation works were undertaken by excavating test pits over two areas of environmental concern adjacent to the USTs area and in the footprint of the former creosote AST. The excavations over the AST were undertaken to a practical extent due to the presence of adjacent underground services.

The potential for an UST still existing and soil impacts was considered unlikely based on the test pit excavated adjacent the former UPSS location and information from previous investigations.

One exceedance of the adopted human health residential criteria was noted in one of the validation samples from the excavation pit adjacent the former creosote tanks, however, the extent of excavation was limited due to the presence of underground services. The contamination was considered delineated and characterized. The site was considered suitable for industrial land-use subject to a Site Management

Plan in order to manage the risks associated with the remaining contamination. Formal notification under the CLM Act was not required for the contamination remaining on-site.

Recommendations were made regarding requirements for further assessment and remediation in the case of change to a more sensitive land-use including residential land-use.

5.15.4 ERM (2018) *Environmental Management Plan – Essential Energy former Depot, 14 Short Street, Cowra, NSW,* dated January 2018 (report number 0370048)

The EMP provided a management framework for the residual contamination previously remediated to the possible extent. Residual contamination was described to remain on-soil adjacent to the creosote AST to depths from 0.9 to 2.0m due to existence of underground services at the time of the assessment.

The extent of the contamination was delineated and characterised and considered to not present a risk for receptors onsite and offsite if remained undisturbed.

Recommendations were made regarding effective remediation including additional sampling following the infrastructure demolition and removal of underground services.

5.16 Historical neighbouring land-use

North – Bellevue Hill Reserve
South – Main Street, residential
East – Short Street, residential
West – Bellevue Hill Reserve

Historical neighbouring land-uses are not expected to be impacting on the contamination status of the site.

5.17 Contaminant sources

Potential contamination from activities undertaken over the greater lot and former building locations may have impacted the site due to spills, leaks or discharge of contaminants over the site surface during the industrial activities and may have impacted the site.

Fill from unknown sources used to level the site may have resulted in application of contaminants.

Asbestos containing materials remaining from the demolition works.

5.18 Contaminants of concern

Based on historical activities and site inspection the potential contaminants of concern associated with general land-use fill and building footprints are:

- Heavy metals (arsenic, cadmium, chromium, copper, nickel, lead, zinc and mercury)
- Total recoverable hydrocarbons (TRH)
- Benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN)
- Polycyclic aromatic hydrocarbons (PAH)
- Asbestos

5.19 Integrity assessment

The site history was obtained from a site inspection and history review. The information is consistent with the current site condition and to the best of the assessor's knowledge is accurate.

6. Site condition and surrounding environment

6.1 Site inspection

The site was inspected by Felipe Canavez of Barnson Pty Ltd on 3 April 2024.

6.2 Land-use

The site is currently vacant. Residual fragments of construction rubble and road base gravel were identified over the site during the inspection.

6.3 Current neighbouring land-use

North – Bellevue Hill Reserve
South – Main Street, residential
East – Short Street, residential
West – Bellevue Hill Reserve

Current neighbouring land-uses are not expected to be impacting on the contamination status of the site.

6.4 Surface cover and vegetation

Vegetation on the site was generally 70%. Vegetation comprised grasses and broadleaved weeds including dandelion, cathead, fleabane and curly dock.

Fragments of timber, tiles and concrete comprising rubble from the demolition works were identified over the site. No cement sheet was identified over the surface of the investigation area (Phase A).

6.5 Evidence of visible contamination

It is possible that the topsoil over the site has been reworked during the demolition works. No evidence of visible contamination including soil discolouration or odours were identified in the investigation area.

Fragments of construction rubble including timber, concrete and tiles were present in small amounts over the site surface.

6.6 Topography

The site morphology is a mid-slope with gently to moderately inclined slopes of 3 to 10% to the south east. The average elevation is 320 metres above sea level.

6.7 Soils and geology

The site is within the Cowra Soil Landscape. Soils in the Cowra Soil Landscape are dominated by red podzolic soils with siliceous sands on steep crests. Non-calcic brown soils and red-brown earths occur on gentle slopes (eSPADE, 2024).

The parent rock is the Cowra granodiorite. The parent material consist of *in-situ* and alluvial-colluvial deposits of parent material (eSPADE, 2023).

Soils identified on-site consisted of a non-contiguous layer of fill of brown silty to gravelly sand ranging from 0.1 to 0.3m over brown to reddish brown silty sand overlying brown clayey to silty sand and silty clay to the drilling depth.

6.8 Water

6.8.1 Surface water

Surface water is expected to infiltrate or flow to the south east. Any excess water flows will follow topography on-site and flow south east towards the stormwater system and Waugola Creek located approximately 320m south east of the site. Waugola Creek is a tributary of the Lachlan River.

6.8.2 Groundwater

No groundwater bores were identified on the site on the NSW Government Water NSW website (2024). Three registered groundwater bores were identified within 500m of the site on the NSW Government Water NSW website (2024). The bores are licenced for monitoring, water supply and test bore. Water-bearing zones (WBZ) were from 18m to 22m in sand. Standing water level was from 10m at the time of drilling.

Boreholes were drilled within the greater lot up to 20m deep in previous investigations and no evidence of groundwater was identified.

No.	Date drilled	Location	SWL (m)	Use	Status
GW092082	19/02/1997	100m SE	-	Monitoring bore	Unknown
GW057779	06/09/1983	190m S	10.0	Stock, domestic	Current
GW702270	22/09/2004	470m SE	-	Test bore	Unkown

6.9 Evidence of possible naturally occurring contaminants

No natural sources of PAH were identified.

The site is not mapped as an acid sulphate soil risk (State Government of NSW and Department of Planning, Industry and Environment 1998).

The site is not mapped as a geological unit with asbestos potential (State Government of NSW and Department of Regional New South Wales 2015).

6.10 Environmentally sensitive features or habitats

The site is located west of Bellevue Hill Flora and Fauna reserve, considered a moderately sensitive habitat. Waugola Creek is a tributary of the Lachlan River located approximately 320m east of the site. Waugola Creek is considered a moderately disturbed ecosystem due to agricultural land-use. The Lachlan River is considered a highly disturbed ecosystem due to upstream urban and agricultural land-use.

6.11 Integrity assessment

The site history was obtained from a site inspection and history review. The information is consistent with the current site condition and to the best of the assessor's knowledge is accurate.

7. Conceptual site model

7.1 Contaminant sources

Potential contamination from works undertaken over the general lot and former building locations may have impacted the site due to spills, leaks or discharge of contaminants over the site surface that may have impacted the site and former building locations.

Fill from unknown sources used to level the site may have resulted in application of contaminants.

Residual asbestos containing materials from the demolition works.

7.2 Contaminants of concern

Based on historical activities and site inspection the potential contaminants of concern associated with general land-use and fill are:

- Heavy metals (arsenic, cadmium, chromium, copper, nickel, lead, zinc and mercury)
- Total recoverable hydrocarbons (TRH)
- Benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN)
- Polycyclic aromatic hydrocarbons (PAH)
- Asbestos

7.3 Potential receptors

The proposed land-use of the site is an Early Childhood Precinct. Historical land-use comprised an electrical services depot.

Human receptors include:

- Visitors (adults and children)
- Staff
- Construction workers
- Intrusive maintenance workers

Ecological receptors include:

- Flora and fauna on the site and adjacent to the site
- Aquatic flora and fauna receptors off-site

7.4 Exposure pathways

Pathways for exposure to contaminants are:

- Dermal contact following soil disturbance
- Ingestion and inhalation after soil disturbance
- Surface water and sediment runoff into waterways
- Leaching of contaminants into the groundwater
- Direct contact of flora and fauna with the soil

7.5 Source receptor linkages

Potential source pathway receptor linkages are identified to enable evaluation of any adverse impact on human health or ecology.

The proposed land-use of the site is an Early Childhood Precinct and human receptors to the investigation area are likely. Proposed users of the site may have a risk of exposure if contaminants are present and the soil is disturbed. Visitors, staff, construction workers and intrusive maintenance workers may potentially be receptors to soil contaminants through direct contact to soil which includes ingestion and dermal contact.

The contaminants of concern include volatiles. Inhalation may occur as a result of soil disturbance and dust production. Major soil disturbance before and after the development of the site is considered unlikely. Soil disturbance during construction and development of the site is expected to be accompanied by erosion control measures which will reduce the incidence of dust production.

Vegetation on the site may be potential receptors to soil contamination through direct uptake of contaminants.

Disturbance of asbestos containing materials may result in the release of asbestos fibres impacting on site workers and the surrounding public.

The source receptor linkage to aquatic organisms and ecosystems is considered incomplete as the site is generally vegetated or hardstand and movement of sediments from the site is unlikely. During construction work it is expected that erosion control measures will be implemented and movement of sediment off site will be unlikely. Following development of the site it is expected that vegetation or hard surfaces will be re-established which will control sediment movement from the site. The nearest waterway to the site is Waugola Creek located approximately 320m south east of the site. It is not expected that contaminants from the site will be transported to aquatic receptors within the creek. Waugola Creek is considered a moderately disturbed ecosystem.

Groundwater is not identified as a potential receptor to sub-surface contamination. The standing water level for the nearest water bore available was 10m at the time of drilling. Sandy soils were identified on-site however no impacts are expected due to the site topography and expected groundwater levels. Contamination on-site is expected to be generated top down.

Source/contaminants	Transport	Potential exposure pathways	Receptors
☒ Former electrical service depot industrial land-use Heavy metals TRH BTEXN PAH Asbestos	☒Wind ☐Sedimentation ☐Groundwater ☐Surface water ☒Volatilisation	☒Direct contact (ingestion and absorption) (human and environment) ☒Inhalation ☐Runoff ☒Leaching	☒ Visitors (adults and children) ☒ Staff ☒Construction workers ☒Intrusive maintenance workers ☒Vegetation ☐Aquatic receptors
☒ Fill Heavy metals TRH BTEXN PAH Asbestos	☒Wind ☐Sedimentation ☐Groundwater ☐Surface water ☒Volatilisation	☒Direct contact (ingestion and absorption) (human and environment) ☒Inhalation ☐Runoff ☐Leaching	☒ Visitors (adults and children) ☒ Staff ☒Construction workers ☒Intrusive maintenance workers ☒Vegetation ☐Aquatic receptors
☒ Building material Asbestos	☒Wind ☐Sedimentation ☒Groundwater ☐Surface water ☐Volatilisation	☐Direct contact (ingestion and absorption) (human and environment) ☒Inhalation ☐Runoff ☐Leaching	☒ Visitors (adults and children) ☒ Staff ☒Construction workers ☒Intrusive maintenance workers ☒Vegetation ☐Aquatic receptors

☒Potential, ☐unknown/unlikely

8. Data quality objectives (DQO)

8.1 State the problem

An Early Childhood Precinct is proposed for the site. The site has historically been used as an electrical services depot. Industrial activities undertaken over the site may have impacted the site due to spills, leaks or discharge of contaminants.

Fill from unknown sources may have been imported to the site.

8.2 Identify the decision

The proposed land-use is as an Early Childhood Precinct. Day care centres, kindergartens, pre-schools and primary schools should be assessed under the residential based criteria. Levels of potential contaminants should be less than the thresholds listed in Section 11 in accordance with NEPM (1999). The decision problem is, do the levels of potential contaminants exceed the assessment criteria and thresholds listed in Section 11.

8.3 Identify the inputs decision

Investigations of the site is required to identify any potential contaminants from the historical land-use. The inputs include:

- Field observation of aesthetic impacts of visible contamination
- Soil samples across the site
- Inspection of the condition of the site
- Review of previous reports

8.4 Define the boundaries of the study

The investigation area is Phase A of the proposed Early Childhood Precinct, 14 Short Street Cowra NSW (Figure 2). The investigation area comprises the northern section of the greater lot.

8.5 Develop a decision rule

Data collected for the purpose of the contamination investigation must be sufficiently accurate in representativeness. The accuracy will be assessed by determination of:

- Current and historical land-use to describe potential contamination sources
- Site setting, potential receptors and pathways
- Soil samples to characterise the extent of contamination and analysis in accredited laboratories

Childcare centres are assessed under the residential land-use thresholds in accordance with the Schedule B7 *Derivation of Health-Based Investigation Levels* and includes thresholds listed in Schedule B1 *Guideline on Investigation Levels for Soil and Groundwater* of the NEPM (1999). The data must be sufficiently representative to identify the extent of contamination and if further sampling and analysis is needed to delineate the nature and extent of contamination.

The decision rule for the investigation is:

- If the contamination levels were less than the adopted levels, are potential risks low and acceptable
- If the levels were equal or greater than the investigations level, will exceedances affect the suitability for the proposed land-use

8.6 Specify acceptable limits on the decision errors

A decision error in the context of the decision rule would lead to either underestimation or over estimation of the risk level associated with the property. Decision errors include:

- Limitations in available site history information
- Constraints associated with the ability to access certain areas of a site
- Errors in the sampling plan
- Data quality including comparability, representativeness and accuracy for data collection and analysis
- Analytic data validation

Where sample analysis is undertaken the quality of the data collected was assessed on a range of factors including:

- Documentation and data completeness
- Reference to relevant guidance documents
- Consistency of methodology
- Data quality including comparability, representativeness and accuracy for data collection and analysis
- Analytical data validation
- Satisfactory acceptance limits are the 95% upper confidence limit of samples collected is less than the threshold levels, the standard deviation of results should be less than 50% of the relevant investigation or screening level and the levels are less than 250% the relevant thresholds.

8.7 Optimize the design for obtaining data

The methodology described in Sections 9 and 10 presents a framework for the contamination investigation which has been designed to meet the scope objectives and the nominated DQO.

Optimisation of the data collection process was informed by a review of historical information and observations made at the time of site inspection. The sampling was used to inform the potential contamination status of the site. The scope of work was undertaken to a level of accuracy and confidence in the ASC NEPM (NEPC 1999).

Analytes included arsenic, cadmium, total chromium, copper, lead, nickel, zinc, mercury, TRH (C6-C40), BTEXN and PAH.

9. Sampling analysis plan and sampling methodology

9.1 Sampling strategy

9.1.1 Sampling design

A stratified sampling pattern was adopted to assess the probable location of contamination. The site was divided into sub-areas according to historical land-use. The sub-areas included the general site and former building locations. A systematic sampling pattern was adopted for each sub area.

The sub-areas have been historically managed as part of a single unit and is expected to have been treated similarly.

9.1.2 Sampling locations

Eleven boreholes were drilled on the general site on an approximate 20m grid pattern to enable the soil profile to be described including the presence of fill or other indicators of contamination. Two soil samples were collected from each borehole and analysed for heavy metals, TRH, BTEXN and PAH.

Six boreholes were drilled on the former building locations on an approximate 6m grid pattern to enable the soil profile to be described including the presence of fill or other indicators of contamination. Two soil samples were collected from each borehole and analysed for heavy metals, TRH, BTEXN and PAH.

The sampling locations are described in Figure 3.

9.1.3 Sampling density

The sampling density can detect a potential hot spot across the general area with a radius of 12m at a 95% level of confidence. The sampling frequency is in accordance with the minimum recommended by EPA (2022).

The number of samples collected from the former building locations is considered sufficient to enable preliminary characterisation.

9.1.4 Sampling depth

Boreholes were drilled to 0.5m. Soil samples were collected from near surface (0.1m) and drilling depth (0.5m) for laboratory analysis.

9.2 Analytes

Discrete soil samples collected from the general area were evaluated for heavy meals (arsenic, cadmium, chromium, copper, lead, nickel, zinc and mercury), TRH (C6-C40), BTEXN and PAH. Heavy metals and hydrocarbons were identified as the contaminants of concern possibly present as a result of industrial land-use and fill application (Table 1).

9.3 Sampling methods

Boreholes were drilled using a Landcruiser mounted Christie push tube and a Landcruiser mounted EZIPROBE drilling rig with solid auger. Samples were collected directly from the push tube and from the auger tip at the required depth with a stainless steel hand spade. Discrete soil samples were transferred directly to a solvent rinsed glass jar with a Teflon lid.

Soil was taken at each individual sampling location below the vegetative and detrital layer. Discrete soil samples were transferred directly to a solvent rinsed glass jar with a Teflon lid.

Tools were decontaminated between sampling locations to prevent cross contamination by brushing to remove caked or encrusted material, rinsing with clean tap water and allowing to air dry or using a clean towel.

The sampling log is presented in Appendix 2.

Table 1. Schedule of samples and analyses

Sample ID	Sub-area	Location	Depth (mm)	Analysis undertaken
BH1-100	General	BH1	100	Arsenic (As), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), Nickel (Ni), zinc (Zn), mercury (Hg), total recoverable hydrocarbons (TRH (C6-C40)), benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN), polycyclic aromatic hydrocarbons (PAH)
BH1-500	General	BH1	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH2-100	General	BH2	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH2-500	General	BH2	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH3-100	General	BH3	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH3-500	General	BH3	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH4-100	General	BH4	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH4-500	General	BH4	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH5-100	General	BH5	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH5-500	General	BH5	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH6-100	General	BH6	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH6-500	General	BH6	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH

Sample ID	Sub-area	Location	Depth (mm)	Analysis undertaken
BH7-100	General	BH7	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH7-500	General	BH7	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH8-100	General	BH8	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH8-500	General	BH8	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH9-100	General	BH9	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH9-500	General	BH9	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH12-100	General	BH12	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH12-500	General	BH12	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH13-100	General	BH13	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH13-500	General	BH13	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH25-100	Workshop/storage shed building footprint	BH25	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH25-200	Workshop/ storage shed building footprint	BH25	200	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH25-500	Workshop/ storage shed building footprint	BH25	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH26-100	Workshop/ storage shed building footprint	BH26	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH26-500	Workshop/ storage shed building footprint	BH26	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH27-100	Workshop/ storage shed building footprint	BH27	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH27-500	Workshop/ storage shed building footprint	BH27	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH28-100	Electrical equipment storage building footprint	BH28	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH28-500	Electrical equipment storage building footprint	BH28	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH29-100	Electrical equipment storage building footprint	BH29	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH29-500	Electrical equipment storage building footprint	BH29	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH30-100	Former truck storage building footprint	BH30	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH30-500	Former truck storage building footprint	BH30	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH

10. Quality assurance and quality control

10.1 Sampling design

The sampling program is intended to provide data as to the presence and levels of contaminants.

Boreholes were drilled on the general area on a systematic grid pattern of approximately 20 metres. This sampling density will enable the detection of an area with an elevated concentration on a radius of 12m with a 95% confidence level. The number of sampling locations is in accordance with the recommended density in the EPA sampling guidelines.

Boreholes were drilled on a systematic pattern on the former building locations in order to provide a preliminary assessment of the soil contamination status of the building footprints. The sampling density of the former building areas is expected to the sufficient to enable preliminary characterisation.

10.2 Field

The collection of samples was undertaken in accordance with accepted standard protocols (NEPC 1999).

The samples were analysed for heavy metals (arsenic, cadmium, total chromium, copper, lead, nickel, zinc and mercury), TRH (C6-C40), BTEXN and PAH.

Sampling equipment was decontaminated between each sampling event. The appropriate storage conditions and duration were observed between sampling and analysis. A chain of custody form accompanied the samples to the laboratory (Appendix 3).

An experienced sampler was used to collect the samples using standard methods. Soil collected was a fresh sample from the pushtube or from the auger tip. After collection the samples were immediately placed in new glass sampling jars and placed in a cooler.

Five duplicate samples were collected. No field blank, rinsate, trip blank or matrix spikes were submitted for analysis. Some samples from all batches did not contain contaminants which confirm the absence of cross contamination during transport and storage.

A field sampling log is presented in Appendix 2.

10.3 Laboratory

Chemical analysis was conducted by SGS Laboratories, Alexandria, which is NATA accredited for the tests undertaken. The laboratories have quality assurance and quality control programs in place, which include internal replication and analysis of spike samples and recoveries.

Method blanks, matrix duplicates and laboratory control samples were within acceptance criteria. The quality assurance and quality control report is presented together with the laboratory report as Appendix 3.

10.4 Data evaluation

The laboratory quality control report indicates the data variability is within acceptable industry limits. The data is considered representative and usable for the purposes of the investigation. Data quality indicators are presented in Appendix 1.

11. Assessment criteria

The main reference for environmental site assessment in Australia is the ASC NEPM (NEPC 1999 rev 2013). This document includes criteria for use in evaluating potential risk to human health and ecosystems from chemical impacts, which are presented as generic investigation levels and screening levels appropriate to a Tier 1 risk-based assessment applicable for site assessment. The application of these investigation levels and screening levels is subject to a range of limitations, and their selection and use must be in the context of a conceptual site model (CSM) relating to the nature and distribution of impacts and potential exposure pathways.

The proposed land-use is as an early childhood precinct. Day care centres, kindergartens, pre-schools and primary schools are considered a sensitive land-use and residential assessment criteria is considered suitable for the site according to the Schedule B7 of the NEPC (1999) *Derivation of Health-Based Investigation Levels*. and appropriate initial criteria are described in *Guideline on Investigation Levels for Soil and Groundwater* (NEPC 1999).

The criteria lists health investigation levels (HIL) for a range of land-uses. The appropriate initial comparison for the site is residential (HIL A).

The NEPC (1999) also provides health screening levels (HSL) for hydrocarbons in soil. The HSLs have been developed to be protective of human health for soil types, depths below surface and apply to exposure to hydrocarbons through the predominant vapour exposure pathway. The appropriate HSL for the site is listed in Table 3. TRH>16 have physical properties which make the TRH fractions non-volatiles and therefore these TRH fractions are not applicable for vapour intrusion.

Ecological investigation levels (EIL) have been developed for the protection of terrestrial ecosystems for selected metals and organic substances in the soil in the guideline (NEPC 1999). Ecological screening levels (ESL) assess the risk to terrestrial ecosystems from petroleum hydrocarbons in the soil. The EILs and ESLs consider the properties of the soil and contaminants and the capacity of the local ecosystem to accommodate increases in contaminant levels.

Typical CEC value for the site is >5 to 10cmol(+)/kg, clay content of >15 to 20%, pH values of between 5.5 and 6.0 and organic carbon of 1.5 to 2% (eSPADE, 2024). The proposed land-use is as an early childhood precinct and recommended assessment criteria is residential. The contaminants have been identified in the soil for at least two years and are considered aged.

EILs vary with land-use and apply to contaminants up to 2m depth below the surface. The ASC NEPM EIL calculation spreadsheet was used to determine the EIL. The EILs for residential land-use are listed in Table 2.

ESLs are dependent on land-use, soil types and are applicable to contaminants up to 2m below the surface. The appropriate ESL for the site is residential in fine soil as listed in Table 3.

Management limits have been developed to assess petroleum hydrocarbons following evaluation of human health and ecological risks (NEPC 1999). Management limits are applicable as screening levels after consideration of relevant ESLs and HSLs. The appropriate management limit for the site is listed in Table 3.

Chromium is analysed as total chromium which is the sum of chromium (III) and chromium (VI). Chromium (VI) is a potential contaminant from industrial processes including ferrochrome production, electroplating, pigment production and tanning (WHO 1998). Chromium (VI) is reduced to chromium (III) when it comes into contact with organic matter in biota, soil and water. Chromium in the environment is present in the trivalent state (WHO 1998).

Table 2. EIL Calculation sheet, residential land-use

Analyte	Rationale	EIL (mg/kg)
Arsenic	Generic	100
Chromium (III)	Clay content 20%	510
Copper	CEC 10cmol/kg, pH 6.0, organic carbon 2%	210
Lead	Generic	1,100
Nickel	CEC 10cmol/kg	170
Zinc	CEC 10cmol/kg, pH 6.0	480
Naphthalene	Generic	170

EIL – Ecological investigation level

Table 3. Soil assessment criteria – Heavy metals and hydrocarbons(mg/kg) (NEPC 1999) for residential land-use

Analyte	*HIL A* *Residential*	*HSL A* *Residential Sandy soil 0m to <1m*	*EIL* *Residential*	*ESL* *Residential Coarse soil*	*Management limits* *Residential Coarse soil*
Arsenic	100	-	100	-	-
Cadmium	20	-	-	-	-
Chromium	100[1]	-	510[2]	-	-
Copper	6,000	-	210	-	-
Lead	300	-	1,100	-	-
Nickel	400	-	170	-	-
Zinc	7,400	-	480	-	-
Mercury	40	-	-	-	-
F1 (TRH C6-10)	-	45	-	180	700
F2 (TRH C10-16)	-	110	-	120	1,000
F3 (TRH C16-34)	-	NA	-	300	2,500
F4 (TRH C34-40)	-	NA	-	2,800	10,000
Benzene	-	0.5	-	50	-
Toluene	-	160	-	85	-
Ethylbenzene	-	55	-	70	-
Xylenes	-	40	-	105	-
Naphthalene	-	3	170	-	-
Benzo(a)pyrene	-	-	-	0.7	-
Carcinogenic PAH	3	-	-	-	-
PAH (Total)	300	-	-	-	-

HIL – health investigation levels, HSL – health screening level, EIL – ecological investigation levels, ESL – ecological screening level, NL – non limiting, NA – not applicable, [1] Threshold for Chromium (VI), [2] Threshold for Chromium (III)

Asbestos screening levels for residential land used is no visible asbestos on the surface.

The aesthetic state of sites is required to be assessed in PSI. Aesthetic issues generally relate to the presence of materials with a negligible risk or non-hazardous inert foreign material in soil or fill resulting from human activity. Sites that have been assessed as being acceptable from a human health and environmental perspective may still contain such foreign material. An assessment of the site aesthetics requires consideration of the natural state of soil on any given site, and a comparison between it and the soil encountered during investigation works. Soils on site should not exhibit discolouration staining), amalodorous nature (odours) or abnormal consistency (rubble and asbestos).

12. Results and discussion

12.1 Visual inspection

An electrical services depot historically operated on the site. Several buildings and infrastructure were formerly located on-site. The site was decommissioned in 2012 and infrastructure removed in 2023. Vegetation on the site was generally 70%.

The site was vacant at the time of the inspection, the site surface comprised grasses, broadleaved weeds. Areas of exposed soil and gravel were identified across the roads and buildings footprint. Fragments of timber, tiles and concrete comprising rubble from the demolition works were identified over the site. No cement sheet was identified over the surface from visual inspection.

12.2 General site

Levels of heavy metals were less than the adopted residential thresholds for human health and environment in all soil samples collected from the general site (Table 4).

Table 4. Analytical results and threshold concentrations (heavy metals) – general site (mg/kg)

Sample ID	Arsenic	Cadmium	Chromium (total)	Copper	Lead	Nickel	Zinc	Mercury
BH1-100	2	<0.3	18	4.4	6	7.7	23	<0.05
BH1-500	2	<0.3	23	3.3	7	9.6	27	<0.05
BH2-100	<1	<0.3	23	1.9	6	10	20	<0.05
BH2-500	1	<0.3	36	1.4	10	16	24	<0.05
BH3-100	1	<0.3	29	4.2	9	12	41	<0.05
BH3-500	2	<0.3	28	4.8	9	12	35	<0.05
BH4-100	2	<0.3	16	9.6	15	7.4	39	<0.05
BH4-500	2	<0.3	35	3.7	11	14	27	<0.05
BH5-100	2	<0.3	27	3.6	8	11	44	<0.05
BH5-500	1	<0.3	40	3.2	11	16	31	<0.05
BH6-100	<1	<0.3	22	2.3	6	9.3	20	<0.05
BH6-500	<1	<0.3	26	2.0	6	11	21	<0.05
BH7-100	4	<0.3	9.4	12	25	8.5	36	<0.05
BH7-500	2	<0.3	37	4.5	14	15	33	<0.05
BH8-100	2	<0.3	17	7.8	9	7.6	30	<0.05
BH8-500	1	<0.3	38	4.3	10	15	30	<0.05
BH9-100	2	0.4	22	18	30	10	78	<0.05
BH9-500	<1	<0.3	20	2.2	6	8.5	19	<0.05
BH12-100	4	<0.3	18	13	16	4.9	75	<0.05
BH12-500	1	<0.3	26	6.4	12	11	53	<0.05
BH13-100	<1	<0.3	24	5.9	8	11	41	<0.05
BH13-500	1	<0.3	28	5.5	7	12	31	<0.05
Health Investigation Levels – Residential land-use threshold (NEPC 1999)								
	100	*20*	*100[1]*	*6,000*	*300*	*400*	*7,400*	*40*
Ecological Investigation Levels – Urban residential and public open space (NEPC 1999)								
	100	*-*	*510[2]*	*210*	*1,100*	*170*	*480*	*-*

[1] Chromium VI, [2] Chromium III, **Bold** exceeding one or more adopted thresholds

The levels of all assessed hydrocarbons contaminants in boreholes drilled on the general site were low or below the level of detection and adopted thresholds (Table 5). Low levels of carcinogenic PAH and benzo(a)pyrene were detected in samples BH1-100, BH1-500, BH5-100 and BH8-100. Low levels of TRH(C16-C34) were identified in the samples from BH5-100 and BH9-100.

Table 5. Analytical results and threshold concentrations (hydrocarbons) – general site (mg/kg)

Sample ID	TRH (C6-10)	TRH (>C10-C16)	TRH (>C16-C34)	TRH (>C34-C40)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PAH (total)	Carcinogenic PAH	Benzo(a)pyrene
BH1-100	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	0.1
BH1-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	2.5	0.6	0.4
BH2-100	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH2-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH3-100	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH3-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH4-100	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH4-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH5-100	<25	<25	160	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	0.1
BH5-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH6-100	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH6-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH7-100	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH7-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH8-100	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	3.4	0.6	0.3
BH8-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH9-100	<25	<25	100	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH9-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH12-100	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH12-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH13-100	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH13-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
HSL A – Residential (sandy soil)												
0m to <1m	*45*	*110*	*-*	*-*	*0.5*	*160*	*55*	*40*	*3*	*-*	*-*	*-*
HIL A – Residential												
	-	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*300*	*3*	*-*
EIL – Urban residential and public open spaces												
	-	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*170*	*-*	*-*	*-*
ESL – Urban residential and public open spaces (coarse soi)												
	180	*120*	*300*	*2,800*	*50*	*85*	*70*	*105*	*-*	*-*	*-*	*0.7*
Management limits – Residential (coarse soil)												
	700	*1,000*	*2,500*	*10,000*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*

NA – not applicable, NL – Not limiting

12.3 Former building locations

Levels of heavy metals were less than the adopted residential thresholds for human health and environment for all soil samples collected from the former building locations (Table 6).

The levels of all assessed hydrocarbons contaminants in boreholes drilled over the former building locations were low or below the level of detection (Table 7). Low levels of hydrocarbons were identified in samples BH25-100, BH25-200, BH28-100, BH28-500 and BH30-100. The levels were less than the adopted human health and ecological thresholds.

Dark grey fill was identified in BH25 from 0.1 to 0.2m. Levels of all potential contaminants in the sample collected from the grey fill was less than adopted thresholds. (Tables 6 and 7).

Table 6. Analytical results and threshold concentrations (heavy metals) – Former building locations (mg/kg)

Sample ID	Arsenic	Cadmium	Chromium (total)	Copper	Lead	Nickel	Zinc	Mercury
BH25-100	4	<0.3	21	12	10	4.0	42	<0.05
BH25-200	2	<0.3	9.9	19	7	3.4	14	<0.05
BH25-500	<1	<0.3	19	3.2	7	9.2	21	<0.05
BH26-100	2	<0.3	28	5.2	10	12	48	<0.05
BH26-500	1	<0.3	33	4.5	10	13	46	<0.05
BH27-100	1	<0.3	24	2.5	7	9.7	23	<0.05
BH27-500	2	<0.3	40	2.6	11	16	26	<0.05
BH28-100	1	<0.3	27	9.8	11	11	46	<0.05
BH28-500	1	<0.3	33	1.3	9	16	25	<0.05
BH29-100	<1	<0.3	28	2.2	7	12	22	<0.05
BH29-500	1	<0.3	26	6.2	12	11	49	<0.05
BH30-100	2	<0.3	28	6.0	44	12	54	<0.05
BH30-500	2	<0.3	38	5.8	13	15	35	<0.05
Health Investigation Levels – Residential land-use threshold (NEPC 1999)								
	100	*20*	*100[1]*	*6,000*	*300*	*400*	*7,400*	*40*
Ecological Investigation Levels – Urban residential and public open space (NEPC 1999)								
	100	*-*	*510[2]*	*210*	*1,100*	*170*	*480*	*-*

[1] Chromium VI, [2] Chromium III, **Bold** exceeding one or more adopted thresholds

Table 7. Analytical results and threshold concentrations (hydrocarbons) – Former building locations (mg/kg)

Sample ID	TRH (C6-10)	TRH (>C10-C16)	TRH (>C16-C34)	TRH (>C34-C40)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PAH	Carcinogenic PAH	Benzo(a)pyrene
BH25-100	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	2.9	<0.3	<0.1
BH25-200	<25	55	<90	<120	<0.1	<0.1	<0.1	<0.3	1.0	13	<0.3	<0.1
BH25-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH26-100	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	0.1
BH26-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH27-100	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH27-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH28-100	<25	<25	230	200	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH28-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	3.5	0.7	0.4
BH29-100	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH29-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH30-100	<25	<25	150	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH30-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
HSL A – Residential (clay soil)												
0m to <1m	*45*	*110*	*NA*	*NA*	*0.5*	*160*	*55*	*40*	*3*	*-*	*-*	*-*
HIL A – Residential												
	-	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*300*	*3*	*-*
EIL – Urban residential and public open spaces												
	-	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*170*	*-*	*-*	*-*
ESL – Urban residential and public open spaces (fine soi)												
	180	*120*	*300*	*2,800*	*50*	*85*	*70*	*105*	*-*	*-*	*-*	*0.7*
Management limits – Residential (fine soil)												
	700	*1,000*	*2,500*	*10,000*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*

NA – not applicable, NL – Not limiting

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13. Site characterisation

13.1 Environmental contamination

Not applicable as no contamination detected.

13.2 Chemical degradation production

Not applicable as no contamination detected.

13.3 Exposed population

Not applicable as no contamination detected.

14. Conclusions and recommendations

14.1 Summary

An inspection of the site was made on 3 April 2024. Historical land-use was as an Essential Energy depot. Previous assessments indicated that residual contamination is located within the greater lot to the south of the investigation area.

Surface cover was generally 70%. The site surface comprised grasses, broadleaved weeds and areas of exposed soil and gravel. Fragments of timber, tiles and concrete comprising rubble from the demolition works were identified over the site. No cement sheet was identified within the investigation area.

Soils identified on-site consisted of a non-contiguous layer of fill of brown silty to gravelly sand ranging from 0.1 to 0.3m over brown to reddish brown silty sand overlying brown clayey to silty sand and silty clay to the drilling depth.

Assessment of the Phase A stage comprised eleven boreholes drilled on the general site on an approximate 20m grid pattern and six boreholes drilled on the former building locations on an approximate 6m grid pattern. Soil samples were collected from below the surface (0.1m) and drilling depth (0.5m) and analysed for the contaminants of concern. Contaminants of concern within the general area are heavy metals, total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN) and polycyclic aromatic hydrocarbons (PAH).

The soil sampling program did not detect elevated levels of heavy metals or hydrocarbons in the soil samples analysed from the general site and from the former building locations.

14.2 Assumptions in reaching the conclusions

It is assumed the sampling sites are representative of the site. An accurate history has been obtained and typical past farming practices were adopted.

14.3 Extent of uncertainties

The analytical data relate only to the locations sampled. Soil conditions can vary both laterally and vertically and it cannot be excluded that unidentified contaminants may be present. The sampling density was designed to detect a ‘hot spot’ with a radius of approximately 12m and with a 95% level of confidence.

14.4 Suitability for proposed use of the site

The investigation area comprising Phase A is considered suitable for the proposed development.

14.5 Limitations and constraints on the use of the site

Nil

14.6 Recommendation for further work

The remaining building materials identified on the site surface should be removed as they represent an amenity issue.

An unexpected finds procedure should be adopted for site development works due to potential for foreign material and asbestos containing material under the surface.

15. Report limitations and intellectual property

This report has been prepared for the use of the client to achieve the objectives given the clients requirements. The level of confidence of the conclusion reached is governed by the scope of the investigation and the availability and quality of existing data. Where limitations or uncertainties are known, they are identified in the report. No liability can be accepted for failure to identify conditions or issues which arise in the future and which could not reasonably have been predicted using the scope of the investigation and the information obtained.

The investigation identifies the actual subsurface conditions only at those points where samples are taken, when they are taken. Data derived through sampling and subsequent laboratory testing is interpreted by geologists, engineers or scientists who then render an opinion about overall subsurface conditions, the nature and extent of the contamination, its likely impact on the proposed development and appropriate remediation measures. Actual conditions may differ from those inferred to exist, because no professional, no matter how well qualified, and no sub-surface exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock or time. The actual interface between materials may be far more gradual or abrupt than a report indicates. Actual conditions in areas not sampled may differ from predictions. It is thus important to understand the limitations of the investigation and recognise that we are not responsible for these limitations.

This report, including data contained and its findings and conclusions, remains the intellectual property of Barnson Pty Ltd. A licence to use the report for the specific purpose identified is granted for the persons identified in that section after full payment for the services involved in preparation of the report. This report should not be used by persons or for purposes other than those stated and should not be reproduced without the permission of Barnson Pty Ltd.

16. References

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Figures



Legend

- Lot boundary
- Phase A Investigation area

Figure 1. Site locality		
Phase A - 14 Short Street, Cowra NSW		
	Envirowest Consulting Pty Ltd	
Job: R43874c	Drawn by: FC	Date: 15/04/2024





Legend

- Lot boundary
- Investigation area
- Former infrastructure location
- Slope

Approximate Scale 1: 600

0 6 12 24m

Figure 2. Aerial image (2023) and site layout		
Phase A - 14 Short Street, Cowra NSW		
	Barnson Pty Ltd	
Job: R43874c	Drawn by: FC	Date: 15/04/2024





Legend

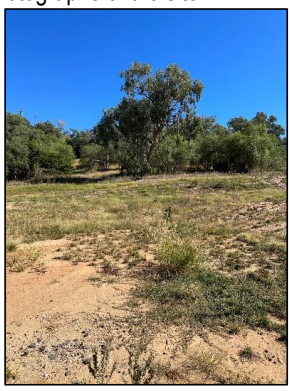
- Lot boundary
- Investigation area
- Former infrastructure location
- Slope
- ⊗ Borehole location – general site
- ☒ Borehole location – building footprint

Approximate Scale 1: 600

0 6 12 24m

Figure 3. Borehole locations		
Phase A - 14 Short Street, Cowra NSW		
	Barnson Pty Ltd	
Job: R43874c	Drawn by: FC	Date: 15/04/2024

Figure 4. Photographs of the site



Looking west from the central section of the site



Looking south from the northern section of the site



Looking east from the western section of the site



Looking south from the northern section of the site

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Appendices

Appendix 1. Sample analysis, quality assurance and quality control (QAQC) report

1. Data quality indicators (DQI) requirements

1.1 Completeness

A measure of the amount of usable data for a data collection activity. Greater than 95% of the data must be reliable based on the quality objectives. Where greater than two quality objectives have less reliability than the acceptance criterion the data may be considered with uncertainty.

1.1.1 Field

Consideration	Requirement
Locations and depths to be sampled	Described in the sampling plan. The acceptance criterion is 95% data retrieved compared with proposed. Acceptance criterion is 100% in crucial areas.
SOP appropriate and compiled	Described in the sampling plan.
Experienced sampler	Sampler or supervisor
Documentation correct	Sampling log and chain of custody completed

1.1.2 Laboratory

Consideration	Requirement
Samples analysed	Number according to sampling and quality plan
Analytes	Number according to sampling and quality plan
Methods	EPA or other recognised methods with suitable PQL
Sample documentation	Complete including chain of custody and sample description
Sample holding times	Metals 6 months, OCP 14 days

1.2 Comparability

The confidence that data may be considered to be equivalent for each sampling and analytical event. The data must show little or no inconsistencies with results and field observations.

1.2.1 Field

Consideration	Requirement
SOP	Same sampling procedures to be used
Experienced sampler	Sampler or supervisor
Climatic conditions	Described as may influence results
Samples collected	Sample medium, size, preparation, storage, transport

1.2.2 Laboratory

Consideration	Requirement
Analytical methods	Same methods, approved methods
PQL	Same
Same laboratory	Justify if different
Same units	Justify if different

1.3 Representativeness

The confidence (expressed qualitatively) that data are representative of each media present on the site.

1.3.1 Field

Consideration	Requirement
Appropriate media sampled	Sampled according to sampling and quality plan or in accordance with the EPA (2022) sampling guidelines.
All media identified	Sampling media identified in the sampling and quality plan. Where surface water bodies on the site sampled.

1.3.2 Laboratory

Consideration	Requirement
Samples analysed	Blanks

1.4 Precision

A quantitative measure of the variability (or reproduced of the data). Is measured by standard deviation or relative percent difference (RPD). An RPD analysis is calculated and compared to the adopted criteria of 30%.

Data not conforming to the acceptance criterion will be examined for determination of suitability for the purpose of site characterisation.

1.4.1 Field

Consideration	Requirement
Field duplicates	Frequency of 5%, results to be within RPD or discussion required indicate the appropriateness of SOP

1.4.2 Laboratory

Consideration	Requirement
Laboratory and inter lab duplicates	Frequency of 5%, results to be within RPD or discussion required. Inter laboratory duplicates will be one sample per batch.
Field duplicates	Frequency of 5%, results to be within RPD or discussion required
Laboratory prepared volatile trip spikes	One per sampling batch, results to be within RPD or discussion required

1.5 Accuracy

A quantitative measure of the closeness of the reported data to the true value.

1.5.1 Field

Consideration	Requirement
SOP	Complied
Inter laboratory duplicates	Frequency of 5%. Analysis criterion 60% RPD for levels greater than 10 times the PQL 85% RPD for levels between 5 to 10 times the PQL 100% RPD at levels between 2 to 5 times the PQL Absolute difference, 3.5 times the PQL where levels are, 2 times PQL

1.5.2 Laboratory

Recovery data (surrogates, laboratory control samples and matrix spikes) data subject to the following control limits:

- 60-140% acceptable data
- 20-60% discussion required, may be considered acceptable
- 10-20% data should considered as estimates
- 10% data should be rejected

Consideration	Requirement
Field blanks	Frequency of 5%, <5 times the PQL, PQL may be adjusted
Rinsate blanks	Frequency of 5%, <5 times the PQL, PQL may be adjusted
Method blanks	Frequency of 5%, <5 times the PQL, PQL may be adjusted
Matrix spikes	Frequency of 5%, results to be within +/-40% or discussion required
Matrix duplicates	Sample injected with a known concentration of contaminants with tested. Frequency of 5%, results to be within +/-40% or discussion required
Surrogate spikes	QC monitoring spikes to be added to samples at the extraction process in the laboratory where applicable. Surrogates are closely related to the organic target analyte and not normally found in the natural environment. Frequency of 5%, results to be within +/-40% or discussion required
Laboratory control samples	Externally prepared reference material containing representative analytes under investigation. These will be undertaken at one per batch. It is to be within +/-40% or discussion required
Laboratory prepared spikes	Frequency of 5%, results to be within +/-40% or discussion required

2. Laboratory analysis summary

One analysis batch was undertaken over the preliminary investigation program. Samples were collected on 3 April 2024. A total of 99 samples were submitted for analytical testing. The analysis batch contained samples which did not form part of this investigation. The samples were collected in the field by an environmental scientist from Barnson Pty Ltd, placed into laboratory prepared receptacles as recommended in NEPM (1999). The samples preservation and storage was undertaken using standard industry practices. A chain of custody form accompanied transport of the samples to the laboratory.

The samples were analysed at the laboratories of SGS laboratories, Alexandria NSW which is National Association of Testing Authorities (NATA) accredited for the tests undertaken. The analyses undertaken, number of samples tested and methods are presented in the following tables:

Laboratory analysis schedule

Sample id.	Number of samples	Duplicate	Analyses	Date collected	Substrate	Laboratory report
BH1-100, BH1-500, BH2-100, BH2-500, BH3-100, BH3-500, BH4-100, BH4-500, BH5-100, BH5-500, BH6-100, BH6-500, BH7-100, BH7-500, BH8-100, BH8-500, BH9-100, BH9-500, BH10-100, BH10-500, BH11-100, BH11-500, BH12-100, BH12-500, BH12-500, BH13-100, BH13-500, BH14-100, BH14-500, BH15-100, BH15-500, BH16-100, BH16-500, BH17-100, BH17-500, BH18-100, BH18-500, BH20-100, BH20-500, BH21-100, BH21-500, BH22-100, BH22-500, BH23-100, BH23-500, BH24-100, BH24-500, BH25-100, BH25-200, BH25-500, BH26-100, BH26-500, BH27-100, BH27-500, BH28-100, BH28-500V BH29-100, BH29-500, BH30-100, BH30-500, BH31-100, BH31-500, BH32-100, BH32-500, BH33-100, BH33-	99	5	Arsenic (As), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), nickel (Ni), zinc (Zn), mercury (Hg), Total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene, xylenes and naphthalene (BTEXN), polycyclic aromatic hydrocarbons (PAH)	03/04/2024	Soil	SE263256

1000, BH33-3000, BH34-500, BH34-1000, BH34-3000, BH35-500, BH35-1000, BH35-3000, BH36-500, BH36-1000, BH36-3000, BH37-500, BH37-1000, BH37-3000, BH38-500, BH38-1000, BH38-3000, BH39-300, BH39-800, BH40-100, BH40-500, BH40-1000, BH40-3000, BH41-500, BH41-1000, BH41-3000, BH46-100, BH46-500		

Analytical methods

Analyte	Extraction	Laboratory methods
Metals	USEPA 200.2 Mod	APHA USEPA SW846-6010
Chromium (III)	-	APHA 3500 CR-A&B & 3120 and USEPA SW846-3060A
Chromium (VI)	USEPA SW846-3060A	USEPA SW846-3060A
Mercury	USEPA 200.2 Mod	APHA 3112
TRH(C6-C9)	USPEA SW846-5030A	USPEA SW 846-8260B
TRH(C10-C40), PAH	Tumbler extraction of solids	USEPA SW 846-8270B
PCB	Tumbler extraction of solids	USEPA SW 846-8270B
BTEX	Tumbler extraction of solids	USEPA SW 846-8260B
OC Pesticides	Tumbler extraction of solids	USEPA SW 846-8270B
Phenols	Tumbler extraction of solids	USEPA SW 846-8270B

3. Field quality assurance and quality control

Five laboratory duplicate samples were collected for the investigation. The frequency was 6% which was in accordance with the recommended frequency of 5%. Table A1 outlines the samples collected and differences in replicate analyses. Relative differences were deemed to pass if they were within the acceptance limits of +/- 30% for replicate analyses or less than 5 times the detection limit. Samples

Field duplicate frequency

Sample id.	Number of samples	Duplicate	Frequency (%)	Date collected	Substrate	Laboratory report
BH1-100, BH1-500, BH2-100, BH2-500, BH3-100, BH3-500, BH4-100, BH4-500, BH5-100, BH5-500, BH6-100, BH6-500, BH7-100, BH7-500, BH8-100, BH8-500, BH9-100, BH9-500, BH10-100, BH10-500, BH11-100, BH11-500, BH12-100, BH12-500, BH12-500, BH13-100, BH13-500, BH14-100, BH14-500, BH15-100, BH15-500, BH16-100, BH16-500, BH17-100, BH17-500, BH18-100, BH18-500, BH20-100, BH20-500, BH21-100, BH21-500, BH22-100, BH22-500, BH23-100, BH23-500, BH24-100, BH24-500, BH25-100, BH25-200, BH25-500, BH26-100, BH26-500, BH27-100, BH27-500, BH28-100, BH28-500V BH29-100, BH29-500, BH30-100, BH30-500, BH31-100, BH31-500, BH32-100, BH32-500, BH33-100,	99	5	5	03/04/2024	Soil	SE263256

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BH33-1000, BH33-3000, BH34-500, BH34-1000, BH34-3000, BH35-500, BH35-1000, BH35-3000, BH36-500, BH36-1000, BH36-3000, BH37-500, BH37-1000, BH37-3000, BH38-500, BH38-1000, BH38-3000, BH39-300, BH39-800, BH40-100, BH40-500, BH40-1000, BH40-3000, BH41-500, BH41-1000, BH41-3000, BH42-100, BH42-500, BH43-100, BH43-500, BH44-100, BH44-500, BH46-100, BH46-500

Table A1. Relative differences for intra laboratory duplicates

	BH1-100	DA	Relative difference (%)	Pass/Fail	BH10-500	DB	Relative difference (%)	Pass/Fail
Arsenic	2	2	0	Pass	2	1	67	Pass*
Cadmium	<0.3	<0.3	NA	Pass	<0.3	<0.3	NA	Pass
Chromium (total)	18	24	29	Pass	20	25	22	Pass
Copper	4.4	4.2	5	Pass	3.5	3.2	9	Pass
Lead	6	8	29	Pass	16	8	67	Fail
Nickel	7.7	10	26	Pass	8.6	11	24	Pass
Zinc	23	26	12	Pass	30	23	26	Pass
Mercury	<0.05	<0.05	NA	Pass	<0.05	<0.05	NA	Pass

NA – relative difference unable to be calculated as results are less than laboratory detection limit, *Results less than five times the detection limit, *resuls less than five time the detection limit

	BH20-100	DC	Relative difference (%)	Pass/Fail	BH30-100	DD	Relative difference (%)	Pass/Fail
Arsenic	2	2	0	Pass	2	2	0	Pass
Cadmium	<0.3	<0.3	NA	Pass	<0.3	<0.3	NA	Pass
Chromium (total)	24	24	0	Pass	28	28	0	Pass
Copper	5.7	5.0	13	Pass	6.0	5.2	14	Pass
Lead	8	7	13	Pass	44	31	35	Fail
Nickel	11	11	0	Pass	12	12	0	Pass
Zinc	34	29	16	Pass	54	44	20	Pass
Mercury	<0.05	<0.05	NA	Pass	<0.05	<0.05	NA	Pass

NA – relative difference unable to be calculated as results are less than laboratory detection limit, *Results less than five times the detection limit

	BH40-100	DE	Relative difference (%)	Pass/Fail
Arsenic	5	5	0	Pass
Cadmium	<0.3	<0.3	NA	Pass
Chromium (total)	21	20	5	Pass
Copper	9.3	10	7	Pass
Lead	10	12	18	Pass
Nickel	9.4	9.1	3	Pass
Zinc	36	36	0	Pass
Mercury	<0.05	<0.05	NA	Pass

NA – relative difference unable to be calculated as results are less than laboratory detection limit, *Results less than five times the detection limit

No trip blanks or spikes were submitted for analysis. This is not considered to create significant uncertainty in the analysis results because of the following rationale:

- The fieldwork was completed within a short time period and consistent methods were used for soil sampling.

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- Soil samples were placed in insulated cooled containers after sampling to ensure preservation during transport and storage.
- The samples were placed in single use jars using clean sampling tools and disposable gloves from material not in contact with other samples. This reduces the likelihood of cross contamination.
- Samples in the analysis batch contain analytes below the level of detection. It is considered unlikely that contamination has occurred as a result of transport and handling.

4. Laboratory quality assurance and quality control

Sample holding times are recommended in NEPM (1999). The time between collection and extraction was generally less than the criteria listed below:

Analyte	Maximum holding time
Metals	6 months
Mercury	28 days
BTEXN, TRH, PAH, OCP, OPP	14 days

The laboratory interpretative reports are presented with individual laboratory report. Assessment is made of holding time, frequency of control samples and quality control samples. The laboratory report also contains a detailed description of preparation methods and analytical methods.

The results, quality report, interpretative report and chain of custody are presented in the attached appendices. The quality report contains the laboratory duplicates, spikes, laboratory control samples, blanks and where appropriate matrix spike recovery (surrogate).

5. Data quality indicators (DQI)

5.1 Completeness

A measure of the amount of usable data for a data collection activity (total to be greater than 90%)

5.1.1 Field

Consideration	Accepted	Comment
Locations to be sampled	Yes	In accordance with sampling methodology, described in the report.
SOP appropriate and compiled	Yes	In accordance with sampling methodology
Experienced sampler	Yes	Environmental scientist
Documentation correct	Yes	Chain of custody completed

5.1.2 Laboratory

Consideration	Accepted	Comment
Samples analysed	Yes	In accordance with chain of custody and analysis plan.
Analytes	Yes	In accordance with chain of custody and analysis plan.
Methods	Yes	Analysed in NATA accredited laboratory with recognised methods and suitable PQL
Sample documentation	Yes	Completed including chain of custody and sample results and quality results
Sample holding times	Yes	Metals < 6 months, CrVI <30 days Mercury < 28 days OCP, OPP, PAH, TRH, PCB, BTEXN < 14 days

5.2 Comparability

The confidence that data may be considered to be equivalent for each sampling and analytical event.

5.2.1 Field

Consideration	Accepted	Comment
SOP	Yes	Same sampling procedures used and sampled on one date
Experienced sampler	Yes	Experienced environmental scientist
Climatic conditions	Yes	Sampling log
Samples collected	Yes	Suitable size and storage

5.2.2 Laboratory

Consideration	Accepted	Comment
Analytical methods	Yes	Same methods all samples
PQL	Yes	Suitable for analytes
Same laboratory	Yes	-
Same units	Yes	-

5.3 Representativeness

The confidence (expressed qualitatively) that data are representative of each media present on the site.

5.3.1 Field

Consideration	Accepted	Comment
Appropriate media sampled	Yes	Sampled according to sampling and quality plan
All media identified	Yes	Soil sampling media identified in the sampling and quality plan

5.3.2 Laboratory

Consideration	Accepted	Comment
Samples analysed	Yes	Undertaken in NATA accredited laboratory. Samples in the analysis batch contain analytes below the level of detection. It is considered unlikely that contamination has occurred as a result of transport and handling.

5.4 Precision

A quantitative measure of the variability (or reproduced of the data)

5.4.1 Field

Consideration	Accepted	Comment
SOP	Yes	Complied
Field duplicates	Yes	Collected

5.4.2 Laboratory

Consideration	Accepted	Comment
Laboratory duplicates	No	Frequency of 5%, results to be within +/-40% or discussion required. At least 2 of 3 surrogates are within acceptance criteria. Recovery failed acceptance criteria due to matrix interference.
Field duplicates (intra and inter laboratory)	No	Frequency of 5%, results to be within +/-30% or discussion required. RPD exceedances occurred, not expected to impact the conclusions.
Laboratory prepared volatile trip spikes	NA	Frequency of 5%, results to be within +/-30% or discussion required.

5.5 Accuracy

A quantitative measure of the closeness of the reported data to the true value

5.5.1 Field

Consideration	Accepted	Comment
SOP	Yes	Complied
Field blanks	No	Not collected

5.5.2 Laboratory

Consideration	Accepted	Comment
Method blanks	Yes	Frequency of 5%, <5 times the PQL, PQL may be adjusted
Matrix spikes	No	Frequency of 5%, results to be within +/-40% or discussion required. At least 2 of 3 surrogates are within acceptance criteria. Recovery failed acceptance criteria due to matrix interference. Recovery failed acceptance criteria due to sample heterogeneity
Matrix duplicates	Yes	Frequency of 5%, results to be within +/-40% or discussion required.
Surrogate spikes	No	Frequency of 5%, results to be within +/-40% or discussion required. At least 2 of 3 surrogates are within acceptance criteria. RPD failed acceptance criteria due to sample heterogeneity.
Laboratory control samples	Yes	Frequency of 5%, results to be within +/-40% or discussion required.
Laboratory prepared spikes	Yes	Frequency of 5%, results to be within +/-40% or discussion required.

No trip blanks, field spikes or sample rinsates were submitted for analysis. This is not considered to create significant uncertainty in the analysis results because of the following rationale:

- The fieldwork methods used for soil sampling were consistent throughout the project with all in situ samples collected from material which had not been subject to exposure.
- The fieldwork was completed within a short time period and consistent methods were used for soil sampling.
- Soil samples were placed in insulated cooled containers as quickly as possible, with the containers filled to minimize headspace. The sample containers were sealed immediately after the sample was collected and chilled in an esky containing ice.
- The samples were stored in a refrigerator and transported with ice bricks to ensure preservation during transport and storage.
- The samples were placed in single use jars using clean sampling tools and disposable gloves from material not in contact with other samples. This reduces the likelihood of cross contamination.
- Samples in the analysis batches contained analytes below the level of detection. It is considered unlikely that contamination has occurred as a result of transport and handling.

6. Conclusion

All media appropriate to the objectives of this investigation have been adequately analysed and no area of significant uncertainty exist. It is concluded the data is usable for the purposes of the investigation.

Appendix 2. Field sampling log

Sampling log

Client	Cowra Early Childhood Services
Contact	Libby Ewig-Jarvie
Job number	43874
Location	104 Short Street, Cowra NSW
Date	3 March 2024
Investigator	Felipe Canavez
Weather conditions	Fine and hot

Sample ID	Matrix	Date	Analysis required	Observations/comments
BH1-100	Soil	03/04/2024	Arsenic (As), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), Nickel (Ni), zinc (Zn), mercury (Hg), total recoverable hydrocarbons (TRH (C6-C40)), benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN), polycyclic aromatic hydrocarbons (PAH)	General site
BH1-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH2-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH2-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH3-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH3-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH4-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH4-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH5-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH5-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH6-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH6-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH7-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH7-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH8-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH8-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH9-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH9-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH10-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH10-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH11-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH11-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH12-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH12-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH12-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH13-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH13-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH14-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH14-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH15-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH15-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH16-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH16-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH17-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH17-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH18-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH18-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH20-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH20-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH21-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH21-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site

Sample ID	Matrix	Date	Analysis required	Observations/comments
BH22-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Electrical storage building footprint
BH22-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Electrical storage building footprint
BH23-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Electrical storage building footprint
BH23-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Electrical storage building footprint
BH24-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Workshop/ storage shed building footprint
BH24-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Workshop/ storage shed building footprint
BH25-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Workshop/ storage shed building footprint
BH25-200	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Workshop/ storage shed building footprint
BH25-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Workshop/ storage shed building footprint
BH26-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Workshop/ storage shed building footprint
BH26-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Workshop/ storage shed building footprint
BH27-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Workshop/ storage shed building footprint
BH27-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Workshop/ storage shed building footprint
BH28-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Electrical equipment storage building footprint
BH28-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Electrical equipment storage building footprint
BH29-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Electrical equipment storage building footprint
BH29-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Electrical equipment storage building footprint
BH30-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former truck storage building footprint
BH30-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former truck storage building footprint
BH31-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Brick office building footprint
BH31-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Brick office building footprint
BH32-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Brick office building footprint
BH32-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Brick office building footprint
BH33-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH33-1000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH33-3000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH34-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH34-1000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH34-3000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH35-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH35-1000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH35-3000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH36-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH36-1000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH36-3000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH37-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH37-1000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH37-3000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH38-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH38-1000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST

Sample ID	Matrix	Date	Analysis required	Observations/comments
BH38-3000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH39-300	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Landfill
BH39-800	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Landfill
BH40-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH40-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH40-1000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH40-3000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH41-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH41-1000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH41-3000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former UST
BH42-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH, phenols, organochlorine pesticides (OCP)	Former pole storage area
BH42-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH, phenols, OCP	Former pole storage area
BH43-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH, phenols, OCP	Former pole storage area
BH43-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH, phenols, OCP	Former pole storage area
BH44-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH, phenols, OCP	Former pole storage area
BH44-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH, phenols, OCP	Former pole storage area
BH46-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former waste drum location
BH46-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former waste drum location
DA	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg	Duplicate of BH1-100
DB	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg	Duplicate of BH10-500
DC	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg	Duplicate of BH20-100
DD	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg	Duplicate of BH30-100
DE	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg	Duplicate of BH40-100

Appendix 3. Soil analysis results – SGS report number SE263256 and chain of custody forms

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS		LABORATORY DETAILS	
Contact	Felipe Canavez	Manager	Huong Crawford
Client	ENVIROWEST CONSULTING PTY LIMITED	Laboratory	SGS Alexandria Environmental
Address	PO BOX 8158 NSW 2800	Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	61 2 63614954	Telephone	+61 2 8594 0400
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499
Email	Fcanavez@barnson.com.au	Email	au.environmental.sydney@sgs.com
Project	**43874**	SGS Reference	**SE263256 R0**
Order Number	**43874**	Date Received	5/4/2024
Samples	104	Date Reported	16/4/2024

COMMENTS

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

SIGNATORIES

Akheeqar BENIAMEEN
Chemist

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Metals/Inorganics Team Leader

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Organic Chemist

SGS

ANALYTICAL RESULTS SE263256 R0

VOC's in Soil [AN433] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH1-100 SOIL - 3/4/2024 SE263256.001	BH1-500 SOIL - 3/4/2024 SE263256.002	BH2-100 SOIL - 3/4/2024 SE263256.003	BH2-500 SOIL - 3/4/2024 SE263256.004	BH3-100 SOIL - 3/4/2024 SE263256.005
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH3-500 SOIL - 3/4/2024 SE263256.006	BH4-100 SOIL - 3/4/2024 SE263256.007	BH4-500 SOIL - 3/4/2024 SE263256.008	BH5-100 SOIL - 3/4/2024 SE263256.009	BH5-500 SOIL - 3/4/2024 SE263256.010
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH6-100 SOIL - 3/4/2024 SE263256.011	BH6-500 SOIL - 3/4/2024 SE263256.012	BH7-100 SOIL - 3/4/2024 SE263256.013	BH7-500 SOIL - 3/4/2024 SE263256.014	BH8-100 SOIL - 3/4/2024 SE263256.015
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH8-500 SOIL - 3/4/2024 SE263256.016	BH9-100 SOIL - 3/4/2024 SE263256.017	BH9-500 SOIL - 3/4/2024 SE263256.018	BH10-100 SOIL - 3/4/2024 SE263256.019	BH10-500 SOIL - 3/4/2024 SE263256.020
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	**0.4**	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.1**	<0.1
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	**0.5**	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	**0.5**	<0.3

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ANALYTICAL RESULTS SE263256 R0

VOC's in Soil [AN433] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH11-100 SOIL - 3/4/2024 SE263256.021	BH11-500 SOIL - 3/4/2024 SE263256.022	BH12-100 SOIL - 3/4/2024 SE263256.023	BH12-500 SOIL - 3/4/2024 SE263256.024	BH13-100 SOIL - 3/4/2024 SE263256.025
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH13-500 SOIL - 3/4/2024 SE263256.026	BH14-100 SOIL - 3/4/2024 SE263256.027	BH14-500 SOIL - 3/4/2024 SE263256.028	BH15-100 SOIL - 3/4/2024 SE263256.029	BH15-500 SOIL - 3/4/2024 SE263256.030
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH16-100 SOIL - 3/4/2024 SE263256.031	BH16-500 SOIL - 3/4/2024 SE263256.032	BH17-100 SOIL - 3/4/2024 SE263256.033	BH17-500 SOIL - 3/4/2024 SE263256.034	BH18-100 SOIL - 3/4/2024 SE263256.035
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH18-500 SOIL - 3/4/2024 SE263256.036	BH20-100 SOIL - 3/4/2024 SE263256.037	BH20-500 SOIL - 3/4/2024 SE263256.038	BH21-100 SOIL - 3/4/2024 SE263256.039	BH21-500 SOIL - 3/4/2024 SE263256.040
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

SGS

ANALYTICAL RESULTS SE263256 R0

VOC's in Soil [AN433] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH22-100 SOIL - 3/4/2024 SE263256.041	BH22-500 SOIL - 3/4/2024 SE263256.042	BH23-100 SOIL - 3/4/2024 SE263256.043	BH23-500 SOIL - 3/4/2024 SE263256.044	BH24-100 SOIL - 3/4/2024 SE263256.045
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH24-500 SOIL - 3/4/2024 SE263256.046	BH25-100 SOIL - 3/4/2024 SE263256.047	BH25-200 SOIL - 3/4/2024 SE263256.048	BH25-500 SOIL - 3/4/2024 SE263256.049	BH26-100 SOIL - 3/4/2024 SE263256.050
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	1.0	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH26-500 SOIL - 3/4/2024 SE263256.051	BH27-100 SOIL - 3/4/2024 SE263256.052	BH27-500 SOIL - 3/4/2024 SE263256.053	BH28-100 SOIL - 3/4/2024 SE263256.054	BH28-500 SOIL - 3/4/2024 SE263256.055
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH29-100 SOIL - 3/4/2024 SE263256.056	BH29-500 SOIL - 3/4/2024 SE263256.057	BH30-100 SOIL - 3/4/2024 SE263256.058	BH30-500 SOIL - 3/4/2024 SE263256.059	BH31-100 SOIL - 3/4/2024 SE263256.060
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

SGS

ANALYTICAL RESULTS SE263256 R0

VOC's in Soil [AN433] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH31-500 SOIL - 3/4/2024 SE263256.061	BH32-100 SOIL - 3/4/2024 SE263256.062	BH32-500 SOIL - 3/4/2024 SE263256.063	BH33-100 SOIL - 3/4/2024 SE263256.064	BH33-1000 SOIL - 3/4/2024 SE263256.065
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH33-3000 SOIL - 3/4/2024 SE263256.066	BH34-500 SOIL - 3/4/2024 SE263256.067	BH34-1000 SOIL - 3/4/2024 SE263256.068	BH34-3000 SOIL - 3/4/2024 SE263256.069	BH35-500 SOIL - 3/4/2024 SE263256.070
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH35-1000 SOIL - 3/4/2024 SE263256.071	BH35-3000 SOIL - 3/4/2024 SE263256.072	BH36-500 SOIL - 3/4/2024 SE263256.073	BH36-1000 SOIL - 3/4/2024 SE263256.074	BH36-3000 SOIL - 3/4/2024 SE263256.075
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH37-500 SOIL - 3/4/2024 SE263256.076	BH37-1000 SOIL - 3/4/2024 SE263256.077	BH37-3000 SOIL - 3/4/2024 SE263256.078	BH38-500 SOIL - 3/4/2024 SE263256.079	BH38-1000 SOIL - 3/4/2024 SE263256.080
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

SGS

ANALYTICAL RESULTS SE263256 R0

VOC's in Soil [AN433] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH38-3000 SOIL - 3/4/2024 SE263256.081	BH39-300 SOIL - 3/4/2024 SE263256.082	BH39-800 SOIL - 3/4/2024 SE263256.083	BH40-100 SOIL - 3/4/2024 SE263256.084	BH40-500 SOIL - 3/4/2024 SE263256.085
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH40-1000 SOIL - 3/4/2024 SE263256.086	BH40-3000 SOIL - 3/4/2024 SE263256.087	BH41-500 SOIL - 3/4/2024 SE263256.088	BH41-1000 SOIL - 3/4/2024 SE263256.089	BH41-3000 SOIL - 3/4/2024 SE263256.090
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH42-100 SOIL - 3/4/2024 SE263256.091	BH42-500 SOIL - 3/4/2024 SE263256.092	BH43-100 SOIL - 3/4/2024 SE263256.093	BH43-500 SOIL - 3/4/2024 SE263256.094	BH44-100 SOIL - 3/4/2024 SE263256.095
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH44-500 SOIL - 3/4/2024 SE263256.096	BH46-100 SOIL - 3/4/2024 SE263256.097	BH46-500 SOIL - 3/4/2024 SE263256.098	BH36-100 SOIL - 3/4/2024 SE263256.104
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	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
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	**0.1**
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3

SGS

ANALYTICAL RESULTS SE263256 R0

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH1-100 SOIL - 3/4/2024 SE263256.001	BH1-500 SOIL - 3/4/2024 SE263256.002	BH2-100 SOIL - 3/4/2024 SE263256.003	BH2-500 SOIL - 3/4/2024 SE263256.004	BH3-100 SOIL - 3/4/2024 SE263256.005
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH3-500 SOIL - 3/4/2024 SE263256.006	BH4-100 SOIL - 3/4/2024 SE263256.007	BH4-500 SOIL - 3/4/2024 SE263256.008	BH5-100 SOIL - 3/4/2024 SE263256.009	BH5-500 SOIL - 3/4/2024 SE263256.010
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH6-100 SOIL - 3/4/2024 SE263256.011	BH6-500 SOIL - 3/4/2024 SE263256.012	BH7-100 SOIL - 3/4/2024 SE263256.013	BH7-500 SOIL - 3/4/2024 SE263256.014	BH8-100 SOIL - 3/4/2024 SE263256.015
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH8-500 SOIL - 3/4/2024 SE263256.016	BH9-100 SOIL - 3/4/2024 SE263256.017	BH9-500 SOIL - 3/4/2024 SE263256.018	BH10-100 SOIL - 3/4/2024 SE263256.019	BH10-500 SOIL - 3/4/2024 SE263256.020
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH11-100 SOIL - 3/4/2024 SE263256.021	BH11-500 SOIL - 3/4/2024 SE263256.022	BH12-100 SOIL - 3/4/2024 SE263256.023	BH12-500 SOIL - 3/4/2024 SE263256.024	BH13-100 SOIL - 3/4/2024 SE263256.025
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH13-500 SOIL - 3/4/2024 SE263256.026	BH14-100 SOIL - 3/4/2024 SE263256.027	BH14-500 SOIL - 3/4/2024 SE263256.028	BH15-100 SOIL - 3/4/2024 SE263256.029	BH15-500 SOIL - 3/4/2024 SE263256.030
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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

SGS

ANALYTICAL RESULTS SE263256 R0

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH16-100 SOIL - 3/4/2024 SE263256.031	BH16-500 SOIL - 3/4/2024 SE263256.032	BH17-100 SOIL - 3/4/2024 SE263256.033	BH17-500 SOIL - 3/4/2024 SE263256.034	BH18-100 SOIL - 3/4/2024 SE263256.035
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH18-500 SOIL - 3/4/2024 SE263256.036	BH20-100 SOIL - 3/4/2024 SE263256.037	BH20-500 SOIL - 3/4/2024 SE263256.038	BH21-100 SOIL - 3/4/2024 SE263256.039	BH21-500 SOIL - 3/4/2024 SE263256.040
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH22-100 SOIL - 3/4/2024 SE263256.041	BH22-500 SOIL - 3/4/2024 SE263256.042	BH23-100 SOIL - 3/4/2024 SE263256.043	BH23-500 SOIL - 3/4/2024 SE263256.044	BH24-100 SOIL - 3/4/2024 SE263256.045
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH24-500 SOIL - 3/4/2024 SE263256.046	BH25-100 SOIL - 3/4/2024 SE263256.047	BH25-200 SOIL - 3/4/2024 SE263256.048	BH25-500 SOIL - 3/4/2024 SE263256.049	BH26-100 SOIL - 3/4/2024 SE263256.050
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH26-500 SOIL - 3/4/2024 SE263256.051	BH27-100 SOIL - 3/4/2024 SE263256.052	BH27-500 SOIL - 3/4/2024 SE263256.053	BH28-100 SOIL - 3/4/2024 SE263256.054	BH28-500 SOIL - 3/4/2024 SE263256.055
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH29-100 SOIL - 3/4/2024 SE263256.056	BH29-500 SOIL - 3/4/2024 SE263256.057	BH30-100 SOIL - 3/4/2024 SE263256.058	BH30-500 SOIL - 3/4/2024 SE263256.059	BH31-100 SOIL - 3/4/2024 SE263256.060
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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

SGS

ANALYTICAL RESULTS SE263256 R0

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH31-500 SOIL - 3/4/2024 SE263256.061	BH32-100 SOIL - 3/4/2024 SE263256.062	BH32-500 SOIL - 3/4/2024 SE263256.063	BH33-100 SOIL - 3/4/2024 SE263256.064	BH33-1000 SOIL - 3/4/2024 SE263256.065
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH33-3000 SOIL - 3/4/2024 SE263256.066	BH34-500 SOIL - 3/4/2024 SE263256.067	BH34-1000 SOIL - 3/4/2024 SE263256.068	BH34-3000 SOIL - 3/4/2024 SE263256.069	BH35-500 SOIL - 3/4/2024 SE263256.070
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH35-1000 SOIL - 3/4/2024 SE263256.071	BH35-3000 SOIL - 3/4/2024 SE263256.072	BH36-500 SOIL - 3/4/2024 SE263256.073	BH36-1000 SOIL - 3/4/2024 SE263256.074	BH36-3000 SOIL - 3/4/2024 SE263256.075
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH37-500 SOIL - 3/4/2024 SE263256.076	BH37-1000 SOIL - 3/4/2024 SE263256.077	BH37-3000 SOIL - 3/4/2024 SE263256.078	BH38-500 SOIL - 3/4/2024 SE263256.079	BH38-1000 SOIL - 3/4/2024 SE263256.080
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH38-3000 SOIL - 3/4/2024 SE263256.081	BH39-300 SOIL - 3/4/2024 SE263256.082	BH39-800 SOIL - 3/4/2024 SE263256.083	BH40-100 SOIL - 3/4/2024 SE263256.084	BH40-500 SOIL - 3/4/2024 SE263256.085
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH40-1000 SOIL - 3/4/2024 SE263256.086	BH40-3000 SOIL - 3/4/2024 SE263256.087	BH41-500 SOIL - 3/4/2024 SE263256.088	BH41-1000 SOIL - 3/4/2024 SE263256.089	BH41-3000 SOIL - 3/4/2024 SE263256.090
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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

SGS

ANALYTICAL RESULTS SE263256 R0

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH42-100 SOIL - 3/4/2024 SE263256.091	BH42-500 SOIL - 3/4/2024 SE263256.092	BH43-100 SOIL - 3/4/2024 SE263256.093	BH43-500 SOIL - 3/4/2024 SE263256.094	BH44-100 SOIL - 3/4/2024 SE263256.095
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH44-500 SOIL - 3/4/2024 SE263256.096	BH46-100 SOIL - 3/4/2024 SE263256.097	BH46-500 SOIL - 3/4/2024 SE263256.098	BH36-100 SOIL - 3/4/2024 SE263256.104
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20
TRH C6-C10	mg/kg	25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25

SGS

ANALYTICAL RESULTS SE263256 R0

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH1-100 SOIL - 3/4/2024 SE263256.001	BH1-500 SOIL - 3/4/2024 SE263256.002	BH2-100 SOIL - 3/4/2024 SE263256.003	BH2-500 SOIL - 3/4/2024 SE263256.004	BH3-100 SOIL - 3/4/2024 SE263256.005
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	BH3-500 SOIL - 3/4/2024 SE263256.006	BH4-100 SOIL - 3/4/2024 SE263256.007	BH4-500 SOIL - 3/4/2024 SE263256.008	BH5-100 SOIL - 3/4/2024 SE263256.009	BH5-500 SOIL - 3/4/2024 SE263256.010
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	**150**	<45
TRH C29-C36	mg/kg	45	<45	**62**	<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	**160**	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	**150**	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH6-100 SOIL - 3/4/2024 SE263256.011	BH6-500 SOIL - 3/4/2024 SE263256.012	BH7-100 SOIL - 3/4/2024 SE263256.013	BH7-500 SOIL - 3/4/2024 SE263256.014	BH8-100 SOIL - 3/4/2024 SE263256.015
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

SGS

ANALYTICAL RESULTS SE263256 R0

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH8-500 SOIL - 3/4/2024 SE263256.016	BH9-100 SOIL - 3/4/2024 SE263256.017	BH9-500 SOIL - 3/4/2024 SE263256.018	BH10-100 SOIL - 3/4/2024 SE263256.019	BH10-500 SOIL - 3/4/2024 SE263256.020
TRH C10-C14	mg/kg	20	<20	<20	<20	24	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	170	<45
TRH C29-C36	mg/kg	45	<45	100	<45	360	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	170	<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	100	<90	380	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	310	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	550	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	690	<210

PARAMETER	UOM	LOR	BH11-100 SOIL - 3/4/2024 SE263256.021	BH11-500 SOIL - 3/4/2024 SE263256.022	BH12-100 SOIL - 3/4/2024 SE263256.023	BH12-500 SOIL - 3/4/2024 SE263256.024	BH13-100 SOIL - 3/4/2024 SE263256.025
TRH C10-C14	mg/kg	20	160	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	2600	90	<45	<45	<45
TRH C29-C36	mg/kg	45	780	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	280	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	330	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	330	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	3100	110	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	400	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	3600	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	3900	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH13-500 SOIL - 3/4/2024 SE263256.026	BH14-100 SOIL - 3/4/2024 SE263256.027	BH14-500 SOIL - 3/4/2024 SE263256.028	BH15-100 SOIL - 3/4/2024 SE263256.029	BH15-500 SOIL - 3/4/2024 SE263256.030
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

SGS

ANALYTICAL RESULTS SE263256 R0

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH16-100 SOIL - 3/4/2024 SE263256.031	BH16-500 SOIL - 3/4/2024 SE263256.032	BH17-100 SOIL - 3/4/2024 SE263256.033	BH17-500 SOIL - 3/4/2024 SE263256.034	BH18-100 SOIL - 3/4/2024 SE263256.035
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	**73**
TRH C29-C36	mg/kg	45	**120**	**100**	<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	**130**	**120**	<90	<90	**110**
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	**120**	<110	<110	<110	**120**
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH18-500 SOIL - 3/4/2024 SE263256.036	BH20-100 SOIL - 3/4/2024 SE263256.037	BH20-500 SOIL - 3/4/2024 SE263256.038	BH21-100 SOIL - 3/4/2024 SE263256.039	BH21-500 SOIL - 3/4/2024 SE263256.040
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

PARAMETER	UOM	LOR	BH22-100 SOIL - 3/4/2024 SE263256.041	BH22-500 SOIL - 3/4/2024 SE263256.042	BH23-100 SOIL - 3/4/2024 SE263256.043	BH23-500 SOIL - 3/4/2024 SE263256.044	BH24-100 SOIL - 3/4/2024 SE263256.045
TRH C10-C14	mg/kg	20	**24**	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	**3800**	**46**	<45	<45	<45
TRH C29-C36	mg/kg	45	**2700**	**54**	**53**	<45	<45
TRH C37-C40	mg/kg	100	**440**	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	**60**	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	**60**	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	**6000**	**93**	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	**800**	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	**6600**	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	**6900**	<210	<210	<210	<210

SGS

ANALYTICAL RESULTS SE263256 R0

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH24-500 SOIL - 3/4/2024 SE263256.046	BH25-100 SOIL - 3/4/2024 SE263256.047	BH25-200 SOIL - 3/4/2024 SE263256.048	BH25-500 SOIL - 3/4/2024 SE263256.049	BH26-100 SOIL - 3/4/2024 SE263256.050
TRH C10-C14	mg/kg	20	<20	<20	**48**	<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	**56**	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	**55**	<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	BH26-500 SOIL - 3/4/2024 SE263256.051	BH27-100 SOIL - 3/4/2024 SE263256.052	BH27-500 SOIL - 3/4/2024 SE263256.053	BH28-100 SOIL - 3/4/2024 SE263256.054	BH28-500 SOIL - 3/4/2024 SE263256.055
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	**90**	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	**190**	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	**160**	<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	**230**	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	**200**	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	**280**	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	**430**	<210

PARAMETER	UOM	LOR	BH29-100 SOIL - 3/4/2024 SE263256.056	BH29-500 SOIL - 3/4/2024 SE263256.057	BH30-100 SOIL - 3/4/2024 SE263256.058	BH30-500 SOIL - 3/4/2024 SE263256.059	BH31-100 SOIL - 3/4/2024 SE263256.060
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	**81**	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	**79**	<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	**150**	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	**160**	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

SGS

ANALYTICAL RESULTS SE263256 R0

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH31-500 SOIL - 3/4/2024 SE263256.061	BH32-100 SOIL - 3/4/2024 SE263256.062	BH32-500 SOIL - 3/4/2024 SE263256.063	BH33-100 SOIL - 3/4/2024 SE263256.064	BH33-1000 SOIL - 3/4/2024 SE263256.065
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	**140**	**64**	<45	<45
TRH C29-C36	mg/kg	45	<45	**100**	**57**	**50**	<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	**210**	**110**	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	**240**	**120**	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	**210**	<210	<210	<210

PARAMETER	UOM	LOR	BH33-3000 SOIL - 3/4/2024 SE263256.066	BH34-500 SOIL - 3/4/2024 SE263256.067	BH34-1000 SOIL - 3/4/2024 SE263256.068	BH34-3000 SOIL - 3/4/2024 SE263256.069	BH35-500 SOIL - 3/4/2024 SE263256.070
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	BH35-1000 SOIL - 3/4/2024 SE263256.071	BH35-3000 SOIL - 3/4/2024 SE263256.072	BH36-500 SOIL - 3/4/2024 SE263256.073	BH36-1000 SOIL - 3/4/2024 SE263256.074	BH36-3000 SOIL - 3/4/2024 SE263256.075
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

SGS

ANALYTICAL RESULTS SE263256 R0

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH37-500 SOIL - 3/4/2024 SE263256.076	BH37-1000 SOIL - 3/4/2024 SE263256.077	BH37-3000 SOIL - 3/4/2024 SE263256.078	BH38-500 SOIL - 3/4/2024 SE263256.079	BH38-1000 SOIL - 3/4/2024 SE263256.080
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	47	<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	BH38-3000 SOIL - 3/4/2024 SE263256.081	BH39-300 SOIL - 3/4/2024 SE263256.082	BH39-800 SOIL - 3/4/2024 SE263256.083	BH40-100 SOIL - 3/4/2024 SE263256.084	BH40-500 SOIL - 3/4/2024 SE263256.085
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	BH40-1000 SOIL - 3/4/2024 SE263256.086	BH40-3000 SOIL - 3/4/2024 SE263256.087	BH41-500 SOIL - 3/4/2024 SE263256.088	BH41-1000 SOIL - 3/4/2024 SE263256.089	BH41-3000 SOIL - 3/4/2024 SE263256.090
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

SGS

ANALYTICAL RESULTS SE263256 R0

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH42-100 SOIL - 3/4/2024 SE263256.091	BH42-500 SOIL - 3/4/2024 SE263256.092	BH43-100 SOIL - 3/4/2024 SE263256.093	BH43-500 SOIL - 3/4/2024 SE263256.094	BH44-100 SOIL - 3/4/2024 SE263256.095
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	**51**
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	BH44-500 SOIL - 3/4/2024 SE263256.096	BH46-100 SOIL - 3/4/2024 SE263256.097	BH46-500 SOIL - 3/4/2024 SE263256.098	BH36-100 SOIL - 3/4/2024 SE263256.104
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	**130**
TRH C29-C36	mg/kg	45	<45	<45	<45	**110**
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	<90	<90	<90	**210**
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	**240**
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210

SGS

ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH1-100 SOIL - 3/4/2024 SE263256.001	BH1-500 SOIL - 3/4/2024 SE263256.002	BH2-100 SOIL - 3/4/2024 SE263256.003	BH2-500 SOIL - 3/4/2024 SE263256.004	BH3-100 SOIL - 3/4/2024 SE263256.005
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	**0.2**	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	**0.1**	**0.3**	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	**0.2**	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	**0.1**	**0.3**	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	**0.2**	**0.5**	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	**0.2**	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	**0.1**	**0.4**	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	**0.1**	**0.3**	<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	**0.2**	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	<0.2	**0.5**	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	**0.6**	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	**0.2**	**0.5**	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	**2.5**	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	**2.5**	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	BH3-500 SOIL - 3/4/2024 SE263256.006	BH4-100 SOIL - 3/4/2024 SE263256.007	BH4-500 SOIL - 3/4/2024 SE263256.008	BH5-100 SOIL - 3/4/2024 SE263256.009	BH5-500 SOIL - 3/4/2024 SE263256.010
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

SGS ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH6-100 SOIL - 3/4/2024 SE263256.011	BH6-500 SOIL - 3/4/2024 SE263256.012	BH7-100 SOIL - 3/4/2024 SE263256.013	BH7-500 SOIL - 3/4/2024 SE263256.014	BH8-100 SOIL - 3/4/2024 SE263256.015
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	**0.3**
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.6**
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	**0.4**
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.4**
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	**0.3**
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.3**
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	**0.4**
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	**0.5**
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	**0.6**
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	**0.5**
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**

PARAMETER	UOM	LOR	BH8-500 SOIL - 3/4/2024 SE263256.016	BH9-100 SOIL - 3/4/2024 SE263256.017	BH9-500 SOIL - 3/4/2024 SE263256.018	BH10-100 SOIL - 3/4/2024 SE263256.019	BH10-500 SOIL - 3/4/2024 SE263256.020
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	**0.2**	<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

SGS

ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH11-100 SOIL - 3/4/2024 SE263256.021	BH11-500 SOIL - 3/4/2024 SE263256.022	BH12-100 SOIL - 3/4/2024 SE263256.023	BH12-500 SOIL - 3/4/2024 SE263256.024	BH13-100 SOIL - 3/4/2024 SE263256.025
Naphthalene	mg/kg	0.1	**0.3**	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	**0.3**	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	**0.3**	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	**5.8**	**0.2**	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	**0.6**	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	**0.7**	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	**6.3**	**0.3**	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	**15**	**0.4**	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	**17**	**0.7**	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	**19**	**0.6**	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	**7.4**	**0.2**	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	**9.6**	**0.4**	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	**15**	**0.5**	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	**4.5**	**0.2**	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	**8.5**	**0.3**	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	**7.9**	**0.2**	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	**1.2**	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	**5.0**	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	**13**	**0.4**	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	**13**	**0.5**	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	**13**	**0.4**	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	**120**	**3.8**	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	**120**	**3.8**	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	BH13-500 SOIL - 3/4/2024 SE263256.026	BH14-100 SOIL - 3/4/2024 SE263256.027	BH14-500 SOIL - 3/4/2024 SE263256.028	BH15-100 SOIL - 3/4/2024 SE263256.029	BH15-500 SOIL - 3/4/2024 SE263256.030
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

SGS ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH16-100 SOIL - 3/4/2024 SE263256.031	BH16-500 SOIL - 3/4/2024 SE263256.032	BH17-100 SOIL - 3/4/2024 SE263256.033	BH17-500 SOIL - 3/4/2024 SE263256.034	BH18-100 SOIL - 3/4/2024 SE263256.035
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	**0.2**
Fluoranthene	mg/kg	0.1	**0.1**	**0.1**	<0.1	<0.1	**0.5**
Pyrene	mg/kg	0.1	**0.2**	**0.2**	<0.1	<0.1	**0.7**
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.3**
Chrysene	mg/kg	0.1	**0.2**	**0.1**	<0.1	<0.1	**0.5**
Benzo(b&j)fluoranthene	mg/kg	0.1	**0.1**	**0.2**	**0.2**	<0.1	**0.7**
Benzo(k)fluoranthene	mg/kg	0.1	**0.1**	<0.1	<0.1	<0.1	**0.3**
Benzo(a)pyrene	mg/kg	0.1	**0.2**	**0.1**	<0.1	<0.1	**0.4**
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	**0.1**	**0.1**	**0.1**	<0.1	**0.3**
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	**0.2**
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	**0.2**	<0.2	<0.2	<0.2	**0.6**
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	**0.3**	<0.3	<0.3	<0.3	**0.7**
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	**0.3**	**0.2**	<0.2	<0.2	**0.6**
Total PAH (18)	mg/kg	0.8	**1.2**	**0.9**	<0.8	<0.8	**4.0**
Total PAH (NEPM/WHO 16)	mg/kg	0.8	**1.2**	**0.9**	<0.8	<0.8	**4.0**

PARAMETER	UOM	LOR	BH18-500 SOIL - 3/4/2024 SE263256.036	BH20-100 SOIL - 3/4/2024 SE263256.037	BH20-500 SOIL - 3/4/2024 SE263256.038	BH21-100 SOIL - 3/4/2024 SE263256.039	BH21-500 SOIL - 3/4/2024 SE263256.040
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	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	**0.2**	**0.1**	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	**0.3**	**0.3**	<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	**0.2**	**0.2**	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	**0.2**	**0.2**	<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**	**0.2**	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	**0.2**	<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	**0.2**	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	<0.2	**0.3**	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	**0.4**	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	**0.3**	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	**1.1**	**1.7**	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	**1.1**	**1.7**	<0.8	<0.8	<0.8

SGS

ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH22-100 SOIL - 3/4/2024 SE263256.041	BH22-500 SOIL - 3/4/2024 SE263256.042	BH23-100 SOIL - 3/4/2024 SE263256.043	BH23-500 SOIL - 3/4/2024 SE263256.044	BH24-100 SOIL - 3/4/2024 SE263256.045
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	0.2	<0.1	0.2	<0.1	<0.1
Pyrene	mg/kg	0.1	0.4	<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	0.4	<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	0.2	<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	0.4	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	<0.2	0.3	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	0.9	<0.8	1.4	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	0.9	<0.8	1.4	<0.8	<0.8

PARAMETER	UOM	LOR	BH24-500 SOIL - 3/4/2024 SE263256.046	BH25-100 SOIL - 3/4/2024 SE263256.047	BH25-200 SOIL - 3/4/2024 SE263256.048	BH25-500 SOIL - 3/4/2024 SE263256.049	BH26-100 SOIL - 3/4/2024 SE263256.050
Naphthalene	mg/kg	0.1	<0.1	0.2	12	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	0.2	4.7	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	0.2	4.3	<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	0.3	0.7	<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	0.4	<0.1	<0.1	0.1
Pyrene	mg/kg	0.1	<0.1	0.8	<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	0.3	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	0.2	<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	0.2	<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	3.2	22	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	2.9	13	<0.8	<0.8

SGS

ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH26-500 SOIL - 3/4/2024 SE263256.051	BH27-100 SOIL - 3/4/2024 SE263256.052	BH27-500 SOIL - 3/4/2024 SE263256.053	BH28-100 SOIL - 3/4/2024 SE263256.054	BH28-500 SOIL - 3/4/2024 SE263256.055
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**	**0.4**
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.4**
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.4**
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.4**
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.6**
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	**0.4**
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.3**
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	**0.3**
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	**0.6**
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	**0.7**
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	**0.6**
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	**3.5**
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	**3.5**

PARAMETER	UOM	LOR	BH29-100 SOIL - 3/4/2024 SE263256.056	BH29-500 SOIL - 3/4/2024 SE263256.057	BH30-100 SOIL - 3/4/2024 SE263256.058	BH30-500 SOIL - 3/4/2024 SE263256.059	BH31-100 SOIL - 3/4/2024 SE263256.060
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

SGS

ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH31-500 SOIL - 3/4/2024 SE263256.061	BH32-100 SOIL - 3/4/2024 SE263256.062	BH32-500 SOIL - 3/4/2024 SE263256.063	BH33-100 SOIL - 3/4/2024 SE263256.064	BH33-1000 SOIL - 3/4/2024 SE263256.065
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	0.7	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	1.0	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	0.4	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	1.7	0.2	0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	2.7	0.3	0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	0.9	0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	1.3	0.2	0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	1.7	0.3	0.2	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	0.5	0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	1.1	0.3	0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	1.1	0.2	0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	0.2	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	1.3	0.3	0.2	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	<0.2	1.8	0.4	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	1.8	0.5	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	1.8	0.4	0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	15	2.2	1.0	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	15	2.2	1.0	<0.8

PARAMETER	UOM	LOR	BH33-3000 SOIL - 3/4/2024 SE263256.066	BH34-500 SOIL - 3/4/2024 SE263256.067	BH34-1000 SOIL - 3/4/2024 SE263256.068	BH34-3000 SOIL - 3/4/2024 SE263256.069	BH35-500 SOIL - 3/4/2024 SE263256.070
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	0.2	0.3	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	0.2	0.3	<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	0.2	0.2	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	0.3	2.0	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	0.1	0.5	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	0.1	1.0	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	0.2	1.0	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	0.2	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	0.2	1.0	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	<0.2	0.2	1.5	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	0.3	1.5	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	0.3	1.5	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	1.6	6.5	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	1.6	6.5	<0.8	<0.8

SGS

ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH35-1000 SOIL - 3/4/2024 SE263256.071	BH35-3000 SOIL - 3/4/2024 SE263256.072	BH36-500 SOIL - 3/4/2024 SE263256.073	BH36-1000 SOIL - 3/4/2024 SE263256.074	BH36-3000 SOIL - 3/4/2024 SE263256.075
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	BH37-500 SOIL - 3/4/2024 SE263256.076	BH37-1000 SOIL - 3/4/2024 SE263256.077	BH37-3000 SOIL - 3/4/2024 SE263256.078	BH38-500 SOIL - 3/4/2024 SE263256.079	BH38-1000 SOIL - 3/4/2024 SE263256.080
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	**0.4**	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.2**	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.4**	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.4**	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.2**	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.2**	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.2**	<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	**0.2**	<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	**0.3**	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	**2.3**	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	**2.3**	<0.8

