eiaustralia

Contamination | Remediation | Geotechnical

BAPS AUSTRALIA

Detailed Site Investigation

230-242 Aldington Road, Kemps Creek NSW

Report E23529.E02_Rev0

28 September 2017

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

REPORT DISTRIBUTION

Detailed Site Investigation
230-242 Aldington Road, Kemps Creek NSW

EI Report No.: E23529.E02_Rev0
Date: 28 September 2017

Copies		Recipient
1	Soft Copy (PDF – Secured, issued by email)	BAPS Australia 40 Eleanor Street, ROSEHILL NSW 2142
	Original (Saved to Digital Archives)	EI Australia Suite 6.01, 55 Miller Street, PYRMONT NSW 2009

Author	Technical Reviewer
JOEL HEININGER Environmental Scientist	**NATHAN FOSTER** Senior Environmental Scientist

Revision	Details	Date	Amended By
0	Original	28 September 2017	-

© 2017 EI Australia (EI)

This report is protected by copyright law and may only be reproduced, in electronic or hard copy format, if it is copied and distributed in full and with prior written permission by EI.

eiaustralia

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

EXECUTIVE SUMMARY

Background

BAPS Australia ("the Client") engaged EI Australia (EI) to prepare a Detailed Site Investigation for the property located at 230-242 Aldington Road, Kemps Creek NSW ('the site'). This environmental assessment was completed in support of a Development Application package to the Penrith City Council to allow redevelopment of the site into a Hindu temple, accommodation place and halls and classrooms.

Objectives

The main objectives of the assessment were to:

- Evaluate the potential for site contamination on the basis of historical, anecdotal and documentary evidence;
- Characterise site environmental conditions in relation to the nature, degree and sources of any soil, vapour and groundwater impacts;
- Target potentially impacted areas identified during the preliminary stages of the assessment for intrusive investigation;
- Understand the influence of site specific, geologic and hydrogeological conditions on the potential fate and transport of any impacts that may be identified;
- Evaluate potential risks that identified impacts may pose to human health and the environment; and
- Where site contamination is confirmed, provide data to assist in the selection and design of appropriate remedial options.

Findings

The assessment was conducted with reference to the regulatory framework outlined in **Section 1.3** of this report and findings were as follows:

- The site covers a total area of approximately 10.1 ha. At the time of the inspection, the site consisted of one single storey residential building, one vacant single storey office/flat, two vacant sheds/workshops and two dams on extensive grassland, some with overgrown vegetation;
- For this DSI, fill and natural soils were sampled from 109 boreholes (BH101 to BH178 and BH201 to BH231) distributed in a triangular grid pattern across accessible areas of the site. Two surface water samples (W1 and W2) and two sediment samples (SS1 and SS2) were also collected from the onsite dams;
- Sub-surface layers encountered during drilling consisted of generally shallow fill / topsoil soils comprising silty sand / silty clay (average thickness of 0.2m and maximum of 2.5 m), overlying natural residual silty clay and shallow sandstone / shale bedrock;
- Groundwater was not investigated as part of this assessment as the likelihood of impacted groundwater was low due to the predominant historical use of the site and surrounding properties for residential purposes. Groundwater is anticipated to be indicative of the slope of the site, flowing on an east west axis.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

- In regards to human health risks, heavy metals, TRHs, BTEX, PAHs, OCPs/OPPs and PCBs were either detected at concentrations below the LOR or below the adopted criteria, with the exception one exceedance in chromium for composite sample C27. Chromium speciation revealed that this concentration was entirely chromium (III), with chromium (VI) detected at concentrations below the limit of reporting;

- In regards to ecological risks, exceedances of copper was detected in composite samples from C24 located in the north-eastern portion of the site. Further testing of the three individual samples which comprised the composite (BH159_0.1-0.2, BH168_0.1-0.2 and BH206_0.1-0.2) revealed that none of the selected samples were found to be above ecological guidelines for copper. BH159_0.1-0.2 as well as BH206_0.1-0.2 were slightly elevated in copper (both 69 mg/kg), this may explain why the composite sample was analysed at a high concentration, however, the specified samples still fall below the ecological guideline of 80 mg/kg.

- In regards to the dam water onsite, heavy metals, BTEX, TRHs, PAHs, OCPs and OPPs were either detected at concentrations below the LOR or below the adopted criteria, with the exception of heavy metals copper and zinc. Copper was identified in the eastern dam (W2 - 2 µg/L) , with zinc found in water from both dams onsite (W1 – 320 µg/L and W1 - 7 µg/L). at concentrations that exceeded the adopted SWILs. From a practical perspective, the risk from the copper and zinc exceedance is low;

- Additional herbicide analysis was undertaken, after potential contamination was identified onsite. Results indicated that no contamination was present on site.

- No asbestos fibres were detected in any sample collected and analysed from the site;

- Overall, widespread contamination was not identified as part of the DSI and previously known data gaps based on the potential contamination sources, have largely been addressed.

Recommendations

- Preparation and implementation of a Dam Dewatering Management Plan;

- Waste classification of fill/soil is to be performed prior to any fill/soil removal in accordance with the EPA 2014 Waste Classification Guidelines, including offsite disposal to appropriately licenced waste management facilities;

- Any natural soil materials proposed for removal from the site are to be assessed to confirm whether they may be classified as virgin excavated natural materials (VENM) for off-site disposal in accordance the NSW EPA (2014) Waste Classification Guidelines; and

- Should it be necessary to import soils to the site for backfilling over-excavated areas, the imported material must be assessed at the site of origin (i.e. prior to being imported to the site) to confirm it is classified as VENM and that it suitable for onsite use.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

CONTENTS

EXECUTIVE SUMMARY **I**

1. INTRODUCTION **1**
1.1 Background and Purpose 1
1.2 Proposed Development 1
1.3 Regulatory Framework 1
1.4 Project Objectives 2
1.5 Scope of Works 2

2. SITE DESCRIPTION **4**
2.1 Property Identification, Location and Physical Setting 4
2.2 Surrounding Land Use 4
2.3 Regional Setting 5
2.4 Groundwater Bore Records and Groundwater Use 6
2.5 Site Walkover Inspection 6

3. SITE HISTORY **8**
3.1 Land Titles Information and Historical Aerial Review 8
3.2 Surrounding Lands Historical Aerial Photography Review 10
3.3 Council Information 10
3.4 EPA Online Records 11
3.5 Previous Investigations 11

4. CONCEPTUAL SITE MODEL **12**
4.1 Potential Contamination Sources 12
4.2 Chemicals of Concern 12
4.3 Potential Sources, Exposure Pathways and Receptors 13
4.4 Data Gaps 14

5. SAMPLING ANALYSIS AND QUALITY PLAN (SAQP) **15**
5.1 Data Quality Objectives (DQO) 15
5.2 Data Quality Indicators 19

6. ASSESSMENT METHODOLOGY **20**
6.1 Sampling Rationale 20
6.2 Investigation Constraints 20
6.3 Assessment Criteria 20
6.4 Soil and Creek Water Investigation Methodology 22

7. DATA QUALITY ASSESSMENT **24**

8. RESULTS **25**
8.1 Soil, Sediment & Dam Water Investigation 25
8.2 Laboratory Analytical Results 25

9. SITE CHARACTERISATION DISCUSSION **29**
9.1 Heavy Metals in Soil 29
9.2 Surface Water and Sediment Characterisation 29
9.3 Herbicide Analysis 29
9.4 Review of Conceptual Site Model & Data Gaps 29

10. CONCLUSIONS **31**

11. RECOMMENDATIONS **33**

12. STATEMENT OF LIMITATIONS **34**

REFERENCES

ABBREVIATIONS

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

TABLES (In Text)

TABLE 2-1 SITE IDENTIFICATION, LOCATION AND ZONING 4
TABLE 2-2 SURROUNDING LAND USES 5
TABLE 2-3 REGIONAL SETTING INFORMATION 5
TABLE 3-1 SUMMARY OF OWNERS AND HISTORICAL AERIAL PHOTOGRAPHY 8
TABLE 3-2 SUMMARY OF AERIAL PHOTOGRAPH REVIEW 10
TABLE 4-1 PRELIMINARY CONCEPTUAL MODEL 13
TABLE 5-1 SUMMARY OF PROJECT DATA QUALITY OBJECTIVES 16
TABLE 5-2 DATA QUALITY INDICATORS 19
TABLE 6-1 ADOPTED INVESTIGATION LEVELS FOR SOIL AND CREEK WATER 21
TABLE 6-2 SUMMARY OF SOIL AND CREEK WATER INVESTIGATION METHODOLOGY 22
TABLE 8-1 GENERALISED SUBSURFACE PROFILE 25
TABLE 8-2 SUMMARY OF SOIL AND SEDIMENT ANALYTICAL RESULTS 26
TABLE 8-3 SUMMARY OF COMPOSITE SOIL ANALYTICAL RESULTS 27
TABLE 8-4 SUMMARY OF DAM SURFACE WATER ANALYTICAL RESULTS 28

TABLES

TABLE T1 SUMMARY OF DISCRETE SOIL SAMPLES
TABLE T2 SUMMARY OF COMPOSITE SOIL SAMPLES
TABLE T3 SUMMARY OF DAM WATER SAMPLES

FIGURES

FIGURE 1 LOCALITY PLAN
FIGURE 2 SAMPLING LOCATION PLAN

APPENDICES

APPENDIX A PROPOSED DEVELOPMENT PLANS
APPENDIX B GROUNDWATER BORE SEARCH
APPENDIX C SITE PHOTOGRAPHS
APPENDIX D LAND TITLE SEARCHES
APPENDIX E COUNCIL SEARCH INFORMATION
APPENDIX F BOREHOLE LOGS
APPENDIX G COC AND SAMPLE RECEIPT FORMS
APPENDIX H LABORATORY ANALYTICAL REPORTS
APPENDIX I QA/QC ASSESSMENT
APPENDIX J LABORATORY QA/QC ASSESSMENT AND DQOS
APPENDIX K PID CALIBRATION CERTIFICATES

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

1. INTRODUCTION

1.1 BACKGROUND AND PURPOSE

BAPS Australia ("the Client") engaged EI Australia (EI) to prepare an Detailed Site Investigation for the property located at 230-242 Aldington Road, Kemps Creek NSW ('the site').

The site is located approximately 37 km west of the Sydney Central Business District (CBD), within the Local Government Area of the Penrith City Council (see **Figure 1**). The site is identified as Lot 18 in DP253503, covering a total area of approximately 10.1 ha. At the time of the inspection, the site consisted of one single storey residential building, one vacant single storey office/flat, two vacant sheds/workshops and two dams on extensive grassland. Some overgrown vegetation was also noted on the site.

This assessment was conducted in support of a Development Application (DA) to the Penrith City Council and for the purpose of enabling the developer to meet its obligations under the *Contaminated Land Management Act 1997* (CLM Act), for the assessment and management of contaminated soil and/or groundwater.

1.2 PROPOSED DEVELOPMENT

At the time of report preparation, EI was provided with preliminary plans of the proposed redevelopment (**Appendix A**) involving the construction of a Hindu temple, accommodation residence, as well as halls and classrooms. The site is sloping, so the new development aims at stepping the site into 8 levels, with level 1 comprising the existing lake/dam, level 2 comprising a proposed activities block with basement, levels 3 and 5 comprising a carpark, level 4 comprising a playground and levels 6, 7 and 8 comprising the temple, the accommodation residence, and landscaping.