SGS

ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH38-3000 SOIL - 3/4/2024 SE263256.081	BH39-300 SOIL - 3/4/2024 SE263256.082	BH39-800 SOIL - 3/4/2024 SE263256.083	BH40-100 SOIL - 3/4/2024 SE263256.084	BH40-500 SOIL - 3/4/2024 SE263256.085
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	**0.2**	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.2**	<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	**0.2**	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.2**	<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	**0.2**	<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	**0.2**	<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	**0.3**	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	**1.5**	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	**1.5**	<0.8

PARAMETER	UOM	LOR	BH40-1000 SOIL - 3/4/2024 SE263256.086	BH40-3000 SOIL - 3/4/2024 SE263256.087	BH41-500 SOIL - 3/4/2024 SE263256.088	BH41-1000 SOIL - 3/4/2024 SE263256.089	BH41-3000 SOIL - 3/4/2024 SE263256.090
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

SGS ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH42-100 SOIL - 3/4/2024 SE263256.091	BH42-500 SOIL - 3/4/2024 SE263256.092	BH43-100 SOIL - 3/4/2024 SE263256.093	BH43-500 SOIL - 3/4/2024 SE263256.094	BH44-100 SOIL - 3/4/2024 SE263256.095
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	0.2	<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	0.2	<0.1	0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	0.8	<0.1	0.3
Pyrene	mg/kg	0.1	<0.1	<0.1	0.9	0.2	0.4
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	0.2	<0.1	0.2
Chrysene	mg/kg	0.1	<0.1	<0.1	0.8	0.5	0.4
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	1.5	1.4	0.5
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	0.5	0.4	0.2
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	0.5	0.7	0.3
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	0.5	0.4	0.3
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	0.4	0.3	0.3
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	<0.2	<0.2	0.8	1.0	0.4
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	<0.3	0.9	1.1	0.5
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	<0.2	0.8	1.0	0.5
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	6.5	3.9	3.2
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	6.5	3.9	3.2

PARAMETER	UOM	LOR	BH44-500 SOIL - 3/4/2024 SE263256.096	BH46-100 SOIL - 3/4/2024 SE263256.097	BH46-500 SOIL - 3/4/2024 SE263256.098	BH36-100 SOIL - 3/4/2024 SE263256.104
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	0.3
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	0.2	<0.1	<0.1	0.2
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	0.3
Anthracene	mg/kg	0.1	0.2	<0.1	<0.1	0.4
Fluoranthene	mg/kg	0.1	0.8	<0.1	<0.1	0.8
Pyrene	mg/kg	0.1	0.9	<0.1	<0.1	0.9
Benzo(a)anthracene	mg/kg	0.1	0.3	<0.1	<0.1	0.4
Chrysene	mg/kg	0.1	0.9	<0.1	<0.1	0.5
Benzo(b&j)fluoranthene	mg/kg	0.1	1.4	0.1	<0.1	0.6
Benzo(k)fluoranthene	mg/kg	0.1	0.5	<0.1	<0.1	0.2
Benzo(a)pyrene	mg/kg	0.1	0.6	<0.1	<0.1	0.5
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.5	<0.1	<0.1	0.4
Dibenzo(ah)anthracene	mg/kg	0.1	0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	0.5	<0.1	<0.1	0.4
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	0.9	<0.2	<0.2	0.6
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	0.9	<0.3	<0.3	0.7
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	0.9	<0.2	<0.2	0.7
Total PAH (18)	mg/kg	0.8	6.9	<0.8	<0.8	6.0
Total PAH (NEPM/WHO 16)	mg/kg	0.8	6.9	<0.8	<0.8	5.9

SGS

ANALYTICAL RESULTS SE263256 R0

OC Pesticides in Soil [AN420] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH42-100 SOIL - 3/4/2024 SE263256.091	BH42-500 SOIL - 3/4/2024 SE263256.092	BH43-100 SOIL - 3/4/2024 SE263256.093	BH43-500 SOIL - 3/4/2024 SE263256.094	BH44-100 SOIL - 3/4/2024 SE263256.095
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 (gamma BHC)	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	**0.4**	<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
Total OC VIC EPA	mg/kg	1	<1	<1	<1	<1	<1

SGS ANALYTICAL RESULTS SE263256 R0

OC Pesticides in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH44-500 SOIL - 3/4/2024 SE263256.096
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1
Lindane (gamma BHC)	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
o,p'-DDE*	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
trans-Nonachlor	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
o,p'-DDD*	mg/kg	0.1	<0.1
o,p'-DDT*	mg/kg	0.1	<0.1
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
Total CLP OC Pesticides	mg/kg	1	<1
Total OC VIC EPA	mg/kg	1	<1

SGS

ANALYTICAL RESULTS SE263256 R0

Speciated Phenols in Soil [AN420] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH42-100 SOIL - 3/4/2024 SE263256.091	BH42-500 SOIL - 3/4/2024 SE263256.092	BH43-100 SOIL - 3/4/2024 SE263256.093	BH43-500 SOIL - 3/4/2024 SE263256.094	BH44-100 SOIL - 3/4/2024 SE263256.095
Phenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1	<1	<1	<1	<1
Total Cresol	mg/kg	1.5	<1.5	<1.5	<1.5	<1.5	<1.5
2-chlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dimethylphenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-dichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-trichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-nitrophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-nitrophenol	mg/kg	1	<1	<1	<1	<1	<1
2,4,5-trichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1	<1	<1	<1	<1
Pentachlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dinitrophenol	mg/kg	2	<2	<2	<2	<2	<2
4-chloro-3-methylphenol	mg/kg	2	<2	<2	<2	<2	<2

PARAMETER	UOM	LOR	BH44-500 SOIL - 3/4/2024 SE263256.096
Phenol	mg/kg	0.5	<0.5
2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5
3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1
Total Cresol	mg/kg	1.5	<1.5
2-chlorophenol	mg/kg	0.5	<0.5
2,4-dimethylphenol	mg/kg	0.5	<0.5
2,6-dichlorophenol	mg/kg	0.5	<0.5
2,4-dichlorophenol	mg/kg	0.5	<0.5
2,4,6-trichlorophenol	mg/kg	0.5	<0.5
2-nitrophenol	mg/kg	0.5	<0.5
4-nitrophenol	mg/kg	1	<1
2,4,5-trichlorophenol	mg/kg	0.5	<0.5
2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1
Pentachlorophenol	mg/kg	0.5	<0.5
2,4-dinitrophenol	mg/kg	2	<2
4-chloro-3-methylphenol	mg/kg	2	<2

SGS

ANALYTICAL RESULTS SE263256 R0

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH1-100 SOIL - 3/4/2024 SE263256.001	BH1-500 SOIL - 3/4/2024 SE263256.002	BH2-100 SOIL - 3/4/2024 SE263256.003	BH2-500 SOIL - 3/4/2024 SE263256.004	BH3-100 SOIL - 3/4/2024 SE263256.005
Arsenic, As	mg/kg	1	2	2	<1	1	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	18	23	23	36	29
Copper, Cu	mg/kg	0.5	4.4	3.3	1.9	1.4	4.2
Lead, Pb	mg/kg	1	6	7	6	10	9
Nickel, Ni	mg/kg	0.5	7.7	9.6	10	16	12
Zinc, Zn	mg/kg	2	23	27	20	24	41

PARAMETER	UOM	LOR	BH3-500 SOIL - 3/4/2024 SE263256.006	BH4-100 SOIL - 3/4/2024 SE263256.007	BH4-500 SOIL - 3/4/2024 SE263256.008	BH5-100 SOIL - 3/4/2024 SE263256.009	BH5-500 SOIL - 3/4/2024 SE263256.010
Arsenic, As	mg/kg	1	2	2	2	2	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	28	16	35	27	40
Copper, Cu	mg/kg	0.5	4.8	9.6	3.7	3.6	3.2
Lead, Pb	mg/kg	1	9	15	11	8	11
Nickel, Ni	mg/kg	0.5	12	7.4	14	11	16
Zinc, Zn	mg/kg	2	35	39	27	44	31

PARAMETER	UOM	LOR	BH6-100 SOIL - 3/4/2024 SE263256.011	BH6-500 SOIL - 3/4/2024 SE263256.012	BH7-100 SOIL - 3/4/2024 SE263256.013	BH7-500 SOIL - 3/4/2024 SE263256.014	BH8-100 SOIL - 3/4/2024 SE263256.015
Arsenic, As	mg/kg	1	<1	<1	4	2	2
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	22	26	9.4	37	17
Copper, Cu	mg/kg	0.5	2.3	2.0	12	4.5	7.8
Lead, Pb	mg/kg	1	6	6	25	14	9
Nickel, Ni	mg/kg	0.5	9.3	11	8.5	15	7.6
Zinc, Zn	mg/kg	2	20	21	36	33	30

PARAMETER	UOM	LOR	BH8-500 SOIL - 3/4/2024 SE263256.016	BH9-100 SOIL - 3/4/2024 SE263256.017	BH9-500 SOIL - 3/4/2024 SE263256.018	BH10-100 SOIL - 3/4/2024 SE263256.019	BH10-500 SOIL - 3/4/2024 SE263256.020
Arsenic, As	mg/kg	1	1	2	<1	20	2
Cadmium, Cd	mg/kg	0.3	<0.3	0.4	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	38	22	20	9.4	20
Copper, Cu	mg/kg	0.5	4.3	18	2.2	24	3.5
Lead, Pb	mg/kg	1	10	30	6	5	16
Nickel, Ni	mg/kg	0.5	15	10	8.5	2.7	8.6
Zinc, Zn	mg/kg	2	30	78	19	16	30

SGS

ANALYTICAL RESULTS SE263256 R0

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH11-100 SOIL - 3/4/2024 SE263256.021	BH11-500 SOIL - 3/4/2024 SE263256.022	BH12-100 SOIL - 3/4/2024 SE263256.023	BH12-500 SOIL - 3/4/2024 SE263256.024	BH13-100 SOIL - 3/4/2024 SE263256.025
Arsenic, As	mg/kg	1	2	2	4	1	<1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	31	23	18	26	24
Copper, Cu	mg/kg	0.5	8.6	3.6	13	6.4	5.9
Lead, Pb	mg/kg	1	30	8	16	12	8
Nickel, Ni	mg/kg	0.5	13	10	4.9	11	11
Zinc, Zn	mg/kg	2	58	30	75	53	41

PARAMETER	UOM	LOR	BH13-500 SOIL - 3/4/2024 SE263256.026	BH14-100 SOIL - 3/4/2024 SE263256.027	BH14-500 SOIL - 3/4/2024 SE263256.028	BH15-100 SOIL - 3/4/2024 SE263256.029	BH15-500 SOIL - 3/4/2024 SE263256.030
Arsenic, As	mg/kg	1	1	1	1	2	4
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	28	29	34	33	24
Copper, Cu	mg/kg	0.5	5.5	5.0	2.4	5.1	3.6
Lead, Pb	mg/kg	1	7	17	9	12	6
Nickel, Ni	mg/kg	0.5	12	12	15	14	11
Zinc, Zn	mg/kg	2	31	33	27	51	24

PARAMETER	UOM	LOR	BH16-100 SOIL - 3/4/2024 SE263256.031	BH16-500 SOIL - 3/4/2024 SE263256.032	BH17-100 SOIL - 3/4/2024 SE263256.033	BH17-500 SOIL - 3/4/2024 SE263256.034	BH18-100 SOIL - 3/4/2024 SE263256.035
Arsenic, As	mg/kg	1	10	5	7	<1	9
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	18	22	22	29	21
Copper, Cu	mg/kg	0.5	15	11	11	5.5	17
Lead, Pb	mg/kg	1	14	16	9	7	13
Nickel, Ni	mg/kg	0.5	7.6	9.4	9.4	13	9.1
Zinc, Zn	mg/kg	2	29	37	26	30	33

PARAMETER	UOM	LOR	BH18-500 SOIL - 3/4/2024 SE263256.036	BH20-100 SOIL - 3/4/2024 SE263256.037	BH20-500 SOIL - 3/4/2024 SE263256.038	BH21-100 SOIL - 3/4/2024 SE263256.039	BH21-500 SOIL - 3/4/2024 SE263256.040
Arsenic, As	mg/kg	1	2	2	1	5	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	26	24	28	24	26
Copper, Cu	mg/kg	0.5	7.2	5.7	4.7	9.1	3.1
Lead, Pb	mg/kg	1	17	8	7	12	6
Nickel, Ni	mg/kg	0.5	11	11	12	10	11
Zinc, Zn	mg/kg	2	34	34	30	39	23

SGS

ANALYTICAL RESULTS SE263256 R0

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH22-100 SOIL - 3/4/2024 SE263256.041	BH22-500 SOIL - 3/4/2024 SE263256.042	BH23-100 SOIL - 3/4/2024 SE263256.043	BH23-500 SOIL - 3/4/2024 SE263256.044	BH24-100 SOIL - 3/4/2024 SE263256.045
Arsenic, As	mg/kg	1	2	1	<1	1	4
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	25	28	19	35	23
Copper, Cu	mg/kg	0.5	10	4.7	5.9	3.8	10
Lead, Pb	mg/kg	1	63	7	19	8	13
Nickel, Ni	mg/kg	0.5	10	13	8.4	13	11
Zinc, Zn	mg/kg	2	120	28	57	29	35

PARAMETER	UOM	LOR	BH24-500 SOIL - 3/4/2024 SE263256.046	BH25-100 SOIL - 3/4/2024 SE263256.047	BH25-200 SOIL - 3/4/2024 SE263256.048	BH25-500 SOIL - 3/4/2024 SE263256.049	BH26-100 SOIL - 3/4/2024 SE263256.050
Arsenic, As	mg/kg	1	3	4	2	<1	2
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	23	21	9.9	19	28
Copper, Cu	mg/kg	0.5	9.2	12	19	3.2	5.2
Lead, Pb	mg/kg	1	18	10	7	7	10
Nickel, Ni	mg/kg	0.5	9.9	4.0	3.4	9.2	12
Zinc, Zn	mg/kg	2	31	42	14	21	48

PARAMETER	UOM	LOR	BH26-500 SOIL - 3/4/2024 SE263256.051	BH27-100 SOIL - 3/4/2024 SE263256.052	BH27-500 SOIL - 3/4/2024 SE263256.053	BH28-100 SOIL - 3/4/2024 SE263256.054	BH28-500 SOIL - 3/4/2024 SE263256.055
Arsenic, As	mg/kg	1	1	1	2	1	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	33	24	40	27	33
Copper, Cu	mg/kg	0.5	4.5	2.5	2.6	9.8	1.3
Lead, Pb	mg/kg	1	10	7	11	11	9
Nickel, Ni	mg/kg	0.5	13	9.7	16	11	16
Zinc, Zn	mg/kg	2	46	23	26	46	25

PARAMETER	UOM	LOR	BH29-100 SOIL - 3/4/2024 SE263256.056	BH29-500 SOIL - 3/4/2024 SE263256.057	BH30-100 SOIL - 3/4/2024 SE263256.058	BH30-500 SOIL - 3/4/2024 SE263256.059	BH31-100 SOIL - 3/4/2024 SE263256.060
Arsenic, As	mg/kg	1	<1	1	2	2	3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	28	26	28	38	33
Copper, Cu	mg/kg	0.5	2.2	6.2	6.0	5.8	3.8
Lead, Pb	mg/kg	1	7	12	44	13	11
Nickel, Ni	mg/kg	0.5	12	11	12	15	13
Zinc, Zn	mg/kg	2	22	49	54	35	28

SGS

ANALYTICAL RESULTS SE263256 R0

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH31-500 SOIL - 3/4/2024 SE263256.061	BH32-100 SOIL - 3/4/2024 SE263256.062	BH32-500 SOIL - 3/4/2024 SE263256.063	BH33-100 SOIL - 3/4/2024 SE263256.064	BH33-1000 SOIL - 3/4/2024 SE263256.065
Arsenic, As	mg/kg	1	1	2	2	6	3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	21	26	27	19	20
Copper, Cu	mg/kg	0.5	3.6	10	9.7	19	12
Lead, Pb	mg/kg	1	6	16	15	12	7
Nickel, Ni	mg/kg	0.5	9.3	12	13	9.0	9.4
Zinc, Zn	mg/kg	2	20	49	42	46	35

PARAMETER	UOM	LOR	BH33-3000 SOIL - 3/4/2024 SE263256.066	BH34-500 SOIL - 3/4/2024 SE263256.067	BH34-1000 SOIL - 3/4/2024 SE263256.068	BH34-3000 SOIL - 3/4/2024 SE263256.069	BH35-500 SOIL - 3/4/2024 SE263256.070
Arsenic, As	mg/kg	1	1	6	3	2	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	33	13	26	34	26
Copper, Cu	mg/kg	0.5	2.7	17	5.0	3.9	4.8
Lead, Pb	mg/kg	1	8	19	9	9	7
Nickel, Ni	mg/kg	0.5	14	8.8	9.1	15	13
Zinc, Zn	mg/kg	2	25	35	26	30	27

PARAMETER	UOM	LOR	BH35-1000 SOIL - 3/4/2024 SE263256.071	BH35-3000 SOIL - 3/4/2024 SE263256.072	BH36-500 SOIL - 3/4/2024 SE263256.073	BH36-1000 SOIL - 3/4/2024 SE263256.074	BH36-3000 SOIL - 3/4/2024 SE263256.075
Arsenic, As	mg/kg	1	1	1	1	2	3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	24	39	23	22	33
Copper, Cu	mg/kg	0.5	4.6	3.1	4.0	7.3	7.5
Lead, Pb	mg/kg	1	6	8	6	7	9
Nickel, Ni	mg/kg	0.5	11	15	10	9.7	13
Zinc, Zn	mg/kg	2	26	31	23	28	32

PARAMETER	UOM	LOR	BH37-500 SOIL - 3/4/2024 SE263256.076	BH37-1000 SOIL - 3/4/2024 SE263256.077	BH37-3000 SOIL - 3/4/2024 SE263256.078	BH38-500 SOIL - 3/4/2024 SE263256.079	BH38-1000 SOIL - 3/4/2024 SE263256.080
Arsenic, As	mg/kg	1	2	4	3	3	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	15	25	18	24	26
Copper, Cu	mg/kg	0.5	30	12	8.4	9.7	4.2
Lead, Pb	mg/kg	1	10	8	5	13	6
Nickel, Ni	mg/kg	0.5	8.6	11	6.7	11	11
Zinc, Zn	mg/kg	2	43	33	27	41	25

SGS

ANALYTICAL RESULTS SE263256 R0

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH38-3000 SOIL - 3/4/2024 SE263256.081	BH39-300 SOIL - 3/4/2024 SE263256.082	BH39-800 SOIL - 3/4/2024 SE263256.083	BH40-100 SOIL - 3/4/2024 SE263256.084	BH40-500 SOIL - 3/4/2024 SE263256.085
Arsenic, As	mg/kg	1	2	3	5	5	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	41	21	25	21	30
Copper, Cu	mg/kg	0.5	2.2	13	7.3	9.3	4.7
Lead, Pb	mg/kg	1	6	22	7	10	7
Nickel, Ni	mg/kg	0.5	17	9.2	11	9.4	13
Zinc, Zn	mg/kg	2	29	42	29	36	29

PARAMETER	UOM	LOR	BH40-1000 SOIL - 3/4/2024 SE263256.086	BH40-3000 SOIL - 3/4/2024 SE263256.087	BH41-500 SOIL - 3/4/2024 SE263256.088	BH41-1000 SOIL - 3/4/2024 SE263256.089	BH41-3000 SOIL - 3/4/2024 SE263256.090
Arsenic, As	mg/kg	1	1	1	2	1	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	28	36	29	26	34
Copper, Cu	mg/kg	0.5	4.9	2.7	5.3	4.1	3.1
Lead, Pb	mg/kg	1	6	7	9	6	8
Nickel, Ni	mg/kg	0.5	12	15	13	11	14
Zinc, Zn	mg/kg	2	27	24	32	26	26

PARAMETER	UOM	LOR	BH42-100 SOIL - 3/4/2024 SE263256.091	BH42-500 SOIL - 3/4/2024 SE263256.092	BH43-100 SOIL - 3/4/2024 SE263256.093	BH43-500 SOIL - 3/4/2024 SE263256.094	BH44-100 SOIL - 3/4/2024 SE263256.095
Arsenic, As	mg/kg	1	8	1	7	2	5
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	16	31	29	26	22
Copper, Cu	mg/kg	0.5	13	4.8	13	4.2	12
Lead, Pb	mg/kg	1	12	7	11	6	11
Nickel, Ni	mg/kg	0.5	6.3	14	10	12	9.2
Zinc, Zn	mg/kg	2	42	29	39	26	37

PARAMETER	UOM	LOR	BH44-500 SOIL - 3/4/2024 SE263256.096	BH46-100 SOIL - 3/4/2024 SE263256.097	BH46-500 SOIL - 3/4/2024 SE263256.098	DA SOIL - 3/4/2024 SE263256.099	DB SOIL - 3/4/2024 SE263256.100
Arsenic, As	mg/kg	1	9	2	1	2	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	30	24	25	24	25
Copper, Cu	mg/kg	0.5	14	6.0	4.3	4.2	3.2
Lead, Pb	mg/kg	1	18	9	6	8	8
Nickel, Ni	mg/kg	0.5	12	11	11	10	11
Zinc, Zn	mg/kg	2	45	35	25	26	23

SGS

ANALYTICAL RESULTS SE263256 R0

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 9/4/2024

PARAMETER	UOM	LOR	DC SOIL - 3/4/2024 SE263256.101	DD SOIL - 3/4/2024 SE263256.102	DE SOIL - 3/4/2024 SE263256.103	BH36-100 SOIL - 3/4/2024 SE263256.104
Arsenic, As	mg/kg	1	2	2	5	4
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	24	28	20	24
Copper, Cu	mg/kg	0.5	5.0	5.2	10	15
Lead, Pb	mg/kg	1	7	31	12	22
Nickel, Ni	mg/kg	0.5	11	12	9.1	11
Zinc, Zn	mg/kg	2	29	44	36	58

SGS

ANALYTICAL RESULTS SE263256 R0

Mercury in Soil [AN312] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH1-100 SOIL - 3/4/2024 SE263256.001	BH1-500 SOIL - 3/4/2024 SE263256.002	BH2-100 SOIL - 3/4/2024 SE263256.003	BH2-500 SOIL - 3/4/2024 SE263256.004	BH3-100 SOIL - 3/4/2024 SE263256.005
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH3-500 SOIL - 3/4/2024 SE263256.006	BH4-100 SOIL - 3/4/2024 SE263256.007	BH4-500 SOIL - 3/4/2024 SE263256.008	BH5-100 SOIL - 3/4/2024 SE263256.009	BH5-500 SOIL - 3/4/2024 SE263256.010
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH6-100 SOIL - 3/4/2024 SE263256.011	BH6-500 SOIL - 3/4/2024 SE263256.012	BH7-100 SOIL - 3/4/2024 SE263256.013	BH7-500 SOIL - 3/4/2024 SE263256.014	BH8-100 SOIL - 3/4/2024 SE263256.015
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH8-500 SOIL - 3/4/2024 SE263256.016	BH9-100 SOIL - 3/4/2024 SE263256.017	BH9-500 SOIL - 3/4/2024 SE263256.018	BH10-100 SOIL - 3/4/2024 SE263256.019	BH10-500 SOIL - 3/4/2024 SE263256.020
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH11-100 SOIL - 3/4/2024 SE263256.021	BH11-500 SOIL - 3/4/2024 SE263256.022	BH12-100 SOIL - 3/4/2024 SE263256.023	BH12-500 SOIL - 3/4/2024 SE263256.024	BH13-100 SOIL - 3/4/2024 SE263256.025
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH13-500 SOIL - 3/4/2024 SE263256.026	BH14-100 SOIL - 3/4/2024 SE263256.027	BH14-500 SOIL - 3/4/2024 SE263256.028	BH15-100 SOIL - 3/4/2024 SE263256.029	BH15-500 SOIL - 3/4/2024 SE263256.030
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH16-100 SOIL - 3/4/2024 SE263256.031	BH16-500 SOIL - 3/4/2024 SE263256.032	BH17-100 SOIL - 3/4/2024 SE263256.033	BH17-500 SOIL - 3/4/2024 SE263256.034	BH18-100 SOIL - 3/4/2024 SE263256.035
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

SGS

ANALYTICAL RESULTS SE263256 R0

Mercury in Soil [AN312] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH18-500 SOIL - 3/4/2024 SE263256.036	BH20-100 SOIL - 3/4/2024 SE263256.037	BH20-500 SOIL - 3/4/2024 SE263256.038	BH21-100 SOIL - 3/4/2024 SE263256.039	BH21-500 SOIL - 3/4/2024 SE263256.040
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH22-100 SOIL - 3/4/2024 SE263256.041	BH22-500 SOIL - 3/4/2024 SE263256.042	BH23-100 SOIL - 3/4/2024 SE263256.043	BH23-500 SOIL - 3/4/2024 SE263256.044	BH24-100 SOIL - 3/4/2024 SE263256.045
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH24-500 SOIL - 3/4/2024 SE263256.046	BH25-100 SOIL - 3/4/2024 SE263256.047	BH25-200 SOIL - 3/4/2024 SE263256.048	BH25-500 SOIL - 3/4/2024 SE263256.049	BH26-100 SOIL - 3/4/2024 SE263256.050
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH26-500 SOIL - 3/4/2024 SE263256.051	BH27-100 SOIL - 3/4/2024 SE263256.052	BH27-500 SOIL - 3/4/2024 SE263256.053	BH28-100 SOIL - 3/4/2024 SE263256.054	BH28-500 SOIL - 3/4/2024 SE263256.055
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH29-100 SOIL - 3/4/2024 SE263256.056	BH29-500 SOIL - 3/4/2024 SE263256.057	BH30-100 SOIL - 3/4/2024 SE263256.058	BH30-500 SOIL - 3/4/2024 SE263256.059	BH31-100 SOIL - 3/4/2024 SE263256.060
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH31-500 SOIL - 3/4/2024 SE263256.061	BH32-100 SOIL - 3/4/2024 SE263256.062	BH32-500 SOIL - 3/4/2024 SE263256.063	BH33-100 SOIL - 3/4/2024 SE263256.064	BH33-1000 SOIL - 3/4/2024 SE263256.065
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH33-3000 SOIL - 3/4/2024 SE263256.066	BH34-500 SOIL - 3/4/2024 SE263256.067	BH34-1000 SOIL - 3/4/2024 SE263256.068	BH34-3000 SOIL - 3/4/2024 SE263256.069	BH35-500 SOIL - 3/4/2024 SE263256.070
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

SGS

ANALYTICAL RESULTS SE263256 R0

Mercury in Soil [AN312] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH35-1000 SOIL - 3/4/2024 SE263256.071	BH35-3000 SOIL - 3/4/2024 SE263256.072	BH36-500 SOIL - 3/4/2024 SE263256.073	BH36-1000 SOIL - 3/4/2024 SE263256.074	BH36-3000 SOIL - 3/4/2024 SE263256.075
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH37-500 SOIL - 3/4/2024 SE263256.076	BH37-1000 SOIL - 3/4/2024 SE263256.077	BH37-3000 SOIL - 3/4/2024 SE263256.078	BH38-500 SOIL - 3/4/2024 SE263256.079	BH38-1000 SOIL - 3/4/2024 SE263256.080
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH38-3000 SOIL - 3/4/2024 SE263256.081	BH39-300 SOIL - 3/4/2024 SE263256.082	BH39-800 SOIL - 3/4/2024 SE263256.083	BH40-100 SOIL - 3/4/2024 SE263256.084	BH40-500 SOIL - 3/4/2024 SE263256.085
Mercury	mg/kg	0.05	<0.05	0.06	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH40-1000 SOIL - 3/4/2024 SE263256.086	BH40-3000 SOIL - 3/4/2024 SE263256.087	BH41-500 SOIL - 3/4/2024 SE263256.088	BH41-1000 SOIL - 3/4/2024 SE263256.089	BH41-3000 SOIL - 3/4/2024 SE263256.090
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH42-100 SOIL - 3/4/2024 SE263256.091	BH42-500 SOIL - 3/4/2024 SE263256.092	BH43-100 SOIL - 3/4/2024 SE263256.093	BH43-500 SOIL - 3/4/2024 SE263256.094	BH44-100 SOIL - 3/4/2024 SE263256.095
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH44-500 SOIL - 3/4/2024 SE263256.096	BH46-100 SOIL - 3/4/2024 SE263256.097	BH46-500 SOIL - 3/4/2024 SE263256.098	DA SOIL - 3/4/2024 SE263256.099	DB SOIL - 3/4/2024 SE263256.100
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	DC SOIL - 3/4/2024 SE263256.101	DD SOIL - 3/4/2024 SE263256.102	DE SOIL - 3/4/2024 SE263256.103	BH36-100 SOIL - 3/4/2024 SE263256.104
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05

SGS

ANALYTICAL RESULTS SE263256 R0

Moisture Content [AN002] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH1-100 SOIL - 3/4/2024 SE263256.001	BH1-500 SOIL - 3/4/2024 SE263256.002	BH2-100 SOIL - 3/4/2024 SE263256.003	BH2-500 SOIL - 3/4/2024 SE263256.004	BH3-100 SOIL - 3/4/2024 SE263256.005
% Moisture	%w/w	1	9.9	4.8	4.1	6.4	7.8

PARAMETER	UOM	LOR	BH3-500 SOIL - 3/4/2024 SE263256.006	BH4-100 SOIL - 3/4/2024 SE263256.007	BH4-500 SOIL - 3/4/2024 SE263256.008	BH5-100 SOIL - 3/4/2024 SE263256.009	BH5-500 SOIL - 3/4/2024 SE263256.010
% Moisture	%w/w	1	6.9	4.8	10.2	5.7	10.8

PARAMETER	UOM	LOR	BH6-100 SOIL - 3/4/2024 SE263256.011	BH6-500 SOIL - 3/4/2024 SE263256.012	BH7-100 SOIL - 3/4/2024 SE263256.013	BH7-500 SOIL - 3/4/2024 SE263256.014	BH8-100 SOIL - 3/4/2024 SE263256.015
% Moisture	%w/w	1	4.2	5.3	5.5	10.1	5.8

PARAMETER	UOM	LOR	BH8-500 SOIL - 3/4/2024 SE263256.016	BH9-100 SOIL - 3/4/2024 SE263256.017	BH9-500 SOIL - 3/4/2024 SE263256.018	BH10-100 SOIL - 3/4/2024 SE263256.019	BH10-500 SOIL - 3/4/2024 SE263256.020
% Moisture	%w/w	1	8.8	3.6	3.7	3.7	4.5

PARAMETER	UOM	LOR	BH11-100 SOIL - 3/4/2024 SE263256.021	BH11-500 SOIL - 3/4/2024 SE263256.022	BH12-100 SOIL - 3/4/2024 SE263256.023	BH12-500 SOIL - 3/4/2024 SE263256.024	BH13-100 SOIL - 3/4/2024 SE263256.025
% Moisture	%w/w	1	7.3	7.1	4.7	4.8	4.0

PARAMETER	UOM	LOR	BH13-500 SOIL - 3/4/2024 SE263256.026	BH14-100 SOIL - 3/4/2024 SE263256.027	BH14-500 SOIL - 3/4/2024 SE263256.028	BH15-100 SOIL - 3/4/2024 SE263256.029	BH15-500 SOIL - 3/4/2024 SE263256.030
% Moisture	%w/w	1	4.0	6.3	5.6	7.1	5.4

PARAMETER	UOM	LOR	BH16-100 SOIL - 3/4/2024 SE263256.031	BH16-500 SOIL - 3/4/2024 SE263256.032	BH17-100 SOIL - 3/4/2024 SE263256.033	BH17-500 SOIL - 3/4/2024 SE263256.034	BH18-100 SOIL - 3/4/2024 SE263256.035
% Moisture	%w/w	1	6.2	7.6	3.6	5.6	5.9

SGS

ANALYTICAL RESULTS SE263256 R0

Moisture Content [AN002] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH18-500 SOIL - 3/4/2024 SE263256.036	BH20-100 SOIL - 3/4/2024 SE263256.037	BH20-500 SOIL - 3/4/2024 SE263256.038	BH21-100 SOIL - 3/4/2024 SE263256.039	BH21-500 SOIL - 3/4/2024 SE263256.040
% Moisture	%w/w	1	4.7	6.5	5.5	4.5	2.6

PARAMETER	UOM	LOR	BH22-100 SOIL - 3/4/2024 SE263256.041	BH22-500 SOIL - 3/4/2024 SE263256.042	BH23-100 SOIL - 3/4/2024 SE263256.043	BH23-500 SOIL - 3/4/2024 SE263256.044	BH24-100 SOIL - 3/4/2024 SE263256.045
% Moisture	%w/w	1	6.9	4.7	4.1	8.5	5.1

PARAMETER	UOM	LOR	BH24-500 SOIL - 3/4/2024 SE263256.046	BH25-100 SOIL - 3/4/2024 SE263256.047	BH25-200 SOIL - 3/4/2024 SE263256.048	BH25-500 SOIL - 3/4/2024 SE263256.049	BH26-100 SOIL - 3/4/2024 SE263256.050
% Moisture	%w/w	1	7.1	2.4	4.8	5.8	5.9

PARAMETER	UOM	LOR	BH26-500 SOIL - 3/4/2024 SE263256.051	BH27-100 SOIL - 3/4/2024 SE263256.052	BH27-500 SOIL - 3/4/2024 SE263256.053	BH28-100 SOIL - 3/4/2024 SE263256.054	BH28-500 SOIL - 3/4/2024 SE263256.055
% Moisture	%w/w	1	6.0	4.9	8.5	5.6	6.4

PARAMETER	UOM	LOR	BH29-100 SOIL - 3/4/2024 SE263256.056	BH29-500 SOIL - 3/4/2024 SE263256.057	BH30-100 SOIL - 3/4/2024 SE263256.058	BH30-500 SOIL - 3/4/2024 SE263256.059	BH31-100 SOIL - 3/4/2024 SE263256.060
% Moisture	%w/w	1	3.2	3.7	7.6	10.7	8.8

PARAMETER	UOM	LOR	BH31-500 SOIL - 3/4/2024 SE263256.061	BH32-100 SOIL - 3/4/2024 SE263256.062	BH32-500 SOIL - 3/4/2024 SE263256.063	BH33-100 SOIL - 3/4/2024 SE263256.064	BH33-1000 SOIL - 3/4/2024 SE263256.065
% Moisture	%w/w	1	3.7	7.2	7.8	6.0	6.2

PARAMETER	UOM	LOR	BH33-3000 SOIL - 3/4/2024 SE263256.066	BH34-500 SOIL - 3/4/2024 SE263256.067	BH34-1000 SOIL - 3/4/2024 SE263256.068	BH34-3000 SOIL - 3/4/2024 SE263256.069	BH35-500 SOIL - 3/4/2024 SE263256.070
% Moisture	%w/w	1	10.7	4.5	5.8	11.0	6.8

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ANALYTICAL RESULTS SE263256 R0

Moisture Content [AN002] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH35-1000 SOIL - 3/4/2024 SE263256.071	BH35-3000 SOIL - 3/4/2024 SE263256.072	BH36-500 SOIL - 3/4/2024 SE263256.073	BH36-1000 SOIL - 3/4/2024 SE263256.074	BH36-3000 SOIL - 3/4/2024 SE263256.075
% Moisture	%w/w	1	6.6	10.2	5.0	6.6	11.2

PARAMETER	UOM	LOR	BH37-500 SOIL - 3/4/2024 SE263256.076	BH37-1000 SOIL - 3/4/2024 SE263256.077	BH37-3000 SOIL - 3/4/2024 SE263256.078	BH38-500 SOIL - 3/4/2024 SE263256.079	BH38-1000 SOIL - 3/4/2024 SE263256.080
% Moisture	%w/w	1	4.9	6.2	5.3	7.5	7.3

PARAMETER	UOM	LOR	BH38-3000 SOIL - 3/4/2024 SE263256.081	BH39-300 SOIL - 3/4/2024 SE263256.082	BH39-800 SOIL - 3/4/2024 SE263256.083	BH40-100 SOIL - 3/4/2024 SE263256.084	BH40-500 SOIL - 3/4/2024 SE263256.085
% Moisture	%w/w	1	6.7	6.4	3.7	5.1	7.2

PARAMETER	UOM	LOR	BH40-1000 SOIL - 3/4/2024 SE263256.086	BH40-3000 SOIL - 3/4/2024 SE263256.087	BH41-500 SOIL - 3/4/2024 SE263256.088	BH41-1000 SOIL - 3/4/2024 SE263256.089	BH41-3000 SOIL - 3/4/2024 SE263256.090
% Moisture	%w/w	1	5.9	8.3	6.2	5.6	7.8

PARAMETER	UOM	LOR	BH42-100 SOIL - 3/4/2024 SE263256.091	BH42-500 SOIL - 3/4/2024 SE263256.092	BH43-100 SOIL - 3/4/2024 SE263256.093	BH43-500 SOIL - 3/4/2024 SE263256.094	BH44-100 SOIL - 3/4/2024 SE263256.095
% Moisture	%w/w	1	6.3	7.0	3.9	3.8	4.6

PARAMETER	UOM	LOR	BH44-500 SOIL - 3/4/2024 SE263256.096	BH46-100 SOIL - 3/4/2024 SE263256.097	BH46-500 SOIL - 3/4/2024 SE263256.098	DA SOIL - 3/4/2024 SE263256.099	DB SOIL - 3/4/2024 SE263256.100
% Moisture	%w/w	1	4.1	3.9	4.9	11.2	5.0

PARAMETER	UOM	LOR	DC SOIL - 3/4/2024 SE263256.101	DD SOIL - 3/4/2024 SE263256.102	DE SOIL - 3/4/2024 SE263256.103	BH36-100 SOIL - 3/4/2024 SE263256.104
% Moisture	%w/w	1	6.5	5.4	5.1	4.9

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METHOD SUMMARY

SE263256 R0

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.
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 AAS or ICP as per USEPA Method 200.8.
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
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.

FOOTNOTES SE263256 R0

FOOTNOTES

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

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:

a. 1 Bq is equivalent to 27 pCi
b. 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.

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.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client only. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

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STATEMENT OF QA/QC PERFORMANCE

SE263256 R0

CLIENT DETAILS

Contact	Felipe Canavez
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Project	**43874**
Order Number	**43874**
Samples	104

LABORATORY DETAILS

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SGS Reference	**SE263256 R0**
Date Received	05 Apr 2024
Date Reported	16 Apr 2024

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:

Surrogate	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	1 item
	Speciated Phenols in Soil	2 items
Duplicate	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	5 items
	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	11 items
	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
	VOC's in Soil	1 item
Matrix Spike	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
	TRH (Total Recoverable Hydrocarbons) in Soil	3 items
	VOC's in Soil	1 item
	Volatile Petroleum Hydrocarbons in Soil	1 item

SAMPLE SUMMARY

Sample counts by matrix	104 Soil	Type of documentation received	COC
Date documentation received	5/4/2024	Samples received in good order	Yes
Samples received without headspace	Yes	Sample temperature upon receipt	9.9°C
Sample container provider	SGS	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	Ice Bricks	Samples clearly labelled	Yes
Complete documentation received	Yes		

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Member of the SGS Group

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HOLDING TIME SUMMARY

SE263256 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

Mercury in Soil — **Method: ME-(AU)-[ENV]AN312**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1-100	SE263256.001	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH1-500	SE263256.002	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH2-100	SE263256.003	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH2-500	SE263256.004	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH3-100	SE263256.005	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH3-500	SE263256.006	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH4-100	SE263256.007	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH4-500	SE263256.008	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH5-100	SE263256.009	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH5-500	SE263256.010	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH6-100	SE263256.011	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH6-500	SE263256.012	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH7-100	SE263256.013	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH7-500	SE263256.014	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH8-100	SE263256.015	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH8-500	SE263256.016	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH9-100	SE263256.017	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH9-500	SE263256.018	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH10-100	SE263256.019	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH10-500	SE263256.020	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH11-100	SE263256.021	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH11-500	SE263256.022	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH12-100	SE263256.023	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH12-500	SE263256.024	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH13-100	SE263256.025	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH13-500	SE263256.026	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH14-100	SE263256.027	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH14-500	SE263256.028	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH15-100	SE263256.029	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH15-500	SE263256.030	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH16-100	SE263256.031	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH16-500	SE263256.032	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH17-100	SE263256.033	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH17-500	SE263256.034	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH18-100	SE263256.035	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH18-500	SE263256.036	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH20-100	SE263256.037	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH20-500	SE263256.038	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH21-100	SE263256.039	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH21-500	SE263256.040	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH22-100	SE263256.041	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH22-500	SE263256.042	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH23-100	SE263256.043	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH23-500	SE263256.044	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH24-100	SE263256.045	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH24-500	SE263256.046	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH25-100	SE263256.047	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH25-200	SE263256.048	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH25-500	SE263256.049	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH26-100	SE263256.050	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH26-500	SE263256.051	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH27-100	SE263256.052	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH27-500	SE263256.053	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH28-100	SE263256.054	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH28-500	SE263256.055	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH29-100	SE263256.056	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH29-500	SE263256.057	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH30-100	SE263256.058	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH30-500	SE263256.059	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH31-100	SE263256.060	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 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

Mercury in Soil (continued) **Method: ME-(AU)-[ENV]AN312**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH31-500	SE263256.061	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH32-100	SE263256.062	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH32-500	SE263256.063	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH33-100	SE263256.064	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH33-1000	SE263256.065	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH33-3000	SE263256.066	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH34-500	SE263256.067	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH34-1000	SE263256.068	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH34-3000	SE263256.069	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH35-500	SE263256.070	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH35-1000	SE263256.071	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH35-3000	SE263256.072	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH36-500	SE263256.073	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH36-1000	SE263256.074	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH36-3000	SE263256.075	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH37-500	SE263256.076	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH37-1000	SE263256.077	LB309107	03 Apr 2024	05 Apr 2024	01 May 2024	09 Apr 2024	01 May 2024	12 Apr 2024
BH37-3000	SE263256.078	LB309107	03 Apr 2024	05 Apr 2024	01 May 2024	09 Apr 2024	01 May 2024	12 Apr 2024
BH38-500	SE263256.079	LB309107	03 Apr 2024	05 Apr 2024	01 May 2024	09 Apr 2024	01 May 2024	12 Apr 2024
BH38-1000	SE263256.080	LB309107	03 Apr 2024	05 Apr 2024	01 May 2024	09 Apr 2024	01 May 2024	12 Apr 2024
BH38-3000	SE263256.081	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH39-300	SE263256.082	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH39-800	SE263256.083	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH40-100	SE263256.084	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH40-500	SE263256.085	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH40-1000	SE263256.086	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH40-3000	SE263256.087	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH41-500	SE263256.088	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH41-1000	SE263256.089	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH41-3000	SE263256.090	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH42-100	SE263256.091	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH42-500	SE263256.092	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH43-100	SE263256.093	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH43-500	SE263256.094	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH44-100	SE263256.095	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH44-500	SE263256.096	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH46-100	SE263256.097	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH46-500	SE263256.098	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
DA	SE263256.099	LB309236	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	12 Apr 2024
DB	SE263256.100	LB309236	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	12 Apr 2024
DC	SE263256.101	LB309236	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	12 Apr 2024
DD	SE263256.102	LB309236	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	12 Apr 2024
DE	SE263256.103	LB309236	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	12 Apr 2024
BH36-100	SE263256.104	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024

Moisture Content **Method: ME-(AU)-[ENV]AN002**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1-100	SE263256.001	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH1-500	SE263256.002	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH2-100	SE263256.003	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH2-500	SE263256.004	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH3-100	SE263256.005	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH3-500	SE263256.006	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH4-100	SE263256.007	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH4-500	SE263256.008	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH5-100	SE263256.009	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH5-500	SE263256.010	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH6-100	SE263256.011	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH6-500	SE263256.012	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH7-100	SE263256.013	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 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

Moisture Content (continued) **Method: ME-(AU)-[ENV]AN002**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH7-500	SE263256.014	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH8-100	SE263256.015	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH8-500	SE263256.016	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH9-100	SE263256.017	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH9-500	SE263256.018	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH10-100	SE263256.019	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH10-500	SE263256.020	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH11-100	SE263256.021	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH11-500	SE263256.022	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH12-100	SE263256.023	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH12-500	SE263256.024	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH13-100	SE263256.025	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH13-500	SE263256.026	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH14-100	SE263256.027	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH14-500	SE263256.028	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH15-100	SE263256.029	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH15-500	SE263256.030	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH16-100	SE263256.031	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH16-500	SE263256.032	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH17-100	SE263256.033	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH17-500	SE263256.034	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH18-100	SE263256.035	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH18-500	SE263256.036	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH20-100	SE263256.037	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH20-500	SE263256.038	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH21-100	SE263256.039	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH21-500	SE263256.040	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH22-100	SE263256.041	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH22-500	SE263256.042	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH23-100	SE263256.043	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH23-500	SE263256.044	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH24-100	SE263256.045	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH24-500	SE263256.046	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH25-100	SE263256.047	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH25-200	SE263256.048	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH25-500	SE263256.049	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH26-100	SE263256.050	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH26-500	SE263256.051	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH27-100	SE263256.052	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH27-500	SE263256.053	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH28-100	SE263256.054	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH28-500	SE263256.055	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH29-100	SE263256.056	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH29-500	SE263256.057	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH30-100	SE263256.058	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH30-500	SE263256.059	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH31-100	SE263256.060	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH31-500	SE263256.061	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH32-100	SE263256.062	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH32-500	SE263256.063	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH33-100	SE263256.064	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH33-1000	SE263256.065	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH33-3000	SE263256.066	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH34-500	SE263256.067	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH34-1000	SE263256.068	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH34-3000	SE263256.069	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH35-500	SE263256.070	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH35-1000	SE263256.071	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH35-3000	SE263256.072	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH36-500	SE263256.073	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 R0

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Moisture Content (continued)

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH36-1000	SE263256.074	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH36-3000	SE263256.075	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH37-500	SE263256.076	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH37-1000	SE263256.077	LB309097	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	14 Apr 2024	11 Apr 2024
BH37-3000	SE263256.078	LB309097	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	14 Apr 2024	11 Apr 2024
BH38-500	SE263256.079	LB309097	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	14 Apr 2024	11 Apr 2024
BH38-1000	SE263256.080	LB309097	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	14 Apr 2024	11 Apr 2024
BH38-3000	SE263256.081	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH39-300	SE263256.082	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH39-800	SE263256.083	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH40-100	SE263256.084	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH40-500	SE263256.085	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH40-1000	SE263256.086	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH40-3000	SE263256.087	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH41-500	SE263256.088	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH41-1000	SE263256.089	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH41-3000	SE263256.090	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH42-100	SE263256.091	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH42-500	SE263256.092	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH43-100	SE263256.093	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH43-500	SE263256.094	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH44-100	SE263256.095	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH44-500	SE263256.096	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH46-100	SE263256.097	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH46-500	SE263256.098	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
DA	SE263256.099	LB309235	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
DB	SE263256.100	LB309235	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
DC	SE263256.101	LB309235	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
DD	SE263256.102	LB309235	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
DE	SE263256.103	LB309235	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH36-100	SE263256.104	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH42-100	SE263256.091	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH42-500	SE263256.092	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH43-100	SE263256.093	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH43-500	SE263256.094	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH44-100	SE263256.095	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH44-500	SE263256.096	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1-100	SE263256.001	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH1-500	SE263256.002	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH2-100	SE263256.003	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH2-500	SE263256.004	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH3-100	SE263256.005	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH3-500	SE263256.006	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH4-100	SE263256.007	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH4-500	SE263256.008	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH5-100	SE263256.009	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH5-500	SE263256.010	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH6-100	SE263256.011	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH6-500	SE263256.012	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH7-100	SE263256.013	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH7-500	SE263256.014	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH8-100	SE263256.015	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH8-500	SE263256.016	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH9-100	SE263256.017	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH9-500	SE263256.018	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 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

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued) — Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH10-100	SE263256.019	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH10-500	SE263256.020	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH11-100	SE263256.021	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH11-500	SE263256.022	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH12-100	SE263256.023	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH12-500	SE263256.024	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH13-100	SE263256.025	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH13-500	SE263256.026	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH14-100	SE263256.027	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH14-500	SE263256.028	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH15-100	SE263256.029	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH15-500	SE263256.030	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH16-100	SE263256.031	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH16-500	SE263256.032	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH17-100	SE263256.033	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH17-500	SE263256.034	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH18-100	SE263256.035	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH18-500	SE263256.036	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH20-100	SE263256.037	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH20-500	SE263256.038	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH21-100	SE263256.039	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH21-500	SE263256.040	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH22-100	SE263256.041	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH22-500	SE263256.042	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH23-100	SE263256.043	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH23-500	SE263256.044	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH24-100	SE263256.045	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH24-500	SE263256.046	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH25-100	SE263256.047	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH25-200	SE263256.048	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH25-500	SE263256.049	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH26-100	SE263256.050	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH26-500	SE263256.051	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH27-100	SE263256.052	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH27-500	SE263256.053	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH28-100	SE263256.054	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH28-500	SE263256.055	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH29-100	SE263256.056	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH29-500	SE263256.057	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH30-100	SE263256.058	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH30-500	SE263256.059	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH31-100	SE263256.060	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH31-500	SE263256.061	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH32-100	SE263256.062	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH32-500	SE263256.063	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH33-100	SE263256.064	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH33-1000	SE263256.065	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH33-3000	SE263256.066	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH34-500	SE263256.067	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH34-1000	SE263256.068	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH34-3000	SE263256.069	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH35-500	SE263256.070	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH35-1000	SE263256.071	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH35-3000	SE263256.072	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH36-500	SE263256.073	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH36-1000	SE263256.074	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH36-3000	SE263256.075	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH37-500	SE263256.076	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH37-1000	SE263256.077	LB309083	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH37-3000	SE263256.078	LB309083	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 R0

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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]AN420**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH38-500	SE263256.079	LB309083	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH38-1000	SE263256.080	LB309083	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH38-3000	SE263256.081	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH39-300	SE263256.082	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH39-800	SE263256.083	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH40-100	SE263256.084	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH40-500	SE263256.085	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH40-1000	SE263256.086	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH40-3000	SE263256.087	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH41-500	SE263256.088	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH41-1000	SE263256.089	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH41-3000	SE263256.090	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH42-100	SE263256.091	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH42-500	SE263256.092	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH43-100	SE263256.093	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH43-500	SE263256.094	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH44-100	SE263256.095	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH44-500	SE263256.096	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH46-100	SE263256.097	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH46-500	SE263256.098	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH36-100	SE263256.104	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024

Speciated Phenols in Soil — **Method: ME-(AU)-[ENV]AN420**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH42-100	SE263256.091	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH42-500	SE263256.092	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH43-100	SE263256.093	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH43-500	SE263256.094	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH44-100	SE263256.095	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH44-500	SE263256.096	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES — **Method: ME-(AU)-[ENV]AN040/AN320**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1-100	SE263256.001	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH1-500	SE263256.002	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH2-100	SE263256.003	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH2-500	SE263256.004	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH3-100	SE263256.005	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH3-500	SE263256.006	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH4-100	SE263256.007	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH4-500	SE263256.008	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH5-100	SE263256.009	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH5-500	SE263256.010	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH6-100	SE263256.011	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH6-500	SE263256.012	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH7-100	SE263256.013	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH7-500	SE263256.014	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH8-100	SE263256.015	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH8-500	SE263256.016	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH9-100	SE263256.017	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH9-500	SE263256.018	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH10-100	SE263256.019	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH10-500	SE263256.020	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH11-100	SE263256.021	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH11-500	SE263256.022	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH12-100	SE263256.023	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH12-500	SE263256.024	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH13-100	SE263256.025	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH13-500	SE263256.026	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH14-100	SE263256.027	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH14-500	SE263256.028	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 R0

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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)-[ENV]AN040/AN320**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH15-100	SE263256.029	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH15-500	SE263256.030	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH16-100	SE263256.031	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH16-500	SE263256.032	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH17-100	SE263256.033	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH17-500	SE263256.034	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH18-100	SE263256.035	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH18-500	SE263256.036	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH20-100	SE263256.037	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH20-500	SE263256.038	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH21-100	SE263256.039	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH21-500	SE263256.040	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH22-100	SE263256.041	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH22-500	SE263256.042	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH23-100	SE263256.043	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH23-500	SE263256.044	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH24-100	SE263256.045	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH24-500	SE263256.046	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH25-100	SE263256.047	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH25-200	SE263256.048	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH25-500	SE263256.049	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH26-100	SE263256.050	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH26-500	SE263256.051	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH27-100	SE263256.052	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH27-500	SE263256.053	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH28-100	SE263256.054	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH28-500	SE263256.055	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH29-100	SE263256.056	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH29-500	SE263256.057	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH30-100	SE263256.058	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH30-500	SE263256.059	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH31-100	SE263256.060	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH31-500	SE263256.061	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH32-100	SE263256.062	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH32-500	SE263256.063	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH33-100	SE263256.064	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH33-1000	SE263256.065	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH33-3000	SE263256.066	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH34-500	SE263256.067	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH34-1000	SE263256.068	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH34-3000	SE263256.069	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH35-500	SE263256.070	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH35-1000	SE263256.071	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH35-3000	SE263256.072	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH36-500	SE263256.073	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH36-1000	SE263256.074	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH36-3000	SE263256.075	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH37-500	SE263256.076	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH37-1000	SE263256.077	LB309102	03 Apr 2024	05 Apr 2024	30 Sep 2024	09 Apr 2024	30 Sep 2024	12 Apr 2024
BH37-3000	SE263256.078	LB309102	03 Apr 2024	05 Apr 2024	30 Sep 2024	09 Apr 2024	30 Sep 2024	12 Apr 2024
BH38-500	SE263256.079	LB309102	03 Apr 2024	05 Apr 2024	30 Sep 2024	09 Apr 2024	30 Sep 2024	12 Apr 2024
BH38-1000	SE263256.080	LB309102	03 Apr 2024	05 Apr 2024	30 Sep 2024	09 Apr 2024	30 Sep 2024	12 Apr 2024
BH38-3000	SE263256.081	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH39-300	SE263256.082	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH39-800	SE263256.083	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH40-100	SE263256.084	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH40-500	SE263256.085	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH40-1000	SE263256.086	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH40-3000	SE263256.087	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH41-500	SE263256.088	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 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

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued) — **Method: ME-(AU)-[ENV]AN040/AN320**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH41-1000	SE263256.089	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH41-3000	SE263256.090	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH42-100	SE263256.091	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH42-500	SE263256.092	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH43-100	SE263256.093	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH43-500	SE263256.094	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH44-100	SE263256.095	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH44-500	SE263256.096	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH46-100	SE263256.097	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH46-500	SE263256.098	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
DA	SE263256.099	LB309231	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
DB	SE263256.100	LB309231	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
DC	SE263256.101	LB309231	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
DD	SE263256.102	LB309231	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
DE	SE263256.103	LB309231	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH36-100	SE263256.104	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024

TRH (Total Recoverable Hydrocarbons) in Soil — **Method: ME-(AU)-[ENV]AN403**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1-100	SE263256.001	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH1-500	SE263256.002	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH2-100	SE263256.003	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH2-500	SE263256.004	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH3-100	SE263256.005	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH3-500	SE263256.006	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH4-100	SE263256.007	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH4-500	SE263256.008	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH5-100	SE263256.009	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH5-500	SE263256.010	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH6-100	SE263256.011	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH6-500	SE263256.012	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH7-100	SE263256.013	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH7-500	SE263256.014	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH8-100	SE263256.015	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH8-500	SE263256.016	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH9-100	SE263256.017	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH9-500	SE263256.018	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH10-100	SE263256.019	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH10-500	SE263256.020	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH11-100	SE263256.021	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH11-500	SE263256.022	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH12-100	SE263256.023	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH12-500	SE263256.024	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH13-100	SE263256.025	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH13-500	SE263256.026	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH14-100	SE263256.027	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH14-500	SE263256.028	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH15-100	SE263256.029	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH15-500	SE263256.030	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH16-100	SE263256.031	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH16-500	SE263256.032	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH17-100	SE263256.033	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH17-500	SE263256.034	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH18-100	SE263256.035	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH18-500	SE263256.036	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH20-100	SE263256.037	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH20-500	SE263256.038	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH21-100	SE263256.039	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH21-500	SE263256.040	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH22-100	SE263256.041	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 R0

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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
BH22-500	SE263256.042	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH23-100	SE263256.043	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH23-500	SE263256.044	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH24-100	SE263256.045	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH24-500	SE263256.046	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH25-100	SE263256.047	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH25-200	SE263256.048	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH25-500	SE263256.049	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH26-100	SE263256.050	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH26-500	SE263256.051	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH27-100	SE263256.052	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH27-500	SE263256.053	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH28-100	SE263256.054	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH28-500	SE263256.055	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH29-100	SE263256.056	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH29-500	SE263256.057	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH30-100	SE263256.058	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH30-500	SE263256.059	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH31-100	SE263256.060	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH31-500	SE263256.061	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH32-100	SE263256.062	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH32-500	SE263256.063	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH33-100	SE263256.064	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH33-1000	SE263256.065	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH33-3000	SE263256.066	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH34-500	SE263256.067	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH34-1000	SE263256.068	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH34-3000	SE263256.069	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH35-500	SE263256.070	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH35-1000	SE263256.071	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH35-3000	SE263256.072	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH36-500	SE263256.073	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH36-1000	SE263256.074	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH36-3000	SE263256.075	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH37-500	SE263256.076	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH37-1000	SE263256.077	LB309083	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	11 Apr 2024
BH37-3000	SE263256.078	LB309083	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	11 Apr 2024
BH38-500	SE263256.079	LB309083	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	11 Apr 2024
BH38-1000	SE263256.080	LB309083	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	11 Apr 2024
BH38-3000	SE263256.081	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH39-300	SE263256.082	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH39-800	SE263256.083	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH40-100	SE263256.084	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH40-500	SE263256.085	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH40-1000	SE263256.086	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH40-3000	SE263256.087	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH41-500	SE263256.088	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH41-1000	SE263256.089	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH41-3000	SE263256.090	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH42-100	SE263256.091	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH42-500	SE263256.092	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH43-100	SE263256.093	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH43-500	SE263256.094	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH44-100	SE263256.095	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH44-500	SE263256.096	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH46-100	SE263256.097	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH46-500	SE263256.098	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH36-100	SE263256.104	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 R0

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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 — **Method: ME-(AU)-[ENV]AN433**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1-100	SE263256.001	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH1-500	SE263256.002	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH2-100	SE263256.003	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH2-500	SE263256.004	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH3-100	SE263256.005	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH3-500	SE263256.006	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH4-100	SE263256.007	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH4-500	SE263256.008	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH5-100	SE263256.009	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH5-500	SE263256.010	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH6-100	SE263256.011	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH6-500	SE263256.012	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH7-100	SE263256.013	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH7-500	SE263256.014	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH8-100	SE263256.015	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH8-500	SE263256.016	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH9-100	SE263256.017	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH9-500	SE263256.018	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH10-100	SE263256.019	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH10-500	SE263256.020	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH11-100	SE263256.021	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH11-500	SE263256.022	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH12-100	SE263256.023	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH12-500	SE263256.024	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH13-100	SE263256.025	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH13-500	SE263256.026	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH14-100	SE263256.027	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH14-500	SE263256.028	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH15-100	SE263256.029	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH15-500	SE263256.030	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH16-100	SE263256.031	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH16-500	SE263256.032	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH17-100	SE263256.033	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH17-500	SE263256.034	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH18-100	SE263256.035	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH18-500	SE263256.036	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH20-100	SE263256.037	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH20-500	SE263256.038	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH21-100	SE263256.039	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH21-500	SE263256.040	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH22-100	SE263256.041	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH22-500	SE263256.042	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH23-100	SE263256.043	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH23-500	SE263256.044	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH24-100	SE263256.045	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH24-500	SE263256.046	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH25-100	SE263256.047	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH25-200	SE263256.048	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH25-500	SE263256.049	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH26-100	SE263256.050	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH26-500	SE263256.051	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH27-100	SE263256.052	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH27-500	SE263256.053	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH28-100	SE263256.054	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH28-500	SE263256.055	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH29-100	SE263256.056	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH29-500	SE263256.057	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH30-100	SE263256.058	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH30-500	SE263256.059	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH31-100	SE263256.060	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 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

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH31-500	SE263256.061	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH32-100	SE263256.062	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH32-500	SE263256.063	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH33-100	SE263256.064	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH33-1000	SE263256.065	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH33-3000	SE263256.066	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH34-500	SE263256.067	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH34-1000	SE263256.068	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH34-3000	SE263256.069	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH35-500	SE263256.070	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH35-1000	SE263256.071	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH35-3000	SE263256.072	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH36-500	SE263256.073	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH36-1000	SE263256.074	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH36-3000	SE263256.075	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH37-500	SE263256.076	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH37-1000	SE263256.077	LB309092	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	17 Apr 2024	15 Apr 2024
BH37-3000	SE263256.078	LB309092	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	17 Apr 2024	15 Apr 2024
BH38-500	SE263256.079	LB309092	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	17 Apr 2024	15 Apr 2024
BH38-1000	SE263256.080	LB309092	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	17 Apr 2024	15 Apr 2024
BH38-3000	SE263256.081	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH39-300	SE263256.082	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH39-800	SE263256.083	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH40-100	SE263256.084	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH40-500	SE263256.085	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH40-1000	SE263256.086	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH40-3000	SE263256.087	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH41-500	SE263256.088	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH41-1000	SE263256.089	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH41-3000	SE263256.090	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH42-100	SE263256.091	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH42-500	SE263256.092	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH43-100	SE263256.093	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH43-500	SE263256.094	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH44-100	SE263256.095	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH44-500	SE263256.096	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH46-100	SE263256.097	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH46-500	SE263256.098	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH36-100	SE263256.104	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1-100	SE263256.001	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH1-500	SE263256.002	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH2-100	SE263256.003	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH2-500	SE263256.004	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH3-100	SE263256.005	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH3-500	SE263256.006	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH4-100	SE263256.007	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH4-500	SE263256.008	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH5-100	SE263256.009	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH5-500	SE263256.010	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH6-100	SE263256.011	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH6-500	SE263256.012	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH7-100	SE263256.013	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH7-500	SE263256.014	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH8-100	SE263256.015	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH8-500	SE263256.016	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH9-100	SE263256.017	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH9-500	SE263256.018	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 R0

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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)-[ENV]AN433**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH10-100	SE263256.019	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH10-500	SE263256.020	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH11-100	SE263256.021	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH11-500	SE263256.022	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH12-100	SE263256.023	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH12-500	SE263256.024	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH13-100	SE263256.025	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH13-500	SE263256.026	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH14-100	SE263256.027	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH14-500	SE263256.028	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH15-100	SE263256.029	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH15-500	SE263256.030	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH16-100	SE263256.031	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH16-500	SE263256.032	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH17-100	SE263256.033	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH17-500	SE263256.034	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH18-100	SE263256.035	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH18-500	SE263256.036	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH20-100	SE263256.037	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH20-500	SE263256.038	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH21-100	SE263256.039	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH21-500	SE263256.040	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH22-100	SE263256.041	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH22-500	SE263256.042	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH23-100	SE263256.043	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH23-500	SE263256.044	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH24-100	SE263256.045	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH24-500	SE263256.046	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH25-100	SE263256.047	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH25-200	SE263256.048	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH25-500	SE263256.049	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH26-100	SE263256.050	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH26-500	SE263256.051	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH27-100	SE263256.052	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH27-500	SE263256.053	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH28-100	SE263256.054	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH28-500	SE263256.055	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH29-100	SE263256.056	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH29-500	SE263256.057	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH30-100	SE263256.058	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH30-500	SE263256.059	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH31-100	SE263256.060	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH31-500	SE263256.061	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH32-100	SE263256.062	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH32-500	SE263256.063	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH33-100	SE263256.064	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH33-1000	SE263256.065	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH33-3000	SE263256.066	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH34-500	SE263256.067	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH34-1000	SE263256.068	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH34-3000	SE263256.069	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH35-500	SE263256.070	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH35-1000	SE263256.071	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH35-3000	SE263256.072	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH36-500	SE263256.073	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH36-1000	SE263256.074	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH36-3000	SE263256.075	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH37-500	SE263256.076	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH37-1000	SE263256.077	LB309092	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	17 Apr 2024	15 Apr 2024
BH37-3000	SE263256.078	LB309092	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	17 Apr 2024	15 Apr 2024

HOLDING TIME SUMMARY SE263256 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)-[ENV]AN433**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH38-500	SE263256.079	LB309092	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	17 Apr 2024	15 Apr 2024
BH38-1000	SE263256.080	LB309092	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	17 Apr 2024	15 Apr 2024
BH38-3000	SE263256.081	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH39-300	SE263256.082	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH39-800	SE263256.083	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH40-100	SE263256.084	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH40-500	SE263256.085	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH40-1000	SE263256.086	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH40-3000	SE263256.087	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH41-500	SE263256.088	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH41-1000	SE263256.089	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH41-3000	SE263256.090	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH42-100	SE263256.091	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH42-500	SE263256.092	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH43-100	SE263256.093	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH43-500	SE263256.094	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH44-100	SE263256.095	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH44-500	SE263256.096	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH46-100	SE263256.097	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH46-500	SE263256.098	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH36-100	SE263256.104	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024

SURROGATES SE263256 R0

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 identifer 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)	BH42-100	SE263256.091	%	60 - 130%	95
	BH42-500	SE263256.092	%	60 - 130%	91
	BH43-100	SE263256.093	%	60 - 130%	93
	BH43-500	SE263256.094	%	60 - 130%	95
	BH44-100	SE263256.095	%	60 - 130%	97
	BH44-500	SE263256.096	%	60 - 130%	97

PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH1-100	SE263256.001	%	70 - 130%	83
	BH1-500	SE263256.002	%	70 - 130%	82
	BH2-100	SE263256.003	%	70 - 130%	77
	BH2-500	SE263256.004	%	70 - 130%	79
	BH3-100	SE263256.005	%	70 - 130%	101
	BH3-500	SE263256.006	%	70 - 130%	79
	BH4-100	SE263256.007	%	70 - 130%	78
	BH4-500	SE263256.008	%	70 - 130%	77
	BH5-100	SE263256.009	%	70 - 130%	76
	BH5-500	SE263256.010	%	70 - 130%	73
	BH6-100	SE263256.011	%	70 - 130%	76
	BH6-500	SE263256.012	%	70 - 130%	74
	BH7-100	SE263256.013	%	70 - 130%	84
	BH7-500	SE263256.014	%	70 - 130%	79
	BH8-100	SE263256.015	%	70 - 130%	97
	BH8-500	SE263256.016	%	70 - 130%	76
	BH9-100	SE263256.017	%	70 - 130%	82
	BH9-500	SE263256.018	%	70 - 130%	74
	BH10-100	SE263256.019	%	70 - 130%	100
	BH10-500	SE263256.020	%	70 - 130%	98
	BH11-100	SE263256.021	%	70 - 130%	101
	BH11-500	SE263256.022	%	70 - 130%	100
	BH12-100	SE263256.023	%	70 - 130%	103
	BH12-500	SE263256.024	%	70 - 130%	83
	BH13-100	SE263256.025	%	70 - 130%	102
	BH13-500	SE263256.026	%	70 - 130%	96
	BH14-100	SE263256.027	%	70 - 130%	99
	BH14-500	SE263256.028	%	70 - 130%	98
	BH15-100	SE263256.029	%	70 - 130%	99
	BH15-500	SE263256.030	%	70 - 130%	82
	BH16-100	SE263256.031	%	70 - 130%	97
	BH16-500	SE263256.032	%	70 - 130%	100
	BH17-100	SE263256.033	%	70 - 130%	103
	BH17-500	SE263256.034	%	70 - 130%	82
	BH18-100	SE263256.035	%	70 - 130%	99
	BH18-500	SE263256.036	%	70 - 130%	99
	BH20-100	SE263256.037	%	70 - 130%	102
	BH20-500	SE263256.038	%	70 - 130%	99
	BH21-100	SE263256.039	%	70 - 130%	106
	BH21-500	SE263256.040	%	70 - 130%	98
	BH22-100	SE263256.041	%	70 - 130%	104
	BH22-500	SE263256.042	%	70 - 130%	96
	BH23-100	SE263256.043	%	70 - 130%	105
	BH23-500	SE263256.044	%	70 - 130%	96
	BH24-100	SE263256.045	%	70 - 130%	109
	BH24-500	SE263256.046	%	70 - 130%	106
	BH25-100	SE263256.047	%	70 - 130%	102
	BH25-200	SE263256.048	%	70 - 130%	85
	BH25-500	SE263256.049	%	70 - 130%	98
	BH26-100	SE263256.050	%	70 - 130%	103
	BH26-500	SE263256.051	%	70 - 130%	101
	BH27-100	SE263256.052	%	70 - 130%	100

SGS

SURROGATES

SE263256 R0

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 identifer 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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH27-500	SE263256.053	%	70 - 130%	93
	BH28-100	SE263256.054	%	70 - 130%	101
	BH28-500	SE263256.055	%	70 - 130%	98
	BH29-100	SE263256.056	%	70 - 130%	96
	BH29-500	SE263256.057	%	70 - 130%	98
	BH30-100	SE263256.058	%	70 - 130%	99
	BH30-500	SE263256.059	%	70 - 130%	100
	BH31-100	SE263256.060	%	70 - 130%	101
	BH31-500	SE263256.061	%	70 - 130%	99
	BH32-100	SE263256.062	%	70 - 130%	100
	BH32-500	SE263256.063	%	70 - 130%	107
	BH33-100	SE263256.064	%	70 - 130%	94
	BH33-1000	SE263256.065	%	70 - 130%	99
	BH33-3000	SE263256.066	%	70 - 130%	102
	BH34-500	SE263256.067	%	70 - 130%	89
	BH34-1000	SE263256.068	%	70 - 130%	97
	BH34-3000	SE263256.069	%	70 - 130%	96
	BH35-500	SE263256.070	%	70 - 130%	109
	BH35-1000	SE263256.071	%	70 - 130%	96
	BH35-3000	SE263256.072	%	70 - 130%	108
	BH36-500	SE263256.073	%	70 - 130%	105
	BH36-1000	SE263256.074	%	70 - 130%	91
	BH36-3000	SE263256.075	%	70 - 130%	105
	BH37-500	SE263256.076	%	70 - 130%	100
	BH37-1000	SE263256.077	%	70 - 130%	103
	BH37-3000	SE263256.078	%	70 - 130%	103
	BH38-500	SE263256.079	%	70 - 130%	100
	BH38-1000	SE263256.080	%	70 - 130%	98
	BH38-3000	SE263256.081	%	70 - 130%	101
	BH39-300	SE263256.082	%	70 - 130%	105
	BH39-800	SE263256.083	%	70 - 130%	106
	BH40-100	SE263256.084	%	70 - 130%	107
	BH40-500	SE263256.085	%	70 - 130%	104
	BH40-1000	SE263256.086	%	70 - 130%	108
	BH40-3000	SE263256.087	%	70 - 130%	105
	BH41-500	SE263256.088	%	70 - 130%	106
	BH41-1000	SE263256.089	%	70 - 130%	107
	BH41-3000	SE263256.090	%	70 - 130%	104
	BH42-100	SE263256.091	%	70 - 130%	107
	BH42-500	SE263256.092	%	70 - 130%	107
	BH43-100	SE263256.093	%	70 - 130%	104
	BH43-500	SE263256.094	%	70 - 130%	112
	BH44-100	SE263256.095	%	70 - 130%	102
	BH44-500	SE263256.096	%	70 - 130%	101
	BH46-100	SE263256.097	%	70 - 130%	103
	BH46-500	SE263256.098	%	70 - 130%	104
	BH36-100	SE263256.104	%	70 - 130%	102
d14-p-terphenyl (Surrogate)	BH1-100	SE263256.001	%	70 - 130%	119
	BH1-500	SE263256.002	%	70 - 130%	115
	BH2-100	SE263256.003	%	70 - 130%	111
	BH2-500	SE263256.004	%	70 - 130%	117
	BH3-100	SE263256.005	%	70 - 130%	121
	BH3-500	SE263256.006	%	70 - 130%	115
	BH4-100	SE263256.007	%	70 - 130%	116
	BH4-500	SE263256.008	%	70 - 130%	116
	BH5-100	SE263256.009	%	70 - 130%	120
	BH5-500	SE263256.010	%	70 - 130%	117
	BH6-100	SE263256.011	%	70 - 130%	116
	BH6-500	SE263256.012	%	70 - 130%	114
	BH7-100	SE263256.013	%	70 - 130%	121
	BH7-500	SE263256.014	%	70 - 130%	125

SURROGATES SE263256 R0

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 identifer 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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d14-p-terphenyl (Surrogate)	BH8-100	SE263256.015	%	70 - 130%	114
	BH8-500	SE263256.016	%	70 - 130%	118
	BH9-100	SE263256.017	%	70 - 130%	119
	BH9-500	SE263256.018	%	70 - 130%	114
	BH10-100	SE263256.019	%	70 - 130%	121
	BH10-500	SE263256.020	%	70 - 130%	108
	BH11-100	SE263256.021	%	70 - 130%	123
	BH11-500	SE263256.022	%	70 - 130%	114
	BH12-100	SE263256.023	%	70 - 130%	118
	BH12-500	SE263256.024	%	70 - 130%	115
	BH13-100	SE263256.025	%	70 - 130%	113
	BH13-500	SE263256.026	%	70 - 130%	110
	BH14-100	SE263256.027	%	70 - 130%	112
	BH14-500	SE263256.028	%	70 - 130%	107
	BH15-100	SE263256.029	%	70 - 130%	118
	BH15-500	SE263256.030	%	70 - 130%	114
	BH16-100	SE263256.031	%	70 - 130%	114
	BH16-500	SE263256.032	%	70 - 130%	118
	BH17-100	SE263256.033	%	70 - 130%	121
	BH17-500	SE263256.034	%	70 - 130%	115
	BH18-100	SE263256.035	%	70 - 130%	117
	BH18-500	SE263256.036	%	70 - 130%	117
	BH20-100	SE263256.037	%	70 - 130%	115
	BH20-500	SE263256.038	%	70 - 130%	112
	BH21-100	SE263256.039	%	70 - 130%	104
	BH21-500	SE263256.040	%	70 - 130%	111
	BH22-100	SE263256.041	%	70 - 130%	108
	BH22-500	SE263256.042	%	70 - 130%	98
	BH23-100	SE263256.043	%	70 - 130%	106
	BH23-500	SE263256.044	%	70 - 130%	101
	BH24-100	SE263256.045	%	70 - 130%	105
	BH24-500	SE263256.046	%	70 - 130%	107
	BH25-100	SE263256.047	%	70 - 130%	102
	BH25-200	SE263256.048	%	70 - 130%	40 ⓘ
	BH25-500	SE263256.049	%	70 - 130%	109
	BH26-100	SE263256.050	%	70 - 130%	100
	BH26-500	SE263256.051	%	70 - 130%	108
	BH27-100	SE263256.052	%	70 - 130%	106
	BH27-500	SE263256.053	%	70 - 130%	100
	BH28-100	SE263256.054	%	70 - 130%	103
	BH28-500	SE263256.055	%	70 - 130%	101
	BH29-100	SE263256.056	%	70 - 130%	104
	BH29-500	SE263256.057	%	70 - 130%	104
	BH30-100	SE263256.058	%	70 - 130%	103
	BH30-500	SE263256.059	%	70 - 130%	98
	BH31-100	SE263256.060	%	70 - 130%	101
	BH31-500	SE263256.061	%	70 - 130%	99
	BH32-100	SE263256.062	%	70 - 130%	106
	BH32-500	SE263256.063	%	70 - 130%	110
	BH33-100	SE263256.064	%	70 - 130%	95
	BH33-1000	SE263256.065	%	70 - 130%	100
	BH33-3000	SE263256.066	%	70 - 130%	101
	BH34-500	SE263256.067	%	70 - 130%	95
	BH34-1000	SE263256.068	%	70 - 130%	97
	BH34-3000	SE263256.069	%	70 - 130%	93
	BH35-500	SE263256.070	%	70 - 130%	105
	BH35-1000	SE263256.071	%	70 - 130%	93
	BH35-3000	SE263256.072	%	70 - 130%	108
	BH36-500	SE263256.073	%	70 - 130%	98
	BH36-1000	SE263256.074	%	70 - 130%	96
	BH36-3000	SE263256.075	%	70 - 130%	101

SURROGATES SE263256 R0

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 identifer 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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d14-p-terphenyl (Surrogate)	BH37-500	SE263256.076	%	70 - 130%	99
	BH37-1000	SE263256.077	%	70 - 130%	103
	BH37-3000	SE263256.078	%	70 - 130%	113
	BH38-500	SE263256.079	%	70 - 130%	109
	BH38-1000	SE263256.080	%	70 - 130%	108
	BH38-3000	SE263256.081	%	70 - 130%	99
	BH39-300	SE263256.082	%	70 - 130%	109
	BH39-800	SE263256.083	%	70 - 130%	109
	BH40-100	SE263256.084	%	70 - 130%	111
	BH40-500	SE263256.085	%	70 - 130%	103
	BH40-1000	SE263256.086	%	70 - 130%	106
	BH40-3000	SE263256.087	%	70 - 130%	102
	BH41-500	SE263256.088	%	70 - 130%	108
	BH41-1000	SE263256.089	%	70 - 130%	107
	BH41-3000	SE263256.090	%	70 - 130%	105
	BH42-100	SE263256.091	%	70 - 130%	107
	BH42-500	SE263256.092	%	70 - 130%	105
	BH43-100	SE263256.093	%	70 - 130%	108
	BH43-500	SE263256.094	%	70 - 130%	106
	BH44-100	SE263256.095	%	70 - 130%	103
	BH44-500	SE263256.096	%	70 - 130%	104
	BH46-100	SE263256.097	%	70 - 130%	101
	BH46-500	SE263256.098	%	70 - 130%	97
	BH36-100	SE263256.104	%	70 - 130%	108
d5-nitrobenzene (Surrogate)	BH1-100	SE263256.001	%	70 - 130%	108
	BH1-500	SE263256.002	%	70 - 130%	108
	BH2-100	SE263256.003	%	70 - 130%	105
	BH2-500	SE263256.004	%	70 - 130%	107
	BH3-100	SE263256.005	%	70 - 130%	105
	BH3-500	SE263256.006	%	70 - 130%	103
	BH4-100	SE263256.007	%	70 - 130%	104
	BH4-500	SE263256.008	%	70 - 130%	106
	BH5-100	SE263256.009	%	70 - 130%	102
	BH5-500	SE263256.010	%	70 - 130%	100
	BH6-100	SE263256.011	%	70 - 130%	105
	BH6-500	SE263256.012	%	70 - 130%	103
	BH7-100	SE263256.013	%	70 - 130%	113
	BH7-500	SE263256.014	%	70 - 130%	114
	BH8-100	SE263256.015	%	70 - 130%	102
	BH8-500	SE263256.016	%	70 - 130%	107
	BH9-100	SE263256.017	%	70 - 130%	104
	BH9-500	SE263256.018	%	70 - 130%	101
	BH10-100	SE263256.019	%	70 - 130%	106
	BH10-500	SE263256.020	%	70 - 130%	96
	BH11-100	SE263256.021	%	70 - 130%	93
	BH11-500	SE263256.022	%	70 - 130%	104
	BH12-100	SE263256.023	%	70 - 130%	108
	BH12-500	SE263256.024	%	70 - 130%	105
	BH13-100	SE263256.025	%	70 - 130%	104
	BH13-500	SE263256.026	%	70 - 130%	99
	BH14-100	SE263256.027	%	70 - 130%	99
	BH14-500	SE263256.028	%	70 - 130%	95
	BH15-100	SE263256.029	%	70 - 130%	99
	BH15-500	SE263256.030	%	70 - 130%	100
	BH16-100	SE263256.031	%	70 - 130%	96
	BH16-500	SE263256.032	%	70 - 130%	104
	BH17-100	SE263256.033	%	70 - 130%	109
	BH17-500	SE263256.034	%	70 - 130%	102
	BH18-100	SE263256.035	%	70 - 130%	101
	BH18-500	SE263256.036	%	70 - 130%	107
	BH20-100	SE263256.037	%	70 - 130%	104

SGS

SURROGATES

SE263256 R0

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 identifer 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**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d5-nitrobenzene (Surrogate)	BH20-500	SE263256.038	%	70 - 130%	101
	BH21-100	SE263256.039	%	70 - 130%	94
	BH21-500	SE263256.040	%	70 - 130%	99
	BH22-100	SE263256.041	%	70 - 130%	99
	BH22-500	SE263256.042	%	70 - 130%	98
	BH23-100	SE263256.043	%	70 - 130%	101
	BH23-500	SE263256.044	%	70 - 130%	93
	BH24-100	SE263256.045	%	70 - 130%	101
	BH24-500	SE263256.046	%	70 - 130%	100
	BH25-100	SE263256.047	%	70 - 130%	98
	BH25-200	SE263256.048	%	70 - 130%	89
	BH25-500	SE263256.049	%	70 - 130%	101
	BH26-100	SE263256.050	%	70 - 130%	98
	BH26-500	SE263256.051	%	70 - 130%	98
	BH27-100	SE263256.052	%	70 - 130%	97
	BH27-500	SE263256.053	%	70 - 130%	93
	BH28-100	SE263256.054	%	70 - 130%	99
	BH28-500	SE263256.055	%	70 - 130%	99
	BH29-100	SE263256.056	%	70 - 130%	101
	BH29-500	SE263256.057	%	70 - 130%	101
	BH30-100	SE263256.058	%	70 - 130%	105
	BH30-500	SE263256.059	%	70 - 130%	104
	BH31-100	SE263256.060	%	70 - 130%	106
	BH31-500	SE263256.061	%	70 - 130%	101
	BH32-100	SE263256.062	%	70 - 130%	112
	BH32-500	SE263256.063	%	70 - 130%	118
	BH33-100	SE263256.064	%	70 - 130%	100
	BH33-1000	SE263256.065	%	70 - 130%	111
	BH33-3000	SE263256.066	%	70 - 130%	111
	BH34-500	SE263256.067	%	70 - 130%	106
	BH34-1000	SE263256.068	%	70 - 130%	102
	BH34-3000	SE263256.069	%	70 - 130%	104
	BH35-500	SE263256.070	%	70 - 130%	107
	BH35-1000	SE263256.071	%	70 - 130%	95
	BH35-3000	SE263256.072	%	70 - 130%	112
	BH36-500	SE263256.073	%	70 - 130%	105
	BH36-1000	SE263256.074	%	70 - 130%	107
	BH36-3000	SE263256.075	%	70 - 130%	107
	BH37-500	SE263256.076	%	70 - 130%	104
	BH37-1000	SE263256.077	%	70 - 130%	112
	BH37-3000	SE263256.078	%	70 - 130%	122
	BH38-500	SE263256.079	%	70 - 130%	110
	BH38-1000	SE263256.080	%	70 - 130%	118
	BH38-3000	SE263256.081	%	70 - 130%	112
	BH39-300	SE263256.082	%	70 - 130%	118
	BH39-800	SE263256.083	%	70 - 130%	113
	BH40-100	SE263256.084	%	70 - 130%	117
	BH40-500	SE263256.085	%	70 - 130%	114
	BH40-1000	SE263256.086	%	70 - 130%	116
	BH40-3000	SE263256.087	%	70 - 130%	116
	BH41-500	SE263256.088	%	70 - 130%	118
	BH41-1000	SE263256.089	%	70 - 130%	116
	BH41-3000	SE263256.090	%	70 - 130%	112
	BH42-100	SE263256.091	%	70 - 130%	119
	BH42-500	SE263256.092	%	70 - 130%	114
	BH43-100	SE263256.093	%	70 - 130%	118
	BH43-500	SE263256.094	%	70 - 130%	121
	BH44-100	SE263256.095	%	70 - 130%	114
	BH44-500	SE263256.096	%	70 - 130%	112
	BH46-100	SE263256.097	%	70 - 130%	113
	BH46-500	SE263256.098	%	70 - 130%	116

SGS

SURROGATES

SE263256 R0

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 identifer 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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d5-nitrobenzene (Surrogate)	BH36-100	SE263256.104	%	70 - 130%	118

Speciated Phenols in Soil — Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2,4,6-Tribromophenol (Surrogate)	BH42-100	SE263256.091	%	70 - 130%	83
	BH42-500	SE263256.092	%	70 - 130%	75
	BH43-100	SE263256.093	%	70 - 130%	75
	BH43-500	SE263256.094	%	70 - 130%	32 ⊖
	BH44-100	SE263256.095	%	70 - 130%	83
	BH44-500	SE263256.096	%	70 - 130%	66 ⊖
d5-phenol (Surrogate)	BH42-100	SE263256.091	%	50 - 130%	110
	BH42-500	SE263256.092	%	50 - 130%	88
	BH43-100	SE263256.093	%	50 - 130%	111
	BH43-500	SE263256.094	%	50 - 130%	52
	BH44-100	SE263256.095	%	50 - 130%	117
	BH44-500	SE263256.096	%	50 - 130%	102

VOC's in Soil — Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1-100	SE263256.001	%	60 - 130%	73
	BH1-500	SE263256.002	%	60 - 130%	92
	BH2-100	SE263256.003	%	60 - 130%	94
	BH2-500	SE263256.004	%	60 - 130%	81
	BH3-100	SE263256.005	%	60 - 130%	84
	BH3-500	SE263256.006	%	60 - 130%	85
	BH4-100	SE263256.007	%	60 - 130%	82
	BH4-500	SE263256.008	%	60 - 130%	79
	BH5-100	SE263256.009	%	60 - 130%	83
	BH5-500	SE263256.010	%	60 - 130%	83
	BH6-100	SE263256.011	%	60 - 130%	82
	BH6-500	SE263256.012	%	60 - 130%	90
	BH7-100	SE263256.013	%	60 - 130%	81
	BH7-500	SE263256.014	%	60 - 130%	78
	BH8-100	SE263256.015	%	60 - 130%	88
	BH8-500	SE263256.016	%	60 - 130%	77
	BH9-100	SE263256.017	%	60 - 130%	82
	BH9-500	SE263256.018	%	60 - 130%	93
	BH10-100	SE263256.019	%	60 - 130%	99
	BH10-500	SE263256.020	%	60 - 130%	78
	BH11-100	SE263256.021	%	60 - 130%	94
	BH11-500	SE263256.022	%	60 - 130%	86
	BH12-100	SE263256.023	%	60 - 130%	91
	BH12-500	SE263256.024	%	60 - 130%	86
	BH13-100	SE263256.025	%	60 - 130%	78
	BH13-500	SE263256.026	%	60 - 130%	80
	BH14-100	SE263256.027	%	60 - 130%	89
	BH14-500	SE263256.028	%	60 - 130%	82
	BH15-100	SE263256.029	%	60 - 130%	78
	BH15-500	SE263256.030	%	60 - 130%	76
	BH16-100	SE263256.031	%	60 - 130%	74
	BH16-500	SE263256.032	%	60 - 130%	88
	BH17-100	SE263256.033	%	60 - 130%	78
	BH17-500	SE263256.034	%	60 - 130%	80
	BH18-100	SE263256.035	%	60 - 130%	81
	BH18-500	SE263256.036	%	60 - 130%	87
	BH20-100	SE263256.037	%	60 - 130%	79
	BH20-500	SE263256.038	%	60 - 130%	76
	BH21-100	SE263256.039	%	60 - 130%	95
	BH21-500	SE263256.040	%	60 - 130%	97
	BH22-100	SE263256.041	%	60 - 130%	74
	BH22-500	SE263256.042	%	60 - 130%	97
	BH23-100	SE263256.043	%	60 - 130%	83

SURROGATES SE263256 R0

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 identifer 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 %
Bromofluorobenzene (Surrogate)	BH23-500	SE263256.044	%	60 - 130%	74
	BH24-100	SE263256.045	%	60 - 130%	89
	BH24-500	SE263256.046	%	60 - 130%	82
	BH25-100	SE263256.047	%	60 - 130%	79
	BH25-200	SE263256.048	%	60 - 130%	73
	BH25-500	SE263256.049	%	60 - 130%	94
	BH26-100	SE263256.050	%	60 - 130%	92
	BH26-500	SE263256.051	%	60 - 130%	85
	BH27-100	SE263256.052	%	60 - 130%	89
	BH27-500	SE263256.053	%	60 - 130%	89
	BH28-100	SE263256.054	%	60 - 130%	83
	BH28-500	SE263256.055	%	60 - 130%	83
	BH29-100	SE263256.056	%	60 - 130%	81
	BH29-500	SE263256.057	%	60 - 130%	77
	BH30-100	SE263256.058	%	60 - 130%	95
	BH30-500	SE263256.059	%	60 - 130%	95
	BH31-100	SE263256.060	%	60 - 130%	98
	BH31-500	SE263256.061	%	60 - 130%	94
	BH32-100	SE263256.062	%	60 - 130%	99
	BH32-500	SE263256.063	%	60 - 130%	89
	BH33-100	SE263256.064	%	60 - 130%	89
	BH33-1000	SE263256.065	%	60 - 130%	98
	BH33-3000	SE263256.066	%	60 - 130%	92
	BH34-500	SE263256.067	%	60 - 130%	97
	BH34-1000	SE263256.068	%	60 - 130%	91
	BH34-3000	SE263256.069	%	60 - 130%	88
	BH35-500	SE263256.070	%	60 - 130%	91
	BH35-1000	SE263256.071	%	60 - 130%	100
	BH35-3000	SE263256.072	%	60 - 130%	80
	BH36-500	SE263256.073	%	60 - 130%	95
	BH36-1000	SE263256.074	%	60 - 130%	89
	BH36-3000	SE263256.075	%	60 - 130%	90
	BH37-500	SE263256.076	%	60 - 130%	80
	BH37-1000	SE263256.077	%	60 - 130%	91
	BH37-3000	SE263256.078	%	60 - 130%	77
	BH38-500	SE263256.079	%	60 - 130%	83
	BH38-1000	SE263256.080	%	60 - 130%	84
	BH38-3000	SE263256.081	%	60 - 130%	93
	BH39-300	SE263256.082	%	60 - 130%	92
	BH39-800	SE263256.083	%	60 - 130%	96
	BH40-100	SE263256.084	%	60 - 130%	103
	BH40-500	SE263256.085	%	60 - 130%	96
	BH40-1000	SE263256.086	%	60 - 130%	91
	BH40-3000	SE263256.087	%	60 - 130%	91
	BH41-500	SE263256.088	%	60 - 130%	93
	BH41-1000	SE263256.089	%	60 - 130%	97
	BH41-3000	SE263256.090	%	60 - 130%	99
	BH42-100	SE263256.091	%	60 - 130%	97
	BH42-500	SE263256.092	%	60 - 130%	94
	BH43-100	SE263256.093	%	60 - 130%	82
	BH43-500	SE263256.094	%	60 - 130%	95
	BH44-100	SE263256.095	%	60 - 130%	96
	BH44-500	SE263256.096	%	60 - 130%	95
	BH46-100	SE263256.097	%	60 - 130%	92
	BH46-500	SE263256.098	%	60 - 130%	98
	BH36-100	SE263256.104	%	60 - 130%	97
d4-1,2-dichloroethane (Surrogate)	BH1-100	SE263256.001	%	60 - 130%	70
	BH1-500	SE263256.002	%	60 - 130%	95
	BH2-100	SE263256.003	%	60 - 130%	97
	BH2-500	SE263256.004	%	60 - 130%	91
	BH3-100	SE263256.005	%	60 - 130%	92