Reduced levels (RLs) have not been provided for the finished floor levels (FFL), or the bulk excavation level (BEL), however it is assumed that the basement required for level 2 will not exceed approximately 3.0 m. Locally deeper excavations may be required for footings, service trenches, crane pads and lift overrun pits.

1.3 REGULATORY FRAMEWORK

The following regulatory framework and guidelines were considered during the preparation of this report:

- ANZECC & ARMCANZ (2000) *Australian and New Zealand Guidelines for Fresh Water Quality*;
- DEC (2007) *Guidelines for the Assessment and Management of Groundwater Contamination*;
- DEC (2006) *Guidelines for the NSW Site Auditor Scheme (2nd Edition)*;
- EPA (1995) *Sampling Design Guidelines*;
- The Penrith City Council (2014) *Development Control Plan*;
- NEPM (2013) *Schedule B(1) Guideline on Investigation Levels for Soil and Groundwater,* and *Schedule B(2) Guideline on Site Characterisation,* in the National Environmental Protection (Assessment of Site Contamination) Measure 1999 – Amendment 2013;
- *Contaminated Land Management Act 1997*;

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

- State Environment Protection Policy 55 (SEPP 55) – *Remediation of Land*; and
- OEH (2011) *Guidelines for Consultants Reporting on Contaminated Sites*.

1.4 PROJECT OBJECTIVES

The primary objectives of this investigation were to:

- Evaluate the potential for site contamination on the basis of historical land uses, anecdotal and documentary evidence of possible pollutant sources;
- Characterise site environmental conditions in relation to the nature, degree and sources of any soil, vapour and dam water impacts;
- Target potentially impacted areas for intrusive investigation;
- Understand the influence of site specific, geologic and hydrogeological conditions on the potential fate and transport of any impacts that may be identified;
- Evaluate potential risks that identified impacts may pose to human health and the environment; and
- Where site contamination is confirmed, provide data to assist in the selection and design of appropriate remedial options.

1.5 SCOPE OF WORKS

As outlined in EI Proposal P14888.1 (dated 7 July 2017), in order to achieve the above objectives, the scope of works for this assessment was as follows:

1.5.1 Desktop Study

- Review of the previous investigations conducted at the site;
- Review of relevant topographical, geological, hydrogeological and soil landscape maps for the project area;
- A search of NSW EPA Land Information records under the *Contaminated Land Management Act 1997* and *Protection of the Environment Operations Act 1997*;
- Review of any existing underground services on site;
- A search of historical aerial photographs archived at NSW Land and Property Information in order to review previous site use and the historical sequence of land development in the neighbouring area;
- A site history survey involving a detailed search of Council for information relating to operational site history; and
- A land titles search, also conducted through NSW Land and Property Information

1.5.2 Field Work & Laboratory Analysis

- A detailed site walkover inspection;

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

- Construction of test boreholes at 110 locations distributed in a triangular grid pattern across accessible areas of the site;
- Multiple level soil sampling within fill and natural soils;
- Sampling of water and sediment from the dams onsite; and
- Laboratory analysis of selected soil samples for relevant analytical parameters as determined from the site history survey and field observations during the investigation programme.

1.5.3 Data Analysis and Reporting

This report was prepared to document desktop study findings, the conceptual site model, data quality objectives, investigation methodologies and results. It was prepared with reference to the NSW OEH (2011) *Guidelines for Consultants Reporting on Contaminated Sites* and includes a discussion of laboratory analytical results in regards to potential risks to human health, the environment and the aesthetic uses of the land.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

2. SITE DESCRIPTION

2.1 PROPERTY IDENTIFICATION, LOCATION AND PHYSICAL SETTING

The site identification details and associated information are presented in **Table 2-1**, the site locality is shown in **Figure 1**.

Table 2-1 Site Identification, Location and Zoning

Attribute	Description
Street Address	230-242 Aldington Road, Kemps Creek NSW
Location Description	The site is located approximately 37 km west of the Sydney CBD. The site is bound by residential properties on large sized lots of agricultural land to the north and south, Aldington Road then residential properties on large sized lots of agricultural land to the west, and vacant land to the east.
Site Coordinates	Coordinates of the north eastern corner of site under GDA94-MGA56: Easting: 296830.651, Northing: 6252249.117 (Source: http://maps.six.nsw.gov.au)
Site Area	Approx. 10.1 ha (Ref. http://maps.six.nsw.gov.au)
Lot and Deposited Plan (DP)	Lot 18 in DP253503
State Survey Marks	The closest State Survey mark to the site is SS126264, located approximately 415 m south of the site along Aldington Road (Source: http://maps.six.nsw.gov.au).
Local Government Authority	Penrith City Council
Current Zoning	RU2 Rural Landscape (Penrith Local Environmental Plan, 2010)
Current Land Uses	At the time of the inspection, the site consisted of one single storey residential building, one vacant single storey office/flat, two vacant sheds/workshops, and two dams on extensive grassland. Some overgrown vegetation was also noted on the site.

2.2 SURROUNDING LAND USE

The site is situated within an area of mixed land uses. Current uses of surrounding land are described in **Table 2-2**.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Table 2-2 Surrounding Land Uses

Direction Relative to Site	Land Use Description	Sensitive Receptors (Distance from Site)
North	Residential (rural) property on large block of agricultural grassland.	Adjacent residential properties and dams.
East	Vacant open grassland.	Adjacent residential properties and dams.
South	Residential (rural) property on large block of agricultural grassland.	Adjacent residential properties and dams.
West	Aldington Road then a residential (rural) property on a large block of agricultural grassland.	Adjacent residential properties and dams.

2.3 REGIONAL SETTING

Regional topography, geology, soil landscape and hydrogeological information are summarised in **Table 2-3**.

Table 2-3 Regional Setting Information

Attribute	Description
Topography	The ground surface across the site declines gradually on an east-west axis across the site. Reduced levels across the site generally range from 88 mAHD at the eastern edge of the site around the residential property, to 57 mAHD on the western edge along Aldington Road.
Site Drainage	As the majority of the site is currently unpaved, stormwater is expected to infiltrate directly into exposed soils. Surface runoff is expected to flow westerly, downslope towards the onsite dams.
Regional Geology	The 1:100 000 scale Geological Series Penrith Sheet 9030 (DMR, 1991) indicated the site is underlain by Ashfield Shale, a formation of the Wianamatta Group, and consists of dark grey to black claystone-siltstone and fine sandstone-siltstone laminite.
Soil Landscapes	The 1:100 000 scale Soil Landscapes of the Penrith sheet (Bannerman & Hazelton, 1990) indicated the site overlies the Blacktown Landscape. The Blacktown Landscape has local relief to 30 m and slopes usually <5%, broad rounded crests and ridges with gently inclined slopes. Soils are shallow to moderately deep (<100 cm) hard setting mottled texture contrast soils, red and brown podzolic soils on crests grading to yellow podzolic soils on lower slopes and in drainage lines. The Luddenham Landscape can be described as undulating to rolling low hills on Wianamatta Group shales, often associated with Minchinbury Sandstone. Soils are shallow (<100 cm) dark podzolic soils or massive earthy clays on crests; moderately deep red podzolic soils on upper slopes; moderately deep (<150 cm) yellow podzolic soils and prairie soils on lower slopes and drainage lines.
Acid Sulfate Soil Risk	There was no Acid Sulfate Soils (ASS) risk classification map pertaining to the site available on the Penrith Local Environmental Plan, 2010. There was no Acid Sulfate Soils (ASS) risk classification map pertaining to the site available through the Department of Land and Water Conservation. Based on the above, further ASS investigation is not considered warranted for the purposes of this DSI.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Attribute	Description
Depth of Filling	During this investigation, fill or topsoil was encountered at an average of approximately 0.2 mBGL and at a maximum of 2.5 mBGL (BH204).
Typical Soil Profile	Fill / Topsoil - Silty SAND / Silty CLAY; medium plasticity, brown with gravels, fine to medium grained sands, no odour. Natural - Silty CLAY; medium to high plasticity, red to brown mottled orange, no odour. Bedrock - SANDSTONE; distinctly weathered, fine to medium grained, interbedded with shale, light grey, no odour.
Depth to Groundwater	Groundwater was not recorded in the vast majority of drilled bores, however, inflow was recoreded between 2.2 mBGL in BH217 and 6.8 mBGL in BH216.
Nearest Surface Water Feature	Surface water was identified within the two dams located on site. Additional dams were identified on neighbouring properties .
Groundwater Flow Direction	Groundwater on site is anticipated to be indicative of the slope of the site, flowing on an east west axis.

2.4 GROUNDWATER BORE RECORDS AND GROUNDWATER USE

An online search of registered groundwater bores was conducted by EI on 15 September 2017 through the NSW Office of Water database (Ref. http:// realtimedata.water.nsw.gov.au/water.stm). There were no registered bores within a 500 m radius of the site. Search details are attached in **Appendix B**.

2.5 SITE WALKOVER INSPECTION

EI staff made a number of observations during a detailed site inspection on 4 September 2017. A summary of the observations is provided below. All site photographs are attached in **Appendix C.**

- At the time of the inspection, the site consisted of one single storey residential building, one vacant single storey office/flat, two vacant sheds/workshops and two dams on extensive grassland (**Photograph 1**). Some overgrown vegetation was also noted on the site (**Photograph 2**);
- The western dam had a pump shed located on its northern side (**Photographs 4 and 18**), with a petrol motor located inside (**Photograph 19**). Old motors were located on the exterior of the shed on the bank of the adjacent dam (**Photograph 20**). The eastern dam had no pump shed or motors located on its perimeter (**Photograph 3**).
- The residential building on site is a single storey, brick dwelling in good condition (**Photograph 5**), with a external car parking under a rear patio. The office/flat dwelling is a single storey, brick in good condition (**Photograph 6**).
- A disused work shed in the eastern portion of the site (**Photograph 7 and 8**) contained various chemical bottles of *Gramoxone 250* (**Photographs 9 and 10**). It was later identified that *Gramoxone 250* is a non-selective herbicide for weed control. Above ground storage tanks were also identified in the shed.
- No evidence of USTs were observed on the site, however a possible pit, likely used for stormwater or as a silt trap were identified near the shed in the eastern portion of the site

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

(**Photograph 11**). The pit was locked and could not be opened. Septic tanks were also identified in front of the residential house on the western side (**Photograph 12**).

- Driveways were located on the site, one stretching from Aldington Road, east to the residential house (**Photograph 13**), with the other driveway located in the eastern portion of the site around the residential house, connecting from the previous driveway (**Photograph 14**).
- The second shed on the property is located in the central-western portion of the site along the driveway (**Photograph 15**). Within the shed are petrol tins (**Photograph 16**), and an empty chemical drum with *Metham Soil Fumigant* labelling (**Photograph 17**). *Metham Soil Fumigant*, as the name suggests, is a pesticide used in soil fumigation.
- The surrounding area was predominantly residential with land used for agricultural purposes.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

3. SITE HISTORY

3.1 LAND TITLES INFORMATION AND HISTORICAL AERIAL REVIEW

A historical land titles search was conducted through Scott Ashwood Settlement Agents and Legal Searches Pty Ltd. Copies of relevant documents resulting from this search are presented in **Appendix D**. A summary of all the previous and current registered proprietors along with information obtained from the available historical aerial photographs, in relation to past potential land uses are presented in **Table 3-1**. The historical aerial photographs reviewed as part of this PSI included:

- 1951: B/W, NSW 63-84 – Department of Lands;
- 1955: B/W NSW 226-5144 – Department of Lands;
- 1961: B/W NSW 1048-5137– Department of Lands;
- 1970: B/W NSW 1909-5183 – Department of Lands;
- 1986: Colour NSW 3528-100 – Land and Property Information NSW;
- 1991: Colour 78–6282 Land and Property Information NSW;
- 2007: Google Earth (https://www.google.com/earth/index.html) 03/11/2007 Imagery – Google.
- 2017: Google Earth (https://www.google.com/earth/index.html) 02/09/2017 Imagery – Google.

Table 3-1 Summary of Owners and Historical Aerial Photography

Date of Acquisition and term held	Registered Proprietor(s) & Occupations (where documented)	Site description based on historical aerial photographs	Associated Land use
Search with Regards of Lot 18 in DP253503			
05.08.1913 (1913 to 1944)	Sarah Thompson (Widow) and her deceased estate	-	-
13.06.1944 (1944 to 1949)	Fletcher & Pickett Pty Ltd	-	-
17.03.1949 (1949 to 1960)	Littleham Pty Ltd	**1951:** Unoccupied land **1955:** Site remains primarily unchanged from the previous aerial photograph.	Undeveloped
16.05.1960 (1960 to 1960)	Stockwell Holdings Pty Ltd	-	
24.09.1960 (1960 to 1971)	Mainline Enterprises Proprietary Limited Now L.C. O'Niel Enterprises Pty Ltd.	**1961:** Site remains primarily unchanged from the previous aerial photograph. **1970:** Site remains primarily unchanged from the previous aerial photograph.	

Date of Acquisition and term held	**Registered Proprietor(s) & Occupations (where documented)**	**Site description based on historical aerial photographs**	**Associated Land use**
06.05.1971 (1971 to 1973)	Unit Constructions Pty Ltd	-	
09.11.1973 (1973 to 1979)	Number One Fleurs Pty Ltd	-	
17.10.1979 (1979 to 2006)	Giuseppe Culmone (Haulage Contractor) Pauline Culmone (Married Woman) Giovanni Battista Culmone (Apprentice Ground Instrument Engineer) Anthony Joseph Culmone (Apprentice Motor Engineer)	**1986:** The perimeter of the site has been formed, with driveway, residential premises and shed in the eastern portion of the site being erected. In addition the western dam has been formed. **1991:** The office / flat has been erected on the eastern boundary. The shed in the eastern portion of the site is in operation. Agricultural production of the site appears to have begun..	Residential/ Agricultural
05.08.2006 (2006 to 2010)	Giuseppe Culmone Pauline Culmone Giovannie Battista Culmone Anthony Joseph Culmone	**2007:** Agricultural use of the site appears to have increased, with the entire site covered in crops for cultivation. The eastern dam is still the same size as in the previous aerial photograph. The north-eastern boundary of the site appears to be being used as a storage area for rubbish or materials related to the agricultural use of the site.	
28.06.2010 (2010 to 2015)	Giuseppe Culmone Giovanni Battista Culmone Anthony Joseph Culmone	-	
22.07.2015 (2015 to 2015)	Giovanni Battista Culmone Anthony Joseph Culmone (Executors of the Will of Giuseppe Culmone)	-	
15.12.2015 (2015 to Date)	# Baps Swaminarayan Sanstha, Australia Limited	**2017:** The agricultural use of the site appears to have ceased, with the eastern dam having grown in size slightly from the previous aerial photograph. The rubbish or farming material in the previous aerial photograph along the eastern boundary has been cleared.	Residential

Notes:
[#] Denotes Current Registered Proprietor

In summary, land titles records and historic aerial photography indicate that the site was unoccupied up until the time between 1986 and the 2017 aerial photograph. It appears from 1986 a residential dwelling, along with the site shed was established, with the office/flat building present in the 1991

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

aerial photograph. Agricultural production appears to have been the primary use of the site, with the residential dwelling remaining unchanged from 1986 until the present day.

3.2 SURROUNDING LANDS HISTORICAL AERIAL PHOTOGRAPHY REVIEW

As part of the Site Land Titles Information / Historic Aerial Review, an assessment of surrounding land uses using historical aerial photographs sourced from NSW Land and Property Information was carried out. A summary of the pertinent information identified at surrounding land parcels from the reviewed photographs is presented in **Table 3-2**.

Table 3-2 Summary of Aerial Photograph Review

Aerial Photograph	Surrounding land uses based on historical aerial photographs
1951	The main usage of land in the surrounding regions of the site was unoccupied land.
1955	Surrounding land uses remain primarily unchanged from the 1951 aerial photograph.
1961	Surrounding land uses remain primarily unchanged from the 1955 aerial photograph.
1970	Isolated residential dwellings have been established around the surrounding area, with some agricultural production appearing to have commenced. However, land uses remain primarily unchanged from the 1961 aerial.
1986	An increase in residential dwellings and agricultural land being established towards the north, south and west.
1991	Growing density of residential dwellings, with increased agricultural production towards the north, south and west.
2007	Surrounding land uses remain primarily unchanged from the 1991 aerial photograph.
2017	Increased residential dwellings towards the east. Some industrial / agricultural production dwellings have been erected towards the north, south and west.

3.3 COUNCIL INFORMATION

An application to access records held by Penrith City Council was initiated on 30 August 2017. Files were received by Penrith City Council on 5 September 2017. Information pertinent to any site contamination could not be identified in any of the files received, with the exception of a cease of operations order dated 10 April 2008.

According to the order, council had conducted investigations into the operation of the business “AWJ Civil Pty Ltd” at the property. As the zoning of the property is for primarily residential use, commercial uses such as “*storage of equipment, reparing and servicing of heavy equipment and for office space, for commercial purposes is prohibited under the zoning requirements of the Penrith Local Environmental Plan No 201- Rural Lands”.*

From the above information, EI gather the use of the site shed and office/flat in the eastern portion of the site may have been used for commercial operation and/or storage of heavy equipment, which may pose a possible source of contamination. Council files are attached in **Appendix E**.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

3.4 EPA ONLINE RECORDS

3.4.1 Contaminated Land - Record of Notices under Section 58 of CLM Act (1997)

An on-line search of the contaminated land public record of EPA Notices was conducted on 15 September 2017.

The contaminated land public record is a searchable database of:

- Orders made under Part 3 of the *Contaminated Land Management Act 1997* (CLM Act);
- Approved voluntary management proposals under the CLM Act that have not been fully carried out and where the approval of the Environment Protection Authority (EPA) has not been revoked;
- Site audit statements provided to the EPA under section 53B of the CLM Act that relate to significantly contaminated land;
- Where practicable, copies of anything formerly required to be part of the public record; and
- Actions taken by EPA under section 35 or 36 of the *Environmentally Hazardous Chemicals Act 1985* (EHC Act).

The search confirmed that the site known as 230-242 Aldington Road, Kemps Creek NSW and lands in its close proximity (within 500 m), are not subject to any regulatory notices issued by the NSW EPA.

3.4.2 List of NSW contaminated sites notified to EPA

A search through the List of NSW Contaminated Sites notified to the EPA under Section 60 of the CLM Act 1997 was conducted on 15 September 2017. This list is maintained by NSW EPA and includes properties on which contamination has been identified. Not all notified land is deemed to be impacted significantly enough to warrant regulation by the EPA. The search confirmed that the site known as 230-242 Aldington Road, Kemps Creek NSW and lands in its close proximity (within 500 m), were not identified on the List of NSW Contaminated Sites notified to the EPA.

3.4.3 POEO Public Register

A search of the Protection of the Environment Operations (POEO) Act public register was conducted on 15 September 2017. The public register contains records related to environmental protection licences, applications, notices, audits, pollution studies, and reduction programmes. The search identified no properties on the record within close proximity (500 m) to the site.

3.5 PREVIOUS INVESTIGATIONS

To EI's knowledge, there have been no previous environmental / geotechnical investigations undertaken for the site.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

4. CONCEPTUAL SITE MODEL

In accordance with NEPM (2013) *Schedule B2 – Guideline on Site Characterisation* and to aid in the assessment of data collection for the site, EI developed a preliminary conceptual site model (CSM) assessing plausible pollutant linkages between potential contamination sources, migration pathways and receptors. The CSM provides a framework for the review of the reliability and useability of the data collected and to identify data gaps in the existing site characterisation.

4.1 POTENTIAL CONTAMINATION SOURCES

On the basis of previous findings and the site inspection (described in **Section 2** and **Section 3**) EI consider potential chemical hazards and onsite contamination sources to be as follows:

- Unknown fill soils distributed across the site;
- Impacts from possible previous agricultural activities across the site (from the 1980s until the 2000s);
- Impacts from uncontrolled demolition of historic site structures potentially containing hazardous materials including potential asbestos-containing materials (ACM);
- Potential residues from pesticide use beneath existing buildings onsite;
- Weathering of exposed painted surfaces and metallic objects from current site structures;
- Hazardous materials, including ACM from building products in current site structures; and
- Unknown quality of water contained within the two dams onsite.

The likelihood of impacted groundwater onsite was considered to be low due to the predominant historical use of the site, with surrounding properties also used for similar agricultural / residential purposes.

4.2 CHEMICALS OF CONCERN

Based on the findings of the site contamination appraisal the chemicals of concern (COC) at the site are considered to be:

- Soil – heavy metals (HMs), total recoverable hydrocarbons (TRHs), polycyclic aromatic hydrocarbons (PAHs), the monocyclic aromatic hydrocarbon compounds *benzene, toluene, ethylbenzene and xylenes* (BTEX), organochlorine and organophosphate pesticides (OCPs/ OPPs), polychlorinated biphenyls (PCBs), herbicides and asbestos;
- Dam Water – HMs, TRHs, BTEX, PAHs and OCPs/ OPPs.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

4.3 POTENTIAL SOURCES, EXPOSURE PATHWAYS AND RECEPTORS

Potential contamination sources, exposure pathways and human and environmental receptors that were considered relevant for this assessment are summarised along with a qualitative assessment of the potential risks posed by complete exposure pathways in **Table 4-1**.