SURROGATES SE263256 R0

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 identifer 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 %
d4-1,2-dichloroethane (Surrogate)	BH3-500	SE263256.006	%	60 - 130%	90
	BH4-100	SE263256.007	%	60 - 130%	90
	BH4-500	SE263256.008	%	60 - 130%	85
	BH5-100	SE263256.009	%	60 - 130%	92
	BH5-500	SE263256.010	%	60 - 130%	82
	BH6-100	SE263256.011	%	60 - 130%	92
	BH6-500	SE263256.012	%	60 - 130%	81
	BH7-100	SE263256.013	%	60 - 130%	89
	BH7-500	SE263256.014	%	60 - 130%	85
	BH8-100	SE263256.015	%	60 - 130%	82
	BH8-500	SE263256.016	%	60 - 130%	88
	BH9-100	SE263256.017	%	60 - 130%	93
	BH9-500	SE263256.018	%	60 - 130%	86
	BH10-100	SE263256.019	%	60 - 130%	97
	BH10-500	SE263256.020	%	60 - 130%	80
	BH11-100	SE263256.021	%	60 - 130%	94
	BH11-500	SE263256.022	%	60 - 130%	73
	BH12-100	SE263256.023	%	60 - 130%	86
	BH12-500	SE263256.024	%	60 - 130%	80
	BH13-100	SE263256.025	%	60 - 130%	88
	BH13-500	SE263256.026	%	60 - 130%	94
	BH14-100	SE263256.027	%	60 - 130%	78
	BH14-500	SE263256.028	%	60 - 130%	76
	BH15-100	SE263256.029	%	60 - 130%	88
	BH15-500	SE263256.030	%	60 - 130%	91
	BH16-100	SE263256.031	%	60 - 130%	88
	BH16-500	SE263256.032	%	60 - 130%	102
	BH17-100	SE263256.033	%	60 - 130%	74
	BH17-500	SE263256.034	%	60 - 130%	97
	BH18-100	SE263256.035	%	60 - 130%	95
	BH18-500	SE263256.036	%	60 - 130%	81
	BH20-100	SE263256.037	%	60 - 130%	96
	BH20-500	SE263256.038	%	60 - 130%	91
	BH21-100	SE263256.039	%	60 - 130%	88
	BH21-500	SE263256.040	%	60 - 130%	97
	BH22-100	SE263256.041	%	60 - 130%	89
	BH22-500	SE263256.042	%	60 - 130%	94
	BH23-100	SE263256.043	%	60 - 130%	102
	BH23-500	SE263256.044	%	60 - 130%	92
	BH24-100	SE263256.045	%	60 - 130%	85
	BH24-500	SE263256.046	%	60 - 130%	102
	BH25-100	SE263256.047	%	60 - 130%	100
	BH25-200	SE263256.048	%	60 - 130%	80
	BH25-500	SE263256.049	%	60 - 130%	100
	BH26-100	SE263256.050	%	60 - 130%	88
	BH26-500	SE263256.051	%	60 - 130%	83
	BH27-100	SE263256.052	%	60 - 130%	86
	BH27-500	SE263256.053	%	60 - 130%	85
	BH28-100	SE263256.054	%	60 - 130%	104
	BH28-500	SE263256.055	%	60 - 130%	98
	BH29-100	SE263256.056	%	60 - 130%	100
	BH29-500	SE263256.057	%	60 - 130%	92
	BH30-100	SE263256.058	%	60 - 130%	97
	BH30-500	SE263256.059	%	60 - 130%	93
	BH31-100	SE263256.060	%	60 - 130%	96
	BH31-500	SE263256.061	%	60 - 130%	96
	BH32-100	SE263256.062	%	60 - 130%	124
	BH32-500	SE263256.063	%	60 - 130%	106
	BH33-100	SE263256.064	%	60 - 130%	103
	BH33-1000	SE263256.065	%	60 - 130%	123
	BH33-3000	SE263256.066	%	60 - 130%	106

SURROGATES SE263256 R0

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 identifer 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 %
d4-1,2-dichloroethane (Surrogate)	BH34-500	SE263256.067	%	60 - 130%	119
	BH34-1000	SE263256.068	%	60 - 130%	94
	BH34-3000	SE263256.069	%	60 - 130%	89
	BH35-500	SE263256.070	%	60 - 130%	95
	BH35-1000	SE263256.071	%	60 - 130%	102
	BH35-3000	SE263256.072	%	60 - 130%	79
	BH36-500	SE263256.073	%	60 - 130%	99
	BH36-1000	SE263256.074	%	60 - 130%	91
	BH36-3000	SE263256.075	%	60 - 130%	95
	BH37-500	SE263256.076	%	60 - 130%	82
	BH37-1000	SE263256.077	%	60 - 130%	89
	BH37-3000	SE263256.078	%	60 - 130%	98
	BH38-500	SE263256.079	%	60 - 130%	100
	BH38-1000	SE263256.080	%	60 - 130%	81
	BH38-3000	SE263256.081	%	60 - 130%	95
	BH39-300	SE263256.082	%	60 - 130%	93
	BH39-800	SE263256.083	%	60 - 130%	101
	BH40-100	SE263256.084	%	60 - 130%	105
	BH40-500	SE263256.085	%	60 - 130%	98
	BH40-1000	SE263256.086	%	60 - 130%	88
	BH40-3000	SE263256.087	%	60 - 130%	96
	BH41-500	SE263256.088	%	60 - 130%	98
	BH41-1000	SE263256.089	%	60 - 130%	103
	BH41-3000	SE263256.090	%	60 - 130%	103
	BH42-100	SE263256.091	%	60 - 130%	102
	BH42-500	SE263256.092	%	60 - 130%	99
	BH43-100	SE263256.093	%	60 - 130%	87
	BH43-500	SE263256.094	%	60 - 130%	100
	BH44-100	SE263256.095	%	60 - 130%	100
	BH44-500	SE263256.096	%	60 - 130%	100
	BH46-100	SE263256.097	%	60 - 130%	99
	BH46-500	SE263256.098	%	60 - 130%	104
	BH36-100	SE263256.104	%	60 - 130%	103
d8-toluene (Surrogate)	BH1-100	SE263256.001	%	60 - 130%	66
	BH1-500	SE263256.002	%	60 - 130%	103
	BH2-100	SE263256.003	%	60 - 130%	90
	BH2-500	SE263256.004	%	60 - 130%	95
	BH3-100	SE263256.005	%	60 - 130%	99
	BH3-500	SE263256.006	%	60 - 130%	99
	BH4-100	SE263256.007	%	60 - 130%	97
	BH4-500	SE263256.008	%	60 - 130%	93
	BH5-100	SE263256.009	%	60 - 130%	99
	BH5-500	SE263256.010	%	60 - 130%	89
	BH6-100	SE263256.011	%	60 - 130%	100
	BH6-500	SE263256.012	%	60 - 130%	103
	BH7-100	SE263256.013	%	60 - 130%	95
	BH7-500	SE263256.014	%	60 - 130%	92
	BH8-100	SE263256.015	%	60 - 130%	102
	BH8-500	SE263256.016	%	60 - 130%	91
	BH9-100	SE263256.017	%	60 - 130%	101
	BH9-500	SE263256.018	%	60 - 130%	108
	BH10-100	SE263256.019	%	60 - 130%	90
	BH10-500	SE263256.020	%	60 - 130%	79
	BH11-100	SE263256.021	%	60 - 130%	97
	BH11-500	SE263256.022	%	60 - 130%	79
	BH12-100	SE263256.023	%	60 - 130%	105
	BH12-500	SE263256.024	%	60 - 130%	101
	BH13-100	SE263256.025	%	60 - 130%	93
	BH13-500	SE263256.026	%	60 - 130%	97
	BH14-100	SE263256.027	%	60 - 130%	98
	BH14-500	SE263256.028	%	60 - 130%	96

SGS

SURROGATES

SE263256 R0

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 identifer 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)	BH15-100	SE263256.029	%	60 - 130%	88
	BH15-500	SE263256.030	%	60 - 130%	92
	BH16-100	SE263256.031	%	60 - 130%	91
	BH16-500	SE263256.032	%	60 - 130%	106
	BH17-100	SE263256.033	%	60 - 130%	93
	BH17-500	SE263256.034	%	60 - 130%	99
	BH18-100	SE263256.035	%	60 - 130%	97
	BH18-500	SE263256.036	%	60 - 130%	102
	BH20-100	SE263256.037	%	60 - 130%	95
	BH20-500	SE263256.038	%	60 - 130%	92
	BH21-100	SE263256.039	%	60 - 130%	110
	BH21-500	SE263256.040	%	60 - 130%	91
	BH22-100	SE263256.041	%	60 - 130%	86
	BH22-500	SE263256.042	%	60 - 130%	90
	BH23-100	SE263256.043	%	60 - 130%	98
	BH23-500	SE263256.044	%	60 - 130%	87
	BH24-100	SE263256.045	%	60 - 130%	105
	BH24-500	SE263256.046	%	60 - 130%	99
	BH25-100	SE263256.047	%	60 - 130%	97
	BH25-200	SE263256.048	%	60 - 130%	96
	BH25-500	SE263256.049	%	60 - 130%	93
	BH26-100	SE263256.050	%	60 - 130%	110
	BH26-500	SE263256.051	%	60 - 130%	103
	BH27-100	SE263256.052	%	60 - 130%	107
	BH27-500	SE263256.053	%	60 - 130%	106
	BH28-100	SE263256.054	%	60 - 130%	98
	BH28-500	SE263256.055	%	60 - 130%	95
	BH29-100	SE263256.056	%	60 - 130%	98
	BH29-500	SE263256.057	%	60 - 130%	89
	BH30-100	SE263256.058	%	60 - 130%	93
	BH30-500	SE263256.059	%	60 - 130%	91
	BH31-100	SE263256.060	%	60 - 130%	93
	BH31-500	SE263256.061	%	60 - 130%	92
	BH32-100	SE263256.062	%	60 - 130%	125
	BH32-500	SE263256.063	%	60 - 130%	109
	BH33-100	SE263256.064	%	60 - 130%	110
	BH33-1000	SE263256.065	%	60 - 130%	119
	BH33-3000	SE263256.066	%	60 - 130%	117
	BH34-500	SE263256.067	%	60 - 130%	127
	BH34-1000	SE263256.068	%	60 - 130%	89
	BH34-3000	SE263256.069	%	60 - 130%	85
	BH35-500	SE263256.070	%	60 - 130%	89
	BH35-1000	SE263256.071	%	60 - 130%	96
	BH35-3000	SE263256.072	%	60 - 130%	77
	BH36-500	SE263256.073	%	60 - 130%	93
	BH36-1000	SE263256.074	%	60 - 130%	86
	BH36-3000	SE263256.075	%	60 - 130%	89
	BH37-500	SE263256.076	%	60 - 130%	78
	BH37-1000	SE263256.077	%	60 - 130%	96
	BH37-3000	SE263256.078	%	60 - 130%	100
	BH38-500	SE263256.079	%	60 - 130%	106
	BH38-1000	SE263256.080	%	60 - 130%	85
	BH38-3000	SE263256.081	%	60 - 130%	87
	BH39-300	SE263256.082	%	60 - 130%	88
	BH39-800	SE263256.083	%	60 - 130%	94
	BH40-100	SE263256.084	%	60 - 130%	98
	BH40-500	SE263256.085	%	60 - 130%	92
	BH40-1000	SE263256.086	%	60 - 130%	84
	BH40-3000	SE263256.087	%	60 - 130%	88
	BH41-500	SE263256.088	%	60 - 130%	91
	BH41-1000	SE263256.089	%	60 - 130%	96

SGS

SURROGATES

SE263256 R0

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 identifer 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)	BH41-3000	SE263256.090	%	60 - 130%	95
	BH42-100	SE263256.091	%	60 - 130%	93
	BH42-500	SE263256.092	%	60 - 130%	90
	BH43-100	SE263256.093	%	60 - 130%	82
	BH43-500	SE263256.094	%	60 - 130%	93
	BH44-100	SE263256.095	%	60 - 130%	93
	BH44-500	SE263256.096	%	60 - 130%	93
	BH46-100	SE263256.097	%	60 - 130%	92
	BH46-500	SE263256.098	%	60 - 130%	96
	BH36-100	SE263256.104	%	60 - 130%	95

Volatile Petroleum Hydrocarbons in Soil — Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1-100	SE263256.001	%	60 - 130%	73
	BH1-500	SE263256.002	%	60 - 130%	92
	BH2-100	SE263256.003	%	60 - 130%	94
	BH2-500	SE263256.004	%	60 - 130%	81
	BH3-100	SE263256.005	%	60 - 130%	84
	BH3-500	SE263256.006	%	60 - 130%	85
	BH4-100	SE263256.007	%	60 - 130%	82
	BH4-500	SE263256.008	%	60 - 130%	79
	BH5-100	SE263256.009	%	60 - 130%	83
	BH5-500	SE263256.010	%	60 - 130%	83
	BH6-100	SE263256.011	%	60 - 130%	82
	BH6-500	SE263256.012	%	60 - 130%	90
	BH7-100	SE263256.013	%	60 - 130%	81
	BH7-500	SE263256.014	%	60 - 130%	78
	BH8-100	SE263256.015	%	60 - 130%	88
	BH8-500	SE263256.016	%	60 - 130%	77
	BH9-100	SE263256.017	%	60 - 130%	82
	BH9-500	SE263256.018	%	60 - 130%	93
	BH10-100	SE263256.019	%	60 - 130%	99
	BH10-500	SE263256.020	%	60 - 130%	78
	BH11-100	SE263256.021	%	60 - 130%	94
	BH11-500	SE263256.022	%	60 - 130%	86
	BH12-100	SE263256.023	%	60 - 130%	91
	BH12-500	SE263256.024	%	60 - 130%	86
	BH13-100	SE263256.025	%	60 - 130%	78
	BH13-500	SE263256.026	%	60 - 130%	80
	BH14-100	SE263256.027	%	60 - 130%	89
	BH14-500	SE263256.028	%	60 - 130%	82
	BH15-100	SE263256.029	%	60 - 130%	78
	BH15-500	SE263256.030	%	60 - 130%	76
	BH16-100	SE263256.031	%	60 - 130%	74
	BH16-500	SE263256.032	%	60 - 130%	88
	BH17-100	SE263256.033	%	60 - 130%	78
	BH17-500	SE263256.034	%	60 - 130%	80
	BH18-100	SE263256.035	%	60 - 130%	81
	BH18-500	SE263256.036	%	60 - 130%	87
	BH20-100	SE263256.037	%	60 - 130%	79
	BH20-500	SE263256.038	%	60 - 130%	76
	BH21-100	SE263256.039	%	60 - 130%	95
	BH21-500	SE263256.040	%	60 - 130%	97
	BH22-100	SE263256.041	%	60 - 130%	74
	BH22-500	SE263256.042	%	60 - 130%	97
	BH23-100	SE263256.043	%	60 - 130%	83
	BH23-500	SE263256.044	%	60 - 130%	74
	BH24-100	SE263256.045	%	60 - 130%	89
	BH24-500	SE263256.046	%	60 - 130%	82
	BH25-100	SE263256.047	%	60 - 130%	79
	BH25-200	SE263256.048	%	60 - 130%	73

SURROGATES SE263256 R0

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 identifer 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)	BH25-500	SE263256.049	%	60 - 130%	94
	BH26-100	SE263256.050	%	60 - 130%	92
	BH26-500	SE263256.051	%	60 - 130%	85
	BH27-100	SE263256.052	%	60 - 130%	89
	BH27-500	SE263256.053	%	60 - 130%	89
	BH28-100	SE263256.054	%	60 - 130%	83
	BH28-500	SE263256.055	%	60 - 130%	83
	BH29-100	SE263256.056	%	60 - 130%	81
	BH29-500	SE263256.057	%	60 - 130%	77
	BH30-100	SE263256.058	%	60 - 130%	95
	BH30-500	SE263256.059	%	60 - 130%	95
	BH31-100	SE263256.060	%	60 - 130%	98
	BH31-500	SE263256.061	%	60 - 130%	94
	BH32-100	SE263256.062	%	60 - 130%	99
	BH32-500	SE263256.063	%	60 - 130%	89
	BH33-100	SE263256.064	%	60 - 130%	89
	BH33-1000	SE263256.065	%	60 - 130%	98
	BH33-3000	SE263256.066	%	60 - 130%	92
	BH34-500	SE263256.067	%	60 - 130%	97
	BH34-1000	SE263256.068	%	60 - 130%	91
	BH34-3000	SE263256.069	%	60 - 130%	88
	BH35-500	SE263256.070	%	60 - 130%	91
	BH35-1000	SE263256.071	%	60 - 130%	100
	BH35-3000	SE263256.072	%	60 - 130%	80
	BH36-500	SE263256.073	%	60 - 130%	95
	BH36-1000	SE263256.074	%	60 - 130%	89
	BH36-3000	SE263256.075	%	60 - 130%	90
	BH37-500	SE263256.076	%	60 - 130%	80
	BH37-1000	SE263256.077	%	60 - 130%	91
	BH37-3000	SE263256.078	%	60 - 130%	77
	BH38-500	SE263256.079	%	60 - 130%	83
	BH38-1000	SE263256.080	%	60 - 130%	84
	BH38-3000	SE263256.081	%	60 - 130%	93
	BH39-300	SE263256.082	%	60 - 130%	92
	BH39-800	SE263256.083	%	60 - 130%	96
	BH40-100	SE263256.084	%	60 - 130%	103
	BH40-500	SE263256.085	%	60 - 130%	96
	BH40-1000	SE263256.086	%	60 - 130%	91
	BH40-3000	SE263256.087	%	60 - 130%	91
	BH41-500	SE263256.088	%	60 - 130%	93
	BH41-1000	SE263256.089	%	60 - 130%	97
	BH41-3000	SE263256.090	%	60 - 130%	99
	BH42-100	SE263256.091	%	60 - 130%	97
	BH42-500	SE263256.092	%	60 - 130%	94
	BH43-100	SE263256.093	%	60 - 130%	82
	BH43-500	SE263256.094	%	60 - 130%	95
	BH44-100	SE263256.095	%	60 - 130%	96
	BH44-500	SE263256.096	%	60 - 130%	95
	BH46-100	SE263256.097	%	60 - 130%	92
	BH46-500	SE263256.098	%	60 - 130%	98
	BH36-100	SE263256.104	%	60 - 130%	97
d4-1,2-dichloroethane (Surrogate)	BH1-100	SE263256.001	%	60 - 130%	70
	BH1-500	SE263256.002	%	60 - 130%	95
	BH2-100	SE263256.003	%	60 - 130%	97
	BH2-500	SE263256.004	%	60 - 130%	91
	BH3-100	SE263256.005	%	60 - 130%	92
	BH3-500	SE263256.006	%	60 - 130%	90
	BH4-100	SE263256.007	%	60 - 130%	90
	BH4-500	SE263256.008	%	60 - 130%	85
	BH5-100	SE263256.009	%	60 - 130%	92
	BH5-500	SE263256.010	%	60 - 130%	82

SURROGATES SE263256 R0

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 identifer 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 %
d4-1,2-dichloroethane (Surrogate)	BH6-100	SE263256.011	%	60 - 130%	92
	BH6-500	SE263256.012	%	60 - 130%	81
	BH7-100	SE263256.013	%	60 - 130%	89
	BH7-500	SE263256.014	%	60 - 130%	85
	BH8-100	SE263256.015	%	60 - 130%	82
	BH8-500	SE263256.016	%	60 - 130%	88
	BH9-100	SE263256.017	%	60 - 130%	93
	BH9-500	SE263256.018	%	60 - 130%	86
	BH10-100	SE263256.019	%	60 - 130%	97
	BH10-500	SE263256.020	%	60 - 130%	80
	BH11-100	SE263256.021	%	60 - 130%	94
	BH11-500	SE263256.022	%	60 - 130%	73
	BH12-100	SE263256.023	%	60 - 130%	86
	BH12-500	SE263256.024	%	60 - 130%	80
	BH13-100	SE263256.025	%	60 - 130%	88
	BH13-500	SE263256.026	%	60 - 130%	94
	BH14-100	SE263256.027	%	60 - 130%	78
	BH14-500	SE263256.028	%	60 - 130%	76
	BH15-100	SE263256.029	%	60 - 130%	88
	BH15-500	SE263256.030	%	60 - 130%	91
	BH16-100	SE263256.031	%	60 - 130%	88
	BH16-500	SE263256.032	%	60 - 130%	102
	BH17-100	SE263256.033	%	60 - 130%	74
	BH17-500	SE263256.034	%	60 - 130%	97
	BH18-100	SE263256.035	%	60 - 130%	95
	BH18-500	SE263256.036	%	60 - 130%	81
	BH20-100	SE263256.037	%	60 - 130%	96
	BH20-500	SE263256.038	%	60 - 130%	91
	BH21-100	SE263256.039	%	60 - 130%	88
	BH21-500	SE263256.040	%	60 - 130%	97
	BH22-100	SE263256.041	%	60 - 130%	89
	BH22-500	SE263256.042	%	60 - 130%	94
	BH23-100	SE263256.043	%	60 - 130%	102
	BH23-500	SE263256.044	%	60 - 130%	92
	BH24-100	SE263256.045	%	60 - 130%	85
	BH24-500	SE263256.046	%	60 - 130%	102
	BH25-100	SE263256.047	%	60 - 130%	100
	BH25-200	SE263256.048	%	60 - 130%	80
	BH25-500	SE263256.049	%	60 - 130%	100
	BH26-100	SE263256.050	%	60 - 130%	88
	BH26-500	SE263256.051	%	60 - 130%	83
	BH27-100	SE263256.052	%	60 - 130%	86
	BH27-500	SE263256.053	%	60 - 130%	85
	BH28-100	SE263256.054	%	60 - 130%	104
	BH28-500	SE263256.055	%	60 - 130%	98
	BH29-100	SE263256.056	%	60 - 130%	100
	BH29-500	SE263256.057	%	60 - 130%	92
	BH30-100	SE263256.058	%	60 - 130%	97
	BH30-500	SE263256.059	%	60 - 130%	93
	BH31-100	SE263256.060	%	60 - 130%	96
	BH31-500	SE263256.061	%	60 - 130%	96
	BH32-100	SE263256.062	%	60 - 130%	124
	BH32-500	SE263256.063	%	60 - 130%	106
	BH33-100	SE263256.064	%	60 - 130%	103
	BH33-1000	SE263256.065	%	60 - 130%	123
	BH33-3000	SE263256.066	%	60 - 130%	106
	BH34-500	SE263256.067	%	60 - 130%	119
	BH34-1000	SE263256.068	%	60 - 130%	94
	BH34-3000	SE263256.069	%	60 - 130%	89
	BH35-500	SE263256.070	%	60 - 130%	95
	BH35-1000	SE263256.071	%	60 - 130%	102

SURROGATES SE263256 R0

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 identifer 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 %
d4-1,2-dichloroethane (Surrogate)	BH35-3000	SE263256.072	%	60 - 130%	79
	BH36-500	SE263256.073	%	60 - 130%	99
	BH36-1000	SE263256.074	%	60 - 130%	91
	BH36-3000	SE263256.075	%	60 - 130%	95
	BH37-500	SE263256.076	%	60 - 130%	82
	BH37-1000	SE263256.077	%	60 - 130%	89
	BH37-3000	SE263256.078	%	60 - 130%	98
	BH38-500	SE263256.079	%	60 - 130%	100
	BH38-1000	SE263256.080	%	60 - 130%	81
	BH38-3000	SE263256.081	%	60 - 130%	95
	BH39-300	SE263256.082	%	60 - 130%	93
	BH39-800	SE263256.083	%	60 - 130%	101
	BH40-100	SE263256.084	%	60 - 130%	105
	BH40-500	SE263256.085	%	60 - 130%	98
	BH40-1000	SE263256.086	%	60 - 130%	88
	BH40-3000	SE263256.087	%	60 - 130%	96
	BH41-500	SE263256.088	%	60 - 130%	98
	BH41-1000	SE263256.089	%	60 - 130%	103
	BH41-3000	SE263256.090	%	60 - 130%	103
	BH42-100	SE263256.091	%	60 - 130%	102
	BH42-500	SE263256.092	%	60 - 130%	99
	BH43-100	SE263256.093	%	60 - 130%	87
	BH43-500	SE263256.094	%	60 - 130%	100
	BH44-100	SE263256.095	%	60 - 130%	100
	BH44-500	SE263256.096	%	60 - 130%	100
	BH46-100	SE263256.097	%	60 - 130%	99
	BH46-500	SE263256.098	%	60 - 130%	104
	BH36-100	SE263256.104	%	60 - 130%	103
d8-toluene (Surrogate)	BH1-100	SE263256.001	%	60 - 130%	66
	BH1-500	SE263256.002	%	60 - 130%	103
	BH2-100	SE263256.003	%	60 - 130%	90
	BH2-500	SE263256.004	%	60 - 130%	95
	BH3-100	SE263256.005	%	60 - 130%	99
	BH3-500	SE263256.006	%	60 - 130%	99
	BH4-100	SE263256.007	%	60 - 130%	97
	BH4-500	SE263256.008	%	60 - 130%	93
	BH5-100	SE263256.009	%	60 - 130%	99
	BH5-500	SE263256.010	%	60 - 130%	89
	BH6-100	SE263256.011	%	60 - 130%	100
	BH6-500	SE263256.012	%	60 - 130%	103
	BH7-100	SE263256.013	%	60 - 130%	95
	BH7-500	SE263256.014	%	60 - 130%	92
	BH8-100	SE263256.015	%	60 - 130%	102
	BH8-500	SE263256.016	%	60 - 130%	91
	BH9-100	SE263256.017	%	60 - 130%	101
	BH9-500	SE263256.018	%	60 - 130%	108
	BH10-100	SE263256.019	%	60 - 130%	90
	BH10-500	SE263256.020	%	60 - 130%	79
	BH11-100	SE263256.021	%	60 - 130%	97
	BH11-500	SE263256.022	%	60 - 130%	79
	BH12-100	SE263256.023	%	60 - 130%	105
	BH12-500	SE263256.024	%	60 - 130%	101
	BH13-100	SE263256.025	%	60 - 130%	93
	BH13-500	SE263256.026	%	60 - 130%	97
	BH14-100	SE263256.027	%	60 - 130%	98
	BH14-500	SE263256.028	%	60 - 130%	96
	BH15-100	SE263256.029	%	60 - 130%	88
	BH15-500	SE263256.030	%	60 - 130%	92
	BH16-100	SE263256.031	%	60 - 130%	91
	BH16-500	SE263256.032	%	60 - 130%	106
	BH17-100	SE263256.033	%	60 - 130%	93

SGS

SURROGATES

SE263256 R0

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 identifer 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)	BH17-500	SE263256.034	%	60 - 130%	99
	BH18-100	SE263256.035	%	60 - 130%	97
	BH18-500	SE263256.036	%	60 - 130%	102
	BH20-100	SE263256.037	%	60 - 130%	95
	BH20-500	SE263256.038	%	60 - 130%	92
	BH21-100	SE263256.039	%	60 - 130%	110
	BH21-500	SE263256.040	%	60 - 130%	91
	BH22-100	SE263256.041	%	60 - 130%	86
	BH22-500	SE263256.042	%	60 - 130%	90
	BH23-100	SE263256.043	%	60 - 130%	98
	BH23-500	SE263256.044	%	60 - 130%	87
	BH24-100	SE263256.045	%	60 - 130%	105
	BH24-500	SE263256.046	%	60 - 130%	99
	BH25-100	SE263256.047	%	60 - 130%	97
	BH25-200	SE263256.048	%	60 - 130%	96
	BH25-500	SE263256.049	%	60 - 130%	93
	BH26-100	SE263256.050	%	60 - 130%	110
	BH26-500	SE263256.051	%	60 - 130%	103
	BH27-100	SE263256.052	%	60 - 130%	107
	BH27-500	SE263256.053	%	60 - 130%	106
	BH28-100	SE263256.054	%	60 - 130%	98
	BH28-500	SE263256.055	%	60 - 130%	95
	BH29-100	SE263256.056	%	60 - 130%	98
	BH29-500	SE263256.057	%	60 - 130%	89
	BH30-100	SE263256.058	%	60 - 130%	93
	BH30-500	SE263256.059	%	60 - 130%	91
	BH31-100	SE263256.060	%	60 - 130%	93
	BH31-500	SE263256.061	%	60 - 130%	92
	BH32-100	SE263256.062	%	60 - 130%	125
	BH32-500	SE263256.063	%	60 - 130%	109
	BH33-100	SE263256.064	%	60 - 130%	110
	BH33-1000	SE263256.065	%	60 - 130%	119
	BH33-3000	SE263256.066	%	60 - 130%	117
	BH34-500	SE263256.067	%	60 - 130%	127
	BH34-1000	SE263256.068	%	60 - 130%	89
	BH34-3000	SE263256.069	%	60 - 130%	85
	BH35-500	SE263256.070	%	60 - 130%	89
	BH35-1000	SE263256.071	%	60 - 130%	96
	BH35-3000	SE263256.072	%	60 - 130%	77
	BH36-500	SE263256.073	%	60 - 130%	93
	BH36-1000	SE263256.074	%	60 - 130%	86
	BH36-3000	SE263256.075	%	60 - 130%	89
	BH37-500	SE263256.076	%	60 - 130%	78
	BH37-1000	SE263256.077	%	60 - 130%	96
	BH37-3000	SE263256.078	%	60 - 130%	100
	BH38-500	SE263256.079	%	60 - 130%	106
	BH38-1000	SE263256.080	%	60 - 130%	85
	BH38-3000	SE263256.081	%	60 - 130%	87
	BH39-300	SE263256.082	%	60 - 130%	88
	BH39-800	SE263256.083	%	60 - 130%	94
	BH40-100	SE263256.084	%	60 - 130%	98
	BH40-500	SE263256.085	%	60 - 130%	92
	BH40-1000	SE263256.086	%	60 - 130%	84
	BH40-3000	SE263256.087	%	60 - 130%	88
	BH41-500	SE263256.088	%	60 - 130%	91
	BH41-1000	SE263256.089	%	60 - 130%	96
	BH41-3000	SE263256.090	%	60 - 130%	95
	BH42-100	SE263256.091	%	60 - 130%	93
	BH42-500	SE263256.092	%	60 - 130%	90
	BH43-100	SE263256.093	%	60 - 130%	82
	BH43-500	SE263256.094	%	60 - 130%	93

SURROGATES SE263256 R0

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 identifer 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)	BH44-100	SE263256.095	%	60 - 130%	93
	BH44-500	SE263256.096	%	60 - 130%	93
	BH46-100	SE263256.097	%	60 - 130%	92
	BH46-500	SE263256.098	%	60 - 130%	96
	BH36-100	SE263256.104	%	60 - 130%	95

SGS

METHOD BLANKS

SE263256 R0

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.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result
LB309107.001	Mercury	mg/kg	0.05	<0.05
LB309204.001	Mercury	mg/kg	0.05	<0.05
LB309212.001	Mercury	mg/kg	0.05	<0.05
LB309236.001	Mercury	mg/kg	0.05	<0.05
LB309237.001	Mercury	mg/kg	0.05	<0.05
LB309238.001	Mercury	mg/kg	0.05	<0.05
LB309240.001	Mercury	mg/kg	0.05	<0.05

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB309082.001		Alpha BHC	mg/kg	0.1	<0.1
		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
		Beta BHC	mg/kg	0.1	<0.1
		Lindane (gamma BHC)	mg/kg	0.1	<0.1
		Delta BHC	mg/kg	0.1	<0.1
		Heptachlor	mg/kg	0.1	<0.1
		Aldrin	mg/kg	0.1	<0.1
		Isodrin	mg/kg	0.1	<0.1
		Heptachlor epoxide	mg/kg	0.1	<0.1
		Gamma Chlordane	mg/kg	0.1	<0.1
		Alpha Chlordane	mg/kg	0.1	<0.1
		Alpha Endosulfan	mg/kg	0.2	<0.2
		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
		Endrin aldehyde	mg/kg	0.1	<0.1
		Endosulfan sulphate	mg/kg	0.1	<0.1
		p,p'-DDT	mg/kg	0.1	<0.1
		Endrin ketone	mg/kg	0.1	<0.1
		Methoxychlor	mg/kg	0.1	<0.1
		Mirex	mg/kg	0.1	<0.1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	86

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB309049.001		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)	%	-	105
		2-fluorobiphenyl (Surrogate)	%	-	78
		d14-p-terphenyl (Surrogate)	%	-	113
LB309050.001		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

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METHOD BLANKS

SE263256 R0

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)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB309050.001		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)	%	-	103
		2-fluorobiphenyl (Surrogate)	%	-	108
		d14-p-terphenyl (Surrogate)	%	-	111
LB309051.001		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)	%	-	95
		2-fluorobiphenyl (Surrogate)	%	-	99
		d14-p-terphenyl (Surrogate)	%	-	96
LB309052.001		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)	%	-	118
		2-fluorobiphenyl (Surrogate)	%	-	106
		d14-p-terphenyl (Surrogate)	%	-	108
LB309083.001		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

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METHOD BLANKS

SE263256 R0

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PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB309083.001		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)	%	-	121
		2-fluorobiphenyl (Surrogate)	%	-	108
		d14-p-terphenyl (Surrogate)	%	-	116
LB309084.001		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)	%	-	130
		2-fluorobiphenyl (Surrogate)	%	-	122
		d14-p-terphenyl (Surrogate)	%	-	116

Speciated Phenols in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB309082.001		Phenol	mg/kg	0.5	<0.5
		2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5
		3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1
		2-chlorophenol	mg/kg	0.5	<0.5
		2,4-dimethylphenol	mg/kg	0.5	<0.5
		2,6-dichlorophenol	mg/kg	0.5	<0.5
		2,4-dichlorophenol	mg/kg	0.5	<0.5
		4-chloro-3-methylphenol	mg/kg	2	<2
		2,4,6-trichlorophenol	mg/kg	0.5	<0.5
		2-nitrophenol	mg/kg	0.5	<0.5
		4-nitrophenol	mg/kg	1	<1
		2,4,5-trichlorophenol	mg/kg	0.5	<0.5
		2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1
		Pentachlorophenol	mg/kg	0.5	<0.5
		2,4-dinitrophenol	mg/kg	2	<2
	Surrogates	2,4,6-Tribromophenol (Surrogate)	%	-	112
		d5-phenol (Surrogate)	%	-	127

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result
LB309102.001	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

SGS

METHOD BLANKS

SE263256 R0

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Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued) — **Method: ME-(AU)-[ENV]AN040/AN320**

Sample Number	Parameter	Units	LOR	Result
LB309102.001	Lead, Pb	mg/kg	1	<1
	Zinc, Zn	mg/kg	2	<2.0
LB309203.001	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
LB309211.001	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
LB309226.001	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
LB309227.001	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
LB309228.001	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
LB309231.001	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

TRH (Total Recoverable Hydrocarbons) in Soil — **Method: ME-(AU)-[ENV]AN403**

Sample Number	Parameter	Units	LOR	Result
LB309049.001	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
LB309050.001	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
LB309051.001	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

SGS

METHOD BLANKS

SE263256 R0

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.

TRH (Total Recoverable Hydrocarbons) in Soil (continued) — Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter	Units	LOR	Result
LB309051.001	TRH C10-C36 Total	mg/kg	110	<110
LB309052.001	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
LB309083.001	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
LB309084.001	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

VOC's in Soil — Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB309092.001	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
	Polycyclic VOCs	Naphthalene (VOC)*	mg/kg	0.1	<0.1
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	97
		d8-toluene (Surrogate)	%	-	103
		Bromofluorobenzene (Surrogate)	%	-	88
	Totals	Total BTEX*	mg/kg	0.3	<0.3
LB309198.001	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
	Polycyclic VOCs	Naphthalene (VOC)*	mg/kg	0.1	<0.1
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	87
		d8-toluene (Surrogate)	%	-	81
		Bromofluorobenzene (Surrogate)	%	-	87
	Totals	Total BTEX*	mg/kg	0.3	<0.3
LB309199.001	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
	Polycyclic VOCs	Naphthalene (VOC)*	mg/kg	0.1	<0.1
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	105
		d8-toluene (Surrogate)	%	-	98
		Bromofluorobenzene (Surrogate)	%	-	100
	Totals	Total BTEX*	mg/kg	0.3	<0.3
LB309217.001	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
	Polycyclic VOCs	Naphthalene (VOC)*	mg/kg	0.1	<0.1
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	70
		d8-toluene (Surrogate)	%	-	89
		Bromofluorobenzene (Surrogate)	%	-	77
	Totals	Total BTEX*	mg/kg	0.3	<0.3
LB309219.001	Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.1	<0.1
		Toluene	mg/kg	0.1	<0.1

SGS

METHOD BLANKS

SE263256 R0

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
LB309219.001	Monocyclic Aromatic Hydrocarbons	Ethylbenzene	mg/kg	0.1	<0.1
		m/p-xylene	mg/kg	0.2	<0.2
		o-xylene	mg/kg	0.1	<0.1
	Polycyclic VOCs	Naphthalene (VOC)*	mg/kg	0.1	<0.1
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	98
		d8-toluene (Surrogate)	%	-	92
		Bromofluorobenzene (Surrogate)	%	-	97
	Totals	Total BTEX*	mg/kg	0.3	<0.3
LB309221.001	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
	Polycyclic VOCs	Naphthalene (VOC)*	mg/kg	0.1	<0.1
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	89
		d8-toluene (Surrogate)	%	-	101
		Bromofluorobenzene (Surrogate)	%	-	92
	Totals	Total BTEX*	mg/kg	0.3	<0.3

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB309092.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	97
LB309198.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	87
LB309199.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	105
LB309217.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	70
LB309219.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	98
LB309221.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	89

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE262000A.002	LB309236.012	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263252.029	LB309107.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.010	LB309212.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.019	LB309212.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.029	LB309237.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.038	LB309237.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.048	LB309238.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.057	LB309238.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.067	LB309240.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.076	LB309240.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.080	LB309107.023	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.090	LB309204.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.104	LB309204.024	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 %
SE263252.029	LB309097.011	% Moisture	%w/w	1	6.3	6.1	46	4
SE263256.010	LB309208.011	% Moisture	%w/w	1	10.8	11.1	39	3
SE263256.019	LB309208.021	% Moisture	%w/w	1	3.7	3.3	59	13
SE263256.029	LB309222.011	% Moisture	%w/w	1	7.1	6.5	45	10
SE263256.038	LB309222.021	% Moisture	%w/w	1	5.5	5.7	48	2
SE263256.048	LB309223.011	% Moisture	%w/w	1	4.8	4.5	51	7
SE263256.057	LB309223.021	% Moisture	%w/w	1	3.7	3.8	57	4
SE263256.067	LB309224.011	% Moisture	%w/w	1	4.5	4.7	52	3
SE263256.076	LB309224.021	% Moisture	%w/w	1	4.9	4.8	51	1
SE263256.080	LB309097.020	% Moisture	%w/w	1	7.3	7.1	44	3
SE263256.090	LB309201.011	% Moisture	%w/w	1	7.8	8.6	42	9
SE263256.103	LB309235.011	% Moisture	%w/w	1	5.1	5.5	49	8
SE263256.104	LB309201.021	% Moisture	%w/w	1	4.9	5.0	50	3
SE263388.001	LB309235.014	% Moisture	%w/w	1	10.7	10.9	39	2

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.096	LB309082.025	Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
		Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Lindane (gamma BHC)	mg/kg	0.1	<0.1	<0.1	200	0
		Delta BHC	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
		Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
		Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	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
		Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		o,p'-DDE*	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
		Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		o,p'-DDD*	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
		Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
		o,p'-DDT*	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin ketone	mg/kg	0.1	<0.1	<0.1	200	0
		Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
		Mirex	mg/kg	0.1	<0.1	<0.1	200	0
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
		Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0
		Total OC VIC EPA	mg/kg	1	<1	<1	200	0

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.096	LB309082.025	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.15	0.14	30	5

PAH (Polynuclear Aromatic Hydrocarbons) in Soil — Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263252.029	LB309083.014		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	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/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.6	30	5
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.6	30	4
SE263256.010	LB309049.014		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	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/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	5
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	4
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.6	30	1
SE263256.019	LB309049.024		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	133	5

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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)-[ENV]AN420**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.019	LB309049.024		Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	<0.1	<0.1	143	0
			Pyrene	mg/kg	0.1	0.1	0.1	109	34
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Chrysene	mg/kg	0.1	<0.1	<0.1	193	0
			Benzo(b&j)fluoranthene	mg/kg	0.1	0.1	0.2	99	38
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	187	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	192	0
			Carcinogenic PAHs, BaP TEQ <LOR=0*	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	86	83
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.6	30	7
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	21
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.6	30	4
SE263256.029	LB309050.014		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	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	198	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/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	2
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.6	30	1
SE263256.038	LB309050.024		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

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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)-[ENV]AN420**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.038	LB309050.024		Carcinogenic PAHs, BaP TEQ <LOR=0*	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	5
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	4
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.5	30	5
SE263256.048	LB309051.014		Naphthalene	mg/kg	0.1	12	7.6	31	45 ②
			2-methylnaphthalene	mg/kg	0.1	4.7	2.8	33	52 ②
			1-methylnaphthalene	mg/kg	0.1	4.3	2.6	33	50 ②
			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	0.7	0.7	45	4
			Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	<0.1	<0.1	182	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/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	22	14	31	46 ②
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	30	9
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	30	15
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.2	0.3	30	32 ①
SE263256.057	LB309051.024		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/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	3
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	5
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	4
SE263256.067	LB309052.014		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

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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)-[ENV]AN420**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.067	LB309052.014		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	0.2	0.1	89	37
			Pyrene	mg/kg	0.1	0.2	0.2	83	36
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Chrysene	mg/kg	0.1	0.2	0.1	83	56
			Benzo(b&j)fluoranthene	mg/kg	0.1	0.3	0.3	63	10
			Benzo(k)fluoranthene	mg/kg	0.1	0.1	0.1	108	23
			Benzo(a)pyrene	mg/kg	0.1	0.1	0.1	109	22
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.2	0.1	93	20
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	0.2	0.1	93	31
			Carcinogenic PAHs, BaP TEQ <LOR=0*	mg/kg	0.2	0.2	<0.2	116	4
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	mg/kg	0.2	0.3	0.2	92	16
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	0.3	<0.3	110	6
			Total PAH (18)	mg/kg	0.8	1.6	1.2	37	28
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	2
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	30	14
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	6
SE263256.076	LB309052.024		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/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	4
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	5
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
SE263256.080	LB309083.023		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

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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)-[ENV]AN420**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.080	LB309083.023		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/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.6	30	4
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	8
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
SE263256.090	LB309084.014		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	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/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.6	30	1
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
SE263256.104	LB309084.024		Naphthalene	mg/kg	0.1	0.3	0.1	79	67
			2-methylnaphthalene	mg/kg	0.1	0.1	0.1	124	3
			1-methylnaphthalene	mg/kg	0.1	<0.1	0.1	131	7
			Acenaphthylene	mg/kg	0.1	0.2	0.5	60	72 ②
			Acenaphthene	mg/kg	0.1	<0.1	0.2	139	42
			Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
			Phenanthrene	mg/kg	0.1	0.3	1.6	41	134 ②
			Anthracene	mg/kg	0.1	0.4	1.4	41	108 ②
			Fluoranthene	mg/kg	0.1	0.8	4.1	34	136 ②
			Pyrene	mg/kg	0.1	0.9	4.5	34	131 ②
			Benzo(a)anthracene	mg/kg	0.1	0.4	1.2	43	103 ②
			Chrysene	mg/kg	0.1	0.5	1.4	40	92 ②
			Benzo(b&j)fluoranthene	mg/kg	0.1	0.6	1.1	41	59 ②
			Benzo(k)fluoranthene	mg/kg	0.1	0.2	0.3	64	36
			Benzo(a)pyrene	mg/kg	0.1	0.5	0.6	49	23
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.4	0.4	56	12
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	0.1	128	12
			Benzo(ghi)perylene	mg/kg	0.1	0.4	0.4	53	6
			Carcinogenic PAHs, BaP TEQ <LOR=0*	mg/kg	0.2	0.6	1.0	34	47 ②
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	mg/kg	0.2	0.7	1.0	34	40 ②
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	0.7	1.0	44	33
			Total PAH (18)	mg/kg	0.8	6.0	18	31	100 ②
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.6	30	2
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.6	30	2

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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

Speciated Phenols in Soil — **Method: ME-(AU)-[ENV]AN420**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263252.029	LB309082.014		Phenol	mg/kg	0.5	<0.5	<0.5	200	0
			2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5	<0.5	200	0
			3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1	<1	200	0
			Total Cresol	mg/kg	1.5	<1.5	<1.5	200	0
			2-chlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,4-dimethylphenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,6-dichlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,4-dichlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			4-chloro-3-methylphenol	mg/kg	2	<2	<2	200	0
			2,4,6-trichlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2-nitrophenol	mg/kg	0.5	<0.5	<0.5	200	0
			4-nitrophenol	mg/kg	1	<1	<1	200	0
			2,4,5-trichlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1	<1	200	0
			Pentachlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,4-dinitrophenol	mg/kg	2	<2	<2	200	0
		Surrogates	2,4,6-Tribromophenol (Surrogate)	mg/kg	-	1.9	2.4	30	23
			d5-phenol (Surrogate)	mg/kg	-	1.6	1.6	30	1
SE263256.096	LB309082.025		Phenol	mg/kg	0.5	<0.5	<0.5	200	0
			2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5	<0.5	200	0
			3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1	<1	200	0
			Total Cresol	mg/kg	1.5	<1.5	<1.5	200	0
			2-chlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,4-dimethylphenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,6-dichlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,4-dichlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			4-chloro-3-methylphenol	mg/kg	2	<2	<2	200	0
			2,4,6-trichlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2-nitrophenol	mg/kg	0.5	<0.5	<0.5	200	0
			4-nitrophenol	mg/kg	1	<1	<1	200	0
			2,4,5-trichlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1	<1	200	0
			Pentachlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,4-dinitrophenol	mg/kg	2	<2	<2	200	0
		Surrogates	2,4,6-Tribromophenol (Surrogate)	mg/kg	-	3.3	3.5	30	4
			d5-phenol (Surrogate)	mg/kg	-	2.0	2.0	30	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 %
SE262000A.002	LB309231.020	Arsenic, As	mg/kg	1	2	2	76	9
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	7.4	7.2	37	4
		Copper, Cu	mg/kg	0.5	6.9	6.8	37	2
		Nickel, Ni	mg/kg	0.5	5.7	5.6	39	0
		Lead, Pb	mg/kg	1	8	8	43	1
		Zinc, Zn	mg/kg	2	23	22	39	5
SE263252.029	LB309102.014	Arsenic, As	mg/kg	1	4	6	51	40
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	22	31	32	35 ②
		Copper, Cu	mg/kg	0.5	5.7	5.6	39	1
		Nickel, Ni	mg/kg	0.5	5.9	5.7	39	3
		Lead, Pb	mg/kg	1	14	19	36	28
		Zinc, Zn	mg/kg	2	17	16	42	7
SE263256.010	LB309211.014	Arsenic, As	mg/kg	1	1	1	104	13
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	40	37	31	9
		Copper, Cu	mg/kg	0.5	3.2	3.0	46	7
		Nickel, Ni	mg/kg	0.5	16	15	33	8
		Lead, Pb	mg/kg	1	11	10	39	8
		Zinc, Zn	mg/kg	2	31	29	37	6
SE263256.019	LB309211.024	Arsenic, As	mg/kg	1	20	19	35	4

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued) Method: ME-(AU)-[ENV]AN040/AN320

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.019	LB309211.024	Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	9.4	9.2	35	2
		Copper, Cu	mg/kg	0.5	24	23	32	2
		Nickel, Ni	mg/kg	0.5	2.7	3.1	47	14
		Lead, Pb	mg/kg	1	5	5	51	6
		Zinc, Zn	mg/kg	2	16	12	44	28
SE263256.029	LB309226.014	Arsenic, As	mg/kg	1	2	2	73	14
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	33	34	31	1
		Copper, Cu	mg/kg	0.5	5.1	5.9	39	13
		Nickel, Ni	mg/kg	0.5	14	14	33	1
		Lead, Pb	mg/kg	1	12	11	39	11
		Zinc, Zn	mg/kg	2	51	54	34	5
SE263256.038	LB309226.024	Arsenic, As	mg/kg	1	1	1	109	15
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	28	28	32	2
		Copper, Cu	mg/kg	0.5	4.7	5.3	40	12
		Nickel, Ni	mg/kg	0.5	12	13	34	4
		Lead, Pb	mg/kg	1	7	7	44	5
		Zinc, Zn	mg/kg	2	30	27	37	9
SE263256.048	LB309227.014	Arsenic, As	mg/kg	1	2	2	86	12
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	9.9	8.6	35	14
		Copper, Cu	mg/kg	0.5	19	15	33	24
		Nickel, Ni	mg/kg	0.5	3.4	2.9	46	15
		Lead, Pb	mg/kg	1	7	6	46	15
		Zinc, Zn	mg/kg	2	14	12	46	15
SE263256.057	LB309227.024	Arsenic, As	mg/kg	1	1	1	110	17
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	26	23	32	13
		Copper, Cu	mg/kg	0.5	6.2	6.1	38	1
		Nickel, Ni	mg/kg	0.5	11	10	35	8
		Lead, Pb	mg/kg	1	12	11	38	6
		Zinc, Zn	mg/kg	2	49	47	34	5
SE263256.076	LB309228.024	Arsenic, As	mg/kg	1	2	2	90	11
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	15	15	33	0
		Copper, Cu	mg/kg	0.5	30	31	32	4
		Nickel, Ni	mg/kg	0.5	8.6	8.7	36	0
		Lead, Pb	mg/kg	1	10	11	39	9
		Zinc, Zn	mg/kg	2	43	44	35	1
SE263256.080	LB309102.023	Arsenic, As	mg/kg	1	1	<1	119	24
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	26	26	32	1
		Copper, Cu	mg/kg	0.5	4.2	4.2	42	1
		Nickel, Ni	mg/kg	0.5	11	11	34	0
		Lead, Pb	mg/kg	1	6	6	46	5
		Zinc, Zn	mg/kg	2	25	26	38	2
SE263256.090	LB309203.014	Arsenic, As	mg/kg	1	1	1	119	4
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	34	36	31	6
		Copper, Cu	mg/kg	0.5	3.1	3.8	44	22
		Nickel, Ni	mg/kg	0.5	14	14	34	6
		Lead, Pb	mg/kg	1	8	8	43	0
		Zinc, Zn	mg/kg	2	26	29	37	10
SE263256.103	LB309231.014	Arsenic, As	mg/kg	1	5	5	51	7
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	20	18	33	8
		Copper, Cu	mg/kg	0.5	10	8.7	35	13
		Nickel, Ni	mg/kg	0.5	9.1	8.7	36	5
		Lead, Pb	mg/kg	1	12	9	40	29

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued) — Method: ME-(AU)-[ENV]AN040/AN320

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.103	LB309231.014		Zinc, Zn	mg/kg	2	36	32	36	11
SE263256.104	LB309203.024		Arsenic, As	mg/kg	1	4	3	58	14
			Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
			Chromium, Cr	mg/kg	0.5	24	23	32	6
			Copper, Cu	mg/kg	0.5	15	14	33	8
			Nickel, Ni	mg/kg	0.5	11	10	35	8
			Lead, Pb	mg/kg	1	22	16	35	31
			Zinc, Zn	mg/kg	2	58	52	34	11

TRH (Total Recoverable Hydrocarbons) in Soil — Method: ME-(AU)-[ENV]AN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263252.029	LB309083.014		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
SE263256.010	LB309049.014		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
SE263256.019	LB309049.024		TRH C10-C14	mg/kg	20	24	22	116	8
			TRH C15-C28	mg/kg	45	170	160	57	3
			TRH C29-C36	mg/kg	45	360	390	42	8
			TRH C37-C40	mg/kg	100	170	190	86	11
			TRH C10-C36 Total	mg/kg	110	550	580	50	4
			TRH >C10-C40 Total (F bands)	mg/kg	210	690	740	59	7
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	139	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	380	400	53	5
			TRH >C34-C40 (F4)	mg/kg	120	310	340	67	8
SE263256.029	LB309050.014		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
SE263256.038	LB309050.024		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

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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 Soil (continued) **Method: ME-(AU)-[ENV]AN403**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.048	LB309051.014		TRH C10-C14	mg/kg	20	48	29	82	47
			TRH C15-C28	mg/kg	45	<45	<45	152	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	56	35	85	46
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	55	35	86	45
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
SE263256.057	LB309051.024		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
SE263256.067	LB309052.014		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
SE263256.076	LB309052.024		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
SE263256.080	LB309083.023		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
SE263256.090	LB309084.014		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
SE263256.104	LB309084.024		TRH C10-C14	mg/kg	20	<20	<20	200	0

SGS

DUPLICATES

SE263256 R0

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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 Soil (continued) Method: ME-(AU)-[ENV]AN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.104	LB309084.024		TRH C15-C28	mg/kg	45	130	210	57	46
			TRH C29-C36	mg/kg	45	110	120	70	6
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	240	320	69	30
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	290	115	30
		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	210	290	67	32
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0

VOC's in Soil Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263252.029	LB309092.014	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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.9	10	50	3
			d8-toluene (Surrogate)	mg/kg	-	11	11	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.5	8.8	50	4
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE263256.010	LB309198.014	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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.2	8.6	50	5
			d8-toluene (Surrogate)	mg/kg	-	8.9	9.1	50	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.3	8.0	50	4
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE263256.019	LB309198.024	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	0.4	0.5	78	32
			o-xylene	mg/kg	0.1	0.1	0.2	97	30
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.7	9.7	50	0
			d8-toluene (Surrogate)	mg/kg	-	9.0	9.1	50	1
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.9	9.8	50	0
		Totals	Total BTEX*	mg/kg	0.3	0.5	0.7	83	31
			Total Xylenes*	mg/kg	0.3	0.5	0.7	83	31
SE263256.029	LB309217.014	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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.8	8.7	50	1
			d8-toluene (Surrogate)	mg/kg	-	8.8	9.0	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.8	7.5	50	3
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE263256.038	LB309217.024	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

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.038	LB309217.024	Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.1	9.3	50	1
			d8-toluene (Surrogate)	mg/kg	-	9.2	9.4	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.6	7.8	50	2
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE263256.048	LB309219.014	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 (VOC)*	mg/kg	0.1	1.0	1.3	39	21
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.0	8.6	50	8
			d8-toluene (Surrogate)	mg/kg	-	9.6	10	50	9
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.3	8.5	50	15
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE263256.057	LB309219.024	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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.2	9.7	50	5
			d8-toluene (Surrogate)	mg/kg	-	8.9	9.5	50	6
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.7	8.0	50	3
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE263256.067	LB309221.014	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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	12	11	50	6
			d8-toluene (Surrogate)	mg/kg	-	13	12	50	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.7	9.7	50	0
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE263256.076	LB309221.024	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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.2	9.5	50	16
			d8-toluene (Surrogate)	mg/kg	-	7.8	9.1	50	15
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.0	9.2	50	14
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE263256.080	LB309092.023	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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.1	8.4	50	3
			d8-toluene (Surrogate)	mg/kg	-	8.5	8.9	50	4
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.4	8.9	50	5
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.090	LB309199.014	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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10	10	50	0
			d8-toluene (Surrogate)	mg/kg	-	9.5	9.5	50	0
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.9	10	50	1
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE263256.104	LB309199.024	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 (VOC)*	mg/kg	0.1	0.1	0.3	77	80 ②
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10	10	50	0
			d8-toluene (Surrogate)	mg/kg	-	9.5	9.9	50	4
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.7	11	50	12
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263252.029	LB309092.014		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	10.1	50	3
			d8-toluene (Surrogate)	mg/kg	-	10.5	10.7	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.5	8.8	50	4
		VPH F Bands	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
SE263256.010	LB309198.014		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	-	8.2	8.6	50	5
			d8-toluene (Surrogate)	mg/kg	-	8.9	9.1	50	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.3	8.0	50	4
		VPH F Bands	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
SE263256.019	LB309198.024		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	-	9.7	9.7	50	0
			d8-toluene (Surrogate)	mg/kg	-	9.0	9.1	50	1
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.9	9.8	50	0
		VPH F Bands	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
SE263256.029	LB309217.014		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	-	8.8	8.7	50	1
			d8-toluene (Surrogate)	mg/kg	-	8.8	9.0	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.8	7.5	50	3
		VPH F Bands	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
SE263256.038	LB309217.024		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	-	9.1	9.3	50	1
			d8-toluene (Surrogate)	mg/kg	-	9.2	9.4	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.6	7.8	50	2
		VPH F Bands	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
SE263256.048	LB309219.014		TRH C6-C10	mg/kg	25	<25	<25	200	0

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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 Soil (continued) **Method: ME-(AU)-[ENV]AN433**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.048	LB309219.014		TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.0	8.6	50	8
			d8-toluene (Surrogate)	mg/kg	-	9.6	10.5	50	9
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.3	8.5	50	15
		VPH F Bands	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
SE263256.057	LB309219.024		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	-	9.2	9.7	50	5
			d8-toluene (Surrogate)	mg/kg	-	8.9	9.5	50	6
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.7	8.0	50	3
		VPH F Bands	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
SE263256.067	LB309221.014		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	-	11.9	11.2	50	6
			d8-toluene (Surrogate)	mg/kg	-	12.7	12.3	50	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.7	9.7	50	0
		VPH F Bands	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
SE263256.076	LB309221.024		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	-	8.2	9.5	50	16
			d8-toluene (Surrogate)	mg/kg	-	7.8	9.1	50	15
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.0	9.2	50	14
		VPH F Bands	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
SE263256.080	LB309092.023		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	-	8.1	8.4	50	3
			d8-toluene (Surrogate)	mg/kg	-	8.5	8.9	50	4
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.4	8.9	50	5
		VPH F Bands	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
SE263256.090	LB309199.014		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	-	10.3	10.3	50	0
			d8-toluene (Surrogate)	mg/kg	-	9.5	9.5	50	0
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.9	10.0	50	1
		VPH F Bands	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
SE263256.104	LB309199.024		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	-	10.3	10.2	50	0
			d8-toluene (Surrogate)	mg/kg	-	9.5	9.9	50	4
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.7	10.9	50	12
		VPH F Bands	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

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LABORATORY CONTROL SAMPLES

SE263256 R0

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.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309107.002	Mercury	mg/kg	0.05	0.22	0.2	80 - 120	112
LB309204.002	Mercury	mg/kg	0.05	0.24	0.2	80 - 120	118
LB309212.002	Mercury	mg/kg	0.05	0.21	0.2	80 - 120	104
LB309236.002	Mercury	mg/kg	0.05	0.22	0.2	80 - 120	110
LB309237.002	Mercury	mg/kg	0.05	0.22	0.2	80 - 120	112
LB309238.002	Mercury	mg/kg	0.05	0.22	0.2	80 - 120	110
LB309240.002	Mercury	mg/kg	0.05	0.22	0.2	80 - 120	109

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309082.002		Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	83
		Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	82
		Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	87
		Dieldrin	mg/kg	0.2	<0.2	0.2	60 - 140	80
		Endrin	mg/kg	0.2	<0.2	0.2	60 - 140	74
		p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	76
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.13	0.15	40 - 130	89

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309049.002		Naphthalene	mg/kg	0.1	4.2	4	60 - 140	105
		Acenaphthylene	mg/kg	0.1	4.1	4	60 - 140	103
		Acenaphthene	mg/kg	0.1	4.2	4	60 - 140	105
		Phenanthrene	mg/kg	0.1	4.2	4	60 - 140	106
		Anthracene	mg/kg	0.1	4.4	4	60 - 140	110
		Fluoranthene	mg/kg	0.1	4.5	4	60 - 140	112
		Pyrene	mg/kg	0.1	4.3	4	60 - 140	108
		Benzo(a)pyrene	mg/kg	0.1	5.3	4	60 - 140	132
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	107
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	84
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	110
LB309050.002		Naphthalene	mg/kg	0.1	4.2	4	60 - 140	106
		Acenaphthylene	mg/kg	0.1	4.1	4	60 - 140	102
		Acenaphthene	mg/kg	0.1	4.4	4	60 - 140	110
		Phenanthrene	mg/kg	0.1	4.3	4	60 - 140	109
		Anthracene	mg/kg	0.1	4.5	4	60 - 140	114
		Fluoranthene	mg/kg	0.1	4.4	4	60 - 140	110
		Pyrene	mg/kg	0.1	4.3	4	60 - 140	109
		Benzo(a)pyrene	mg/kg	0.1	5.2	4	60 - 140	131
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	102
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	101
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	102
LB309051.002		Naphthalene	mg/kg	0.1	4.1	4	60 - 140	103
		Acenaphthylene	mg/kg	0.1	4.0	4	60 - 140	100
		Acenaphthene	mg/kg	0.1	4.1	4	60 - 140	103
		Phenanthrene	mg/kg	0.1	4.0	4	60 - 140	101
		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	3.8	4	60 - 140	94
		Benzo(a)pyrene	mg/kg	0.1	4.4	4	60 - 140	110
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	95
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	106
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	94
LB309052.002		Naphthalene	mg/kg	0.1	4.1	4	60 - 140	101
		Acenaphthylene	mg/kg	0.1	4.1	4	60 - 140	102
		Acenaphthene	mg/kg	0.1	4.2	4	60 - 140	106
		Phenanthrene	mg/kg	0.1	4.2	4	60 - 140	104
		Anthracene	mg/kg	0.1	4.3	4	60 - 140	108
		Fluoranthene	mg/kg	0.1	4.3	4	60 - 140	108
		Pyrene	mg/kg	0.1	4.3	4	60 - 140	109
		Benzo(a)pyrene	mg/kg	0.1	4.4	4	60 - 140	109
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	97

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LABORATORY CONTROL SAMPLES

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Recovery 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)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309052.002	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	98
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	100
LB309083.002		Naphthalene	mg/kg	0.1	4.2	4	60 - 140	106
		Acenaphthylene	mg/kg	0.1	4.0	4	60 - 140	100
		Acenaphthene	mg/kg	0.1	4.3	4	60 - 140	107
		Phenanthrene	mg/kg	0.1	4.1	4	60 - 140	103
		Anthracene	mg/kg	0.1	4.3	4	60 - 140	108
		Fluoranthene	mg/kg	0.1	4.2	4	60 - 140	106
		Pyrene	mg/kg	0.1	4.6	4	60 - 140	115
		Benzo(a)pyrene	mg/kg	0.1	4.3	4	60 - 140	107
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.5	40 - 130	110
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	101
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	110
LB309084.002		Naphthalene	mg/kg	0.1	4.1	4	60 - 140	102
		Acenaphthylene	mg/kg	0.1	4.0	4	60 - 140	101
		Acenaphthene	mg/kg	0.1	4.2	4	60 - 140	106
		Phenanthrene	mg/kg	0.1	4.2	4	60 - 140	104
		Anthracene	mg/kg	0.1	4.4	4	60 - 140	109
		Fluoranthene	mg/kg	0.1	4.2	4	60 - 140	105
		Pyrene	mg/kg	0.1	4.4	4	60 - 140	111
		Benzo(a)pyrene	mg/kg	0.1	4.1	4	60 - 140	104
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.5	40 - 130	111
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	102
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.5	40 - 130	112

Speciated Phenols in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309082.002		Phenol	mg/kg	0.5	1.2	1	70 - 130	124
		2,4-dichlorophenol	mg/kg	0.5	1.0	1	70 - 130	98
		2,4,6-trichlorophenol	mg/kg	0.5	1.0	1	70 - 130	96
		Pentachlorophenol	mg/kg	0.5	0.7	1	70 - 130	70
	Surrogates	2,4,6-Tribromophenol (Surrogate)	mg/kg	-	5.4	5	40 - 130	108
		d5-phenol (Surrogate)	mg/kg	-	2.5	2	40 - 130	127

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 %
LB309102.002	Arsenic, As	mg/kg	1	330	318.22	80 - 120	105
	Cadmium, Cd	mg/kg	0.3	4.3	4.81	70 - 130	90
	Chromium, Cr	mg/kg	0.5	39	38.31	80 - 120	102
	Copper, Cu	mg/kg	0.5	330	290	80 - 120	112
	Nickel, Ni	mg/kg	0.5	190	187	80 - 120	102
	Lead, Pb	mg/kg	1	94	89.9	80 - 120	105
	Zinc, Zn	mg/kg	2	280	273	80 - 120	104
LB309203.002	Arsenic, As	mg/kg	1	310	318.22	80 - 120	96
	Cadmium, Cd	mg/kg	0.3	4.0	4.81	70 - 130	82
	Chromium, Cr	mg/kg	0.5	36	38.31	80 - 120	95
	Copper, Cu	mg/kg	0.5	290	290	80 - 120	102
	Nickel, Ni	mg/kg	0.5	180	187	80 - 120	94
	Lead, Pb	mg/kg	1	86	89.9	80 - 120	96
	Zinc, Zn	mg/kg	2	260	273	80 - 120	95
LB309211.002	Arsenic, As	mg/kg	1	320	318.22	80 - 120	102
	Cadmium, Cd	mg/kg	0.3	4.2	4.81	70 - 130	87
	Chromium, Cr	mg/kg	0.5	39	38.31	80 - 120	103
	Copper, Cu	mg/kg	0.5	310	290	80 - 120	107
	Nickel, Ni	mg/kg	0.5	180	187	80 - 120	98
	Lead, Pb	mg/kg	1	90	89.9	80 - 120	100
	Zinc, Zn	mg/kg	2	270	273	80 - 120	99
LB309226.002	Arsenic, As	mg/kg	1	340	318.22	80 - 120	108
	Cadmium, Cd	mg/kg	0.3	4.5	4.81	70 - 130	93
	Chromium, Cr	mg/kg	0.5	42	38.31	80 - 120	111
	Copper, Cu	mg/kg	0.5	340	290	80 - 120	116
	Nickel, Ni	mg/kg	0.5	200	187	80 - 120	104

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LABORATORY CONTROL SAMPLES

SE263256 R0

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Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued)

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309226.002	Lead, Pb	mg/kg	1	96	89.9	80 - 120	107
	Zinc, Zn	mg/kg	2	290	273	80 - 120	107
LB309227.002	Arsenic, As	mg/kg	1	330	318.22	80 - 120	103
	Cadmium, Cd	mg/kg	0.3	4.3	4.81	70 - 130	89
	Chromium, Cr	mg/kg	0.5	39	38.31	80 - 120	101
	Copper, Cu	mg/kg	0.5	320	290	80 - 120	111
	Nickel, Ni	mg/kg	0.5	190	187	80 - 120	100
	Lead, Pb	mg/kg	1	93	89.9	80 - 120	103
	Zinc, Zn	mg/kg	2	280	273	80 - 120	102
LB309228.002	Arsenic, As	mg/kg	1	320	318.22	80 - 120	101
	Cadmium, Cd	mg/kg	0.3	4.2	4.81	70 - 130	86
	Chromium, Cr	mg/kg	0.5	38	38.31	80 - 120	100
	Copper, Cu	mg/kg	0.5	310	290	80 - 120	107
	Nickel, Ni	mg/kg	0.5	180	187	80 - 120	98
	Lead, Pb	mg/kg	1	91	89.9	80 - 120	101
	Zinc, Zn	mg/kg	2	270	273	80 - 120	99
LB309231.002	Arsenic, As	mg/kg	1	330	318.22	80 - 120	105
	Cadmium, Cd	mg/kg	0.3	4.2	4.81	70 - 130	87
	Chromium, Cr	mg/kg	0.5	40	38.31	80 - 120	106
	Copper, Cu	mg/kg	0.5	310	290	80 - 120	108
	Nickel, Ni	mg/kg	0.5	190	187	80 - 120	100
	Lead, Pb	mg/kg	1	92	89.9	80 - 120	102
	Zinc, Zn	mg/kg	2	280	273	80 - 120	102

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309049.002		TRH C10-C14	mg/kg	20	51	40	60 - 140	128
		TRH C15-C28	mg/kg	45	45	40	60 - 140	113
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	87
	TRH F Bands	TRH >C10-C16	mg/kg	25	50	40	60 - 140	124
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	100
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	88
LB309050.002		TRH C10-C14	mg/kg	20	37	40	60 - 140	93
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	94
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	71
	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	86
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	72
LB309051.002		TRH C10-C14	mg/kg	20	44	40	60 - 140	110
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	112
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	96
	TRH F Bands	TRH >C10-C16	mg/kg	25	45	40	60 - 140	113
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	104
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	98
LB309052.002		TRH C10-C14	mg/kg	20	43	40	60 - 140	106
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	96
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	68
	TRH F Bands	TRH >C10-C16	mg/kg	25	42	40	60 - 140	105
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	81
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	75
LB309083.002		TRH C10-C14	mg/kg	20	52	40	60 - 140	131
		TRH C15-C28	mg/kg	45	49	40	60 - 140	123
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	95
	TRH F Bands	TRH >C10-C16	mg/kg	25	53	40	60 - 140	132
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	110
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	90
LB309084.002		TRH C10-C14	mg/kg	20	36	40	60 - 140	89
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	91
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	85
	TRH F Bands	TRH >C10-C16	mg/kg	25	37	40	60 - 140	92
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	88

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LABORATORY CONTROL SAMPLES

SE263256 R0

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TRH (Total Recoverable Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN403

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309084.002	TRH F Bands	TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	84

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309092.002	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.6	5	60 - 140	91
		Toluene	mg/kg	0.1	4.6	5	60 - 140	92
		Ethylbenzene	mg/kg	0.1	4.5	5	60 - 140	90
		m/p-xylene	mg/kg	0.2	8.9	10	60 - 140	89
		o-xylene	mg/kg	0.1	4.5	5	60 - 140	90
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.8	10	70 - 130	98
		d8-toluene (Surrogate)	mg/kg	-	10	10	70 - 130	101
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.9	10	70 - 130	99
LB309198.002	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.7	5	60 - 140	93
		Toluene	mg/kg	0.1	4.6	5	60 - 140	92
		Ethylbenzene	mg/kg	0.1	4.5	5	60 - 140	91
		m/p-xylene	mg/kg	0.2	9.0	10	60 - 140	90
		o-xylene	mg/kg	0.1	4.5	5	60 - 140	91
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.6	10	70 - 130	96
		d8-toluene (Surrogate)	mg/kg	-	9.8	10	70 - 130	98
		Bromofluorobenzene (Surrogate)	mg/kg	-	10	10	70 - 130	100
LB309199.002	Monocyclic Aromatic	Benzene	mg/kg	0.1	5.0	5	60 - 140	101
		Toluene	mg/kg	0.1	4.9	5	60 - 140	98
		Ethylbenzene	mg/kg	0.1	4.8	5	60 - 140	95
		m/p-xylene	mg/kg	0.2	9.6	10	60 - 140	96
		o-xylene	mg/kg	0.1	4.8	5	60 - 140	97
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11	10	70 - 130	115
		d8-toluene (Surrogate)	mg/kg	-	10	10	70 - 130	105
		Bromofluorobenzene (Surrogate)	mg/kg	-	10	10	70 - 130	102
LB309217.002	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.4	5	60 - 140	88
		Toluene	mg/kg	0.1	4.4	5	60 - 140	89
		Ethylbenzene	mg/kg	0.1	4.1	5	60 - 140	83
		m/p-xylene	mg/kg	0.2	8.0	10	60 - 140	80
		o-xylene	mg/kg	0.1	4.0	5	60 - 140	81
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.2	10	70 - 130	92
		d8-toluene (Surrogate)	mg/kg	-	11	10	70 - 130	112
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.3	10	70 - 130	93
LB309219.002	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.5	5	60 - 140	90
		Toluene	mg/kg	0.1	4.6	5	60 - 140	91
		Ethylbenzene	mg/kg	0.1	4.4	5	60 - 140	88
		m/p-xylene	mg/kg	0.2	8.5	10	60 - 140	85
		o-xylene	mg/kg	0.1	4.2	5	60 - 140	85
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11	10	70 - 130	106
		d8-toluene (Surrogate)	mg/kg	-	13	10	70 - 130	126
		Bromofluorobenzene (Surrogate)	mg/kg	-	10	10	70 - 130	103
LB309221.002	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.8	5	60 - 140	95
		Toluene	mg/kg	0.1	4.6	5	60 - 140	93
		Ethylbenzene	mg/kg	0.1	4.6	5	60 - 140	91
		m/p-xylene	mg/kg	0.2	9.2	10	60 - 140	92
		o-xylene	mg/kg	0.1	4.6	5	60 - 140	92
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10	10	70 - 130	103
		d8-toluene (Surrogate)	mg/kg	-	9.9	10	70 - 130	99
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.2	10	70 - 130	92

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309092.002		TRH C6-C10	mg/kg	25	84	92.5	60 - 140	90
		TRH C6-C9	mg/kg	20	71	80	60 - 140	89
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.8	10	70 - 130	98
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.9	10	70 - 130	99
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	57	62.5	60 - 140	90
LB309198.002		TRH C6-C10	mg/kg	25	87	92.5	60 - 140	94
		TRH C6-C9	mg/kg	20	74	80	60 - 140	93

SGS

LABORATORY CONTROL SAMPLES

SE263256 R0

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.

Volatile Petroleum Hydrocarbons in Soil (continued) **Method: ME-(AU)-[ENV]AN433**

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309198.002	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.6	10	70 - 130	96
		Bromofluorobenzene (Surrogate)	mg/kg	-	10.0	10	70 - 130	100
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	60	62.5	60 - 140	96
LB309199.002		TRH C6-C10	mg/kg	25	73	92.5	60 - 140	79
		TRH C6-C9	mg/kg	20	64	80	60 - 140	80
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11.5	10	70 - 130	115
		Bromofluorobenzene (Surrogate)	mg/kg	-	10.2	10	70 - 130	102
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	43	62.5	60 - 140	70
LB309217.002		TRH C6-C10	mg/kg	25	77	92.5	60 - 140	83
		TRH C6-C9	mg/kg	20	65	80	60 - 140	82
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.2	10	70 - 130	92
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.3	10	70 - 130	93
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	52	62.5	60 - 140	83
LB309219.002		TRH C6-C10	mg/kg	25	68	92.5	60 - 140	73
		TRH C6-C9	mg/kg	20	58	80	60 - 140	73
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.6	10	70 - 130	106
		Bromofluorobenzene (Surrogate)	mg/kg	-	10.3	10	70 - 130	103
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	42	62.5	60 - 140	67
LB309221.002		TRH C6-C10	mg/kg	25	81	92.5	60 - 140	88
		TRH C6-C9	mg/kg	20	71	80	60 - 140	88
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.3	10	70 - 130	103
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.2	10	70 - 130	92
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	53	62.5	60 - 140	85

SGS

MATRIX SPIKES

SE263256 R0

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 identifer 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%
SE263256.001	LB309212.004	Mercury	mg/kg	0.05	0.23	<0.05	0.2	110
SE263256.020	LB309237.004	Mercury	mg/kg	0.05	0.24	<0.05	0.2	115
SE263256.039	LB309238.004	Mercury	mg/kg	0.05	0.23	<0.05	0.2	109
SE263256.058	LB309240.004	Mercury	mg/kg	0.05	0.23	<0.05	0.2	109
SE263256.081	LB309204.004	Mercury	mg/kg	0.05	0.23	<0.05	0.2	109
SE263274.001	LB309236.004	Mercury	mg/kg	0.05	0.25	<0.05	0.2	116

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE263252.020	LB309083.004		Naphthalene	mg/kg	0.1	4.0	<0.1	4	100
			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	3.9	<0.1	4	97
			Acenaphthene	mg/kg	0.1	4.1	<0.1	4	103
			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	4.2	<0.1	4	105
			Fluoranthene	mg/kg	0.1	4.1	<0.1	4	103
			Pyrene	mg/kg	0.1	4.4	<0.1	4	110
			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	100
			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/2*	TEQ (mg/kg)	0.2	4.1	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	4.2	<0.3	-	-
			Total PAH (18)	mg/kg	0.8	33	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.6	-	111
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	101
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	107
SE263256.001	LB309049.004		Naphthalene	mg/kg	0.1	4.1	<0.1	4	103
			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	4.2	<0.1	4	105
			Acenaphthene	mg/kg	0.1	4.2	<0.1	4	104
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.2	<0.1	4	103
			Anthracene	mg/kg	0.1	4.1	<0.1	4	101
			Fluoranthene	mg/kg	0.1	4.6	<0.1	4	113
			Pyrene	mg/kg	0.1	4.5	0.1	4	110
			Benzo(a)anthracene	mg/kg	0.1	0.2	<0.1	-	-
			Chrysene	mg/kg	0.1	0.3	0.1	-	-
			Benzo(b&j)fluoranthene	mg/kg	0.1	0.5	0.2	-	-
			Benzo(k)fluoranthene	mg/kg	0.1	0.2	<0.1	-	-
			Benzo(a)pyrene	mg/kg	0.1	5.4	0.1	4	132
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.3	0.1	-	-
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(ghi)perylene	mg/kg	0.1	0.2	<0.1	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	5.5	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	5.6	0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	5.6	<0.3	-	-
			Total PAH (18)	mg/kg	0.8	37	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	-	107
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	84
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.6	-	114
SE263256.020	LB309050.004		Naphthalene	mg/kg	0.1	4.3	<0.1	4	107
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-

SGS

MATRIX SPIKES

SE263256 R0

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 identifer 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%
SE263256.020	LB309050.004		1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
			Acenaphthylene	mg/kg	0.1	4.0	<0.1	4	100
			Acenaphthene	mg/kg	0.1	4.3	<0.1	4	108
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.4	<0.1	4	110
			Anthracene	mg/kg	0.1	4.6	<0.1	4	114
			Fluoranthene	mg/kg	0.1	4.5	<0.1	4	112
			Pyrene	mg/kg	0.1	4.4	<0.1	4	109
			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	5.0	<0.1	4	125
			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	5.0	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	5.1	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	5.1	<0.3	-	-
			Total PAH (18)	mg/kg	0.8	35	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	-	99
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	101
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	102
SE263256.039	LB309051.004		Naphthalene	mg/kg	0.1	4.1	<0.1	4	102
			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	4.0	<0.1	4	99
			Acenaphthene	mg/kg	0.1	4.1	<0.1	4	103
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.1	<0.1	4	102
			Anthracene	mg/kg	0.1	4.0	<0.1	4	99
			Fluoranthene	mg/kg	0.1	4.3	<0.1	4	106
			Pyrene	mg/kg	0.1	4.0	<0.1	4	97
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
			Chrysene	mg/kg	0.1	0.2	<0.1	-	-
			Benzo(b&j)fluoranthene	mg/kg	0.1	0.2	<0.1	-	-
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(a)pyrene	mg/kg	0.1	4.4	<0.1	4	110
			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	4.5	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	4.5	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	4.6	<0.3	-	-
			Total PAH (18)	mg/kg	0.8	33	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	-	101
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.6	0.5	-	111
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	96
SE263256.058	LB309052.004		Naphthalene	mg/kg	0.1	4.0	<0.1	4	99
			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	4.0	<0.1	4	101
			Acenaphthene	mg/kg	0.1	4.2	<0.1	4	104
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.2	<0.1	4	104
			Anthracene	mg/kg	0.1	4.0	<0.1	4	101
			Fluoranthene	mg/kg	0.1	4.3	<0.1	4	106
			Pyrene	mg/kg	0.1	4.3	<0.1	4	106
			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	-	-

SGS

MATRIX SPIKES

SE263256 R0

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 identifer 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%
SE263256.058	LB309052.004		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(a)pyrene	mg/kg	0.1	4.3	<0.1	4	106
			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	4.3	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	4.3	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	4.4	<0.3	-	-
			Total PAH (18)	mg/kg	0.8	33	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	-	98
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	98
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	105
SE263256.081	LB309084.004		Naphthalene	mg/kg	0.1	4.1	<0.1	4	103
			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	3.9	<0.1	4	97
			Acenaphthene	mg/kg	0.1	4.2	<0.1	4	106
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.1	<0.1	4	104
			Anthracene	mg/kg	0.1	4.4	<0.1	4	109
			Fluoranthene	mg/kg	0.1	4.3	<0.1	4	107
			Pyrene	mg/kg	0.1	4.5	<0.1	4	111
			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/2*	TEQ (mg/kg)	0.2	4.3	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	4.3	<0.3	-	-
			Total PAH (18)	mg/kg	0.8	34	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.6	-	109
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	101
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.5	-	111

Speciated Phenols in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE263252.020	LB309082.004		Phenol	mg/kg	0.5	1.2	<0.5	1	122
			2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5	<0.5	-	-
			3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1	<1	-	-
			Total Cresol	mg/kg	1.5	<1.5	<1.5	-	-
			2-chlorophenol	mg/kg	0.5	<0.5	<0.5	-	-
			2,4-dimethylphenol	mg/kg	0.5	<0.5	<0.5	-	-
			2,6-dichlorophenol	mg/kg	0.5	<0.5	<0.5	-	-
			2,4-dichlorophenol	mg/kg	0.5	0.9	<0.5	1	94
			4-chloro-3-methylphenol	mg/kg	2	<2	<2	-	-
			2,4,6-trichlorophenol	mg/kg	0.5	0.9	<0.5	1	94
			2-nitrophenol	mg/kg	0.5	<0.5	<0.5	-	-
			4-nitrophenol	mg/kg	1	<1	<1	-	-
			2,4,5-trichlorophenol	mg/kg	0.5	0.9	<0.5	-	-
			2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1	<1	-	-
			Pentachlorophenol	mg/kg	0.5	0.7	<0.5	1	74
			2,4-dinitrophenol	mg/kg	2	<2	<2	-	-
		Surrogates	2,4,6-Tribromophenol (Surrogate)	mg/kg	-	5.3	4.6	-	106
			d5-phenol (Surrogate)	mg/kg	-	2.4	2.2	-	121

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

QC Sample	Sample Number	Parameter	Units	LOR

SGS

MATRIX SPIKES

SE263256 R0

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 identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued) — **Method: ME-(AU)-[ENV]AN040/AN320**

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE263252.020	LB309102.004	Arsenic, As	mg/kg	1	57	11	50	91
		Cadmium, Cd	mg/kg	0.3	42	<0.3	50	85
		Chromium, Cr	mg/kg	0.5	71	25	50	92
		Copper, Cu	mg/kg	0.5	55	7.0	50	96
		Nickel, Ni	mg/kg	0.5	53	7.6	50	91
		Lead, Pb	mg/kg	1	64	21	50	86
		Zinc, Zn	mg/kg	2	71	26	50	91
SE263256.001	LB309211.004	Arsenic, As	mg/kg	1	46	2	50	89
		Cadmium, Cd	mg/kg	0.3	43	<0.3	50	85
		Chromium, Cr	mg/kg	0.5	63	18	50	89
		Copper, Cu	mg/kg	0.5	52	4.4	50	96
		Nickel, Ni	mg/kg	0.5	53	7.7	50	91
		Lead, Pb	mg/kg	1	53	6	50	92
		Zinc, Zn	mg/kg	2	69	23	50	91
SE263256.020	LB309226.004	Arsenic, As	mg/kg	1	45	2	50	87
		Cadmium, Cd	mg/kg	0.3	42	<0.3	50	85
		Chromium, Cr	mg/kg	0.5	64	20	50	88
		Copper, Cu	mg/kg	0.5	53	3.5	50	99
		Nickel, Ni	mg/kg	0.5	53	8.6	50	89
		Lead, Pb	mg/kg	1	61	16	50	90
		Zinc, Zn	mg/kg	2	67	30	50	73
SE263256.039	LB309227.004	Arsenic, As	mg/kg	1	50	5	50	91
		Cadmium, Cd	mg/kg	0.3	43	<0.3	50	85
		Chromium, Cr	mg/kg	0.5	68	24	50	89
		Copper, Cu	mg/kg	0.5	59	9.1	50	100
		Nickel, Ni	mg/kg	0.5	54	10	50	87
		Lead, Pb	mg/kg	1	56	12	50	88
		Zinc, Zn	mg/kg	2	95	39	50	114
SE263256.058	LB309228.004	Arsenic, As	mg/kg	1	42	2	50	79
		Cadmium, Cd	mg/kg	0.3	38	<0.3	50	75
		Chromium, Cr	mg/kg	0.5	64	28	50	71
		Copper, Cu	mg/kg	0.5	49	6.0	50	86
		Nickel, Ni	mg/kg	0.5	50	12	50	77
		Lead, Pb	mg/kg	1	82	44	50	76
		Zinc, Zn	mg/kg	2	93	54	50	79
SE263256.081	LB309203.004	Arsenic, As	mg/kg	1	42	2	50	80
		Cadmium, Cd	mg/kg	0.3	39	<0.3	50	77
		Chromium, Cr	mg/kg	0.5	75	41	50	69 ④
		Copper, Cu	mg/kg	0.5	46	2.2	50	87
		Nickel, Ni	mg/kg	0.5	54	17	50	74
		Lead, Pb	mg/kg	1	46	6	50	80
		Zinc, Zn	mg/kg	2	66	29	50	75
SE263274.001	LB309231.004	Arsenic, As	mg/kg	1	43	2	50	82
		Cadmium, Cd	mg/kg	0.3	40	<0.3	50	79
		Chromium, Cr	mg/kg	0.5	41	4.3	50	74
		Copper, Cu	mg/kg	0.5	130	92	50	77
		Nickel, Ni	mg/kg	0.5	43	3.6	50	78
		Lead, Pb	mg/kg	1	43	4	50	78
		Zinc, Zn	mg/kg	2	49	29	50	41 ④

TRH (Total Recoverable Hydrocarbons) in Soil — **Method: ME-(AU)-[ENV]AN403**

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE263252.020	LB309083.004		TRH C10-C14	mg/kg	20	52	<20	40	126
			TRH C15-C28	mg/kg	45	52	<45	40	122
			TRH C29-C36	mg/kg	45	46	<45	40	95
			TRH C37-C40	mg/kg	100	<100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	150	<110	-	-
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	-	-
		TRH F Bands	TRH >C10-C16	mg/kg	25	53	<25	40	126
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	53	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	112

SGS

MATRIX SPIKES

SE263256 R0

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 identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

TRH (Total Recoverable Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN403

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE263252.020	LB309083.004	TRH F	TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE263256.001	LB309049.004		TRH C10-C14	mg/kg	20	52	<20	40	123
			TRH C15-C28	mg/kg	45	53	<45	40	116
			TRH C29-C36	mg/kg	45	<45	<45	40	69
			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	TRH >C10-C16	mg/kg	25	52	<25	40	123
		Bands	TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	52	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	88
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE263256.020	LB309050.004		TRH C10-C14	mg/kg	20	40	<20	40	96
			TRH C15-C28	mg/kg	45	<45	<45	40	87
			TRH C29-C36	mg/kg	45	<45	<45	40	73
			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	TRH >C10-C16	mg/kg	25	40	<25	40	95
		Bands	TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	40	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	76
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE263256.039	LB309051.004		TRH C10-C14	mg/kg	20	44	<20	40	106
			TRH C15-C28	mg/kg	45	54	<45	40	116
			TRH C29-C36	mg/kg	45	48	<45	40	94
			TRH C37-C40	mg/kg	100	<100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	150	<110	-	-
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	-	-
		TRH F	TRH >C10-C16	mg/kg	25	45	<25	40	107
		Bands	TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	45	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	112
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE263256.058	LB309052.004		TRH C10-C14	mg/kg	20	26	<20	40	66
			TRH C15-C28	mg/kg	45	150	81	40	178 ⓖ
			TRH C29-C36	mg/kg	45	170	79	40	238 ⓖ
			TRH C37-C40	mg/kg	100	<100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	350	160	-	-
			TRH >C10-C40 Total (F bands)	mg/kg	210	310	<210	-	-
		TRH F	TRH >C10-C16	mg/kg	25	30	<25	40	75
		Bands	TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	30	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	280	150	40	318 ⓖ
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE263256.081	LB309084.004		TRH C10-C14	mg/kg	20	40	<20	40	98
			TRH C15-C28	mg/kg	45	<45	<45	40	95
			TRH C29-C36	mg/kg	45	<45	<45	40	86
			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	TRH >C10-C16	mg/kg	25	41	<25	40	100
		Bands	TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	41	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	87
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE263252.020	LB309092.004	Monocyclic	Benzene	mg/kg	0.1	4.5	<0.1	5	89
		Aromatic	Toluene	mg/kg	0.1	4.4	<0.1	5	89
			Ethylbenzene	mg/kg	0.1	4.5	<0.1	5	89
			m/p-xylene	mg/kg	0.2	8.9	<0.2	10	88
			o-xylene	mg/kg	0.1	4.5	<0.1	5	89
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.0	9.1	10	90

SGS

MATRIX SPIKES

SE263256 R0

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 identifer 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

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE263252.020	LB309092.004	Surrogates	d8-toluene (Surrogate)	mg/kg	-	9.9	9.7	10	99
			Bromofluorobenzene (Surrogate)	mg/kg	-	10	8.8	10	100
		Totals	Total BTEX*	mg/kg	0.3	27	<0.3	-	-
			Total Xylenes*	mg/kg	0.3	13	<0.3	-	-
SE263256.001	LB309198.004	Monocyclic Aromatic	Benzene	mg/kg	0.1	3.8	<0.1	5	76
			Toluene	mg/kg	0.1	4.1	<0.1	5	81
			Ethylbenzene	mg/kg	0.1	4.3	<0.1	5	85
			m/p-xylene	mg/kg	0.2	8.6	<0.2	10	85
			o-xylene	mg/kg	0.1	4.4	<0.1	5	87
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.7	7.0	10	77
			d8-toluene (Surrogate)	mg/kg	-	6.2	6.6	10	62 ⓘ
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.0	7.3	10	80
		Totals	Total BTEX*	mg/kg	0.3	25	<0.3	-	-
			Total Xylenes*	mg/kg	0.3	13	<0.3	-	-
SE263256.020	LB309217.004	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.0	<0.1	5	81
			Toluene	mg/kg	0.1	4.2	<0.1	5	83
			Ethylbenzene	mg/kg	0.1	4.0	<0.1	5	79
			m/p-xylene	mg/kg	0.2	7.7	<0.2	10	77
			o-xylene	mg/kg	0.1	3.8	<0.1	5	76
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.0	8.0	10	80
			d8-toluene (Surrogate)	mg/kg	-	9.5	7.9	10	95
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.5	7.8	10	85
		Totals	Total BTEX*	mg/kg	0.3	24	<0.3	-	-
			Total Xylenes*	mg/kg	0.3	12	<0.3	-	-
SE263256.039	LB309219.004	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.2	<0.1	5	84
			Toluene	mg/kg	0.1	4.4	<0.1	5	87
			Ethylbenzene	mg/kg	0.1	4.3	<0.1	5	85
			m/p-xylene	mg/kg	0.2	8.3	<0.2	10	83
			o-xylene	mg/kg	0.1	4.1	<0.1	5	82
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.2	8.8	10	92
			d8-toluene (Surrogate)	mg/kg	-	11	11	10	110
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.3	9.5	10	93
		Totals	Total BTEX*	mg/kg	0.3	25	<0.3	-	-
			Total Xylenes*	mg/kg	0.3	12	<0.3	-	-
SE263256.058	LB309221.004	Monocyclic Aromatic	Benzene	mg/kg	0.1	5.0	<0.1	5	101
			Toluene	mg/kg	0.1	4.9	<0.1	5	98
			Ethylbenzene	mg/kg	0.1	4.8	<0.1	5	96
			m/p-xylene	mg/kg	0.2	9.7	<0.2	10	97
			o-xylene	mg/kg	0.1	4.9	<0.1	5	97
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10	9.7	10	102
			d8-toluene (Surrogate)	mg/kg	-	9.8	9.3	10	98
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.1	9.5	10	91
		Totals	Total BTEX*	mg/kg	0.3	29	<0.3	-	-
			Total Xylenes*	mg/kg	0.3	15	<0.3	-	-
SE263256.081	LB309199.004	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.7	<0.1	5	95
			Toluene	mg/kg	0.1	4.8	<0.1	5	95
			Ethylbenzene	mg/kg	0.1	4.7	<0.1	5	94
			m/p-xylene	mg/kg	0.2	9.6	<0.2	10	96
			o-xylene	mg/kg	0.1	4.9	<0.1	5	97
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11	9.5	10	108
			d8-toluene (Surrogate)	mg/kg	-	10	8.7	10	100
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.6	9.3	10	96
		Totals	Total BTEX*	mg/kg	0.3	29	<0.3	-	-
			Total Xylenes*	mg/kg	0.3	15	<0.3	-	-

SGS

MATRIX SPIKES

SE263256 R0

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 identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Volatile Petroleum Hydrocarbons in Soil — **Method: ME-(AU)-[ENV]AN433**

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE263252.020	LB309092.004		TRH C6-C10	mg/kg	25	81	<25	92.5	88
			TRH C6-C9	mg/kg	20	70	<20	80	88
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.0	9.1	10	90
			d8-toluene (Surrogate)	mg/kg	-	9.9	9.7	10	99
			Bromofluorobenzene (Surrogate)	mg/kg	-	10.0	8.8	-	100
		VPH F	Benzene (F0)	mg/kg	0.1	4.5	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	55	<25	62.5	87
SE263256.001	LB309198.004		TRH C6-C10	mg/kg	25	66	<25	92.5	69
			TRH C6-C9	mg/kg	20	57	<20	80	68
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.7	7.0	10	77
			d8-toluene (Surrogate)	mg/kg	-	6.2	6.6	10	62 ①
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.0	7.3	-	80
		VPH F	Benzene (F0)	mg/kg	0.1	3.8	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	41	<25	62.5	63
SE263256.020	LB309217.004		TRH C6-C10	mg/kg	25	64	<25	92.5	68
			TRH C6-C9	mg/kg	20	55	<20	80	67
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.0	8.0	10	80
			d8-toluene (Surrogate)	mg/kg	-	9.5	7.9	10	95
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.5	7.8	-	85
		VPH F	Benzene (F0)	mg/kg	0.1	4.0	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	40	<25	62.5	62
SE263256.039	LB309219.004		TRH C6-C10	mg/kg	25	64	<25	92.5	68
			TRH C6-C9	mg/kg	20	56	<20	80	70
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.2	8.8	10	92
			d8-toluene (Surrogate)	mg/kg	-	11.0	11.0	10	110
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.3	9.5	-	93
		VPH F	Benzene (F0)	mg/kg	0.1	4.2	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	38	<25	62.5	60
SE263256.058	LB309221.004		TRH C6-C10	mg/kg	25	92	<25	92.5	91
			TRH C6-C9	mg/kg	20	80	<20	80	90
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.2	9.7	10	102
			d8-toluene (Surrogate)	mg/kg	-	9.8	9.3	10	98
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.1	9.5	-	91
		VPH F	Benzene (F0)	mg/kg	0.1	5.0	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	63	<25	62.5	87
SE263256.081	LB309199.004		TRH C6-C10	mg/kg	25	70	<25	92.5	75
			TRH C6-C9	mg/kg	20	62	<20	80	78
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.8	9.5	10	108
			d8-toluene (Surrogate)	mg/kg	-	10.0	8.7	10	100
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.6	9.3	-	96
		VPH F	Benzene (F0)	mg/kg	0.1	4.7	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	41	<25	62.5	65

MATRIX SPIKE DUPLICATES

SE263256 R0

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / 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 x 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 identifer when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

FOOTNOTES SE263256 R0

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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Appendix 4. Borelogs

Chain of Custody Form – Ref 43874 Sheet 1 of 6

Ref:	**43874**		**Sample matrix**			**Sample preservation**			**Analysis**				
Investigator:	Envirowest Consulting 9 Cameron Place PO Box 8158 ORANGE NSW 2800												
Telephone:	(02) 6361 4954								**SGS Method Code**				
Facsimile:	(02) 6360 3960								**CL10**	**OCP**	**CL13**	**CL2T**	
Email:	felipe@envirowest.net.au												
Contact Person:	Felipe Canavez												
Invoice:	accounts@envirowest.net.au												
Laboratory:	SGS SYDNEY 16/33 Maddox Street ALEXANDRIA NSW 2015		Water	Soil	Sludge	Cool	HNO3/HCl	Unpre-served	TRH, BTEXN,PAH, 8 metals	OCP	TRH, BTEXN,PAH, 8 metals, phenols	8 Metals	
Quotation #:	Envir-IE-JUN23-1391652												
Courier/CN:	Grants Express												
Sample ID	**Container***	**Sampling Date/Time**											
1 BH1-100	A	03/04/2024		X		X			X				
2 BH1-500	A	03/04/2024		X		X			X				
3 BH2-100	A	03/04/2024		X		X			X				
4 BH2-500	A	03/04/2024		X		X			X				
5 BH3-100	A	03/04/2024		X		X			X				
6 BH3-500	A	03/04/2024		X		X			X				
7 BH4-100	A	03/04/2024		X		X			X				
8 BH4-500	A	03/04/2024		X		X			X				
9 BH5-100	A	03/04/2024		X		X			X				
10 BH5-500	A	03/04/2024		X		X			X				
11 BH6-100	A	03/04/2024		X		X			X				
12 BH6-500	A	03/04/2024		X		X			X				
13 BH7-100	A	03/04/2024		X		X			X				
14 BH7-500	A	03/04/2024		X		X			X				
15 BH8-100	A	03/04/2024		X		X			X				
16 BH8-500	A	03/04/2024		X		X			X				
17 BH9-100	A	03/04/2024		X		X			X				
18 BH9-500	A	03/04/2024		X		X			X				

SGS EHS Sydney COC
SE263256

Investigator: I attest that the proper field sampling procedures were used during the collection of these samples.	Sampler name: Felipe Canavez Date: 03/04/2024 Time: 11:00
Relinquished by: (print and signature) Virginia Brong Date: 04/04/2024 Time 13:00	Received by: (print and signature) Date Time 05/04/24 @ 7:30

Please return completed form to Envirowest Consulting, *A = Solvent rinsed glass jar with Teflon lined lid and green label, B= Plastic with green label, C= Amber with green label, D= Vial with white label, E= Plastic with red label, F = ziplock bag, G = plastic bag

source SE_Autoscan.pdf page 1 SGS Ref SE263256_COC

Chain of Custody Form – Ref 43874 Sheet 2 of 6

Ref: 43874 Investigator: Envirowest Consulting 9 Cameron Place PO Box 8158 ORANGE NSW 2800 Telephone: (02) 6361 4954 Facsimile: (02) 6360 3960 Email: felipe@envirowest.net.au Contact Person: Felipe Canavez Invoice: accounts@envirowest.net.au			Sample matrix			Sample preservation			Analysis					
									SGS Method Code					
									CL10	OCP	CL13	CL2T		
Laboratory: SGS SYDNEY 16/33 Maddox Street ALEXANDRIA NSW 2015 Quotation #: Envir-IE-JUN23-1391652 Courier/CN: Grants Express			Water	Soil	Sludge	Cool	HNO3/HCl	Unpre-served	TRH, BTEXN,PAH, 8 metals	OCP	TRH, BTEXN,PAH, 8 metals, phenols	8 Metals		
	Sample ID	Container*	Sampling Date/Time											
19	BH10-100	A	03/04/2024		X		X			X				
20	BH10-500	A	03/04/2024		X		X			X				
21	BH11-100	A	03/04/2024		X		X			X				
22	BH11-500	A	03/04/2024		X		X			X				
23	BH12-100	A	03/04/2024		X		X			X				
24	BH12-500	A	03/04/2024		X		X			X				
~~24~~	~~BH12-500~~	A	03/04/2024		X		X			X				
25	BH13-100	A	03/04/2024		X		X			X				
26	BH13-500	A	03/04/2024		X		X			X				
27	BH14-100	A	03/04/2024		X		X			X				
28	BH14-500	A	03/04/2024		X		X			X				
29	BH15-100	A	03/04/2024		X		X			X				
30	BH15-500	A	03/04/2024		X		X			X				
31	BH16-100	A	03/04/2024		X		X			X				
32	BH16-500	A	03/04/2024		X		X			X				
33	BH17-100	A	03/04/2024		X		X			X				
34	BH17-500	A	03/04/2024		X		X			X				
35	BH18-100	A	03/04/2024		X		X			X				
Investigator: I attest that the proper field sampling procedures were used during the collection of these samples.						Sampler name: Felipe Canavez Date: 03/04/2024 Time: 11:00								
Relinquished by: (print and signature) Virginia Bragg Date: 04/04/2024 Time 13:00						Received by: (print and signature) Date Time 05/04/24 @ 7:30								

Please return completed form to Envirowest Consulting, *A = Solvent rinsed glass jar with Teflon lined lid and green label, B= Plastic with green label, C= Amber with green label, D= Vial with white label, E= Plastic with red label, F = ziplock bag, G = plastic bag

Chain of Custody Form – Ref 43874 Sheet 3 of 6

Ref: 43874 Investigator: Envirowest Consulting 9 Cameron Place PO Box 8158 ORANGE NSW 2800 Telephone: (02) 6361 4954 Facsimile: (02) 6360 3960 **Email:** felipe@envirowest.net.au Contact Person: Felipe Canavez Invoice: accounts@envirowest.net.au			**Sample matrix**			**Sample preservation**			**Analysis**					
									SGS Method Code					
									CL10	**OCP**	**CL13**	**CL2T**		
Laboratory: SGS SYDNEY 16/33 Maddox Street ALEXANDRIA NSW 2015 **Quotation #:** Envir-IE-JUN23-1391652 **Courier/CN:** Grants Express			Water	Soil	Sludge	Cool	HNO3/HCl	Unpre-served	TRH, BTEXN,PAH, 8 metals	OCP	TRH, BTEXN,PAH, 8 metals, phenols	8 Metals		
	Sample ID	**Container***	**Sampling Date/Time**											
36	BH18-500	A	03/04/2024		X		X			X				
37	BH20-100	A	03/04/2024		X		X			X				
38	BH20-500	A	03/04/2024		X		X			X				
39	BH21-100	A	03/04/2024		X		X			X				
40	BH21-500	A	03/04/2024		X		X			X				
41	BH22-100	A	03/04/2024		X		X			X				
42	BH22-500	A	03/04/2024		X		X			X				
43	BH23-100	A	03/04/2024		X		X			X				
44	BH23-500	A	03/04/2024		X		X			X				
45	BH24-100	A	03/04/2024		X		X			X				
46	BH24-500	A	03/04/2024		X		X			X				
47	BH25-100	A	03/04/2024		X		X			X				
48	BH25-200	A	03/04/2024		X		X			X				
49	BH25-500	A	03/04/2024		X		X			X				
50	BH26-100	A	03/04/2024		X		X			X				
51	BH26-500	A	03/04/2024		X		X			X				
52	BH27-100	A	03/04/2024		X		X			X				
53	BH27-500	A	03/04/2024		X		X			X				
Investigator: I attest that the proper field sampling procedures were used during the collection of these samples.						Sampler name: Felipe Canavez Date: 03/04/2024 Time: 11:00								
Relinquished by: (print and signature) Virginia Bragg Date: 04/04/2024 Time 13:00						Received by: (print and signature) Date Time 05/04/24 @ 7:30								

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Chain of Custody Form – Ref 43874 Sheet 4 of 6

	Ref: 43874 Investigator: Envirowest Consulting 9 Cameron Place PO Box 8158 ORANGE NSW 2800 Telephone: (02) 6361 4954 Facsimile: (02) 6360 3960 Email: felipe@envirowest.net.au Contact Person: Felipe Canavez Invoice: accounts@envirowest.net.au		Sample matrix			Sample preservation			Analysis				
									SGS Method Code				
									CL10	OCP	CL13	CL2T	
	Laboratory: SGS SYDNEY 16/33 Maddox Street ALEXANDRIA NSW 2015 Quotation #: Envir-IE-JUN23-1391652 Courier/CN: Grants Express		Water	Soil	Sludge	Cool	HNO3/HCl	Unpre-served	TRH, BTEXN,PAH, 8 metals	OCP	TRH, BTEXN,PAH, 8 metals, phenols	8 Metals	
	Sample ID	Container*	Sampling Date/Time										
54	BH28-100	A	03/04/2024		X		X			X			
55	BH28-500	A	03/04/2024		X		X			X			
56	BH29-100	A	03/04/2024		X		X			X			
57	BH29-500	A	03/04/2024		X		X			X			
58	BH30-100	A	03/04/2024		X		X			X			
59	BH30-500	A	03/04/2024		X		X			X			
60	BH31-100	A	03/04/2024		X		X			X			
61	BH31-500	A	03/04/2024		X		X			X			
62	BH32-100	A	03/04/2024		X		X			X			
63	BH32-500	A	03/04/2024		X		X			X			
64	BH33-100	A	03/04/2024		X		X			X			
65	BH33-1000	A	03/04/2024		X		X			X			
66	BH33-3000	A	03/04/2024		X		X			X			
67	BH34-500	A	03/04/2024		X		X			X			
68	BH34-1000	A	03/04/2024		X		X			X			
69	BH34-3000	A	03/04/2024		X		X			X			
70	BH35-500	A	03/04/2024		X		X			X			
71	BH35-1000	A	03/04/2024		X		X			X			
	Investigator: I attest that the proper field sampling procedures were used during the collection of these samples.					Sampler name: Felipe Canavez Date: 03/04/2024 Time: 11:00							
	Relinquished by: (print and signature) Virginia Bragg Date: 04/04/2024 Time 13:00					Received by: (print and signature) Date Time 05/04/24 @ 7:30							

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Chain of Custody Form – Ref 43874 Sheet 5 of 6

	Ref:	**43874**		**Sample matrix**			**Sample preservation**			**Analysis**				
	Investigator:	Envirowest Consulting 9 Cameron Place PO Box 8158 ORANGE NSW 2800								**SGS Method Code**				
	Telephone:	(02) 6361 4954								**CL10**	**OCP**	**CL13**	**CL2T**	
	Facsimile:	(02) 6360 3960												
	Email:	felipe@envirowest.net.au												
	Contact Person:	Felipe Canavez												
	Invoice:	accounts@envirowest.net.au												
	Laboratory:	SGS SYDNEY 16/33 Maddox Street ALEXANDRIA NSW 2015		Water	Soil	Sludge	Cool	HNO3/HCl	Unpre-served	TRH, BTEXN,PAH, 8 metals	OCP	TRH, BTEXN,PAH, 8 metals, phenols	8 Metals	
	Quotation #:	Envir-IE-JUN23-1391652												
	Courier/CN:	Grants Express												
	Sample ID	**Container***	**Sampling Date/Time**											
72	BH35-3000	A	03/04/2024		X		X			X				
73	BH36-500	A	03/04/2024		X		X			X				
74	BH36-1000	A	03/04/2024		X		X			X				
75	BH36-3000	A	03/04/2024		X		X			X				
76	BH37-500	A	03/04/2024		X		X			X				
77	BH37-1000	A	03/04/2024		X		X			X				
78	BH37-3000	A	03/04/2024		X		X			X				
79	BH38-500	A	03/04/2024		X		X			X				
80	BH38-1000	A	03/04/2024		X		X			X				
81	BH38-3000	A	03/04/2024		X		X			X				
82	BH39-300	A	03/04/2024		X		X			X				
83	BH39-800	A	03/04/2024		X		X			X				
84	BH40-100	A	03/04/2024		X		X			X				
85	BH40-500	A	03/04/2024		X		X			X				
86	BH40-1000	A	03/04/2024		X		X			X				
87	BH40-3000	A	03/04/2024		X		X			X				

Investigator: I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler name: Felipe Canavez
Date: 03/04/2024 Time: 11:00

Relinquished by: (print and signature) Virginia Bragg Date: 04/04/2024 Time 13:00

Received by: (print and signature) Date Time 05/04/24 @ 7:30

Please return completed form to Envirowest Consulting, *A = Solvent rinsed glass jar with Teflon lined lid and green label, B= Plastic with green label, C= Amber with green label, D= Vial with white label, E= Plastic with red label, F = ziplock bag, G = plastic bag

Chain of Custody Form – Ref 43874 Sheet 6 of 6

Ref:	**43874**		**Sample matrix**			**Sample preservation**			**Analysis**				
Investigator:	Envirowest Consulting 9 Cameron Place PO Box 8158 ORANGE NSW 2800												
Telephone: Facsimile: **Email:** Contact Person: Invoice:	(02) 6361 4954 (02) 6360 3960 felipe@envirowest.net.au Felipe Canavez accounts@envirowest.net.au								**SGS Method Code**				
									CL10	**OCP**	**CL13**	**CL2T**	
Laboratory:	SGS SYDNEY 16/33 Maddox Street ALEXANDRIA NSW 2015		Water	Soil	Sludge	Cool	HNO3/HCl	Unpre-served	TRH, BTEXN,PAH, 8 metals	OCP	TRH, TEXN,PAH, 8 metals, phenols	8 Metals	
Quotation #:	Envir-IE-JUN23-1391652												
Courier/CN:	Grants Express												
Sample ID	**Container***	**Sampling Date/Time**											
BH41-500	A	03/04/2024		X		X			X				
BH41-1000	A	03/04/2024		X		X			X				
BH41-3000	A	03/04/2024		X		X			X				
BH42-100	A	03/04/2024		X		X				X	X		
BH42-500	A	03/04/2024		X		X				X	X		
BH43-100	A	03/04/2024		X		X				X	X		
BH43-500	A	03/04/2024		X		X				X	X		
BH44-100	A	03/04/2024		X		X				X	X		
BH44-500	A	03/04/2024		X		X				X	X		
BH46-100	A	03/04/2024		X		X			X				
BH46-500	A	03/04/2024		X		X			X				
DA	A	03/04/2024		X		X						X	
DB	A	03/04/2024		X		X						X	
DC	A	03/04/2024		X		X						X	
DD	A	03/04/2024		X		X						X	
DE	A	03/04/2024		X		X						X	

Investigator: I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler name: Felipe Canavez
Date: 03/04/2024 Time: 11:00

Relinquished by: (print and signature) Virginia Bragg Date: 04/04/2024 Time 13:00

Received by: (print and signature) Time 05/04/24 @ 7:30

Please return completed form to Envirowest Consulting, *A = Solvent rinsed glass jar with Teflon lined lid and green label, B= Plastic with green label, C= Amber with green label, D= Vial with white label, E= Plastic with red label, F = ziplock bag, G = plastic bag

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Geotechnical Log - Borehole

BH1

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Topsoil		CL	Topsoil Sandy CLAY (CL) : firm, low plasticity, brown, fine grained sand, trace fine sized gravel, inorganic, w < pl.	w < PL	BH1-100	
		0.1	Natural		SC	Natural Clayey SAND (SC) : medium dense, low plasticity clay, brown, fine grained, with fine to medium sized gravel, dry.	D		
								BH1-500	
						BH1 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH2

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Topsoil		SM	Topsoil Silty SAND (SM) : dense, brown, fine grained, with fine to medium sized gravel, dry.	D	BH2-100	
		0.2	Natural		SC	Natural Clayey SAND (SC) : dense, low plasticity clay, brown, fine grained, with fine to medium sized gravel, dry.			
								BH2-500	
						BH2 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH3

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Topsoil		SM	Topsoil Silty SAND (SM) : dense, brown, fine grained, trace fine sized gravel, dry.	D	BH3-100	
		0.1	Natural		SC	Natural Clayey to silty SAND (SC) : dense, low plasticity clay, brown, fine grained, trace fine sized gravel, dry.			
								BH3-500	
						BH3 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH4

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Topsoil		SM	Topsoil Silty SAND (SM) : dense, dark brown, fine grained, with fine to medium sized gravel, dry.	D	BH4-100	
		0.2	Natural		SM	Natural Silty SAND (SM) : dense, brown, fine to medium grained, trace fine sized gravel, dry.		BH4-500	
						BH4 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH5

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Natural		SC	Natural Clayey SAND (SC) : dense, low plasticity clay, brown, fine grained, trace fine sized gravel, dry.	D	BH5-100	
								BH5-500	
						BH5 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH6

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Natural		SM	Natural Silty SAND (SM) : dense, brown, fine grained, with fine sized gravel, dry.	D	BH6-100	
								BH6-500	
						BH6 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH7

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Pushtube		0.1	Fill		SM	Fill Silty SAND (SM) : medium dense, light brown, fine grained, trace medium plasticity clay, slightly moist.	SLM	BH7-100	
		0.2	Natural		SM	Natural Silty SAND (SM) : medium dense, pale brown, medium grained, with medium sized gravel, slightly moist.			
		0.3	subsoil		CI	Subsoil Sandy CLAY (CI) : firm, medium plasticity, reddish brown, medium grained sand, with medium sized gravel, inorganic, w ≈ pl.	w ≈ PL		
			subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, brown, inorganic, w ≈ pl.		BH7-500	
						BH7 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH8

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Pushtube			Fill		SM	Fill Silty SAND (SM) : loose, orange brown, fine grained, with fine sized gravel, trace medium plasticity clay, slightly moist.	SLM	BH8-100	
		0.1	subsoil		Cl	Subsoil Sandy CLAY (Cl) : firm, medium plasticity, reddish brown, fine grained sand, with fine sized gravel, inorganic, w ≈ pl.	w ≈ PL		
		0.2	subsoil		Cl	Subsoil CLAY (Cl) : firm, medium plasticity, reddish brown, inorganic, w ≈ pl.		BH8-500	
						BH8 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH9

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Disturbed sample	Remark
Pushtube			Fill		SM	Fill Silty SAND (SM) : loose, light brown, fine grained, trace medium plasticity clay, slightly moist.	SLM	BH9-100	
		0.1	subsoil		SM	Subsoil Silty SAND (SM) : medium dense, brown, medium grained, with fine sized gravel, slightly moist.			
		0.4	subsoil		SM	Subsoil Silty SAND (SM) : medium dense, light brown, medium grained, slightly moist.		BH9-500	
						BH9 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH12

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Pushtube			Fill		GC	Fill Clayey to sandy GRAVEL (GC) : medium plasticity clay, medium dense, reddish yellow, coarse sized, medium grained sand, slightly moist.	SLM	BH12-100	
		0.1	subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, pale brown, with fine grained sand, inorganic, w ≈ pl.	w ≈ PL		
		0.4	subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, brown, inorganic, w ≈ pl.		BH12-500	
						BH12 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH13

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Pushtube			Fill		SM	Fill Silty SAND (SM) : loose, strong brown, medium grained, trace medium plasticity clay, slightly moist.	SLM	BH13-100	
		0.1	subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, strong brown, inorganic, w ≈ pl.	w ≈ PL		
								BH13-500	
						BH13 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH25

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Disturbed sample	Remark
Pushtube		0.1	Fill		GP	Fill Sandy GRAVEL (GP) : medium dense, brown, coarse sized, medium grained sand, slightly moist.	SLM	BH25-100	
		0.2	Fill		GP	Fill Sandy GRAVEL (GP) : medium dense, grey black, medium sized, medium grained sand, trace medium plasticity clay, slightly moist.		BH25-200	
		0.3	subsoil		CI	Subsoil Sandy CLAY (CI) : firm, medium plasticity, reddish brown, fine grained sand, inorganic, w ≈ pl.	w ≈ PL		
			subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, dark brown, inorganic, w ≈ pl.		BH25-500	
						BH25 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH26

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Disturbed sample	Remark
Pushtube			Fill		SM	Fill Silty SAND (SM) : loose, brown, fine grained, trace medium plasticity clay, slightly moist.	SLM	BH26-100	
		0.1	subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, strong brown, inorganic, w ≈ pl.	w ≈ PL		
								BH26-500	
						BH26 Terminated at 0.5m			

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Geotechnical Log - Borehole

BH27

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Natural		SM	Natural Silty SAND (SM) : dense, brown, fine grained, with fine sized gravel, dry.	D	BH27-100	
								BH27-500	
						BH27 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH28

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Topsoil		SM	Topsoil Silty SAND (SM) : dense, brown, fine grained, with fine to medium sized gravel, dry.	D	BH28-100	
		0.2	Natural		SC	Natural Clayey SAND (SC) : dense, low plasticity clay, brown, fine grained, with fine to medium sized gravel, dry.		BH28-500	
						BH28 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH29

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Natural		SM	Natural Silty SAND (SM) : dense, brown, fine grained, with fine sized gravel, dry.	D	BH29-100	
								BH29-500	
						BH29 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH30

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Natural		SM	Natural Silty SAND (SM) : dense, brown, fine grained, with fine sized gravel, dry.	D	BH30-100	
								BH30-500	
						BH30 Terminated at 0.5m (Target depth)			

Appendix 5. Unidentified finds procedure

Unidentified finds procedure

1. Introduction

A Early Childhood Precinct is proposed for 14 Short Street, Cowra NSW.

A procedure is required describing the actions if potential contamination or hazards are encountered during demolition / soil disturbance / subdivision / excavation / construction activities.

2. Scope

Prepare a procedure to enable the identification and management of unexpected hazards identified during excavation works and/or construction activities.

3. Site identification

Phase A, 14 Short Street, Cowra NSW.

4. Responsible person

The landowner / site supervisor is responsible for implementation of the unexpected finds protocol. The landowner will appoint an environmental scientist to induct and provide information on hazard identification and responses to earthwork supervisors and personnel which may uncover unexpected hazards.

5. Identification of unexpected hazards

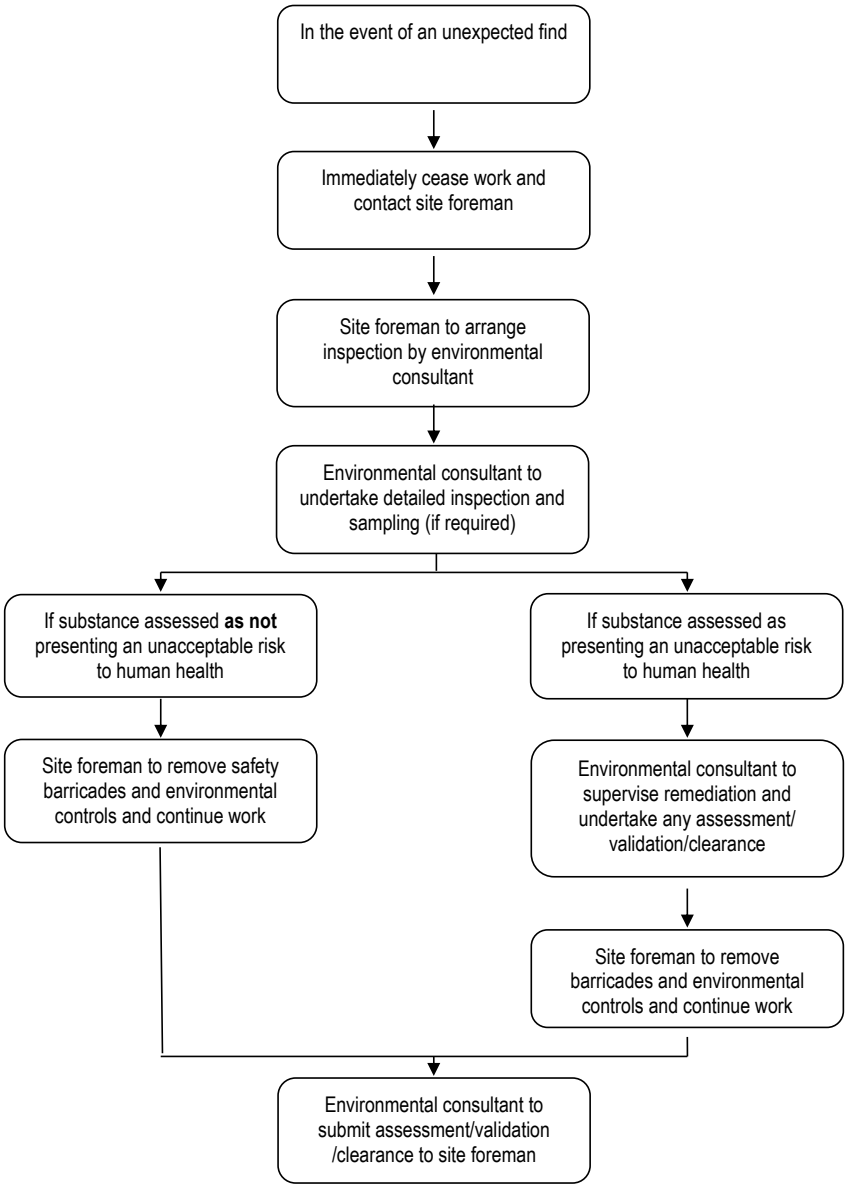
Potential hazards will be identified by appearance and odour include:

- A filled pit or gully
- Demolition waste
- Discoloured soil
- Oil/diesel/tar
- Sheens on water
- An offensive odour
- Asbestos cement sheeting
- Ash or slag
- Underground storage tank

6. Training and induction

All excavation/construction personnel are to be inducted on the identification of potential hazards. The induction can be undertaken at the time of general site induction and toolbox meetings. The training will include display of information to alert worker of potential hazards.

7. Procedure



8. Recommencement of works

The potential hazards will be assessed by the environmental scientist and a report prepared describing:

- Preliminary assessment of the contamination and need for clean-up
- Preparation of a remediation action plan
- All works to be undertaken in accordance with contaminated site regulations and guidelines
- Remediation works
- Validation of the remediation
- Works can commence on the potentially hazardous area after the environmental scientist has provided a clearance.

Information to assist workers in identifying hazards.

BE AWARE

UNEXPECTED HAZARDS MAY BE PRESENT



drums



asbestos



chemical bottles



blood stains



odour



ash / slag



demolition waste

if you SEE or SMELL anything unusual

STOP WORK & contact the Site Foreman

do not restart working before the area has been investigated and cleared by an Environmental Consultant

Appendix 6. Soil sampling protocols

1. Sampling

The samples will be collected from the auger tip, mattock, hand auger or excavator bucket immediately on withdrawal.

The time between retrieval of the sample and sealing of the sample container will be kept to a minimum.

The material will be collected using single use disposal gloves or a stainless-steel spade which represented material which has not been exposed to the atmosphere prior to sampling.

All sampling jars will be filled as close to the top as possible to minimise the available airspace within the jar.

2. Handling, containment and transport

Daily sampling activities will be recorded including sampling locations, numbers, observations, measurements, sampler, date and time and weather condition.

The sampling jars will be new sterile glass jars fitted with plastic lid and airtight Teflon seals, supplied by the laboratories for the purpose of collecting soil samples for analysis. Sample containers will be marked indelibly with the sample ID code to waterproof labels affixed to the body of the container.

All samples will be removed from direct sunlight as soon as possible after sampling and placed in insulated containers. Samples will be stored in a refrigerator at 4°C prior to transportation to the laboratory in insulated containers with ice bricks in accordance with AS4482.1.

Handling and transportation to the laboratory will be accompanied with a chain of custody form to demonstrate the specimens are properly received, documents, processed and stored.

Maximum holding time for extraction (AS4482.1) are:

Analyte	Maximum holding time
Metals	6 months
Mercury	28 days
Sulfate	7 days
Organic carbon	7 days
OCP, OPP, PCB	14 days
TRH, BTEX, PAH, phenols	14 days

3. Decontamination of sampling equipment

Sampling tools will be decontaminated between sampling locations by

- Removing soil adhering to the sampling equipment by scraping, brushing or wiping
- Washing with a phosphate-free detergent
- Rinsing thoroughly with clean water
- Repeating if necessary
- Collect rinsate per sampling time and preserve according to AS 2031.1
- Dry equipment with disposable towels or air

Detailed contamination investigation
Phase B of the proposed *Early Childhood Precinct*, 14 Short Street, Cowra NSW



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Rev	**Report number**	**Date**	**Prepared by**	**Checked by**	**Revision details/status**
0	R43874c1	04/07/2024	Felipe Canavez BSc Environmental Geologist	Greg Madafiglio CEnvP SC Senior environmental scientist	

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Summary report

Background

An Early Childhood Precinct is proposed for 14 Short Street, Cowra NSW. The Phase A area of the development has been previously assessed and is suitable for development. Phase B stage of the development comprises the southern section of the lot. The site is a former Essential Energy depot which included aboveground storage tanks (AST), underground storage tanks (UST), infrastructure and pole storage areas. Previous assessments of the site identified historic contamination that continue to impact the site. Hydrocarbon impacted soil was partially remediated and some contamination was unable to be removed. An Environmental Management Plan (EMP) was adopted to manage the residual contamination. All structures on the site have been removed including asbestos cement pipes. Clearance certificates were issued for the asbestos removal works on the buildings and identified pipes.

Review of previous reports has identified data gaps in the investigation. A contamination assessment is required to complete data gaps and determine suitability for the early childhood service.

Objectives of investigation

The objective of the investigation was to complete data gaps identified in previous investigations and determine suitability of the site for the proposed land-use.

Scope

The scope was to conduct a detailed contamination investigation, identify past potentially contaminating activities, identify potential contamination types, discuss the site condition, provide an assessment of site contamination and assess the need for remediation or suitability for the proposed land-use. The scope of works included site inspection, review of available information, soil sampling and analysis in order to complete data gaps from previous assessments.

Data gaps over the Phase B development area were targeted during the investigation including:

- Absence of a systematic grid sampling pattern over the lot. Previous sampling targeted only known potential sources of contamination.
- Absence of assessment of the former buildings footprints which were inaccessible during the previous investigations.
- Confirm validation results of identified contamination around sampling location SB03 (ERM, 2018). The validation excavations were undertaken west of the SB03 location.
- Validation of the potential UPSS pits. No fill material was identified in boreholes targeting the expected UPSS. Typical base of a UST pit is approximately 3.0m, no samples were collected from the base of the potential UST. One 5kL petrol tank is identified in the SafeWork hazardous material search.
- No sampling over the pole storage area located in the southern section of the site. Poles may have been treated with preservatives containing creosote, copper, chromium, arsenic and organochlorine pesticides (OCP).
- No validation soil samples collected in a former waste drum location (ERM, 2017).
- Residual contamination adjacent the former AST creosote tank located in the central eastern section of the site insufficiently investigated.

Summary

An inspection of the site was undertaken on 3 and 4 April 2024. Historical land-use was as an Essential Energy depot. Buildings and infrastructure have been removed from the site. Previous assessments indicated that areas of contamination remain on-site.

Surface cover was generally 70% comprising grasses, broadleaved weeds and areas of exposed soil and gravel. Fragments of timber, tiles and concrete comprising rubble from the demolition works were

identified over the site. Cement sheeting and cement pipes containing asbestos were identified on-site adjacent the former administrative building. Asbestos pipes have been previously identified in the site and remediated.

Soils identified on-site consisted of a layer of fill of brown silty to gravelly sand ranging from 0.1 to 0.3m over brown to reddish brown silty sand overlying brown clayey to silty sand and silty clay to the drilling depth. Alluvial yellowish brown gravelly clayey sand was identified from 2.0m.

The assessment targeted data gaps identified in previous investigations. Boreholes were drilled and soil samples were collected over the general site, buildings footprints, former pole storage area, suspected UPSS location and east of the former creosote AST1.

No evidence of the former UST pit location including deep fill material was identified during the assessment. A GPR scan was undertaken over the south eastern section of the site did not identify voids, tanks or evidence of infrastructure. The samples collected from the UPSS subarea did not present levels of contaminants exceeding the human health thresholds. The former UPSS is expected to have been previously decommissioned.

One area of fill containing soil mixed with foreign materials was identified to a depth of 0.8m south of the administrative building.

Soil samples were collected from representative depths and analysed for the contaminants of concern. Contaminants of concern identified for the site are heavy metals, total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN), polycyclic aromatic hydrocarbons (PAH), phenols and asbestos.

Levels of contaminants exceeding the human health and ecological thresholds were not identified in the pole storage and fill subareas.

Exceedances of the adopted human and ecological thresholds were identified for hydrocarbons including TRH and PAH for several sampling locations over the site. Four areas of environmental concern were identified based on threshold exceedances and site inspection.

AEC	Location/ source	Contaminants	Exceedance criteria - residential	Area	Comment
1a	AST1	TRH(C10-C16), Carcinogenic PAH, benzo(a)pyrene	Health, ecological	170m^2 Up to 0.5m deep	Comprising borehole locations BH11, BH32 and BH47
1b	BH49/AST1	Carcinogenic PAH	Health, ecological	60 m^2 Up to 0.5m deep	Location BH49, delineated by adjacent boreholes, south east of previous remediation area TP1.
2	BH22/AST2	TRH(C16-C34)	Ecological, direct contact	1m^2 Up to 0.3m deep	Minor soil discolouration
3	Fill	Foreign materials	Ammenity hazard, aesthetic	40m^2 Up to 0.8m deep	Soil mixed with foreign materials including plastic, timber and metal
4a	West of former administrative building	Asbestos containing pipe	Health	Unknown, exposed to 0.2m depth	Partially buried; extension not fully delineated
4b	North east of former administrative building	Corrugated asbestos cement sheeting	Health	Greater than 1m^2 on surface	Not delineated

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Recommendations
Remediation of the identified areas of environmental concern should be undertaken in accordance with a Remedial action plan (RAP) and supervised by a suitably qualified environmental scientist. Remedial options for the hydrocarbon contaminated soil include excavation and transport to landfill.

A validation assessment should be undertaken following remedial works to confirm effectiveness and suitability for the proposed childcare land-use.

An unexpected finds procedure should be adopted for site development works.

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1. Introduction

An Early Childhood Precinct is proposed for 14 Short Street, Cowra NSW. The Phase A area of the development has been previously assessed and is suitable for development. The Phase B area of the development comprises the southern section of the lot. The site is a former Essential Energy depot which included aboveground storage tanks (AST), underground storage tanks (UST), infrastructure and pole storage areas. Previous assessments of the site identified historic contamination that continue to impact the site. Hydrocarbon impacted soil was partially remediated and some contamination was unable to be removed. An Environmental Management Plan (EMP) was adopted to manage the residual contamination. All structures on the site have been removed including asbestos cement pipes. Clearance certificates were issued for the asbestos removal works on the buildings and identified pipes.

Review of previous reports has identified data gaps in the investigation. A contamination assessment is required to complete data gaps and determine suitability for the early childhood service.

2. Objectives

The objective of the investigation was to identify data gaps from previous reports and determine suitability of the Phase B area of the site or provide recommendations for the proposed childcare land-use.

3. Scope of work

Barnson Pty Ltd was commissioned by Cowra Early Childhood Services to undertake a detailed contamination investigation in accordance with the contaminated land management planning guidelines, from the *Contaminated Land Management Act 1997* and the *SEPP (Resilience and Hazards)* of Phase B of the proposed Early Childhood Service Centre located at 14 Short Street, Cowra NSW. The scope of works included site inspection, review of available information, soil sampling and analysis in order to complete data gaps identified in previous investigations.

Data gaps over the Phase B development area were targeted during the investigation including:

- Absence of a systematic grid sampling pattern over the lot. Previous sampling targeted only known potential sources of contamination.
- Absence of assessment of the former buildings footprints which were inaccessible during the previous investigations.
- Confirm validation results of identified contamination around sampling location SB03 (ERM, 2018). The validation excavations were undertaken west of the SB03 location.
- Validation of the potential UPSS pits. No fill material was identified in boreholes targeting the expected UPSS. Typical base of a UST pit is approximately 3.0m, no samples were collected from the base of the potential UST. One 5kL petrol tank is identified in the SafeWork hazardous material search.
- No sampling over the pole storage area located in the southern section of the site. Poles may have been treated with preservatives containing creosote, copper, chromium, arsenic and organochlorine pesticides (OCP).
- No soil samples collected in a former waste drum location (ERM, 2017).
- Residual contamination adjacent the former AST creosote tank located in the central eastern section of the site insufficiently investigated.

4. Site identification

Address	Proposed Phase B of Cowra Early Childhood Precinct 14 Short Street Cowra NSW
Deposited plans	Lot 291 DP45349 Lot 292 DP46474
Latitude and longitude	-33.83° 148.70°
Geographic coordinates	55H E657488m N6255418m
Client	Cowra Early Childhood Services
Owner	Crown Lands
Current occupier	Vacant
Area	Phase B – 0.56 hectares Phase A - 0.50 hectares (Previously assessed) Greater lot – 1.06 hectares
Local government area	Cowra Shire Council
Current zoning	R1 – General residential (Cowra LEP 2012)
Trigger for investigation	Change in land-use
Locality map	Figure 1

5. Site history

5.1 Land-uses

The site was vacant at the time of inspection. Historical land-use is as an Essential Energy depot.

5.2 Summary of council records

None known.

5.3 EPA databases

The site is not listed on the NSW EPA register of contaminated sites (29 April 2024) or sites notified to the EPA (8 April 2024).

Two sites listed on the register of contaminated sites and sites notified to the EPA have been identified within 1km of the site. The former gasworks and Shell depot are located approximately 1km south of the site. The former gasworks is currently under an approved voluntary management proposal (notice 20221713). The Shell depot completed a voluntary management plan in 2015 and has no current notices (notice 201517-7-01). The contaminated sites are not expected to impact the investigation area due to the downslope location.

Lowes Petroleum (former BP Cowra depot) is listed as a site notified to EPA. The site is located 870m south of the investigation area. Contamination from the depot is not expected to impact the investigation area due to being located downslope.

5.4 Safework NSW Storage of hazardous chemicals

A search of the SafeWork dangerous goods database was undertaken in 2015 by previous investigations. The search identified underground storage tanks located in the southern section of the lot.

The search identified applications dated 17/12/1949 and 22/03/1962 held by Central West County Council electricity supply depicting one 500 gallon underground tank used for storage of mineral spirit.

One application form held by Central West County Council trading as Central West Electricity from 11/10/1991 depicts two USTs containing diesel and ULP in the southern section of the lot and a magazine used for storage of explosives. The tanks volume listed is 5,000L each.

Applications dated from 1993 to 1997 depicts one 5,000L petrol underground tank and the magazine.

No changes in the status of the dangerous goods are expected since the 2015 search.

Previous investigations did not locate the historical UPSS. The tanks are expected to have been removed from the site. No notifications to SafeWork have been made regarding the removal of the tanks.

5.5 POEO public register

No current or delicensed and former licensed activities under the POEO Act 1997 have been identified for the site.

Two POEO licenses have been identified on the NSW EPA POEO public register within 1km of the site. The licenses include:

- Cowra Water Treatment Plant located approximately 730m west of the site at Brisbane Street holds a license for miscellaneous discharge to waters (at any time) (EPL 1572).
- Hanson Construction Materials Pty Ltd located approximately 240m east of the site at Day Street holds a license for concrete works (EPL 1456).

The licensed activities are not expected to have impacted on the contamination status of the site. Potential contamination originating from the licensed facilities is regulated by the EPA and subject to ongoing monitoring.

5.6 Other government agency databases

The site is not listed on the following databases:

- National Waste Management Site database
- National Liquid Fuel Facilities database
- NSW EPA former gasworks sites
- The NSW Government PFAS Investigation Program
- Defence PFAS Investigation and Management Program
- Airservices Australia National PFAS Management Program

One fuel depot listed on the National Liquid Fuel Facilities database has been identified within 1km of the investigation area. Lowes Petroleum (former BP Cowra depot) is located at 12 Campbell Street, 870m south of the site.

The former gasworks site at 30 Brougham Street is located approximately 1km south of the site.

Contamination from the fuel depot and gasworks is not expected to impact the investigation area due to the downslope location.

No additional sites listed on government agency databases have been identified within 1km of the investigation area.

5.7 Sources of information

Site inspection 3 and 4 April 2024 by Felipe Canavez and Greg Madafiglio of Barnson Pty Ltd
NSW EPA records of public notices under the CLM Act 1997
Soil and geological maps
Historical aerial photographs including NSW Government historical imagery and Google Earth
Cowra LEP 2012
Parish maps

5.8 Review of historic aerial photographs, maps and plans

5.8.1 Aerial photographs

Year	Visual observations on site	Surrounding area
1964	The site is located in the north eastern outskirts of Cowra township. Infrastructure comprising buildings and internal roads are identifiable.	Areas located to the north and west appears to be vacant. Land-use to the east and south is residential.
1982	An additional structure is located to the north east of the site. Foreign materials appear to be stored on the eastern section of the lot.	The current NSW Local Land Services building has been built to the south east of the site.
1989	The brick building is identifiable in the central section of the lot. Low resolution limits interpretation.	No obvious changes are evident in the surrounding area.
1993	The road coverage is bitumen. An area of hardstand is identifiable to the south of the brick building.	No obvious changes are evident in the surrounding area.
1998	No obvious changes on-site.	No obvious changes are evident in the surrounding area.
2006	Poles are identifiable stored in the southern section of the greater lot.	No obvious changes are evident in the surrounding area.
2010	Vehicle movement is identified within the site.	No obvious changes are evident in the surrounding area.
2012	No obvious changes on-site.	No obvious changes are evident in the surrounding area.
2020	No obvious changes on-site.	No obvious changes are evident in the surrounding area.
2023	Infrastructure has been removed over the lot.	No obvious changes are evident in the surrounding area.

5.8.2 Topographic maps

The 1980 Cowra topographic map based on 1976 aerial imagery and field revision in 1977 depicts the site as a built-up area.

The current topographic map (SIX Maps) depicts the site as a built-up area.

5.8.3 Historical parish maps

The site is situated in the parish of Cowra, County of Bathurst. The maps depict the area as part of a reserve named *"Cowra Rocks"* reserved from sale for public recreation.

Map date	Owner	Details
1884	No details	*"Cowra Rocks"*. Reserved from sale for public recreation (R18374).
1894	No details	Reserved from sale for public recreation (R18374). Notified 12th of August 1893
1901	No details	Reserved from sale for public recreation (R18374). Notified 12th of August 1893
1914	No details	Reserved from sale for public recreation (R18374). Notified 12th of August 1893
1927	No details	*"Cowra Rocks"*, R14202.1603
1941	No details	*"Cowra Rocks"*, R14202.1603
1963	No details	*"Cowra Rocks"*, R14202.1603

5.9 Interview with client representative

The client representative reported that Essential Energy operated for approximately 20 years on the site. The site was decommissioned in 2012 and has been vacant since. Demolition works were undertaken from March to May 2023. Asbestos clearance reports were issued for the asbestos containing materials (ACM) on-site including building materials and asbestos pipes.

No information was identified regarding demolition works being undertaken in accordance with the existing environmental management plan (EMP) (ERM 2018) and if underground services were disconnected or removed.

5.10 Chronological list of site uses

The site was decommissioned in 2012 and is currently vacant. Demolition works were undertaken in 2023.

The site was historically used as an electrical service depot by Essential Energy from the decade of 1990's to 2010's.

SafeWork identified Central West County Council was located on the site from at least 1949 and was the predecessor to Essential Energy. Part of the previously existing infrastructure was constructed prior to 1964 and the final layout of the buildings was from 1989. Two USTs were historically located in the southern section of the investigation area.

5.11 Heritage listings

The site is not listed on the following government heritage databases:

- Commonwealth Heritage List
- National Heritage List
- State Heritage Register
- Local Environmental Plan (Cowra LEP 2012)

The site is identified as being within 1km of six general items on the Cowra LEP (2012) heritage map. The sites include ANZ building (I1), Courthouse (I6), Infracombe building (I32), Cowra Fire Station (I38), Cowra Japanese Garden (I72) and Stone Building (I34).

The site is identified as being within 1km of two items on the State Heritage Register. The sites are Cowra Railway Station (619) and Cowra Prisoner of War Campsite (619).

The heritage listings are not expected to have impacted on the contamination status of the site. No items listed on the Commonwealth Heritage List and National Heritage List are located within 1km of the site.

5.12 Buildings and infrastructure

Infrastructure previously existing on-site was demolished and removed in 2023. The site was fenced. Access to the site was from Main Street and Short Street.

The site surface was formerly covered in a combination of buildings, hardstand concrete or asphalt, unsealed surfaces and vegetated areas.

The main buildings located over the greater lot were: (i) a two storey brick office building (administration building) (ii) several corrugated iron buildings used as workshops and storage areas, (iii) a magazine composed of brick, concrete and timber, used for storage of explosives, (iv) a truck wash area and associated oil drainage sump, (v) a sealed electrical equipment storage area, (vi) a former underground petroleum storage system (UPSS) area formerly containing two 5kL USTs (diesel and ULP) reportedly decommissioned and (vii) two areas containing above ground creosote tanks (AST) located to the east (AST1) and to the south west of the site (AST2) respectively. The buildings floor was expected to be generally sealed.

5.13 Spills, losses or discharges

No records for spills or losses on the site were available. Previous investigations detected levels of hydrocarbons above the health screening levels over the site adjacent to the USTs and creosote ASTs to the south.

5.14 Relevant complaint history

None expected.

5.15 Previous investigations

5.15.1 GHD (2011) *Essential Energy Contaminated Land Strategy – Stage 1 Preliminary Site investigations,* NSW Summary Report (report number not provided)

The site was identified as moderate environmentally sensitive land due to neighbouring residential land-use. A range of potentially contaminating sources were identified during the inspection which included asbestos containing materials, former creosote storage, UST's, chemical storage, workshops, transformer storage, an oil sump, electrical equipment and pole storage/maintenance. No intrusive investigations were undertaken, further intrusive works were recommended.

5.15.2 ERM (2015) *Detailed Site Investigation – Cowra Former Depot (COWR1740) 14 Short Street Cowra, NSW,* for Essential Energy, dated November 2015 (report number 0302409)

The study identified the primary sources of contamination over the site were potential asbestos containing materials used in the buildings, former creosote storage tanks, former diesel and petrol UST's, former chemical storage (explosives), former workshops, former transformer storage, oil sump and electrical equipment and pole storage and maintenance areas.

The investigations did not adopt a systematic sampling pattern over the lot. Buildings were existing over the site and building footprints could not be assessed. The poles storage and waste drum areas in the southern section of the site were not investigated.

Levels of hydrocarbons above the human health screening levels were identified adjacent the former creosote AST and former USTs. Asbestos was not detected in soil samples.

The site was deemed suitable for commercial land-use subject to management controls. Recommendations were made regarding the requirement of further investigation and potential remediation in the case of a change in land-use due to the exceedances identified.

Representatives of Essential Energy, ERM and NSW EPA agreed that further investigation and remediation works were required prior to formal site notification under the CLM Act.

5.15.3 ERM (2017) *Validation Report – Former Cowra Depot, 14 Short Street, Cowra, NSW,* for Essential Energy, dated September 2017 (report number 0372941)

Remediation works were undertaken by excavating test pits over three areas of environmental concern: the expected UPSS location (TP2) area, south east the former creosote AST (TP1) (Figure 2) and south of TP1 (TP3). The excavations over the TP1 were undertaken to the practical extent due to the presence of adjacent underground services. TP3 was excavated further south of TP1 avoiding the underground services location. No contamination was identified in the validation samples from TP3.

Remediation over the exceedance identified in the sampling location COWR_SB03 in the previous investigations was not reported. The excavation pit TP2 was undertaken to the west of the location of the exceedance.

The potential for an UPSS still existing and soil impacts was considered unlikely based on the test pit excavated adjacent the expected former UPSS location and previous investigations.

One exceedance of the adopted human health residential criteria was noted in one validation sample from the excavation pit TP1 adjacent the former creosote tanks, however, the extent of excavation was limited due to the presence of underground services. The contamination was considered delineated and characterised. The site was considered suitable for industrial land-use subject to a Site Management Plan in order to manage the risks associated with the remaining contamination. Formal notification under the CLM Act was not required for the contamination remaining on-site.

Recommendations were made regarding requirements for further assessment and remediation in the case of change to a sensitive land-use, including residential land-use.

5.15.4 ERM (2018) *Environmental Management Plan – Essential Energy former Depot, 14 Short Street, Cowra, NSW,* dated January 2018 (report number 0370048)

The EMP provided a management framework for the residual contamination previously remediated to the possible extent. Residual contamination was described to remain on-soil adjacent to the creosote AST to depths from 0.9 to 2.0m due to existence of underground services at the time of the assessment.

The extent of the contamination was delineated and characterised and considered to not present a risk for receptors onsite and offsite if remained undisturbed considering commercial land-use.

Recommendations were made regarding effective remediation including additional sampling following the infrastructure demolition and removal of underground services.

5.15.5 Regional Asbestos Assessors Pty Ltd - Asbestos clearance inspections and certificates

A report was issued outlining the areas of ACM identified on-site (RAA10316-4) and an asbestos clearance certificate report was issued in April 2024 (RAA10639-1) for the removal of the ACM from the areas previously identified.

Areas of cement pipework containing asbestos were also identified and outlined by a previous report (RAA10634-7). Approximately 225 lineal metres of subsurface asbestos cement pipework were removed from the site and a clearance certificate was issued in April 2024 (RAA10640-1). The certificate indicates that cement pipework may be present in areas of the site not inspected.

5.16 Historical neighbouring land-use

North – Bellevue Hill Reserve
South – Main Street, residential
East – Short Street, residential
West – Bellevue Hill Reserve

Historical neighbouring land-uses are not expected to be impacting on the contamination status of the site.

5.17 Contaminant sources

Potential contamination from activities undertaken over the greater lot and former building locations may have impacted the site due to spills, leaks or discharge of contaminants over the site surface during the general industrial activities.

The former UPSS is considered a potential source of contamination on the site. Petroleum hydrocarbon contamination is possible in delivery, storage and dispensing of fuel and oil products, spills and overflows at refilling, leakage of UST due to corrosion and leakages of feeder lines due to pipe work failures. Contamination is possible from fuel spills and overflows at the time of refilling and pump dispensing.

The creosote above-ground surface tanks (AST1 and AST2) formerly used for timber treatment may potentially impact the contamination status due to potential leaks and spills.

Fill from unknown sources used on-site may have resulted in application of contaminants.

One area of fill containing soil mixed with inert foreign materials including plastic, timber and metal was identified in the central section of the site.

One area in the southern section of the site was historically used for storage of timber poles. The poles contained preservatives including creosote and heavy metals.

Suspected asbestos containing materials remaining from the demolition works.

5.18 Contaminants of concern

Based on historical activities and site inspection the potential contaminants of concern associated with general industrial land-use, former infrastructure and fill application are:

- Heavy metals (arsenic, cadmium, chromium, copper, nickel, lead, zinc and mercury)
- Total recoverable hydrocarbons (TRH)
- Benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN)
- Polycyclic aromatic hydrocarbons (PAH)
- Asbestos

Contaminants of concern associated with the pole storage area are:

- Heavy metals (arsenic, cadmium, chromium, copper, nickel, lead, zinc and mercury)
- Total recoverable hydrocarbons (TRH)
- Benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN)
- Polycyclic aromatic hydrocarbons (PAH)
- Organochlorine pesticides (OCP)
- Phenol

Contaminants of concern associated with the UPSS are:

- Heavy metals (arsenic, cadmium, chromium, copper, nickel, lead, zinc and mercury)
- Total recoverable hydrocarbons (TRH)
- Benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN)
- Polycyclic aromatic hydrocarbons (PAH)

Contaminants of concern associated with the former AST1 location are:

- Polycyclic aromatic hydrocarbons (PAH)

5.19 Integrity assessment

The site history was obtained from a site inspection and history review. The information is consistent with the current site condition and to the best of the assessor's knowledge is accurate.

6. Site condition and surrounding environment

6.1 Site inspection

The site was inspected by Felipe Canavez and Greg Madafiglio of Barnson Pty Ltd on 3 and 4 April 2024.

6.2 Land-use

The site is currently vacant. Residual fragments of construction rubble and road base gravel were identified over the site during the inspection.

6.3 Current neighbouring land-use

North – Bellevue Hill Reserve
South – Main Street, residential
East – Short Street, residential
West – Bellevue Hill Reserve

Current neighbouring land-uses are not expected to be impacting on the contamination status of the site.

6.4 Surface cover and vegetation

Vegetation on the site was generally 70%. Vegetation comprised grasses and broadleaved weeds including dandelion, cathead, fleabane and curly dock.

Fragments of timber, tiles and concrete comprising rubble from the demolition works were identified over the site. Corrugated cement sheet was identified in the north eastern section of the site.

6.5 Evidence of visible contamination

Fragments of construction rubble including timber, concrete and tiles were identified over the site surface.

Partially buried suspected asbestos containing material (ACM) comprising corrugated cement sheet and pipes were identified over the site surface (Figure 2). Asbestos pipes have been previously identified and remediated on-site.

Soil mixed with inert foreign materials including plastic, timber and metal was identified in borehole location BH39 in the central section of the site. The area was identified by scanning using a ground-penetrating radar (GPR) and is suspected to be on-site waste used as fill.

Slight chemical odour was identified in soil from borehole locations adjacent the creosote AST1 to depths up to 0.5m.

A small area of surface soil discolouration was identified in borehole BH22 adjacent AST2 location.

6.6 Topography

The site morphology is a mid-slope with gently to moderately inclined slopes of 3 to 10% to the south east. The average elevation is 320 metres above sea level.

6.7 Soils and geology

The site is within the Cowra Soil Landscape. Soils in the Cowra Soil Landscape are dominated by red podzolic soils with siliceous sands on steep crests. Non-calcic brown soils and red-brown earths occur on gentle slopes (eSPADE, 2024).

The parent rock is the Cowra granodiorite. The parent material consists of *in-situ* and alluvial-colluvial deposits of parent material (eSPADE, 2023).

Soils identified on-site consisted of a layer of fill of brown silty to gravelly sand ranging from 0.1 to 0.3m over brown to reddish brown silty sand overlying brown clayey to silty sand and silty clay to the drilling depth. Alluvial yellowish brown gravelly clayey sand was identified from 2.0m.

6.8 Water

6.8.1 Surface water

Surface water is expected to infiltrate or flow to the south east. Any excess water flows will follow topography on-site and flow south east towards the stormwater system and Waugola Creek located approximately 320m south east of the site. Waugola Creek is a tributary of the Lachlan River.

6.8.2 Groundwater

Groundwater bores were not identified on the site on the NSW Government Water NSW website (2024). Three registered groundwater bores were identified within 500m of the site on the NSW Government Water NSW website (2024). The bores are licenced for monitoring, water supply and test bore. Water-bearing zones (WBZ) were from 18m to 22m in sand. The standing water level (SWL) was from 10m at the time of drilling.

According to previous investigations, boreholes were drilled on-site to depths up to 20m and left open for approximately 8 hours. Groundwater was not intercepted in the boreholes.

No.	Date drilled	Location	SWL (m)	Use	Status
GW092082	19/02/1997	100m SE	-	Monitoring bore	Unknown
GW057779	06/09/1983	190m S	10.0	Stock, domestic	Current
GW702270	22/09/2004	470m SE	-	Test bore	Unkown

6.9 Evidence of possible naturally occurring contaminants

No natural sources of PAH were identified.

The site is not mapped as an acid sulphate soil risk (State Government of NSW and Department of Planning, Industry and Environment 1998).

The site is not mapped as a geological unit with asbestos potential (State Government of NSW and Department of Regional New South Wales 2015).

6.10 Environmentally sensitive features or habitats

The site is located west of Bellevue Hill Flora and Fauna reserve, considered a moderately sensitive habitat. Waugola Creek is a tributary of the Lachlan River located approximately 320m south east of the site. Waugola Creek is considered a moderately disturbed ecosystem due to upstream agricultural land-

use. The Lachlan River is considered a highly disturbed ecosystem due to upstream urban and agricultural land-use.

6.11 Integrity assessment

The site history was obtained from a site inspection and history review. The information is consistent with the current site condition and to the best of the assessor's knowledge is accurate.

7. Conceptual site model

7.1 Contaminant sources

Potential contamination from historical general industrial activities may have impacted the site due to spills, leaks or discharge of contaminants over the site surface that may have impacted the site and former building locations.

The former UPSS is a potential source of contamination on the site.

The creosote above-ground surface tanks (AST) may potentially impact the contamination status due to potential leaks and spills.

The use of fill from unknown sources may have resulted in application of contaminants.

Historical storage of poles was identified in the southern section of the site.

Potential residual asbestos containing materials and foreign materials from the demolition of the former infrastructure.

7.2 Contaminants of concern

Based on historical activities and site inspection the potential contaminants of concern associated with general land-use, former infrastructure and fill application are:

- Heavy metals (arsenic, cadmium, chromium, copper, nickel, lead, zinc and mercury)
- Total recoverable hydrocarbons (TRH)
- Benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN)
- Polycyclic aromatic hydrocarbons (PAH)
- Asbestos

Contaminants of concern associated with the pole storage area are:

- Heavy metals (arsenic, cadmium, chromium, copper, nickel, lead, zinc and mercury)
- Total recoverable hydrocarbons (TRH)
- Benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN)
- Polycyclic aromatic hydrocarbons (PAH)
- Organochlorine pesticides (OCP)
- Phenol

Contaminants of concern associated with the UPSS are:

- Heavy metals (arsenic, cadmium, chromium, copper, nickel, lead, zinc and mercury)
- Total recoverable hydrocarbons (TRH)
- Benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN)
- Polycyclic aromatic hydrocarbons (PAH)

Contaminants of concern associated with the former AST1 location are:

- Polycyclic aromatic hydrocarbons (PAH)

7.3 Potential receptors

The proposed land-use of the site is an Early Childhood Precinct. Historical land-use comprised an electrical services depot.

Human receptors include:

- Occupants and visitors (adults and children)
- Staff
- Construction workers
- Intrusive maintenance workers

Ecological receptors include:

- Flora and fauna on the site and adjacent to the site
- Aquatic flora and fauna receptors off-site

7.4 Exposure pathways

Pathways for exposure to contaminants are:

- Dermal contact following soil disturbance
- Ingestion and inhalation after soil disturbance
- Surface water and sediment runoff into waterways
- Leaching of contaminants into the groundwater
- Direct contact of flora and fauna with the soil

7.5 Source receptor linkages

Potential source pathway receptor linkages are identified to enable evaluation of any adverse impact on human health or ecology.

The proposed land-use of the site is an Early Childhood Precinct and human receptors to the investigation area are likely. Proposed users of the site may have a risk of exposure if contaminants are present and the soil is disturbed. Occupants, visitors, staff, construction workers and intrusive maintenance workers may potentially be receptors to soil contaminants through direct contact to soil which includes ingestion and dermal contact.

The contaminants of concern include volatiles and asbestos fibres. Inhalation of soil material, asbestos fibres and vapour may occur as a result of soil disturbance and dust production. Major soil disturbance before and after the development of the site is considered unlikely. Soil disturbance during construction and development of the site is expected to be accompanied by erosion control measures which will reduce the incidence of dust production.

Vegetation on the site may be potential receptors to soil contamination through direct uptake of contaminants.

The source receptor linkage to aquatic organisms and ecosystems is considered incomplete as the site is generally vegetated or hardstand and movement of sediments from the site is unlikely. During construction work it is expected that erosion control measures will be implemented and movement of sediment off site will be unlikely. Following development of the site it is expected that vegetation or hard surfaces will be re-established which will control sediment movement from the site. The nearest waterway to the site is Waugola Creek located approximately 320m south east of the site. It is not expected that

contaminants from the site will be transported to aquatic receptors within the creek. Waugola Creek is considered a moderately disturbed ecosystem.

Groundwater is not identified as a potential receptor to sub-surface contamination. The standing water level for the nearest water bore available was 10m at the time of drilling. Groundwater levels are expected to be greater than 20m based on previous investigations. Contamination on-site is expected to be generated from the site surface or up to 3m depth.

Source/contaminants	Transport	Potential exposure pathways	Receptors
☒ Former electrical depot industrial land-use Heavy metals TRH BTEXN PAH Asbestos	☒Wind ☒Sedimentation ☐Groundwater ☐Surface water ☒Volatilisation	☒Direct contact (ingestion and absorption) (human and environment) ☒Inhalation ☐Runoff ☒Leaching	☒ Occupants and visitors (adults and children) ☒ Staff ☒Construction workers ☒Intrusive maintenance workers ☒Vegetation ☐Aquatic receptors
☒Former UPSS Heavy metals TRH BTEXN PAH	☐Wind ☒Sedimentation ☐Groundwater ☐Surface water ☒Volatilisation	☒Direct contact (ingestion and absorption) (human and environment) ☒Inhalation ☐Runoff ☒Leaching	☒ Occupants and visitors (adults and children) ☒ Staff ☒Construction workers ☒Intrusive maintenance workers ☒Vegetation ☐Aquatic receptors
☒Former cresosote AST PAH	☐Wind ☒Sedimentation ☐Groundwater ☐Surface water ☒Volatilisation	☒Direct contact (ingestion and absorption) (human and environment) ☒Inhalation ☐Runoff ☒Leaching	☒ Occupants and visitors (adults and children) ☒ Staff ☒Construction workers ☒Intrusive maintenance workers ☒Vegetation ☐Aquatic receptors
☒ Fill Heavy metals TRH BTEXN PAH Asbestos	☒Wind ☐Sedimentation ☐Groundwater ☐Surface water ☒Volatilisation	☒Direct contact (ingestion and absorption) (human and environment) ☒Inhalation ☐Runoff ☐Leaching	☒ Occupants and visitors (adults and children) ☒ Staff ☒Construction workers ☒Intrusive maintenance workers ☒Vegetation ☐Aquatic receptors
☒ Building material Asbestos	☒Wind ☐Sedimentation ☒Groundwater ☐Surface water ☐Volatilisation	☐Direct contact (ingestion and absorption) (human and environment) ☒Inhalation ☐Runoff ☐Leaching	☒ Occupants and visitors (adults and children) ☒ Staff ☒Construction workers ☒Intrusive maintenance workers ☒Vegetation ☐Aquatic receptors
☒ Pole storage area Heavy metals TRH BTEXN PAH Phenols	☒Wind ☐Sedimentation ☒Groundwater ☐Surface water ☐Volatilisation	☐Direct contact (ingestion and absorption) (human and environment) ☒Inhalation ☐Runoff ☐Leaching	☒ Occupants and visitors (adults and children) ☒ Staff ☒Construction workers ☒Intrusive maintenance workers ☒Vegetation ☐Aquatic receptors

☒Potential, ☐unknown/unlikely

8. Data quality objectives (DQO)

8.1 State the problem

An Early Childhood Precinct is proposed for the site. The site has historically been used as an electrical services depot. Industrial activities undertaken over the site may have impacted the site due to spills, leaks or discharge of contaminants.

Fill from unknown sources may have been imported to the site. One area containing fill mixed with foreign materials was identified on-site.

Leaks and spills from the former UPSS and creosote AST tanks may have impacted the contamination status on the site.

The creosote above-ground surface tanks (AST) may potentially impact the contamination status due to potential leaks and spills.

Residual asbestos containing materials from the demolition works.

8.2 Identify the decision

The proposed land-use is as an Early Childhood Precinct. Day care centres, kindergartens, pre-schools and primary schools are assessed under the residential based criteria. Levels of potential contaminants should be less than the thresholds listed in Section 11 in accordance with NEPM (1999). The decision problem is, do the levels of potential contaminants exceed the assessment criteria and thresholds listed in Section 11.

8.3 Identify the inputs decision

Investigations of the site is required to identify any potential contaminants from the historical land-use. The inputs include:

- Field observation of aesthetic impacts of visible contamination
- Soil samples across the site
- Inspection of the condition of the site
- Review of previous reports

8.4 Define the boundaries of the study

The investigation area is Phase B of the proposed Early Childhood Precinct, 14 Short Street Cowra NSW (Figure 2). The investigation area comprises the southern section of the greater lot.

8.5 Develop a decision rule

Data collected for the purpose of the contamination investigation must be sufficiently accurate in representativeness. The accuracy will be assessed by determination of:

- Current and historical land-use to describe potential contamination sources
- Site setting, potential receptors and pathways
- Soil samples to characterise the extent of contamination and analysis in accredited laboratories

Childcare centres are assessed under the residential land-use thresholds in accordance with the Schedule B7 *Derivation of Health-Based Investigation Levels* and includes thresholds listed in Schedule B1 *Guideline on Investigation Levels for Soil and Groundwater* of the NEPM (1999). The data must be sufficiently representative to identify the extent of contamination and if further sampling and analysis is needed to delineate the nature and extent of contamination.

The decision rule for the investigation is:

- If the contamination levels were less than the adopted levels, are potential risks low and acceptable
- If the levels were equal or greater than the investigations level, will exceedances affect the suitability for the proposed land-use

8.6 Specify acceptable limits on the decision errors

A decision error in the context of the decision rule would lead to either underestimation or overestimation of the risk level associated with the property. Decision errors include:

- Limitations in available site history information
- Constraints associated with the ability to access certain areas of a site
- Errors in the sampling plan
- Data quality including comparability, representativeness and accuracy for data collection and analysis
- Analytic data validation

Where sample analysis is undertaken the quality of the data collected was assessed on a range of factors including:

- Documentation and data completeness
- Reference to relevant guidance documents
- Consistency of methodology
- Data quality including comparability, representativeness and accuracy for data collection and analysis
- Analytical data validation
- Satisfactory acceptance limits are the 95% upper confidence limit of samples collected is less than the threshold levels, the standard deviation of results should be less than 50% of the relevant investigation or screening level and the levels are less than 250% the relevant thresholds.

8.7 Optimize the design for obtaining data

The methodology described in Sections 9 and 10 presents a framework for the contamination investigation which has been designed to meet the scope objectives and the nominated DQO.

Optimisation of the data collection process was informed by a review of historical information and observations made at the time of site inspection. The sampling was used to inform the potential contamination status of the site. The scope of work was undertaken to a level of accuracy and confidence in the ASC NEPM (NEPC 1999).

Analytes included arsenic, cadmium, total chromium, copper, lead, nickel, zinc, mercury, TRH (C6-C40), BTEXN, PAH, OCP and phenol.

9. Sampling analysis plan and sampling methodology

9.1 Sampling strategy

9.1.1 Sampling design

A stratified sampling pattern was adopted to assess the probable location of contamination. The site was divided into sub-areas according to historical land-use. The sub-areas included the general site, former building locations and former pole storage area. A systematic sampling pattern was adopted for each sub area.

The sub-areas have been historically managed as part of a single unit and is expected to have been treated similarly.

A judgemental sampling pattern was adopted to assess potential areas of environmental concern AST1 and UPSS.

9.1.2 Sampling locations

Nine boreholes were drilled on the general site on an approximate 20m grid pattern to enable the soil profile to be described including the presence of fill or other indicators of contamination. Two soil samples were collected from each borehole and analysed for heavy metals, TRH, BTEXN and PAH.

Five boreholes were drilled on the former building locations on an approximate 6m grid pattern. Two soil samples were collected from each borehole and analysed for heavy metals, TRH, BTEXN and PAH.

Three boreholes were drilled over the former pole storage area on an approximate 10m grid pattern. Two soil samples were collected from each borehole and analysed for heavy metals, TRH, BTEXN and PAH, OCP and phenols.

Nine boreholes were drilled over the suspected UPSS and drum waste locations adopting a judgemental sampling pattern. Samples were collected from representative depths at each borehole and analysed for heavy metals, TRH, BTEXN and PAH.

Five boreholes were drilled over the former creosote AST1 location adopting a judgemental sampling pattern. Representative samples were collected from each borehole and analysed for PAH.

One borehole was drilled in the fill area. Samples were collected from representative depths and analysed for heavy metals, TRH, BTEXN and PAH.

The sampling locations are described in Figures 3 to 5.

9.1.3 Sampling density

The sampling density can detect a potential hot spot across the general area with a radius of 12m at a 95% level of confidence. The sampling frequency is in accordance with the minimum recommended by EPA (2022).

The number of samples collected from the former building locations, pole storage area and areas of environmental concern is considered sufficient to enable detailed characterisation.

A ground penetrating radar was used to scan areas south eastern section of the site. The scan was undertaken on north-south transects followed by east west transects on a 1m grid pattern in order to identify evidence of the former UPSS or underground structures.

9.1.4 Sampling depth

Boreholes drilled over the general site, building footprints and pole storage subareas were drilled to 0.5m.

Boreholes over the areas of environmental concern were drilled up to 3.0m.

Soil samples were collected from representative depths over the different subareas for laboratory analysis.

Non-intrusive investigation was undertaken using a Mala ground penetrating radar fitted with a mid-depth antenna and a depth of penetration setting of 1.5m.

9.2 Analytes

Discrete soil samples collected from the general area, building footprints and former UPSS were evaluated for heavy meals (arsenic, cadmium, chromium, copper, lead, nickel, zinc and mercury), TRH (C6-C40), BTEXN and PAH.

Samples from the pole storage area were evaluated for heavy meals, TRH (C6-C40), BTEXN, PAH, organochlorine pesticides (OCP) and phenols.

Samples from the former AST1 location were analysed for PAH.

Heavy metals, hydrocarbons pesticides and phenols were identified as the contaminants of concern possibly present as a result of industrial land-use, fill application, application of timber preservatives and potential leaks and spills from the UPSS and creosote ASTs (Table 1).

9.3 Sampling methods

Boreholes were drilled using a Landcruiser mounted Christie push tube and a Landcruiser mounted EZIPROBE drilling rig with solid auger. Samples were collected directly from the soil core or from the auger tip at the required depth with a stainless-steel hand spade. Discrete soil samples were transferred directly to a solvent rinsed glass jar with a Teflon lid.

Soil was taken at each individual sampling location below the vegetative and detrital layer. Discrete soil samples were transferred directly to a solvent rinsed glass jar with a Teflon lid.

Tools were decontaminated between sampling locations to prevent cross contamination by brushing to remove caked or encrusted material, rinsing with clean tap water and allowing to air dry or using a clean towel.

The sampling log is presented in Appendix 2.

Non-intrusive investigation was conducted by ground penetrating radar (GPR). The GPR investigation was undertaken using a Mala Easy locator. The GPR uses the soil moisture dielectric constant to identify difference in density of the subsurface. Subsurface structures including tanks and large pipes can be identified however rock can cause interference. The assessment area was traversed in an approximate 1m grid pattern.

Table 1. Schedule of samples and analyses

Sample ID	Sub-area	Location	Depth (mm)	Analysis undertaken
BH10-100	General site	BH10	100	Arsenic (As), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), Nickel (Ni), zinc (Zn), mercury (Hg), total recoverable hydrocarbons (TRH (C6-C40)), benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN), polycyclic aromatic hydrocarbons (PAH)
BH10-500	General site	BH10	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH11-300	General site	BH11	300	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH11-500	General site	BH11	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH14-100	General site	BH14	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH14-500	General site	BH14	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH15-100	General site	BH15	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH

Sample ID	Sub-area	Location	Depth (mm)	Analysis undertaken
BH15-500	General site	BH15	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH16-100	General site	BH16	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH16-500	General site	BH16	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH17-100	General site	BH17	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH17-500	General site	BH17	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH18-100	General site	BH18	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH18-500	General site	BH18	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH20-100	General site	BH20	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH20-500	General site	BH20	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH21-100	General site	BH21	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH21-500	General site	BH21	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH22-100	Former creosote AST2	BH22	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH22-500	Former creosote AST2	BH22	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH23-100	Electrical equipment storage building	BH23	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH23-500	Electrical equipment storage building	BH23	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH24-100	Former workshop/ storage sheds	BH24	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH24-500	Former workshop/ storage sheds	BH24	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH31-100	Administration building	BH31	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH31-500	Administration building	BH31	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH32-100	Administration building	BH32	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH32-500	Administration building	BH32	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH33-100	SB03 drilling location	BH33	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH33-1000	SB03 drilling location	BH33	1,000	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH33-3000	SB03 drilling location	BH33	3,000	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH34-500	Suspected UPSS	BH34	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH34-1000	Suspected UPSS	BH34	1,000	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH34-3000	Suspected UPSS	BH34	3,000	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH35-500	Suspected UPSS	BH35	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH35-1000	Suspected UPSS	BH35	1,000	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH35-3000	Suspected UPSS	BH35	3,000	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH36-100	Suspected UPSS	BH36	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH36-500	Suspected UPSS	BH36	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH36-1000	Suspected UPSS	BH36	1,000	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH36-3000	Suspected UPSS	BH36	3,000	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH37-500	Suspected UPSS	BH37	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH37-1000	Suspected UPSS	BH37	1,000	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH37-3000	Suspected UPSS	BH37	3,000	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH38-500	Suspected UPSS	BH38	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH38-1000	Suspected UPSS	BH38	1,000	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH38-3000	Suspected UPSS	BH38	3,000	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH39-300	Fill area	BH39	300	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH39-800	Fill area - natural	BH39	800	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH40-100	Suspected UPSS	BH40	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH40-500	Suspected UPSS	BH40	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH

Sample ID	Sub-area	Location	Depth (mm)	Analysis undertaken
BH40-1000	Suspected UPSS	BH40	1,000	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH40-3000	Suspected UPSS	BH40	3,000	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH41-500	Suspected UPSS	BH41	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH41-1000	Suspected UPSS	BH41	1,000	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH41-3000	Suspected UPSS	BH41	3,000	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH42-100	Pole storage area	BH42	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH, Organochlorine pesticides (OCP), Phenols
BH42-500	Pole storage area	BH42	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH, OCP, Phenols
BH43-100	Pole storage area	BH43	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH, OCP, Phenols
BH43-500	Pole storage area	BH43	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH, OCP, Phenols
BH44-100	Pole storage area	BH44	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH, OCP, Phenols
BH44-500	Pole storage area	BH44	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH, OCP, Phenols
BH46-100	Waste drum location	BH46	100	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH46-500	Waste drum location	BH46	500	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH
BH47-100	Creosote AST 1	BH47	100	PAH
BH47-1000	Creosote AST 1	BH47	1,000	PAH
BH47-2000	Creosote AST 1	BH47	2,000	PAH
BH47-3000	Creosote AST 1	BH47	3,000	PAH
BH48-100	Creosote AST 1	BH48	100	PAH
BH48-1000	Creosote AST 1	BH48	1,000	PAH
BH48-2000	Creosote AST 1	BH48	2,000	PAH
BH48-3000	Creosote AST 1	BH48	3,000	PAH
BH49-300	Creosote AST 1	BH49	300	PAH
BH49-1000	Creosote AST 1	BH49	1,000	PAH
BH50-100	Creosote AST 1	BH50	100	PAH
BH50-1000	Creosote AST 1	BH50	1,000	PAH
BH50-2000	Creosote AST 1	BH50	2,000	PAH
BH50-3000	Creosote AST 1	BH50	3,000	PAH
BH51-100	Creosote AST 1	BH51	100	PAH
BH51-500	Creosote AST 1	BH51	500	PAH

10. Quality assurance and quality control

10.1 Sampling design

The sampling program is intended to provide data as to the presence and levels of contaminants.

Boreholes were drilled on the general area on a systematic grid pattern of approximately 20 metres. This sampling density will enable the detection of an area with an elevated concentration on a radius of 12m with a 95% confidence level. The number of sampling locations is in accordance with the recommended density in the EPA sampling guidelines.

Boreholes were drilled on a systematic pattern on the former building and pole storage subareas in order to provide a preliminary assessment of the soil contamination status. The sampling density of the subareas is expected to be sufficient to enable detailed characterisation.

The sampling density of the areas of environmental concern is expected to be sufficient to enable detailed characterisation.

10.2 Field

The collection of samples was undertaken in accordance with accepted standard protocols (NEPC 1999). The samples were analysed for heavy metals (arsenic, cadmium, total chromium, copper, lead, nickel, zinc and mercury), TRH (C6-C40), BTEXN, PAH, OCP and phenols.

Sampling equipment was decontaminated between each sampling event. The appropriate storage conditions and duration were observed between sampling and analysis. A chain of custody form accompanied the samples to the laboratory (Appendix 3).

An experienced sampler was used to collect the samples using standard methods. Soil collected was a fresh sample from the pushtube or from the auger tip. After collection the samples were immediately placed in new glass sampling jars and placed in a cooler.

Six duplicate samples were collected. No field blank, rinsate, trip blank or matrix spikes were submitted for analysis. Some samples from all batches did not contain contaminants which confirm the absence of cross contamination during transport and storage.

A field sampling log is presented in Appendix 2.

10.3 Laboratory

Chemical analysis was conducted by SGS Laboratories, Alexandria, which is NATA accredited for the tests undertaken. The laboratories have quality assurance and quality control programs in place, which include internal replication and analysis of spike samples and recoveries.

Method blanks, matrix duplicates and laboratory control samples were within acceptance criteria. The quality assurance and quality control report is presented together with the laboratory report as Appendix 3.

10.4 Data evaluation

The laboratory quality control report indicates the data variability is within acceptable industry limits. The data is considered representative and usable for the purposes of the investigation. Data quality indicators are presented in Appendix 1.

11. Assessment criteria

The main reference for environmental site assessment in Australia is the ASC NEPM (NEPC 1999 rev 2013). This document includes criteria for use in evaluating potential risk to human health and ecosystems from chemical impacts, which are presented as generic investigation levels and screening levels appropriate to a Tier 1 risk-based assessment applicable for site assessment. The application of these investigation levels and screening levels is subject to a range of limitations, and their selection and use must be in the context of a conceptual site model (CSM) relating to the nature and distribution of impacts and potential exposure pathways.

The proposed land-use is an early childhood precinct. Day care centres, kindergartens, pre-schools and primary schools are considered a sensitive land-use and residential assessment criteria is considered suitable for the site according to the Schedule B7 of the NEPC (1999) *Derivation of Health-Based*

Investigation Levels. and appropriate initial criteria are described in *Guideline on Investigation Levels for Soil and Groundwater* (NEPC 1999).

The criteria list health investigation levels (HIL) for a range of land-uses. The appropriate initial comparison for the site is residential (HIL A).

The NEPC (1999) also provides health screening levels (HSL) for hydrocarbons in soil. The HSLs have been developed to be protective of human health for soil types, depths below surface and apply to exposure to hydrocarbons through the predominant vapour exposure pathway. The appropriate HSL for the site is listed in Table 3. TRH>16 have physical properties which make the TRH fractions non-volatiles and therefore these TRH fractions are not applicable for vapour intrusion.

The proposed health screening levels for direct contact with petroleum hydrocarbons is listed in CRC CARE Technical Report No 10. The thresholds presented in the Technical Report 10 are not endorsed by the NSW EPA but included for comparative purposes.

Ecological investigation levels (EIL) have been developed for the protection of terrestrial ecosystems for selected metals and organic substances in the soil in the guideline (NEPC 1999). Ecological screening levels (ESL) assess the risk to terrestrial ecosystems from petroleum hydrocarbons in the soil. The EILs and ESLs consider the properties of the soil and contaminants and the capacity of the local ecosystem to accommodate increases in contaminant levels.

Typical CEC value for the site is >5 to 10cmol(+)/kg, clay content of >15 to 20%, pH values of between 5.5 and 6.0 and organic carbon of 1.5 to 2% (eSPADE, 2024). The proposed land-use is as an early childhood precinct and recommended assessment criteria is residential. The contaminants have been identified in the soil for at least two years and are considered aged.

EILs vary with land-use and apply to contaminants up to 2m depth below the surface. The ASC NEPM EIL calculation spreadsheet was used to determine the EIL. The EILs for residential land-use are listed in Table 2.

Table 2. EIL Calculation sheet, residential land-use

Analyte	Rationale	EIL (mg/kg)
Arsenic	Generic	100
Chromium (III)	Clay content 20%	510
Copper	CEC 10cmol/kg, pH 6.0, organic carbon 2%	210
Lead	Generic	1,100
Nickel	CEC 10cmol/kg	170
Zinc	CEC 10cmol/kg, pH 6.0	480
Naphthalene	Generic	170

EIL – Ecological investigation level

ESLs are dependent on land-use, soil types and are applicable to contaminants up to 2m below the surface. The appropriate ESL for the site is residential in coarse soil as listed in Table 3.

CRC CARE (2017) has also developed a high reliability ecological guideline value for benzo(a)pyrene based on updated data. The values are applicable for fresh benzo(a)pyrene as is the case in the NEPM (1999) guidelines but have been derived from a larger database, with additional species and tests results, resulting in a higher reliability guideline value. CRC CARE (2017) indicates that benzo(a)pyrene bioavailability decreases with time. The CRC CARE (2017) derived ecological guideline for benzo(a)pyrene has been adopted in the assessment (Table 3). The NEPM (1999) value has been included for comparison.

Management limits have been developed to assess petroleum hydrocarbons following evaluation of human health and ecological risks (NEPC 1999). Management limits are applicable as screening levels after consideration of relevant ESLs and HSLs. The appropriate management limit for the site is listed in Table 3.

Chromium is analysed as total chromium which is the sum of chromium (III) and chromium (VI). Chromium (VI) is a potential contaminant from industrial processes including ferrochrome production, electroplating, pigment production and tanning (WHO 1998). Chromium (VI) is reduced to chromium (III) when it comes into contact with organic matter in biota, soil and water. Chromium in the environment is present in the trivalent state (WHO 1998).

Asbestos screening levels for residential land-use is no visible asbestos on the surface.

The aesthetic state of sites is required to be assessed in PSI. Aesthetic issues generally relate to the presence of materials with a negligible risk or non-hazardous inert foreign material in soil or fill resulting from human activity. Sites that have been assessed as being acceptable from a human health and environmental perspective may still contain such foreign material. An assessment of the site aesthetics requires consideration of the natural state of soil on any given site, and a comparison between it and the soil encountered during investigation works. Soils on site should not exhibit discolouration staining), a malodorous nature (odours) or abnormal consistency (rubble and asbestos).

Table 3. Soil assessment criteria – Heavy metals and hydrocarbons(mg/kg) (NEPC 1999) for residential land-use

Analyte	***HIL A*** *Residential*	***HSL A*** *Residential Sandy soil*			***EIL*** *Residential*	***ESL*** *Residential Coarse soil*	***Management limits*** *Residential Coarse soil*	***CRC CARE*** *Residential Direct contact*	***CRC CARE*** *Residential Derived ecological guideline*
		0m to <1m	*1m to <2m*	*2m to <4m*					
Arsenic	100	-	-	-	100	-	-	-	-
Cadmium	20	-	-	-	-	-	-	-	-
Chromium	100[1]	-	-	-	510[2]	-	-	-	-
Copper	6,000	-	-	-	210	-	-	-	-
Lead	300	-	-	-	1,100	-	-	-	-
Nickel	400	-	-	-	170	-	-	-	-
Zinc	7,400	-	-	-	480	-	-	-	-
Mercury	40	-	-	-	-	-	-	-	-
F1 (TRH C6-10)	-	45	70	110	-	180	700	4,400	-
F2 (TRH C10-16)	-	110	240	440	-	120	1,000	3,300	-
F3 (TRH C16-34)	-	NA	NA	NA	-	300	2,500	4,500	-
F4 (TRH C34-40)	-	NA	NA	NA	-	2,800	10,000	6,300	-
Benzene	-	0.5	0.5	0.5	-	50	-	100	-
Toluene	-	160	NL	NL	-	85	-	14,000	-
Ethylbenzene	-	55	NL	NL	-	70	-	4,500	-
Xylenes	-	40	60	95	-	105	-	12,000	-
Naphthalene	-	3	NL	NL	170	-	-	1,400	-
Benzo(a)pyrene	-	-	-	-	-	0.7	-	-	33
Phenol	3,000	-	-	-	-	-	-	-	-
Carcinogenic PAH	3	-	-	-	-	-	-	-	-
PAH (Total)	300	-	-	-	-	-	-	-	-
OCP-DD's	240	-	-	-	180	-	-	-	-
OPP	-	-	-	-	-	-	-	-	-

HIL – health investigation levels, HSL – health screening level, EIL – ecological investigation levels, ESL – ecological screening level, NL – non limiting, NA – not applicable, [1] Threshold for Chromium (VI), [2] Threshold for Chromium (III)

12. Results and discussion

12.1 Visual inspection

An electrical services depot historically operated on the site. Several buildings and infrastructure were formerly located on-site. The site was decommissioned in 2012 and infrastructure removed in 2023. Vegetation on the site was generally 70%. The site was cleared and surface consisted of hardstand gravel and vegetation.

The site was vacant at the time of the inspection. The surface comprised unmaintained grasses and broadleaved weeds. Areas of exposed soil and hardstand gravel were identified across the roads and buildings footprint. Fragments of timber, tiles and concrete comprising rubble remaining from the demolition works were identified over the site.

Corrugated cement sheeting and an asbestos containing pipe were identified over the site surface at two locations (Figure 6). Appendix 7 presents the asbestos identification laboratory report.

Soil mixed with inert foreign materials was identified in borehole location BH39 in the central section of the site. The area was identified by scanning using a ground-penetrating radar (GPR) and is suspected to be on-site waste used as fill.

Slight chemical odour was identified in soil from borehole locations adjacent the creosote AST1 to depths up to 0.5m.

A small area of surface soil discolouration was identified in borehole BH22 adjacent AST2 location.

12.2 General site

Levels of heavy metals were less than the adopted residential thresholds for human health and environment in all soil samples collected from the general site (Table 4).

Table 4. Analytical results and threshold concentrations (heavy metals) – general site (mg/kg)

Sample ID	Arsenic	Cadmium	Chromium (total)	Copper	Lead	Nickel	Zinc	Mercury
BH10-100	20	<0.3	9.4	24	5	2.7	16	<0.05
BH10-500	2	<0.3	20	3.5	16	8.6	30	<0.05
BH11-300	2	<0.3	31	8.6	30	13	58	<0.05
BH11-500	2	<0.3	23	3.6	8	10	30	<0.05
BH14-100	1	<0.3	29	5.0	17	12	33	<0.05
BH14-500	1	<0.3	34	2.4	9	15	27	<0.05
BH15-100	2	<0.3	33	5.1	12	14	51	<0.05
BH15-500	4	<0.3	24	3.6	6	11	24	<0.05
BH16-100	10	<0.3	18	15	14	7.6	29	<0.05
BH16-500	5	<0.3	22	11	16	9.4	37	<0.05
BH17-100	7	<0.3	22	11	9	9.4	26	<0.05
BH17-500	<1	<0.3	29	5.5	7	13	30	<0.05
BH18-100	9	<0.3	21	17	13	9.1	33	<0.05
BH18-500	2	<0.3	26	7.2	17	11	34	<0.05
BH20-100	2	<0.3	24	5.7	8	11	34	<0.05
BH20-500	1	<0.3	28	4.7	7	12	30	<0.05
BH21-100	5	<0.3	24	9.1	12	10	39	<0.05
BH21-500	1	<0.3	26	3.1	6	11	23	<0.05
Health Investigation Levels – Residential land-use threshold (NEPC 1999)								
	100	*20*	*100[1]*	*6,000*	*300*	*400*	*7,400*	*40*
Ecological Investigation Levels – Urban residential and public open space (NEPC 1999)								
	100	*-*	*510[2]*	*210*	*1,100*	*170*	*480*	*-*

[1] Chromium VI, [2] Chromium III, **Bold** exceeding one or more adopted thresholds

The following exceedances of adopted thresholds for hydrocarbons were identified over the general site (Table 5):

- TRH (C10-C16) exceeded the HSL (110mg/kg) and ESL (120mg/kg) for sample BH11-300 (330mg/kg).
- TRH (C16-C34) exceeded the ESL (300mg/kg) for BH10-100 (380mg/kg) and ESL and management limits (2,500mg/kg) for BH11-300 (3,100mg/kg).
- Carcinogenic PAH exceeded the HIL (3mg/kg) for BH11-300 (13mg/kg).
- Benzo(a)pyrene exceeded the ESL (0.7 mg/kg) for BH11-300 (8.5 mg/kg).

Boreholes BH10 and BH11 were drilled adjacent AST1 to the west and to the east respectively. The expected source of contamination is from spills or leaks of hydrocarbon containing material adjacent the building and potentially from the creosote tank.

The levels of hydrocarbons in the remaining samples collected from boreholes from the general site were low or below the level of detection and adopted thresholds (Table 5).

Table 5. Analytical results and threshold concentrations (hydrocarbons) – general site (mg/kg)

Sample ID	TRH (C6-10)	TRH (>C10-C16)	TRH (>C16-C34)	TRH (>C34-C40)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PAH (total)	Carcinogenic PAH	Benzo(a)pyrene
BH10-100	<25	<25	**380**	310	<0.1	<0.1	<0.1	0.5	<0.1	<0.8	<0.3	<0.1
BH10-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH11-300	<25	**330**	**3,100**	400	<0.1	<0.1	<0.1	<0.3	<0.1	120	**13**	**8.5**
BH11-500	<25	<25	110	<120	<0.1	<0.1	<0.1	<0.3	<0.1	3.8	0.5	0.3
BH14-100	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH14-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH15-100	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH15-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH16-100	<25	<25	130	<120	<0.1	<0.1	<0.1	<0.3	<0.1	1.2	0.3	0.2
BH16-500	<25	<25	120	<120	<0.1	<0.1	<0.1	<0.3	<0.1	0.9	<0.3	0.1
BH17-100	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH17-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH18-100	<25	<25	110	<120	<0.1	<0.1	<0.1	<0.3	<0.1	4.0	0.7	0.4
BH18-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	1.1	<0.3	0.1
BH20-100	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	1.7	0.4	0.2
BH20-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH21-100	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH21-500	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
HSL A – Residential (sandy soil)												
0m to <1m	*45*	*110*	*-*	*-*	*0.5*	*160*	*55*	*40*	*3*	*-*	*-*	*-*
HIL A – Residential												
	-	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*300*	*3*	*-*
EIL – Urban residential and public open spaces												
	-	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*170*	*-*	*-*	*-*
ESL – Urban residential and public open spaces (coarse soi)												
	180	*120*	*300*	*2,800*	*50*	*85*	*70*	*105*	*-*	*-*	*-*	*0.7*
Management limits – Residential (coarse soil)												
	700	*1,000*	*2,500*	*10,000*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*
CRC CARE/ residential/ direct contact												
	4,400	3,300	4,500	6,300	100	14,000	4,500	12,000	1,400	*-*	*-*	*-*
CRC CARE – derived ecological guideline												
	-	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*33*

NA – not applicable, NL – Not limiting, HIL – health investigation levels, HSL – health screening level, EIL – ecological investigation level, ESL – ecological screening level

12.3 Building footprints

Levels of heavy metals were less than the adopted residential thresholds for human health and environment for all soil samples collected from the former building locations (Table 6).