Table 4-1 Preliminary Conceptual Model

Contamination Source	Transport Mechanism	Exposure Pathway	Potential Receptor	Potential Risk of Exposure
Soils	• Direct exposure to contaminated soils in accessible soil areas during maintenance works.	• Ingestion, dermal contact and inhalation during construction / soil disturbance.	• Site workers during proposed redevelopment, future site residents, maintenance workers, flora and fauna.	Medium (should contamination be present) Low (post development)
Sediments / surface water	• Direct exposure to contaminated waters (onsite and offsite)	• Dermal contact and ingestion of contaminated waters	• Flora and fauna, local and onsite dams.	Medium (should contamination be present) Low (post development)
	Migration of contaminated water (offsite)	Contaminants in site dam waters discharging into surface water bodies.	Aquatic organisms and water users.	Medium (should contamination be present) Low (post development)

4.4 DATA GAPS

On the basis of the historical data available for the site, further intrusive investigation is necessary to characterise potential contamination resulting from:

- Unknown fill soils distributed across the site;
- Impacts from previous agricultural activities across the site, including the use of herbicides;
- Potential residues from pesticide use beneath former and existing buildings onsite;
- Weathering of exposed painted surfaces and metallic objects from current site structures;
- Hazardous materials, including ACM from building products in current site structures; and
- Unknown quality of water contained within the two dams onsite.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

5. SAMPLING ANALYSIS AND QUALITY PLAN (SAQP)

The SAQP plays a crucial role in ensuring that the data collected as part of this environmental assessment are representative and provide a robust basis for site assessment decisions. This SAQP includes the following:

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

5.1 DATA QUALITY OBJECTIVES (DQO)

In accordance with US EPA (2006) *Data Quality Assessment: A Reviewer's Guide* and the DEC (2006) *Guidelines for the NSW Site Auditor Scheme*, the process of developing Data Quality Objectives (DQO) was used by the EI assessment team to determine the appropriate level of data quality needed for the specific data requirements of the project. The DQO process that was applied for this assessment is documented in **Table 5-1**.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Table 5-1 Summary of Project Data Quality Objectives

DQO Steps (NSW DEC, 2006)	Details	Comments (changes made during investigation)
1. State the Problem Summarise the contamination problem that will require new environmental data, and identify the resources available to resolve the problem; develop a conceptual site model	• The site is to be redeveloped into a Hindu temple, accommodation residence, as well as halls and classrooms with carparking. • Historical information and site inspection observations identified the potential for soil contamination due to various, possible sources, as listed in **Section 4.1**. • The investigation must provide supportive information on the environmental conditions of the site to determine the site's suitability for the proposed redevelopment.	-
2. Identify the Goal of the Study (Identify the decisions) Identify the decisions that need to be made on the contamination problem and the new environmental data required to make them	Based on the objectives outlined in **Section 1.4,** the following decisions are needed: • Has the site been adequately characterised with sufficient and appropriate sampling coverage (vertical and lateral) to assess for the presence of potential contamination sources? • Has the nature, source and extent of any onsite impacts (soil, dam water / sediment, vapour and/or groundwater) been defined? • What influence do site-specific, geologic and hydrogeological conditions have on the fate and transport of any impacts that may be identified? • Does the degree of impacts coupled with the fate and transport of identified contaminants represent an unacceptable risk to identified human and/or environmental receptors on or offsite? • Does the collected data provide sufficient information to allow the selection and design of an appropriate remedial strategy, assuming remedial action is necessary? If not, what are the remaining data gaps requiring closure?	-
3. Identify Information Inputs (Identify inputs to decision) Identify the information needed to support any decision and specify which inputs require new environmental measurements	Inputs to the decision making process include: • Areas of concern identified during the site inspection, prior to intrusive investigations. • National (NEPC, 2013) and State-based (NSW EPA, various) environmental guidelines. • Investigation results to verify the presence of onsite contamination and to evaluate the risks posed to potential sensitive receptors. • Relevant chemicals of concern (discussed in **Section 4.2**), to be used for	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

DQO Steps (NSW DEC, 2006)	Details	Comments (changes made during investigation)
	laboratory analysis of selected soil and dam water / sediment samples.	
4. Define the Boundaries of the Study Specify the spatial and temporal aspects of the environmental media that the data must represent to support decision	• Lateral – The investigation will be conducted within the cadastral site boundaries, which define the extent of the investigation, as indicated on **Figure 2**. • Vertical – Investigations will be advanced to the depth of natural soils or rock. • Temporal – The findings of this assessment will hold true for as long as the site use remains passive in nature; that is, for as long as the site is used for the proposed use and there are no activities taking place onsite or on immediately adjacent (upgrading) properties that may compromise onsite environmental conditions.	-
5. Develop the Analytic Approach (Develop a decision rule) To define the parameter of interest, specify the action level, and integrate previous DQO outputs into a single statement that describes a logical basis for choosing from alternative actions	The decision rules for the investigation were: • If the concentrations of contaminants in the soil and dam water data exceed the adopted criteria; then assess the need to further investigate the extent of impacts onsite. • Decision criteria for QA/QC measures are defined by the Data Quality Indicators (DQI) in **Table 5-2**.	-
6. Specify Performance or Acceptance Criteria (Specify limits on decision errors) Specify the decision-maker's acceptable limits on decision errors, which are used to establish performance goals for limiting uncertainties in the data	Specific limits for this project are to be in accordance with the National and NSW EPA guidance, and appropriate indicators of data quality and standard procedures for field sampling and handling. This should include the following points to quantify tolerable limits: • The null hypothesis for the investigation is that: – The 95% Upper Confidence Limit (UCL) of the mean for chemicals of concern exceed land use criteria (presented in **Section 6.3**). – The site has been subdivided into two 5 ha sections for sampling density to be effective. – Sampling on a 30 m grid will allow detection of a circular hotspot with a nominal diameter of 35.6 m with 95% certainty.	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

DQO Steps (NSW DEC, 2006)	Details	Comments (changes made during investigation)
	• The acceptance of the site will be based on the probability that: – The 95% UCL of the mean of the data will satisfy the given site criteria. Therefore a limit on the decision error will be 5% that a conclusive statement may be incorrect. – The standard deviation of the results is less than 50% of the relevant remediation acceptance criterion. – No single result exceeds the land use criteria by 250% or more. • Soil and dam water/sediment concentrations for chemicals of concern that are below investigation criteria made or approved by the NSW EPA will be treated as acceptable and indicative of suitability for the proposed land use(s).	
7. Develop the Detailed Plan for Obtaining Data (Optimise the design for obtaining data) Identify the most resource-effective sampling and analysis design for general data that are expected to satisfy the DQOs	• 110 soil sampling locations, distributed in a triangular grid pattern across accessible areas of the site; • An upper soil profile sample will be collected at each borehole location, with twenty (20) discrete fill soil samples tested for chemicals of concern, to assess the environmental condition of the fill layer, and for potential impacts from historical, above-ground activities; • Thirty (30) composite samples will be created from collected fill samples and tested for contaminates of concern, excluding TRHs; • Further sampling would also be performed in deeper soil layers. Eight (8) samples would be selected for testing based on field observations (including visual and olfactory evidence, as well as soil vapour screening in headspace samples), and will also be used to characterise subsurface stratigraphy. • Two (2) water and two (2) sediment samples (one from each dam) will be collected and tested for chemicals of concern, to assess the environmental condition of the water and sediment on site.	• No access for drilling was provided within the buildings. One (1) boreholes were missed during drilling due to a technical error. • Twenty nine (29) composite samples were analysed due to the above technical error. • Twenty two (22) discrete fill soil samples were analysed, due to potential contamination sources identified during the site walkover.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

5.2 DATA QUALITY INDICATORS

To ensure that the investigation data collected was of an acceptable quality, the investigation data set was assessed against the data quality indicators (DQI) outlined in **Table 5-2**, which related to both field and laboratory-based procedures. The assessment of data quality is discussed in **Section 7**.

Table 5-2 Data Quality Indicators

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

6. ASSESSMENT METHODOLOGY

6.1 SAMPLING RATIONALE

With reference to the preliminary CSM described in **Section 4**, soil and dam water investigation works were conducted in accordance with the following rationale:

- Sampling of fill and natural soils from 109 test bore locations (BH101 to BH178 and BH201 - BH231) located in a triangular grid pattern across accessible areas of the site to characterise in-situ soils. It should be noted that boreholes BH201-231 were undertaken as part of a geotechnical investigation, and were therefore drilled deeper due to the geotechnical scope of works.

- Collection of two surface water samples (W1 and W2) and sediment samples (SS1 and SS2) from the two dams onsite to assess potential of any site contamination; and

- Laboratory analysis of representative soil and dam water / sediment samples, including composite sample testing, for the identified chemicals of concern.

6.2 INVESTIGATION CONSTRAINTS

With regard to the scope of works proposed for performing intrusive site investigations, the following investigation constraints were encountered:

- One borehole (BH179) was not drilled due to a technical error.

6.3 ASSESSMENT CRITERIA

The assessment criteria proposed for this project are outlined in **Table 6-1**. These were selected from available published guidelines that are endorsed by national or state regulatory authorities, with due consideration of the exposure scenario that is expected for various parts of the site, the likely exposure pathways and the identified potential receptors. Some assessed samples were composites of three primary soil samples. For assessment of these composites, adopted criteria were divided by three (the number of samples in the composite). Results for composite samples are presented in **Table T1** at the end of this report.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Table 6-1 Adopted Investigation Levels for Soil and Creek Water

Environmental Media	Adopted Guidelines	Rationale
Soil / Sediment	NEPM, 2013 Soil HILs, EILs, HSLs & ESLs	**Soil Health-based Investigation Levels (HILs)** All soil samples will be assessed against the NEPM 2013 HIL-A thresholds for residential with accessible soils sites **Ecological Investigation Levels (EILs)** Soil samples will also be assessed against the NEPM 2013 EILs across the site. Soil samples will be compared against the NEPM 2013 EILs for arsenic, copper, chromium (III), nickel, lead, zinc, DDT and naphthalene which have been derived for protection of terrestrial ecosystems. EILs were derived from soils cation-exchange capacity (CEC) and pH levels, averaged across the site. **Soil Health-based Screening Levels (HSLs)** The NEPM 2013 Soil HSL-A&B thresholds for residential sites for vapour intrusion will be applied to assess for potential human health impacts from residual vapours resulting from petroleum, BTEX & naphthalene (Basement car park - Ref. Section 2.4.8, Schedule B1, NEPM 2013). Preliminary screening for Asbestos is based on the laboratory limit of reporting (LOR) of <0.01 w/w%, whereby asbestos is reported to be present or absent in the analysed sample. **Ecological Screening Levels (ESLs)** Soil samples will be assessed against the NEPM 2013 ESLs for selected petroleum hydrocarbons & TRH fractions for protection of terrestrial ecosystems on residential sites.
Dam Water	NEPM, 2013 Criteria for Fresh Waters	**Dam Water Criteria for Fresh Waters** NEPM 2013 provides criteria for typical, slightly-moderately disturbed aquatic ecosystems, which are based on the ANZECC & ARMCANZ 2000 Trigger Values (TVs) for the 95% level of protection of aquatic ecosystems; however, the 99% TVs were applied for the bio-accumulative metals *cadmium* and *mercury*. The fresh water criteria were considered relevant as the dams onsite are not considered to be tidally influenced. Due to the ANZECC (2000) criteria for TRH being below the laboratory LOR, the LOR value for each TRH fraction was adopted as the GIL for aquatic ecosystems, in accordance with the procedure described in DEC (2007) *Guidelines for the Assessment and Management of Groundwater Contamination*.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

6.4 SOIL AND CREEK WATER INVESTIGATION METHODOLOGY

The soil investigations conducted at the site are described in **Table 6-2**. Test bore locations are illustrated in **Figure 2**.