The following exceedances of adopted thresholds for hydrocarbons were identified over the building footprints:

- TRH (C16-C34) exceeded the adopted ESL (300mg/kg), management limits (2,500mg/kg) and CRC CARE direct contact (4,500mg/kg) thresholds in the soil sample from BH22-100 (6,000mg/kg). Sampling location BH22 is located in an area of soil discolouration with approximately 1m^2 and expected depth of 0.3m.
- Benzo(a)pyrene exceeded the ESL (0.7 mg/kg) for BH32 (1.1mg/kg), located within the administration building footprint.

The levels of hydrocarbons in the remaining samples collected from the building footprint locations were low or below the level of detection and adopted thresholds (Table 7).

Table 6. Analytical results and threshold concentrations (heavy metals) – Former building locations (mg/kg)

Sample ID	Location	Arsenic	Cadmium	Chromium (total)	Copper	Lead	Nickel	Zinc	Mercury
BH22-100	Former creosote AST2	2	<0.3	25	10	63	10	120	<0.05
BH22-500	Former creosote AST2	1	<0.3	28	4.7	7	13	28	<0.05
BH23-100	Electrical equip. storage building	<1	<0.3	19	5.9	19	8.4	57	<0.05
BH23-500	Electrical equip. storage building	1	<0.3	35	3.8	8	13	29	<0.05
BH24-100	Former workshop/ storage sheds	4	<0.3	23	10	13	11	35	<0.05
BH24-500	Former workshop/ storage sheds	3	<0.3	23	9.2	18	9.9	31	<0.05
BH31-100	Administration building	3	<0.3	33	3.8	11	13	28	<0.05
BH31-500	Administration building	1	<0.3	21	3.6	6	9.3	20	<0.05
BH32-100	Administration building	2	<0.3	26	10	16	12	49	<0.05
BH32-500	Administration building	2	<0.3	27	9.7	15	13	42	<0.05
Health Investigation Levels – Residential land-use threshold (NEPC 1999)									
		100	*20*	*100[1]*	*6,000*	*300*	*400*	*7,400*	*40*
Ecological Investigation Levels – Urban residential and public open space (NEPC 1999)									
		100	*-*	*510[2]*	*210*	*1,100*	*170*	*480*	*-*

[1] Chromium VI, [2] Chromium III, **Bold** exceeding one or more adopted thresholds

Table 7. Analytical results and threshold concentrations (hydrocarbons) – Former building locations (mg/kg)

Sample ID	Location	TRH (C6-10)	TRH (>C10-C16)	TRH (>C16-C34)	TRH (>C34-C40)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PAH	Carcinogenic PAH	Benzo(a)pyrene
BH22-100	Former creosote AST2	<25	60	**6,000**	800	<0.1	<0.1	<0.1	<0.3	<0.1	0.9	<0.3	<0.1
BH22-500	Former creosote AST2	<25	<25	93	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH23-100	Electrical equip. storage building	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	1.4	0.4	0.2
BH23-500	Electrical equip. storage building	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH24-100	Former workshop/ storage sheds	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH24-500	Former workshop/ storage sheds	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH31-100	Administration building	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH31-500	Administration building	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH32-100	Administration building	<25	<25	210	<120	<0.1	<0.1	<0.1	<0.3	<0.1	15	1.8	**1.1**
BH32-500	Administration building	<25	<25	110	<120	<0.1	<0.1	<0.1	<0.3	<0.1	2.2	0.5	0.3
HSL A – Residential (sand soil)													
	0m to <1m	*45*	*110*	*NA*	*NA*	*0.5*	*160*	*55*	*40*	*3*	-	-	-
HIL A – Residential													
		-	-	-	-	-	-	-	-	-	*300*	*3*	-
EIL – Urban residential and public open spaces													
		-	-	-	-	-	-	-	-	*170*	-	-	-
ESL – Urban residential and public open spaces (coarse soi)													
		180	*120*	*300*	*2,800*	*50*	*85*	*70*	*105*	-	-	-	*0.7*
Management limits – Residential (coarse soil)													
		700	*1,000*	*2,500*	*10,000*	-	-	-	-	-	-	-	-
CRC CARE/ residential/ direct contact													
		4,400	3,300	4,500	6,300	100	14,000	4,500	12,000	1,400	-	-	-
CRC CARE – derived ecological guideline													
		-	-	-	-	-	-	-	-	-	-	-	*33*

NA – not applicable, NL – Not limiting, HIL – health investigation levels, HSL – health screening level, EIL – ecological investigation level, ESL – ecological screening level

12.4 Areas of environmental concern

12.4.1 Former creosote AST (AST1)

The following exceedances of adopted thresholds for hydrocarbons were identified adjacent the former creosote AST:

- Carcinogenic PAH exceeded the HIL A (3mg/kg) for samples BH47-100 (5mg/kg) and BH49-300 (4.5mg/kg).
- Benzo(a)pyrene exceeded the ESL threshold (0.7mg/kg) for samples BH47-100 (2.9mg/kg), BH48-100 (1.2mg/kg), BH49-300 (2.9mg/kg) and BH50-2000 (0.8mg/kg). The ESL threshold generally applies for the first 2m of soil, therefore, it does not apply for sample BH50-2000 collected from 2m depth.

BH47 was located within the expected creosote AST location and west of the area previously remediated (TP1). BH49 was drilled south east of TP1 location. The results indicate the contamination extended to the west and south east of the remediation location.

The levels of PAH in the remaining samples collected from boreholes from the AST1 were low or below the level of detection and adopted thresholds (Table 8).

Borehole BH49 drilled in south eastern section encountered refusal at 1.0m due to the existence of underground services.

Table 8. Analytical results and threshold concentrations (PAH) – Former creosote AST (mg/kg)

Sample ID	PAH	Carcinogenic PAH	Benzo(a)pyrene
BH47-100	44	**5.0**	**2.9**
BH47-1000	1.1	<0.3	0.1
BH47-2000	<0.8	<0.3	<0.1
BH47-3000	<0.8	<0.3	<0.1
BH48-100	15	1.9	**1.2**
BH48-1000	<0.8	<0.3	<0.1
BH48-2000	<0.8	<0.3	<0.1
BH48-3000	<0.8	<0.3	<0.1
BH49-300	82	**4.5**	**2.9**
BH49-1000	2.6	0.5	0.3
BH50-100	<0.8	<0.3	<0.1
BH50-1000	<0.8	<0.3	<0.1
BH50-2000	7.8	1.2	**0.8**
BH50-3000	5.1	1.0	0.7
BH51-100	4.2	0.6	0.4
BH51-500	16	1.2	0.7
HIL A – Residential	*300*	*3*	*-*
ESL – Urban residential and public open spaces (coarse soi)	*-*	*-*	*0.7*
CRC CARE – derived ecological guideline	*-*	*-*	*33*

HIL – health investigation levels, ESL – ecological screening levels

12.4.2 Suspected UPSS and former waste drum storage area

Levels of heavy metals were less than the adopted residential thresholds for human health and environment for all soil samples collected from the former UPSS location (Table 9).

Levels of benzo(a)pyrene exceeded the ESL threshold (0.7mg/kg) for sample BH34-100 (1.0mg/kg).

The levels of hydrocarbons in the remaining samples collected from boreholes from the former UPSS area were low or below the level of detection and adopted thresholds (Table 10).

No distinguishable deep fill comprising backfill sands or aggregate material or any other evidence of an existing UPSS were identified in the boreholes drilled over the former UPSS area. The UST is expected to have been decommissioned and backfilled with soils from on-site. A ground penetrating radar (GPR) scan was undertaken in the south eastern section of the site over the suspected UPSS location. No evidence of voids, USTs or underground infrastructure was identified.

Borehole location BH33 was drilled adjacent the expected COWR_SB03 location (ERM, 2017). Exceedances for TRH (C10-C16) were previously identified in the location. The levels of hydrocarbons

in the soil samples from BH33 were low or less than the laboratory detection limits and adopted thresholds.

The samples collected from 3m depth, expected to be deeper than the base of a potential UST, presented levels of hydrocarbons below the human health and ecological thresholds.

The levels of hydrocarbons in the samples collected over the former waste drum storage location (BH46) were below the laboratory detection limits and did not exceed the adopted thresholds.

Table 9. Analytical results and threshold concentrations (heavy metals) – Suspected UPSS location (mg/kg)

Sample ID	Location	Arsenic	Cadmium	Chromium (total)	Copper	Lead	Nickel	Zinc	Mercury
BH33-100	SB03	6	<0.3	19	19	12	9.0	46	<0.05
BH33-1000	SB03	3	<0.3	20	12	7	9.4	35	<0.05
BH33-3000	SB03	1	<0.3	33	2.7	8	14	25	<0.05
BH34-500	Suspected UPSS	6	<0.3	13	17	19	8.8	35	<0.05
BH34-1000	Suspected UPSS	3	<0.3	26	5.0	9	9.1	26	<0.05
BH34-3000	Suspected UPSS	2	<0.3	34	3.9	9	15	30	<0.05
BH35-500	Suspected UPSS	1	<0.3	26	4.8	7	13	27	<0.05
BH35-1000	Suspected UPSS	1	<0.3	24	4.6	6	11	26	<0.05
BH35-3000	Suspected UPSS	1	<0.3	39	3.1	8	15	31	<0.05
BH36-100	Suspected UPSS	4	<0.3	24	15	22	11	58	<0.05
BH36-500	Suspected UPSS	1	<0.3	23	4.0	6	10	23	<0.05
BH36-1000	Suspected UPSS	2	<0.3	22	7.3	7	9.7	28	<0.05
BH36-3000	Suspected UPSS	3	<0.3	33	7.5	9	13	32	<0.05
BH37-500	Suspected UPSS	2	<0.3	15	30	10	8.6	43	<0.05
BH37-1000	Suspected UPSS	4	<0.3	25	12	8	11	33	<0.05
BH37-3000	Suspected UPSS	3	<0.3	18	8.4	5	6.7	27	<0.05
BH38-500	Suspected UPSS	3	<0.3	24	9.7	13	11	41	<0.05
BH38-1000	Suspected UPSS	1	<0.3	26	4.2	6	11	25	<0.05
BH38-3000	Suspected UPSS	2	<0.3	41	2.2	6	17	29	<0.05
BH40-100	Suspected UPSS	5	<0.3	21	9.3	10	9.4	36	<0.05
BH40-500	Suspected UPSS	1	<0.3	30	4.7	7	13	29	<0.05
BH40-1000	Suspected UPSS	1	<0.3	28	4.9	6	12	27	<0.05
BH40-3000	Suspected UPSS	1	<0.3	36	2.7	7	15	24	<0.05
BH41-500	Suspected UPSS	2	<0.3	29	5.3	9	13	32	<0.05
BH41-1000	Suspected UPSS	1	<0.3	26	4.1	6	11	26	<0.05
BH41-3000	Suspected UPSS	1	<0.3	34	3.1	8	14	26	<0.05
BH46-100	Former waste drum storage	2	<0.3	24	6.0	9	11	35	<0.05
BH46-500	Former waste drum storage	1	<0.3	25	4.3	6	11	25	<0.05
Health Investigation Levels – Residential land-use threshold (NEPC 1999)									
		100	*20*	*100[1]*	*6,000*	*300*	*400*	*7,400*	*40*
Ecological Investigation Levels – Urban residential and public open space (NEPC 1999)									
		100	*-*	*510[2]*	*210*	*1,100*	*170*	*480*	*-*

[1] Chromium VI, [2] Chromium III, **Bold** exceeding one or more adopted thresholds

Table 10. Analytical results and threshold concentrations (hydrocarbons) – Suspected UPSS location (mg/kg)

Sample ID	Location	TRH (C6-10)	TRH (>C10-C16)	TRH (>C16-C34)	TRH (>C34-C40)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PAH	Carcinogenic PAH	Benzo(a)pyrene
BH33-100	Borehole SB03	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	1.0	<0.3	0.1
BH33-1000	Borehole SB03	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH33-3000	Borehole SB03	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH34-500	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	1.6	0.3	0.1
BH34-1000	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	6.5	1.5	**1.0**
BH34-3000	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH35-500	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH35-1000	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH35-3000	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH36-100	Suspected UPSS	<25	<25	210	<120	<0.1	<0.1	<0.1	<0.3	0.1	6.0	0.7	0.5
BH36-500	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH36-1000	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH36-3000	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH37-500	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH37-1000	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH37-3000	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH38-500	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	2.3	0.3	0.2
BH38-1000	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH38-3000	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH40-100	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	1.5	0.3	0.2
BH40-500	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH40-1000	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH40-3000	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH41-500	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH41-1000	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH41-3000	Suspected UPSS	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH46-100	Former waste drum storage	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
BH46-500	Former waste drum storage	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
HSL A – Residential (sandy soil)													
0m to <1m		*45*	*110*	*NA*	*NA*	*0.5*	*160*	*55*	*40*	*3*	-	-	-
1m to <2m		*70*	*240*	*NA*	*NA*	*0.5*	*NL*	*NL*	*60*	*NL*	-	-	-
2m to <4m		*110*	*440*	*NA*	*NA*	*0.5*	*NL*	*NL*	*95*	*NL*	-	-	-
HIL A – Residential													
		-	-	-	-	-	-	-	-	-	*300*	*3*	-
EIL – Urban residential and public open spaces													
		-	-	-	-	-	-	-	-	*170*	-	-	-
ESL – Urban residential and public open spaces (coarse soi)													
		180	*120*	*300*	*2,800*	*50*	*85*	*70*	*105*	-	-	-	*0.7*
Management limits – Residential (coarse soil)													
		700	*1,000*	*2,500*	*10,000*	-	-	-	-	-	-	-	-
CRC CARE/ residential/ direct contact													
		4,400	3,300	4,500	6,300	100	14,000	4,500	12,000	1,400	-	-	-
CRC CARE – derived ecological guideline													
		-	-	-	-	-	-	-	-	-	-	-	*33*

NA – not applicable, NL – Not limiting, HIL – health investigation levels, HSL – health screening level, EIL – ecological investigation level, ESL – ecological screening level

12.4.3 Pole storage area

Levels of heavy metals, hydrocarbons, phenols and pesticides were less than the adopted residential thresholds for human health and environment in all soil samples collected from the former pole storage area (Tables 11 to 13).

Low levels of PAH below the adopted thresholds were identified in the samples from the eastern section.

Table 11. Analytical results and threshold concentrations (heavy metals) – Pole storage area (mg/kg)

Sample ID	Location	Arsenic	Cadmium	Chromium (total)	Copper	Lead	Nickel	Zinc	Mercury
BH42-100	Pole storage	8	<0.3	16	13	12	6.3	42	<0.05
BH42-500	Pole storage	1	<0.3	31	4.8	7	14	29	<0.05
BH43-100	Pole storage	7	<0.3	29	13	11	10	39	<0.05
BH43-500	Pole storage	2	<0.3	26	4.2	6	12	26	<0.05
BH44-100	Pole storage	5	<0.3	22	12	11	9.2	37	<0.05
BH44-500	Pole storage	9	<0.3	30	14	18	12	45	<0.05
Health Investigation Levels – Residential land-use threshold (NEPC 1999)									
		100	*20*	*100[1]*	*6,000*	*300*	*400*	*7,400*	*40*
Ecological Investigation Levels – Urban residential and public open space (NEPC 1999)									
		100	*-*	*510[2]*	*210*	*1,100*	*170*	*480*	*-*

[1] Chromium VI, [2] Chromium III, **Bold** exceeding one or more adopted thresholds

Table 12. Analytical results and threshold concentrations (hydrocarbons) – Pole storage area (mg/kg)

Sample ID	Location	TRH (C6-10)	TRH (>C10-C16)	TRH (>C16-C34)	TRH (>C34-C40)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PAH	Carcinogenic PAH	Benzo(a)pyrene	Phenol
BH42-100	Pole storage	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1	<0.5
BH42-500	Pole storage	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1	<0.5
BH43-100	Pole storage	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	6.5	0.9	0.5	<0.5
BH43-500	Pole storage	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	3.9	1.1	0.7	<0.5
BH44-100	Pole storage	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	3.2	0.5	0.3	<0.5
BH44-500	Pole storage	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	6.9	0.9	0.6	<0.5
HSL A – Residential (sand soil)														
	0m to <1m	*45*	*110*	*NA*	*NA*	*0.5*	*160*	*55*	*40*	*3*	*-*	*-*	*-*	*-*
HIL A – Residential														
		-	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*300*	*3*	*-*	*3,000*
EIL – Urban residential and public open spaces														
		-	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*170*	*-*	*-*	*-*	*-*
ESL – Urban residential and public open spaces (coarse soi)														
		180	*120*	*300*	*2,800*	*50*	*85*	*70*	*105*	*-*	*-*	*-*	*0.7*	*-*
Management limits – Residential (coarse soil)														
		700	*1,000*	*2,500*	*10,000*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*
CRC CARE/ residential/ direct contact														
		4,400	3,300	4,500	6,300	100	14,000	4,500	12,000	1,400	*-*	*-*	*-*	*-*
CRC CARE – derived ecological guideline														
		-	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*33*	*-*

NA – not applicable, NL – Not limiting, HIL – health investigation levels, HSL – health screening level, EIL – ecological investigation level, ESL – ecological screening level

Table 13. Analytical results and threshold concentrations (pesticides) – Pole storage area (mg/kg)

Sample ID	OCP	DDs
BH42-100	<1	<0.6
BH42-500	<1	<0.6
BH43-100	<1	<0.6
BH43-500	<1	<0.6
BH44-100	<1	<0.6
BH44-500	<1	<0.6
BH42-100	<1	<0.6
BH42-500	<1	<0.6
BH43-100	<1	<0.6
BH43-500	<1	<0.6
BH44-100	<1	<0.6
BH44-500	<1	<0.6
Health Investigation Levels- Residential land-use threshold (NEPC 1999)		
	-	*240*
Ecological Investigation Levels-* Urban *residential and public open space land-use threshold (NEPC 1999)		
	-	*180*

[1] Chromium VI, [2] Chromium III, **Bold** exceeding one or more adopted thresholds

12.4.4 Fill area

One area of fill was identified by GPR scan to the south of the former administrative building. The fill area is expected to be approximately 40m^2 with depths up to 0.8m and contained foreign material.

Levels of heavy metals and hydrocarbons were less than the adopted residential thresholds for human health and environment in the soil samples collected from the fill and natural soil over the identified fill area (Tables 14 and 15).

Table 14. Analytical results and threshold concentrations (heavy metals) – Fill (mg/kg)

Sample ID	Arsenic	Cadmium	Chromium (total)	Copper	Lead	Nickel	Zinc	Mercury
BH39-300	2	<0.3	41	2.2	6	17	29	<0.05
BH39-800	3	<0.3	21	13	22	9.2	42	0.06
Health Investigation Levels – Residential land-use threshold (NEPC 1999)								
	100	*20*	*100[1]*	*6,000*	*300*	*400*	*7,400*	*40*
Ecological Investigation Levels – Urban residential and public open space (NEPC 1999)								
	100	*-*	*510[2]*	*210*	*1,100*	*170*	*480*	*-*

Table 15. Analytical results and threshold concentrations (hydrocarbons) – Fill (mg/kg)

Sample ID	TRH (C6-10)	TRH (>C10-C16)	TRH (>C16-C34)	TRH (>C34-C40)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PAH	Carcinogenic PAH	Benzo(a)pyrene
BH39-300	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	0.1
BH39-800	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	<0.1	<0.8	<0.3	<0.1
HSL A – Residential (sandy soil)												
0m to <1m	*45*	*110*	*NA*	*NA*	*0.5*	*160*	*55*	*40*	*3*	-	-	-
HIL A – Residential												
	-	-	-	-	-	-	-	-	-	*300*	*3*	-
EIL – Urban residential and public open spaces												
	-	-	-	-	-	-	-	-	*170*	-	-	-
ESL – Urban residential and public open spaces (coarse soi)												
	180	*120*	*300*	*2,800*	*50*	*85*	*70*	*105*	-	-	-	*0.7*
Management limits – Residential (coarse soil)												
	700	*1,000*	*2,500*	*10,000*	-	-	-	-	-	-	-	-
CRC CARE/ residential/ direct contact												
	4,400	3,300	4,500	6,300	100	14,000	4,500	12,000	1,400	-	-	-
CRC CARE – derived ecological guideline												
	-	-	-	-	-	-	-	-	-	-	-	*33*

NA – not applicable, NL – Not limiting, HIL – health investigation levels, HSL – health screening level, EIL – ecological investigation level, ESL – ecological screening level

13. Site characterisation

13.1 Environmental contamination

Four areas of environmental concern were identified on-site:

- AEC1 – Adjacent creosote AST1: levels of TRH(C10-C16) exceeding the HSL and carcinogenic PAH exceeding the HIL were identified in BH11-300. Levels of carcinogenic PAH exceeding the HIL were identified in BH47-100 and BH49-300. Levels of benzo(a)pyrene exceeded the ESL in BH11-300, BH32-100, BH47-100, BH49-300. The hydrocarbons are expected to be due to leaks and spills of from the former creosote AST. Odour of hydrocarbon was identified in BH-11 and BH49. The contaminated area can be divided into subareas (Figure 7):
    - AEC1a: comprising BH11, BH32 and BH47, around the former AST location to the south and west, with an area of approximately 170m^2 and expected depth of 0.5m based on results from BH11 and BH32.
    - AEC1b: comprises BH49 and is delineated by adjacent borehole locations that did not present exceedances: BH50 to the north, BH17 to the east, BH39 to the west and BH38 to the south with an expected area of approximately 60m^2 and depth of 0.5m. BH49 presented refusal to a depth of 1m due to underground services. The test pit TP3 excavated south of AEC1b in previous investigations did not present exceedances.

- AEC 2 – Adjacent AST2: levels of TRH(C16-C34) exceeding the ESL, management limits and CRC CARE direct contact HSL were identified over a small area of soil discoulouration with approximately 1m^2 and a depth of 0.3m was identified over BH22 location.

- AEC3 – An area of fill containing foreign materials including plastic, timber and metal was identified on BH39 location, to the south of the former administration building location. The area is expected to be approximately 40m^2 with depths up to 0.8m. Foreign materials are considered an amenity hazard.

- AEC4a and AEC4b – Asbestos containing materials (ACM). A pipe (AEC4a) and fragments of corrugated cement sheeting (AEC4b) potentially containing asbestos were identified over the administrative building location (Figure 2). The ACM was non-friable and in moderate condition. The extent of the ACM has not been determined.

13.2 Chemical degradation production

Asbestos and foreign materials do not degrade.

Hydrocarbons will slowly degrade over time due to natural attenuation.

13.3 Exposed population

13.3.1 Human health

The site is currently vacant and access is restricted.

An Early Childhood Precinct is proposed for the site and will involve contractors undertaking works for site development. Disturbance of the site as part of development works may result in dermal exposure and inhalation of contaminated dust and vapours by workers.

Staff and visitors including adults and children will utilise the site once the Early Childhood Precinct has been constructed. The receptors may be exposed to the contaminants through dermal exposure, inhalation of contaminated dust or vapours and consumption of produce grown on the site.

AEC1a and AEC1b are proposed to be external areas, part road/carpark and part landscaped. Semi-volatile hydrocarbons (TRH >C10-C16) and carcinogenic PAH were present. The area impacted by TRH >C10-C16 is restricted to BH11 location and is expected to be sealed by bitumen or concrete. Any vapours generated are expected to be dissipated. The vapour intrusion pathway is unlikely under this scenario.

AEC2 comprised an area of soil discolouration and contained semi-volatile hydrocarbons TRH(C16-C34). The levels were above the adopted ESL and CRC CARE direct contact thresholds. The area is adjacent to a proposed building. Direct contact with receptors may occur under the proposed land-use in the case of disturbance.

Foreign materials over AEC3 may represent an amenity issue.

The ACM (AEC4a and AEC4b) is non-friable and will be a respiratory health hazard to people accessing the site if disturbed.

13.3.1 Environment

Potential ecological receptors identified in the site conceptual model was vegetation. The levels of benzo(a)pyrene detected were below the high reliability ecological guideline (CRC CARE 2017). Vegetation on-site did not appear to have been impacted by the levels of hydrocarbons. Ornamental plants and landscaped areas proposed for the site are unlikely to be impacted by the contaminants in the soil.

Groundwater is expected to be intercepted at depths greater than 20m according to previous studies and is not considered a potential receptor to contamination identified on-site due to incomplete pathways.

14. Conclusions and recommendations

14.1 Summary

An inspection of the site was undertaken on 3 and 4 April 2024. Historical land-use was as an Essential Energy depot. Buildings and infrastructure have been removed from the site. Previous assessments indicated that areas of contamination remain on-site.

Surface cover was generally 70% comprising grasses, broadleaved weeds and areas of exposed soil and gravel. Fragments of timber, tiles and concrete comprising rubble from the demolition works were identified over the site. Cement sheeting and cement pipes containing asbestos were identified on-site adjacent the former administrative building. Asbestos pipes have been previously identified in the site and remediated.

Soils identified on-site consisted of a layer of fill of brown silty to gravelly sand ranging from 0.1 to 0.3m over brown to reddish brown silty sand overlying brown clayey to silty sand and silty clay to the drilling depth. Alluvial yellowish brown gravelly clayey sand was identified from 2.0m.

The assessment targeted data gaps identified in previous investigations. Boreholes were drilled and soil samples were collected over the general site, buildings footprints, former pole storage area, suspected UPSS location and east of the former creosote AST1.

No evidence of the former UST pit location including deep fill material was identified during the assessment. A GPR scan was undertaken over the south eastern section of the site did not identify voids, tanks or evidence of infrastructure. The samples collected from the UPSS subarea did not present levels of contaminants exceeding the human health thresholds. The former UPSS is expected to have been previously decommissioned.

One area of fill containing soil mixed with foreign materials was identified to a depth of 0.8m south of the administrative building.

Soil samples were collected from representative depths and analysed for the contaminants of concern. Contaminants of concern identified for the site are heavy metals, total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN), polycyclic aromatic hydrocarbons (PAH), phenols and asbestos.

Levels of contaminants exceeding the human health and ecological thresholds were not identified in the pole storage and fill subareas.

Exceedances of the adopted human and ecological thresholds were identified for hydrocarbons including TRH and PAH for several sampling locations over the site. Four areas of environmental concern were identified based on threshold exceedances and site inspection.

AEC	Location/ source	Contaminants	Exceedance criteria - residential	Area	Comment
1a	AST1	TRH(C10-C16), Carcinogenic PAH, benzo(a)pyrene	Health, ecological	170m^2 Up to 0.5m deep	Comprising borehole locations BH11, BH32 and BH47
1b	BH49/AST1	Carcinogenic PAH	Health, ecological	60 m^2 Up to 0.5m deep	Location BH49, delineated by adjacent boreholes, south east of previous remediation area TP1.
2	BH22/AST2	TRH(C16-C34)	Ecological, direct contact	1m^2 Up to 0.3m deep	Minor soil discolouration
3	Fill	Foreign materials	Ammenity hazard, aesthetic	40m^2 Up to 0.8m deep	Soil mixed with foreign materials including plastic, timber and metal
4a	West of former administrative building	Asbestos containing pipe	Health	Unknown, exposed to 0.2m depth	Partially buried; extension not fully delineated
4b	North east of former administrative building	Corrugated asbestos cement sheeting	Health	Greater than 1m^2 on surface	Not delineated

14.2 Assumptions in reaching the conclusions

It is assumed the sampling locations are representative of the site.

14.3 Extent of uncertainties

The analytical data relate only to the locations sampled. Soil conditions can vary both laterally and vertically and it cannot be excluded that unidentified contaminants may be present. The sampling density was designed to detect a 'hot spot' with a radius of approximately 12m and with a 95% level of confidence over the general site.

14.4 Suitability for proposed use of the site

The site can be made suitable for residential land-use if recommendations are adopted.

14.5 Limitations and constraints on the use of the site

Nil

14.6 Recommendation for further work

Remediation of the identified areas of environmental concern should be undertaken in accordance with a Remedial action plan (RAP) and supervised by a suitably qualified environmental scientist. Remedial options for the hydrocarbon contaminated soil include excavation and transport to landfill.

A validation assessment should be undertaken following remedial works to confirm effectiveness and suitability for the proposed childcare land-use.

An unexpected finds procedure should be adopted for site development works.

15. Report limitations and intellectual property

This report has been prepared for the use of the client to achieve the objectives given the clients requirements. The level of confidence of the conclusion reached is governed by the scope of the investigation and the availability and quality of existing data. Where limitations or uncertainties are known, they are identified in the report. No liability can be accepted for failure to identify conditions or issues which arise in the future and which could not reasonably have been predicted using the scope of the investigation and the information obtained.

The investigation identifies the actual subsurface conditions only at those points where samples are taken, when they are taken. Data derived through sampling and subsequent laboratory testing is interpreted by geologists, engineers or scientists who then render an opinion about overall subsurface conditions, the nature and extent of the contamination, its likely impact on the proposed development and appropriate remediation measures. Actual conditions may differ from those inferred to exist, because no professional, no matter how well qualified, and no sub-surface exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock or time. The actual interface between materials may be far more gradual or abrupt than a report indicates. Actual conditions in areas not sampled may differ from predictions. It is thus important to understand the limitations of the investigation and recognise that we are not responsible for these limitations.

This report, including data contained and its findings and conclusions, remains the intellectual property of Barnson Pty Ltd. A licence to use the report for the specific purpose identified is granted for the persons identified in that section after full payment for the services involved in preparation of the report. This report should not be used by persons or for purposes other than those stated and should not be reproduced without the permission of Barnson Pty Ltd.

16. References

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Figures

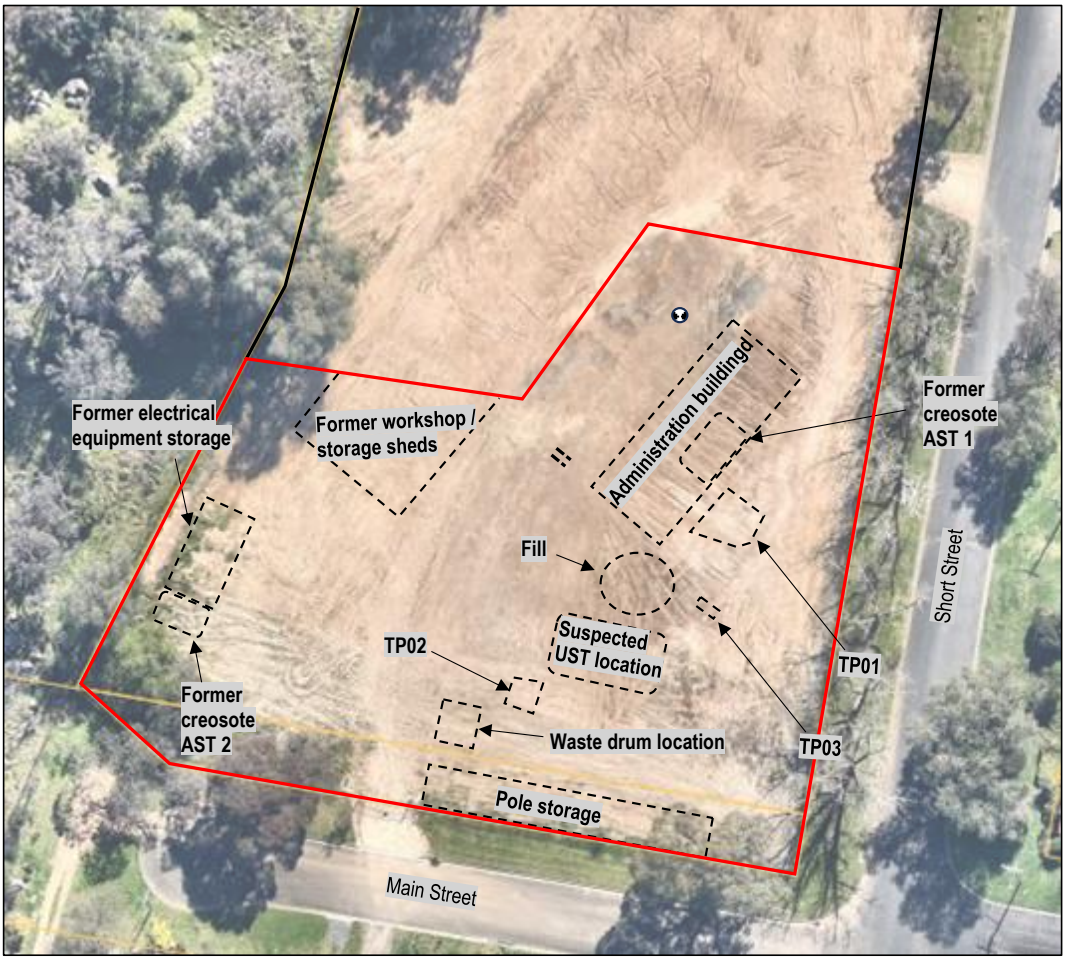


Legend

Lot boundary

Figure 1. Site locality		
Phase B - 14 Short Street, Cowra NSW		
	Envirowest Consulting Pty Ltd	
Job: R43874c1	Drawn by: FC	Date: 24/05/2024





Legend

- Lot boundary
- Investigation area
- Former infrastructure location
- Slope
- ACM Cement sheet
- ACM Pipe

Approximate Scale 1: 750

0 7.5 15 30m

Figure 2. Aerial image (2023) and site layout		
Phase B - 14 Short Street, Cowra NSW		
	Barnson Pty Ltd	
Job: R43874c1	Drawn by: FC	Date: 25/05/2024





Legend

- Lot boundary
- Investigation area
- Former infrastructure location
- Slope
- Borehole location – general site
- Borehole location – building footprint
- Borehole location – pole storage

Approximate Scale 1: 750

0 7.5 15 30m

Figure 3. Borehole locations		
Phase B - 14 Short Street, Cowra NSW		
	Barnson Pty Ltd	
Job: R43874c1	Drawn by: FC	Date: 15/04/2024





Legend

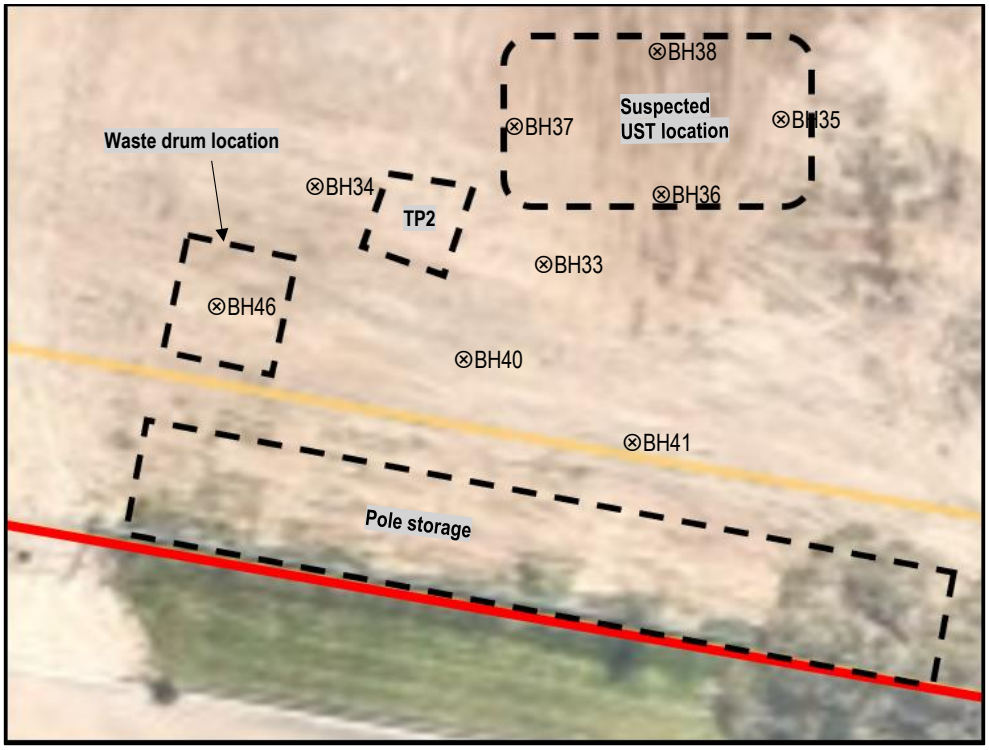
- Lot boundary
- Investigation area
- Former infrastructure location
- Slope
- Borehole location
- ACM Cement sheet
- ACM pipe

Approximate Scale 1: 300

0 3 6 12m

Figure 4. Borehole locations – Former cresosote AST and fill		
Phase B - 14 Short Street, Cowra NSW		
	Barnson Pty Ltd	
Job: R43874c1	Drawn by: FC	Date: 15/04/2024





Legend

- Lot boundary
- Investigation area
- Former infrastructure location
- Slope
- ⊗ Borehole location – AEC

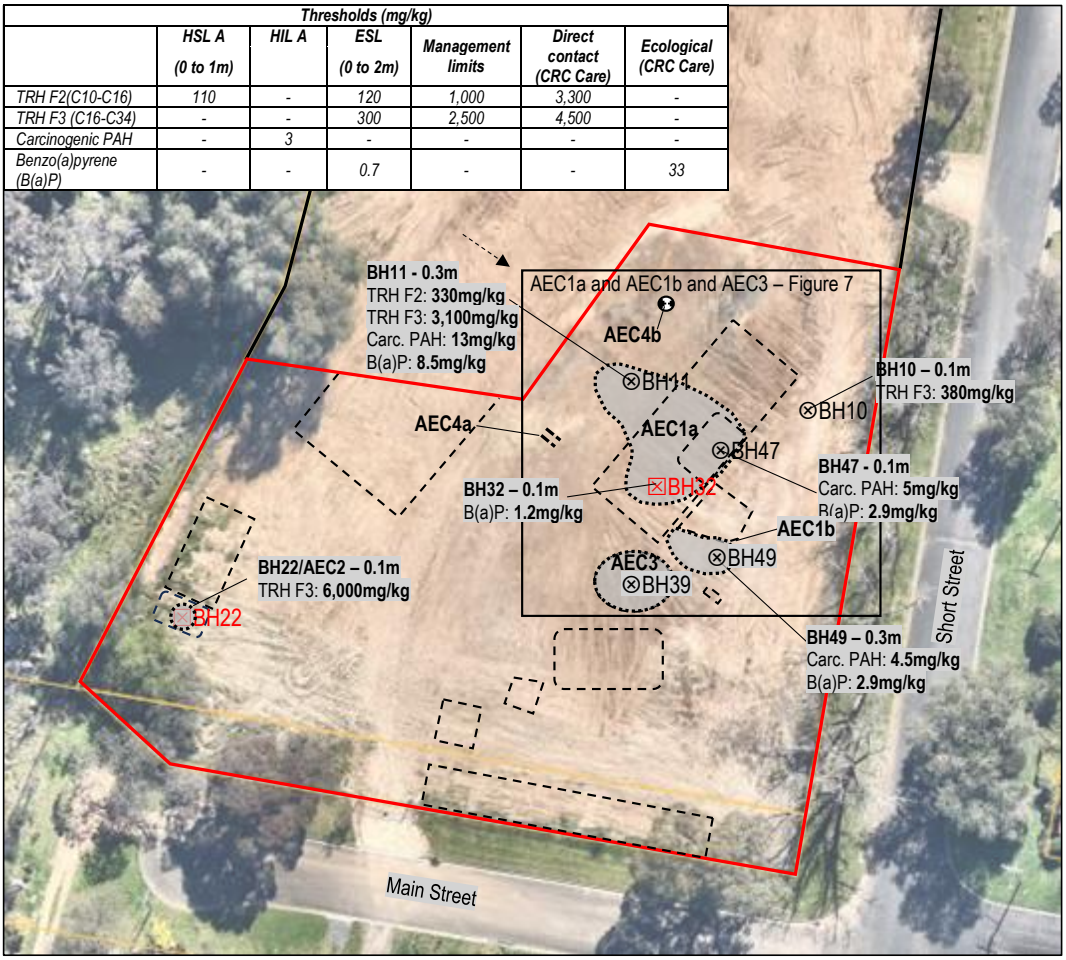
Approximate Scale 1: 300

0 3 6 12m

Figure 5. Borehole locations – Potential UPSS		
Phase B - 14 Short Street, Cowra NSW		
	Barnson Pty Ltd	
Job: R43874c1	Drawn by: FC	Date: 15/04/2024



Thresholds (mg/kg)						
	HSL A (0 to 1m)	HIL A	ESL (0 to 2m)	Management limits	Direct contact (CRC Care)	Ecological (CRC Care)
TRH F2(C10-C16)	110	-	120	1,000	3,300	-
TRH F3 (C16-C34)	-	-	300	2,500	4,500	-
Carcinogenic PAH	-	3	-	-	-	-
Benzo(a)pyrene (B(a)P)	-	-	0.7	-	-	33



Legend

- Lot boundary
- Investigation area
- Former infrastructure location
- Slope
- Borehole location – general site
- Borehole location – building footprint
- ACM Cement sheet
- ACM pipe

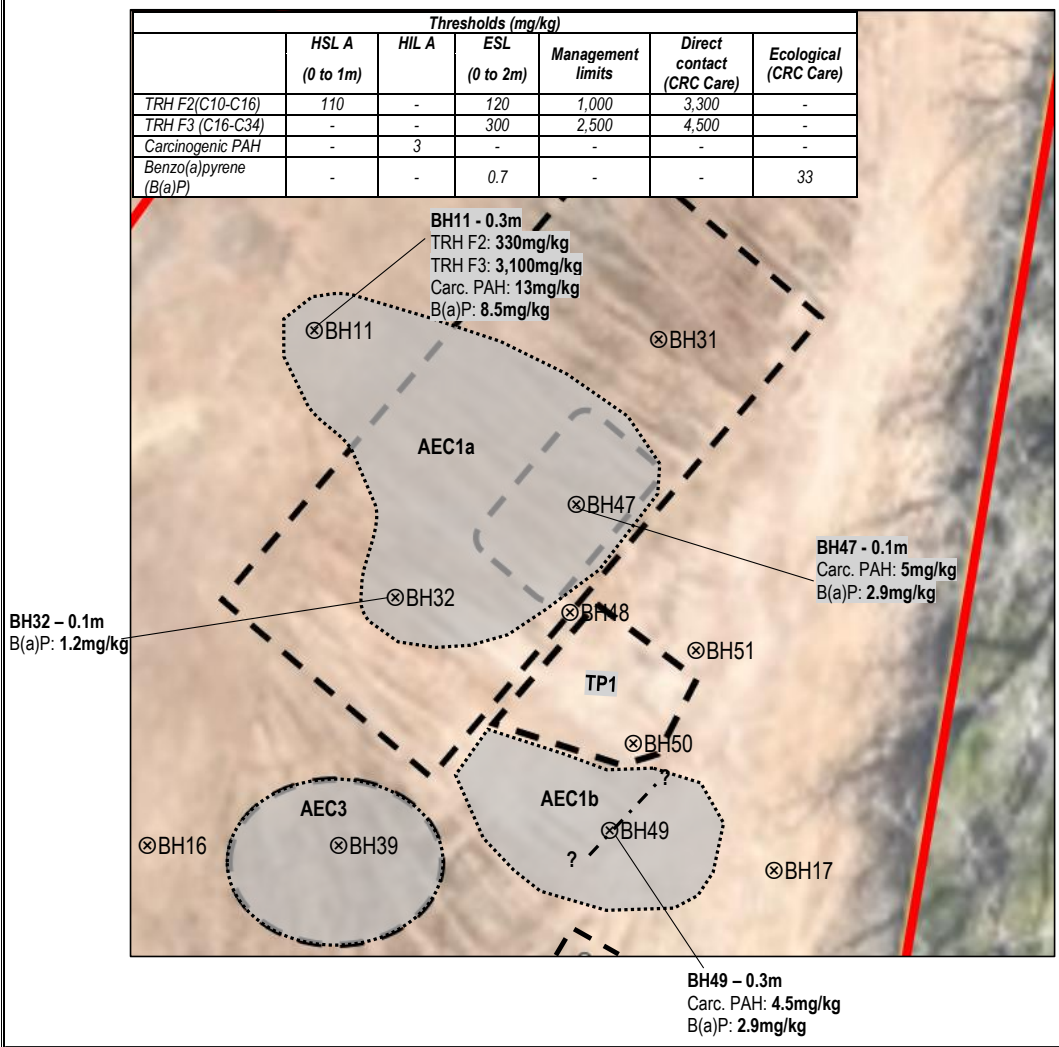
Approximate Scale 1: 750

0 7.5 15 30m

Figure 6. Exceedances and areas of environmental concern		
Phase B - 14 Short Street, Cowra NSW		
	Barnson Pty Ltd	
Job: R43874c1	Drawn by: FC	Date: 15/04/2024



Thresholds (mg/kg)						
	HSL A (0 to 1m)	HIL A	ESL (0 to 2m)	Management limits	Direct contact (CRC Care)	Ecological (CRC Care)
TRH F2(C10-C16)	110	-	120	1,000	3,300	-
TRH F3 (C16-C34)	-	-	300	2,500	4,500	-
Carcinogenic PAH	-	3	-	-	-	-
Benzo(a)pyrene (B(a)P)	-	-	0.7	-	-	33



Legend

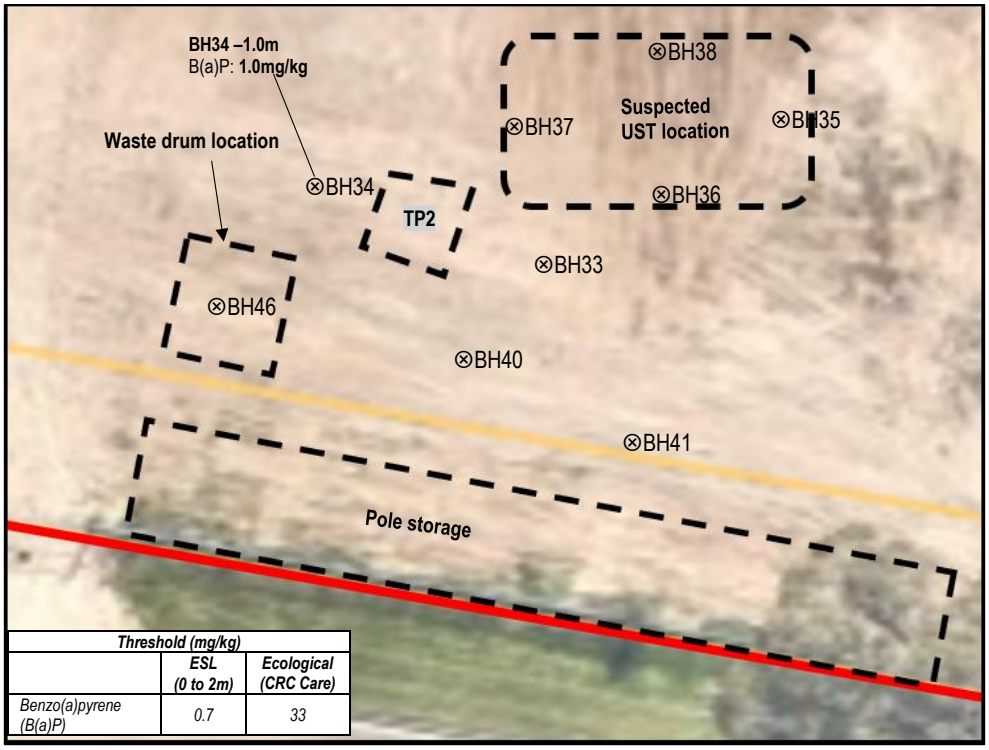
- Lot boundary
- Investigation area
- Former infrastructure location
- Slope
- Borehole location
- Area of environmental concern (AEC)
- Underground service

Approximate Scale 1: 300

0 3 6 12m

Figure 7. Exceedances – AEC1a and AEC1b, AEC3 and AEC4		
Phase B - 14 Short Street, Cowra NSW		
	Barnson Pty Ltd	
Job: R43874c1	Drawn by: FC	Date: 15/04/2024





Legend

- Lot boundary
- Investigation area
- Former infrastructure location
- Slope
- ⊗ Borehole location – AEC

Approximate Scale 1: 300

0 3 6 12m

Figure 8. Exceedances – Potential UPSS		
Phase B - 14 Short Street, Cowra NSW		
	Barnson Pty Ltd	
Job: R43874c1	Drawn by: FC	Date: 06/06/2024

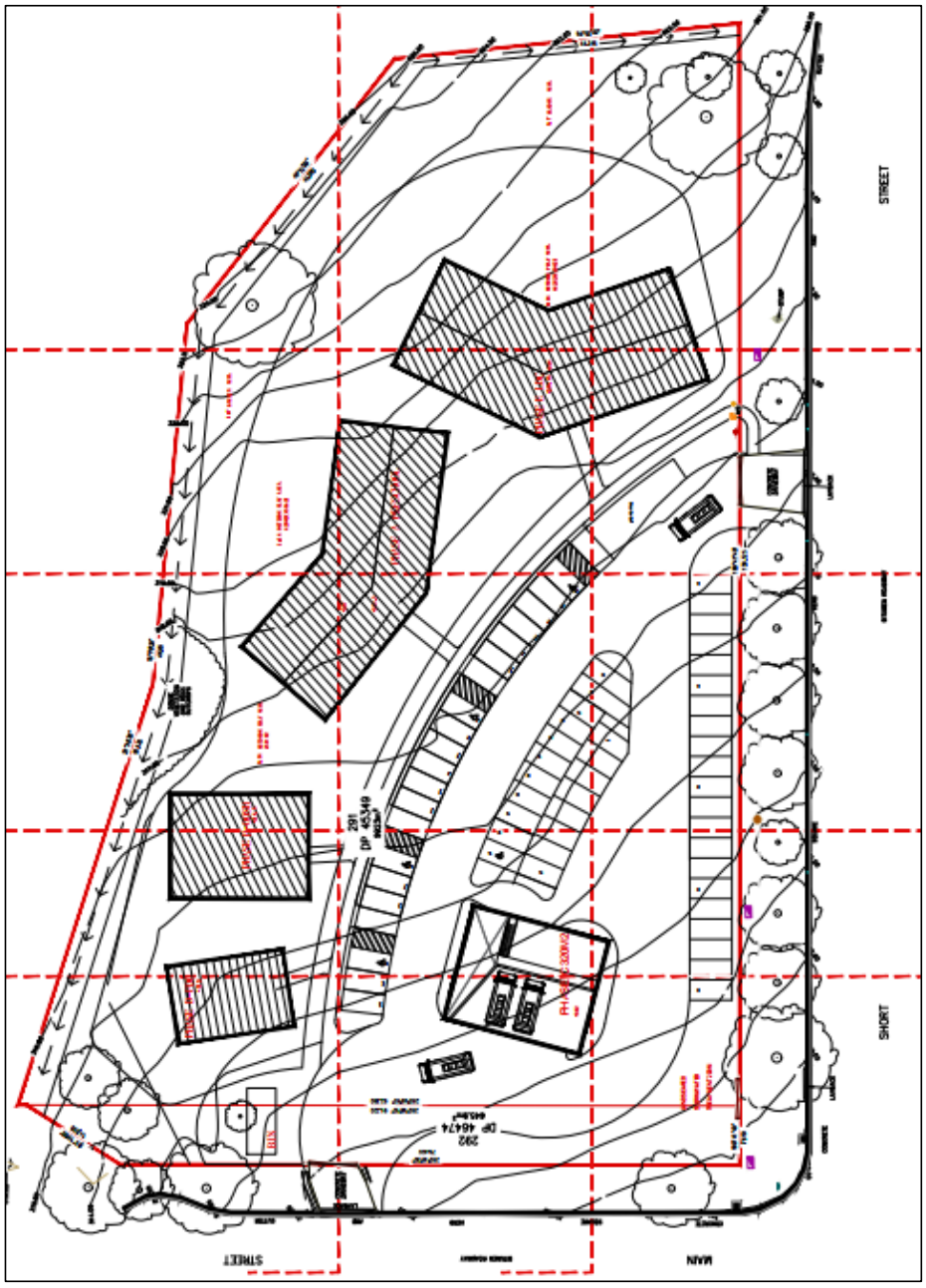


Figure 9. Proposed development plan		
Phase B - 14 Short Street, Cowra NSW		
	Barnson Pty Ltd	
Job: R43874c1	Drawn by: FC	Date: 25/05/2024

Figure 9 – Photographs of the site



Looking south east from the north western section of the site



Looking over the suspected UPSS



Looking north from the central section of the site over the former cresosote AST location



Fragments of corrugated cement sheet containing asbestos



Exposed asbestos containing pipe

Barnson Pty Ltd R43874c1

Appendices

Appendix 1. Sample analysis, quality assurance and quality control (QAQC) report

1. Data quality indicators (DQI) requirements

1.1 Completeness

A measure of the amount of usable data for a data collection activity. Greater than 95% of the data must be reliable based on the quality objectives. Where greater than two quality objectives have less reliability than the acceptance criterion the data may be considered with uncertainty.

1.1.1 Field

Consideration	Requirement
Locations and depths to be sampled	Described in the sampling plan. The acceptance criterion is 95% data retrieved compared with proposed. Acceptance criterion is 100% in crucial areas.
SOP appropriate and compiled	Described in the sampling plan.
Experienced sampler	Sampler or supervisor
Documentation correct	Sampling log and chain of custody completed

1.1.2 Laboratory

Consideration	Requirement
Samples analysed	Number according to sampling and quality plan
Analytes	Number according to sampling and quality plan
Methods	EPA or other recognised methods with suitable PQL
Sample documentation	Complete including chain of custody and sample description
Sample holding times	Metals 6 months, OCP 14 days

1.2 Comparability

The confidence that data may be considered to be equivalent for each sampling and analytical event. The data must show little or no inconsistencies with results and field observations.

1.2.1 Field

Consideration	Requirement
SOP	Same sampling procedures to be used
Experienced sampler	Sampler or supervisor
Climatic conditions	Described as may influence results
Samples collected	Sample medium, size, preparation, storage, transport

1.2.2 Laboratory

Consideration	Requirement
Analytical methods	Same methods, approved methods
PQL	Same
Same laboratory	Justify if different
Same units	Justify if different

1.3 Representativeness

The confidence (expressed qualitatively) that data are representative of each media present on the site.

1.3.1 Field

Consideration	Requirement
Appropriate media sampled	Sampled according to sampling and quality plan or in accordance with the EPA (2022) sampling guidelines.
All media identified	Sampling media identified in the sampling and quality plan. Where surface water bodies on the site sampled.

1.3.2 Laboratory

Consideration	Requirement
Samples analysed	Blanks

1.4 Precision

A quantitative measure of the variability (or reproduced of the data). Is measured by standard deviation or relative percent difference (RPD). An RPD analysis is calculated and compared to the adopted criteria of 30%.

Data not conforming to the acceptance criterion will be examined for determination of suitability for the purpose of site characterisation.

1.4.1 Field

Consideration	Requirement
Field duplicates	Frequency of 5%, results to be within RPD or discussion required indicate the appropriateness of SOP

1.4.2 Laboratory

Consideration	Requirement
Laboratory and inter lab duplicates	Frequency of 5%, results to be within RPD or discussion required. Inter laboratory duplicates will be one sample per batch.
Field duplicates	Frequency of 5%, results to be within RPD or discussion required
Laboratory prepared volatile trip spikes	One per sampling batch, results to be within RPD or discussion required

1.5 Accuracy

A quantitative measure of the closeness of the reported data to the true value.

1.5.1 Field

Consideration	Requirement
SOP	Complied
Inter laboratory duplicates	Frequency of 5%. Analysis criterion 60% RPD for levels greater than 10 times the PQL 85% RPD for levels between 5 to 10 times the PQL 100% RPD at levels between 2 to 5 times the PQL Absolute difference, 3.5 times the PQL where levels are, 2 times PQL

1.5.2 Laboratory

Recovery data (surrogates, laboratory control samples and matrix spikes) data subject to the following control limits:

- 60-140% acceptable data
- 20-60% discussion required, may be considered acceptable
- 10-20% data should considered as estimates
- 10% data should be rejected

Consideration	Requirement
Field blanks	Frequency of 5%, <5 times the PQL, PQL may be adjusted
Rinsate blanks	Frequency of 5%, <5 times the PQL, PQL may be adjusted
Method blanks	Frequency of 5%, <5 times the PQL, PQL may be adjusted
Matrix spikes	Frequency of 5%, results to be within +/-40% or discussion required
Matrix duplicates	Sample injected with a known concentration of contaminants with tested. Frequency of 5%, results to be within +/-40% or discussion required
Surrogate spikes	QC monitoring spikes to be added to samples at the extraction process in the laboratory where applicable. Surrogates are closely related to the organic target analyte and not normally found in the natural environment. Frequency of 5%, results to be within +/-40% or discussion required
Laboratory control samples	Externally prepared reference material containing representative analytes under investigation. These will be undertaken at one per batch. It is to be within +/-40% or discussion required
Laboratory prepared spikes	Frequency of 5%, results to be within +/-40% or discussion required

2. Laboratory analysis summary

Two analysis batches were undertaken over the preliminary investigation program. Samples were collected on 3 and 4 April 2024. A total of 99 samples were submitted for analytical testing. The analysis batch contained samples which did not form part of this investigation. The samples were collected in the field by an environmental scientist from Barnson Pty Ltd, placed into laboratory prepared receptacles as recommended in NEPM (1999). The samples preservation and storage was undertaken using standard industry practices. A chain of custody form accompanied transport of the samples to the laboratory.

The samples were analysed at the laboratories of SGS laboratories, Alexandria NSW which is National Association of Testing Authorities (NATA) accredited for the tests undertaken. The analyses undertaken, number of samples tested and methods are presented in the following tables:

Laboratory analysis schedule

Sample id.	Number of samples	Duplicate	Analyses	Date collected	Substrate	Laboratory report
BH1-100, BH1-500, BH2-100, BH2-500, BH3-100, BH3-500, BH4-100, BH4-500, BH5-100, BH5-500, BH6-100, BH6-500, BH7-100, BH7-500, BH8-100, BH8-500, BH9-100, BH9-500, BH10-100, BH10-500, BH11-300, BH11-500, BH12-100, BH12-500, BH12-500, BH13-100, BH13-500, BH14-100, BH14-500, BH15-100, BH15-500, BH16-100, BH16-500, BH17-100, BH17-500, BH18-100, BH18-500, BH20-100, BH20-500, BH21-100, BH21-500, BH22-100, BH22-500, BH23-100, BH23-500, BH24-100, BH24-500, BH25-100, BH25-200, BH25-500, BH26-100, BH26-500, BH27-100, BH27-500, BH28-100, BH28-500V BH29-100, BH29-500, BH30-100, BH30-500, BH31-100, BH31-500, BH32-100, BH32-500, BH33-100, BH33-	99	5	Arsenic (As), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), nickel (Ni), zinc (Zn), mercury (Hg), Total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene, xylenes and naphthalene (BTEXN), polycyclic aromatic hydrocarbons (PAH)	03/04/2024	Soil	SE263256

1000, BH33-3000, BH34-500, BH34-1000, BH34-3000, BH35-500, BH35-1000, BH35-3000, BH36-500, BH36-1000, BH36-3000, BH37-500, BH37-1000, BH37-3000, BH38-500, BH38-1000, BH38-3000, BH39-300, BH39-800, BH40-100, BH40-500, BH40-1000, BH40-3000, BH41-500, BH41-1000, BH41-3000, BH46-100, BH46-500						
BH47-100, BH47-1000, BH47-2000, BH48-100, BH48-1000, BH48-3000, BH49-300, BH49-1000, BH50-1000, BH50-2000, BH50-3000, BH51-100, BH51-500	15	-	PAH	04/04/2024	Soil	SE263247
BH50-100	1	1	As, Cd, Cr, Cu, Pb, Ni, Zn, PAH	04/04/2024	Soil	SE263247

Analytical methods

Analyte	Extraction	Laboratory methods
Metals	USEPA 200.2 Mod	APHA USEPA SW846-6010
Chromium (III)	-	APHA 3500 CR-A&B & 3120 and USEPA SW846-3060A
Chromium (VI)	USEPA SW846-3060A	USEPA SW846-3060A
Mercury	USEPA 200.2 Mod	APHA 3112
TRH(C6-C9)	USPEA SW846-5030A	USPEA SW 846-8260B
TRH(C10-C40), PAH	Tumbler extraction of solids	USEPA SW 846-8270B
PCB	Tumbler extraction of solids	USEPA SW 846-8270B
BTEX	Tumbler extraction of solids	USEPA SW 846-8260B
OC Pesticides	Tumbler extraction of solids	USEPA SW 846-8270B
Phenols	Tumbler extraction of solids	USEPA SW 846-8270B

3. Field quality assurance and quality control

Five laboratory duplicate samples were collected for the investigation. The frequency was 6% which was in accordance with the recommended frequency of 5%. Table A1 outlines the samples collected and differences in replicate analyses. Relative differences were deemed to pass if they were within the acceptance limits of +/- 30% for replicate analyses or less than 5 times the detection limit. Samples

Field duplicate frequency

Sample id.	Number of samples	Duplicate	Frequency (%)	Date collected	Substrate	Laboratory report
BH1-100, BH1-500, BH2-100, BH2-500, BH3-100, BH3-500, BH4-100, BH4-500, BH5-100, BH5-500, BH6-100, BH6-500, BH7-100, BH7-500, BH8-100, BH8-500, BH9-100, BH9-500, BH10-100, BH10-500, BH11-300, BH11-500, BH12-100, BH12-500, BH12-500, BH13-100, BH13-500, BH14-100, BH14-500, BH15-100, BH15-500, BH16-100, BH16-500, BH17-100, BH17-500, BH18-100,	99	5	5	03/04/2024	Soil	SE263256

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Sample id.	Number of samples	Duplicate	Frequency (%)	Date collected	Substrate	Laboratory report
BH18-500, BH20-100, BH20-500, BH21-100, BH21-500, BH22-100, BH22-500, BH23-100, BH23-500, BH24-100, BH24-500, BH25-100, BH25-200, BH25-500, BH26-100, BH26-500, BH27-100, BH27-500, BH28-100, BH28-500V BH29-100, BH29-500, BH30-100, BH30-500, BH31-100, BH31-500, BH32-100, BH32-500, BH33-100, BH33-1000, BH33-3000, BH34-500, BH34-1000, BH34-3000, BH35-500, BH35-1000, BH35-3000, BH36-500, BH36-1000, BH36-3000, BH37-500, BH37-1000, BH37-3000, BH38-500, BH38-1000, BH38-3000, BH39-300, BH39-800, BH40-100, BH40-500, BH40-1000, BH40-3000, BH41-500, BH41-1000, BH41-3000, BH42-100, BH42-500, BH43-100, BH43-500, BH44-100, BH44-500, BH46-100, BH46-500						
BH47-100, BH47-1000, BH47-2000, BH48-100, BH48-1000, BH48-3000, BH49-300, BH49-1000, BH50-100, BH50-1000, BH50-2000, BH50-3000, BH51-100, BH51-500	16	1	6	04/04/2024	Soil	SE263247

Table A1. Relative differences for intra laboratory duplicates

	BH1-100	DA	Relative difference (%)	Pass/Fail	BH10-500	DB	Relative difference (%)	Pass/Fail
Arsenic	2	2	0	Pass	2	1	67	Pass*
Cadmium	<0.3	<0.3	NA	Pass	<0.3	<0.3	NA	Pass
Chromium (total)	18	24	29	Pass	20	25	22	Pass
Copper	4.4	4.2	5	Pass	3.5	3.2	9	Pass
Lead	6	8	29	Pass	16	8	67	Fail
Nickel	7.7	10	26	Pass	8.6	11	24	Pass
Zinc	23	26	12	Pass	30	23	26	Pass
Mercury	<0.05	<0.05	NA	Pass	<0.05	<0.05	NA	Pass

NA – relative difference unable to be calculated as results are less than laboratory detection limit, *Results less than five times the detection limit, *resuls less than five time the detection limit

	BH20-100	DC	Relative difference (%)	Pass/Fail	BH30-100	DD	Relative difference (%)	Pass/Fail
Arsenic	2	2	0	Pass	2	2	0	Pass
Cadmium	<0.3	<0.3	NA	Pass	<0.3	<0.3	NA	Pass
Chromium (total)	24	24	0	Pass	28	28	0	Pass
Copper	5.7	5.0	13	Pass	6.0	5.2	14	Pass
Lead	8	7	13	Pass	44	31	35	Fail
Nickel	11	11	0	Pass	12	12	0	Pass
Zinc	34	29	16	Pass	54	44	20	Pass
Mercury	<0.05	<0.05	NA	Pass	<0.05	<0.05	NA	Pass

NA – relative difference unable to be calculated as results are less than laboratory detection limit, *Results less than five times the detection limit

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	BH40-100	DE	Relative difference (%)	Pass/Fail	BH50-100	DF	Relative difference (%)	Pass/Fail
Arsenic	5	5	0	Pass	6	4	40*	Pass
Cadmium	<0.3	<0.3	NA	Pass	<0.3	<0.3	NA	Pass
Chromium (total)	21	20	5	Pass	14	9.2	41	Fail
Copper	9.3	10	7	Pass	19	18	5	Pass
Lead	10	12	18	Pass	10	6	50	Fail
Nickel	9.4	9.1	3	Pass	8.6	7.9	8	Pass
Zinc	36	36	0	Pass	41	36	13	Pass
Mercury	<0.05	<0.05	NA	Pass	<0.05	<0.05	NA	Pass

NA – relative difference unable to be calculated as results are less than laboratory detection limit, *Results less than five times the detection limit

No trip blanks or spikes were submitted for analysis. This is not considered to create significant uncertainty in the analysis results because of the following rationale:

- The fieldwork was completed within a short time period and consistent methods were used for soil sampling.
- Soil samples were placed in insulated cooled containers after sampling to ensure preservation during transport and storage.
- The samples were placed in single use jars using clean sampling tools and disposable gloves from material not in contact with other samples. This reduces the likelihood of cross contamination.
- Samples in the analysis batch contain analytes below the level of detection. It is considered unlikely that contamination has occurred as a result of transport and handling.

4. Laboratory quality assurance and quality control

Sample holding times are recommended in NEPM (1999). The time between collection and extraction was generally less than the criteria listed below:

Analyte	Maximum holding time
Metals	6 months
Mercury	28 days
BTEXN, TRH, PAH, OCP, OPP	14 days

The laboratory interpretative reports are presented with individual laboratory report. Assessment is made of holding time, frequency of control samples and quality control samples. The laboratory report also contains a detailed description of preparation methods and analytical methods.

The results, quality report, interpretative report and chain of custody are presented in the attached appendices. The quality report contains the laboratory duplicates, spikes, laboratory control samples, blanks and where appropriate matrix spike recovery (surrogate).

5. Data quality indicators (DQI)

5.1 Completeness

A measure of the amount of usable data for a data collection activity (total to be greater than 90%)

5.1.1 Field

Consideration	Accepted	Comment
Locations to be sampled	Yes	In accordance with sampling methodology, described in the report.
SOP appropriate and compiled	Yes	In accordance with sampling methodology
Experienced sampler	Yes	Environmental scientist
Documentation correct	Yes	Chain of custody completed

5.1.2 Laboratory

Consideration	Accepted	Comment
Samples analysed	Yes	In accordance with chain of custody and analysis plan.
Analytes	Yes	In accordance with chain of custody and analysis plan.
Methods	Yes	Analysed in NATA accredited laboratory with recognised methods and suitable PQL
Sample documentation	Yes	Completed including chain of custody and sample results and quality results
Sample holding times	Yes	Metals < 6 months, CrVI <30 days Mercury < 28 days OCP, OPP, PAH, TRH, PCB, BTEXN, Phenols< 14 days

5.2 Comparability

The confidence that data may be considered to be equivalent for each sampling and analytical event.

5.2.1 Field

Consideration	Accepted	Comment
SOP	Yes	Same sampling procedures used and sampled on one date
Experienced sampler	Yes	Experienced environmental scientist
Climatic conditions	Yes	Sampling log
Samples collected	Yes	Suitable size and storage

5.2.2 Laboratory

Consideration	Accepted	Comment
Analytical methods	Yes	Same methods all samples
PQL	Yes	Suitable for analytes
Same laboratory	Yes	-
Same units	Yes	-

5.3 Representativeness

The confidence (expressed qualitatively) that data are representative of each media present on the site.

5.3.1 Field

Consideration	Accepted	Comment
Appropriate media sampled	Yes	Sampled according to sampling and quality plan
All media identified	Yes	Soil sampling media identified in the sampling and quality plan

5.3.2 Laboratory

Consideration	Accepted	Comment
Samples analysed	Yes	Undertaken in NATA accredited laboratory. Samples in the analysis batch contain analytes below the level of detection. It is considered unlikely that contamination has occurred as a result of transport and handling.

5.4 Precision

A quantitative measure of the variability (or reproduced of the data)

5.4.1 Field

Consideration	Accepted	Comment
SOP	Yes	Complied
Field duplicates	Yes	Collected

5.4.2 Laboratory

Consideration	Accepted	Comment
Laboratory duplicates	No	Frequency of 5%, results to be within +/-40% or discussion required. At least 2 of 3 surrogates are within acceptance criteria (SE263256) Recovery failed acceptance criteria due to matrix interference (SE263256) RPD failed acceptance criteria due to matrix interference (SE263247)
Field duplicates (intra and inter laboratory)	No	Frequency of 5%, results to be within +/-30% or discussion required. RPD exceedances occurred, not expected to impact the conclusions.
Laboratory prepared volatile trip spikes	NA	Frequency of 5%, results to be within +/-30% or discussion required.

5.5 Accuracy

A quantitative measure of the closeness of the reported data to the true value

5.5.1 Field

Consideration	Accepted	Comment
SOP	Yes	Complied
Field blanks	No	Not collected

5.5.2 Laboratory

Consideration	Accepted	Comment
Method blanks	Yes	Frequency of 5%, <5 times the PQL, PQL may be adjusted
Matrix spikes	No	Frequency of 5%, results to be within +/-40% or discussion required. At least 2 of 3 surrogates are within acceptance criteria (SE263256) Recovery failed acceptance criteria due to matrix interference (SE263256) Recovery failed acceptance criteria due to sample heterogeneity (SE263256)
Matrix duplicates	Yes	Frequency of 5%, results to be within +/-40% or discussion required.
Surrogate spikes	No	Frequency of 5%, results to be within +/-40% or discussion required. At least 2 of 3 surrogates are within acceptance criteria (SE263256) RPD failed acceptance criteria due to sample heterogeneity (SE263256)
Laboratory control samples	Yes	Frequency of 5%, results to be within +/-40% or discussion required.
Laboratory prepared spikes	Yes	Frequency of 5%, results to be within +/-40% or discussion required.

No trip blanks, field spikes or sample rinsates were submitted for analysis. This is not considered to create significant uncertainty in the analysis results because of the following rationale:

- The fieldwork methods used for soil sampling were consistent throughout the project with all in situ samples collected from material which had not been subject to exposure.
- The fieldwork was completed within a short time period and consistent methods were used for soil sampling.
- Soil samples were placed in insulated cooled containers as quickly as possible, with the containers filled to minimize headspace. The sample containers were sealed immediately after the sample was collected and chilled in an esky containing ice.
- The samples were stored in a refrigerator and transported with ice bricks to ensure preservation during transport and storage.

- The samples were placed in single use jars using clean sampling tools and disposable gloves from material not in contact with other samples. This reduces the likelihood of cross contamination.

- Samples in the analysis batches contained analytes below the level of detection. It is considered unlikely that contamination has occurred as a result of transport and handling.

6. Conclusion

All media appropriate to the objectives of this investigation have been adequately analysed and no area of significant uncertainty exist. It is concluded the data is usable for the purposes of the investigation.

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Appendix 2. Field sampling log

Sampling log

Client	Cowra Early Childhood Services
Contact	Libby Ewing-Jarvie
Job number	43874
Location	104 Short Street, Cowra NSW
Date	3 March 2024
Investigator	Felipe Canavez
Weather conditions	Fine and hot

Sample ID	Matrix	Date	Analysis required	Observations/comments
BH1-100	Soil	03/04/2024	Arsenic (As), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), Nickel (Ni), zinc (Zn), mercury (Hg), total recoverable hydrocarbons (TRH (C6-C40)), benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN), polycyclic aromatic hydrocarbons (PAH)	General site
BH1-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH2-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH2-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH3-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH3-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH4-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH4-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH5-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH5-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH6-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH6-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH7-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH7-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH8-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH8-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH9-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH9-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH10-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH10-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH11-300	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH11-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH12-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH12-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH12-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH13-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH13-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH14-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH14-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH15-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH15-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH16-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH16-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH17-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH17-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH18-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH18-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH20-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH20-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH21-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH21-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	General site
BH22-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former creosote AST 2

Sample ID	Matrix	Date	Analysis required	Observations/comments
BH22-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former creosote AST 2
BH23-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Electrical storage building footprint
BH23-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Electrical storage building footprint
BH24-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Workshop/ storage shed building footprint
BH24-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Workshop/ storage shed building footprint
BH25-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Workshop/ storage shed building footprint
BH25-200	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Workshop/ storage shed building footprint
BH25-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Workshop/ storage shed building footprint
BH26-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Workshop/ storage shed building footprint
BH26-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Workshop/ storage shed building footprint
BH27-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Workshop/ storage shed building footprint
BH27-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Workshop/ storage shed building footprint
BH28-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Electrical equipment storage building footprint
BH28-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Electrical equipment storage building footprint
BH29-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Electrical equipment storage building footprint
BH29-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Electrical equipment storage building footprint
BH30-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former truck storage building footprint
BH30-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former truck storage building footprint
BH31-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Administration building footprint
BH31-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Administration building footprint
BH32-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Administration building footprint
BH32-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Administration building footprint
BH33-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH33-1000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH33-3000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH34-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH34-1000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH34-3000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH35-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH35-1000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH35-3000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH36-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH36-1000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH36-3000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH37-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH37-1000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH37-3000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH38-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS

Sample ID	Matrix	Date	Analysis required	Observations/comments
BH38-1000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH38-3000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH39-300	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Fill
BH39-800	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Fill
BH40-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH40-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH40-1000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH40-3000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH41-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH41-1000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH41-3000	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Suspected UPSS
BH42-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH, phenols, organochlorine pesticides (OCP)	Former pole storage area
BH42-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH, phenols, OCP	Former pole storage area
BH43-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH, phenols, OCP	Former pole storage area
BH43-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH, phenols, OCP	Former pole storage area
BH44-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH, phenols, OCP	Former pole storage area
BH44-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH, phenols, OCP	Former pole storage area
BH46-100	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former waste drum location
BH46-500	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, TRH, BTEXN, PAH	Former waste drum location
DA	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg	Duplicate of BH1-100
DB	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg	Duplicate of BH10-500
DC	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg	Duplicate of BH20-100
DD	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg	Duplicate of BH30-100
DE	Soil	03/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg	Duplicate of BH40-100

Sampling log

Client	Cowra Early Childhood Services
Contact	Libby Ewing-Jarvie
Job number	43874
Location	104 Short Street, Cowra NSW
Date	4 March 2024
Investigator	Felipe Canavez
Weather conditions	Fine and hot

Sample ID	Matrix	Date	Analysis required	Observations/comments
BH47-100	Soil	04/04/2024	Polycyclic aromatic hydrocarbons (PAH)	Former cresosote AST 1
BH47-1000	Soil	04/04/2024	PAH	Former cresosote AST 1
BH47-2000	Soil	04/04/2024	PAH	Former cresosote AST 1
BH47-3000	Soil	04/04/2024	PAH	Former cresosote AST 1
BH48-100	Soil	04/04/2024	PAH	Former cresosote AST 1
BH48-1000	Soil	04/04/2024	PAH	Former cresosote AST 1
BH48-2000	Soil	04/04/2024	PAH	Former cresosote AST 1
BH48-3000	Soil	04/04/2024	PAH	Former cresosote AST 1
BH49-300	Soil	04/04/2024	PAH	Former cresosote AST 1
BH49-1000	Soil	04/04/2024	PAH	Former cresosote AST 1
BH50-100	Soil	04/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, PAH	Former cresosote AST 1
BH50-1000	Soil	04/04/2024	PAH	Former cresosote AST 1
BH50-2000	Soil	04/04/2024	PAH	Former cresosote AST 1
BH50-3000	Soil	04/04/2024	PAH	Former cresosote AST 1
BH51-100	Soil	04/04/2024	PAH	Former cresosote AST 1
BH51-500	Soil	04/04/2024	PAH	Former cresosote AST 1
DF	Soil	04/04/2024	As, Cd, Cr, Cu, Pb, Ni, Zn, Hg, PAH	Duplicate of BH50-100

Appendix 3. Soil analysis results – SGS report number SE263256 and SE263247 and chain of custody forms

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS		LABORATORY DETAILS	
Contact	Felipe Canavez	Manager	Huong Crawford
Client	ENVIROWEST CONSULTING PTY LIMITED	Laboratory	SGS Alexandria Environmental
Address	PO BOX 8158 NSW 2800	Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	61 2 63614954	Telephone	+61 2 8594 0400
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499
Email	Fcanavez@barnson.com.au	Email	au.environmental.sydney@sgs.com
Project	**43874**	SGS Reference	**SE263256 R0**
Order Number	**43874**	Date Received	5/4/2024
Samples	104	Date Reported	16/4/2024

COMMENTS

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

SIGNATORIES

Akheeqar BENIAMEEN Chemist	**Dong LIANG** Metals/Inorganics Team Leader	**Huong CRAWFORD** Production Manager	**Ly Kim HA** Organic Section Head
Shane MCDERMOTT Inorganic/Metals Chemist	**Teresa NGUYEN** Organic Chemist		

SGS

ANALYTICAL RESULTS SE263256 R0

VOC's in Soil [AN433] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH1-100 SOIL - 3/4/2024 SE263256.001	BH1-500 SOIL - 3/4/2024 SE263256.002	BH2-100 SOIL - 3/4/2024 SE263256.003	BH2-500 SOIL - 3/4/2024 SE263256.004	BH3-100 SOIL - 3/4/2024 SE263256.005
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH3-500 SOIL - 3/4/2024 SE263256.006	BH4-100 SOIL - 3/4/2024 SE263256.007	BH4-500 SOIL - 3/4/2024 SE263256.008	BH5-100 SOIL - 3/4/2024 SE263256.009	BH5-500 SOIL - 3/4/2024 SE263256.010
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH6-100 SOIL - 3/4/2024 SE263256.011	BH6-500 SOIL - 3/4/2024 SE263256.012	BH7-100 SOIL - 3/4/2024 SE263256.013	BH7-500 SOIL - 3/4/2024 SE263256.014	BH8-100 SOIL - 3/4/2024 SE263256.015
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH8-500 SOIL - 3/4/2024 SE263256.016	BH9-100 SOIL - 3/4/2024 SE263256.017	BH9-500 SOIL - 3/4/2024 SE263256.018	BH10-100 SOIL - 3/4/2024 SE263256.019	BH10-500 SOIL - 3/4/2024 SE263256.020
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	**0.4**	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.1**	<0.1
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	**0.5**	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	**0.5**	<0.3

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ANALYTICAL RESULTS SE263256 R0

VOC's in Soil [AN433] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH11-100 SOIL - 3/4/2024 SE263256.021	BH11-500 SOIL - 3/4/2024 SE263256.022	BH12-100 SOIL - 3/4/2024 SE263256.023	BH12-500 SOIL - 3/4/2024 SE263256.024	BH13-100 SOIL - 3/4/2024 SE263256.025
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH13-500 SOIL - 3/4/2024 SE263256.026	BH14-100 SOIL - 3/4/2024 SE263256.027	BH14-500 SOIL - 3/4/2024 SE263256.028	BH15-100 SOIL - 3/4/2024 SE263256.029	BH15-500 SOIL - 3/4/2024 SE263256.030
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH16-100 SOIL - 3/4/2024 SE263256.031	BH16-500 SOIL - 3/4/2024 SE263256.032	BH17-100 SOIL - 3/4/2024 SE263256.033	BH17-500 SOIL - 3/4/2024 SE263256.034	BH18-100 SOIL - 3/4/2024 SE263256.035
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH18-500 SOIL - 3/4/2024 SE263256.036	BH20-100 SOIL - 3/4/2024 SE263256.037	BH20-500 SOIL - 3/4/2024 SE263256.038	BH21-100 SOIL - 3/4/2024 SE263256.039	BH21-500 SOIL - 3/4/2024 SE263256.040
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

SGS

ANALYTICAL RESULTS SE263256 R0

VOC's in Soil [AN433] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH22-100 SOIL - 3/4/2024 SE263256.041	BH22-500 SOIL - 3/4/2024 SE263256.042	BH23-100 SOIL - 3/4/2024 SE263256.043	BH23-500 SOIL - 3/4/2024 SE263256.044	BH24-100 SOIL - 3/4/2024 SE263256.045
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH24-500 SOIL - 3/4/2024 SE263256.046	BH25-100 SOIL - 3/4/2024 SE263256.047	BH25-200 SOIL - 3/4/2024 SE263256.048	BH25-500 SOIL - 3/4/2024 SE263256.049	BH26-100 SOIL - 3/4/2024 SE263256.050
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	1.0	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH26-500 SOIL - 3/4/2024 SE263256.051	BH27-100 SOIL - 3/4/2024 SE263256.052	BH27-500 SOIL - 3/4/2024 SE263256.053	BH28-100 SOIL - 3/4/2024 SE263256.054	BH28-500 SOIL - 3/4/2024 SE263256.055
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH29-100 SOIL - 3/4/2024 SE263256.056	BH29-500 SOIL - 3/4/2024 SE263256.057	BH30-100 SOIL - 3/4/2024 SE263256.058	BH30-500 SOIL - 3/4/2024 SE263256.059	BH31-100 SOIL - 3/4/2024 SE263256.060
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

SGS

ANALYTICAL RESULTS SE263256 R0

VOC's in Soil [AN433] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH31-500 SOIL - 3/4/2024 SE263256.061	BH32-100 SOIL - 3/4/2024 SE263256.062	BH32-500 SOIL - 3/4/2024 SE263256.063	BH33-100 SOIL - 3/4/2024 SE263256.064	BH33-1000 SOIL - 3/4/2024 SE263256.065
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH33-3000 SOIL - 3/4/2024 SE263256.066	BH34-500 SOIL - 3/4/2024 SE263256.067	BH34-1000 SOIL - 3/4/2024 SE263256.068	BH34-3000 SOIL - 3/4/2024 SE263256.069	BH35-500 SOIL - 3/4/2024 SE263256.070
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH35-1000 SOIL - 3/4/2024 SE263256.071	BH35-3000 SOIL - 3/4/2024 SE263256.072	BH36-500 SOIL - 3/4/2024 SE263256.073	BH36-1000 SOIL - 3/4/2024 SE263256.074	BH36-3000 SOIL - 3/4/2024 SE263256.075
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH37-500 SOIL - 3/4/2024 SE263256.076	BH37-1000 SOIL - 3/4/2024 SE263256.077	BH37-3000 SOIL - 3/4/2024 SE263256.078	BH38-500 SOIL - 3/4/2024 SE263256.079	BH38-1000 SOIL - 3/4/2024 SE263256.080
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

SGS

ANALYTICAL RESULTS SE263256 R0

VOC's in Soil [AN433] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH38-3000 SOIL - 3/4/2024 SE263256.081	BH39-300 SOIL - 3/4/2024 SE263256.082	BH39-800 SOIL - 3/4/2024 SE263256.083	BH40-100 SOIL - 3/4/2024 SE263256.084	BH40-500 SOIL - 3/4/2024 SE263256.085
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH40-1000 SOIL - 3/4/2024 SE263256.086	BH40-3000 SOIL - 3/4/2024 SE263256.087	BH41-500 SOIL - 3/4/2024 SE263256.088	BH41-1000 SOIL - 3/4/2024 SE263256.089	BH41-3000 SOIL - 3/4/2024 SE263256.090
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH42-100 SOIL - 3/4/2024 SE263256.091	BH42-500 SOIL - 3/4/2024 SE263256.092	BH43-100 SOIL - 3/4/2024 SE263256.093	BH43-500 SOIL - 3/4/2024 SE263256.094	BH44-100 SOIL - 3/4/2024 SE263256.095
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3

PARAMETER	UOM	LOR	BH44-500 SOIL - 3/4/2024 SE263256.096	BH46-100 SOIL - 3/4/2024 SE263256.097	BH46-500 SOIL - 3/4/2024 SE263256.098	BH36-100 SOIL - 3/4/2024 SE263256.104
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	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
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	**0.1**
Total BTEX*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3

SGS

ANALYTICAL RESULTS SE263256 R0

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH1-100 SOIL - 3/4/2024 SE263256.001	BH1-500 SOIL - 3/4/2024 SE263256.002	BH2-100 SOIL - 3/4/2024 SE263256.003	BH2-500 SOIL - 3/4/2024 SE263256.004	BH3-100 SOIL - 3/4/2024 SE263256.005
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH3-500 SOIL - 3/4/2024 SE263256.006	BH4-100 SOIL - 3/4/2024 SE263256.007	BH4-500 SOIL - 3/4/2024 SE263256.008	BH5-100 SOIL - 3/4/2024 SE263256.009	BH5-500 SOIL - 3/4/2024 SE263256.010
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH6-100 SOIL - 3/4/2024 SE263256.011	BH6-500 SOIL - 3/4/2024 SE263256.012	BH7-100 SOIL - 3/4/2024 SE263256.013	BH7-500 SOIL - 3/4/2024 SE263256.014	BH8-100 SOIL - 3/4/2024 SE263256.015
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH8-500 SOIL - 3/4/2024 SE263256.016	BH9-100 SOIL - 3/4/2024 SE263256.017	BH9-500 SOIL - 3/4/2024 SE263256.018	BH10-100 SOIL - 3/4/2024 SE263256.019	BH10-500 SOIL - 3/4/2024 SE263256.020
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH11-100 SOIL - 3/4/2024 SE263256.021	BH11-500 SOIL - 3/4/2024 SE263256.022	BH12-100 SOIL - 3/4/2024 SE263256.023	BH12-500 SOIL - 3/4/2024 SE263256.024	BH13-100 SOIL - 3/4/2024 SE263256.025
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH13-500 SOIL - 3/4/2024 SE263256.026	BH14-100 SOIL - 3/4/2024 SE263256.027	BH14-500 SOIL - 3/4/2024 SE263256.028	BH15-100 SOIL - 3/4/2024 SE263256.029	BH15-500 SOIL - 3/4/2024 SE263256.030
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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

SGS

ANALYTICAL RESULTS SE263256 R0

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH16-100 SOIL - 3/4/2024 SE263256.031	BH16-500 SOIL - 3/4/2024 SE263256.032	BH17-100 SOIL - 3/4/2024 SE263256.033	BH17-500 SOIL - 3/4/2024 SE263256.034	BH18-100 SOIL - 3/4/2024 SE263256.035
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH18-500 SOIL - 3/4/2024 SE263256.036	BH20-100 SOIL - 3/4/2024 SE263256.037	BH20-500 SOIL - 3/4/2024 SE263256.038	BH21-100 SOIL - 3/4/2024 SE263256.039	BH21-500 SOIL - 3/4/2024 SE263256.040
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH22-100 SOIL - 3/4/2024 SE263256.041	BH22-500 SOIL - 3/4/2024 SE263256.042	BH23-100 SOIL - 3/4/2024 SE263256.043	BH23-500 SOIL - 3/4/2024 SE263256.044	BH24-100 SOIL - 3/4/2024 SE263256.045
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH24-500 SOIL - 3/4/2024 SE263256.046	BH25-100 SOIL - 3/4/2024 SE263256.047	BH25-200 SOIL - 3/4/2024 SE263256.048	BH25-500 SOIL - 3/4/2024 SE263256.049	BH26-100 SOIL - 3/4/2024 SE263256.050
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH26-500 SOIL - 3/4/2024 SE263256.051	BH27-100 SOIL - 3/4/2024 SE263256.052	BH27-500 SOIL - 3/4/2024 SE263256.053	BH28-100 SOIL - 3/4/2024 SE263256.054	BH28-500 SOIL - 3/4/2024 SE263256.055
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH29-100 SOIL - 3/4/2024 SE263256.056	BH29-500 SOIL - 3/4/2024 SE263256.057	BH30-100 SOIL - 3/4/2024 SE263256.058	BH30-500 SOIL - 3/4/2024 SE263256.059	BH31-100 SOIL - 3/4/2024 SE263256.060
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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

SGS

ANALYTICAL RESULTS SE263256 R0

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH31-500 SOIL - 3/4/2024 SE263256.061	BH32-100 SOIL - 3/4/2024 SE263256.062	BH32-500 SOIL - 3/4/2024 SE263256.063	BH33-100 SOIL - 3/4/2024 SE263256.064	BH33-1000 SOIL - 3/4/2024 SE263256.065
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH33-3000 SOIL - 3/4/2024 SE263256.066	BH34-500 SOIL - 3/4/2024 SE263256.067	BH34-1000 SOIL - 3/4/2024 SE263256.068	BH34-3000 SOIL - 3/4/2024 SE263256.069	BH35-500 SOIL - 3/4/2024 SE263256.070
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH35-1000 SOIL - 3/4/2024 SE263256.071	BH35-3000 SOIL - 3/4/2024 SE263256.072	BH36-500 SOIL - 3/4/2024 SE263256.073	BH36-1000 SOIL - 3/4/2024 SE263256.074	BH36-3000 SOIL - 3/4/2024 SE263256.075
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH37-500 SOIL - 3/4/2024 SE263256.076	BH37-1000 SOIL - 3/4/2024 SE263256.077	BH37-3000 SOIL - 3/4/2024 SE263256.078	BH38-500 SOIL - 3/4/2024 SE263256.079	BH38-1000 SOIL - 3/4/2024 SE263256.080
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH38-3000 SOIL - 3/4/2024 SE263256.081	BH39-300 SOIL - 3/4/2024 SE263256.082	BH39-800 SOIL - 3/4/2024 SE263256.083	BH40-100 SOIL - 3/4/2024 SE263256.084	BH40-500 SOIL - 3/4/2024 SE263256.085
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH40-1000 SOIL - 3/4/2024 SE263256.086	BH40-3000 SOIL - 3/4/2024 SE263256.087	BH41-500 SOIL - 3/4/2024 SE263256.088	BH41-1000 SOIL - 3/4/2024 SE263256.089	BH41-3000 SOIL - 3/4/2024 SE263256.090
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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

SGS

ANALYTICAL RESULTS SE263256 R0

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH42-100 SOIL - 3/4/2024 SE263256.091	BH42-500 SOIL - 3/4/2024 SE263256.092	BH43-100 SOIL - 3/4/2024 SE263256.093	BH43-500 SOIL - 3/4/2024 SE263256.094	BH44-100 SOIL - 3/4/2024 SE263256.095
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
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	BH44-500 SOIL - 3/4/2024 SE263256.096	BH46-100 SOIL - 3/4/2024 SE263256.097	BH46-500 SOIL - 3/4/2024 SE263256.098	BH36-100 SOIL - 3/4/2024 SE263256.104
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20
TRH C6-C10	mg/kg	25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25

SGS

ANALYTICAL RESULTS SE263256 R0

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH1-100 SOIL - 3/4/2024 SE263256.001	BH1-500 SOIL - 3/4/2024 SE263256.002	BH2-100 SOIL - 3/4/2024 SE263256.003	BH2-500 SOIL - 3/4/2024 SE263256.004	BH3-100 SOIL - 3/4/2024 SE263256.005
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	BH3-500 SOIL - 3/4/2024 SE263256.006	BH4-100 SOIL - 3/4/2024 SE263256.007	BH4-500 SOIL - 3/4/2024 SE263256.008	BH5-100 SOIL - 3/4/2024 SE263256.009	BH5-500 SOIL - 3/4/2024 SE263256.010
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	**150**	<45
TRH C29-C36	mg/kg	45	<45	**62**	<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	**160**	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	**150**	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH6-100 SOIL - 3/4/2024 SE263256.011	BH6-500 SOIL - 3/4/2024 SE263256.012	BH7-100 SOIL - 3/4/2024 SE263256.013	BH7-500 SOIL - 3/4/2024 SE263256.014	BH8-100 SOIL - 3/4/2024 SE263256.015
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

SGS

ANALYTICAL RESULTS SE263256 R0

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH8-500 SOIL - 3/4/2024 SE263256.016	BH9-100 SOIL - 3/4/2024 SE263256.017	BH9-500 SOIL - 3/4/2024 SE263256.018	BH10-100 SOIL - 3/4/2024 SE263256.019	BH10-500 SOIL - 3/4/2024 SE263256.020
TRH C10-C14	mg/kg	20	<20	<20	<20	24	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	170	<45
TRH C29-C36	mg/kg	45	<45	100	<45	360	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	170	<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	100	<90	380	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	310	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	550	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	690	<210

PARAMETER	UOM	LOR	BH11-100 SOIL - 3/4/2024 SE263256.021	BH11-500 SOIL - 3/4/2024 SE263256.022	BH12-100 SOIL - 3/4/2024 SE263256.023	BH12-500 SOIL - 3/4/2024 SE263256.024	BH13-100 SOIL - 3/4/2024 SE263256.025
TRH C10-C14	mg/kg	20	160	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	2600	90	<45	<45	<45
TRH C29-C36	mg/kg	45	780	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	280	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	330	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	330	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	3100	110	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	400	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	3600	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	3900	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH13-500 SOIL - 3/4/2024 SE263256.026	BH14-100 SOIL - 3/4/2024 SE263256.027	BH14-500 SOIL - 3/4/2024 SE263256.028	BH15-100 SOIL - 3/4/2024 SE263256.029	BH15-500 SOIL - 3/4/2024 SE263256.030
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

SGS ANALYTICAL RESULTS SE263256 R0

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH16-100 SOIL - 3/4/2024 SE263256.031	BH16-500 SOIL - 3/4/2024 SE263256.032	BH17-100 SOIL - 3/4/2024 SE263256.033	BH17-500 SOIL - 3/4/2024 SE263256.034	BH18-100 SOIL - 3/4/2024 SE263256.035
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	**73**
TRH C29-C36	mg/kg	45	**120**	**100**	<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	**130**	**120**	<90	<90	**110**
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	**120**	<110	<110	<110	**120**
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH18-500 SOIL - 3/4/2024 SE263256.036	BH20-100 SOIL - 3/4/2024 SE263256.037	BH20-500 SOIL - 3/4/2024 SE263256.038	BH21-100 SOIL - 3/4/2024 SE263256.039	BH21-500 SOIL - 3/4/2024 SE263256.040
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

PARAMETER	UOM	LOR	BH22-100 SOIL - 3/4/2024 SE263256.041	BH22-500 SOIL - 3/4/2024 SE263256.042	BH23-100 SOIL - 3/4/2024 SE263256.043	BH23-500 SOIL - 3/4/2024 SE263256.044	BH24-100 SOIL - 3/4/2024 SE263256.045
TRH C10-C14	mg/kg	20	**24**	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	**3800**	**46**	<45	<45	<45
TRH C29-C36	mg/kg	45	**2700**	**54**	**53**	<45	<45
TRH C37-C40	mg/kg	100	**440**	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	**60**	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	**60**	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	**6000**	**93**	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	**800**	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	**6600**	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	**6900**	<210	<210	<210	<210

SGS

ANALYTICAL RESULTS SE263256 R0

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH24-500 SOIL - 3/4/2024 SE263256.046	BH25-100 SOIL - 3/4/2024 SE263256.047	BH25-200 SOIL - 3/4/2024 SE263256.048	BH25-500 SOIL - 3/4/2024 SE263256.049	BH26-100 SOIL - 3/4/2024 SE263256.050
TRH C10-C14	mg/kg	20	<20	<20	**48**	<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	**56**	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	**55**	<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	BH26-500 SOIL - 3/4/2024 SE263256.051	BH27-100 SOIL - 3/4/2024 SE263256.052	BH27-500 SOIL - 3/4/2024 SE263256.053	BH28-100 SOIL - 3/4/2024 SE263256.054	BH28-500 SOIL - 3/4/2024 SE263256.055
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	**90**	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	**190**	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	**160**	<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	**230**	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	**200**	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	**280**	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	**430**	<210

PARAMETER	UOM	LOR	BH29-100 SOIL - 3/4/2024 SE263256.056	BH29-500 SOIL - 3/4/2024 SE263256.057	BH30-100 SOIL - 3/4/2024 SE263256.058	BH30-500 SOIL - 3/4/2024 SE263256.059	BH31-100 SOIL - 3/4/2024 SE263256.060
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	**81**	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	**79**	<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	**150**	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	**160**	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

SGS

ANALYTICAL RESULTS SE263256 R0

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH31-500 SOIL - 3/4/2024 SE263256.061	BH32-100 SOIL - 3/4/2024 SE263256.062	BH32-500 SOIL - 3/4/2024 SE263256.063	BH33-100 SOIL - 3/4/2024 SE263256.064	BH33-1000 SOIL - 3/4/2024 SE263256.065
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	**140**	**64**	<45	<45
TRH C29-C36	mg/kg	45	<45	**100**	**57**	**50**	<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	**210**	**110**	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	**240**	**120**	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	**210**	<210	<210	<210

PARAMETER	UOM	LOR	BH33-3000 SOIL - 3/4/2024 SE263256.066	BH34-500 SOIL - 3/4/2024 SE263256.067	BH34-1000 SOIL - 3/4/2024 SE263256.068	BH34-3000 SOIL - 3/4/2024 SE263256.069	BH35-500 SOIL - 3/4/2024 SE263256.070
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	BH35-1000 SOIL - 3/4/2024 SE263256.071	BH35-3000 SOIL - 3/4/2024 SE263256.072	BH36-500 SOIL - 3/4/2024 SE263256.073	BH36-1000 SOIL - 3/4/2024 SE263256.074	BH36-3000 SOIL - 3/4/2024 SE263256.075
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

SGS

ANALYTICAL RESULTS SE263256 R0

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH37-500 SOIL - 3/4/2024 SE263256.076	BH37-1000 SOIL - 3/4/2024 SE263256.077	BH37-3000 SOIL - 3/4/2024 SE263256.078	BH38-500 SOIL - 3/4/2024 SE263256.079	BH38-1000 SOIL - 3/4/2024 SE263256.080
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	47	<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	BH38-3000 SOIL - 3/4/2024 SE263256.081	BH39-300 SOIL - 3/4/2024 SE263256.082	BH39-800 SOIL - 3/4/2024 SE263256.083	BH40-100 SOIL - 3/4/2024 SE263256.084	BH40-500 SOIL - 3/4/2024 SE263256.085
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	BH40-1000 SOIL - 3/4/2024 SE263256.086	BH40-3000 SOIL - 3/4/2024 SE263256.087	BH41-500 SOIL - 3/4/2024 SE263256.088	BH41-1000 SOIL - 3/4/2024 SE263256.089	BH41-3000 SOIL - 3/4/2024 SE263256.090
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

SGS

ANALYTICAL RESULTS SE263256 R0

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH42-100 SOIL - 3/4/2024 SE263256.091	BH42-500 SOIL - 3/4/2024 SE263256.092	BH43-100 SOIL - 3/4/2024 SE263256.093	BH43-500 SOIL - 3/4/2024 SE263256.094	BH44-100 SOIL - 3/4/2024 SE263256.095
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	**51**
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	BH44-500 SOIL - 3/4/2024 SE263256.096	BH46-100 SOIL - 3/4/2024 SE263256.097	BH46-500 SOIL - 3/4/2024 SE263256.098	BH36-100 SOIL - 3/4/2024 SE263256.104
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	**130**
TRH C29-C36	mg/kg	45	<45	<45	<45	**110**
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	<90	<90	<90	**210**
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	**240**
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210

SGS

ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH1-100 SOIL - 3/4/2024 SE263256.001	BH1-500 SOIL - 3/4/2024 SE263256.002	BH2-100 SOIL - 3/4/2024 SE263256.003	BH2-500 SOIL - 3/4/2024 SE263256.004	BH3-100 SOIL - 3/4/2024 SE263256.005
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	**0.2**	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	**0.1**	**0.3**	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	**0.2**	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	**0.1**	**0.3**	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	**0.2**	**0.5**	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	**0.2**	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	**0.1**	**0.4**	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	**0.1**	**0.3**	<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	**0.2**	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	<0.2	**0.5**	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	**0.6**	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	**0.2**	**0.5**	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	**2.5**	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	**2.5**	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	BH3-500 SOIL - 3/4/2024 SE263256.006	BH4-100 SOIL - 3/4/2024 SE263256.007	BH4-500 SOIL - 3/4/2024 SE263256.008	BH5-100 SOIL - 3/4/2024 SE263256.009	BH5-500 SOIL - 3/4/2024 SE263256.010
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

SGS ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH6-100 SOIL - 3/4/2024 SE263256.011	BH6-500 SOIL - 3/4/2024 SE263256.012	BH7-100 SOIL - 3/4/2024 SE263256.013	BH7-500 SOIL - 3/4/2024 SE263256.014	BH8-100 SOIL - 3/4/2024 SE263256.015
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	**0.3**
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.6**
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	**0.4**
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.4**
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	**0.3**
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.3**
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	**0.4**
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	**0.5**
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	**0.6**
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	**0.5**
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**

PARAMETER	UOM	LOR	BH8-500 SOIL - 3/4/2024 SE263256.016	BH9-100 SOIL - 3/4/2024 SE263256.017	BH9-500 SOIL - 3/4/2024 SE263256.018	BH10-100 SOIL - 3/4/2024 SE263256.019	BH10-500 SOIL - 3/4/2024 SE263256.020
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	**0.2**	<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

SGS

ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH11-100 SOIL - 3/4/2024 SE263256.021	BH11-500 SOIL - 3/4/2024 SE263256.022	BH12-100 SOIL - 3/4/2024 SE263256.023	BH12-500 SOIL - 3/4/2024 SE263256.024	BH13-100 SOIL - 3/4/2024 SE263256.025
Naphthalene	mg/kg	0.1	**0.3**	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	**0.3**	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	**0.3**	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	**5.8**	**0.2**	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	**0.6**	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	**0.7**	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	**6.3**	**0.3**	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	**15**	**0.4**	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	**17**	**0.7**	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	**19**	**0.6**	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	**7.4**	**0.2**	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	**9.6**	**0.4**	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	**15**	**0.5**	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	**4.5**	**0.2**	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	**8.5**	**0.3**	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	**7.9**	**0.2**	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	**1.2**	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	**5.0**	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	**13**	**0.4**	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	**13**	**0.5**	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	**13**	**0.4**	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	**120**	**3.8**	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	**120**	**3.8**	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	BH13-500 SOIL - 3/4/2024 SE263256.026	BH14-100 SOIL - 3/4/2024 SE263256.027	BH14-500 SOIL - 3/4/2024 SE263256.028	BH15-100 SOIL - 3/4/2024 SE263256.029	BH15-500 SOIL - 3/4/2024 SE263256.030
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

SGS

ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH16-100 SOIL - 3/4/2024 SE263256.031	BH16-500 SOIL - 3/4/2024 SE263256.032	BH17-100 SOIL - 3/4/2024 SE263256.033	BH17-500 SOIL - 3/4/2024 SE263256.034	BH18-100 SOIL - 3/4/2024 SE263256.035
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	**0.2**
Fluoranthene	mg/kg	0.1	**0.1**	**0.1**	<0.1	<0.1	**0.5**
Pyrene	mg/kg	0.1	**0.2**	**0.2**	<0.1	<0.1	**0.7**
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.3**
Chrysene	mg/kg	0.1	**0.2**	**0.1**	<0.1	<0.1	**0.5**
Benzo(b&j)fluoranthene	mg/kg	0.1	**0.1**	**0.2**	**0.2**	<0.1	**0.7**
Benzo(k)fluoranthene	mg/kg	0.1	**0.1**	<0.1	<0.1	<0.1	**0.3**
Benzo(a)pyrene	mg/kg	0.1	**0.2**	**0.1**	<0.1	<0.1	**0.4**
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	**0.1**	**0.1**	**0.1**	<0.1	**0.3**
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	**0.2**
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	**0.2**	<0.2	<0.2	<0.2	**0.6**
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	**0.3**	<0.3	<0.3	<0.3	**0.7**
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	**0.3**	**0.2**	<0.2	<0.2	**0.6**
Total PAH (18)	mg/kg	0.8	**1.2**	**0.9**	<0.8	<0.8	**4.0**
Total PAH (NEPM/WHO 16)	mg/kg	0.8	**1.2**	**0.9**	<0.8	<0.8	**4.0**

PARAMETER	UOM	LOR	BH18-500 SOIL - 3/4/2024 SE263256.036	BH20-100 SOIL - 3/4/2024 SE263256.037	BH20-500 SOIL - 3/4/2024 SE263256.038	BH21-100 SOIL - 3/4/2024 SE263256.039	BH21-500 SOIL - 3/4/2024 SE263256.040
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	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	**0.2**	**0.1**	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	**0.3**	**0.3**	<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	**0.2**	**0.2**	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	**0.2**	**0.2**	<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**	**0.2**	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	**0.2**	<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	**0.2**	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	<0.2	**0.3**	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	**0.4**	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	**0.3**	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	**1.1**	**1.7**	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	**1.1**	**1.7**	<0.8	<0.8	<0.8

SGS

ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH22-100 SOIL - 3/4/2024 SE263256.041	BH22-500 SOIL - 3/4/2024 SE263256.042	BH23-100 SOIL - 3/4/2024 SE263256.043	BH23-500 SOIL - 3/4/2024 SE263256.044	BH24-100 SOIL - 3/4/2024 SE263256.045
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	0.2	<0.1	0.2	<0.1	<0.1
Pyrene	mg/kg	0.1	0.4	<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	0.4	<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	0.2	<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	0.4	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	<0.2	0.3	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	0.9	<0.8	1.4	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	0.9	<0.8	1.4	<0.8	<0.8

PARAMETER	UOM	LOR	BH24-500 SOIL - 3/4/2024 SE263256.046	BH25-100 SOIL - 3/4/2024 SE263256.047	BH25-200 SOIL - 3/4/2024 SE263256.048	BH25-500 SOIL - 3/4/2024 SE263256.049	BH26-100 SOIL - 3/4/2024 SE263256.050
Naphthalene	mg/kg	0.1	<0.1	0.2	12	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	0.2	4.7	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	0.2	4.3	<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	0.3	0.7	<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	0.4	<0.1	<0.1	0.1
Pyrene	mg/kg	0.1	<0.1	0.8	<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	0.3	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	0.2	<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	0.2	<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	3.2	22	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	2.9	13	<0.8	<0.8

SGS

ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH26-500 SOIL - 3/4/2024 SE263256.051	BH27-100 SOIL - 3/4/2024 SE263256.052	BH27-500 SOIL - 3/4/2024 SE263256.053	BH28-100 SOIL - 3/4/2024 SE263256.054	BH28-500 SOIL - 3/4/2024 SE263256.055
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	0.4
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.4
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.4
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.4
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.6
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	0.4
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.3
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	0.3
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	0.6
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	0.7
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	0.6
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	3.5
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	3.5

PARAMETER	UOM	LOR	BH29-100 SOIL - 3/4/2024 SE263256.056	BH29-500 SOIL - 3/4/2024 SE263256.057	BH30-100 SOIL - 3/4/2024 SE263256.058	BH30-500 SOIL - 3/4/2024 SE263256.059	BH31-100 SOIL - 3/4/2024 SE263256.060
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

SGS

ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH31-500 SOIL - 3/4/2024 SE263256.061	BH32-100 SOIL - 3/4/2024 SE263256.062	BH32-500 SOIL - 3/4/2024 SE263256.063	BH33-100 SOIL - 3/4/2024 SE263256.064	BH33-1000 SOIL - 3/4/2024 SE263256.065
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	0.7	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	1.0	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	0.4	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	1.7	0.2	0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	2.7	0.3	0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	0.9	0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	1.3	0.2	0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	1.7	0.3	0.2	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	0.5	0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	1.1	0.3	0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	1.1	0.2	0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	0.2	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	1.3	0.3	0.2	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	<0.2	1.8	0.4	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	1.8	0.5	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	1.8	0.4	0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	15	2.2	1.0	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	15	2.2	1.0	<0.8

PARAMETER	UOM	LOR	BH33-3000 SOIL - 3/4/2024 SE263256.066	BH34-500 SOIL - 3/4/2024 SE263256.067	BH34-1000 SOIL - 3/4/2024 SE263256.068	BH34-3000 SOIL - 3/4/2024 SE263256.069	BH35-500 SOIL - 3/4/2024 SE263256.070
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	0.2	0.3	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	0.2	0.3	<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	0.2	0.2	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	0.3	2.0	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	0.1	0.5	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	0.1	1.0	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	0.2	1.0	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	0.2	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	0.2	1.0	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	<0.2	0.2	1.5	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	0.3	1.5	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	0.3	1.5	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	1.6	6.5	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	1.6	6.5	<0.8	<0.8

SGS ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH35-1000 SOIL - 3/4/2024 SE263256.071	BH35-3000 SOIL - 3/4/2024 SE263256.072	BH36-500 SOIL - 3/4/2024 SE263256.073	BH36-1000 SOIL - 3/4/2024 SE263256.074	BH36-3000 SOIL - 3/4/2024 SE263256.075
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	BH37-500 SOIL - 3/4/2024 SE263256.076	BH37-1000 SOIL - 3/4/2024 SE263256.077	BH37-3000 SOIL - 3/4/2024 SE263256.078	BH38-500 SOIL - 3/4/2024 SE263256.079	BH38-1000 SOIL - 3/4/2024 SE263256.080
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	**0.4**	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.2**	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.4**	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.4**	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.2**	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.2**	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.2**	<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	**0.2**	<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	**0.3**	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	**2.3**	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	**2.3**	<0.8

SGS

ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH38-3000 SOIL - 3/4/2024 SE263256.081	BH39-300 SOIL - 3/4/2024 SE263256.082	BH39-800 SOIL - 3/4/2024 SE263256.083	BH40-100 SOIL - 3/4/2024 SE263256.084	BH40-500 SOIL - 3/4/2024 SE263256.085
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	**0.2**	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.2**	<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	**0.2**	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.2**	<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	**0.2**	<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	**0.2**	<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	**0.3**	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	**1.5**	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	**1.5**	<0.8

PARAMETER	UOM	LOR	BH40-1000 SOIL - 3/4/2024 SE263256.086	BH40-3000 SOIL - 3/4/2024 SE263256.087	BH41-500 SOIL - 3/4/2024 SE263256.088	BH41-1000 SOIL - 3/4/2024 SE263256.089	BH41-3000 SOIL - 3/4/2024 SE263256.090
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

SGS ANALYTICAL RESULTS SE263256 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH42-100 SOIL - 3/4/2024 SE263256.091	BH42-500 SOIL - 3/4/2024 SE263256.092	BH43-100 SOIL - 3/4/2024 SE263256.093	BH43-500 SOIL - 3/4/2024 SE263256.094	BH44-100 SOIL - 3/4/2024 SE263256.095
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	0.2	<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	0.2	<0.1	0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	0.8	<0.1	0.3
Pyrene	mg/kg	0.1	<0.1	<0.1	0.9	0.2	0.4
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	0.2	<0.1	0.2
Chrysene	mg/kg	0.1	<0.1	<0.1	0.8	0.5	0.4
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	1.5	1.4	0.5
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	0.5	0.4	0.2
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	0.5	0.7	0.3
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	0.5	0.4	0.3
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	0.4	0.3	0.3
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	<0.2	<0.2	0.8	1.0	0.4
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	<0.3	0.9	1.1	0.5
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	<0.2	0.8	1.0	0.5
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	6.5	3.9	3.2
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	6.5	3.9	3.2

PARAMETER	UOM	LOR	BH44-500 SOIL - 3/4/2024 SE263256.096	BH46-100 SOIL - 3/4/2024 SE263256.097	BH46-500 SOIL - 3/4/2024 SE263256.098	BH36-100 SOIL - 3/4/2024 SE263256.104
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	0.3
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	0.2	<0.1	<0.1	0.2
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	0.3
Anthracene	mg/kg	0.1	0.2	<0.1	<0.1	0.4
Fluoranthene	mg/kg	0.1	0.8	<0.1	<0.1	0.8
Pyrene	mg/kg	0.1	0.9	<0.1	<0.1	0.9
Benzo(a)anthracene	mg/kg	0.1	0.3	<0.1	<0.1	0.4
Chrysene	mg/kg	0.1	0.9	<0.1	<0.1	0.5
Benzo(b&j)fluoranthene	mg/kg	0.1	1.4	0.1	<0.1	0.6
Benzo(k)fluoranthene	mg/kg	0.1	0.5	<0.1	<0.1	0.2
Benzo(a)pyrene	mg/kg	0.1	0.6	<0.1	<0.1	0.5
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.5	<0.1	<0.1	0.4
Dibenzo(ah)anthracene	mg/kg	0.1	0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	0.5	<0.1	<0.1	0.4
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	0.9	<0.2	<0.2	0.6
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	0.9	<0.3	<0.3	0.7
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	0.9	<0.2	<0.2	0.7
Total PAH (18)	mg/kg	0.8	6.9	<0.8	<0.8	6.0
Total PAH (NEPM/WHO 16)	mg/kg	0.8	6.9	<0.8	<0.8	5.9

SGS

ANALYTICAL RESULTS SE263256 R0

OC Pesticides in Soil [AN420] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH42-100 SOIL - 3/4/2024 SE263256.091	BH42-500 SOIL - 3/4/2024 SE263256.092	BH43-100 SOIL - 3/4/2024 SE263256.093	BH43-500 SOIL - 3/4/2024 SE263256.094	BH44-100 SOIL - 3/4/2024 SE263256.095
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 (gamma BHC)	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	**0.4**	<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
Total OC VIC EPA	mg/kg	1	<1	<1	<1	<1	<1

SGS

ANALYTICAL RESULTS SE263256 R0

OC Pesticides in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH44-500 SOIL - 3/4/2024 SE263256.096
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1
Lindane (gamma BHC)	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
o,p'-DDE*	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
trans-Nonachlor	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
o,p'-DDD*	mg/kg	0.1	<0.1
o,p'-DDT*	mg/kg	0.1	<0.1
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
Total CLP OC Pesticides	mg/kg	1	<1
Total OC VIC EPA	mg/kg	1	<1

SGS

ANALYTICAL RESULTS SE263256 R0

Speciated Phenols in Soil [AN420] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH42-100 SOIL - 3/4/2024 SE263256.091	BH42-500 SOIL - 3/4/2024 SE263256.092	BH43-100 SOIL - 3/4/2024 SE263256.093	BH43-500 SOIL - 3/4/2024 SE263256.094	BH44-100 SOIL - 3/4/2024 SE263256.095
Phenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1	<1	<1	<1	<1
Total Cresol	mg/kg	1.5	<1.5	<1.5	<1.5	<1.5	<1.5
2-chlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dimethylphenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-dichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-trichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-nitrophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-nitrophenol	mg/kg	1	<1	<1	<1	<1	<1
2,4,5-trichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1	<1	<1	<1	<1
Pentachlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dinitrophenol	mg/kg	2	<2	<2	<2	<2	<2
4-chloro-3-methylphenol	mg/kg	2	<2	<2	<2	<2	<2

PARAMETER	UOM	LOR	BH44-500 SOIL - 3/4/2024 SE263256.096
Phenol	mg/kg	0.5	<0.5
2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5
3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1
Total Cresol	mg/kg	1.5	<1.5
2-chlorophenol	mg/kg	0.5	<0.5
2,4-dimethylphenol	mg/kg	0.5	<0.5
2,6-dichlorophenol	mg/kg	0.5	<0.5
2,4-dichlorophenol	mg/kg	0.5	<0.5
2,4,6-trichlorophenol	mg/kg	0.5	<0.5
2-nitrophenol	mg/kg	0.5	<0.5
4-nitrophenol	mg/kg	1	<1
2,4,5-trichlorophenol	mg/kg	0.5	<0.5
2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1
Pentachlorophenol	mg/kg	0.5	<0.5
2,4-dinitrophenol	mg/kg	2	<2
4-chloro-3-methylphenol	mg/kg	2	<2

SGS

ANALYTICAL RESULTS SE263256 R0

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH1-100 SOIL - 3/4/2024 SE263256.001	BH1-500 SOIL - 3/4/2024 SE263256.002	BH2-100 SOIL - 3/4/2024 SE263256.003	BH2-500 SOIL - 3/4/2024 SE263256.004	BH3-100 SOIL - 3/4/2024 SE263256.005
Arsenic, As	mg/kg	1	2	2	<1	1	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	18	23	23	36	29
Copper, Cu	mg/kg	0.5	4.4	3.3	1.9	1.4	4.2
Lead, Pb	mg/kg	1	6	7	6	10	9
Nickel, Ni	mg/kg	0.5	7.7	9.6	10	16	12
Zinc, Zn	mg/kg	2	23	27	20	24	41

PARAMETER	UOM	LOR	BH3-500 SOIL - 3/4/2024 SE263256.006	BH4-100 SOIL - 3/4/2024 SE263256.007	BH4-500 SOIL - 3/4/2024 SE263256.008	BH5-100 SOIL - 3/4/2024 SE263256.009	BH5-500 SOIL - 3/4/2024 SE263256.010
Arsenic, As	mg/kg	1	2	2	2	2	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	28	16	35	27	40
Copper, Cu	mg/kg	0.5	4.8	9.6	3.7	3.6	3.2
Lead, Pb	mg/kg	1	9	15	11	8	11
Nickel, Ni	mg/kg	0.5	12	7.4	14	11	16
Zinc, Zn	mg/kg	2	35	39	27	44	31

PARAMETER	UOM	LOR	BH6-100 SOIL - 3/4/2024 SE263256.011	BH6-500 SOIL - 3/4/2024 SE263256.012	BH7-100 SOIL - 3/4/2024 SE263256.013	BH7-500 SOIL - 3/4/2024 SE263256.014	BH8-100 SOIL - 3/4/2024 SE263256.015
Arsenic, As	mg/kg	1	<1	<1	4	2	2
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	22	26	9.4	37	17
Copper, Cu	mg/kg	0.5	2.3	2.0	12	4.5	7.8
Lead, Pb	mg/kg	1	6	6	25	14	9
Nickel, Ni	mg/kg	0.5	9.3	11	8.5	15	7.6
Zinc, Zn	mg/kg	2	20	21	36	33	30

PARAMETER	UOM	LOR	BH8-500 SOIL - 3/4/2024 SE263256.016	BH9-100 SOIL - 3/4/2024 SE263256.017	BH9-500 SOIL - 3/4/2024 SE263256.018	BH10-100 SOIL - 3/4/2024 SE263256.019	BH10-500 SOIL - 3/4/2024 SE263256.020
Arsenic, As	mg/kg	1	1	2	<1	20	2
Cadmium, Cd	mg/kg	0.3	<0.3	0.4	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	38	22	20	9.4	20
Copper, Cu	mg/kg	0.5	4.3	18	2.2	24	3.5
Lead, Pb	mg/kg	1	10	30	6	5	16
Nickel, Ni	mg/kg	0.5	15	10	8.5	2.7	8.6
Zinc, Zn	mg/kg	2	30	78	19	16	30

SGS

ANALYTICAL RESULTS SE263256 R0

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH11-100 SOIL - 3/4/2024 SE263256.021	BH11-500 SOIL - 3/4/2024 SE263256.022	BH12-100 SOIL - 3/4/2024 SE263256.023	BH12-500 SOIL - 3/4/2024 SE263256.024	BH13-100 SOIL - 3/4/2024 SE263256.025
Arsenic, As	mg/kg	1	2	2	4	1	<1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	31	23	18	26	24
Copper, Cu	mg/kg	0.5	8.6	3.6	13	6.4	5.9
Lead, Pb	mg/kg	1	30	8	16	12	8
Nickel, Ni	mg/kg	0.5	13	10	4.9	11	11
Zinc, Zn	mg/kg	2	58	30	75	53	41

PARAMETER	UOM	LOR	BH13-500 SOIL - 3/4/2024 SE263256.026	BH14-100 SOIL - 3/4/2024 SE263256.027	BH14-500 SOIL - 3/4/2024 SE263256.028	BH15-100 SOIL - 3/4/2024 SE263256.029	BH15-500 SOIL - 3/4/2024 SE263256.030
Arsenic, As	mg/kg	1	1	1	1	2	4
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	28	29	34	33	24
Copper, Cu	mg/kg	0.5	5.5	5.0	2.4	5.1	3.6
Lead, Pb	mg/kg	1	7	17	9	12	6
Nickel, Ni	mg/kg	0.5	12	12	15	14	11
Zinc, Zn	mg/kg	2	31	33	27	51	24

PARAMETER	UOM	LOR	BH16-100 SOIL - 3/4/2024 SE263256.031	BH16-500 SOIL - 3/4/2024 SE263256.032	BH17-100 SOIL - 3/4/2024 SE263256.033	BH17-500 SOIL - 3/4/2024 SE263256.034	BH18-100 SOIL - 3/4/2024 SE263256.035
Arsenic, As	mg/kg	1	10	5	7	<1	9
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	18	22	22	29	21
Copper, Cu	mg/kg	0.5	15	11	11	5.5	17
Lead, Pb	mg/kg	1	14	16	9	7	13
Nickel, Ni	mg/kg	0.5	7.6	9.4	9.4	13	9.1
Zinc, Zn	mg/kg	2	29	37	26	30	33

PARAMETER	UOM	LOR	BH18-500 SOIL - 3/4/2024 SE263256.036	BH20-100 SOIL - 3/4/2024 SE263256.037	BH20-500 SOIL - 3/4/2024 SE263256.038	BH21-100 SOIL - 3/4/2024 SE263256.039	BH21-500 SOIL - 3/4/2024 SE263256.040
Arsenic, As	mg/kg	1	2	2	1	5	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	26	24	28	24	26
Copper, Cu	mg/kg	0.5	7.2	5.7	4.7	9.1	3.1
Lead, Pb	mg/kg	1	17	8	7	12	6
Nickel, Ni	mg/kg	0.5	11	11	12	10	11
Zinc, Zn	mg/kg	2	34	34	30	39	23

SGS

ANALYTICAL RESULTS SE263256 R0

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH22-100 SOIL - 3/4/2024 SE263256.041	BH22-500 SOIL - 3/4/2024 SE263256.042	BH23-100 SOIL - 3/4/2024 SE263256.043	BH23-500 SOIL - 3/4/2024 SE263256.044	BH24-100 SOIL - 3/4/2024 SE263256.045
Arsenic, As	mg/kg	1	2	1	<1	1	4
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	25	28	19	35	23
Copper, Cu	mg/kg	0.5	10	4.7	5.9	3.8	10
Lead, Pb	mg/kg	1	63	7	19	8	13
Nickel, Ni	mg/kg	0.5	10	13	8.4	13	11
Zinc, Zn	mg/kg	2	120	28	57	29	35

PARAMETER	UOM	LOR	BH24-500 SOIL - 3/4/2024 SE263256.046	BH25-100 SOIL - 3/4/2024 SE263256.047	BH25-200 SOIL - 3/4/2024 SE263256.048	BH25-500 SOIL - 3/4/2024 SE263256.049	BH26-100 SOIL - 3/4/2024 SE263256.050
Arsenic, As	mg/kg	1	3	4	2	<1	2
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	23	21	9.9	19	28
Copper, Cu	mg/kg	0.5	9.2	12	19	3.2	5.2
Lead, Pb	mg/kg	1	18	10	7	7	10
Nickel, Ni	mg/kg	0.5	9.9	4.0	3.4	9.2	12
Zinc, Zn	mg/kg	2	31	42	14	21	48

PARAMETER	UOM	LOR	BH26-500 SOIL - 3/4/2024 SE263256.051	BH27-100 SOIL - 3/4/2024 SE263256.052	BH27-500 SOIL - 3/4/2024 SE263256.053	BH28-100 SOIL - 3/4/2024 SE263256.054	BH28-500 SOIL - 3/4/2024 SE263256.055
Arsenic, As	mg/kg	1	1	1	2	1	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	33	24	40	27	33
Copper, Cu	mg/kg	0.5	4.5	2.5	2.6	9.8	1.3
Lead, Pb	mg/kg	1	10	7	11	11	9
Nickel, Ni	mg/kg	0.5	13	9.7	16	11	16
Zinc, Zn	mg/kg	2	46	23	26	46	25

PARAMETER	UOM	LOR	BH29-100 SOIL - 3/4/2024 SE263256.056	BH29-500 SOIL - 3/4/2024 SE263256.057	BH30-100 SOIL - 3/4/2024 SE263256.058	BH30-500 SOIL - 3/4/2024 SE263256.059	BH31-100 SOIL - 3/4/2024 SE263256.060
Arsenic, As	mg/kg	1	<1	1	2	2	3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	28	26	28	38	33
Copper, Cu	mg/kg	0.5	2.2	6.2	6.0	5.8	3.8
Lead, Pb	mg/kg	1	7	12	44	13	11
Nickel, Ni	mg/kg	0.5	12	11	12	15	13
Zinc, Zn	mg/kg	2	22	49	54	35	28

SGS

ANALYTICAL RESULTS SE263256 R0

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH31-500 SOIL - 3/4/2024 SE263256.061	BH32-100 SOIL - 3/4/2024 SE263256.062	BH32-500 SOIL - 3/4/2024 SE263256.063	BH33-100 SOIL - 3/4/2024 SE263256.064	BH33-1000 SOIL - 3/4/2024 SE263256.065
Arsenic, As	mg/kg	1	1	2	2	6	3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	21	26	27	19	20
Copper, Cu	mg/kg	0.5	3.6	10	9.7	19	12
Lead, Pb	mg/kg	1	6	16	15	12	7
Nickel, Ni	mg/kg	0.5	9.3	12	13	9.0	9.4
Zinc, Zn	mg/kg	2	20	49	42	46	35

PARAMETER	UOM	LOR	BH33-3000 SOIL - 3/4/2024 SE263256.066	BH34-500 SOIL - 3/4/2024 SE263256.067	BH34-1000 SOIL - 3/4/2024 SE263256.068	BH34-3000 SOIL - 3/4/2024 SE263256.069	BH35-500 SOIL - 3/4/2024 SE263256.070
Arsenic, As	mg/kg	1	1	6	3	2	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	33	13	26	34	26
Copper, Cu	mg/kg	0.5	2.7	17	5.0	3.9	4.8
Lead, Pb	mg/kg	1	8	19	9	9	7
Nickel, Ni	mg/kg	0.5	14	8.8	9.1	15	13
Zinc, Zn	mg/kg	2	25	35	26	30	27

PARAMETER	UOM	LOR	BH35-1000 SOIL - 3/4/2024 SE263256.071	BH35-3000 SOIL - 3/4/2024 SE263256.072	BH36-500 SOIL - 3/4/2024 SE263256.073	BH36-1000 SOIL - 3/4/2024 SE263256.074	BH36-3000 SOIL - 3/4/2024 SE263256.075
Arsenic, As	mg/kg	1	1	1	1	2	3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	24	39	23	22	33
Copper, Cu	mg/kg	0.5	4.6	3.1	4.0	7.3	7.5
Lead, Pb	mg/kg	1	6	8	6	7	9
Nickel, Ni	mg/kg	0.5	11	15	10	9.7	13
Zinc, Zn	mg/kg	2	26	31	23	28	32

PARAMETER	UOM	LOR	BH37-500 SOIL - 3/4/2024 SE263256.076	BH37-1000 SOIL - 3/4/2024 SE263256.077	BH37-3000 SOIL - 3/4/2024 SE263256.078	BH38-500 SOIL - 3/4/2024 SE263256.079	BH38-1000 SOIL - 3/4/2024 SE263256.080
Arsenic, As	mg/kg	1	2	4	3	3	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	15	25	18	24	26
Copper, Cu	mg/kg	0.5	30	12	8.4	9.7	4.2
Lead, Pb	mg/kg	1	10	8	5	13	6
Nickel, Ni	mg/kg	0.5	8.6	11	6.7	11	11
Zinc, Zn	mg/kg	2	43	33	27	41	25

SGS

ANALYTICAL RESULTS SE263256 R0

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH38-3000 SOIL - 3/4/2024 SE263256.081	BH39-300 SOIL - 3/4/2024 SE263256.082	BH39-800 SOIL - 3/4/2024 SE263256.083	BH40-100 SOIL - 3/4/2024 SE263256.084	BH40-500 SOIL - 3/4/2024 SE263256.085
Arsenic, As	mg/kg	1	2	3	5	5	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	41	21	25	21	30
Copper, Cu	mg/kg	0.5	2.2	13	7.3	9.3	4.7
Lead, Pb	mg/kg	1	6	22	7	10	7
Nickel, Ni	mg/kg	0.5	17	9.2	11	9.4	13
Zinc, Zn	mg/kg	2	29	42	29	36	29

PARAMETER	UOM	LOR	BH40-1000 SOIL - 3/4/2024 SE263256.086	BH40-3000 SOIL - 3/4/2024 SE263256.087	BH41-500 SOIL - 3/4/2024 SE263256.088	BH41-1000 SOIL - 3/4/2024 SE263256.089	BH41-3000 SOIL - 3/4/2024 SE263256.090
Arsenic, As	mg/kg	1	1	1	2	1	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	28	36	29	26	34
Copper, Cu	mg/kg	0.5	4.9	2.7	5.3	4.1	3.1
Lead, Pb	mg/kg	1	6	7	9	6	8
Nickel, Ni	mg/kg	0.5	12	15	13	11	14
Zinc, Zn	mg/kg	2	27	24	32	26	26

PARAMETER	UOM	LOR	BH42-100 SOIL - 3/4/2024 SE263256.091	BH42-500 SOIL - 3/4/2024 SE263256.092	BH43-100 SOIL - 3/4/2024 SE263256.093	BH43-500 SOIL - 3/4/2024 SE263256.094	BH44-100 SOIL - 3/4/2024 SE263256.095
Arsenic, As	mg/kg	1	8	1	7	2	5
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	16	31	29	26	22
Copper, Cu	mg/kg	0.5	13	4.8	13	4.2	12
Lead, Pb	mg/kg	1	12	7	11	6	11
Nickel, Ni	mg/kg	0.5	6.3	14	10	12	9.2
Zinc, Zn	mg/kg	2	42	29	39	26	37

PARAMETER	UOM	LOR	BH44-500 SOIL - 3/4/2024 SE263256.096	BH46-100 SOIL - 3/4/2024 SE263256.097	BH46-500 SOIL - 3/4/2024 SE263256.098	DA SOIL - 3/4/2024 SE263256.099	DB SOIL - 3/4/2024 SE263256.100
Arsenic, As	mg/kg	1	9	2	1	2	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	30	24	25	24	25
Copper, Cu	mg/kg	0.5	14	6.0	4.3	4.2	3.2
Lead, Pb	mg/kg	1	18	9	6	8	8
Nickel, Ni	mg/kg	0.5	12	11	11	10	11
Zinc, Zn	mg/kg	2	45	35	25	26	23

SGS

ANALYTICAL RESULTS SE263256 R0

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 9/4/2024

PARAMETER	UOM	LOR	DC SOIL - 3/4/2024 SE263256.101	DD SOIL - 3/4/2024 SE263256.102	DE SOIL - 3/4/2024 SE263256.103	BH36-100 SOIL - 3/4/2024 SE263256.104
Arsenic, As	mg/kg	1	2	2	5	4
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	24	28	20	24
Copper, Cu	mg/kg	0.5	5.0	5.2	10	15
Lead, Pb	mg/kg	1	7	31	12	22
Nickel, Ni	mg/kg	0.5	11	12	9.1	11
Zinc, Zn	mg/kg	2	29	44	36	58

SGS

ANALYTICAL RESULTS SE263256 R0

Mercury in Soil [AN312] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH1-100 SOIL - 3/4/2024 SE263256.001	BH1-500 SOIL - 3/4/2024 SE263256.002	BH2-100 SOIL - 3/4/2024 SE263256.003	BH2-500 SOIL - 3/4/2024 SE263256.004	BH3-100 SOIL - 3/4/2024 SE263256.005
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH3-500 SOIL - 3/4/2024 SE263256.006	BH4-100 SOIL - 3/4/2024 SE263256.007	BH4-500 SOIL - 3/4/2024 SE263256.008	BH5-100 SOIL - 3/4/2024 SE263256.009	BH5-500 SOIL - 3/4/2024 SE263256.010
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH6-100 SOIL - 3/4/2024 SE263256.011	BH6-500 SOIL - 3/4/2024 SE263256.012	BH7-100 SOIL - 3/4/2024 SE263256.013	BH7-500 SOIL - 3/4/2024 SE263256.014	BH8-100 SOIL - 3/4/2024 SE263256.015
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH8-500 SOIL - 3/4/2024 SE263256.016	BH9-100 SOIL - 3/4/2024 SE263256.017	BH9-500 SOIL - 3/4/2024 SE263256.018	BH10-100 SOIL - 3/4/2024 SE263256.019	BH10-500 SOIL - 3/4/2024 SE263256.020
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH11-100 SOIL - 3/4/2024 SE263256.021	BH11-500 SOIL - 3/4/2024 SE263256.022	BH12-100 SOIL - 3/4/2024 SE263256.023	BH12-500 SOIL - 3/4/2024 SE263256.024	BH13-100 SOIL - 3/4/2024 SE263256.025
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH13-500 SOIL - 3/4/2024 SE263256.026	BH14-100 SOIL - 3/4/2024 SE263256.027	BH14-500 SOIL - 3/4/2024 SE263256.028	BH15-100 SOIL - 3/4/2024 SE263256.029	BH15-500 SOIL - 3/4/2024 SE263256.030
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH16-100 SOIL - 3/4/2024 SE263256.031	BH16-500 SOIL - 3/4/2024 SE263256.032	BH17-100 SOIL - 3/4/2024 SE263256.033	BH17-500 SOIL - 3/4/2024 SE263256.034	BH18-100 SOIL - 3/4/2024 SE263256.035
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

SGS ANALYTICAL RESULTS SE263256 R0

Mercury in Soil [AN312] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH18-500 SOIL - 3/4/2024 SE263256.036	BH20-100 SOIL - 3/4/2024 SE263256.037	BH20-500 SOIL - 3/4/2024 SE263256.038	BH21-100 SOIL - 3/4/2024 SE263256.039	BH21-500 SOIL - 3/4/2024 SE263256.040
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH22-100 SOIL - 3/4/2024 SE263256.041	BH22-500 SOIL - 3/4/2024 SE263256.042	BH23-100 SOIL - 3/4/2024 SE263256.043	BH23-500 SOIL - 3/4/2024 SE263256.044	BH24-100 SOIL - 3/4/2024 SE263256.045
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH24-500 SOIL - 3/4/2024 SE263256.046	BH25-100 SOIL - 3/4/2024 SE263256.047	BH25-200 SOIL - 3/4/2024 SE263256.048	BH25-500 SOIL - 3/4/2024 SE263256.049	BH26-100 SOIL - 3/4/2024 SE263256.050
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH26-500 SOIL - 3/4/2024 SE263256.051	BH27-100 SOIL - 3/4/2024 SE263256.052	BH27-500 SOIL - 3/4/2024 SE263256.053	BH28-100 SOIL - 3/4/2024 SE263256.054	BH28-500 SOIL - 3/4/2024 SE263256.055
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH29-100 SOIL - 3/4/2024 SE263256.056	BH29-500 SOIL - 3/4/2024 SE263256.057	BH30-100 SOIL - 3/4/2024 SE263256.058	BH30-500 SOIL - 3/4/2024 SE263256.059	BH31-100 SOIL - 3/4/2024 SE263256.060
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH31-500 SOIL - 3/4/2024 SE263256.061	BH32-100 SOIL - 3/4/2024 SE263256.062	BH32-500 SOIL - 3/4/2024 SE263256.063	BH33-100 SOIL - 3/4/2024 SE263256.064	BH33-1000 SOIL - 3/4/2024 SE263256.065
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH33-3000 SOIL - 3/4/2024 SE263256.066	BH34-500 SOIL - 3/4/2024 SE263256.067	BH34-1000 SOIL - 3/4/2024 SE263256.068	BH34-3000 SOIL - 3/4/2024 SE263256.069	BH35-500 SOIL - 3/4/2024 SE263256.070
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

SGS ANALYTICAL RESULTS SE263256 R0

Mercury in Soil [AN312] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH35-1000 SOIL - 3/4/2024 SE263256.071	BH35-3000 SOIL - 3/4/2024 SE263256.072	BH36-500 SOIL - 3/4/2024 SE263256.073	BH36-1000 SOIL - 3/4/2024 SE263256.074	BH36-3000 SOIL - 3/4/2024 SE263256.075
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH37-500 SOIL - 3/4/2024 SE263256.076	BH37-1000 SOIL - 3/4/2024 SE263256.077	BH37-3000 SOIL - 3/4/2024 SE263256.078	BH38-500 SOIL - 3/4/2024 SE263256.079	BH38-1000 SOIL - 3/4/2024 SE263256.080
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH38-3000 SOIL - 3/4/2024 SE263256.081	BH39-300 SOIL - 3/4/2024 SE263256.082	BH39-800 SOIL - 3/4/2024 SE263256.083	BH40-100 SOIL - 3/4/2024 SE263256.084	BH40-500 SOIL - 3/4/2024 SE263256.085
Mercury	mg/kg	0.05	<0.05	0.06	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH40-1000 SOIL - 3/4/2024 SE263256.086	BH40-3000 SOIL - 3/4/2024 SE263256.087	BH41-500 SOIL - 3/4/2024 SE263256.088	BH41-1000 SOIL - 3/4/2024 SE263256.089	BH41-3000 SOIL - 3/4/2024 SE263256.090
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH42-100 SOIL - 3/4/2024 SE263256.091	BH42-500 SOIL - 3/4/2024 SE263256.092	BH43-100 SOIL - 3/4/2024 SE263256.093	BH43-500 SOIL - 3/4/2024 SE263256.094	BH44-100 SOIL - 3/4/2024 SE263256.095
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH44-500 SOIL - 3/4/2024 SE263256.096	BH46-100 SOIL - 3/4/2024 SE263256.097	BH46-500 SOIL - 3/4/2024 SE263256.098	DA SOIL - 3/4/2024 SE263256.099	DB SOIL - 3/4/2024 SE263256.100
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	DC SOIL - 3/4/2024 SE263256.101	DD SOIL - 3/4/2024 SE263256.102	DE SOIL - 3/4/2024 SE263256.103	BH36-100 SOIL - 3/4/2024 SE263256.104
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05

SGS

ANALYTICAL RESULTS SE263256 R0

Moisture Content [AN002] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH1-100 SOIL - 3/4/2024 SE263256.001	BH1-500 SOIL - 3/4/2024 SE263256.002	BH2-100 SOIL - 3/4/2024 SE263256.003	BH2-500 SOIL - 3/4/2024 SE263256.004	BH3-100 SOIL - 3/4/2024 SE263256.005
% Moisture	%w/w	1	9.9	4.8	4.1	6.4	7.8

PARAMETER	UOM	LOR	BH3-500 SOIL - 3/4/2024 SE263256.006	BH4-100 SOIL - 3/4/2024 SE263256.007	BH4-500 SOIL - 3/4/2024 SE263256.008	BH5-100 SOIL - 3/4/2024 SE263256.009	BH5-500 SOIL - 3/4/2024 SE263256.010
% Moisture	%w/w	1	6.9	4.8	10.2	5.7	10.8

PARAMETER	UOM	LOR	BH6-100 SOIL - 3/4/2024 SE263256.011	BH6-500 SOIL - 3/4/2024 SE263256.012	BH7-100 SOIL - 3/4/2024 SE263256.013	BH7-500 SOIL - 3/4/2024 SE263256.014	BH8-100 SOIL - 3/4/2024 SE263256.015
% Moisture	%w/w	1	4.2	5.3	5.5	10.1	5.8

PARAMETER	UOM	LOR	BH8-500 SOIL - 3/4/2024 SE263256.016	BH9-100 SOIL - 3/4/2024 SE263256.017	BH9-500 SOIL - 3/4/2024 SE263256.018	BH10-100 SOIL - 3/4/2024 SE263256.019	BH10-500 SOIL - 3/4/2024 SE263256.020
% Moisture	%w/w	1	8.8	3.6	3.7	3.7	4.5

PARAMETER	UOM	LOR	BH11-100 SOIL - 3/4/2024 SE263256.021	BH11-500 SOIL - 3/4/2024 SE263256.022	BH12-100 SOIL - 3/4/2024 SE263256.023	BH12-500 SOIL - 3/4/2024 SE263256.024	BH13-100 SOIL - 3/4/2024 SE263256.025
% Moisture	%w/w	1	7.3	7.1	4.7	4.8	4.0

PARAMETER	UOM	LOR	BH13-500 SOIL - 3/4/2024 SE263256.026	BH14-100 SOIL - 3/4/2024 SE263256.027	BH14-500 SOIL - 3/4/2024 SE263256.028	BH15-100 SOIL - 3/4/2024 SE263256.029	BH15-500 SOIL - 3/4/2024 SE263256.030
% Moisture	%w/w	1	4.0	6.3	5.6	7.1	5.4

PARAMETER	UOM	LOR	BH16-100 SOIL - 3/4/2024 SE263256.031	BH16-500 SOIL - 3/4/2024 SE263256.032	BH17-100 SOIL - 3/4/2024 SE263256.033	BH17-500 SOIL - 3/4/2024 SE263256.034	BH18-100 SOIL - 3/4/2024 SE263256.035
% Moisture	%w/w	1	6.2	7.6	3.6	5.6	5.9

SGS ANALYTICAL RESULTS SE263256 R0

Moisture Content [AN002] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH18-500 SOIL - 3/4/2024 SE263256.036	BH20-100 SOIL - 3/4/2024 SE263256.037	BH20-500 SOIL - 3/4/2024 SE263256.038	BH21-100 SOIL - 3/4/2024 SE263256.039	BH21-500 SOIL - 3/4/2024 SE263256.040
% Moisture	%w/w	1	4.7	6.5	5.5	4.5	2.6

PARAMETER	UOM	LOR	BH22-100 SOIL - 3/4/2024 SE263256.041	BH22-500 SOIL - 3/4/2024 SE263256.042	BH23-100 SOIL - 3/4/2024 SE263256.043	BH23-500 SOIL - 3/4/2024 SE263256.044	BH24-100 SOIL - 3/4/2024 SE263256.045
% Moisture	%w/w	1	6.9	4.7	4.1	8.5	5.1

PARAMETER	UOM	LOR	BH24-500 SOIL - 3/4/2024 SE263256.046	BH25-100 SOIL - 3/4/2024 SE263256.047	BH25-200 SOIL - 3/4/2024 SE263256.048	BH25-500 SOIL - 3/4/2024 SE263256.049	BH26-100 SOIL - 3/4/2024 SE263256.050
% Moisture	%w/w	1	7.1	2.4	4.8	5.8	5.9

PARAMETER	UOM	LOR	BH26-500 SOIL - 3/4/2024 SE263256.051	BH27-100 SOIL - 3/4/2024 SE263256.052	BH27-500 SOIL - 3/4/2024 SE263256.053	BH28-100 SOIL - 3/4/2024 SE263256.054	BH28-500 SOIL - 3/4/2024 SE263256.055
% Moisture	%w/w	1	6.0	4.9	8.5	5.6	6.4

PARAMETER	UOM	LOR	BH29-100 SOIL - 3/4/2024 SE263256.056	BH29-500 SOIL - 3/4/2024 SE263256.057	BH30-100 SOIL - 3/4/2024 SE263256.058	BH30-500 SOIL - 3/4/2024 SE263256.059	BH31-100 SOIL - 3/4/2024 SE263256.060
% Moisture	%w/w	1	3.2	3.7	7.6	10.7	8.8

PARAMETER	UOM	LOR	BH31-500 SOIL - 3/4/2024 SE263256.061	BH32-100 SOIL - 3/4/2024 SE263256.062	BH32-500 SOIL - 3/4/2024 SE263256.063	BH33-100 SOIL - 3/4/2024 SE263256.064	BH33-1000 SOIL - 3/4/2024 SE263256.065
% Moisture	%w/w	1	3.7	7.2	7.8	6.0	6.2

PARAMETER	UOM	LOR	BH33-3000 SOIL - 3/4/2024 SE263256.066	BH34-500 SOIL - 3/4/2024 SE263256.067	BH34-1000 SOIL - 3/4/2024 SE263256.068	BH34-3000 SOIL - 3/4/2024 SE263256.069	BH35-500 SOIL - 3/4/2024 SE263256.070
% Moisture	%w/w	1	10.7	4.5	5.8	11.0	6.8

SGS

ANALYTICAL RESULTS SE263256 R0

Moisture Content [AN002] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH35-1000 SOIL - 3/4/2024 SE263256.071	BH35-3000 SOIL - 3/4/2024 SE263256.072	BH36-500 SOIL - 3/4/2024 SE263256.073	BH36-1000 SOIL - 3/4/2024 SE263256.074	BH36-3000 SOIL - 3/4/2024 SE263256.075
% Moisture	%w/w	1	6.6	10.2	5.0	6.6	11.2

PARAMETER	UOM	LOR	BH37-500 SOIL - 3/4/2024 SE263256.076	BH37-1000 SOIL - 3/4/2024 SE263256.077	BH37-3000 SOIL - 3/4/2024 SE263256.078	BH38-500 SOIL - 3/4/2024 SE263256.079	BH38-1000 SOIL - 3/4/2024 SE263256.080
% Moisture	%w/w	1	4.9	6.2	5.3	7.5	7.3

PARAMETER	UOM	LOR	BH38-3000 SOIL - 3/4/2024 SE263256.081	BH39-300 SOIL - 3/4/2024 SE263256.082	BH39-800 SOIL - 3/4/2024 SE263256.083	BH40-100 SOIL - 3/4/2024 SE263256.084	BH40-500 SOIL - 3/4/2024 SE263256.085
% Moisture	%w/w	1	6.7	6.4	3.7	5.1	7.2

PARAMETER	UOM	LOR	BH40-1000 SOIL - 3/4/2024 SE263256.086	BH40-3000 SOIL - 3/4/2024 SE263256.087	BH41-500 SOIL - 3/4/2024 SE263256.088	BH41-1000 SOIL - 3/4/2024 SE263256.089	BH41-3000 SOIL - 3/4/2024 SE263256.090
% Moisture	%w/w	1	5.9	8.3	6.2	5.6	7.8

PARAMETER	UOM	LOR	BH42-100 SOIL - 3/4/2024 SE263256.091	BH42-500 SOIL - 3/4/2024 SE263256.092	BH43-100 SOIL - 3/4/2024 SE263256.093	BH43-500 SOIL - 3/4/2024 SE263256.094	BH44-100 SOIL - 3/4/2024 SE263256.095
% Moisture	%w/w	1	6.3	7.0	3.9	3.8	4.6

PARAMETER	UOM	LOR	BH44-500 SOIL - 3/4/2024 SE263256.096	BH46-100 SOIL - 3/4/2024 SE263256.097	BH46-500 SOIL - 3/4/2024 SE263256.098	DA SOIL - 3/4/2024 SE263256.099	DB SOIL - 3/4/2024 SE263256.100
% Moisture	%w/w	1	4.1	3.9	4.9	11.2	5.0

PARAMETER	UOM	LOR	DC SOIL - 3/4/2024 SE263256.101	DD SOIL - 3/4/2024 SE263256.102	DE SOIL - 3/4/2024 SE263256.103	BH36-100 SOIL - 3/4/2024 SE263256.104
% Moisture	%w/w	1	6.5	5.4	5.1	4.9

SGS

METHOD SUMMARY

SE263256 R0

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.
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 AAS or ICP as per USEPA Method 200.8.
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
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.

FOOTNOTES SE263256 R0

FOOTNOTES

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

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:

a. 1 Bq is equivalent to 27 pCi
b. 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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Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client only. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

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STATEMENT OF QA/QC PERFORMANCE

SE263256 R0

CLIENT DETAILS		LABORATORY DETAILS	
Contact	Felipe Canavez	Manager	Huong Crawford
Client	ENVIROWEST CONSULTING PTY LIMITED	Laboratory	SGS Alexandria Environmental
Address	PO BOX 8158 NSW 2800	Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	61 2 63614954	Telephone	+61 2 8594 0400
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499
Email	Fcanavez@barnson.com.au	Email	au.environmental.sydney@sgs.com
Project	**43874**	SGS Reference	**SE263256 R0**
Order Number	**43874**	Date Received	05 Apr 2024
Samples	104	Date Reported	16 Apr 2024

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:

Surrogate	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	1 item
	Speciated Phenols in Soil	2 items
Duplicate	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	5 items
	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	11 items
	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
	VOC's in Soil	1 item
Matrix Spike	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
	TRH (Total Recoverable Hydrocarbons) in Soil	3 items
	VOC's in Soil	1 item
	Volatile Petroleum Hydrocarbons in Soil	1 item

SAMPLE SUMMARY

Sample counts by matrix	104 Soil	Type of documentation received	COC
Date documentation received	5/4/2024	Samples received in good order	Yes
Samples received without headspace	Yes	Sample temperature upon receipt	9.9°C
Sample container provider	SGS	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	Ice Bricks	Samples clearly labelled	Yes
Complete documentation received	Yes		

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Member of the SGS Group

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HOLDING TIME SUMMARY

SE263256 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.

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Mercury in Soil — **Method: ME-(AU)-[ENV]AN312**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1-100	SE263256.001	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH1-500	SE263256.002	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH2-100	SE263256.003	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH2-500	SE263256.004	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH3-100	SE263256.005	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH3-500	SE263256.006	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH4-100	SE263256.007	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH4-500	SE263256.008	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH5-100	SE263256.009	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH5-500	SE263256.010	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH6-100	SE263256.011	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH6-500	SE263256.012	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH7-100	SE263256.013	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH7-500	SE263256.014	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH8-100	SE263256.015	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH8-500	SE263256.016	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH9-100	SE263256.017	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH9-500	SE263256.018	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH10-100	SE263256.019	LB309212	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH10-500	SE263256.020	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH11-100	SE263256.021	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH11-500	SE263256.022	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH12-100	SE263256.023	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH12-500	SE263256.024	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH13-100	SE263256.025	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH13-500	SE263256.026	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH14-100	SE263256.027	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH14-500	SE263256.028	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH15-100	SE263256.029	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH15-500	SE263256.030	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH16-100	SE263256.031	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH16-500	SE263256.032	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH17-100	SE263256.033	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH17-500	SE263256.034	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH18-100	SE263256.035	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH18-500	SE263256.036	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH20-100	SE263256.037	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH20-500	SE263256.038	LB309237	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH21-100	SE263256.039	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH21-500	SE263256.040	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH22-100	SE263256.041	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH22-500	SE263256.042	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH23-100	SE263256.043	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH23-500	SE263256.044	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH24-100	SE263256.045	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH24-500	SE263256.046	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH25-100	SE263256.047	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH25-200	SE263256.048	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH25-500	SE263256.049	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH26-100	SE263256.050	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH26-500	SE263256.051	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH27-100	SE263256.052	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH27-500	SE263256.053	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH28-100	SE263256.054	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH28-500	SE263256.055	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH29-100	SE263256.056	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH29-500	SE263256.057	LB309238	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH30-100	SE263256.058	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH30-500	SE263256.059	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH31-100	SE263256.060	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024

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HOLDING TIME SUMMARY

SE263256 R0

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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)-[ENV]AN312**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH31-500	SE263256.061	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH32-100	SE263256.062	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH32-500	SE263256.063	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH33-100	SE263256.064	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH33-1000	SE263256.065	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH33-3000	SE263256.066	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH34-500	SE263256.067	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH34-1000	SE263256.068	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH34-3000	SE263256.069	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH35-500	SE263256.070	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH35-1000	SE263256.071	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH35-3000	SE263256.072	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH36-500	SE263256.073	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH36-1000	SE263256.074	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH36-3000	SE263256.075	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH37-500	SE263256.076	LB309240	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH37-1000	SE263256.077	LB309107	03 Apr 2024	05 Apr 2024	01 May 2024	09 Apr 2024	01 May 2024	12 Apr 2024
BH37-3000	SE263256.078	LB309107	03 Apr 2024	05 Apr 2024	01 May 2024	09 Apr 2024	01 May 2024	12 Apr 2024
BH38-500	SE263256.079	LB309107	03 Apr 2024	05 Apr 2024	01 May 2024	09 Apr 2024	01 May 2024	12 Apr 2024
BH38-1000	SE263256.080	LB309107	03 Apr 2024	05 Apr 2024	01 May 2024	09 Apr 2024	01 May 2024	12 Apr 2024
BH38-3000	SE263256.081	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH39-300	SE263256.082	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH39-800	SE263256.083	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH40-100	SE263256.084	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH40-500	SE263256.085	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH40-1000	SE263256.086	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH40-3000	SE263256.087	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH41-500	SE263256.088	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH41-1000	SE263256.089	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH41-3000	SE263256.090	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH42-100	SE263256.091	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH42-500	SE263256.092	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH43-100	SE263256.093	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH43-500	SE263256.094	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH44-100	SE263256.095	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH44-500	SE263256.096	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH46-100	SE263256.097	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
BH46-500	SE263256.098	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024
DA	SE263256.099	LB309236	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	12 Apr 2024
DB	SE263256.100	LB309236	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	12 Apr 2024
DC	SE263256.101	LB309236	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	12 Apr 2024
DD	SE263256.102	LB309236	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	12 Apr 2024
DE	SE263256.103	LB309236	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	12 Apr 2024
BH36-100	SE263256.104	LB309204	03 Apr 2024	05 Apr 2024	01 May 2024	10 Apr 2024	01 May 2024	15 Apr 2024

Moisture Content **Method: ME-(AU)-[ENV]AN002**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1-100	SE263256.001	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH1-500	SE263256.002	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH2-100	SE263256.003	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH2-500	SE263256.004	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH3-100	SE263256.005	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH3-500	SE263256.006	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH4-100	SE263256.007	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH4-500	SE263256.008	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH5-100	SE263256.009	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH5-500	SE263256.010	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH6-100	SE263256.011	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH6-500	SE263256.012	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH7-100	SE263256.013	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 R0

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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)-[ENV]AN002**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH7-500	SE263256.014	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH8-100	SE263256.015	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH8-500	SE263256.016	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH9-100	SE263256.017	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH9-500	SE263256.018	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH10-100	SE263256.019	LB309208	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH10-500	SE263256.020	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH11-100	SE263256.021	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH11-500	SE263256.022	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH12-100	SE263256.023	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH12-500	SE263256.024	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH13-100	SE263256.025	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH13-500	SE263256.026	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH14-100	SE263256.027	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH14-500	SE263256.028	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH15-100	SE263256.029	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH15-500	SE263256.030	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH16-100	SE263256.031	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH16-500	SE263256.032	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH17-100	SE263256.033	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH17-500	SE263256.034	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH18-100	SE263256.035	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH18-500	SE263256.036	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH20-100	SE263256.037	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH20-500	SE263256.038	LB309222	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH21-100	SE263256.039	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH21-500	SE263256.040	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH22-100	SE263256.041	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH22-500	SE263256.042	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH23-100	SE263256.043	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH23-500	SE263256.044	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH24-100	SE263256.045	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH24-500	SE263256.046	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH25-100	SE263256.047	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH25-200	SE263256.048	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH25-500	SE263256.049	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH26-100	SE263256.050	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH26-500	SE263256.051	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH27-100	SE263256.052	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH27-500	SE263256.053	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH28-100	SE263256.054	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH28-500	SE263256.055	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH29-100	SE263256.056	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH29-500	SE263256.057	LB309223	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH30-100	SE263256.058	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH30-500	SE263256.059	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH31-100	SE263256.060	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH31-500	SE263256.061	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH32-100	SE263256.062	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH32-500	SE263256.063	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH33-100	SE263256.064	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH33-1000	SE263256.065	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH33-3000	SE263256.066	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH34-500	SE263256.067	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH34-1000	SE263256.068	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH34-3000	SE263256.069	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH35-500	SE263256.070	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH35-1000	SE263256.071	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH35-3000	SE263256.072	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH36-500	SE263256.073	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 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

Moisture Content (continued) — **Method: ME-(AU)-[ENV]AN002**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH36-1000	SE263256.074	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH36-3000	SE263256.075	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH37-500	SE263256.076	LB309224	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH37-1000	SE263256.077	LB309097	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	14 Apr 2024	11 Apr 2024
BH37-3000	SE263256.078	LB309097	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	14 Apr 2024	11 Apr 2024
BH38-500	SE263256.079	LB309097	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	14 Apr 2024	11 Apr 2024
BH38-1000	SE263256.080	LB309097	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	14 Apr 2024	11 Apr 2024
BH38-3000	SE263256.081	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH39-300	SE263256.082	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH39-800	SE263256.083	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH40-100	SE263256.084	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH40-500	SE263256.085	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH40-1000	SE263256.086	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH40-3000	SE263256.087	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH41-500	SE263256.088	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH41-1000	SE263256.089	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH41-3000	SE263256.090	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH42-100	SE263256.091	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH42-500	SE263256.092	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH43-100	SE263256.093	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH43-500	SE263256.094	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH44-100	SE263256.095	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH44-500	SE263256.096	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH46-100	SE263256.097	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
BH46-500	SE263256.098	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024
DA	SE263256.099	LB309235	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
DB	SE263256.100	LB309235	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
DC	SE263256.101	LB309235	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
DD	SE263256.102	LB309235	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
DE	SE263256.103	LB309235	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	12 Apr 2024
BH36-100	SE263256.104	LB309201	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	15 Apr 2024	11 Apr 2024

OC Pesticides in Soil — **Method: ME-(AU)-[ENV]AN420**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH42-100	SE263256.091	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH42-500	SE263256.092	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH43-100	SE263256.093	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH43-500	SE263256.094	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH44-100	SE263256.095	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH44-500	SE263256.096	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024

PAH (Polynuclear Aromatic Hydrocarbons) in Soil — **Method: ME-(AU)-[ENV]AN420**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1-100	SE263256.001	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH1-500	SE263256.002	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH2-100	SE263256.003	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH2-500	SE263256.004	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH3-100	SE263256.005	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH3-500	SE263256.006	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH4-100	SE263256.007	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH4-500	SE263256.008	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH5-100	SE263256.009	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH5-500	SE263256.010	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH6-100	SE263256.011	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH6-500	SE263256.012	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH7-100	SE263256.013	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH7-500	SE263256.014	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH8-100	SE263256.015	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH8-500	SE263256.016	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH9-100	SE263256.017	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH9-500	SE263256.018	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 R0

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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]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH10-100	SE263256.019	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	16 Apr 2024
BH10-500	SE263256.020	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH11-100	SE263256.021	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH11-500	SE263256.022	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH12-100	SE263256.023	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH12-500	SE263256.024	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH13-100	SE263256.025	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH13-500	SE263256.026	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH14-100	SE263256.027	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH14-500	SE263256.028	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH15-100	SE263256.029	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH15-500	SE263256.030	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH16-100	SE263256.031	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH16-500	SE263256.032	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH17-100	SE263256.033	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH17-500	SE263256.034	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH18-100	SE263256.035	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH18-500	SE263256.036	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH20-100	SE263256.037	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH20-500	SE263256.038	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH21-100	SE263256.039	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH21-500	SE263256.040	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH22-100	SE263256.041	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH22-500	SE263256.042	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH23-100	SE263256.043	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH23-500	SE263256.044	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH24-100	SE263256.045	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH24-500	SE263256.046	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH25-100	SE263256.047	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH25-200	SE263256.048	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH25-500	SE263256.049	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH26-100	SE263256.050	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH26-500	SE263256.051	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH27-100	SE263256.052	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH27-500	SE263256.053	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH28-100	SE263256.054	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH28-500	SE263256.055	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH29-100	SE263256.056	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH29-500	SE263256.057	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH30-100	SE263256.058	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH30-500	SE263256.059	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH31-100	SE263256.060	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH31-500	SE263256.061	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH32-100	SE263256.062	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH32-500	SE263256.063	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH33-100	SE263256.064	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH33-1000	SE263256.065	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH33-3000	SE263256.066	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH34-500	SE263256.067	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH34-1000	SE263256.068	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH34-3000	SE263256.069	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH35-500	SE263256.070	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH35-1000	SE263256.071	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH35-3000	SE263256.072	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH36-500	SE263256.073	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH36-1000	SE263256.074	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH36-3000	SE263256.075	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH37-500	SE263256.076	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH37-1000	SE263256.077	LB309083	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH37-3000	SE263256.078	LB309083	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 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

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued) — **Method: ME-(AU)-[ENV]AN420**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH38-500	SE263256.079	LB309083	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH38-1000	SE263256.080	LB309083	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH38-3000	SE263256.081	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH39-300	SE263256.082	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH39-800	SE263256.083	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH40-100	SE263256.084	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH40-500	SE263256.085	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH40-1000	SE263256.086	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH40-3000	SE263256.087	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH41-500	SE263256.088	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH41-1000	SE263256.089	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH41-3000	SE263256.090	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH42-100	SE263256.091	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH42-500	SE263256.092	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH43-100	SE263256.093	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH43-500	SE263256.094	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH44-100	SE263256.095	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH44-500	SE263256.096	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH46-100	SE263256.097	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH46-500	SE263256.098	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024
BH36-100	SE263256.104	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024

Speciated Phenols in Soil — **Method: ME-(AU)-[ENV]AN420**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH42-100	SE263256.091	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH42-500	SE263256.092	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH43-100	SE263256.093	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH43-500	SE263256.094	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH44-100	SE263256.095	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH44-500	SE263256.096	LB309082	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES — **Method: ME-(AU)-[ENV]AN040/AN320**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1-100	SE263256.001	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH1-500	SE263256.002	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH2-100	SE263256.003	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH2-500	SE263256.004	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH3-100	SE263256.005	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH3-500	SE263256.006	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH4-100	SE263256.007	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH4-500	SE263256.008	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH5-100	SE263256.009	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH5-500	SE263256.010	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH6-100	SE263256.011	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH6-500	SE263256.012	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH7-100	SE263256.013	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH7-500	SE263256.014	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH8-100	SE263256.015	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH8-500	SE263256.016	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH9-100	SE263256.017	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH9-500	SE263256.018	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH10-100	SE263256.019	LB309211	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH10-500	SE263256.020	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH11-100	SE263256.021	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH11-500	SE263256.022	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH12-100	SE263256.023	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH12-500	SE263256.024	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH13-100	SE263256.025	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH13-500	SE263256.026	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH14-100	SE263256.027	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH14-500	SE263256.028	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 R0

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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)-[ENV]AN040/AN320**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH15-100	SE263256.029	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH15-500	SE263256.030	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH16-100	SE263256.031	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH16-500	SE263256.032	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH17-100	SE263256.033	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH17-500	SE263256.034	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH18-100	SE263256.035	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH18-500	SE263256.036	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH20-100	SE263256.037	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH20-500	SE263256.038	LB309226	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH21-100	SE263256.039	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH21-500	SE263256.040	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH22-100	SE263256.041	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH22-500	SE263256.042	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH23-100	SE263256.043	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH23-500	SE263256.044	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH24-100	SE263256.045	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH24-500	SE263256.046	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH25-100	SE263256.047	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH25-200	SE263256.048	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH25-500	SE263256.049	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH26-100	SE263256.050	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH26-500	SE263256.051	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH27-100	SE263256.052	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH27-500	SE263256.053	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH28-100	SE263256.054	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH28-500	SE263256.055	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH29-100	SE263256.056	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH29-500	SE263256.057	LB309227	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH30-100	SE263256.058	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH30-500	SE263256.059	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH31-100	SE263256.060	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH31-500	SE263256.061	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH32-100	SE263256.062	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH32-500	SE263256.063	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH33-100	SE263256.064	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH33-1000	SE263256.065	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH33-3000	SE263256.066	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH34-500	SE263256.067	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH34-1000	SE263256.068	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH34-3000	SE263256.069	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH35-500	SE263256.070	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH35-1000	SE263256.071	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH35-3000	SE263256.072	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH36-500	SE263256.073	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH36-1000	SE263256.074	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH36-3000	SE263256.075	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH37-500	SE263256.076	LB309228	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH37-1000	SE263256.077	LB309102	03 Apr 2024	05 Apr 2024	30 Sep 2024	09 Apr 2024	30 Sep 2024	12 Apr 2024
BH37-3000	SE263256.078	LB309102	03 Apr 2024	05 Apr 2024	30 Sep 2024	09 Apr 2024	30 Sep 2024	12 Apr 2024
BH38-500	SE263256.079	LB309102	03 Apr 2024	05 Apr 2024	30 Sep 2024	09 Apr 2024	30 Sep 2024	12 Apr 2024
BH38-1000	SE263256.080	LB309102	03 Apr 2024	05 Apr 2024	30 Sep 2024	09 Apr 2024	30 Sep 2024	12 Apr 2024
BH38-3000	SE263256.081	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH39-300	SE263256.082	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH39-800	SE263256.083	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH40-100	SE263256.084	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH40-500	SE263256.085	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH40-1000	SE263256.086	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH40-3000	SE263256.087	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH41-500	SE263256.088	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 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

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued) — **Method: ME-(AU)-[ENV]AN040/AN320**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH41-1000	SE263256.089	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH41-3000	SE263256.090	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH42-100	SE263256.091	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH42-500	SE263256.092	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH43-100	SE263256.093	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH43-500	SE263256.094	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH44-100	SE263256.095	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH44-500	SE263256.096	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH46-100	SE263256.097	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH46-500	SE263256.098	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
DA	SE263256.099	LB309231	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
DB	SE263256.100	LB309231	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
DC	SE263256.101	LB309231	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
DD	SE263256.102	LB309231	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
DE	SE263256.103	LB309231	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024
BH36-100	SE263256.104	LB309203	03 Apr 2024	05 Apr 2024	30 Sep 2024	10 Apr 2024	30 Sep 2024	12 Apr 2024

TRH (Total Recoverable Hydrocarbons) in Soil — **Method: ME-(AU)-[ENV]AN403**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1-100	SE263256.001	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH1-500	SE263256.002	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH2-100	SE263256.003	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH2-500	SE263256.004	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH3-100	SE263256.005	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH3-500	SE263256.006	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH4-100	SE263256.007	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH4-500	SE263256.008	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH5-100	SE263256.009	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH5-500	SE263256.010	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH6-100	SE263256.011	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH6-500	SE263256.012	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH7-100	SE263256.013	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH7-500	SE263256.014	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH8-100	SE263256.015	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH8-500	SE263256.016	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH9-100	SE263256.017	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH9-500	SE263256.018	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH10-100	SE263256.019	LB309049	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH10-500	SE263256.020	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH11-100	SE263256.021	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH11-500	SE263256.022	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH12-100	SE263256.023	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH12-500	SE263256.024	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH13-100	SE263256.025	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH13-500	SE263256.026	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH14-100	SE263256.027	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH14-500	SE263256.028	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH15-100	SE263256.029	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH15-500	SE263256.030	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH16-100	SE263256.031	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH16-500	SE263256.032	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH17-100	SE263256.033	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH17-500	SE263256.034	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH18-100	SE263256.035	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH18-500	SE263256.036	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH20-100	SE263256.037	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH20-500	SE263256.038	LB309050	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH21-100	SE263256.039	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH21-500	SE263256.040	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH22-100	SE263256.041	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 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

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
BH22-500	SE263256.042	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH23-100	SE263256.043	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH23-500	SE263256.044	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH24-100	SE263256.045	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH24-500	SE263256.046	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH25-100	SE263256.047	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH25-200	SE263256.048	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH25-500	SE263256.049	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH26-100	SE263256.050	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH26-500	SE263256.051	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH27-100	SE263256.052	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH27-500	SE263256.053	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH28-100	SE263256.054	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH28-500	SE263256.055	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH29-100	SE263256.056	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH29-500	SE263256.057	LB309051	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH30-100	SE263256.058	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH30-500	SE263256.059	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH31-100	SE263256.060	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH31-500	SE263256.061	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH32-100	SE263256.062	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH32-500	SE263256.063	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH33-100	SE263256.064	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH33-1000	SE263256.065	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH33-3000	SE263256.066	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH34-500	SE263256.067	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH34-1000	SE263256.068	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH34-3000	SE263256.069	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH35-500	SE263256.070	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH35-1000	SE263256.071	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH35-3000	SE263256.072	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH36-500	SE263256.073	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH36-1000	SE263256.074	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH36-3000	SE263256.075	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH37-500	SE263256.076	LB309052	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH37-1000	SE263256.077	LB309083	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	11 Apr 2024
BH37-3000	SE263256.078	LB309083	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	11 Apr 2024
BH38-500	SE263256.079	LB309083	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	11 Apr 2024
BH38-1000	SE263256.080	LB309083	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	11 Apr 2024
BH38-3000	SE263256.081	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH39-300	SE263256.082	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH39-800	SE263256.083	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH40-100	SE263256.084	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH40-500	SE263256.085	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH40-1000	SE263256.086	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH40-3000	SE263256.087	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH41-500	SE263256.088	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH41-1000	SE263256.089	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH41-3000	SE263256.090	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH42-100	SE263256.091	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH42-500	SE263256.092	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH43-100	SE263256.093	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH43-500	SE263256.094	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH44-100	SE263256.095	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH44-500	SE263256.096	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH46-100	SE263256.097	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH46-500	SE263256.098	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	12 Apr 2024
BH36-100	SE263256.104	LB309084	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	19 May 2024	15 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 R0

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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 — **Method: ME-(AU)-[ENV]AN433**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1-100	SE263256.001	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH1-500	SE263256.002	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH2-100	SE263256.003	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH2-500	SE263256.004	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH3-100	SE263256.005	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH3-500	SE263256.006	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH4-100	SE263256.007	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH4-500	SE263256.008	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH5-100	SE263256.009	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH5-500	SE263256.010	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH6-100	SE263256.011	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH6-500	SE263256.012	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH7-100	SE263256.013	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH7-500	SE263256.014	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH8-100	SE263256.015	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH8-500	SE263256.016	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH9-100	SE263256.017	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH9-500	SE263256.018	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH10-100	SE263256.019	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH10-500	SE263256.020	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH11-100	SE263256.021	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH11-500	SE263256.022	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH12-100	SE263256.023	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH12-500	SE263256.024	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH13-100	SE263256.025	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH13-500	SE263256.026	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH14-100	SE263256.027	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH14-500	SE263256.028	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH15-100	SE263256.029	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH15-500	SE263256.030	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH16-100	SE263256.031	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH16-500	SE263256.032	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH17-100	SE263256.033	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH17-500	SE263256.034	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH18-100	SE263256.035	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH18-500	SE263256.036	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH20-100	SE263256.037	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH20-500	SE263256.038	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH21-100	SE263256.039	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH21-500	SE263256.040	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH22-100	SE263256.041	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH22-500	SE263256.042	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH23-100	SE263256.043	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH23-500	SE263256.044	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH24-100	SE263256.045	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH24-500	SE263256.046	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH25-100	SE263256.047	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH25-200	SE263256.048	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH25-500	SE263256.049	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH26-100	SE263256.050	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH26-500	SE263256.051	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH27-100	SE263256.052	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH27-500	SE263256.053	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH28-100	SE263256.054	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH28-500	SE263256.055	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH29-100	SE263256.056	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH29-500	SE263256.057	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH30-100	SE263256.058	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH30-500	SE263256.059	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH31-100	SE263256.060	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 R0

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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
BH31-500	SE263256.061	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH32-100	SE263256.062	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH32-500	SE263256.063	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH33-100	SE263256.064	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH33-1000	SE263256.065	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH33-3000	SE263256.066	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH34-500	SE263256.067	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH34-1000	SE263256.068	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH34-3000	SE263256.069	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH35-500	SE263256.070	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH35-1000	SE263256.071	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH35-3000	SE263256.072	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH36-500	SE263256.073	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH36-1000	SE263256.074	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH36-3000	SE263256.075	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH37-500	SE263256.076	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH37-1000	SE263256.077	LB309092	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	17 Apr 2024	15 Apr 2024
BH37-3000	SE263256.078	LB309092	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	17 Apr 2024	15 Apr 2024
BH38-500	SE263256.079	LB309092	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	17 Apr 2024	15 Apr 2024
BH38-1000	SE263256.080	LB309092	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	17 Apr 2024	15 Apr 2024
BH38-3000	SE263256.081	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH39-300	SE263256.082	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH39-800	SE263256.083	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH40-100	SE263256.084	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH40-500	SE263256.085	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH40-1000	SE263256.086	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH40-3000	SE263256.087	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH41-500	SE263256.088	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH41-1000	SE263256.089	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH41-3000	SE263256.090	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH42-100	SE263256.091	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH42-500	SE263256.092	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH43-100	SE263256.093	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH43-500	SE263256.094	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH44-100	SE263256.095	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH44-500	SE263256.096	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH46-100	SE263256.097	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH46-500	SE263256.098	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH36-100	SE263256.104	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024

Volatile Petroleum Hydrocarbons in Soil — **Method: ME-(AU)-[ENV]AN433**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1-100	SE263256.001	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH1-500	SE263256.002	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH2-100	SE263256.003	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH2-500	SE263256.004	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH3-100	SE263256.005	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH3-500	SE263256.006	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH4-100	SE263256.007	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH4-500	SE263256.008	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH5-100	SE263256.009	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH5-500	SE263256.010	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH6-100	SE263256.011	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH6-500	SE263256.012	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH7-100	SE263256.013	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH7-500	SE263256.014	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH8-100	SE263256.015	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH8-500	SE263256.016	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH9-100	SE263256.017	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH9-500	SE263256.018	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 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)-[ENV]AN433**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH10-100	SE263256.019	LB309198	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH10-500	SE263256.020	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH11-100	SE263256.021	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH11-500	SE263256.022	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH12-100	SE263256.023	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH12-500	SE263256.024	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH13-100	SE263256.025	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH13-500	SE263256.026	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH14-100	SE263256.027	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH14-500	SE263256.028	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH15-100	SE263256.029	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH15-500	SE263256.030	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH16-100	SE263256.031	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH16-500	SE263256.032	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH17-100	SE263256.033	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH17-500	SE263256.034	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH18-100	SE263256.035	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH18-500	SE263256.036	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH20-100	SE263256.037	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH20-500	SE263256.038	LB309217	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH21-100	SE263256.039	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH21-500	SE263256.040	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH22-100	SE263256.041	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH22-500	SE263256.042	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH23-100	SE263256.043	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH23-500	SE263256.044	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH24-100	SE263256.045	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH24-500	SE263256.046	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH25-100	SE263256.047	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH25-200	SE263256.048	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH25-500	SE263256.049	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH26-100	SE263256.050	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH26-500	SE263256.051	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH27-100	SE263256.052	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH27-500	SE263256.053	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH28-100	SE263256.054	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH28-500	SE263256.055	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH29-100	SE263256.056	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH29-500	SE263256.057	LB309219	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH30-100	SE263256.058	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH30-500	SE263256.059	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH31-100	SE263256.060	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH31-500	SE263256.061	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH32-100	SE263256.062	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH32-500	SE263256.063	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH33-100	SE263256.064	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH33-1000	SE263256.065	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH33-3000	SE263256.066	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH34-500	SE263256.067	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH34-1000	SE263256.068	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH34-3000	SE263256.069	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH35-500	SE263256.070	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH35-1000	SE263256.071	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH35-3000	SE263256.072	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH36-500	SE263256.073	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH36-1000	SE263256.074	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH36-3000	SE263256.075	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH37-500	SE263256.076	LB309221	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH37-1000	SE263256.077	LB309092	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	17 Apr 2024	15 Apr 2024
BH37-3000	SE263256.078	LB309092	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	17 Apr 2024	15 Apr 2024

SGS

HOLDING TIME SUMMARY

SE263256 R0

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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)-[ENV]AN433**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH38-500	SE263256.079	LB309092	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	17 Apr 2024	15 Apr 2024
BH38-1000	SE263256.080	LB309092	03 Apr 2024	05 Apr 2024	17 Apr 2024	09 Apr 2024	17 Apr 2024	15 Apr 2024
BH38-3000	SE263256.081	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH39-300	SE263256.082	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH39-800	SE263256.083	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH40-100	SE263256.084	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH40-500	SE263256.085	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH40-1000	SE263256.086	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH40-3000	SE263256.087	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH41-500	SE263256.088	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH41-1000	SE263256.089	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH41-3000	SE263256.090	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH42-100	SE263256.091	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH42-500	SE263256.092	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH43-100	SE263256.093	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH43-500	SE263256.094	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH44-100	SE263256.095	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH44-500	SE263256.096	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH46-100	SE263256.097	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH46-500	SE263256.098	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024
BH36-100	SE263256.104	LB309199	03 Apr 2024	05 Apr 2024	17 Apr 2024	10 Apr 2024	17 Apr 2024	15 Apr 2024

SGS

SURROGATES

SE263256 R0

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 identifer 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)	BH42-100	SE263256.091	%	60 - 130%	95
	BH42-500	SE263256.092	%	60 - 130%	91
	BH43-100	SE263256.093	%	60 - 130%	93
	BH43-500	SE263256.094	%	60 - 130%	95
	BH44-100	SE263256.095	%	60 - 130%	97
	BH44-500	SE263256.096	%	60 - 130%	97

PAH (Polynuclear Aromatic Hydrocarbons) in Soil — Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH1-100	SE263256.001	%	70 - 130%	83
	BH1-500	SE263256.002	%	70 - 130%	82
	BH2-100	SE263256.003	%	70 - 130%	77
	BH2-500	SE263256.004	%	70 - 130%	79
	BH3-100	SE263256.005	%	70 - 130%	101
	BH3-500	SE263256.006	%	70 - 130%	79
	BH4-100	SE263256.007	%	70 - 130%	78
	BH4-500	SE263256.008	%	70 - 130%	77
	BH5-100	SE263256.009	%	70 - 130%	76
	BH5-500	SE263256.010	%	70 - 130%	73
	BH6-100	SE263256.011	%	70 - 130%	76
	BH6-500	SE263256.012	%	70 - 130%	74
	BH7-100	SE263256.013	%	70 - 130%	84
	BH7-500	SE263256.014	%	70 - 130%	79
	BH8-100	SE263256.015	%	70 - 130%	97
	BH8-500	SE263256.016	%	70 - 130%	76
	BH9-100	SE263256.017	%	70 - 130%	82
	BH9-500	SE263256.018	%	70 - 130%	74
	BH10-100	SE263256.019	%	70 - 130%	100
	BH10-500	SE263256.020	%	70 - 130%	98
	BH11-100	SE263256.021	%	70 - 130%	101
	BH11-500	SE263256.022	%	70 - 130%	100
	BH12-100	SE263256.023	%	70 - 130%	103
	BH12-500	SE263256.024	%	70 - 130%	83
	BH13-100	SE263256.025	%	70 - 130%	102
	BH13-500	SE263256.026	%	70 - 130%	96
	BH14-100	SE263256.027	%	70 - 130%	99
	BH14-500	SE263256.028	%	70 - 130%	98
	BH15-100	SE263256.029	%	70 - 130%	99
	BH15-500	SE263256.030	%	70 - 130%	82
	BH16-100	SE263256.031	%	70 - 130%	97
	BH16-500	SE263256.032	%	70 - 130%	100
	BH17-100	SE263256.033	%	70 - 130%	103
	BH17-500	SE263256.034	%	70 - 130%	82
	BH18-100	SE263256.035	%	70 - 130%	99
	BH18-500	SE263256.036	%	70 - 130%	99
	BH20-100	SE263256.037	%	70 - 130%	102
	BH20-500	SE263256.038	%	70 - 130%	99
	BH21-100	SE263256.039	%	70 - 130%	106
	BH21-500	SE263256.040	%	70 - 130%	98
	BH22-100	SE263256.041	%	70 - 130%	104
	BH22-500	SE263256.042	%	70 - 130%	96
	BH23-100	SE263256.043	%	70 - 130%	105
	BH23-500	SE263256.044	%	70 - 130%	96
	BH24-100	SE263256.045	%	70 - 130%	109
	BH24-500	SE263256.046	%	70 - 130%	106
	BH25-100	SE263256.047	%	70 - 130%	102
	BH25-200	SE263256.048	%	70 - 130%	85
	BH25-500	SE263256.049	%	70 - 130%	98
	BH26-100	SE263256.050	%	70 - 130%	103
	BH26-500	SE263256.051	%	70 - 130%	101
	BH27-100	SE263256.052	%	70 - 130%	100

SURROGATES SE263256 R0

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 identifer 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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH27-500	SE263256.053	%	70 - 130%	93
	BH28-100	SE263256.054	%	70 - 130%	101
	BH28-500	SE263256.055	%	70 - 130%	98
	BH29-100	SE263256.056	%	70 - 130%	96
	BH29-500	SE263256.057	%	70 - 130%	98
	BH30-100	SE263256.058	%	70 - 130%	99
	BH30-500	SE263256.059	%	70 - 130%	100
	BH31-100	SE263256.060	%	70 - 130%	101
	BH31-500	SE263256.061	%	70 - 130%	99
	BH32-100	SE263256.062	%	70 - 130%	100
	BH32-500	SE263256.063	%	70 - 130%	107
	BH33-100	SE263256.064	%	70 - 130%	94
	BH33-1000	SE263256.065	%	70 - 130%	99
	BH33-3000	SE263256.066	%	70 - 130%	102
	BH34-500	SE263256.067	%	70 - 130%	89
	BH34-1000	SE263256.068	%	70 - 130%	97
	BH34-3000	SE263256.069	%	70 - 130%	96
	BH35-500	SE263256.070	%	70 - 130%	109
	BH35-1000	SE263256.071	%	70 - 130%	96
	BH35-3000	SE263256.072	%	70 - 130%	108
	BH36-500	SE263256.073	%	70 - 130%	105
	BH36-1000	SE263256.074	%	70 - 130%	91
	BH36-3000	SE263256.075	%	70 - 130%	105
	BH37-500	SE263256.076	%	70 - 130%	100
	BH37-1000	SE263256.077	%	70 - 130%	103
	BH37-3000	SE263256.078	%	70 - 130%	103
	BH38-500	SE263256.079	%	70 - 130%	100
	BH38-1000	SE263256.080	%	70 - 130%	98
	BH38-3000	SE263256.081	%	70 - 130%	101
	BH39-300	SE263256.082	%	70 - 130%	105
	BH39-800	SE263256.083	%	70 - 130%	106
	BH40-100	SE263256.084	%	70 - 130%	107
	BH40-500	SE263256.085	%	70 - 130%	104
	BH40-1000	SE263256.086	%	70 - 130%	108
	BH40-3000	SE263256.087	%	70 - 130%	105
	BH41-500	SE263256.088	%	70 - 130%	106
	BH41-1000	SE263256.089	%	70 - 130%	107
	BH41-3000	SE263256.090	%	70 - 130%	104
	BH42-100	SE263256.091	%	70 - 130%	107
	BH42-500	SE263256.092	%	70 - 130%	107
	BH43-100	SE263256.093	%	70 - 130%	104
	BH43-500	SE263256.094	%	70 - 130%	112
	BH44-100	SE263256.095	%	70 - 130%	102
	BH44-500	SE263256.096	%	70 - 130%	101
	BH46-100	SE263256.097	%	70 - 130%	103
	BH46-500	SE263256.098	%	70 - 130%	104
	BH36-100	SE263256.104	%	70 - 130%	102
d14-p-terphenyl (Surrogate)	BH1-100	SE263256.001	%	70 - 130%	119
	BH1-500	SE263256.002	%	70 - 130%	115
	BH2-100	SE263256.003	%	70 - 130%	111
	BH2-500	SE263256.004	%	70 - 130%	117
	BH3-100	SE263256.005	%	70 - 130%	121
	BH3-500	SE263256.006	%	70 - 130%	115
	BH4-100	SE263256.007	%	70 - 130%	116
	BH4-500	SE263256.008	%	70 - 130%	116
	BH5-100	SE263256.009	%	70 - 130%	120
	BH5-500	SE263256.010	%	70 - 130%	117
	BH6-100	SE263256.011	%	70 - 130%	116
	BH6-500	SE263256.012	%	70 - 130%	114
	BH7-100	SE263256.013	%	70 - 130%	121
	BH7-500	SE263256.014	%	70 - 130%	125