Table 6-2 Summary of Soil and Creek Water Investigation Methodology

Activity/Item	Details
Fieldwork	Soil investigations were conducted on 3 August, 4 August and 5 August 2017 as a total of 109 borehole locations were drilled shown in **Figure 2**. Two water samples and two sediment samples from the two dams onsite were also collected on 4 August 2017.
Drilling Method & Investigation Depth	All boreholes were drilled using a mechanical drilling rig fitted with solid-flight augers. Final bore depths were between 1.0 and 9.71 mBGL. It should be noted that boreholes 201-231 were undertaken as part of a geotechnical investigation, and were therefore drilled deeper due to the scope of works. Borehole termination depths for individual boreholes are presented in **Appendix F**.
Soil Logging	Drilled soils were classified in the field with respect to lithological characteristics and evaluated on a qualitative basis for odour and visual signs of contamination. Soil classifications and descriptions were based on the Unified Soil Classification System (USCS) and Australian Standard (AS) 4482.1-2005.
Soil Sampling	• Soil samples were collected by dry grab method (using unused, dedicated nitrile gloves) and placed into laboratory-supplied, acid-washed, solvent-rinsed glass jars; • Blind field QC duplicates were separated from the primary samples and placed into glass jars; and • A small amount of duplicate sample (up to 150 g) was separated from all fill samples and placed into a zip-lock bag for asbestos analysis. • Water samples were collected (using new nitrate gloves dedicated to each sample) directly into a decontaminated bucket from the edge of the dams and then each sample was placed into the containers listed below: – One 1 litre amber glass, acid-washed and solvent-rinsed bottle; – Two 40mL glass vials, pre-preserved with dilute hydrochloric acid, Teflon-sealed; and – One 250mL, HDPE bottle, pre-preserved with dilute nitric acid (1 mL). Samples for metals analysis were field-filtered using 0.45 µm pore-size filters. All containers were filled with sample to the brim then capped.
Decontamination Procedures	Drilling Equipment – The drilling rods and hand auger were decontaminated between sampling locations until augers were free of all residual material. Sampling Equipment – Nitrile gloves were dedicated to each sample (i.e. used gloves were discarded before collecting each new sample).
Sample Preservation	Samples were stored in a chilled chest (with frozen ice packs), whilst on-site and in transit to the laboratory. All samples were submitted and analysed within the required holding period, as documented in laboratory reports attached in **Appendix H**.
Management of Soil Cuttings	Soil cuttings were used as backfill for completed boreholes.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Activity/Item	Details
Quality Control & Laboratory Analysis	A number of soil samples were submitted for analysis of previously-identified chemicals of concern by SGS Laboratories (SGS). QA/QC testing comprised intra-laboratory duplicates ('field duplicates') tested blind by SGS and an inter-laboratory field duplicate tested blind by Envirolab Services (Envirolab). All samples were transported under strict COC conditions and COC certificates and laboratory sample receipt documentation were provided to EI for confirmation purposes, as discussed in **Section 7**.
Soil Vapour Screening	Screening for potential VOCs in collected soil samples was conducted using a Photo-ionisation Detector (PID) fitted with a 10.6 eV lamp. A calibration certificate is attached in **Appendix K**.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

7. DATA QUALITY ASSESSMENT

The assessment of data quality is defined as the scientific and statistical evaluation of environmental data to determine if the data meet the objectives of the project (Ref. USEPA 2006). Data quality assessment involves an evaluation of the compliance of the field sampling and laboratory analytical procedures and an assessment of the accuracy and precision of these data from the laboratory quality control measurements obtained.

The data quality assessment process for this assessment included a review of analytical procedures to confirm compliance with established laboratory protocols and an assessment of the accuracy and precision of analytical data from a range of quality control measurements. The QC measures generated from the field sampling and analytical program were as follows:

- Suitable records of fieldwork observations including borehole logs;
- Relevant and appropriate sampling plan (density, type, and location);
- Use of approved and appropriate sampling methods;
- Preservation and storage of samples upon collection and during transport to the laboratory;
- Complete field and analytical laboratory sample COC procedures and documentation;
- Sample holding times within acceptable limits;
- Use of appropriate analytical procedures and NATA-accredited laboratories; and
- Required LOR (to allow for comparison with adopted IL);
- Frequency of conducting quality control measurements;
- Laboratory blanks;
- Field duplicates;
- Laboratory duplicates;
- Matrix spike/matrix spike duplicates (MS/MSDs);
- Surrogates (or System Monitoring Compounds);
- Analytical results for replicated samples, including field and laboratory duplicates and inter-laboratory duplicates, expressed as Relative Percentage Difference (RPD); and
- Checking for the occurrence of apparently unusual or anomalous results, e.g. laboratory results that appear to be inconsistent with field observations or measurements.

The findings of the data quality assessment in relation to the soil and dam water investigations at the site are discussed in detail in **Appendix I**. Laboratory QA/QC policies and DQOs are presented in **Appendix J**.

On the basis of the analytical data validation procedure employed, the overall quality of the soil and creek water analytical data produced for the site was considered to be of an acceptable standard for interpretive use.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

8. RESULTS

8.1 SOIL, SEDIMENT & DAM WATER INVESTIGATION

8.1.1 Site Geology and Subsurface Conditions

The general site geology encountered during the drilling investigations was a thin layer of filling or topsoil, overlying residual silty clay and shale / sandstone bedrock. The geological information obtained during the investigation is summarised in **Table 8-1** and borehole logs from these works are presented in **Appendix F**.

Table 8-1 Generalised Subsurface Profile

Layer	Description	Average Approximate Depth to Top & Bottom of Layer (mBGL)	
		Top	Bottom
Fill / Topsoil	Silty SAND / Silty CLAY; medium plasticity, brown with gravels and fine to medium grained sands, no odour.	0.0	0.2 (Max 2.5 mBGL at BH204)
Natural	Silty CLAY; medium to high plasticity, red to brown mottled orange, no odour.	0.2	3.0
Bedrock	SANDSTONE; distinctly weathered, fine to medium grained interbedded with shale, light grey, no odour. SHALE; distinctly weathered, dark grey, no odour.	3.0	9.71 +

Notes: + Denotes termination depth of borehole

8.1.2 Field Observations

A detailed site walkover was conducted and is described in **Section 2.5**. The onsite dams showed no visual evidence of contamination (ie: no sheen, unusual odours or other signs of contamination).

Soil samples were obtained from the test bores at various depths ranging between 0.1 and 1.2 mBGL. All examined soil samples were evaluated on a qualitative basis for odour and visual signs of contamination and the following observations were noted:

- No staining or unusual odours were detected within soils;
- No potential fragments of ACM were observed within soils returned to the surface during drilling; and
- PID readings ranged between 0.1 and 1.8 ppm, identifying low risk of VOC contamination on-site.

8.2 LABORATORY ANALYTICAL RESULTS

8.2.1 Soil Analytical Results

A summary of laboratory results from this investigation showing test sample quantities, minimum/maximum analyte concentrations for primary samples and samples found to exceed the adopted guidelines, is presented in **Table 8-2**. More detailed tabulations of results showing the tested concentrations for individual samples alongside the adopted soil criteria is presented in **Table T1** at

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

the end of this report. Completed documentation used to track soil sample movements and laboratory receipt (i.e. COC and SRA forms) are copied in **Appendix G** and all laboratory analytical reports for tested soil samples are presented in **Appendix H**.

Table 8-2 Summary of Soil and Sediment Analytical Results

No. of Primary Samples	Analyte	Min. Conc. (mg/kg)	Max. Conc. (mg/kg)	Samples Exceeding Investigation Levels *
Heavy Metals				
30 discrete samples 2 sediment samples	Arsenic	<3	24	-
	Cadmium	<0.3	1	-
	Chromium (Total)	6.7	26	-
	Copper	15	87	-
	Lead	5	29	-
	Nickel	3.1	70	-
	Zinc	19	130	-
	Mercury	<0.05	<0.05	-
TRHs (including BTEX)				
30 discrete samples 2 sediment samples	TRH C_6-C_{10} minus BTEX (F1)	<25	<25	-
	TRH >C_{10}-C_{16} (F2) minus Naphthalene	<25	<25	-
	TRH >C_{16}-C_{34} (F3)	<90	<90	-
	TRH >C_{34}-C_{40} (F4)	<120	<120	-
	Benzene	<0.1	<0.1	-
	Toluene	<0.1	<0.1	-
	Ethylbenzene	<0.1	<0.1	-
	Total Xylenes	<0.3	<0.3	-
PAHs				
30 discrete samples 2 sediment samples	Benzo(a)pyrene	<0.1	<0.1	-
	Carcinogenic PAHs	<0.3	<0.3	-
	Naphthalene	<0.1	<0.1	-
	Total PAHs	<0.8	<0.8	-
Asbestos (Concentrations in %w/w)				
22 discrete samples	Asbestos	ND	ND	-
OCPs				
22 discrete samples 2 sediment samples	OCPs	ND	ND	-
OPPs				
22 discrete samples	OPPs	ND	ND	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

No. of Primary Samples	Analyte	Min. Conc. (mg/kg)	Max. Conc. (mg/kg)	Samples Exceeding Investigation Levels *
2 sediment samples				
PCBs				
22 discrete samples 2 sediment samples	PCBs	ND	ND	-
Herbicides				
2 discrete samples 1 sediment sample	Herbicides	ND	ND	

Notes:
* Refer to **Section 6.3** for all investigation levels adopted.
ND - 'Not detected' i.e. all concentrations of the compounds within the analyte group were found to be below the laboratory limits of detection.

Composite samples analysed for heavy metals and pesticides, with minimum/maximum analyte concentrations are presented in **Table 8-3**. For assessment of these composites, adopted HIL-A and EIL criteria were divided by the number of samples in the composite (three). Results for composite samples are presented in **Table T2a** and **Table T2b** at the end of this report.

Table 8-3 Summary of Composite Soil Analytical Results

No. of composite samples	Analyte	Min. Conc. (mg/kg)	Max. Conc. (mg/kg)	Sample locations exceeding investigation levels
Heavy Metals				
29 composite samples (each comprising 3 individual samples)	Arsenic	4	20	-
	Cadmium	0.3	0.8	-
	Chromium (Total)	12	40	Samples exceeding HIL: C27 (40 mg/kg)
	Copper	20	67	EIL exceedances at: C24 (67 mg/kg)
	Lead	14	22	-
	Mercury	<0.05	<0.05	-
	Nickel	6.9	39	-
	Zinc	24	120	-
OCPs				
29 composite samples (each comprising 3 individual samples)	OCPs	ND	ND	None
OPPs				
29 composite samples (each comprising 3 individual samples)	OPPs	ND	ND	None

8.2.2 Dam Surface Water Analytical Results

Laboratory analytical results for surface water samples are summarised in **Table T3** at the end of this report, which also include the adopted surface water investigation levels (SWILs). Completed

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

documentation used to track transport of surface water samples and laboratory receipt (COC and SRA forms) is provided in **Appendix G**. Copies of the laboratory analytical reports are attached in **Appendix H**. A summary of the surface water results is presented in **Table 8-4**.