SURROGATES SE263256 R0

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 identifer 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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d14-p-terphenyl (Surrogate)	BH8-100	SE263256.015	%	70 - 130%	114
	BH8-500	SE263256.016	%	70 - 130%	118
	BH9-100	SE263256.017	%	70 - 130%	119
	BH9-500	SE263256.018	%	70 - 130%	114
	BH10-100	SE263256.019	%	70 - 130%	121
	BH10-500	SE263256.020	%	70 - 130%	108
	BH11-100	SE263256.021	%	70 - 130%	123
	BH11-500	SE263256.022	%	70 - 130%	114
	BH12-100	SE263256.023	%	70 - 130%	118
	BH12-500	SE263256.024	%	70 - 130%	115
	BH13-100	SE263256.025	%	70 - 130%	113
	BH13-500	SE263256.026	%	70 - 130%	110
	BH14-100	SE263256.027	%	70 - 130%	112
	BH14-500	SE263256.028	%	70 - 130%	107
	BH15-100	SE263256.029	%	70 - 130%	118
	BH15-500	SE263256.030	%	70 - 130%	114
	BH16-100	SE263256.031	%	70 - 130%	114
	BH16-500	SE263256.032	%	70 - 130%	118
	BH17-100	SE263256.033	%	70 - 130%	121
	BH17-500	SE263256.034	%	70 - 130%	115
	BH18-100	SE263256.035	%	70 - 130%	117
	BH18-500	SE263256.036	%	70 - 130%	117
	BH20-100	SE263256.037	%	70 - 130%	115
	BH20-500	SE263256.038	%	70 - 130%	112
	BH21-100	SE263256.039	%	70 - 130%	104
	BH21-500	SE263256.040	%	70 - 130%	111
	BH22-100	SE263256.041	%	70 - 130%	108
	BH22-500	SE263256.042	%	70 - 130%	98
	BH23-100	SE263256.043	%	70 - 130%	106
	BH23-500	SE263256.044	%	70 - 130%	101
	BH24-100	SE263256.045	%	70 - 130%	105
	BH24-500	SE263256.046	%	70 - 130%	107
	BH25-100	SE263256.047	%	70 - 130%	102
	BH25-200	SE263256.048	%	70 - 130%	40 ⓘ
	BH25-500	SE263256.049	%	70 - 130%	109
	BH26-100	SE263256.050	%	70 - 130%	100
	BH26-500	SE263256.051	%	70 - 130%	108
	BH27-100	SE263256.052	%	70 - 130%	106
	BH27-500	SE263256.053	%	70 - 130%	100
	BH28-100	SE263256.054	%	70 - 130%	103
	BH28-500	SE263256.055	%	70 - 130%	101
	BH29-100	SE263256.056	%	70 - 130%	104
	BH29-500	SE263256.057	%	70 - 130%	104
	BH30-100	SE263256.058	%	70 - 130%	103
	BH30-500	SE263256.059	%	70 - 130%	98
	BH31-100	SE263256.060	%	70 - 130%	101
	BH31-500	SE263256.061	%	70 - 130%	99
	BH32-100	SE263256.062	%	70 - 130%	106
	BH32-500	SE263256.063	%	70 - 130%	110
	BH33-100	SE263256.064	%	70 - 130%	95
	BH33-1000	SE263256.065	%	70 - 130%	100
	BH33-3000	SE263256.066	%	70 - 130%	101
	BH34-500	SE263256.067	%	70 - 130%	95
	BH34-1000	SE263256.068	%	70 - 130%	97
	BH34-3000	SE263256.069	%	70 - 130%	93
	BH35-500	SE263256.070	%	70 - 130%	105
	BH35-1000	SE263256.071	%	70 - 130%	93
	BH35-3000	SE263256.072	%	70 - 130%	108
	BH36-500	SE263256.073	%	70 - 130%	98
	BH36-1000	SE263256.074	%	70 - 130%	96
	BH36-3000	SE263256.075	%	70 - 130%	101

SURROGATES SE263256 R0

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 identifer 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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d14-p-terphenyl (Surrogate)	BH37-500	SE263256.076	%	70 - 130%	99
	BH37-1000	SE263256.077	%	70 - 130%	103
	BH37-3000	SE263256.078	%	70 - 130%	113
	BH38-500	SE263256.079	%	70 - 130%	109
	BH38-1000	SE263256.080	%	70 - 130%	108
	BH38-3000	SE263256.081	%	70 - 130%	99
	BH39-300	SE263256.082	%	70 - 130%	109
	BH39-800	SE263256.083	%	70 - 130%	109
	BH40-100	SE263256.084	%	70 - 130%	111
	BH40-500	SE263256.085	%	70 - 130%	103
	BH40-1000	SE263256.086	%	70 - 130%	106
	BH40-3000	SE263256.087	%	70 - 130%	102
	BH41-500	SE263256.088	%	70 - 130%	108
	BH41-1000	SE263256.089	%	70 - 130%	107
	BH41-3000	SE263256.090	%	70 - 130%	105
	BH42-100	SE263256.091	%	70 - 130%	107
	BH42-500	SE263256.092	%	70 - 130%	105
	BH43-100	SE263256.093	%	70 - 130%	108
	BH43-500	SE263256.094	%	70 - 130%	106
	BH44-100	SE263256.095	%	70 - 130%	103
	BH44-500	SE263256.096	%	70 - 130%	104
	BH46-100	SE263256.097	%	70 - 130%	101
	BH46-500	SE263256.098	%	70 - 130%	97
	BH36-100	SE263256.104	%	70 - 130%	108
d5-nitrobenzene (Surrogate)	BH1-100	SE263256.001	%	70 - 130%	108
	BH1-500	SE263256.002	%	70 - 130%	108
	BH2-100	SE263256.003	%	70 - 130%	105
	BH2-500	SE263256.004	%	70 - 130%	107
	BH3-100	SE263256.005	%	70 - 130%	105
	BH3-500	SE263256.006	%	70 - 130%	103
	BH4-100	SE263256.007	%	70 - 130%	104
	BH4-500	SE263256.008	%	70 - 130%	106
	BH5-100	SE263256.009	%	70 - 130%	102
	BH5-500	SE263256.010	%	70 - 130%	100
	BH6-100	SE263256.011	%	70 - 130%	105
	BH6-500	SE263256.012	%	70 - 130%	103
	BH7-100	SE263256.013	%	70 - 130%	113
	BH7-500	SE263256.014	%	70 - 130%	114
	BH8-100	SE263256.015	%	70 - 130%	102
	BH8-500	SE263256.016	%	70 - 130%	107
	BH9-100	SE263256.017	%	70 - 130%	104
	BH9-500	SE263256.018	%	70 - 130%	101
	BH10-100	SE263256.019	%	70 - 130%	106
	BH10-500	SE263256.020	%	70 - 130%	96
	BH11-100	SE263256.021	%	70 - 130%	93
	BH11-500	SE263256.022	%	70 - 130%	104
	BH12-100	SE263256.023	%	70 - 130%	108
	BH12-500	SE263256.024	%	70 - 130%	105
	BH13-100	SE263256.025	%	70 - 130%	104
	BH13-500	SE263256.026	%	70 - 130%	99
	BH14-100	SE263256.027	%	70 - 130%	99
	BH14-500	SE263256.028	%	70 - 130%	95
	BH15-100	SE263256.029	%	70 - 130%	99
	BH15-500	SE263256.030	%	70 - 130%	100
	BH16-100	SE263256.031	%	70 - 130%	96
	BH16-500	SE263256.032	%	70 - 130%	104
	BH17-100	SE263256.033	%	70 - 130%	109
	BH17-500	SE263256.034	%	70 - 130%	102
	BH18-100	SE263256.035	%	70 - 130%	101
	BH18-500	SE263256.036	%	70 - 130%	107
	BH20-100	SE263256.037	%	70 - 130%	104

SGS

SURROGATES

SE263256 R0

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 identifer 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**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d5-nitrobenzene (Surrogate)	BH20-500	SE263256.038	%	70 - 130%	101
	BH21-100	SE263256.039	%	70 - 130%	94
	BH21-500	SE263256.040	%	70 - 130%	99
	BH22-100	SE263256.041	%	70 - 130%	99
	BH22-500	SE263256.042	%	70 - 130%	98
	BH23-100	SE263256.043	%	70 - 130%	101
	BH23-500	SE263256.044	%	70 - 130%	93
	BH24-100	SE263256.045	%	70 - 130%	101
	BH24-500	SE263256.046	%	70 - 130%	100
	BH25-100	SE263256.047	%	70 - 130%	98
	BH25-200	SE263256.048	%	70 - 130%	89
	BH25-500	SE263256.049	%	70 - 130%	101
	BH26-100	SE263256.050	%	70 - 130%	98
	BH26-500	SE263256.051	%	70 - 130%	98
	BH27-100	SE263256.052	%	70 - 130%	97
	BH27-500	SE263256.053	%	70 - 130%	93
	BH28-100	SE263256.054	%	70 - 130%	99
	BH28-500	SE263256.055	%	70 - 130%	99
	BH29-100	SE263256.056	%	70 - 130%	101
	BH29-500	SE263256.057	%	70 - 130%	101
	BH30-100	SE263256.058	%	70 - 130%	105
	BH30-500	SE263256.059	%	70 - 130%	104
	BH31-100	SE263256.060	%	70 - 130%	106
	BH31-500	SE263256.061	%	70 - 130%	101
	BH32-100	SE263256.062	%	70 - 130%	112
	BH32-500	SE263256.063	%	70 - 130%	118
	BH33-100	SE263256.064	%	70 - 130%	100
	BH33-1000	SE263256.065	%	70 - 130%	111
	BH33-3000	SE263256.066	%	70 - 130%	111
	BH34-500	SE263256.067	%	70 - 130%	106
	BH34-1000	SE263256.068	%	70 - 130%	102
	BH34-3000	SE263256.069	%	70 - 130%	104
	BH35-500	SE263256.070	%	70 - 130%	107
	BH35-1000	SE263256.071	%	70 - 130%	95
	BH35-3000	SE263256.072	%	70 - 130%	112
	BH36-500	SE263256.073	%	70 - 130%	105
	BH36-1000	SE263256.074	%	70 - 130%	107
	BH36-3000	SE263256.075	%	70 - 130%	107
	BH37-500	SE263256.076	%	70 - 130%	104
	BH37-1000	SE263256.077	%	70 - 130%	112
	BH37-3000	SE263256.078	%	70 - 130%	122
	BH38-500	SE263256.079	%	70 - 130%	110
	BH38-1000	SE263256.080	%	70 - 130%	118
	BH38-3000	SE263256.081	%	70 - 130%	112
	BH39-300	SE263256.082	%	70 - 130%	118
	BH39-800	SE263256.083	%	70 - 130%	113
	BH40-100	SE263256.084	%	70 - 130%	117
	BH40-500	SE263256.085	%	70 - 130%	114
	BH40-1000	SE263256.086	%	70 - 130%	116
	BH40-3000	SE263256.087	%	70 - 130%	116
	BH41-500	SE263256.088	%	70 - 130%	118
	BH41-1000	SE263256.089	%	70 - 130%	116
	BH41-3000	SE263256.090	%	70 - 130%	112
	BH42-100	SE263256.091	%	70 - 130%	119
	BH42-500	SE263256.092	%	70 - 130%	114
	BH43-100	SE263256.093	%	70 - 130%	118
	BH43-500	SE263256.094	%	70 - 130%	121
	BH44-100	SE263256.095	%	70 - 130%	114
	BH44-500	SE263256.096	%	70 - 130%	112
	BH46-100	SE263256.097	%	70 - 130%	113
	BH46-500	SE263256.098	%	70 - 130%	116

SGS

SURROGATES

SE263256 R0

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 identifer 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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d5-nitrobenzene (Surrogate)	BH36-100	SE263256.104	%	70 - 130%	118

Speciated Phenols in Soil — Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2,4,6-Tribromophenol (Surrogate)	BH42-100	SE263256.091	%	70 - 130%	83
	BH42-500	SE263256.092	%	70 - 130%	75
	BH43-100	SE263256.093	%	70 - 130%	75
	BH43-500	SE263256.094	%	70 - 130%	32 ⊖
	BH44-100	SE263256.095	%	70 - 130%	83
	BH44-500	SE263256.096	%	70 - 130%	66 ⊖
d5-phenol (Surrogate)	BH42-100	SE263256.091	%	50 - 130%	110
	BH42-500	SE263256.092	%	50 - 130%	88
	BH43-100	SE263256.093	%	50 - 130%	111
	BH43-500	SE263256.094	%	50 - 130%	52
	BH44-100	SE263256.095	%	50 - 130%	117
	BH44-500	SE263256.096	%	50 - 130%	102

VOC's in Soil — Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1-100	SE263256.001	%	60 - 130%	73
	BH1-500	SE263256.002	%	60 - 130%	92
	BH2-100	SE263256.003	%	60 - 130%	94
	BH2-500	SE263256.004	%	60 - 130%	81
	BH3-100	SE263256.005	%	60 - 130%	84
	BH3-500	SE263256.006	%	60 - 130%	85
	BH4-100	SE263256.007	%	60 - 130%	82
	BH4-500	SE263256.008	%	60 - 130%	79
	BH5-100	SE263256.009	%	60 - 130%	83
	BH5-500	SE263256.010	%	60 - 130%	83
	BH6-100	SE263256.011	%	60 - 130%	82
	BH6-500	SE263256.012	%	60 - 130%	90
	BH7-100	SE263256.013	%	60 - 130%	81
	BH7-500	SE263256.014	%	60 - 130%	78
	BH8-100	SE263256.015	%	60 - 130%	88
	BH8-500	SE263256.016	%	60 - 130%	77
	BH9-100	SE263256.017	%	60 - 130%	82
	BH9-500	SE263256.018	%	60 - 130%	93
	BH10-100	SE263256.019	%	60 - 130%	99
	BH10-500	SE263256.020	%	60 - 130%	78
	BH11-100	SE263256.021	%	60 - 130%	94
	BH11-500	SE263256.022	%	60 - 130%	86
	BH12-100	SE263256.023	%	60 - 130%	91
	BH12-500	SE263256.024	%	60 - 130%	86
	BH13-100	SE263256.025	%	60 - 130%	78
	BH13-500	SE263256.026	%	60 - 130%	80
	BH14-100	SE263256.027	%	60 - 130%	89
	BH14-500	SE263256.028	%	60 - 130%	82
	BH15-100	SE263256.029	%	60 - 130%	78
	BH15-500	SE263256.030	%	60 - 130%	76
	BH16-100	SE263256.031	%	60 - 130%	74
	BH16-500	SE263256.032	%	60 - 130%	88
	BH17-100	SE263256.033	%	60 - 130%	78
	BH17-500	SE263256.034	%	60 - 130%	80
	BH18-100	SE263256.035	%	60 - 130%	81
	BH18-500	SE263256.036	%	60 - 130%	87
	BH20-100	SE263256.037	%	60 - 130%	79
	BH20-500	SE263256.038	%	60 - 130%	76
	BH21-100	SE263256.039	%	60 - 130%	95
	BH21-500	SE263256.040	%	60 - 130%	97
	BH22-100	SE263256.041	%	60 - 130%	74
	BH22-500	SE263256.042	%	60 - 130%	97
	BH23-100	SE263256.043	%	60 - 130%	83

SURROGATES SE263256 R0

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 identifer 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 %
Bromofluorobenzene (Surrogate)	BH23-500	SE263256.044	%	60 - 130%	74
	BH24-100	SE263256.045	%	60 - 130%	89
	BH24-500	SE263256.046	%	60 - 130%	82
	BH25-100	SE263256.047	%	60 - 130%	79
	BH25-200	SE263256.048	%	60 - 130%	73
	BH25-500	SE263256.049	%	60 - 130%	94
	BH26-100	SE263256.050	%	60 - 130%	92
	BH26-500	SE263256.051	%	60 - 130%	85
	BH27-100	SE263256.052	%	60 - 130%	89
	BH27-500	SE263256.053	%	60 - 130%	89
	BH28-100	SE263256.054	%	60 - 130%	83
	BH28-500	SE263256.055	%	60 - 130%	83
	BH29-100	SE263256.056	%	60 - 130%	81
	BH29-500	SE263256.057	%	60 - 130%	77
	BH30-100	SE263256.058	%	60 - 130%	95
	BH30-500	SE263256.059	%	60 - 130%	95
	BH31-100	SE263256.060	%	60 - 130%	98
	BH31-500	SE263256.061	%	60 - 130%	94
	BH32-100	SE263256.062	%	60 - 130%	99
	BH32-500	SE263256.063	%	60 - 130%	89
	BH33-100	SE263256.064	%	60 - 130%	89
	BH33-1000	SE263256.065	%	60 - 130%	98
	BH33-3000	SE263256.066	%	60 - 130%	92
	BH34-500	SE263256.067	%	60 - 130%	97
	BH34-1000	SE263256.068	%	60 - 130%	91
	BH34-3000	SE263256.069	%	60 - 130%	88
	BH35-500	SE263256.070	%	60 - 130%	91
	BH35-1000	SE263256.071	%	60 - 130%	100
	BH35-3000	SE263256.072	%	60 - 130%	80
	BH36-500	SE263256.073	%	60 - 130%	95
	BH36-1000	SE263256.074	%	60 - 130%	89
	BH36-3000	SE263256.075	%	60 - 130%	90
	BH37-500	SE263256.076	%	60 - 130%	80
	BH37-1000	SE263256.077	%	60 - 130%	91
	BH37-3000	SE263256.078	%	60 - 130%	77
	BH38-500	SE263256.079	%	60 - 130%	83
	BH38-1000	SE263256.080	%	60 - 130%	84
	BH38-3000	SE263256.081	%	60 - 130%	93
	BH39-300	SE263256.082	%	60 - 130%	92
	BH39-800	SE263256.083	%	60 - 130%	96
	BH40-100	SE263256.084	%	60 - 130%	103
	BH40-500	SE263256.085	%	60 - 130%	96
	BH40-1000	SE263256.086	%	60 - 130%	91
	BH40-3000	SE263256.087	%	60 - 130%	91
	BH41-500	SE263256.088	%	60 - 130%	93
	BH41-1000	SE263256.089	%	60 - 130%	97
	BH41-3000	SE263256.090	%	60 - 130%	99
	BH42-100	SE263256.091	%	60 - 130%	97
	BH42-500	SE263256.092	%	60 - 130%	94
	BH43-100	SE263256.093	%	60 - 130%	82
	BH43-500	SE263256.094	%	60 - 130%	95
	BH44-100	SE263256.095	%	60 - 130%	96
	BH44-500	SE263256.096	%	60 - 130%	95
	BH46-100	SE263256.097	%	60 - 130%	92
	BH46-500	SE263256.098	%	60 - 130%	98
	BH36-100	SE263256.104	%	60 - 130%	97
d4-1,2-dichloroethane (Surrogate)	BH1-100	SE263256.001	%	60 - 130%	70
	BH1-500	SE263256.002	%	60 - 130%	95
	BH2-100	SE263256.003	%	60 - 130%	97
	BH2-500	SE263256.004	%	60 - 130%	91
	BH3-100	SE263256.005	%	60 - 130%	92

SGS

SURROGATES

SE263256 R0

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 identifer 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 %
d4-1,2-dichloroethane (Surrogate)	BH3-500	SE263256.006	%	60 - 130%	90
	BH4-100	SE263256.007	%	60 - 130%	90
	BH4-500	SE263256.008	%	60 - 130%	85
	BH5-100	SE263256.009	%	60 - 130%	92
	BH5-500	SE263256.010	%	60 - 130%	82
	BH6-100	SE263256.011	%	60 - 130%	92
	BH6-500	SE263256.012	%	60 - 130%	81
	BH7-100	SE263256.013	%	60 - 130%	89
	BH7-500	SE263256.014	%	60 - 130%	85
	BH8-100	SE263256.015	%	60 - 130%	82
	BH8-500	SE263256.016	%	60 - 130%	88
	BH9-100	SE263256.017	%	60 - 130%	93
	BH9-500	SE263256.018	%	60 - 130%	86
	BH10-100	SE263256.019	%	60 - 130%	97
	BH10-500	SE263256.020	%	60 - 130%	80
	BH11-100	SE263256.021	%	60 - 130%	94
	BH11-500	SE263256.022	%	60 - 130%	73
	BH12-100	SE263256.023	%	60 - 130%	86
	BH12-500	SE263256.024	%	60 - 130%	80
	BH13-100	SE263256.025	%	60 - 130%	88
	BH13-500	SE263256.026	%	60 - 130%	94
	BH14-100	SE263256.027	%	60 - 130%	78
	BH14-500	SE263256.028	%	60 - 130%	76
	BH15-100	SE263256.029	%	60 - 130%	88
	BH15-500	SE263256.030	%	60 - 130%	91
	BH16-100	SE263256.031	%	60 - 130%	88
	BH16-500	SE263256.032	%	60 - 130%	102
	BH17-100	SE263256.033	%	60 - 130%	74
	BH17-500	SE263256.034	%	60 - 130%	97
	BH18-100	SE263256.035	%	60 - 130%	95
	BH18-500	SE263256.036	%	60 - 130%	81
	BH20-100	SE263256.037	%	60 - 130%	96
	BH20-500	SE263256.038	%	60 - 130%	91
	BH21-100	SE263256.039	%	60 - 130%	88
	BH21-500	SE263256.040	%	60 - 130%	97
	BH22-100	SE263256.041	%	60 - 130%	89
	BH22-500	SE263256.042	%	60 - 130%	94
	BH23-100	SE263256.043	%	60 - 130%	102
	BH23-500	SE263256.044	%	60 - 130%	92
	BH24-100	SE263256.045	%	60 - 130%	85
	BH24-500	SE263256.046	%	60 - 130%	102
	BH25-100	SE263256.047	%	60 - 130%	100
	BH25-200	SE263256.048	%	60 - 130%	80
	BH25-500	SE263256.049	%	60 - 130%	100
	BH26-100	SE263256.050	%	60 - 130%	88
	BH26-500	SE263256.051	%	60 - 130%	83
	BH27-100	SE263256.052	%	60 - 130%	86
	BH27-500	SE263256.053	%	60 - 130%	85
	BH28-100	SE263256.054	%	60 - 130%	104
	BH28-500	SE263256.055	%	60 - 130%	98
	BH29-100	SE263256.056	%	60 - 130%	100
	BH29-500	SE263256.057	%	60 - 130%	92
	BH30-100	SE263256.058	%	60 - 130%	97
	BH30-500	SE263256.059	%	60 - 130%	93
	BH31-100	SE263256.060	%	60 - 130%	96
	BH31-500	SE263256.061	%	60 - 130%	96
	BH32-100	SE263256.062	%	60 - 130%	124
	BH32-500	SE263256.063	%	60 - 130%	106
	BH33-100	SE263256.064	%	60 - 130%	103
	BH33-1000	SE263256.065	%	60 - 130%	123
	BH33-3000	SE263256.066	%	60 - 130%	106

SURROGATES SE263256 R0

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 identifer 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 %
d4-1,2-dichloroethane (Surrogate)	BH34-500	SE263256.067	%	60 - 130%	119
	BH34-1000	SE263256.068	%	60 - 130%	94
	BH34-3000	SE263256.069	%	60 - 130%	89
	BH35-500	SE263256.070	%	60 - 130%	95
	BH35-1000	SE263256.071	%	60 - 130%	102
	BH35-3000	SE263256.072	%	60 - 130%	79
	BH36-500	SE263256.073	%	60 - 130%	99
	BH36-1000	SE263256.074	%	60 - 130%	91
	BH36-3000	SE263256.075	%	60 - 130%	95
	BH37-500	SE263256.076	%	60 - 130%	82
	BH37-1000	SE263256.077	%	60 - 130%	89
	BH37-3000	SE263256.078	%	60 - 130%	98
	BH38-500	SE263256.079	%	60 - 130%	100
	BH38-1000	SE263256.080	%	60 - 130%	81
	BH38-3000	SE263256.081	%	60 - 130%	95
	BH39-300	SE263256.082	%	60 - 130%	93
	BH39-800	SE263256.083	%	60 - 130%	101
	BH40-100	SE263256.084	%	60 - 130%	105
	BH40-500	SE263256.085	%	60 - 130%	98
	BH40-1000	SE263256.086	%	60 - 130%	88
	BH40-3000	SE263256.087	%	60 - 130%	96
	BH41-500	SE263256.088	%	60 - 130%	98
	BH41-1000	SE263256.089	%	60 - 130%	103
	BH41-3000	SE263256.090	%	60 - 130%	103
	BH42-100	SE263256.091	%	60 - 130%	102
	BH42-500	SE263256.092	%	60 - 130%	99
	BH43-100	SE263256.093	%	60 - 130%	87
	BH43-500	SE263256.094	%	60 - 130%	100
	BH44-100	SE263256.095	%	60 - 130%	100
	BH44-500	SE263256.096	%	60 - 130%	100
	BH46-100	SE263256.097	%	60 - 130%	99
	BH46-500	SE263256.098	%	60 - 130%	104
	BH36-100	SE263256.104	%	60 - 130%	103
d8-toluene (Surrogate)	BH1-100	SE263256.001	%	60 - 130%	66
	BH1-500	SE263256.002	%	60 - 130%	103
	BH2-100	SE263256.003	%	60 - 130%	90
	BH2-500	SE263256.004	%	60 - 130%	95
	BH3-100	SE263256.005	%	60 - 130%	99
	BH3-500	SE263256.006	%	60 - 130%	99
	BH4-100	SE263256.007	%	60 - 130%	97
	BH4-500	SE263256.008	%	60 - 130%	93
	BH5-100	SE263256.009	%	60 - 130%	99
	BH5-500	SE263256.010	%	60 - 130%	89
	BH6-100	SE263256.011	%	60 - 130%	100
	BH6-500	SE263256.012	%	60 - 130%	103
	BH7-100	SE263256.013	%	60 - 130%	95
	BH7-500	SE263256.014	%	60 - 130%	92
	BH8-100	SE263256.015	%	60 - 130%	102
	BH8-500	SE263256.016	%	60 - 130%	91
	BH9-100	SE263256.017	%	60 - 130%	101
	BH9-500	SE263256.018	%	60 - 130%	108
	BH10-100	SE263256.019	%	60 - 130%	90
	BH10-500	SE263256.020	%	60 - 130%	79
	BH11-100	SE263256.021	%	60 - 130%	97
	BH11-500	SE263256.022	%	60 - 130%	79
	BH12-100	SE263256.023	%	60 - 130%	105
	BH12-500	SE263256.024	%	60 - 130%	101
	BH13-100	SE263256.025	%	60 - 130%	93
	BH13-500	SE263256.026	%	60 - 130%	97
	BH14-100	SE263256.027	%	60 - 130%	98
	BH14-500	SE263256.028	%	60 - 130%	96

SURROGATES SE263256 R0

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 identifer 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)	BH15-100	SE263256.029	%	60 - 130%	88
	BH15-500	SE263256.030	%	60 - 130%	92
	BH16-100	SE263256.031	%	60 - 130%	91
	BH16-500	SE263256.032	%	60 - 130%	106
	BH17-100	SE263256.033	%	60 - 130%	93
	BH17-500	SE263256.034	%	60 - 130%	99
	BH18-100	SE263256.035	%	60 - 130%	97
	BH18-500	SE263256.036	%	60 - 130%	102
	BH20-100	SE263256.037	%	60 - 130%	95
	BH20-500	SE263256.038	%	60 - 130%	92
	BH21-100	SE263256.039	%	60 - 130%	110
	BH21-500	SE263256.040	%	60 - 130%	91
	BH22-100	SE263256.041	%	60 - 130%	86
	BH22-500	SE263256.042	%	60 - 130%	90
	BH23-100	SE263256.043	%	60 - 130%	98
	BH23-500	SE263256.044	%	60 - 130%	87
	BH24-100	SE263256.045	%	60 - 130%	105
	BH24-500	SE263256.046	%	60 - 130%	99
	BH25-100	SE263256.047	%	60 - 130%	97
	BH25-200	SE263256.048	%	60 - 130%	96
	BH25-500	SE263256.049	%	60 - 130%	93
	BH26-100	SE263256.050	%	60 - 130%	110
	BH26-500	SE263256.051	%	60 - 130%	103
	BH27-100	SE263256.052	%	60 - 130%	107
	BH27-500	SE263256.053	%	60 - 130%	106
	BH28-100	SE263256.054	%	60 - 130%	98
	BH28-500	SE263256.055	%	60 - 130%	95
	BH29-100	SE263256.056	%	60 - 130%	98
	BH29-500	SE263256.057	%	60 - 130%	89
	BH30-100	SE263256.058	%	60 - 130%	93
	BH30-500	SE263256.059	%	60 - 130%	91
	BH31-100	SE263256.060	%	60 - 130%	93
	BH31-500	SE263256.061	%	60 - 130%	92
	BH32-100	SE263256.062	%	60 - 130%	125
	BH32-500	SE263256.063	%	60 - 130%	109
	BH33-100	SE263256.064	%	60 - 130%	110
	BH33-1000	SE263256.065	%	60 - 130%	119
	BH33-3000	SE263256.066	%	60 - 130%	117
	BH34-500	SE263256.067	%	60 - 130%	127
	BH34-1000	SE263256.068	%	60 - 130%	89
	BH34-3000	SE263256.069	%	60 - 130%	85
	BH35-500	SE263256.070	%	60 - 130%	89
	BH35-1000	SE263256.071	%	60 - 130%	96
	BH35-3000	SE263256.072	%	60 - 130%	77
	BH36-500	SE263256.073	%	60 - 130%	93
	BH36-1000	SE263256.074	%	60 - 130%	86
	BH36-3000	SE263256.075	%	60 - 130%	89
	BH37-500	SE263256.076	%	60 - 130%	78
	BH37-1000	SE263256.077	%	60 - 130%	96
	BH37-3000	SE263256.078	%	60 - 130%	100
	BH38-500	SE263256.079	%	60 - 130%	106
	BH38-1000	SE263256.080	%	60 - 130%	85
	BH38-3000	SE263256.081	%	60 - 130%	87
	BH39-300	SE263256.082	%	60 - 130%	88
	BH39-800	SE263256.083	%	60 - 130%	94
	BH40-100	SE263256.084	%	60 - 130%	98
	BH40-500	SE263256.085	%	60 - 130%	92
	BH40-1000	SE263256.086	%	60 - 130%	84
	BH40-3000	SE263256.087	%	60 - 130%	88
	BH41-500	SE263256.088	%	60 - 130%	91
	BH41-1000	SE263256.089	%	60 - 130%	96

SGS

SURROGATES

SE263256 R0

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 identifer 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)	BH41-3000	SE263256.090	%	60 - 130%	95
	BH42-100	SE263256.091	%	60 - 130%	93
	BH42-500	SE263256.092	%	60 - 130%	90
	BH43-100	SE263256.093	%	60 - 130%	82
	BH43-500	SE263256.094	%	60 - 130%	93
	BH44-100	SE263256.095	%	60 - 130%	93
	BH44-500	SE263256.096	%	60 - 130%	93
	BH46-100	SE263256.097	%	60 - 130%	92
	BH46-500	SE263256.098	%	60 - 130%	96
	BH36-100	SE263256.104	%	60 - 130%	95

Volatile Petroleum Hydrocarbons in Soil — Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1-100	SE263256.001	%	60 - 130%	73
	BH1-500	SE263256.002	%	60 - 130%	92
	BH2-100	SE263256.003	%	60 - 130%	94
	BH2-500	SE263256.004	%	60 - 130%	81
	BH3-100	SE263256.005	%	60 - 130%	84
	BH3-500	SE263256.006	%	60 - 130%	85
	BH4-100	SE263256.007	%	60 - 130%	82
	BH4-500	SE263256.008	%	60 - 130%	79
	BH5-100	SE263256.009	%	60 - 130%	83
	BH5-500	SE263256.010	%	60 - 130%	83
	BH6-100	SE263256.011	%	60 - 130%	82
	BH6-500	SE263256.012	%	60 - 130%	90
	BH7-100	SE263256.013	%	60 - 130%	81
	BH7-500	SE263256.014	%	60 - 130%	78
	BH8-100	SE263256.015	%	60 - 130%	88
	BH8-500	SE263256.016	%	60 - 130%	77
	BH9-100	SE263256.017	%	60 - 130%	82
	BH9-500	SE263256.018	%	60 - 130%	93
	BH10-100	SE263256.019	%	60 - 130%	99
	BH10-500	SE263256.020	%	60 - 130%	78
	BH11-100	SE263256.021	%	60 - 130%	94
	BH11-500	SE263256.022	%	60 - 130%	86
	BH12-100	SE263256.023	%	60 - 130%	91
	BH12-500	SE263256.024	%	60 - 130%	86
	BH13-100	SE263256.025	%	60 - 130%	78
	BH13-500	SE263256.026	%	60 - 130%	80
	BH14-100	SE263256.027	%	60 - 130%	89
	BH14-500	SE263256.028	%	60 - 130%	82
	BH15-100	SE263256.029	%	60 - 130%	78
	BH15-500	SE263256.030	%	60 - 130%	76
	BH16-100	SE263256.031	%	60 - 130%	74
	BH16-500	SE263256.032	%	60 - 130%	88
	BH17-100	SE263256.033	%	60 - 130%	78
	BH17-500	SE263256.034	%	60 - 130%	80
	BH18-100	SE263256.035	%	60 - 130%	81
	BH18-500	SE263256.036	%	60 - 130%	87
	BH20-100	SE263256.037	%	60 - 130%	79
	BH20-500	SE263256.038	%	60 - 130%	76
	BH21-100	SE263256.039	%	60 - 130%	95
	BH21-500	SE263256.040	%	60 - 130%	97
	BH22-100	SE263256.041	%	60 - 130%	74
	BH22-500	SE263256.042	%	60 - 130%	97
	BH23-100	SE263256.043	%	60 - 130%	83
	BH23-500	SE263256.044	%	60 - 130%	74
	BH24-100	SE263256.045	%	60 - 130%	89
	BH24-500	SE263256.046	%	60 - 130%	82
	BH25-100	SE263256.047	%	60 - 130%	79
	BH25-200	SE263256.048	%	60 - 130%	73

SURROGATES SE263256 R0

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 identifer 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)	BH25-500	SE263256.049	%	60 - 130%	94
	BH26-100	SE263256.050	%	60 - 130%	92
	BH26-500	SE263256.051	%	60 - 130%	85
	BH27-100	SE263256.052	%	60 - 130%	89
	BH27-500	SE263256.053	%	60 - 130%	89
	BH28-100	SE263256.054	%	60 - 130%	83
	BH28-500	SE263256.055	%	60 - 130%	83
	BH29-100	SE263256.056	%	60 - 130%	81
	BH29-500	SE263256.057	%	60 - 130%	77
	BH30-100	SE263256.058	%	60 - 130%	95
	BH30-500	SE263256.059	%	60 - 130%	95
	BH31-100	SE263256.060	%	60 - 130%	98
	BH31-500	SE263256.061	%	60 - 130%	94
	BH32-100	SE263256.062	%	60 - 130%	99
	BH32-500	SE263256.063	%	60 - 130%	89
	BH33-100	SE263256.064	%	60 - 130%	89
	BH33-1000	SE263256.065	%	60 - 130%	98
	BH33-3000	SE263256.066	%	60 - 130%	92
	BH34-500	SE263256.067	%	60 - 130%	97
	BH34-1000	SE263256.068	%	60 - 130%	91
	BH34-3000	SE263256.069	%	60 - 130%	88
	BH35-500	SE263256.070	%	60 - 130%	91
	BH35-1000	SE263256.071	%	60 - 130%	100
	BH35-3000	SE263256.072	%	60 - 130%	80
	BH36-500	SE263256.073	%	60 - 130%	95
	BH36-1000	SE263256.074	%	60 - 130%	89
	BH36-3000	SE263256.075	%	60 - 130%	90
	BH37-500	SE263256.076	%	60 - 130%	80
	BH37-1000	SE263256.077	%	60 - 130%	91
	BH37-3000	SE263256.078	%	60 - 130%	77
	BH38-500	SE263256.079	%	60 - 130%	83
	BH38-1000	SE263256.080	%	60 - 130%	84
	BH38-3000	SE263256.081	%	60 - 130%	93
	BH39-300	SE263256.082	%	60 - 130%	92
	BH39-800	SE263256.083	%	60 - 130%	96
	BH40-100	SE263256.084	%	60 - 130%	103
	BH40-500	SE263256.085	%	60 - 130%	96
	BH40-1000	SE263256.086	%	60 - 130%	91
	BH40-3000	SE263256.087	%	60 - 130%	91
	BH41-500	SE263256.088	%	60 - 130%	93
	BH41-1000	SE263256.089	%	60 - 130%	97
	BH41-3000	SE263256.090	%	60 - 130%	99
	BH42-100	SE263256.091	%	60 - 130%	97
	BH42-500	SE263256.092	%	60 - 130%	94
	BH43-100	SE263256.093	%	60 - 130%	82
	BH43-500	SE263256.094	%	60 - 130%	95
	BH44-100	SE263256.095	%	60 - 130%	96
	BH44-500	SE263256.096	%	60 - 130%	95
	BH46-100	SE263256.097	%	60 - 130%	92
	BH46-500	SE263256.098	%	60 - 130%	98
	BH36-100	SE263256.104	%	60 - 130%	97
d4-1,2-dichloroethane (Surrogate)	BH1-100	SE263256.001	%	60 - 130%	70
	BH1-500	SE263256.002	%	60 - 130%	95
	BH2-100	SE263256.003	%	60 - 130%	97
	BH2-500	SE263256.004	%	60 - 130%	91
	BH3-100	SE263256.005	%	60 - 130%	92
	BH3-500	SE263256.006	%	60 - 130%	90
	BH4-100	SE263256.007	%	60 - 130%	90
	BH4-500	SE263256.008	%	60 - 130%	85
	BH5-100	SE263256.009	%	60 - 130%	92
	BH5-500	SE263256.010	%	60 - 130%	82

SGS

SURROGATES

SE263256 R0

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 identifer 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 %
d4-1,2-dichloroethane (Surrogate)	BH6-100	SE263256.011	%	60 - 130%	92
	BH6-500	SE263256.012	%	60 - 130%	81
	BH7-100	SE263256.013	%	60 - 130%	89
	BH7-500	SE263256.014	%	60 - 130%	85
	BH8-100	SE263256.015	%	60 - 130%	82
	BH8-500	SE263256.016	%	60 - 130%	88
	BH9-100	SE263256.017	%	60 - 130%	93
	BH9-500	SE263256.018	%	60 - 130%	86
	BH10-100	SE263256.019	%	60 - 130%	97
	BH10-500	SE263256.020	%	60 - 130%	80
	BH11-100	SE263256.021	%	60 - 130%	94
	BH11-500	SE263256.022	%	60 - 130%	73
	BH12-100	SE263256.023	%	60 - 130%	86
	BH12-500	SE263256.024	%	60 - 130%	80
	BH13-100	SE263256.025	%	60 - 130%	88
	BH13-500	SE263256.026	%	60 - 130%	94
	BH14-100	SE263256.027	%	60 - 130%	78
	BH14-500	SE263256.028	%	60 - 130%	76
	BH15-100	SE263256.029	%	60 - 130%	88
	BH15-500	SE263256.030	%	60 - 130%	91
	BH16-100	SE263256.031	%	60 - 130%	88
	BH16-500	SE263256.032	%	60 - 130%	102
	BH17-100	SE263256.033	%	60 - 130%	74
	BH17-500	SE263256.034	%	60 - 130%	97
	BH18-100	SE263256.035	%	60 - 130%	95
	BH18-500	SE263256.036	%	60 - 130%	81
	BH20-100	SE263256.037	%	60 - 130%	96
	BH20-500	SE263256.038	%	60 - 130%	91
	BH21-100	SE263256.039	%	60 - 130%	88
	BH21-500	SE263256.040	%	60 - 130%	97
	BH22-100	SE263256.041	%	60 - 130%	89
	BH22-500	SE263256.042	%	60 - 130%	94
	BH23-100	SE263256.043	%	60 - 130%	102
	BH23-500	SE263256.044	%	60 - 130%	92
	BH24-100	SE263256.045	%	60 - 130%	85
	BH24-500	SE263256.046	%	60 - 130%	102
	BH25-100	SE263256.047	%	60 - 130%	100
	BH25-200	SE263256.048	%	60 - 130%	80
	BH25-500	SE263256.049	%	60 - 130%	100
	BH26-100	SE263256.050	%	60 - 130%	88
	BH26-500	SE263256.051	%	60 - 130%	83
	BH27-100	SE263256.052	%	60 - 130%	86
	BH27-500	SE263256.053	%	60 - 130%	85
	BH28-100	SE263256.054	%	60 - 130%	104
	BH28-500	SE263256.055	%	60 - 130%	98
	BH29-100	SE263256.056	%	60 - 130%	100
	BH29-500	SE263256.057	%	60 - 130%	92
	BH30-100	SE263256.058	%	60 - 130%	97
	BH30-500	SE263256.059	%	60 - 130%	93
	BH31-100	SE263256.060	%	60 - 130%	96
	BH31-500	SE263256.061	%	60 - 130%	96
	BH32-100	SE263256.062	%	60 - 130%	124
	BH32-500	SE263256.063	%	60 - 130%	106
	BH33-100	SE263256.064	%	60 - 130%	103
	BH33-1000	SE263256.065	%	60 - 130%	123
	BH33-3000	SE263256.066	%	60 - 130%	106
	BH34-500	SE263256.067	%	60 - 130%	119
	BH34-1000	SE263256.068	%	60 - 130%	94
	BH34-3000	SE263256.069	%	60 - 130%	89
	BH35-500	SE263256.070	%	60 - 130%	95
	BH35-1000	SE263256.071	%	60 - 130%	102

SGS

SURROGATES

SE263256 R0

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 identifer 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 %
d4-1,2-dichloroethane (Surrogate)	BH35-3000	SE263256.072	%	60 - 130%	79
	BH36-500	SE263256.073	%	60 - 130%	99
	BH36-1000	SE263256.074	%	60 - 130%	91
	BH36-3000	SE263256.075	%	60 - 130%	95
	BH37-500	SE263256.076	%	60 - 130%	82
	BH37-1000	SE263256.077	%	60 - 130%	89
	BH37-3000	SE263256.078	%	60 - 130%	98
	BH38-500	SE263256.079	%	60 - 130%	100
	BH38-1000	SE263256.080	%	60 - 130%	81
	BH38-3000	SE263256.081	%	60 - 130%	95
	BH39-300	SE263256.082	%	60 - 130%	93
	BH39-800	SE263256.083	%	60 - 130%	101
	BH40-100	SE263256.084	%	60 - 130%	105
	BH40-500	SE263256.085	%	60 - 130%	98
	BH40-1000	SE263256.086	%	60 - 130%	88
	BH40-3000	SE263256.087	%	60 - 130%	96
	BH41-500	SE263256.088	%	60 - 130%	98
	BH41-1000	SE263256.089	%	60 - 130%	103
	BH41-3000	SE263256.090	%	60 - 130%	103
	BH42-100	SE263256.091	%	60 - 130%	102
	BH42-500	SE263256.092	%	60 - 130%	99
	BH43-100	SE263256.093	%	60 - 130%	87
	BH43-500	SE263256.094	%	60 - 130%	100
	BH44-100	SE263256.095	%	60 - 130%	100
	BH44-500	SE263256.096	%	60 - 130%	100
	BH46-100	SE263256.097	%	60 - 130%	99
	BH46-500	SE263256.098	%	60 - 130%	104
	BH36-100	SE263256.104	%	60 - 130%	103
d8-toluene (Surrogate)	BH1-100	SE263256.001	%	60 - 130%	66
	BH1-500	SE263256.002	%	60 - 130%	103
	BH2-100	SE263256.003	%	60 - 130%	90
	BH2-500	SE263256.004	%	60 - 130%	95
	BH3-100	SE263256.005	%	60 - 130%	99
	BH3-500	SE263256.006	%	60 - 130%	99
	BH4-100	SE263256.007	%	60 - 130%	97
	BH4-500	SE263256.008	%	60 - 130%	93
	BH5-100	SE263256.009	%	60 - 130%	99
	BH5-500	SE263256.010	%	60 - 130%	89
	BH6-100	SE263256.011	%	60 - 130%	100
	BH6-500	SE263256.012	%	60 - 130%	103
	BH7-100	SE263256.013	%	60 - 130%	95
	BH7-500	SE263256.014	%	60 - 130%	92
	BH8-100	SE263256.015	%	60 - 130%	102
	BH8-500	SE263256.016	%	60 - 130%	91
	BH9-100	SE263256.017	%	60 - 130%	101
	BH9-500	SE263256.018	%	60 - 130%	108
	BH10-100	SE263256.019	%	60 - 130%	90
	BH10-500	SE263256.020	%	60 - 130%	79
	BH11-100	SE263256.021	%	60 - 130%	97
	BH11-500	SE263256.022	%	60 - 130%	79
	BH12-100	SE263256.023	%	60 - 130%	105
	BH12-500	SE263256.024	%	60 - 130%	101
	BH13-100	SE263256.025	%	60 - 130%	93
	BH13-500	SE263256.026	%	60 - 130%	97
	BH14-100	SE263256.027	%	60 - 130%	98
	BH14-500	SE263256.028	%	60 - 130%	96
	BH15-100	SE263256.029	%	60 - 130%	88
	BH15-500	SE263256.030	%	60 - 130%	92
	BH16-100	SE263256.031	%	60 - 130%	91
	BH16-500	SE263256.032	%	60 - 130%	106
	BH17-100	SE263256.033	%	60 - 130%	93

SURROGATES SE263256 R0

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 identifer 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)	BH17-500	SE263256.034	%	60 - 130%	99
	BH18-100	SE263256.035	%	60 - 130%	97
	BH18-500	SE263256.036	%	60 - 130%	102
	BH20-100	SE263256.037	%	60 - 130%	95
	BH20-500	SE263256.038	%	60 - 130%	92
	BH21-100	SE263256.039	%	60 - 130%	110
	BH21-500	SE263256.040	%	60 - 130%	91
	BH22-100	SE263256.041	%	60 - 130%	86
	BH22-500	SE263256.042	%	60 - 130%	90
	BH23-100	SE263256.043	%	60 - 130%	98
	BH23-500	SE263256.044	%	60 - 130%	87
	BH24-100	SE263256.045	%	60 - 130%	105
	BH24-500	SE263256.046	%	60 - 130%	99
	BH25-100	SE263256.047	%	60 - 130%	97
	BH25-200	SE263256.048	%	60 - 130%	96
	BH25-500	SE263256.049	%	60 - 130%	93
	BH26-100	SE263256.050	%	60 - 130%	110
	BH26-500	SE263256.051	%	60 - 130%	103
	BH27-100	SE263256.052	%	60 - 130%	107
	BH27-500	SE263256.053	%	60 - 130%	106
	BH28-100	SE263256.054	%	60 - 130%	98
	BH28-500	SE263256.055	%	60 - 130%	95
	BH29-100	SE263256.056	%	60 - 130%	98
	BH29-500	SE263256.057	%	60 - 130%	89
	BH30-100	SE263256.058	%	60 - 130%	93
	BH30-500	SE263256.059	%	60 - 130%	91
	BH31-100	SE263256.060	%	60 - 130%	93
	BH31-500	SE263256.061	%	60 - 130%	92
	BH32-100	SE263256.062	%	60 - 130%	125
	BH32-500	SE263256.063	%	60 - 130%	109
	BH33-100	SE263256.064	%	60 - 130%	110
	BH33-1000	SE263256.065	%	60 - 130%	119
	BH33-3000	SE263256.066	%	60 - 130%	117
	BH34-500	SE263256.067	%	60 - 130%	127
	BH34-1000	SE263256.068	%	60 - 130%	89
	BH34-3000	SE263256.069	%	60 - 130%	85
	BH35-500	SE263256.070	%	60 - 130%	89
	BH35-1000	SE263256.071	%	60 - 130%	96
	BH35-3000	SE263256.072	%	60 - 130%	77
	BH36-500	SE263256.073	%	60 - 130%	93
	BH36-1000	SE263256.074	%	60 - 130%	86
	BH36-3000	SE263256.075	%	60 - 130%	89
	BH37-500	SE263256.076	%	60 - 130%	78
	BH37-1000	SE263256.077	%	60 - 130%	96
	BH37-3000	SE263256.078	%	60 - 130%	100
	BH38-500	SE263256.079	%	60 - 130%	106
	BH38-1000	SE263256.080	%	60 - 130%	85
	BH38-3000	SE263256.081	%	60 - 130%	87
	BH39-300	SE263256.082	%	60 - 130%	88
	BH39-800	SE263256.083	%	60 - 130%	94
	BH40-100	SE263256.084	%	60 - 130%	98
	BH40-500	SE263256.085	%	60 - 130%	92
	BH40-1000	SE263256.086	%	60 - 130%	84
	BH40-3000	SE263256.087	%	60 - 130%	88
	BH41-500	SE263256.088	%	60 - 130%	91
	BH41-1000	SE263256.089	%	60 - 130%	96
	BH41-3000	SE263256.090	%	60 - 130%	95
	BH42-100	SE263256.091	%	60 - 130%	93
	BH42-500	SE263256.092	%	60 - 130%	90
	BH43-100	SE263256.093	%	60 - 130%	82
	BH43-500	SE263256.094	%	60 - 130%	93

SURROGATES SE263256 R0

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 identifer 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)	BH44-100	SE263256.095	%	60 - 130%	93
	BH44-500	SE263256.096	%	60 - 130%	93
	BH46-100	SE263256.097	%	60 - 130%	92
	BH46-500	SE263256.098	%	60 - 130%	96
	BH36-100	SE263256.104	%	60 - 130%	95

SGS

METHOD BLANKS

SE263256 R0

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.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result
LB309107.001	Mercury	mg/kg	0.05	<0.05
LB309204.001	Mercury	mg/kg	0.05	<0.05
LB309212.001	Mercury	mg/kg	0.05	<0.05
LB309236.001	Mercury	mg/kg	0.05	<0.05
LB309237.001	Mercury	mg/kg	0.05	<0.05
LB309238.001	Mercury	mg/kg	0.05	<0.05
LB309240.001	Mercury	mg/kg	0.05	<0.05

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB309082.001		Alpha BHC	mg/kg	0.1	<0.1
		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
		Beta BHC	mg/kg	0.1	<0.1
		Lindane (gamma BHC)	mg/kg	0.1	<0.1
		Delta BHC	mg/kg	0.1	<0.1
		Heptachlor	mg/kg	0.1	<0.1
		Aldrin	mg/kg	0.1	<0.1
		Isodrin	mg/kg	0.1	<0.1
		Heptachlor epoxide	mg/kg	0.1	<0.1
		Gamma Chlordane	mg/kg	0.1	<0.1
		Alpha Chlordane	mg/kg	0.1	<0.1
		Alpha Endosulfan	mg/kg	0.2	<0.2
		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
		Endrin aldehyde	mg/kg	0.1	<0.1
		Endosulfan sulphate	mg/kg	0.1	<0.1
		p,p'-DDT	mg/kg	0.1	<0.1
		Endrin ketone	mg/kg	0.1	<0.1
		Methoxychlor	mg/kg	0.1	<0.1
		Mirex	mg/kg	0.1	<0.1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	86

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB309049.001		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)	%	-	105
		2-fluorobiphenyl (Surrogate)	%	-	78
		d14-p-terphenyl (Surrogate)	%	-	113
LB309050.001		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

SGS

METHOD BLANKS

SE263256 R0

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)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB309050.001		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)	%	-	103
		2-fluorobiphenyl (Surrogate)	%	-	108
		d14-p-terphenyl (Surrogate)	%	-	111
LB309051.001		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)	%	-	95
		2-fluorobiphenyl (Surrogate)	%	-	99
		d14-p-terphenyl (Surrogate)	%	-	96
LB309052.001		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)	%	-	118
		2-fluorobiphenyl (Surrogate)	%	-	106
		d14-p-terphenyl (Surrogate)	%	-	108
LB309083.001		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

SGS

METHOD BLANKS

SE263256 R0

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)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB309083.001		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)	%	-	121
		2-fluorobiphenyl (Surrogate)	%	-	108
		d14-p-terphenyl (Surrogate)	%	-	116
LB309084.001		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)	%	-	130
		2-fluorobiphenyl (Surrogate)	%	-	122
		d14-p-terphenyl (Surrogate)	%	-	116

Speciated Phenols in Soil Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB309082.001		Phenol	mg/kg	0.5	<0.5
		2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5
		3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1
		2-chlorophenol	mg/kg	0.5	<0.5
		2,4-dimethylphenol	mg/kg	0.5	<0.5
		2,6-dichlorophenol	mg/kg	0.5	<0.5
		2,4-dichlorophenol	mg/kg	0.5	<0.5
		4-chloro-3-methylphenol	mg/kg	2	<2
		2,4,6-trichlorophenol	mg/kg	0.5	<0.5
		2-nitrophenol	mg/kg	0.5	<0.5
		4-nitrophenol	mg/kg	1	<1
		2,4,5-trichlorophenol	mg/kg	0.5	<0.5
		2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1
		Pentachlorophenol	mg/kg	0.5	<0.5
		2,4-dinitrophenol	mg/kg	2	<2
	Surrogates	2,4,6-Tribromophenol (Surrogate)	%	-	112
		d5-phenol (Surrogate)	%	-	127

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result
LB309102.001	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

SGS

METHOD BLANKS

SE263256 R0

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Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued) — **Method: ME-(AU)-[ENV]AN040/AN320**

Sample Number	Parameter	Units	LOR	Result
LB309102.001	Lead, Pb	mg/kg	1	<1
	Zinc, Zn	mg/kg	2	<2.0
LB309203.001	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
LB309211.001	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
LB309226.001	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
LB309227.001	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
LB309228.001	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
LB309231.001	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

TRH (Total Recoverable Hydrocarbons) in Soil — **Method: ME-(AU)-[ENV]AN403**

Sample Number	Parameter	Units	LOR	Result
LB309049.001	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
LB309050.001	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
LB309051.001	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

SGS

METHOD BLANKS

SE263256 R0

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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 (continued) — Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter	Units	LOR	Result
LB309051.001	TRH C10-C36 Total	mg/kg	110	<110
LB309052.001	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
LB309083.001	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
LB309084.001	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

VOC's in Soil — Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB309092.001	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
	Polycyclic VOCs	Naphthalene (VOC)*	mg/kg	0.1	<0.1
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	97
		d8-toluene (Surrogate)	%	-	103
		Bromofluorobenzene (Surrogate)	%	-	88
	Totals	Total BTEX*	mg/kg	0.3	<0.3
LB309198.001	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
	Polycyclic VOCs	Naphthalene (VOC)*	mg/kg	0.1	<0.1
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	87
		d8-toluene (Surrogate)	%	-	81
		Bromofluorobenzene (Surrogate)	%	-	87
	Totals	Total BTEX*	mg/kg	0.3	<0.3
LB309199.001	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
	Polycyclic VOCs	Naphthalene (VOC)*	mg/kg	0.1	<0.1
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	105
		d8-toluene (Surrogate)	%	-	98
		Bromofluorobenzene (Surrogate)	%	-	100
	Totals	Total BTEX*	mg/kg	0.3	<0.3
LB309217.001	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
	Polycyclic VOCs	Naphthalene (VOC)*	mg/kg	0.1	<0.1
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	70
		d8-toluene (Surrogate)	%	-	89
		Bromofluorobenzene (Surrogate)	%	-	77
	Totals	Total BTEX*	mg/kg	0.3	<0.3
LB309219.001	Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.1	<0.1
		Toluene	mg/kg	0.1	<0.1

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METHOD BLANKS

SE263256 R0

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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
LB309219.001	Monocyclic Aromatic Hydrocarbons	Ethylbenzene	mg/kg	0.1	<0.1
		m/p-xylene	mg/kg	0.2	<0.2
		o-xylene	mg/kg	0.1	<0.1
	Polycyclic VOCs	Naphthalene (VOC)*	mg/kg	0.1	<0.1
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	98
		d8-toluene (Surrogate)	%	-	92
		Bromofluorobenzene (Surrogate)	%	-	97
	Totals	Total BTEX*	mg/kg	0.3	<0.3
LB309221.001	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
	Polycyclic VOCs	Naphthalene (VOC)*	mg/kg	0.1	<0.1
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	89
		d8-toluene (Surrogate)	%	-	101
		Bromofluorobenzene (Surrogate)	%	-	92
	Totals	Total BTEX*	mg/kg	0.3	<0.3

Volatile Petroleum Hydrocarbons in Soil — Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB309092.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	97
LB309198.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	87
LB309199.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	105
LB309217.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	70
LB309219.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	98
LB309221.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	89

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE262000A.002	LB309236.012	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263252.029	LB309107.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.010	LB309212.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.019	LB309212.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.029	LB309237.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.038	LB309237.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.048	LB309238.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.057	LB309238.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.067	LB309240.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.076	LB309240.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.080	LB309107.023	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.090	LB309204.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263256.104	LB309204.024	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 %
SE263252.029	LB309097.011	% Moisture	%w/w	1	6.3	6.1	46	4
SE263256.010	LB309208.011	% Moisture	%w/w	1	10.8	11.1	39	3
SE263256.019	LB309208.021	% Moisture	%w/w	1	3.7	3.3	59	13
SE263256.029	LB309222.011	% Moisture	%w/w	1	7.1	6.5	45	10
SE263256.038	LB309222.021	% Moisture	%w/w	1	5.5	5.7	48	2
SE263256.048	LB309223.011	% Moisture	%w/w	1	4.8	4.5	51	7
SE263256.057	LB309223.021	% Moisture	%w/w	1	3.7	3.8	57	4
SE263256.067	LB309224.011	% Moisture	%w/w	1	4.5	4.7	52	3
SE263256.076	LB309224.021	% Moisture	%w/w	1	4.9	4.8	51	1
SE263256.080	LB309097.020	% Moisture	%w/w	1	7.3	7.1	44	3
SE263256.090	LB309201.011	% Moisture	%w/w	1	7.8	8.6	42	9
SE263256.103	LB309235.011	% Moisture	%w/w	1	5.1	5.5	49	8
SE263256.104	LB309201.021	% Moisture	%w/w	1	4.9	5.0	50	3
SE263388.001	LB309235.014	% Moisture	%w/w	1	10.7	10.9	39	2

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.096	LB309082.025	Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
		Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Lindane (gamma BHC)	mg/kg	0.1	<0.1	<0.1	200	0
		Delta BHC	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
		Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
		Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	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
		Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		o,p'-DDE*	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
		Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		o,p'-DDD*	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
		Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
		o,p'-DDT*	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin ketone	mg/kg	0.1	<0.1	<0.1	200	0
		Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
		Mirex	mg/kg	0.1	<0.1	<0.1	200	0
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
		Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0
		Total OC VIC EPA	mg/kg	1	<1	<1	200	0

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.096	LB309082.025	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.15	0.14	30	5

PAH (Polynuclear Aromatic Hydrocarbons) in Soil — Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263252.029	LB309083.014		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	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/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.6	30	5
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.6	30	4
SE263256.010	LB309049.014		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	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/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	5
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	4
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.6	30	1
SE263256.019	LB309049.024		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	133	5

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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)-[ENV]AN420**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.019	LB309049.024		Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	<0.1	<0.1	143	0
			Pyrene	mg/kg	0.1	0.1	0.1	109	34
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Chrysene	mg/kg	0.1	<0.1	<0.1	193	0
			Benzo(b&j)fluoranthene	mg/kg	0.1	0.1	0.2	99	38
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	187	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	192	0
			Carcinogenic PAHs, BaP TEQ <LOR=0*	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	86	83
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.6	30	7
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	21
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.6	30	4
SE263256.029	LB309050.014		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	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	198	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/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	2
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.6	30	1
SE263256.038	LB309050.024		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

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.038	LB309050.024		Carcinogenic PAHs, BaP TEQ <LOR=0*	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	5
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	4
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.5	30	5
SE263256.048	LB309051.014		Naphthalene	mg/kg	0.1	12	7.6	31	45 ②
			2-methylnaphthalene	mg/kg	0.1	4.7	2.8	33	52 ②
			1-methylnaphthalene	mg/kg	0.1	4.3	2.6	33	50 ②
			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	0.7	0.7	45	4
			Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	<0.1	<0.1	182	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/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	22	14	31	46 ②
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	30	9
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	30	15
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.2	0.3	30	32 ①
SE263256.057	LB309051.024		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/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	3
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	5
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	4
SE263256.067	LB309052.014		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

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.067	LB309052.014		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	0.2	0.1	89	37
			Pyrene	mg/kg	0.1	0.2	0.2	83	36
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Chrysene	mg/kg	0.1	0.2	0.1	83	56
			Benzo(b&j)fluoranthene	mg/kg	0.1	0.3	0.3	63	10
			Benzo(k)fluoranthene	mg/kg	0.1	0.1	0.1	108	23
			Benzo(a)pyrene	mg/kg	0.1	0.1	0.1	109	22
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.2	0.1	93	20
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	0.2	0.1	93	31
			Carcinogenic PAHs, BaP TEQ <LOR=0*	mg/kg	0.2	0.2	<0.2	116	4
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	mg/kg	0.2	0.3	0.2	92	16
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	0.3	<0.3	110	6
			Total PAH (18)	mg/kg	0.8	1.6	1.2	37	28
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	2
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	30	14
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	6
SE263256.076	LB309052.024		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/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	4
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	5
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
SE263256.080	LB309083.023		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

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.080	LB309083.023		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/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.6	30	4
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	8
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
SE263256.090	LB309084.014		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	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/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.6	30	1
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
SE263256.104	LB309084.024		Naphthalene	mg/kg	0.1	0.3	0.1	79	67
			2-methylnaphthalene	mg/kg	0.1	0.1	0.1	124	3
			1-methylnaphthalene	mg/kg	0.1	<0.1	0.1	131	7
			Acenaphthylene	mg/kg	0.1	0.2	0.5	60	72 ②
			Acenaphthene	mg/kg	0.1	<0.1	0.2	139	42
			Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
			Phenanthrene	mg/kg	0.1	0.3	1.6	41	134 ②
			Anthracene	mg/kg	0.1	0.4	1.4	41	108 ②
			Fluoranthene	mg/kg	0.1	0.8	4.1	34	136 ②
			Pyrene	mg/kg	0.1	0.9	4.5	34	131 ②
			Benzo(a)anthracene	mg/kg	0.1	0.4	1.2	43	103 ②
			Chrysene	mg/kg	0.1	0.5	1.4	40	92 ②
			Benzo(b&j)fluoranthene	mg/kg	0.1	0.6	1.1	41	59 ②
			Benzo(k)fluoranthene	mg/kg	0.1	0.2	0.3	64	36
			Benzo(a)pyrene	mg/kg	0.1	0.5	0.6	49	23
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.4	0.4	56	12
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	0.1	128	12
			Benzo(ghi)perylene	mg/kg	0.1	0.4	0.4	53	6
			Carcinogenic PAHs, BaP TEQ <LOR=0*	mg/kg	0.2	0.6	1.0	34	47 ②
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	mg/kg	0.2	0.7	1.0	34	40 ②
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	0.7	1.0	44	33
			Total PAH (18)	mg/kg	0.8	6.0	18	31	100 ②
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.6	30	2
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.6	30	2

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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

Speciated Phenols in Soil — **Method: ME-(AU)-[ENV]AN420**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263252.029	LB309082.014		Phenol	mg/kg	0.5	<0.5	<0.5	200	0
			2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5	<0.5	200	0
			3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1	<1	200	0
			Total Cresol	mg/kg	1.5	<1.5	<1.5	200	0
			2-chlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,4-dimethylphenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,6-dichlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,4-dichlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			4-chloro-3-methylphenol	mg/kg	2	<2	<2	200	0
			2,4,6-trichlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2-nitrophenol	mg/kg	0.5	<0.5	<0.5	200	0
			4-nitrophenol	mg/kg	1	<1	<1	200	0
			2,4,5-trichlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1	<1	200	0
			Pentachlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,4-dinitrophenol	mg/kg	2	<2	<2	200	0
		Surrogates	2,4,6-Tribromophenol (Surrogate)	mg/kg	-	1.9	2.4	30	23
			d5-phenol (Surrogate)	mg/kg	-	1.6	1.6	30	1
SE263256.096	LB309082.025		Phenol	mg/kg	0.5	<0.5	<0.5	200	0
			2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5	<0.5	200	0
			3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1	<1	200	0
			Total Cresol	mg/kg	1.5	<1.5	<1.5	200	0
			2-chlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,4-dimethylphenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,6-dichlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,4-dichlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			4-chloro-3-methylphenol	mg/kg	2	<2	<2	200	0
			2,4,6-trichlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2-nitrophenol	mg/kg	0.5	<0.5	<0.5	200	0
			4-nitrophenol	mg/kg	1	<1	<1	200	0
			2,4,5-trichlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1	<1	200	0
			Pentachlorophenol	mg/kg	0.5	<0.5	<0.5	200	0
			2,4-dinitrophenol	mg/kg	2	<2	<2	200	0
		Surrogates	2,4,6-Tribromophenol (Surrogate)	mg/kg	-	3.3	3.5	30	4
			d5-phenol (Surrogate)	mg/kg	-	2.0	2.0	30	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 %
SE262000A.002	LB309231.020	Arsenic, As	mg/kg	1	2	2	76	9
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	7.4	7.2	37	4
		Copper, Cu	mg/kg	0.5	6.9	6.8	37	2
		Nickel, Ni	mg/kg	0.5	5.7	5.6	39	0
		Lead, Pb	mg/kg	1	8	8	43	1
		Zinc, Zn	mg/kg	2	23	22	39	5
SE263252.029	LB309102.014	Arsenic, As	mg/kg	1	4	6	51	40
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	22	31	32	35 ②
		Copper, Cu	mg/kg	0.5	5.7	5.6	39	1
		Nickel, Ni	mg/kg	0.5	5.9	5.7	39	3
		Lead, Pb	mg/kg	1	14	19	36	28
		Zinc, Zn	mg/kg	2	17	16	42	7
SE263256.010	LB309211.014	Arsenic, As	mg/kg	1	1	1	104	13
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	40	37	31	9
		Copper, Cu	mg/kg	0.5	3.2	3.0	46	7
		Nickel, Ni	mg/kg	0.5	16	15	33	8
		Lead, Pb	mg/kg	1	11	10	39	8
		Zinc, Zn	mg/kg	2	31	29	37	6
SE263256.019	LB309211.024	Arsenic, As	mg/kg	1	20	19	35	4

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued) Method: ME-(AU)-[ENV]AN040/AN320

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.019	LB309211.024	Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	9.4	9.2	35	2
		Copper, Cu	mg/kg	0.5	24	23	32	2
		Nickel, Ni	mg/kg	0.5	2.7	3.1	47	14
		Lead, Pb	mg/kg	1	5	5	51	6
		Zinc, Zn	mg/kg	2	16	12	44	28
SE263256.029	LB309226.014	Arsenic, As	mg/kg	1	2	2	73	14
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	33	34	31	1
		Copper, Cu	mg/kg	0.5	5.1	5.9	39	13
		Nickel, Ni	mg/kg	0.5	14	14	33	1
		Lead, Pb	mg/kg	1	12	11	39	11
		Zinc, Zn	mg/kg	2	51	54	34	5
SE263256.038	LB309226.024	Arsenic, As	mg/kg	1	1	1	109	15
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	28	28	32	2
		Copper, Cu	mg/kg	0.5	4.7	5.3	40	12
		Nickel, Ni	mg/kg	0.5	12	13	34	4
		Lead, Pb	mg/kg	1	7	7	44	5
		Zinc, Zn	mg/kg	2	30	27	37	9
SE263256.048	LB309227.014	Arsenic, As	mg/kg	1	2	2	86	12
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	9.9	8.6	35	14
		Copper, Cu	mg/kg	0.5	19	15	33	24
		Nickel, Ni	mg/kg	0.5	3.4	2.9	46	15
		Lead, Pb	mg/kg	1	7	6	46	15
		Zinc, Zn	mg/kg	2	14	12	46	15
SE263256.057	LB309227.024	Arsenic, As	mg/kg	1	1	1	110	17
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	26	23	32	13
		Copper, Cu	mg/kg	0.5	6.2	6.1	38	1
		Nickel, Ni	mg/kg	0.5	11	10	35	8
		Lead, Pb	mg/kg	1	12	11	38	6
		Zinc, Zn	mg/kg	2	49	47	34	5
SE263256.076	LB309228.024	Arsenic, As	mg/kg	1	2	2	90	11
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	15	15	33	0
		Copper, Cu	mg/kg	0.5	30	31	32	4
		Nickel, Ni	mg/kg	0.5	8.6	8.7	36	0
		Lead, Pb	mg/kg	1	10	11	39	9
		Zinc, Zn	mg/kg	2	43	44	35	1
SE263256.080	LB309102.023	Arsenic, As	mg/kg	1	1	<1	119	24
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	26	26	32	1
		Copper, Cu	mg/kg	0.5	4.2	4.2	42	1
		Nickel, Ni	mg/kg	0.5	11	11	34	0
		Lead, Pb	mg/kg	1	6	6	46	5
		Zinc, Zn	mg/kg	2	25	26	38	2
SE263256.090	LB309203.014	Arsenic, As	mg/kg	1	1	1	119	4
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	34	36	31	6
		Copper, Cu	mg/kg	0.5	3.1	3.8	44	22
		Nickel, Ni	mg/kg	0.5	14	14	34	6
		Lead, Pb	mg/kg	1	8	8	43	0
		Zinc, Zn	mg/kg	2	26	29	37	10
SE263256.103	LB309231.014	Arsenic, As	mg/kg	1	5	5	51	7
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	20	18	33	8
		Copper, Cu	mg/kg	0.5	10	8.7	35	13
		Nickel, Ni	mg/kg	0.5	9.1	8.7	36	5
		Lead, Pb	mg/kg	1	12	9	40	29

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued) — **Method: ME-(AU)-[ENV]AN040/AN320**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.103	LB309231.014		Zinc, Zn	mg/kg	2	36	32	36	11
SE263256.104	LB309203.024		Arsenic, As	mg/kg	1	4	3	58	14
			Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
			Chromium, Cr	mg/kg	0.5	24	23	32	6
			Copper, Cu	mg/kg	0.5	15	14	33	8
			Nickel, Ni	mg/kg	0.5	11	10	35	8
			Lead, Pb	mg/kg	1	22	16	35	31
			Zinc, Zn	mg/kg	2	58	52	34	11

TRH (Total Recoverable Hydrocarbons) in Soil — **Method: ME-(AU)-[ENV]AN403**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263252.029	LB309083.014		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
SE263256.010	LB309049.014		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
SE263256.019	LB309049.024		TRH C10-C14	mg/kg	20	24	22	116	8
			TRH C15-C28	mg/kg	45	170	160	57	3
			TRH C29-C36	mg/kg	45	360	390	42	8
			TRH C37-C40	mg/kg	100	170	190	86	11
			TRH C10-C36 Total	mg/kg	110	550	580	50	4
			TRH >C10-C40 Total (F bands)	mg/kg	210	690	740	59	7
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	139	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	380	400	53	5
			TRH >C34-C40 (F4)	mg/kg	120	310	340	67	8
SE263256.029	LB309050.014		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
SE263256.038	LB309050.024		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

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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 Soil (continued) **Method: ME-(AU)-[ENV]AN403**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.048	LB309051.014		TRH C10-C14	mg/kg	20	48	29	82	47
			TRH C15-C28	mg/kg	45	<45	<45	152	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	56	35	85	46
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	55	35	86	45
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
SE263256.057	LB309051.024		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
SE263256.067	LB309052.014		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
SE263256.076	LB309052.024		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
SE263256.080	LB309083.023		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
SE263256.090	LB309084.014		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
SE263256.104	LB309084.024		TRH C10-C14	mg/kg	20	<20	<20	200	0

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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 Soil (continued) Method: ME-(AU)-[ENV]AN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.104	LB309084.024		TRH C15-C28	mg/kg	45	130	210	57	46
			TRH C29-C36	mg/kg	45	110	120	70	6
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	240	320	69	30
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	290	115	30
		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	210	290	67	32
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0

VOC's in Soil Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263252.029	LB309092.014	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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.9	10	50	3
			d8-toluene (Surrogate)	mg/kg	-	11	11	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.5	8.8	50	4
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE263256.010	LB309198.014	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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.2	8.6	50	5
			d8-toluene (Surrogate)	mg/kg	-	8.9	9.1	50	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.3	8.0	50	4
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE263256.019	LB309198.024	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	0.4	0.5	78	32
			o-xylene	mg/kg	0.1	0.1	0.2	97	30
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.7	9.7	50	0
			d8-toluene (Surrogate)	mg/kg	-	9.0	9.1	50	1
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.9	9.8	50	0
		Totals	Total BTEX*	mg/kg	0.3	0.5	0.7	83	31
			Total Xylenes*	mg/kg	0.3	0.5	0.7	83	31
SE263256.029	LB309217.014	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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.8	8.7	50	1
			d8-toluene (Surrogate)	mg/kg	-	8.8	9.0	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.8	7.5	50	3
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE263256.038	LB309217.024	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

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.038	LB309217.024	Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.1	9.3	50	1
			d8-toluene (Surrogate)	mg/kg	-	9.2	9.4	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.6	7.8	50	2
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE263256.048	LB309219.014	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 (VOC)*	mg/kg	0.1	1.0	1.3	39	21
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.0	8.6	50	8
			d8-toluene (Surrogate)	mg/kg	-	9.6	10	50	9
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.3	8.5	50	15
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE263256.057	LB309219.024	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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.2	9.7	50	5
			d8-toluene (Surrogate)	mg/kg	-	8.9	9.5	50	6
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.7	8.0	50	3
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE263256.067	LB309221.014	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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	12	11	50	6
			d8-toluene (Surrogate)	mg/kg	-	13	12	50	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.7	9.7	50	0
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE263256.076	LB309221.024	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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.2	9.5	50	16
			d8-toluene (Surrogate)	mg/kg	-	7.8	9.1	50	15
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.0	9.2	50	14
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE263256.080	LB309092.023	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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.1	8.4	50	3
			d8-toluene (Surrogate)	mg/kg	-	8.5	8.9	50	4
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.4	8.9	50	5
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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)-[ENV]AN433**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.090	LB309199.014	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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10	10	50	0
			d8-toluene (Surrogate)	mg/kg	-	9.5	9.5	50	0
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.9	10	50	1
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE263256.104	LB309199.024	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 (VOC)*	mg/kg	0.1	0.1	0.3	77	80 ②
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10	10	50	0
			d8-toluene (Surrogate)	mg/kg	-	9.5	9.9	50	4
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.7	11	50	12
		Totals	Total BTEX*	mg/kg	0.3	<0.3	<0.3	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0

Volatile Petroleum Hydrocarbons in Soil — **Method: ME-(AU)-[ENV]AN433**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263252.029	LB309092.014		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	10.1	50	3
			d8-toluene (Surrogate)	mg/kg	-	10.5	10.7	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.5	8.8	50	4
		VPH F Bands	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
SE263256.010	LB309198.014		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	-	8.2	8.6	50	5
			d8-toluene (Surrogate)	mg/kg	-	8.9	9.1	50	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.3	8.0	50	4
		VPH F Bands	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
SE263256.019	LB309198.024		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	-	9.7	9.7	50	0
			d8-toluene (Surrogate)	mg/kg	-	9.0	9.1	50	1
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.9	9.8	50	0
		VPH F Bands	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
SE263256.029	LB309217.014		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	-	8.8	8.7	50	1
			d8-toluene (Surrogate)	mg/kg	-	8.8	9.0	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.8	7.5	50	3
		VPH F Bands	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
SE263256.038	LB309217.024		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	-	9.1	9.3	50	1
			d8-toluene (Surrogate)	mg/kg	-	9.2	9.4	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.6	7.8	50	2
		VPH F Bands	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
SE263256.048	LB309219.014		TRH C6-C10	mg/kg	25	<25	<25	200	0

SGS

DUPLICATES

SE263256 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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 Soil (continued) **Method: ME-(AU)-[ENV]AN433**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263256.048	LB309219.014		TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.0	8.6	50	8
			d8-toluene (Surrogate)	mg/kg	-	9.6	10.5	50	9
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.3	8.5	50	15
		VPH F Bands	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
SE263256.057	LB309219.024		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	-	9.2	9.7	50	5
			d8-toluene (Surrogate)	mg/kg	-	8.9	9.5	50	6
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.7	8.0	50	3
		VPH F Bands	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
SE263256.067	LB309221.014		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	-	11.9	11.2	50	6
			d8-toluene (Surrogate)	mg/kg	-	12.7	12.3	50	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.7	9.7	50	0
		VPH F Bands	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
SE263256.076	LB309221.024		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	-	8.2	9.5	50	16
			d8-toluene (Surrogate)	mg/kg	-	7.8	9.1	50	15
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.0	9.2	50	14
		VPH F Bands	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
SE263256.080	LB309092.023		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	-	8.1	8.4	50	3
			d8-toluene (Surrogate)	mg/kg	-	8.5	8.9	50	4
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.4	8.9	50	5
		VPH F Bands	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
SE263256.090	LB309199.014		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	-	10.3	10.3	50	0
			d8-toluene (Surrogate)	mg/kg	-	9.5	9.5	50	0
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.9	10.0	50	1
		VPH F Bands	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
SE263256.104	LB309199.024		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	-	10.3	10.2	50	0
			d8-toluene (Surrogate)	mg/kg	-	9.5	9.9	50	4
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.7	10.9	50	12
		VPH F Bands	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

SGS

LABORATORY CONTROL SAMPLES

SE263256 R0

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.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309107.002	Mercury	mg/kg	0.05	0.22	0.2	80 - 120	112
LB309204.002	Mercury	mg/kg	0.05	0.24	0.2	80 - 120	118
LB309212.002	Mercury	mg/kg	0.05	0.21	0.2	80 - 120	104
LB309236.002	Mercury	mg/kg	0.05	0.22	0.2	80 - 120	110
LB309237.002	Mercury	mg/kg	0.05	0.22	0.2	80 - 120	112
LB309238.002	Mercury	mg/kg	0.05	0.22	0.2	80 - 120	110
LB309240.002	Mercury	mg/kg	0.05	0.22	0.2	80 - 120	109

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309082.002		Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	83
		Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	82
		Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	87
		Dieldrin	mg/kg	0.2	<0.2	0.2	60 - 140	80
		Endrin	mg/kg	0.2	<0.2	0.2	60 - 140	74
		p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	76
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.13	0.15	40 - 130	89

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309049.002		Naphthalene	mg/kg	0.1	4.2	4	60 - 140	105
		Acenaphthylene	mg/kg	0.1	4.1	4	60 - 140	103
		Acenaphthene	mg/kg	0.1	4.2	4	60 - 140	105
		Phenanthrene	mg/kg	0.1	4.2	4	60 - 140	106
		Anthracene	mg/kg	0.1	4.4	4	60 - 140	110
		Fluoranthene	mg/kg	0.1	4.5	4	60 - 140	112
		Pyrene	mg/kg	0.1	4.3	4	60 - 140	108
		Benzo(a)pyrene	mg/kg	0.1	5.3	4	60 - 140	132
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	107
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	84
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	110
LB309050.002		Naphthalene	mg/kg	0.1	4.2	4	60 - 140	106
		Acenaphthylene	mg/kg	0.1	4.1	4	60 - 140	102
		Acenaphthene	mg/kg	0.1	4.4	4	60 - 140	110
		Phenanthrene	mg/kg	0.1	4.3	4	60 - 140	109
		Anthracene	mg/kg	0.1	4.5	4	60 - 140	114
		Fluoranthene	mg/kg	0.1	4.4	4	60 - 140	110
		Pyrene	mg/kg	0.1	4.3	4	60 - 140	109
		Benzo(a)pyrene	mg/kg	0.1	5.2	4	60 - 140	131
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	102
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	101
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	102
LB309051.002		Naphthalene	mg/kg	0.1	4.1	4	60 - 140	103
		Acenaphthylene	mg/kg	0.1	4.0	4	60 - 140	100
		Acenaphthene	mg/kg	0.1	4.1	4	60 - 140	103
		Phenanthrene	mg/kg	0.1	4.0	4	60 - 140	101
		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	3.8	4	60 - 140	94
		Benzo(a)pyrene	mg/kg	0.1	4.4	4	60 - 140	110
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	95
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	106
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	94
LB309052.002		Naphthalene	mg/kg	0.1	4.1	4	60 - 140	101
		Acenaphthylene	mg/kg	0.1	4.1	4	60 - 140	102
		Acenaphthene	mg/kg	0.1	4.2	4	60 - 140	106
		Phenanthrene	mg/kg	0.1	4.2	4	60 - 140	104
		Anthracene	mg/kg	0.1	4.3	4	60 - 140	108
		Fluoranthene	mg/kg	0.1	4.3	4	60 - 140	108
		Pyrene	mg/kg	0.1	4.3	4	60 - 140	109
		Benzo(a)pyrene	mg/kg	0.1	4.4	4	60 - 140	109
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	97

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LABORATORY CONTROL SAMPLES

SE263256 R0

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.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309052.002	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	98
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	100
LB309083.002		Naphthalene	mg/kg	0.1	4.2	4	60 - 140	106
		Acenaphthylene	mg/kg	0.1	4.0	4	60 - 140	100
		Acenaphthene	mg/kg	0.1	4.3	4	60 - 140	107
		Phenanthrene	mg/kg	0.1	4.1	4	60 - 140	103
		Anthracene	mg/kg	0.1	4.3	4	60 - 140	108
		Fluoranthene	mg/kg	0.1	4.2	4	60 - 140	106
		Pyrene	mg/kg	0.1	4.6	4	60 - 140	115
		Benzo(a)pyrene	mg/kg	0.1	4.3	4	60 - 140	107
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.5	40 - 130	110
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	101
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	110
LB309084.002		Naphthalene	mg/kg	0.1	4.1	4	60 - 140	102
		Acenaphthylene	mg/kg	0.1	4.0	4	60 - 140	101
		Acenaphthene	mg/kg	0.1	4.2	4	60 - 140	106
		Phenanthrene	mg/kg	0.1	4.2	4	60 - 140	104
		Anthracene	mg/kg	0.1	4.4	4	60 - 140	109
		Fluoranthene	mg/kg	0.1	4.2	4	60 - 140	105
		Pyrene	mg/kg	0.1	4.4	4	60 - 140	111
		Benzo(a)pyrene	mg/kg	0.1	4.1	4	60 - 140	104
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.5	40 - 130	111
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	102
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.5	40 - 130	112

Speciated Phenols in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309082.002		Phenol	mg/kg	0.5	1.2	1	70 - 130	124
		2,4-dichlorophenol	mg/kg	0.5	1.0	1	70 - 130	98
		2,4,6-trichlorophenol	mg/kg	0.5	1.0	1	70 - 130	96
		Pentachlorophenol	mg/kg	0.5	0.7	1	70 - 130	70
	Surrogates	2,4,6-Tribromophenol (Surrogate)	mg/kg	-	5.4	5	40 - 130	108
		d5-phenol (Surrogate)	mg/kg	-	2.5	2	40 - 130	127

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 %
LB309102.002	Arsenic, As	mg/kg	1	330	318.22	80 - 120	105
	Cadmium, Cd	mg/kg	0.3	4.3	4.81	70 - 130	90
	Chromium, Cr	mg/kg	0.5	39	38.31	80 - 120	102
	Copper, Cu	mg/kg	0.5	330	290	80 - 120	112
	Nickel, Ni	mg/kg	0.5	190	187	80 - 120	102
	Lead, Pb	mg/kg	1	94	89.9	80 - 120	105
	Zinc, Zn	mg/kg	2	280	273	80 - 120	104
LB309203.002	Arsenic, As	mg/kg	1	310	318.22	80 - 120	96
	Cadmium, Cd	mg/kg	0.3	4.0	4.81	70 - 130	82
	Chromium, Cr	mg/kg	0.5	36	38.31	80 - 120	95
	Copper, Cu	mg/kg	0.5	290	290	80 - 120	102
	Nickel, Ni	mg/kg	0.5	180	187	80 - 120	94
	Lead, Pb	mg/kg	1	86	89.9	80 - 120	96
	Zinc, Zn	mg/kg	2	260	273	80 - 120	95
LB309211.002	Arsenic, As	mg/kg	1	320	318.22	80 - 120	102
	Cadmium, Cd	mg/kg	0.3	4.2	4.81	70 - 130	87
	Chromium, Cr	mg/kg	0.5	39	38.31	80 - 120	103
	Copper, Cu	mg/kg	0.5	310	290	80 - 120	107
	Nickel, Ni	mg/kg	0.5	180	187	80 - 120	98
	Lead, Pb	mg/kg	1	90	89.9	80 - 120	100
	Zinc, Zn	mg/kg	2	270	273	80 - 120	99
LB309226.002	Arsenic, As	mg/kg	1	340	318.22	80 - 120	108
	Cadmium, Cd	mg/kg	0.3	4.5	4.81	70 - 130	93
	Chromium, Cr	mg/kg	0.5	42	38.31	80 - 120	111
	Copper, Cu	mg/kg	0.5	340	290	80 - 120	116
	Nickel, Ni	mg/kg	0.5	200	187	80 - 120	104

SGS

LABORATORY CONTROL SAMPLES

SE263256 R0

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 Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued)

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309226.002	Lead, Pb	mg/kg	1	96	89.9	80 - 120	107
	Zinc, Zn	mg/kg	2	290	273	80 - 120	107
LB309227.002	Arsenic, As	mg/kg	1	330	318.22	80 - 120	103
	Cadmium, Cd	mg/kg	0.3	4.3	4.81	70 - 130	89
	Chromium, Cr	mg/kg	0.5	39	38.31	80 - 120	101
	Copper, Cu	mg/kg	0.5	320	290	80 - 120	111
	Nickel, Ni	mg/kg	0.5	190	187	80 - 120	100
	Lead, Pb	mg/kg	1	93	89.9	80 - 120	103
	Zinc, Zn	mg/kg	2	280	273	80 - 120	102
LB309228.002	Arsenic, As	mg/kg	1	320	318.22	80 - 120	101
	Cadmium, Cd	mg/kg	0.3	4.2	4.81	70 - 130	86
	Chromium, Cr	mg/kg	0.5	38	38.31	80 - 120	100
	Copper, Cu	mg/kg	0.5	310	290	80 - 120	107
	Nickel, Ni	mg/kg	0.5	180	187	80 - 120	98
	Lead, Pb	mg/kg	1	91	89.9	80 - 120	101
	Zinc, Zn	mg/kg	2	270	273	80 - 120	99
LB309231.002	Arsenic, As	mg/kg	1	330	318.22	80 - 120	105
	Cadmium, Cd	mg/kg	0.3	4.2	4.81	70 - 130	87
	Chromium, Cr	mg/kg	0.5	40	38.31	80 - 120	106
	Copper, Cu	mg/kg	0.5	310	290	80 - 120	108
	Nickel, Ni	mg/kg	0.5	190	187	80 - 120	100
	Lead, Pb	mg/kg	1	92	89.9	80 - 120	102
	Zinc, Zn	mg/kg	2	280	273	80 - 120	102

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309049.002		TRH C10-C14	mg/kg	20	51	40	60 - 140	128
		TRH C15-C28	mg/kg	45	45	40	60 - 140	113
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	87
	TRH F Bands	TRH >C10-C16	mg/kg	25	50	40	60 - 140	124
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	100
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	88
LB309050.002		TRH C10-C14	mg/kg	20	37	40	60 - 140	93
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	94
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	71
	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	86
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	72
LB309051.002		TRH C10-C14	mg/kg	20	44	40	60 - 140	110
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	112
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	96
	TRH F Bands	TRH >C10-C16	mg/kg	25	45	40	60 - 140	113
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	104
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	98
LB309052.002		TRH C10-C14	mg/kg	20	43	40	60 - 140	106
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	96
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	68
	TRH F Bands	TRH >C10-C16	mg/kg	25	42	40	60 - 140	105
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	81
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	75
LB309083.002		TRH C10-C14	mg/kg	20	52	40	60 - 140	131
		TRH C15-C28	mg/kg	45	49	40	60 - 140	123
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	95
	TRH F Bands	TRH >C10-C16	mg/kg	25	53	40	60 - 140	132
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	110
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	90
LB309084.002		TRH C10-C14	mg/kg	20	36	40	60 - 140	89
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	91
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	85
	TRH F Bands	TRH >C10-C16	mg/kg	25	37	40	60 - 140	92
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	88

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LABORATORY CONTROL SAMPLES

SE263256 R0

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]AN403

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309084.002	TRH F Bands	TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	84

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309092.002	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.6	5	60 - 140	91
		Toluene	mg/kg	0.1	4.6	5	60 - 140	92
		Ethylbenzene	mg/kg	0.1	4.5	5	60 - 140	90
		m/p-xylene	mg/kg	0.2	8.9	10	60 - 140	89
		o-xylene	mg/kg	0.1	4.5	5	60 - 140	90
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.8	10	70 - 130	98
		d8-toluene (Surrogate)	mg/kg	-	10	10	70 - 130	101
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.9	10	70 - 130	99
LB309198.002	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.7	5	60 - 140	93
		Toluene	mg/kg	0.1	4.6	5	60 - 140	92
		Ethylbenzene	mg/kg	0.1	4.5	5	60 - 140	91
		m/p-xylene	mg/kg	0.2	9.0	10	60 - 140	90
		o-xylene	mg/kg	0.1	4.5	5	60 - 140	91
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.6	10	70 - 130	96
		d8-toluene (Surrogate)	mg/kg	-	9.8	10	70 - 130	98
		Bromofluorobenzene (Surrogate)	mg/kg	-	10	10	70 - 130	100
LB309199.002	Monocyclic Aromatic	Benzene	mg/kg	0.1	5.0	5	60 - 140	101
		Toluene	mg/kg	0.1	4.9	5	60 - 140	98
		Ethylbenzene	mg/kg	0.1	4.8	5	60 - 140	95
		m/p-xylene	mg/kg	0.2	9.6	10	60 - 140	96
		o-xylene	mg/kg	0.1	4.8	5	60 - 140	97
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11	10	70 - 130	115
		d8-toluene (Surrogate)	mg/kg	-	10	10	70 - 130	105
		Bromofluorobenzene (Surrogate)	mg/kg	-	10	10	70 - 130	102
LB309217.002	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.4	5	60 - 140	88
		Toluene	mg/kg	0.1	4.4	5	60 - 140	89
		Ethylbenzene	mg/kg	0.1	4.1	5	60 - 140	83
		m/p-xylene	mg/kg	0.2	8.0	10	60 - 140	80
		o-xylene	mg/kg	0.1	4.0	5	60 - 140	81
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.2	10	70 - 130	92
		d8-toluene (Surrogate)	mg/kg	-	11	10	70 - 130	112
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.3	10	70 - 130	93
LB309219.002	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.5	5	60 - 140	90
		Toluene	mg/kg	0.1	4.6	5	60 - 140	91
		Ethylbenzene	mg/kg	0.1	4.4	5	60 - 140	88
		m/p-xylene	mg/kg	0.2	8.5	10	60 - 140	85
		o-xylene	mg/kg	0.1	4.2	5	60 - 140	85
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11	10	70 - 130	106
		d8-toluene (Surrogate)	mg/kg	-	13	10	70 - 130	126
		Bromofluorobenzene (Surrogate)	mg/kg	-	10	10	70 - 130	103
LB309221.002	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.8	5	60 - 140	95
		Toluene	mg/kg	0.1	4.6	5	60 - 140	93
		Ethylbenzene	mg/kg	0.1	4.6	5	60 - 140	91
		m/p-xylene	mg/kg	0.2	9.2	10	60 - 140	92
		o-xylene	mg/kg	0.1	4.6	5	60 - 140	92
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10	10	70 - 130	103
		d8-toluene (Surrogate)	mg/kg	-	9.9	10	70 - 130	99
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.2	10	70 - 130	92

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309092.002		TRH C6-C10	mg/kg	25	84	92.5	60 - 140	90
		TRH C6-C9	mg/kg	20	71	80	60 - 140	89
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.8	10	70 - 130	98
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.9	10	70 - 130	99
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	57	62.5	60 - 140	90
LB309198.002		TRH C6-C10	mg/kg	25	87	92.5	60 - 140	94
		TRH C6-C9	mg/kg	20	74	80	60 - 140	93

SGS

LABORATORY CONTROL SAMPLES

SE263256 R0

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.