Table 8-4 Summary of Dam Surface Water Analytical Results

No. of primary samples	Analyte	Min. Conc. (mg/kg)	Max. Conc. (mg/kg)	Sample locations exceeding investigation levels
TRHs				
2	F1 C_6–C_{10}	<50	<50	-
2	F2 C_{10}-C_{16}	<60	<60	-
2	F3 C_{16}-C_{34}	<500	<500	-
2	F4 C_{34}-C_{40}	<500	<500	-
BTEX				
2	Benzene	<0.5	<0.5	-
2	Toluene	<0.5	<0.5	-
2	Ethyl benzene	<0.5	<0.5	-
2	o-xylene	<0.5	<0.5	-
2	m/p-xylene	<1	<1	-
PAHs				
2	Total PAHs	<1	<1	-
Heavy Metals				
2	Arsenic	<1	1	-
2	Cadmium	<0.1	<0.1	-
2	Chromium (Total)	<1	<1	-
2	Copper	1	2	SWIL exceedance at: W2 (2 µg/L)
2	Lead	<1	<1	-
2	Mercury	<0.1	<0.1	-
2	Nickel	1	2	-
2	Zinc	7	320	SWIL exceedance at: W1 (7 µg/L) W2 (320 µg/L)
PCBs				
2	PCBs	ND	ND	-
OCPs				
2	OCPs	ND	ND	-

9. SITE CHARACTERISATION DISCUSSION

9.1 HEAVY METALS IN SOIL

No elevated concentrations of health investigation levels were recorded in any discrete sample tested. However, one concentration of chromium (40 mg/kg) was reported in composite sample C27. Further speciation of the three individual samples which comprised the composite (BH167_0.1-0.2, BH201_0.3-0.4 and BH202_0.4-0.5) revealed that this concentration was chromium (III), with chromium (VI) detected at concentrations below the limit of reporting. Therefore, this elevated concentration was below the health-based and ecological-based guideline.

In regards to ecological risks, exceedances of copper was detected in composite samples from C24 located in the north-eastern portion of the site. Further testing of the three individual samples which comprised the composite (BH159_0.1-0.2, BH168_0.1-0.2 and BH206_0.1-0.2) revealed that none of the selected samples were found to be above ecological guidelines for copper. BH159_0.1-0.2 as well as BH206_0.1-0.2 were slightly elevated in copper (both 69 mg/kg), this may explain why the composite sample was analysed at a high concentration, however, the specified samples still fall below the ecological guideline of 80 mg/kg. Furthermore, heightened copper concentrations may be a result of agricultural chemical use. The use of copper to control agricultural and horticultural weeds, pests and diseases has been practised in Australia for over 100 years. In addition to this, copper occurs naturally within soil horizons, and is an essential trace element for biota..

As no observable evidence of stressed vegetation was detected during the site inspection, the exceedances are considered to pose a low risk to the environment and future site management.

9.2 SURFACE WATER AND SEDIMENT CHARACTERISATION

Heavy metals copper and zinc were reported in water from onsite dams at concentrations that exceeded the adopted SWILs. Copper was identified in the eastern dam (W2 - 2 µg/L) , with zinc found in water from both dams onsite (W1 – 320 µg/L and W1 - 7 µg/L). Zinc is ubiquitous in groundwater and surface water, and a common source in rural settings is galvanised steel used in fencing, farm sheds and workshops. The source of copper in dam water is unknown, though there may have been application of a copper-based formulation for algae control in the past. From a practical perspective, the risk from the copper and zinc exceedance is low.

The concentrations of copper and zinc in water should be considered when selecting a method of water disposal for dam decommissioning.

9.3 HERBICIDE ANALYSIS

During the site walkover inspection as outlined in **Section 2.5**, evidence of potential herbicide use over the property was identified. EI decided to analyse selected samples (SS1, BH117_0.1-0.2 and BH178_0.1-0.2) for herbicides in addition to the specified chemical analysis. Results indicated that no herbicide contamination was present onsite.

9.4 REVIEW OF CONCEPTUAL SITE MODEL & DATA GAPS

On the basis of investigation findings, the preliminary CSM discussed in **Section 4** was considered to appropriately identify contamination sources, migration mechanisms and exposure pathways, as well as potential onsite and offsite receptors.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Overall, widespread contamination was not identified as part of the DSI and previously known data gaps, as outlined in **Section 4.4** have largely been addressed. However, the possible presence of hazardous materials in existing site structures needs to be identified and appropriately managed during site preparation works.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

10. CONCLUSIONS

The property located at 230-242 Aldington Road, Kemps Creek NSW was the subject of a Detailed Site Investigation that was conducted in order to assess the nature and degree of on-site contamination associated with former uses of the property. Based on the findings of this assessment it was concluded that:

- The site covers a total area of approximately 10.1 ha. At the time of the inspection, the site consisted of one single storey residential building, one vacant single storey office/flat, two vacant sheds/workshops and two dams on extensive grassland, some with overgrown vegetation;
- The site was free of statutory notices issued by the NSW EPA/OEH. Records pertaining to the site were not identified on the List of NSW contaminated sites notified to EPA or the Protection of the Environment Operations (POEO) public register;
- Historical records indicate the site has been predominantly used for agricultural production since approximately the 1980s. Some commercial activity or machine storage may also have occurred over the previous 20 years;
- To EI's knowledge, there have been no previous environmental / geotechnical investigations undertaken for the site;
- For this DSI, fill and natural soils were sampled from 109 boreholes (BH101 to BH178 and BH201 to BH231) distributed in a triangular grid pattern across accessible areas of the site. Two surface water samples (W1 and W2) and two sediment samples (SS1 and SS2) were also collected from the onsite dams;
- Sub-surface layers encountered during drilling consisted of generally shallow fill / topsoil soils comprising silty sand / silty clay (average thickness of 0.2m and maximum of 2.5 m), overlying natural residual silty clay and shallow sandstone / shale bedrock;
- Groundwater was not investigated as part of this assessment as the likelihood of impacted groundwater was low due to the predominant historical use of the site and surrounding properties for residential purposes. Groundwater is anticipated to be indicative of the slope of the site, flowing on an east west axis.
- In regards to human health risks, heavy metals, TRHs, BTEX, PAHs, OCPs/OPPs and PCBs were either detected at concentrations below the LOR or below the adopted criteria, with the exception one exceedance in chromium for composite sample C27. Chromium speciation revealed that this concentration was entirely chromium (III), with chromium (VI) detected at concentrations below the limit of reporting;
- In regards to ecological risks, exceedances of copper was detected in composite samples from C24 located in the north-eastern portion of the site. Further testing of the three individual samples which comprised the composite (BH159_0.1-0.2, BH168_0.1-0.2 and BH206_0.1-0.2) revealed that none of the selected samples were found to be above ecological guidelines for copper. BH159_0.1-0.2 as well as BH206_0.1-0.2 were slightly elevated in copper (both 69 mg/kg), this may explain why the composite sample was analysed at a high concentration, however, the specified samples still fall below the ecological guideline of 80 mg/kg.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

- In regards to the dam water onsite, heavy metals, BTEX, TRHs, PAHs, OCPs and OPPs were either detected at concentrations below the LOR or below the adopted criteria, with the exception of heavy metals copper and zinc. Copper was identified in the eastern dam (W2 - 2 µg/L) , with zinc found in water from both dams onsite (W1 – 320 µg/L and W1 - 7 µg/L). at concentrations that exceeded the adopted SWILs. From a practical perspective, the risk from the copper and zinc exceedance is low;

- Additional herbicide analysis was undertaken after potential contamination was identified onsite. Results indicated that no herbicide contamination was present onsite.

- No asbestos fibres were detected in any sample collected and analysed from the site;

- Overall, widespread contamination was not identified as part of the DSI and previously known data gaps based on the potential contamination sources, have largely been addressed.

Based on the findings of this report and with consideration of the Statement of Limitations (**Section 12**), EI concludes that site soils and groundwater are of a suitable quality for the proposed development. However, fill / soil management is required as part of site preparation works and the recommendations provided in **Section 11** should be implemented.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

11. RECOMMENDATIONS

Based on the proposed development plan (**Appendix A**), EI understand that the proposed development of the site into a Hindu temple, accommodation residence, as well as halls and classrooms sloped in an east-west manner down the site. Therefore, in view of the above findings and with consideration of the Statement of Limitations (**Section 12**), it is considered that the site can be made suitable for the proposed residential subdivision on completion of the following recommendations:

- Preparation and implementation of a Dam Dewatering Management Plan;
- Waste classification of fill/soil is to be performed prior to any fill/soil removal in accordance with the EPA (2014) *Waste Classification Guidelines*, including offsite disposal to appropriately licenced waste management facilities;
- Any natural soil materials proposed for removal from the site are to be assessed to confirm whether they may be classified as virgin excavated natural materials (VENM) for off-site disposal in accordance the NSW EPA (2014) Waste Classification Guidelines; and
- Should it be necessary to import soils to the site for backfilling over-excavated areas, the imported material must be assessed at the site of origin (i.e. prior to being imported to the site) to confirm it is classified as VENM and that it suitable for onsite use.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

12. STATEMENT OF LIMITATIONS

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

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

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

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

This report was prepared for the above named client and no responsibility is accepted for use of any part of this report in any other context or for any other purpose or by other third parties. This report does not purport to provide legal advice.

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

REFERENCES

Ahern C R, Stone, Y, and Blunden B (1998) *Acid Sulfate Soils Assessment Guidelines*, part of the ASS Manual, Acid Sulfate Soil Management Advisory Committee (ASSMAC), Wollongbar, NSW, Australia, 28 August 1998, 59 p.

Australian Standard (2005) Table E1 – *Minimum sampling points required for site characterisation*, in Guide to the investigation and sampling of sites with potentially contaminated soil – Part 1: Non-volatile and semi-volatile compounds, Standards Australia, AS 4482.1-2005, p45.

Bannerman and Hazelton (1990) Soil Landscapes of the Penrith 1:100 000 sheet, Soil Conservation Service of NSW, Sydney, 1990.

DCP (2014) *Development Control Plan*, Penrith City Council.

DEC (2006) *Guidelines for the NSW Site Auditor Scheme*, 2nd Edn., NSW Dept. of Environment and Conservation, DEC 2006/121, April 2006.

DEC (2007) *Guidelines for the Assessment and Management of Groundwater Contamination*, Dept. of Environment and Conservation, New South Wales, DEC 2007/144, June 2007.

DMR (1991) Penrith 1:100,000 Geological Series Sheet 9030, *Geological Survey of New South Wales*, Department of Mineral Resources.

EPA (1995) *Sampling Design Guidelines Environment Protection Authority of New South Wales*, Contaminated Sites Unit, EPA 95/59, September 1995.

EPA (2014) *Waste Classification Guidelines,* NSW Environmental Protection Authority, EPA 2014/0796, November 2014.

Merington G (2015) *The good, the bad and the ugly: copper and arsenic in soils*, Department of Soil and Water, Adelaide University, November 2015.

Naylor SD, Chapman GA, Atkinson G, Murphy CL, Tulau MJ, Flewin TC, Milford HB and Morand DT (1998) *Guidelines for the Use of Acid Sulfate Soil Risk Maps*, Department of Land and Water Conservation, Sydney, Second Edition.

NEPC (2013) *Schedule B1 Guideline on Investigation Levels for Soil and Groundwater*, *Schedule B2 Guideline on Site Characterisation* and *Schedule B4 Guideline on site-specific health risk assessments*, National Environmental Protection (Assessment of Site Contamination) Measure 1999 - Amendment 2013, National Environmental Protection Council, May 2013 (NEPM 2013).

OEH (2011) *Guidelines for Consultants Reporting on Contaminated Sites*, NSW Office of Environment and Heritage (OEH), OEH 2011/0650, 23 p.

USEPA (2006) *Data Quality Assessment: A Reviewers Guide – EPA QA/G-9R. USEPA Office of Environmental Information*, EPA/240/B-06/002, February 2006.

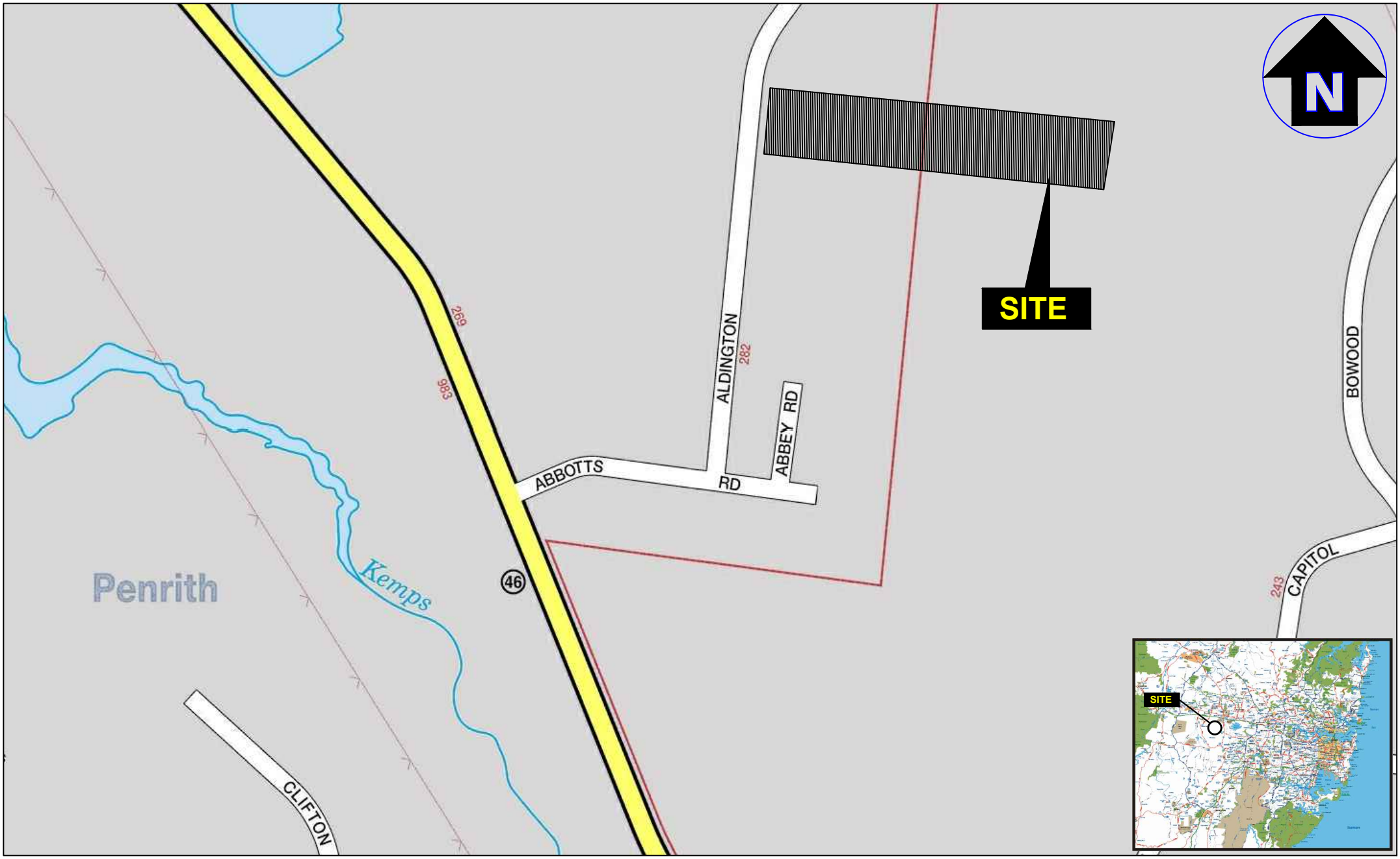
Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

ABBREVIATIONS

ACM	Asbestos-containing materials
ASS	Acid sulfate soils
ANZECC	Australian and New Zealand Environment Conservation Council
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand
B(a)P	Benzo(a)Pyrene (a PAH compound), - B(a)P TEQ Toxicity Equivalent Quotient
BH	Borehole
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
CEC	Cation Exchange Capacity
COC	Chain of Custody
DEC	Department of Environment and Conservation, NSW (see OEH)
DA	Development Application
DP	Deposited Plan
EI	EI Australia
EIL	Ecological Investigation Level
EPA	Environment Protection Authority
ESL	Ecological Screening Level
F1	TRH $C_6 – C_{10}$ less the sum of BTEX concentrations (Ref. NEPM 2013, Schedule B1)
F2	TRH $>C_{10} – C_{16}$ less the concentration of naphthalene (Ref. NEPM 2013, Schedule B1)
F3	TRH $>C_{16} – C_{34}$
F4	TRH $>C_{34} – C_{40}$
HIL	Health-based Investigation Level
HSL	Health-based Screening Level
km	Kilometres
LOR	Limit of Reporting
m	Metres
m AHD	Metres Australian Height Datum
m BGL	Metres Below Ground Level
mg/L	Milligrams per litre
µg/L	Micrograms per litre
NATA	National Association of Testing Authorities, Australia
NEPC	National Environmental Protection Council
NSW	New South Wales
OEH	Office of Environment and Heritage, NSW (formerly DEC, DECC, DECCW)
PAHs	Polycyclic Aromatic Hydrocarbons
pH	Measure of the acidity or basicity of an aqueous solution
PQL	Practical Quantitation Limit (limit of detection for respective laboratory instruments)
QA/QC	Quality Assurance / Quality Control
SRA	Sample receipt advice (document confirming laboratory receipt of samples)
SWL	Standing Water Level
TRH	Total Recoverable Hydrocarbons (non-specific analysis of organic compounds)
UCL	Upper Confidence Limit
US EPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds (specific organic compounds which are volatile)

FIGURES

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017



eiaustralia
Contamination | Remediation | Geotechnical

Suite 6.01, 55 Miller Street, PYRMONT 2009
PH (02) 9516 0722 Fax (02) 9518 5088

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Drawn:	FY
Approved:	JP
Date:	22-09-17
Scale:	Not To Scale

BAPS Australia
Detailed Site Investigation
230-242 Aldington Road, Kemps Creek, NSW

Site Locality Plan

Figure:
1

Project: E23529.E02

LEGEND

- Approximate Site Boundary
- Approximate Basement Extent
- EI geotechnical borehole location
- EI environmental borehole location
- Sediment sample from dam
- Water sample from dam

eiaustralia
Contamination | Remediation | Geotechnical
Suite 6.01, 55 Miller Street, PYRMONT 2009
Ph (02) 9516 0722 Fax (02) 9518 5088

Drawn:	JH	
Approved:	NF	
Date:	25-09-17	

BAPS AUSTRALIA
Detailed Site Investigation
230 Aldington Road, Kemps Creek, NSW
Borehole Location Plan

Figure: 2

Project: E23529.E02_Rev0

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

TABLES

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Table T1 – Summary of Soil Investigation Results for 230 Aldington Road, Kemps Creek NSW **E23529.E02**

Sample ID		Sampling Depth (@ m BGL)	Material	Sampling Date	Heavy Metals								PAHs				BTEX				TRHs				Herbicides						OCPs	OPPs	Total PCBs	Asbestos
					As	Cd	Cr#	Cu	Pb	Hg	Ni	Zn	Carcinogenic PAHs (as B(a)P TEQ)	Benzo(a)pyrene	Total PAHs	Naphthalene	Benzene	Toluene	Ethylbenzene	Total Xylenes	F1	F2	F3	F4	2,4,5-T	2,4-D	MCPA	MCPB	Mecoprop	Picloram				
BH101-0.1-0.2		0.1-0.2	Fill	04.09.17	10	0.4	14	25	12	<0.05	11	55	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH108_0.1-0.2		0.1-0.2	Fill	04.09.17	8	0.4	16	19	19	<0.05	7.1	29	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH111_0.1-0.2		0.1-0.2	Fill	04.09.17	8	0.5	14	31	17	<0.05	13	61	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH111_2.4-2.5		2.4-2.5	Natural CLAY	04.09.17	9	0.7	18	30	22	<0.05	11	44	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH116_0.1-0.2		0.1-0.2	Fill	04.09.17	7	0.8	17	26	21	<0.05	11	16	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH117_0.1-0.2		0.1-0.2	Fill	04.09.17	7	0.7	20	25	20	<0.05	6.6	34	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	ND	ND	<1	ND
BH117_0.5-0.6		0.5-0.6	Natural CLAY	04.09.17	7	0.5	14	27	13	<0.05	3.1	21	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH124_0.1-0.2		0.1-0.2	Fill	04.09.17	9	0.6	17	22	22	<0.05	11	40	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH129_0.1-0.2		0.1-0.2	Fill	04.09.17	5	0.3	9.8	38	15	<0.05	5.2	29	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH132_0.1-0.2		0.1-0.2	Fill	04.09.17	3	0.6	14	55	19	<0.05	10	65	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH132_0.5-0.6		0.5-0.6	Natural CLAY	04.09.17	<3	0.5	13	77	21	<0.05	11	81	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH137_0.1-0.2		0.1-0.2	Fill	04.09.17	<3	0.5	18	48	9	<0.05	53	72	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH140_0.1-0.2		0.1-0.2	Fill	04.09.17	6	0.4	13	28	12	<0.05	19	47	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH143_0.1-0.2		0.1-0.2	Fill	04.09.17	8	0.7	12	25	17	<0.05	18	62	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH143_0.5-0.6		0.5-0.6	Natural CLAY	04.09.17	9	0.6	14	24	16	<0.05	14	39	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH148_0.1-0.2		0.1-0.2	Fill	04.09.17	16	0.8	14	85	17	<0.05	19	73	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH153_0.1-0.2		0.1-0.2	Fill	05.09.17	11	0.7	13	60	17	<0.05	12	56	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH154_0.1-0.2		0.1-0.2	Fill	05.09.17	24	0.8	18	39	18	<0.05	23	68	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH154_0.5-0.6		0.1-0.2	Natural CLAY	05.09.17	20	1	16	32	17	<0.05	31	76	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH156_0.1-0.2		0.1-0.2	Fill	05.09.17	10	0.5	18	59	16	<0.05	19	67	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH160_0.1-0.2		0.1-0.2	Fill	05.09.17	5	0.5	16	87	18	<0.05	24	72	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH160_0.5-0.6		0.5-0.6	Natural CLAY	05.09.17	7	0.6	21	35	17	<0.05	22	58	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH164_0.1-0.2		0.1-0.2	Fill	05.09.17	4	0.8	26	51	27	<0.05	54	130	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH164_0.7-0.8		0.7-0.8	Natural CLAY	05.09.17	7	0.5	14	22	16	<0.05	14	38	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH169_0.5-0.6		0.5-0.6	Fill	05.09.17	10	0.6	16	36	15	<0.05	29	79	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH172_0.1-0.2		0.1-0.2	Fill	05.09.17	<3	0.5	17	43	7	<0.05	70	55	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH176_0.1-0.2		0.1-0.2	Fill	05.09.17	<3	0.3	6.7	31	29	<0.05	19	43	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH177_0.1-0.2		0.1-0.2	Fill	05.09.17	6	0.3	13	19	12	<0.05	8.7	39	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	ND	ND	<1	ND
BH178_0.1-0.2		0.1-0.2	Fill	05.09.17	4	0.6	12	49	5	<0.05	70	47	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	ND	ND	<1	ND
BH178_0.5-0.6		0.5-0.6	Natural CLAY	05.09.17	10	<0.3	12	15	8	<0.05	8.8	19	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SS1		0.0-0.1	Dam Sediment	04.09.17	11	0.6	25	81	26	<0.05	13	80	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	NA	NA	NA	NA
SS2		0.0-0.1	Dam Sediment	04.09.17	12	0.6	19	26	20	<0.05	7.7	38	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C24	BH159	0.1-0.2	Fill	05.09.17	NA	NA	NA	69	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	BH168				NA	NA	NA	23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	BH206				NA	NA	NA	69	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C27	BH167	0.1-0.5	Fill	05.09.17	NA	NA	13 *	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	BH202				NA	NA	14 *	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	BH201				NA	NA	50 *	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILs																																		
HIL A - Residential with garden / accessible soil					100	20	100 Cr(VI)	6,000	300	40	400	7,400	3	NR	300										600	900	600	600	600	4,500	240	NR	1	
HSL A & HSL B - *Low - high density residential* .					Source depths (0 m to <1 m BGL)												5	0.7	480	NL	110	50	280											
Soil texture classification –Clay [1]					Source depths (1 m to <2 m BGL)												NL	1	NL	NL	310	90	NL											
					Source depths (2 m to < 4 m BGL)												NL	2	NL	NL	NL	150	NL											
					Source depths (4 m + BGL)												NL	3	NL	NL	NL	290	NL											
EILs / ESLs - *urban residential and public open space* [1 4]					100	NR	190 Cr (III)	190	1,100	NR	170	400	NR	0.7	NR	170	65	105	125	45	180*	120*	1300	5,600	NR	NR	NR	NR	NR	NR	180	NR	NR	
Management Limits – Residential, parkland and public open space, Coarse grained soil texture[1]																					800	1,000	3,500	10,000										
Asbestos contamination HSL Bonded ACM (%w/w)																																	<0.01	
Asbestos contamination HSL Non Bonded / Friable Asbestos (%w/w)																																	<0.01	