Volatile Petroleum Hydrocarbons in Soil (continued) **Method: ME-(AU)-[ENV]AN433**

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB309198.002	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.6	10	70 - 130	96
		Bromofluorobenzene (Surrogate)	mg/kg	-	10.0	10	70 - 130	100
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	60	62.5	60 - 140	96
LB309199.002		TRH C6-C10	mg/kg	25	73	92.5	60 - 140	79
		TRH C6-C9	mg/kg	20	64	80	60 - 140	80
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11.5	10	70 - 130	115
		Bromofluorobenzene (Surrogate)	mg/kg	-	10.2	10	70 - 130	102
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	43	62.5	60 - 140	70
LB309217.002		TRH C6-C10	mg/kg	25	77	92.5	60 - 140	83
		TRH C6-C9	mg/kg	20	65	80	60 - 140	82
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.2	10	70 - 130	92
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.3	10	70 - 130	93
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	52	62.5	60 - 140	83
LB309219.002		TRH C6-C10	mg/kg	25	68	92.5	60 - 140	73
		TRH C6-C9	mg/kg	20	58	80	60 - 140	73
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.6	10	70 - 130	106
		Bromofluorobenzene (Surrogate)	mg/kg	-	10.3	10	70 - 130	103
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	42	62.5	60 - 140	67
LB309221.002		TRH C6-C10	mg/kg	25	81	92.5	60 - 140	88
		TRH C6-C9	mg/kg	20	71	80	60 - 140	88
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.3	10	70 - 130	103
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.2	10	70 - 130	92
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	53	62.5	60 - 140	85

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MATRIX SPIKES

SE263256 R0

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 identifer 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%
SE263256.001	LB309212.004	Mercury	mg/kg	0.05	0.23	<0.05	0.2	110
SE263256.020	LB309237.004	Mercury	mg/kg	0.05	0.24	<0.05	0.2	115
SE263256.039	LB309238.004	Mercury	mg/kg	0.05	0.23	<0.05	0.2	109
SE263256.058	LB309240.004	Mercury	mg/kg	0.05	0.23	<0.05	0.2	109
SE263256.081	LB309204.004	Mercury	mg/kg	0.05	0.23	<0.05	0.2	109
SE263274.001	LB309236.004	Mercury	mg/kg	0.05	0.25	<0.05	0.2	116

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE263252.020	LB309083.004		Naphthalene	mg/kg	0.1	4.0	<0.1	4	100
			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	3.9	<0.1	4	97
			Acenaphthene	mg/kg	0.1	4.1	<0.1	4	103
			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	4.2	<0.1	4	105
			Fluoranthene	mg/kg	0.1	4.1	<0.1	4	103
			Pyrene	mg/kg	0.1	4.4	<0.1	4	110
			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	100
			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/2*	TEQ (mg/kg)	0.2	4.1	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	4.2	<0.3	-	-
			Total PAH (18)	mg/kg	0.8	33	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.6	-	111
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	101
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	107
SE263256.001	LB309049.004		Naphthalene	mg/kg	0.1	4.1	<0.1	4	103
			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	4.2	<0.1	4	105
			Acenaphthene	mg/kg	0.1	4.2	<0.1	4	104
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.2	<0.1	4	103
			Anthracene	mg/kg	0.1	4.1	<0.1	4	101
			Fluoranthene	mg/kg	0.1	4.6	<0.1	4	113
			Pyrene	mg/kg	0.1	4.5	0.1	4	110
			Benzo(a)anthracene	mg/kg	0.1	0.2	<0.1	-	-
			Chrysene	mg/kg	0.1	0.3	0.1	-	-
			Benzo(b&j)fluoranthene	mg/kg	0.1	0.5	0.2	-	-
			Benzo(k)fluoranthene	mg/kg	0.1	0.2	<0.1	-	-
			Benzo(a)pyrene	mg/kg	0.1	5.4	0.1	4	132
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.3	0.1	-	-
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(ghi)perylene	mg/kg	0.1	0.2	<0.1	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	5.5	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	5.6	0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	5.6	<0.3	-	-
			Total PAH (18)	mg/kg	0.8	37	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	-	107
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	84
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.6	-	114
SE263256.020	LB309050.004		Naphthalene	mg/kg	0.1	4.3	<0.1	4	107
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-

SGS

MATRIX SPIKES

SE263256 R0

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 identifer 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%
SE263256.020	LB309050.004		1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
			Acenaphthylene	mg/kg	0.1	4.0	<0.1	4	100
			Acenaphthene	mg/kg	0.1	4.3	<0.1	4	108
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.4	<0.1	4	110
			Anthracene	mg/kg	0.1	4.6	<0.1	4	114
			Fluoranthene	mg/kg	0.1	4.5	<0.1	4	112
			Pyrene	mg/kg	0.1	4.4	<0.1	4	109
			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	5.0	<0.1	4	125
			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	5.0	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	5.1	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	5.1	<0.3	-	-
			Total PAH (18)	mg/kg	0.8	35	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	-	99
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	101
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	102
SE263256.039	LB309051.004		Naphthalene	mg/kg	0.1	4.1	<0.1	4	102
			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	4.0	<0.1	4	99
			Acenaphthene	mg/kg	0.1	4.1	<0.1	4	103
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.1	<0.1	4	102
			Anthracene	mg/kg	0.1	4.0	<0.1	4	99
			Fluoranthene	mg/kg	0.1	4.3	<0.1	4	106
			Pyrene	mg/kg	0.1	4.0	<0.1	4	97
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
			Chrysene	mg/kg	0.1	0.2	<0.1	-	-
			Benzo(b&j)fluoranthene	mg/kg	0.1	0.2	<0.1	-	-
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(a)pyrene	mg/kg	0.1	4.4	<0.1	4	110
			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	4.5	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	4.5	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	4.6	<0.3	-	-
			Total PAH (18)	mg/kg	0.8	33	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	-	101
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.6	0.5	-	111
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	96
SE263256.058	LB309052.004		Naphthalene	mg/kg	0.1	4.0	<0.1	4	99
			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	4.0	<0.1	4	101
			Acenaphthene	mg/kg	0.1	4.2	<0.1	4	104
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.2	<0.1	4	104
			Anthracene	mg/kg	0.1	4.0	<0.1	4	101
			Fluoranthene	mg/kg	0.1	4.3	<0.1	4	106
			Pyrene	mg/kg	0.1	4.3	<0.1	4	106
			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	-	-

SGS

MATRIX SPIKES

SE263256 R0

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 identifer 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%
SE263256.058	LB309052.004		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(a)pyrene	mg/kg	0.1	4.3	<0.1	4	106
			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	4.3	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	4.3	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	4.4	<0.3	-	-
			Total PAH (18)	mg/kg	0.8	33	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	-	98
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	98
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	105
SE263256.081	LB309084.004		Naphthalene	mg/kg	0.1	4.1	<0.1	4	103
			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	3.9	<0.1	4	97
			Acenaphthene	mg/kg	0.1	4.2	<0.1	4	106
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.1	<0.1	4	104
			Anthracene	mg/kg	0.1	4.4	<0.1	4	109
			Fluoranthene	mg/kg	0.1	4.3	<0.1	4	107
			Pyrene	mg/kg	0.1	4.5	<0.1	4	111
			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/2*	TEQ (mg/kg)	0.2	4.3	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	4.3	<0.3	-	-
			Total PAH (18)	mg/kg	0.8	34	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.6	-	109
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	101
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.5	-	111

Speciated Phenols in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE263252.020	LB309082.004		Phenol	mg/kg	0.5	1.2	<0.5	1	122
			2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5	<0.5	-	-
			3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1	<1	-	-
			Total Cresol	mg/kg	1.5	<1.5	<1.5	-	-
			2-chlorophenol	mg/kg	0.5	<0.5	<0.5	-	-
			2,4-dimethylphenol	mg/kg	0.5	<0.5	<0.5	-	-
			2,6-dichlorophenol	mg/kg	0.5	<0.5	<0.5	-	-
			2,4-dichlorophenol	mg/kg	0.5	0.9	<0.5	1	94
			4-chloro-3-methylphenol	mg/kg	2	<2	<2	-	-
			2,4,6-trichlorophenol	mg/kg	0.5	0.9	<0.5	1	94
			2-nitrophenol	mg/kg	0.5	<0.5	<0.5	-	-
			4-nitrophenol	mg/kg	1	<1	<1	-	-
			2,4,5-trichlorophenol	mg/kg	0.5	0.9	<0.5	-	-
			2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1	<1	-	-
			Pentachlorophenol	mg/kg	0.5	0.7	<0.5	1	74
			2,4-dinitrophenol	mg/kg	2	<2	<2	-	-
		Surrogates	2,4,6-Tribromophenol (Surrogate)	mg/kg	-	5.3	4.6	-	106
			d5-phenol (Surrogate)	mg/kg	-	2.4	2.2	-	121

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

QC Sample	Sample Number	Parameter	Units	LOR

SGS

MATRIX SPIKES

SE263256 R0

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Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued) — **Method: ME-(AU)-[ENV]AN040/AN320**

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE263252.020	LB309102.004	Arsenic, As	mg/kg	1	57	11	50	91
		Cadmium, Cd	mg/kg	0.3	42	<0.3	50	85
		Chromium, Cr	mg/kg	0.5	71	25	50	92
		Copper, Cu	mg/kg	0.5	55	7.0	50	96
		Nickel, Ni	mg/kg	0.5	53	7.6	50	91
		Lead, Pb	mg/kg	1	64	21	50	86
		Zinc, Zn	mg/kg	2	71	26	50	91
SE263256.001	LB309211.004	Arsenic, As	mg/kg	1	46	2	50	89
		Cadmium, Cd	mg/kg	0.3	43	<0.3	50	85
		Chromium, Cr	mg/kg	0.5	63	18	50	89
		Copper, Cu	mg/kg	0.5	52	4.4	50	96
		Nickel, Ni	mg/kg	0.5	53	7.7	50	91
		Lead, Pb	mg/kg	1	53	6	50	92
		Zinc, Zn	mg/kg	2	69	23	50	91
SE263256.020	LB309226.004	Arsenic, As	mg/kg	1	45	2	50	87
		Cadmium, Cd	mg/kg	0.3	42	<0.3	50	85
		Chromium, Cr	mg/kg	0.5	64	20	50	88
		Copper, Cu	mg/kg	0.5	53	3.5	50	99
		Nickel, Ni	mg/kg	0.5	53	8.6	50	89
		Lead, Pb	mg/kg	1	61	16	50	90
		Zinc, Zn	mg/kg	2	67	30	50	73
SE263256.039	LB309227.004	Arsenic, As	mg/kg	1	50	5	50	91
		Cadmium, Cd	mg/kg	0.3	43	<0.3	50	85
		Chromium, Cr	mg/kg	0.5	68	24	50	89
		Copper, Cu	mg/kg	0.5	59	9.1	50	100
		Nickel, Ni	mg/kg	0.5	54	10	50	87
		Lead, Pb	mg/kg	1	56	12	50	88
		Zinc, Zn	mg/kg	2	95	39	50	114
SE263256.058	LB309228.004	Arsenic, As	mg/kg	1	42	2	50	79
		Cadmium, Cd	mg/kg	0.3	38	<0.3	50	75
		Chromium, Cr	mg/kg	0.5	64	28	50	71
		Copper, Cu	mg/kg	0.5	49	6.0	50	86
		Nickel, Ni	mg/kg	0.5	50	12	50	77
		Lead, Pb	mg/kg	1	82	44	50	76
		Zinc, Zn	mg/kg	2	93	54	50	79
SE263256.081	LB309203.004	Arsenic, As	mg/kg	1	42	2	50	80
		Cadmium, Cd	mg/kg	0.3	39	<0.3	50	77
		Chromium, Cr	mg/kg	0.5	75	41	50	69 ④
		Copper, Cu	mg/kg	0.5	46	2.2	50	87
		Nickel, Ni	mg/kg	0.5	54	17	50	74
		Lead, Pb	mg/kg	1	46	6	50	80
		Zinc, Zn	mg/kg	2	66	29	50	75
SE263274.001	LB309231.004	Arsenic, As	mg/kg	1	43	2	50	82
		Cadmium, Cd	mg/kg	0.3	40	<0.3	50	79
		Chromium, Cr	mg/kg	0.5	41	4.3	50	74
		Copper, Cu	mg/kg	0.5	130	92	50	77
		Nickel, Ni	mg/kg	0.5	43	3.6	50	78
		Lead, Pb	mg/kg	1	43	4	50	78
		Zinc, Zn	mg/kg	2	49	29	50	41 ④

TRH (Total Recoverable Hydrocarbons) in Soil — **Method: ME-(AU)-[ENV]AN403**

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE263252.020	LB309083.004		TRH C10-C14	mg/kg	20	52	<20	40	126
			TRH C15-C28	mg/kg	45	52	<45	40	122
			TRH C29-C36	mg/kg	45	46	<45	40	95
			TRH C37-C40	mg/kg	100	<100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	150	<110	-	-
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	-	-
		TRH F Bands	TRH >C10-C16	mg/kg	25	53	<25	40	126
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	53	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	112

SGS

MATRIX SPIKES

SE263256 R0

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 identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

TRH (Total Recoverable Hydrocarbons) in Soil (continued) — Method: ME-(AU)-[ENV]AN403

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE263252.020	LB309083.004	TRH F	TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE263256.001	LB309049.004		TRH C10-C14	mg/kg	20	52	<20	40	123
			TRH C15-C28	mg/kg	45	53	<45	40	116
			TRH C29-C36	mg/kg	45	<45	<45	40	69
			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	TRH >C10-C16	mg/kg	25	52	<25	40	123
		Bands	TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	52	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	88
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE263256.020	LB309050.004		TRH C10-C14	mg/kg	20	40	<20	40	96
			TRH C15-C28	mg/kg	45	<45	<45	40	87
			TRH C29-C36	mg/kg	45	<45	<45	40	73
			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	TRH >C10-C16	mg/kg	25	40	<25	40	95
		Bands	TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	40	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	76
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE263256.039	LB309051.004		TRH C10-C14	mg/kg	20	44	<20	40	106
			TRH C15-C28	mg/kg	45	54	<45	40	116
			TRH C29-C36	mg/kg	45	48	<45	40	94
			TRH C37-C40	mg/kg	100	<100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	150	<110	-	-
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	-	-
		TRH F	TRH >C10-C16	mg/kg	25	45	<25	40	107
		Bands	TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	45	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	112
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE263256.058	LB309052.004		TRH C10-C14	mg/kg	20	26	<20	40	66
			TRH C15-C28	mg/kg	45	150	81	40	178 ⓖ
			TRH C29-C36	mg/kg	45	170	79	40	238 ⓖ
			TRH C37-C40	mg/kg	100	<100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	350	160	-	-
			TRH >C10-C40 Total (F bands)	mg/kg	210	310	<210	-	-
		TRH F	TRH >C10-C16	mg/kg	25	30	<25	40	75
		Bands	TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	30	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	280	150	40	318 ⓖ
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE263256.081	LB309084.004		TRH C10-C14	mg/kg	20	40	<20	40	98
			TRH C15-C28	mg/kg	45	<45	<45	40	95
			TRH C29-C36	mg/kg	45	<45	<45	40	86
			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	TRH >C10-C16	mg/kg	25	41	<25	40	100
		Bands	TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	41	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	87
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-

VOC's in Soil — Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE263252.020	LB309092.004	Monocyclic	Benzene	mg/kg	0.1	4.5	<0.1	5	89
		Aromatic	Toluene	mg/kg	0.1	4.4	<0.1	5	89
			Ethylbenzene	mg/kg	0.1	4.5	<0.1	5	89
			m/p-xylene	mg/kg	0.2	8.9	<0.2	10	88
			o-xylene	mg/kg	0.1	4.5	<0.1	5	89
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.0	9.1	10	90

SGS

MATRIX SPIKES

SE263256 R0

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 identifer 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

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE263252.020	LB309092.004	Surrogates	d8-toluene (Surrogate)	mg/kg	-	9.9	9.7	10	99
			Bromofluorobenzene (Surrogate)	mg/kg	-	10	8.8	10	100
		Totals	Total BTEX*	mg/kg	0.3	27	<0.3	-	-
			Total Xylenes*	mg/kg	0.3	13	<0.3	-	-
SE263256.001	LB309198.004	Monocyclic Aromatic	Benzene	mg/kg	0.1	3.8	<0.1	5	76
			Toluene	mg/kg	0.1	4.1	<0.1	5	81
			Ethylbenzene	mg/kg	0.1	4.3	<0.1	5	85
			m/p-xylene	mg/kg	0.2	8.6	<0.2	10	85
			o-xylene	mg/kg	0.1	4.4	<0.1	5	87
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.7	7.0	10	77
			d8-toluene (Surrogate)	mg/kg	-	6.2	6.6	10	62 ⓘ
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.0	7.3	10	80
		Totals	Total BTEX*	mg/kg	0.3	25	<0.3	-	-
			Total Xylenes*	mg/kg	0.3	13	<0.3	-	-
SE263256.020	LB309217.004	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.0	<0.1	5	81
			Toluene	mg/kg	0.1	4.2	<0.1	5	83
			Ethylbenzene	mg/kg	0.1	4.0	<0.1	5	79
			m/p-xylene	mg/kg	0.2	7.7	<0.2	10	77
			o-xylene	mg/kg	0.1	3.8	<0.1	5	76
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.0	8.0	10	80
			d8-toluene (Surrogate)	mg/kg	-	9.5	7.9	10	95
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.5	7.8	10	85
		Totals	Total BTEX*	mg/kg	0.3	24	<0.3	-	-
			Total Xylenes*	mg/kg	0.3	12	<0.3	-	-
SE263256.039	LB309219.004	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.2	<0.1	5	84
			Toluene	mg/kg	0.1	4.4	<0.1	5	87
			Ethylbenzene	mg/kg	0.1	4.3	<0.1	5	85
			m/p-xylene	mg/kg	0.2	8.3	<0.2	10	83
			o-xylene	mg/kg	0.1	4.1	<0.1	5	82
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.2	8.8	10	92
			d8-toluene (Surrogate)	mg/kg	-	11	11	10	110
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.3	9.5	10	93
		Totals	Total BTEX*	mg/kg	0.3	25	<0.3	-	-
			Total Xylenes*	mg/kg	0.3	12	<0.3	-	-
SE263256.058	LB309221.004	Monocyclic Aromatic	Benzene	mg/kg	0.1	5.0	<0.1	5	101
			Toluene	mg/kg	0.1	4.9	<0.1	5	98
			Ethylbenzene	mg/kg	0.1	4.8	<0.1	5	96
			m/p-xylene	mg/kg	0.2	9.7	<0.2	10	97
			o-xylene	mg/kg	0.1	4.9	<0.1	5	97
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10	9.7	10	102
			d8-toluene (Surrogate)	mg/kg	-	9.8	9.3	10	98
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.1	9.5	10	91
		Totals	Total BTEX*	mg/kg	0.3	29	<0.3	-	-
			Total Xylenes*	mg/kg	0.3	15	<0.3	-	-
SE263256.081	LB309199.004	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.7	<0.1	5	95
			Toluene	mg/kg	0.1	4.8	<0.1	5	95
			Ethylbenzene	mg/kg	0.1	4.7	<0.1	5	94
			m/p-xylene	mg/kg	0.2	9.6	<0.2	10	96
			o-xylene	mg/kg	0.1	4.9	<0.1	5	97
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11	9.5	10	108
			d8-toluene (Surrogate)	mg/kg	-	10	8.7	10	100
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.6	9.3	10	96
		Totals	Total BTEX*	mg/kg	0.3	29	<0.3	-	-
			Total Xylenes*	mg/kg	0.3	15	<0.3	-	-

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MATRIX SPIKES

SE263256 R0

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 identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Volatile Petroleum Hydrocarbons in Soil — **Method: ME-(AU)-[ENV]AN433**

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE263252.020	LB309092.004		TRH C6-C10	mg/kg	25	81	<25	92.5	88
			TRH C6-C9	mg/kg	20	70	<20	80	88
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.0	9.1	10	90
			d8-toluene (Surrogate)	mg/kg	-	9.9	9.7	10	99
			Bromofluorobenzene (Surrogate)	mg/kg	-	10.0	8.8	-	100
		VPH F	Benzene (F0)	mg/kg	0.1	4.5	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	55	<25	62.5	87
SE263256.001	LB309198.004		TRH C6-C10	mg/kg	25	66	<25	92.5	69
			TRH C6-C9	mg/kg	20	57	<20	80	68
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.7	7.0	10	77
			d8-toluene (Surrogate)	mg/kg	-	6.2	6.6	10	62 ①
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.0	7.3	-	80
		VPH F	Benzene (F0)	mg/kg	0.1	3.8	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	41	<25	62.5	63
SE263256.020	LB309217.004		TRH C6-C10	mg/kg	25	64	<25	92.5	68
			TRH C6-C9	mg/kg	20	55	<20	80	67
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.0	8.0	10	80
			d8-toluene (Surrogate)	mg/kg	-	9.5	7.9	10	95
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.5	7.8	-	85
		VPH F	Benzene (F0)	mg/kg	0.1	4.0	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	40	<25	62.5	62
SE263256.039	LB309219.004		TRH C6-C10	mg/kg	25	64	<25	92.5	68
			TRH C6-C9	mg/kg	20	56	<20	80	70
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.2	8.8	10	92
			d8-toluene (Surrogate)	mg/kg	-	11.0	11.0	10	110
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.3	9.5	-	93
		VPH F	Benzene (F0)	mg/kg	0.1	4.2	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	38	<25	62.5	60
SE263256.058	LB309221.004		TRH C6-C10	mg/kg	25	92	<25	92.5	91
			TRH C6-C9	mg/kg	20	80	<20	80	90
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.2	9.7	10	102
			d8-toluene (Surrogate)	mg/kg	-	9.8	9.3	10	98
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.1	9.5	-	91
		VPH F	Benzene (F0)	mg/kg	0.1	5.0	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	63	<25	62.5	87
SE263256.081	LB309199.004		TRH C6-C10	mg/kg	25	70	<25	92.5	75
			TRH C6-C9	mg/kg	20	62	<20	80	78
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.8	9.5	10	108
			d8-toluene (Surrogate)	mg/kg	-	10.0	8.7	10	100
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.6	9.3	-	96
		VPH F	Benzene (F0)	mg/kg	0.1	4.7	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	41	<25	62.5	65

MATRIX SPIKE DUPLICATES

SE263256 R0

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / 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 x 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 identifer when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

FOOTNOTES SE263256 R0

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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Chain of Custody Form – Ref 43874

Sheet 1 of 6

Ref: 43874

Investigator: Envirowest Consulting
9 Cameron Place
PO Box 8158
ORANGE NSW 2800

Telephone: (02) 6361 4954
Facsimile: (02) 6360 3960
Email: felipe@envirowest.net.au
Contact Person: Felipe Canavez
Invoice: accounts@envirowest.net.au

Laboratory: SGS SYDNEY
16/33 Maddox Street
ALEXANDRIA NSW 2015
Quotation #: Envir-IE-JUN23-1391652
Courier/CN: Grants Express

Sample ID	Container*	Sampling Date/Time	Sample matrix: Water	Soil	Sludge	Sample preservation: Cool	HNO3/HCl	Unpreserved	Analysis: SGS Method Code CL10	OCP	CL13	CL2T
BH1-100	A	03/04/2024		X		X			TRH, BTEXN,PAH, 8 metals	OCP	TRH, BTEXN,PAH, 8 metals, phenols	8 Metals
BH1-500	A	03/04/2024		X		X			X	X	X	
BH2-100	A	03/04/2024		X		X			X	X	X	
BH2-500	A	03/04/2024		X		X			X	X	X	
BH3-100	A	03/04/2024		X		X			X	X	X	
BH3-500	A	03/04/2024		X		X			X	X	X	
BH4-100	A	03/04/2024		X		X			X	X	X	
BH4-500	A	03/04/2024		X		X			X	X	X	
BH5-100	A	03/04/2024		X		X			X	X	X	
BH5-500	A	03/04/2024		X		X			X	X	X	
BH6-100	A	03/04/2024		X		X			X	X	X	
BH6-500	A	03/04/2024		X		X			X	X	X	
BH7-100	A	03/04/2024		X		X			X	X	X	
BH7-500	A	03/04/2024		X		X			X	X	X	
BH8-100	A	03/04/2024		X		X			X	X	X	
BH8-500	A	03/04/2024		X		X			X	X	X	
BH9-100	A	03/04/2024		X		X			X	X	X	
BH9-500	A	03/04/2024		X		X			X	X	X	

SGS EHS Sydney COC
SE263256

Investigator: I attest that the proper field sampling procedures were used during the collection of these samples.

Relinquished by: Virginia Brady
(print and signature)
Date: 04/04/2024 Time 13:00

Sampler name: Felipe Canavez
Date: 03/04/2024 Time: 11:00

Received by: Date Time
(print and signature)
05/04/24 @ 7:30

Please return completed form to Envirowest Consulting, *A = Solvent rinsed glass jar with Teflon lined lid and green label, B= Plastic with green label, C= Amber with green label, D= Vial with white label, E= Plastic with red label, F = ziplock bag, G = plastic bag

Chain of Custody Form – Ref 43874

Sheet 2 of 6

Ref:	**43874**		**Sample matrix**			**Sample preservation**			**Analysis**					
Investigator:	Envirowest Consulting 9 Cameron Place PO Box 8158 ORANGE NSW 2800													
Telephone:	(02) 6361 4954								**SGS Method Code**					
Facsimile:	(02) 6360 3960								**CL10**	**OCP**	**CL13**	**CL2T**		
Email:	felipe@envirowest.net.au													
Contact Person:	Felipe Canavez													
Invoice:	accounts@envirowest.net.au													
Laboratory:	SGS SYDNEY 16/33 Maddox Street ALEXANDRIA NSW 2015		Water	Soil	Sludge	Cool	HNO3/HCl	Unpre-served	TRH, BTEXN, PAH, 8 metals	OCP	TRH, BTEXN, PAH, 8 metals, phenols	8 Metals		
Quotation #:	Envir-IE-JUN23-1391652													
Courier/CN:	Grants Express													
Sample ID	**Container***	**Sampling Date/Time**												
BH10-100	A	03/04/2024		X		X			X					
BH10-500	A	03/04/2024		X		X			X					
BH11-100	A	03/04/2024		X		X			X					
BH11-500	A	03/04/2024		X		X			X					
BH12-100	A	03/04/2024		X		X			X					
BH12-500	A	03/04/2024		X		X			X					
~~BH12-500~~	A	03/04/2024		X		X			X					
BH13-100	A	03/04/2024		X		X			X					
BH13-500	A	03/04/2024		X		X			X					
BH14-100	A	03/04/2024		X		X			X					
BH14-500	A	03/04/2024		X		X			X					
BH15-100	A	03/04/2024		X		X			X					
BH15-500	A	03/04/2024		X		X			X					
BH16-100	A	03/04/2024		X		X			X					
BH16-500	A	03/04/2024		X		X			X					
BH17-100	A	03/04/2024		X		X			X					
BH17-500	A	03/04/2024		X		X			X					
BH18-100	A	03/04/2024		X		X			X					
Investigator: I attest that the proper field sampling procedures were used during the collection of these samples.						Sampler name: Felipe Canavez Date: 03/04/2024 Time: 11:00								
Relinquished by: (print and signature)	Virginia Bragg	Date: 04/04/2024 Time 13:00				Received by: (print and signature)			Date Time 05/04/24 @ 7:30					

Please return completed form to Envirowest Consulting, *A = Solvent rinsed glass jar with Teflon lined lid and green label, B= Plastic with green label, C= Amber with green label, D= Vial with white label, E= Plastic with red label, F = ziplock bag, G = plastic bag

Chain of Custody Form – Ref 43874

Sheet 3 of 6

	Ref: 43874 Investigator: Envirowest Consulting 9 Cameron Place PO Box 8158 ORANGE NSW 2800 Telephone: (02) 6361 4954 Facsimile: (02) 6360 3960 **Email:** felipe@envirowest.net.au Contact Person: Felipe Canavez Invoice: accounts@envirowest.net.au			**Sample matrix**			**Sample preservation**			**Analysis**				
										SGS Method Code				
										CL10	**OCP**	**CL13**	**CL2T**	
	Laboratory: SGS SYDNEY 16/33 Maddox Street ALEXANDRIA NSW 2015 **Quotation #:** Envir-IE-JUN23-1391652 **Courier/CN:** Grants Express			Water	Soil	Sludge	Cool	HNO3/HCl	Unpre-served	TRH, BTEXN, PAH, 8 metals	OCP	TRH, BTEXN, PAH, 8 metals, phenols	8 Metals	
	Sample ID	**Container***	**Sampling Date/Time**											
36	BH18-500	A	03/04/2024		X		X			X				
37	BH20-100	A	03/04/2024		X		X			X				
38	BH20-500	A	03/04/2024		X		X			X				
39	BH21-100	A	03/04/2024		X		X			X				
40	BH21-500	A	03/04/2024		X		X			X				
41	BH22-100	A	03/04/2024		X		X			X				
42	BH22-500	A	03/04/2024		X		X			X				
43	BH23-100	A	03/04/2024		X		X			X				
44	BH23-500	A	03/04/2024		X		X			X				
45	BH24-100	A	03/04/2024		X		X			X				
46	BH24-500	A	03/04/2024		X		X			X				
47	BH25-100	A	03/04/2024		X		X			X				
48	BH25-200	A	03/04/2024		X		X			X				
49	BH25-500	A	03/04/2024		X		X			X				
50	BH26-100	A	03/04/2024		X		X			X				
51	BH26-500	A	03/04/2024		X		X			X				
52	BH27-100	A	03/04/2024		X		X			X				
53	BH27-500	A	03/04/2024		X		X			X				
	Investigator: I attest that the proper field sampling procedures were used during the collection of these samples.						Sampler name: Felipe Canavez Date: 03/04/2024 Time: 11:00							
	Relinquished by: (print and signature) Virginia Bragg Date: 04/04/2024 Time 13:00						Received by: (print and signature) Date Time 05/04/24 @ 7:30							

Please return completed form to Envirowest Consulting, *A = Solvent rinsed glass jar with Teflon lined lid and green label, B= Plastic with green label, C= Amber with green label, D= Vial with white label, E= Plastic with red label, F = ziplock bag, G = plastic bag

Chain of Custody Form – Ref 43874

| | | |

Chain of Custody Form – Ref 43874

Sheet 5 of 6

Ref: 43874
Investigator: Envirowest Consulting
9 Cameron Place
PO Box 8158
ORANGE NSW 2800
Telephone: (02) 6361 4954
Facsimile: (02) 6360 3960
Email: felipe@envirowest.net.au
Contact Person: Felipe Canavez
Invoice: accounts@envirowest.net.au

Laboratory: SGS SYDNEY
16/33 Maddox Street
ALEXANDRIA NSW 2015
Quotation #: Envir-IE-JUN23-1391652
Courier/CN: Grants Express

Sample ID	Container*	Sampling Date/Time	Sample matrix: Water	Soil	Sludge	Sample preservation: Cool	HNO3/HCl	Unpreserved	Analysis: SGS Method Code CL10 (TRH, BTEXN,PAH, 8 metals)	OCP (OCP)	CL13 (TRH, BTEXN,PAH, 8 metals, phenols)	CL2T (8 Metals)	
BH35-3000	A	03/04/2024		X		X			X				
BH36-500	A	03/04/2024		X		X			X				
BH36-1000	A	03/04/2024		X		X			X				
BH36-3000	A	03/04/2024		X		X			X				
BH37-500	A	03/04/2024		X		X			X				
BH37-1000	A	03/04/2024		X		X			X				
BH37-3000	A	03/04/2024		X		X			X				
BH38-500	A	03/04/2024		X		X			X				
BH38-1000	A	03/04/2024		X		X			X				
BH38-3000	A	03/04/2024		X		X			X				
BH39-300	A	03/04/2024		X		X			X				
BH39-800	A	03/04/2024		X		X			X				
BH40-100	A	03/04/2024		X		X			X				
BH40-500	A	03/04/2024		X		X			X				
BH40-1000	A	03/04/2024		X		X			X				
BH40-3000	A	03/04/2024		X		X			X				

Investigator: I attest that the proper field sampling procedures were used during the collection of these samples.

Relinquished by: Virginia Bragg Date: 04/04/2024 Time 13:00
(print and signature)

Sampler name: Felipe Canavez
Date: 03/04/2024 Time: 11:00

Received by: Date Time
(print and signature)

05/04/24 @ 7:30

Please return completed form to Envirowest Consulting, *A = Solvent rinsed glass jar with Teflon lined lid and green label, B= Plastic with green label, C= Amber with green label, D= Vial with white label, E= Plastic with red label, F = ziplock bag, G = plastic bag

Chain of Custody Form – Ref 43874

Ref: 43874

Investigator: Envirowest Consulting
9 Cameron Place
PO Box 8158
ORANGE NSW 2800
Telephone: (02) 6361 4954
Facsimile: (02) 6360 3960
Email: felipe@envirowest.net.au
Contact Person: Felipe Canavez
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Laboratory: SGS SYDNEY
16/33 Maddox Street
ALEXANDRIA NSW 2015
Quotation #: Envir-IE-JUN23-1391652
Courier/CN: Grants Express

Sample ID	Container*	Sampling Date/Time	Sample matrix: Water	Sample matrix: Soil	Sample matrix: Sludge	Sample preservation: Cool	Sample preservation: HNO3/HCl	Sample preservation: Unpreserved	Analysis: SGS Method Code: CL10 — TRH, BTEXN,PAH, 8 metals	CL10 — OCP	CL13 — TRH, TEXN,PAH, 8 metals, phenols	CL2T — 8 Metals
BH41-500	A	03/04/2024		X		X			X		X	X
BH41-1000	A	03/04/2024		X		X			X		X	X
BH41-3000	A	03/04/2024		X		X			X		X	X
BH42-100	A	03/04/2024		X		X				X	X	X
BH42-500	A	03/04/2024		X		X				X	X	X
BH43-100	A	03/04/2024		X		X				X	X	X
BH43-500	A	03/04/2024		X		X				X	X	X
BH44-100	A	03/04/2024		X		X				X	X	X
BH44-500	A	03/04/2024		X		X				X	X	X
BH46-100	A	03/04/2024		X		X			X			X
BH46-500	A	03/04/2024		X		X			X			X
DA	A	03/04/2024		X		X						X
DB	A	03/04/2024		X		X						X
DC	A	03/04/2024		X		X						X
DD	A	03/04/2024		X		X						X
DE	A	03/04/2024		X		X						X

Investigator: I attest that the proper field sampling procedures were used during the collection of these samples.

Relinquished by: Virginia Bragg (print and signature) — Date: 04/04/2024 — Time: 13:00

Sampler name: Felipe Canavez
Date: 03/04/2024 — Time: 11:00

Received by: (print and signature) — Date — Time: 05/04/24 @ 7:30

Please return completed form to Envirowest Consulting, *A = Solvent rinsed glass jar with Teflon lined lid and green label, B= Plastic with green label, C= Amber with green label, D= Vial with white label, E= Plastic with red label, F = ziplock bag, G = plastic bag

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS		LABORATORY DETAILS	
Contact	Felipe Canavez	Manager	Huong Crawford
Client	ENVIROWEST CONSULTING PTY LIMITED	Laboratory	SGS Alexandria Environmental
Address	PO BOX 8158 NSW 2800	Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	61 2 63614954	Telephone	+61 2 8594 0400
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499
Email	Fcanavez@barnson.com.au	Email	au.environmental.sydney@sgs.com
Project	**43874-1**	SGS Reference	**SE263247 R0**
Order Number	**43874-1**	Date Received	5/4/2024
Samples	17	Date Reported	12/4/2024

COMMENTS

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

SIGNATORIES

Akheeqar BENIAMEEN	**Huong CRAWFORD**	**Ly Kim HA**	**Shane MCDERMOTT**
Chemist	Production Manager	Organic Section Head	Inorganic/Metals Chemist

SGS

ANALYTICAL RESULTS SE263247 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH47-100 SOIL - 4/4/2024 SE263247.001	BH47-1000 SOIL - 4/4/2024 SE263247.002	BH47-2000 SOIL - 4/4/2024 SE263247.003	BH47-3000 SOIL - 4/4/2024 SE263247.004	BH48-100 SOIL - 4/4/2024 SE263247.005
Naphthalene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	1.8	<0.1	<0.1	<0.1	0.8
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	2.8	<0.1	<0.1	<0.1	0.7
Anthracene	mg/kg	0.1	1.3	<0.1	<0.1	<0.1	0.5
Fluoranthene	mg/kg	0.1	5.1	0.1	<0.1	<0.1	1.7
Pyrene	mg/kg	0.1	8.9	0.2	<0.1	<0.1	3.0
Benzo(a)anthracene	mg/kg	0.1	3.2	<0.1	<0.1	<0.1	1.0
Chrysene	mg/kg	0.1	4.7	0.1	<0.1	<0.1	1.6
Benzo(b&j)fluoranthene	mg/kg	0.1	3.9	0.2	<0.1	<0.1	1.5
Benzo(k)fluoranthene	mg/kg	0.1	1.3	<0.1	<0.1	<0.1	0.5
Benzo(a)pyrene	mg/kg	0.1	2.9	0.1	<0.1	<0.1	1.2
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	2.9	0.1	<0.1	<0.1	1.1
Dibenzo(ah)anthracene	mg/kg	0.1	0.9	<0.1	<0.1	<0.1	0.3
Benzo(ghi)perylene	mg/kg	0.1	3.9	0.1	<0.1	<0.1	1.5
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	5.0	<0.2	<0.2	<0.2	1.9
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	5.0	<0.3	<0.3	<0.3	1.9
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	5.0	0.2	<0.2	<0.2	1.9
Total PAH (18)	mg/kg	0.8	44	1.1	<0.8	<0.8	15
Total PAH (NEPM/WHO 16)	mg/kg	0.8	44	1.1	<0.8	<0.8	15

PARAMETER	UOM	LOR	BH48-1000 SOIL - 4/4/2024 SE263247.006	BH48-2000 SOIL - 4/4/2024 SE263247.007	BH48-3000 SOIL - 4/4/2024 SE263247.008	BH49-300 SOIL - 4/4/2024 SE263247.009	BH49-1000 SOIL - 4/4/2024 SE263247.010
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	0.4	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	0.6	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	0.8	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	1.7	0.2
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	2.6	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	1.2	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	15	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	5.1	0.3
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	17	0.2
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	16	0.3
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	4.7	0.2
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	5.6	0.2
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	4.4	0.4
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	1.5	0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	2.9	0.3
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	1.6	0.2
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	0.3	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	1.6	0.2
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	4.5	0.4
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	4.5	0.5
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	4.5	0.4
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	83	2.6
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	82	2.6

SGS

ANALYTICAL RESULTS SE263247 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/4/2024 (continued)

PARAMETER	UOM	LOR	BH50-100 SOIL - 4/4/2024 SE263247.011	BH50-1000 SOIL - 4/4/2024 SE263247.012	BH50-2000 SOIL - 4/4/2024 SE263247.013	BH50-3000 SOIL - 4/4/2024 SE263247.014	BH51-100 SOIL - 4/4/2024 SE263247.015
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	1.1	0.9	0.2
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	0.6	0.4	0.2
Fluoranthene	mg/kg	0.1	0.1	<0.1	0.8	0.2	0.3
Pyrene	mg/kg	0.1	0.1	<0.1	1.0	0.3	0.6
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	0.3	0.1	0.3
Chrysene	mg/kg	0.1	<0.1	<0.1	0.6	0.2	0.5
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	1.3	0.9	0.6
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	0.3	0.2	0.2
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	0.8	0.7	0.4
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	0.5	0.5	0.4
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	0.4	0.5	0.4
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	<0.2	<0.2	1.1	0.9	0.5
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	<0.3	1.2	1.0	0.6
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	<0.2	1.1	1.0	0.6
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	7.8	5.1	4.2
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	7.8	5.1	4.2

PARAMETER	UOM	LOR	BH51-500 SOIL - 4/4/2024 SE263247.016	DF SOIL - 4/4/2024 SE263247.017
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	0.5	<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	0.5	<0.1
Anthracene	mg/kg	0.1	0.6	<0.1
Fluoranthene	mg/kg	0.1	3.8	<0.1
Pyrene	mg/kg	0.1	4.8	<0.1
Benzo(a)anthracene	mg/kg	0.1	1.1	<0.1
Chrysene	mg/kg	0.1	1.6	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	1.4	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	0.5	<0.1
Benzo(a)pyrene	mg/kg	0.1	0.7	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.4	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	0.3	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	1.1	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	1.2	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	1.1	<0.2
Total PAH (18)	mg/kg	0.8	16	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	16	<0.8

SGS

ANALYTICAL RESULTS SE263247 R0

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH50-100 SOIL - 4/4/2024 SE263247.011	DF SOIL - 4/4/2024 SE263247.017
Arsenic, As	mg/kg	1	6	4
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	14	9.2
Copper, Cu	mg/kg	0.5	19	18
Lead, Pb	mg/kg	1	10	6
Nickel, Ni	mg/kg	0.5	8.6	7.9
Zinc, Zn	mg/kg	2	41	36

SGS

ANALYTICAL RESULTS SE263247 R0

Mercury in Soil [AN312] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH50-100 SOIL - 4/4/2024 SE263247.011	DF SOIL - 4/4/2024 SE263247.017
Mercury	mg/kg	0.05	<0.05	<0.05

SGS

ANALYTICAL RESULTS SE263247 R0

Moisture Content [AN002] Tested: 9/4/2024

PARAMETER	UOM	LOR	BH47-100 SOIL - 4/4/2024 SE263247.001	BH47-1000 SOIL - 4/4/2024 SE263247.002	BH47-2000 SOIL - 4/4/2024 SE263247.003	BH47-3000 SOIL - 4/4/2024 SE263247.004	BH48-100 SOIL - 4/4/2024 SE263247.005
% Moisture	%w/w	1	6.5	7.6	7.2	7.1	5.1

PARAMETER	UOM	LOR	BH48-1000 SOIL - 4/4/2024 SE263247.006	BH48-2000 SOIL - 4/4/2024 SE263247.007	BH48-3000 SOIL - 4/4/2024 SE263247.008	BH49-300 SOIL - 4/4/2024 SE263247.009	BH49-1000 SOIL - 4/4/2024 SE263247.010
% Moisture	%w/w	1	7.2	6.2	4.8	5.5	17.2

PARAMETER	UOM	LOR	BH50-100 SOIL - 4/4/2024 SE263247.011	BH50-1000 SOIL - 4/4/2024 SE263247.012	BH50-2000 SOIL - 4/4/2024 SE263247.013	BH50-3000 SOIL - 4/4/2024 SE263247.014	BH51-100 SOIL - 4/4/2024 SE263247.015
% Moisture	%w/w	1	4.6	5.7	4.9	5.3	4.4

PARAMETER	UOM	LOR	BH51-500 SOIL - 4/4/2024 SE263247.016	DF SOIL - 4/4/2024 SE263247.017
% Moisture	%w/w	1	4.9	3.8

SGS

METHOD SUMMARY

SE263247 R0

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.
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 AAS or ICP as per USEPA Method 200.8.
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
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). Total PAH calculated from individual analyte detections at or above the limit of reporting .
AN420	Carcinogenic PAHs may be expressed as Benzo(a)pyrene equivalents by applying the BaP toxicity equivalence factor (NEPM 1999, June 2013, B7). These can be reported as the individual PAHs and as a sum of carcinogenic PAHs. The sum is reported three ways, the first assuming all <LOR results are zero, the second assuming all < LOR results are half the LOR and the third assuming all <LOR results are the LOR.

FOOTNOTES SE263247 R0

FOOTNOTES

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

a. 1 Bq is equivalent to 27 pCi
b. 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

SE263247 R0

CLIENT DETAILS		LABORATORY DETAILS	
Contact	Felipe Canavez	Manager	Huong Crawford
Client	ENVIROWEST CONSULTING PTY LIMITED	Laboratory	SGS Alexandria Environmental
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Facsimile	(Not specified)	Facsimile	+61 2 8594 0499
Email	Fcanavez@barnson.com.au	Email	au.environmental.sydney@sgs.com
Project	**43874-1**	SGS Reference	**SE263247 R0**
Order Number	**43874-1**	Date Received	05 Apr 2024
Samples	17	Date Reported	12 Apr 2024

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:

Duplicate	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	2 items

SAMPLE SUMMARY

Sample counts by matrix	17 Soil	Type of documentation received	COC
Date documentation received	5/4/2024	Samples received in good order	Yes
Samples received without headspace	Yes	Sample temperature upon receipt	9.9°C
Sample container provider	SGS	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	Ice Bricks	Samples clearly labelled	Yes
Complete documentation received	Yes		

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HOLDING TIME SUMMARY

SE263247 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

Mercury in Soil — Method: ME-(AU)-[ENV]AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH50-100	SE263247.011	LB308988	04 Apr 2024	05 Apr 2024	02 May 2024	09 Apr 2024	02 May 2024	12 Apr 2024
DF	SE263247.017	LB308988	04 Apr 2024	05 Apr 2024	02 May 2024	09 Apr 2024	02 May 2024	12 Apr 2024

Moisture Content — Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH47-100	SE263247.001	LB308991	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	14 Apr 2024	10 Apr 2024
BH47-1000	SE263247.002	LB308991	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	14 Apr 2024	10 Apr 2024
BH47-2000	SE263247.003	LB308991	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	14 Apr 2024	10 Apr 2024
BH47-3000	SE263247.004	LB308991	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	14 Apr 2024	10 Apr 2024
BH48-100	SE263247.005	LB308991	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	14 Apr 2024	10 Apr 2024
BH48-1000	SE263247.006	LB308991	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	14 Apr 2024	10 Apr 2024
BH48-2000	SE263247.007	LB308991	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	14 Apr 2024	10 Apr 2024
BH48-3000	SE263247.008	LB308991	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	14 Apr 2024	10 Apr 2024
BH49-300	SE263247.009	LB308991	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	14 Apr 2024	10 Apr 2024
BH49-1000	SE263247.010	LB308991	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	14 Apr 2024	10 Apr 2024
BH50-100	SE263247.011	LB308991	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	14 Apr 2024	10 Apr 2024
BH50-1000	SE263247.012	LB308991	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	14 Apr 2024	10 Apr 2024
BH50-2000	SE263247.013	LB308991	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	14 Apr 2024	10 Apr 2024
BH50-3000	SE263247.014	LB308991	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	14 Apr 2024	10 Apr 2024
BH51-100	SE263247.015	LB308991	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	14 Apr 2024	10 Apr 2024
BH51-500	SE263247.016	LB308991	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	14 Apr 2024	10 Apr 2024
DF	SE263247.017	LB308991	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	14 Apr 2024	10 Apr 2024

PAH (Polynuclear Aromatic Hydrocarbons) in Soil — Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH47-100	SE263247.001	LB308986	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	19 May 2024	10 Apr 2024
BH47-1000	SE263247.002	LB308986	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	19 May 2024	10 Apr 2024
BH47-2000	SE263247.003	LB308986	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	19 May 2024	10 Apr 2024
BH47-3000	SE263247.004	LB308986	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	19 May 2024	10 Apr 2024
BH48-100	SE263247.005	LB308986	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	19 May 2024	10 Apr 2024
BH48-1000	SE263247.006	LB308986	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	19 May 2024	10 Apr 2024
BH48-2000	SE263247.007	LB308986	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	19 May 2024	10 Apr 2024
BH48-3000	SE263247.008	LB308986	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	19 May 2024	10 Apr 2024
BH49-300	SE263247.009	LB308986	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	19 May 2024	10 Apr 2024
BH49-1000	SE263247.010	LB308986	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	19 May 2024	10 Apr 2024
BH50-100	SE263247.011	LB308986	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	19 May 2024	10 Apr 2024
BH50-1000	SE263247.012	LB308986	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	19 May 2024	10 Apr 2024
BH50-2000	SE263247.013	LB308986	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	19 May 2024	10 Apr 2024
BH50-3000	SE263247.014	LB308986	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	19 May 2024	10 Apr 2024
BH51-100	SE263247.015	LB308986	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	19 May 2024	10 Apr 2024
BH51-500	SE263247.016	LB308986	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	19 May 2024	10 Apr 2024
DF	SE263247.017	LB308986	04 Apr 2024	05 Apr 2024	18 Apr 2024	09 Apr 2024	19 May 2024	10 Apr 2024

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES — Method: ME-(AU)-[ENV]AN040/AN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH50-100	SE263247.011	LB308987	04 Apr 2024	05 Apr 2024	01 Oct 2024	09 Apr 2024	01 Oct 2024	11 Apr 2024
DF	SE263247.017	LB308987	04 Apr 2024	05 Apr 2024	01 Oct 2024	09 Apr 2024	01 Oct 2024	11 Apr 2024

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SURROGATES

SE263247 R0

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 identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil — **Method: ME-(AU)-[ENV]AN420**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH47-100	SE263247.001	%	70 - 130%	101
	BH47-1000	SE263247.002	%	70 - 130%	95
	BH47-2000	SE263247.003	%	70 - 130%	99
	BH47-3000	SE263247.004	%	70 - 130%	94
	BH48-100	SE263247.005	%	70 - 130%	106
	BH48-1000	SE263247.006	%	70 - 130%	102
	BH48-2000	SE263247.007	%	70 - 130%	99
	BH48-3000	SE263247.008	%	70 - 130%	96
	BH49-300	SE263247.009	%	70 - 130%	104
	BH49-1000	SE263247.010	%	70 - 130%	93
	BH50-100	SE263247.011	%	70 - 130%	97
	BH50-1000	SE263247.012	%	70 - 130%	97
	BH50-2000	SE263247.013	%	70 - 130%	104
	BH50-3000	SE263247.014	%	70 - 130%	100
	BH51-100	SE263247.015	%	70 - 130%	102
	BH51-500	SE263247.016	%	70 - 130%	103
	DF	SE263247.017	%	70 - 130%	104
d14-p-terphenyl (Surrogate)	BH47-100	SE263247.001	%	70 - 130%	107
	BH47-1000	SE263247.002	%	70 - 130%	105
	BH47-2000	SE263247.003	%	70 - 130%	110
	BH47-3000	SE263247.004	%	70 - 130%	108
	BH48-100	SE263247.005	%	70 - 130%	110
	BH48-1000	SE263247.006	%	70 - 130%	111
	BH48-2000	SE263247.007	%	70 - 130%	112
	BH48-3000	SE263247.008	%	70 - 130%	110
	BH49-300	SE263247.009	%	70 - 130%	105
	BH49-1000	SE263247.010	%	70 - 130%	103
	BH50-100	SE263247.011	%	70 - 130%	107
	BH50-1000	SE263247.012	%	70 - 130%	107
	BH50-2000	SE263247.013	%	70 - 130%	110
	BH50-3000	SE263247.014	%	70 - 130%	106
	BH51-100	SE263247.015	%	70 - 130%	110
	BH51-500	SE263247.016	%	70 - 130%	103
	DF	SE263247.017	%	70 - 130%	113
d5-nitrobenzene (Surrogate)	BH47-100	SE263247.001	%	70 - 130%	101
	BH47-1000	SE263247.002	%	70 - 130%	98
	BH47-2000	SE263247.003	%	70 - 130%	104
	BH47-3000	SE263247.004	%	70 - 130%	99
	BH48-100	SE263247.005	%	70 - 130%	110
	BH48-1000	SE263247.006	%	70 - 130%	106
	BH48-2000	SE263247.007	%	70 - 130%	105
	BH48-3000	SE263247.008	%	70 - 130%	101
	BH49-300	SE263247.009	%	70 - 130%	101
	BH49-1000	SE263247.010	%	70 - 130%	92
	BH50-100	SE263247.011	%	70 - 130%	101
	BH50-1000	SE263247.012	%	70 - 130%	101
	BH50-2000	SE263247.013	%	70 - 130%	103
	BH50-3000	SE263247.014	%	70 - 130%	101
	BH51-100	SE263247.015	%	70 - 130%	105
	BH51-500	SE263247.016	%	70 - 130%	105
	DF	SE263247.017	%	70 - 130%	107

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METHOD BLANKS

SE263247 R0

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.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result
LB308988.001	Mercury	mg/kg	0.05	<0.05

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB308986.001		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)	%	-	103
		2-fluorobiphenyl (Surrogate)	%	-	102
		d14-p-terphenyl (Surrogate)	%	-	108

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result
LB308987.001	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

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DUPLICATES

SE263247 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263275.008	LB308988.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE263275.013	LB308988.020	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 %
SE263247.010	LB308991.011	% Moisture	%w/w	1	17.2	17.0	36	2
SE263275.004	LB308991.024	% Moisture	%w/w	1	9.6	10.2	40	6
SE263275.013	LB308991.034	% Moisture	%w/w	1	7.4	9.9	42	28

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263247.010	LB308986.014		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	0.2	0.2	87	3
			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	0.3	0.4	59	7
			Fluoranthene	mg/kg	0.1	0.2	0.2	76	7
			Pyrene	mg/kg	0.1	0.3	0.3	62	3
			Benzo(a)anthracene	mg/kg	0.1	0.2	0.1	93	36
			Chrysene	mg/kg	0.1	0.2	0.2	79	42
			Benzo(b&j)fluoranthene	mg/kg	0.1	0.4	0.3	58	31
			Benzo(k)fluoranthene	mg/kg	0.1	0.1	<0.1	118	27
			Benzo(a)pyrene	mg/kg	0.1	0.3	0.2	74	26
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.2	0.1	93	14
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	0.2	0.1	93	10
			Carcinogenic PAHs, BaP TEQ <LOR=0*	mg/kg	0.2	0.4	0.3	75	27
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	mg/kg	0.2	0.4	0.3	66	23
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	0.5	0.4	83	20
			Total PAH (18)	mg/kg	0.8	2.6	2.2	34	16
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	7
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	3
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	5
SE263247.017	LB308986.022		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/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	0
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1

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DUPLICATES

SE263247 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 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 x 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 identifer 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)-[ENV]AN420**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE263247.017	LB308986.022	Surrogates	d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.6	30	2

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 %
SE263275.008	LB308987.014	Arsenic, As	mg/kg	1	5	7	47	33
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	4.1	5.1	41	23
		Copper, Cu	mg/kg	0.5	120	130	30	6
		Nickel, Ni	mg/kg	0.5	6.1	6.9	38	14
		Lead, Pb	mg/kg	1	9	13	39	34
		Zinc, Zn	mg/kg	2	37	45	35	18
SE263275.013	LB308987.020	Arsenic, As	mg/kg	1	5	7	47	29
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	8.7	7.8	36	11
		Copper, Cu	mg/kg	0.5	120	170	30	28
		Nickel, Ni	mg/kg	0.5	13	8.7	35	43 ②
		Lead, Pb	mg/kg	1	13	18	36	35
		Zinc, Zn	mg/kg	2	47	72	33	42 ②

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LABORATORY CONTROL SAMPLES

SE263247 R0

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.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB308988.002	Mercury	mg/kg	0.05	0.22	0.2	80 - 120	111

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB308986.002		Naphthalene	mg/kg	0.1	4.3	4	60 - 140	108
		Acenaphthylene	mg/kg	0.1	4.1	4	60 - 140	104
		Acenaphthene	mg/kg	0.1	4.4	4	60 - 140	110
		Phenanthrene	mg/kg	0.1	4.3	4	60 - 140	107
		Anthracene	mg/kg	0.1	4.3	4	60 - 140	108
		Fluoranthene	mg/kg	0.1	4.3	4	60 - 140	107
		Pyrene	mg/kg	0.1	4.1	4	60 - 140	101
		Benzo(a)pyrene	mg/kg	0.1	4.2	4	60 - 140	105
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	101
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	108
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	100

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 %
LB308987.002	Arsenic, As	mg/kg	1	330	318.22	80 - 120	105
	Cadmium, Cd	mg/kg	0.3	3.8	4.81	70 - 130	78
	Chromium, Cr	mg/kg	0.5	44	38.31	80 - 120	114
	Copper, Cu	mg/kg	0.5	310	290	80 - 120	109
	Nickel, Ni	mg/kg	0.5	190	187	80 - 120	102
	Lead, Pb	mg/kg	1	92	89.9	80 - 120	102
	Zinc, Zn	mg/kg	2	280	273	80 - 120	103

MATRIX SPIKES

SE263247 R0

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 identifer 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%
SE263247.011	LB308988.004	Mercury	mg/kg	0.05	0.25	<0.05	0.2	115

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE263247.001	LB308986.004	Naphthalene	mg/kg	0.1	4.4	0.2	4	106
		2-methylnaphthalene	mg/kg	0.1	<0.1	0.2	-	-
		1-methylnaphthalene	mg/kg	0.1	0.2	0.2	-	-
		Acenaphthylene	mg/kg	0.1	5.8	1.8	4	99
		Acenaphthene	mg/kg	0.1	4.4	<0.1	4	108
		Fluorene	mg/kg	0.1	0.1	0.1	-	-
		Phenanthrene	mg/kg	0.1	6.7	2.8	4	98
		Anthracene	mg/kg	0.1	5.1	1.3	4	95
		Fluoranthene	mg/kg	0.1	8.6	5.1	4	86
		Pyrene	mg/kg	0.1	12	8.9	4	78
		Benzo(a)anthracene	mg/kg	0.1	3.2	3.2	-	-
		Chrysene	mg/kg	0.1	4.4	4.7	-	-
		Benzo(b&j)fluoranthene	mg/kg	0.1	3.8	3.9	-	-
		Benzo(k)fluoranthene	mg/kg	0.1	1.2	1.3	-	-
		Benzo(a)pyrene	mg/kg	0.1	6.4	2.9	4	86
		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	2.7	2.9	-	-
		Dibenzo(ah)anthracene	mg/kg	0.1	0.8	0.9	-	-
		Benzo(ghi)perylene	mg/kg	0.1	3.6	3.9	-	-
		Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	8.3	5.0	-	-
		Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	8.3	5.0	-	-
		Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	8.3	5.0	-	-
		Total PAH (18)	mg/kg	0.8	73	44	-	-
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	-	103
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.6	0.5	-	111
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	107

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%
SE263247.011	LB308987.004	Arsenic, As	mg/kg	1	52	6	50	92
		Cadmium, Cd	mg/kg	0.3	44	<0.3	50	87
		Chromium, Cr	mg/kg	0.5	60	14	50	91
		Copper, Cu	mg/kg	0.5	65	19	50	93
		Nickel, Ni	mg/kg	0.5	52	8.6	50	87
		Lead, Pb	mg/kg	1	53	10	50	87
		Zinc, Zn	mg/kg	2	88	41	50	95

MATRIX SPIKE DUPLICATES

SE263247 R0

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / 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 x 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 identifer when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

FOOTNOTES SE263247 R0

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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source: Sydney.pdf page: 8 SGS Ref: SE263247_COC

Chain of Custody Form – Ref 43874-1

Sheet 1 of 1

Ref:	**43874-1**		**Sample matrix**			**Sample preservation**			**Analysis**						
Investigator:	Envirowest Consulting 9 Cameron Place PO Box 8158 ORANGE NSW 2800														
Telephone:	(02) 6361 4954								**SGS Method Code**						
Facsimile:	(02) 6360 3960								PAH	CL2T					
Email:	felipe@envirowest.net.au														
Contact Person:	Felipe Canavez														
Invoice:	accounts@envirowest.net.au														
Laboratory:	SGS SYDNEY 16/33 Maddox Street ALEXANDRIA NSW 2015		Water	Soil	Sludge	Cool	HNO3/HCl	Unpre-served	PAH	8 Metals					
Quotation #:	Envir-IE-JUN23-1391652														
Courier/CN:	Grants Express														
	Sample ID	**Container***	**Sampling Date/Time**												
1	BH47-100	A	04/04/2024		X		X			X					
2	BH47-1000	A	04/04/2024		X		X			X					
3	BH47-2000	A	04/04/2024		X		X			X					
4	BH47-3000	A	04/04/2024		X		X			X					
5	BH48-100	A	04/04/2024		X		X			X					
6	BH48-1000	A	04/04/2024		X		X			X					
7	BH48-2000	A	04/04/2024		X		X			X					
8	BH48-3000	A	04/04/2024		X		X			X					
9	BH49-300	A	04/04/2024		X		X			X					
10	BH49-1000	A	04/04/2024		X		X			X					
11	BH50-100	A	04/04/2024		X		X			X	X				
12	BH50-1000	A	04/04/2024		X		X			X					
13	BH50-2000	A	04/04/2024		X		X			X					
14	BH50-3000	A	04/04/2024		X		X			X					
15	BH51-100	A	04/04/2024		X		X			X					
16	BH51-500	A	04/04/2024		X		X			X					
17	DF	A	04/04/2024		X		X			X	X				

SGS EHS Sydney COC
SE263247

Investigator: I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler name: Felipe Canavez
Date: 04/04/2024 Time: 11:00

Relinquished by: (print and signature) Virginia Bragg Date: 04/04/2024 Time 13:00

Received by: (print and signature) Date Time 05/04/24 @ 7:30

Please return completed form to Envirc = Solvent rinsed glass jar with Teflon lined lid and green label, B= Plast label, D= Vial with white label, E= Plastic with red label, F = ziplock bag, G = plastic bag

Appendix 4. Borelogs

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Geotechnical Log - Borehole

BH1

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Topsoil		CL	Topsoil Sandy CLAY (CL) : firm, low plasticity, brown, fine grained sand, trace fine sized gravel, inorganic, w < pl.	w < PL	BH1-100	
		0.1	Natural		SC	Natural Clayey SAND (SC) : medium dense, low plasticity clay, brown, fine grained, with fine to medium sized gravel, dry.	D	BH1-500	
						BH1 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH2

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Topsoil		SM	Topsoil Silty SAND (SM) : dense, brown, fine grained, with fine to medium sized gravel, dry.	D	BH2-100	
		0.2	Natural		SC	Natural Clayey SAND (SC) : dense, low plasticity clay, brown, fine grained, with fine to medium sized gravel, dry.		BH2-500	
						BH2 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH3

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Topsoil		SM	Topsoil Silty SAND (SM) : dense, brown, fine grained, trace fine sized gravel, dry.	D	BH3-100	
		0.1	Natural		SC	Natural Clayey to silty SAND (SC) : dense, low plasticity clay, brown, fine grained, trace fine sized gravel, dry.			
								BH3-500	
						BH3 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH4

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Topsoil		SM	Topsoil Silty SAND (SM) : dense, dark brown, fine grained, with fine to medium sized gravel, dry.	D	BH4-100	
		0.2	Natural		SM	Natural Silty SAND (SM) : dense, brown, fine to medium grained, trace fine sized gravel, dry.		BH4-500	
						BH4 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH5

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Natural		SC	Natural Clayey SAND (SC) : dense, low plasticity clay, brown, fine grained, trace fine sized gravel, dry.	D	BH5-100	
								BH5-500	
						BH5 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH6

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Natural		SM	Natural Silty SAND (SM) : dense, brown, fine grained, with fine sized gravel, dry.	D	BH6-100	
								BH6-500	
						BH6 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH7

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Pushtube		0.1	Fill		SM	Fill Silty SAND (SM) : medium dense, light brown, fine grained, trace medium plasticity clay, slightly moist.	SLM	BH7-100	
		0.2	Natural		SM	Natural Silty SAND (SM) : medium dense, pale brown, medium grained, with medium sized gravel, slightly moist.			
		0.3	subsoil		CI	Subsoil Sandy CLAY (CI) : firm, medium plasticity, reddish brown, medium grained sand, with medium sized gravel, inorganic, w ≈ pl.	w ≈ PL		
			subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, brown, inorganic, w ≈ pl.		BH7-500	
						BH7 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH8

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Pushtube			Fill		SM	Fill Silty SAND (SM) : loose, orange brown, fine grained, with fine sized gravel, trace medium plasticity clay, slightly moist.	SLM	BH8-100	
		0.1	subsoil		Cl	Subsoil Sandy CLAY (Cl) : firm, medium plasticity, reddish brown, fine grained sand, with fine sized gravel, inorganic, w ≈ pl.	w ≈ PL		
		0.2	subsoil		Cl	Subsoil CLAY (Cl) : firm, medium plasticity, reddish brown, inorganic, w ≈ pl.		BH8-500	
						BH8 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH9

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Disturbed sample	Remark
Pushtube			Fill		SM	Fill Silty SAND (SM) : loose, light brown, fine grained, trace medium plasticity clay, slightly moist.	SLM	BH9-100	
		0.1	subsoil		SM	Subsoil Silty SAND (SM) : medium dense, brown, medium grained, with fine sized gravel, slightly moist.			
		0.4	subsoil		SM	Subsoil Silty SAND (SM) : medium dense, light brown, medium grained, slightly moist.		BH9-500	
						BH9 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH10

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Disturbed sample	Remark
Pushtube		0.1	Fill		SP	Fill Gravelly SAND (SP) : medium dense, pale brown pale yellow, medium grained, fine sized gravel, slightly moist.	SLM	BH10-100	
		0.2	subsoil		CL	Subsoil Silty CLAY (CL) : soft, low plasticity, light brown, with medium sized gravel, inorganic, w ≈ pl.	w ≈ PL		
		0.3	subsoil		CI	Subsoil Silty CLAY (CI) : firm, medium plasticity, pale brown, with medium sized gravel, inorganic, w ≈ pl.			
			subsoil		CI	Subsoil Silty CLAY (CI) : firm, medium plasticity, brown, with medium grained sand, inorganic, w ≈ pl.		BH10-500	DB
						BH10 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH11

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Pushtube		0.1	Fill		SP	Fill Gravelly SAND (SP) : medium dense, black brown, medium grained, fine sized gravel, slightly moist.	SLM	BH11-100	
		0.2	subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, brown, with fine sized gravel, inorganic, w ≈ pl.	w ≈ PL		
			subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, orange brown, with fine grained sand, inorganic, w ≈ pl.		BH11-500	
						BH11 Terminated at 0.5m			

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Geotechnical Log - Borehole

BH12

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Pushtube			Fill		GC	Fill Clayey to sandy GRAVEL (GC) : medium plasticity clay, medium dense, reddish yellow, coarse sized, medium grained sand, slightly moist.	SLM	BH12-100	
		0.1	subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, pale brown, with fine grained sand, inorganic, w ≈ pl.	w ≈ PL		
		0.4	subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, brown, inorganic, w ≈ pl.		BH12-500	
						BH12 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH13

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Pushtube			Fill		SM	Fill Silty SAND (SM) : loose, strong brown, medium grained, trace medium plasticity clay, slightly moist.	SLM	BH13-100	
		0.1	subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, strong brown, inorganic, w ≈ pl.	w ≈ PL		
								BH13-500	
						BH13 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH14

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Pushtube			Topsoil		CI	Topsoil Silty CLAY (CI) : firm, medium plasticity, brown, with fine sized gravel, inorganic, w ≈ pl.	w ≈ PL	BH14-100	
		0.1	subsoil		CI	Subsoil CLAY (CI) : stiff, medium plasticity, strong brown, with fine sized gravel, inorganic, w ≈ pl.		BH14-500	
						BH14 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH15

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Pushtube			Fill		SM	Fill Silty SAND (SM) : loose, light brown, fine grained, trace medium plasticity clay, slightly moist.	SLM	BH15-100	
		0.1	subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, brown, trace fine sized gravel, inorganic, w ≈ pl.	w ≈ PL		
								BH15-500	
						BH15 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH16

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Pushtube			Fill		SM	Fill Silty SAND (SM) : loose, strong brown, fine grained, trace medium sized gravel, trace medium plasticity clay, slightly moist.	SLM	BH16-100	
		0.1	subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, brown, trace fine sized gravel, trace fine grained sand, inorganic, w ≈ pl.	w ≈ PL		
								BH16-500	
						BH16 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH17

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 14/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Fill		SP	Fill Gravelly SAND (SP) : dense, pale brown, fine grained, fine to medium sized gravel, trace low plasticity clay, dry.	D	BH17-100	
		0.3	Natural		SM	Natural Silty SAND (SM) : medium dense, brown, fine grained, trace fine sized gravel, trace low plasticity clay, slightly moist.	SLM	BH17-500	
						BH17 Terminated at 0.5m			

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Geotechnical Log - Borehole

BH18

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Fill		SP	Fill Gravelly SAND (SP) : dense, pale brown, fine grained, fine to medium sized gravel, trace low plasticity clay, dry.	D	BH18-100	
		0.3	Natural		SM	Natural Silty SAND (SM) : medium dense, brown, fine grained, trace fine sized gravel, trace low plasticity clay, slightly moist.	SLM	BH18-500	
						BH18 Terminated at 0.5m			

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Geotechnical Log - Borehole

BH20

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 16/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
			Natural		SM	Natural Silty SAND (SM) : dense, brown, fine grained, with fine sized gravel, dry.	D	BH20-100	
								BH20-500	
						BH20 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH21

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
			Natural		SM	Natural Silty SAND (SM) : dense, brown, fine grained, with fine sized gravel, dry.	D	BH21-100	
								BH21-500	
						BH21 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH22

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Topsoil		SM	Topsoil Silty SAND (SM) : dense, dark grey, fine grained, trace fine sized gravel, dry, slight hydrocarbon odour.	D	BH22-100	
		0.3	Topsoil		SM	As above, but brown, no odour of hydrocarbon.		BH22-500	
						BH22 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH23

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Natural		SM	Natural Silty SAND (SM) : dense, brown, fine grained, with fine sized gravel, dry.	D	BH23-100	
								BH23-500	
						BH23 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH24

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Disturbed sample	Remark
Pushtube			Topsoil		CI	Topsoil CLAY (CI) : firm, medium plasticity, reddish brown, with fine sized gravel, with fine grained sand, inorganic, w ≈ pl.	w ≈ PL	BH24-100	
		0.1	subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, brown, with fine sized gravel, inorganic, w ≈ pl.			
		0.3	subsoil		GC	Subsoil Clayey GRAVEL (GC) : medium dense, medium plasticity clay, greyish brown, medium sized, slightly moist.	SLM		
		0.4	subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, brown, inorganic, w ≈ pl.	w ≈ PL	BH24-500	
						BH24 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH25

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Disturbed sample	Remark
Pushtube			Fill		GP	Fill Sandy GRAVEL (GP) : medium dense, brown, coarse sized, medium grained sand, slightly moist.	SLM	BH25-100	
		0.1	Fill		GP	Fill Sandy GRAVEL (GP) : medium dense, grey black, medium sized, medium grained sand, trace medium plasticity clay, slightly moist.		BH25-200	
		0.2	subsoil		CI	Subsoil Sandy CLAY (CI) : firm, medium plasticity, reddish brown, fine grained sand, inorganic, w ≈ pl.	w ≈ PL		
		0.3	subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, dark brown, inorganic, w ≈ pl.		BH25-500	
						BH25 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH26

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Disturbed sample	Remark
Pushtube			Fill		SM	Fill Silty SAND (SM) : loose, brown, fine grained, trace medium plasticity clay, slightly moist.	SLM	BH26-100	
		0.1	subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, strong brown, inorganic, w ≈ pl.	w ≈ PL		
								BH26-500	
						BH26 Terminated at 0.5m			

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Geotechnical Log - Borehole

BH27

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Natural		SM	Natural Silty SAND (SM) : dense, brown, fine grained, with fine sized gravel, dry.	D	BH27-100	
								BH27-500	
						BH27 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH28

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Topsoil		SM	Topsoil Silty SAND (SM) : dense, brown, fine grained, with fine to medium sized gravel, dry.	D	BH28-100	
		0.2	Natural		SC	Natural Clayey SAND (SC) : dense, low plasticity clay, brown, fine grained, with fine to medium sized gravel, dry.			
						BH28 Terminated at 0.5m (Target depth)		BH28-500	

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Geotechnical Log - Borehole

BH29

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Natural		SM	Natural Silty SAND (SM) : dense, brown, fine grained, with fine sized gravel, dry.	D	BH29-100	
								BH29-500	
						BH29 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH30

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Natural		SM	Natural Silty SAND (SM) : dense, brown, fine grained, with fine sized gravel, dry.	D	BH30-100	
								BH30-500	
						BH30 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH31

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Disturbed sample	Remark
Pushtube			Topsoil		CI	Topsoil CLAY (CI) : firm, medium plasticity, brown, organic, w ≈ pl.	w ≈ PL	BH31-100	
		0.1	subsoil		CI	Subsoil CLAY (CI) : firm, medium plasticity, light brown, inorganic, w ≈ pl.			
		0.2	subsoil		CL-CI	Subsoil CLAY (CL-CI) : firm, low to medium plasticity, light brown, with fine grained sand, inorganic, w ≈ pl.		BH31-500	
						BH31 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH32

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: GM	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Disturbed sample	Remark
Pushtube			Topsoil		CI	Topsoil Silty CLAY (CI) : firm, medium plasticity, brown, with medium sized gravel, with medium grained sand, inorganic, w ≈ pl.	w ≈ PL	BH32-100	
								BH32-500	
						BH32 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH33

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 3 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit		0	Natural		SM	Natural Silty SAND (SM) : medium dense, brown, fine to medium grained, trace fine sized gravel, slightly moist to dry.	SLM-D	BH33-100	
		1						BH33-1000	
		1.4	Natural		SC	Natural Clayey SAND (SC) : dense, low plasticity clay, dark brown, fine to medium grained, moist, mottles from 2.0m.	M		
		2							
		3				**BH33 Terminated at 3m (Target depth)**		BH33-3000	

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Geotechnical Log - Borehole

BH34

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 3 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit		0	Natural		SM	Natural Silty SAND (SM) : medium dense, brown, fine to medium grained, trace fine sized gravel, slightly moist to dry.	SLM-D	BH34-500	
		1						BH34-1000	
		1.4	Natural		SC	Natural Clayey SAND (SC) : dense, low plasticity clay, dark brown, fine to medium grained, moist, mottles from 2.0m.	M		
		2							
		3				**BH34 Terminated at 3m (Target depth)**		BH34-3000	

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Geotechnical Log - Borehole

BH35

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 3 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit		0	Natural		SM	Natural Silty SAND (SM) : medium dense, brown, fine to medium grained, trace fine sized gravel, slightly moist to dry.	SLM-D	BH35-500	
		1						BH35-1000	
		1.4	Natural		SC	Natural Clayey SAND (SC) : dense, low plasticity clay, dark brown, fine to medium grained, moist, mottles from 2.0m.	M		
		2							
		2.3	Natural		SC	As above, but low to medium plasticity clay, brown.			
		3						BH35-3000	
						BH35 Terminated at 3m (Target depth)			

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Geotechnical Log - Borehole

BH36

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 3 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit		0	Fill		SW	Fill Gravelly SAND (SW) : medium dense, brown, fine to medium grained, fine to medium sized gravel, dry.	D		
		0.3	Natural		SC	Natural Clayey to silty SAND (SC) : dense, low plasticity clay, dark brown, fine to medium grained, trace fine sized gravel, dry, mottles from 2.0m.		BH36-500	
		1						BH36-1000	
		2							
		2.3	Natural		SC	As above, but Clayey low to medium plasticity clay, brown, wet.	W		
		3						BH36-3000	
						BH36 Terminated at 3m (Target depth)			

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Geotechnical Log - Borehole

BH37

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 3 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit		0	Fill		SW	Fill Gravelly SAND (SW) : medium dense, brown, fine to medium grained, fine to medium sized gravel, dry.	D		
		0.3	Natural		SC	Natural Clayey to silty SAND (SC) : dense, low plasticity clay, dark brown, fine to medium grained, trace fine sized gravel, dry, mottles from 2.0m.		BH37-500	
		1						BH37-1000	
		2							
		2.3	Natural		SC	As above, but Clayey low to medium plasticity clay, brown, wet.	W		
		2.5	Natural		SC	Natural Clayey to gravelly SAND (SC) : medium dense, low plasticity clay, brown, fine to medium grained, fine to coarse sized gravel, moist.	M		
		2.8	Natural		SP	Natural Gravelly SAND (SP) : medium dense, pale brown, coarse grained, fine to medium sized gravel, trace low plasticity clay, moist, alluvial sand.		BH37-3000	
		3				**BH37 Terminated at 3m (Target depth)**			

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Geotechnical Log - Borehole

BH38

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia
Northing	: 6,255,383.57	Logged By	: FC
Total Depth	: 3 m	Date	: 03/04/2024
Job Number	: 43874		
Client	: Cowra Early Childhood Services		
Project	: Detailed contamination assessment		

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit		0.05	Non-Soil		BIT	Bitumen			
			Fill		SW	Fill Gravelly SAND (SW) : medium dense, brown, fine to medium grained, fine to medium sized gravel, dry.	D		
		0.3	Natural		SC	Natural Clayey to silty SAND (SC) : dense, low plasticity clay, dark brown, fine to medium grained, trace fine sized gravel, dry, mottles from 2.0m.		BH38-500	
		1						BH38-1000	
		2							
		2.3	Natural		SC	As above, but Clayey low to medium plasticity clay, brown, wet.	W		
		2.5	Natural		SC	Natural Clayey to gravelly SAND (SC) : medium dense, low plasticity clay, brown, fine to medium grained, fine to coarse sized gravel, moist.	M		
		2.8	Natural		SP	Natural Gravelly SAND (SP) : medium dense, pale brown, coarse grained, fine to medium sized gravel, trace low plasticity clay, moist, alluvial sand.		BH38-3000	
		3				**BH38 Terminated at 3m (Target depth)**			

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Geotechnical Log - Borehole

BH39

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.8 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Fill		SC	Fill Clayey SAND (SC) : low plasticity clay, dense, brown, fine grained, moist, foreign materials mixed with fill including plastic, timber and metal.	M	BH38-300	
		0.4	Natural		SC	Natural Clayey SAND (SC) : dense, low plasticity clay, dark brown, fine to medium grained, with fine to medium sized gravel, moist.		BH39-800	
						BH39 Terminated at 0.8m (Target depth)			

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Geotechnical Log - Borehole

BH40

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 3 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit		0	Natural		SM	Natural Silty SAND (SM) : medium dense, brown, fine to medium grained, trace fine sized gravel, slightly moist to dry.	SLM-D	BH40-100	
								BH40-500	
		1						BH40-1000	
		1.4	Natural		SC	Natural Clayey SAND (SC) : dense, low plasticity clay, dark brown, fine to medium grained, moist, mottles from 2.0m.	M		
		2							
		3				**BH40 Terminated at 3m (Target depth)**		BH40-3000	

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Geotechnical Log - Borehole

BH41

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 3 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit		0	Fill		SW	Fill Gravelly SAND (SW) : medium dense, pale brown, fine to medium grained, fine to medium sized gravel, dry.	D		
		0.3	Natural		SM	Natural Silty SAND (SM) : medium dense, brown, fine to medium grained, trace fine sized gravel, slightly moist to dry.	SLM-D	BH41-500	
		1						BH41-1000	
		2							
		2.7	Natural		SC	Natural Clayey SAND (SC) : dense, low plasticity clay, dark brown, fine to coarse grained, moist.	M	BH41-3000	
		3				**BH41 Terminated at 3m (Target depth)**			

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Geotechnical Log - Borehole

BH42

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
			Fill		SW	Fill Gravelly SAND (SW) : medium dense, pale brown, fine to medium grained, fine to medium sized gravel, dry.	D	BH42-100	
		0.3	Natural		SM	Natural Silty SAND (SM) : medium dense, brown, fine to medium grained, trace fine sized gravel, slightly moist to dry.	SLM-D	BH42-500	
						BH42 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH43

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Natural		SM	Natural Silty SAND (SM) : dense, brown, fine grained, with fine sized gravel, dry.	D	BH43-100	
								BH43-500	
						BH43 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH44

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Natural		SM	Natural Silty SAND (SM) : dense, brown, fine grained, with fine sized gravel, dry.	D	BH44-100	
								BH44-500	
						BH44 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH46

Easting	: 657,513.48	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,447.02	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 03/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Natural		SM	Natural Silty SAND (SM) : dense, brown, fine grained, with fine sized gravel, dry.	D	BH46-100	
								BH46-500	
						BH46 Terminated at 0.5m (Target depth)			

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Geotechnical Log - Borehole

BH47

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 3 m	Date	: 04/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit		0	Fill		SW	Fill Gravelly SAND (SW) : dense, brown, fine to medium grained, fine to coarse sized gravel, trace low plasticity clay, dry, aggregate material identified including tiles, bricks and concrete.	D	BH47-100	
		1						BH47-1000	
		1.2	Natural		SM	Natural Silty SAND (SM) : medium dense, brown, fine grained, trace fine sized gravel, trace low plasticity clay, slightly moist, mottles from 1.4m.	SLM		
		2						BH47-2000	
		3						BH47-3000	
						BH47 Terminated at 3m (Target depth)			

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Geotechnical Log - Borehole

BH48

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 3 m	Date	: 04/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit		0.5	Fill		SW	Fill Gravelly SAND (SW) : dense, yellowish brown, fine to medium grained, fine to coarse sized gravel, trace low plasticity clay, dry, aggregate material identified including tiles, bricks and concrete.	D	BH48-100	
		1	Natural		SM	Natural Silty SAND (SM) : medium dense, brown, fine grained, trace fine sized gravel, trace low plasticity clay, slightly moist, mottles from 1.4m.	SLM	BH48-1000	
		2						BH48-2000	
		3						BH48-3000	
						BH48 Terminated at 3m (Target depth)			

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Geotechnical Log - Borehole

BH49

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 1 m	Date	: 04/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Fill		SW	Fill Gravelly SAND (SW) : dense, yellowish brown, fine to medium grained, fine to coarse sized gravel, trace low plasticity clay, dry. Odour of chemical product.	D	BH49-300	
		0.5	Natural		SM	Natural Silty SAND (SM) : medium dense, brown, fine grained, trace fine sized gravel, trace low plasticity clay, slightly moist.	SLM	BH49-1000	
		1				**BH49 refusal at 1m (Refusal)**			

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Geotechnical Log - Borehole

BH50

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 3 m	Date	: 04/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit		0.5	Fill		GW	Fill Gravelly SAND (SW) : dense, yellowish brown, fine to medium grained, fine to coarse sized gravel, trace low plasticity clay, dry.	D	BH50-100	
		1	Natural		SM	Natural Silty SAND (SM) : medium dense, brown, fine grained, trace fine sized gravel, trace low plasticity clay, slightly moist.	SLM	BH50-1000	
		2							
		2.5	Natural		SM	Natural Silty SAND (SM) : dense, dark yellowish brown, fine to coarse grained, trace fine sized gravel, moist, alluvial sand.	M		
		3						BH50-3000	
						BH50 Terminated at 3m (Target depth)			

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Geotechnical Log - Borehole

BH51

Easting	: 657,467.50	Location	: 14 Short Street, Cowra NSW, Australia	Job Number	: 43874
Northing	: 6,255,383.57	Logged By	: FC	Client	: Cowra Early Childhood Services
Total Depth	: 0.5 m	Date	: 04/04/2024	Project	: Detailed contamination assessment

Drilling Method	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Moisture	Samples: Environmental sample	Remark
Auger drill with TC bit			Fill		GW	Fill Gravelly SAND (SW) : dense, yellowish brown, fine to medium grained, fine to coarse sized gravel, trace low plasticity clay, dry.	D	BH51-100	
								BH51-500	
						BH51 refusal at 0.5m (Target depth)			

Appendix 5. Unidentified finds procedure

Unidentified finds procedure

1. Introduction

An Early Childhood Precinct is proposed for 14 Short Street, Cowra NSW.

A procedure is required describing the actions if potential contamination or hazards are encountered during demolition / soil disturbance / subdivision / excavation / construction activities.

2. Scope

Prepare a procedure to enable the identification and management of unexpected hazards identified during excavation works and/or construction activities.

3. Site identification

Phase B, 14 Short Street, Cowra NSW.

4. Responsible person

The landowner / site supervisor is responsible for implementation of the unexpected finds protocol. The landowner will appoint an environmental scientist to induct and provide information on hazard identification and responses to earthwork supervisors and personnel which may uncover unexpected hazards.

5. Identification of unexpected hazards

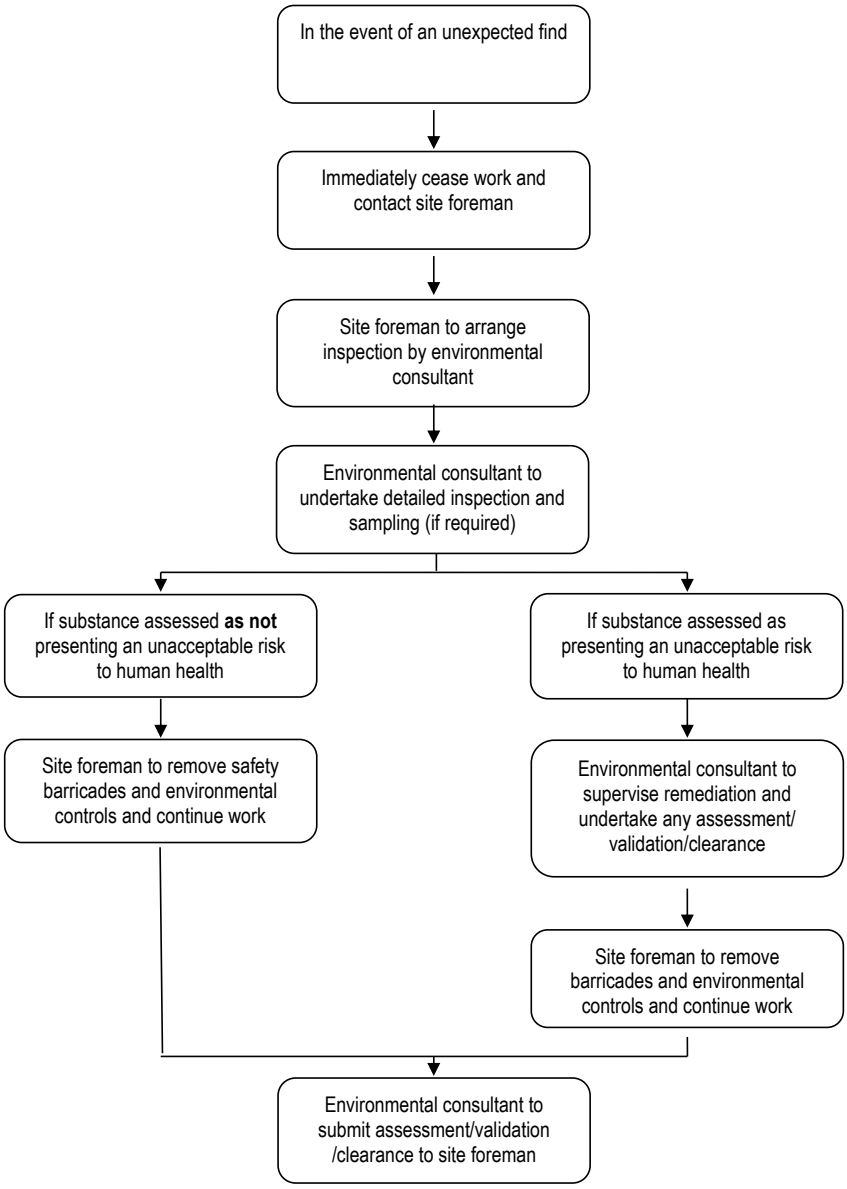
Potential hazards will be identified by appearance and odour include:

- A filled pit or gully
- Demolition waste
- Discoloured soil
- Oil/diesel/tar
- Sheens on water
- An offensive odour
- Asbestos cement sheeting
- Ash or slag
- Underground storage tank

6. Training and induction

All excavation/construction personnel are to be inducted on the identification of potential hazards. The induction can be undertaken at the time of general site induction and toolbox meetings. The training will include display of information to alert worker of potential hazards.

7. Procedure



8. Recommencement of works

The potential hazards will be assessed by the environmental scientist and a report prepared describing:

- Preliminary assessment of the contamination and need for clean-up
- Preparation of a remediation action plan
- All works to be undertaken in accordance with contaminated site regulations and guidelines
- Remediation works
- Validation of the remediation
- Works can commence on the potentially hazardous area after the environmental scientist has provided a clearance.

Information to assist workers in identifying hazards.

BE AWARE

UNEXPECTED HAZARDS MAY BE PRESENT



drums



asbestos



chemical bottles



blood stains



odour



ash / slag



demolition waste

if you SEE or SMELL anything unusual

STOP WORK & contact the Site Foreman

do not restart working before the area has been investigated and cleared by an Environmental Consultant

Appendix 6. Soil sampling protocols

1. Sampling

The samples will be collected from the auger tip, mattock, hand auger or excavator bucket immediately on withdrawal.

The time between retrieval of the sample and sealing of the sample container will be kept to a minimum.

The material will be collected using single use disposal gloves or a stainless-steel spade which represented material which has not been exposed to the atmosphere prior to sampling.

All sampling jars will be filled as close to the top as possible to minimise the available airspace within the jar.

2. Handling, containment and transport

Daily sampling activities will be recorded including sampling locations, numbers, observations, measurements, sampler, date and time and weather condition.

The sampling jars will be new sterile glass jars fitted with plastic lid and airtight Teflon seals, supplied by the laboratories for the purpose of collecting soil samples for analysis. Sample containers will be marked indelibly with the sample ID code to waterproof labels affixed to the body of the container.

All samples will be removed from direct sunlight as soon as possible after sampling and placed in insulated containers. Samples will be stored in a refrigerator at 4°C prior to transportation to the laboratory in insulated containers with ice bricks in accordance with AS4482.1.

Handling and transportation to the laboratory will be accompanied with a chain of custody form to demonstrate the specimens are properly received, documents, processed and stored.

Maximum holding time for extraction (AS4482.1) are:

Analyte	Maximum holding time
Metals	6 months
Mercury	28 days
Sulfate	7 days
Organic carbon	7 days
OCP, OPP, PCB	14 days
TRH, BTEX, PAH, phenols	14 days

3. Decontamination of sampling equipment

Sampling tools will be decontaminated between sampling locations by

- Removing soil adhering to the sampling equipment by scraping, brushing or wiping
- Washing with a phosphate-free detergent
- Rinsing thoroughly with clean water
- Repeating if necessary
- Collect rinsate per sampling time and preserve according to AS 2031.1
- Dry equipment with disposable towels or air

Appendix 7. EW testing services asbestos identification report

Envirowest Consulting Pty Ltd ABN 18 103 955 246 trading as
EW Testing Services
• 9 Cameron Place, PO Box 8158, Orange NSW 2800 • Tel (02) 6361 4954 •
• Email admin@envirowest.net.au • Web www.envirowest.net.au •

Environmental
Geotechnical
Asbestos
Services

ASBESTOS IDENTIFICATION REPORT

Client	Cowra Early Childhood Services	Report number	LR43874id1
Contact	Libby Ewing-Jarvie		
Address	20 Comerford Street Cowra NSW 2794	Date	21 June 2024

Site location	14 Short Street Cowra NSW, 2794
Sampled by	Felipe Canavez
Date received	20 June 2024
Date tested	21 June 2024
Test method	Identification using polarized light microscopy with dispersion staining in accordance with *Method for the qualitative identification of asbestos in bulk samples* (AS4964-2004) and EW Testing Services in-house method TA2.

Sample ID	Location	Description	Results
43874-2	Sheeting	10.5g moulded fibrous cement	Amosite (brown asbestos) detected Chrysotile (white asbestos) detected
43874-3	Pipe	31g moulded fibrous cement	Chrysotile (white asbestos) detected

Comments:

Sampling: NATA accreditation does not cover the performance of this service
This report shall not be reproduced except in full without written permission of EW Testing Services.

Carmen King
Approved asbestos analyst

NATA

Accredited for compliance with
ISO/IEC 17025 – Testing
Accreditation number: 19800

3 LATE REPORTS

Nil