Notes: All results are recorded in mg/kg, unless otherwise specified.

Highlighted value indicates concentration exceeds EIL / ESL.

Highlighted value indicates concentration exceeds HIL / HSL and EIL / ESL.

HIL A NEPM 2013 'HIL A" - Residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake (no poultry)), also includes childcare centres, preschools and primary schools.

HSL Health based screening level.

EIL Ecological based investigation level.

ESL Ecological based screening level.

\# Thresholds are for Chromium VI.

* ESLs are of low reliability except where indicated by * which indicates that the ESL is of moderate reliability.

\^ Further testing revealed this concentration was entirely chromium (III), with chromium (VI) detected at concentrations below the limit of reporting.

NR No current published criterion.

NL 'Not Limiting' If the derived soil vapour limit exceeds the soil concentration at which the pore water phase cannot dissolve any more of the individual chemical, i.e. where the soil vapour is at equilibrium with the pore water, then the soil vapour source cannot exceed a level that would result in the maximum allowable vapour risk for the given scenario, therefore the limit is not limiting.

ND 'Not detected' i.e. all concentrations of the compounds within the analyte group were found to be below the laboratory limits of detection.

NA 'Not Analysed' i.e. the sample was not analysed.

1 As strata is predominantly clay, fine grained soil values were applied.

2 As no physiochemical properties were analysed the most conservative values were adopted for EILs and ESLs. For further information refer to report section 6.3, Table 6-2.

3 Interim Sediment Quality Guidelines - Low effect - Trigger Value, from ANZECC/ARMCANZ (2000) Sediment Quality Guidelines (Section 3.5).

4 Ecological values relate to selected analytes of pH / CEC analysed across the site.

F1 TRH C_6-C_{10} less the sum concentration of BTEX.

F2 TRH $C_{>10}$-C_{16} less the concentration of Naphthalene.

F3 TRH $C_{>16}$-C_{34}

F4 TRH $C_{>34}$-C_{40}

eiaustralia

Table T2 a – Summary of Composite Soil Investigation Results for 230 - 242 Aldington Road, Kemps Creek NSW

Sample ID		Sampling Depth (@ m BGL)	Material	Sampling Date	Heavy Metals								OCPs	OPPs
					As	Cd	Cr#	Cu	Pb	Hg	Ni	Zn		
C1	BH102	0.1-0.2	Fill	04.09.17	10	0.7	16	36	15	<0.05	13	59	ND	ND
	BH103													
	BH227													
C2	BH104	0.1-0.2	Fill	04.09.17	9	0.5	15	37	16	<0.05	8.3	43	ND	ND
	BH105													
	BH106													
C3	BH107	0.1-0.2	Fill	04.09.17	11	0.8	20	45	22	<0.05	12	52	ND	ND
	BH225													
	BH226													
C4	BH125	0.0-0.2	Fill	04.09.17	6	0.8	15	34	18	<0.05	10	58	ND	ND
	BH223													
	BH224													
C5	BH122	0.1-0.3	Fill	04.09.17	9	0.7	19	37	20	<0.05	23	65	ND	ND
	BH123													
	BH228													
C6	BH119	0.1-0.2	Fill	04.09.17	20	0.6	19	41	18	<0.05	11	58	ND	ND
	BH120													
	BH121													
C7	BH115	0.1-0.3	Fill	04.09.17	5	0.5	20	31	16	<0.05	35	24	ND	ND
	BH118													
	BH229													
C8	BH112	0.1-0.2	Fill	04.09.17	9	0.6	17	29	22	<0.05	8.3	40	ND	ND
	BH113													
	BH114													
C9	BH109	0.1-0.2	Fill	04.09.17	6	0.4	14	20	18	<0.05	7.8	32	ND	ND
	BH110													
	BH220													
C10	BH130	0.1-0.3	Fill	04.09.17	6	0.5	16	37	20	<0.05	9.2	41	ND	ND
	BH131													
	BH219													
C11	BH126	0.1-0.3	Fill	04.09.17	7	0.5	15	32	16	<0.05	13	58	ND	ND
	BH221													
	BH222													
C12	BH127	0.1-0.3	Fill	04.09.17	4	0.4	14	47	15	<0.05	15	64	ND	ND
	BH128													
	BH216													
C13	BH136	0.1-0.2	Fill	04.09.17	11	0.7	21	33	21	<0.05	7.9	34	ND	ND
	BH138													
	BH215													
C14	BH134	0.1-0.3	Fill	04.09.17	6	0.5	12	25	14	<0.05	6.9	27	ND	ND
	BH135													
	BH217													
C15	BH133	0.1-0.2	Fill	04.09.17	6	0.5	15	62	17	<0.05	13	61	ND	ND
	BH213													
	BH218													
SILs														
HIL A - Residential with garden / accessible soil					33	6.7	33 Cr(VI)	2,000	100	13	133	2,467	NR	NR
EILs / ESLs - urban residential and public open space[1, 2]					33	NR	63	63	366	NR	56	133	60	NR

Notes: All results are recorded in mg/kg, unless otherwise specified.

	Highlighted value indicates concentration exceeds HIL / HSL.
	Highlighted value indicates concentration exceeds EIL / ESL.
	Highlighted value indicates concentration exceeds HIL / HSL and EIL / ESL.

Note:	HIL A and EIL criteria have been divided by the number of discrete samples used in each composite.
HIL A	NEPM 2013 'HIL A" - Residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake (no poultry)), also includes childcare centres, preschools and primary schools.
HSL	Health based screening level.
EIL	Ecological based investigation level.
ESL	Ecological based screening level.
#	Thresholds are for Chromium VI.
NR	No current published criterion.
NL	'Not Limiting' If the derived soil vapour limit exceeds the soil concentration at which the pore water phase cannot dissolve any more of the individual chemical, i.e. where the soil vapour is at equilibrium with the pore water, then the soil vapour source cannot exceed a level that would result in the maximum allowable vapour risk for the given scenario, therefore the limit is not limiting.
ND	'Not detected' i.e. all concentrations of the compounds within the analyte group were found to be below the laboratory limits of detection.
NA	'Not Analysed' i.e. the sample was not analysed.
1	As strata is predominantly clay, fine grained soil values were applied.
2	Ecological values relate to selected analytes of pH / CEC analysed across the site.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Table T2 b – Summary of Composite Soil Investigation Results for 230 - 242 Aldington Road, Kemps Creek NSW

Sample ID		Sampling Depth (@ m BGL)	Material	Sampling Date	Heavy Metals								OCPs	OPPs
					As	Cd	Cr#	Cu	Pb	Hg	Ni	Zn		
C16	BH139	0.1-0.4	Fill	05.09.17	9	0.7	15	53	17	<0.05	15	54	ND	ND
	BH142													
	BH214													
C17	BH144	0.1-0.3	Fill	05.09.17	5	0.5	22	53	17	<0.05	29	58	ND	ND
	BH145													
	BH230													
C18	BH146	0.1-0.2	Fill	05.09.17	10	0.3	13	52	15	<0.05	13	46	ND	ND
	BH151													
	BH152													
C19	BH141	0.1-0.2	Fill	05.09.17	11	0.4	13	52	16	<0.05	14	47	ND	ND
	BH147													
	BH212													
C20	BH149	0.1-0.2	Fill	05.09.17	12	0.4	16	53	16	<0.05	20	65	ND	ND
	BH150													
	BH211													
C21	BH162	0.1-0.2	Fill	05.09.17	8	0.5	16	64	18	<0.05	20	75	ND	ND
	BH209													
	BH210													
C22	BH155	0.1-0.2	Fill	05.09.17	10	0.5	17	57	20	<0.05	27	68	ND	ND
	BH157													
	BH207													
C23	BH158	0.1-0.4	Fill	05.09.17	11	0.4	20	46	15	<0.05	15	43	ND	ND
	BH208													
	BH231													
C24	BH159	0.1-0.2	Fill	05.09.17	7	0.5	18	67	16	<0.05	11	51	ND	ND
	BH168													
	BH206													
C25	BH161	0.1-0.2	Fill	05.09.17	9	0.6	20	39	17	<0.05	26	67	ND	ND
	BH165													
	BH166													
C26	BH163	0.1-0.6	Fill	05.09.17	10	0.7	22	48	18	<0.05	39	120	ND	ND
	BH204													
	BH205													
C27	BH167	0.1-0.5	Fill	05.09.17	5	0.4	40	23	14	<0.05	18	53	ND	ND
	BH202													
	BH201													
C28	BH170	0.1-0.3	Fill	05.09.17	7	0.4	20	40	15	<0.05	31	69	ND	ND
	BH203													
	BH171													
C29	BH173	0.1-0.2	Fill	05.09.17	6	0.5	20	23	14	<0.05	23	38	ND	ND
	BH174													
	BH175													
SILs														
HIL A - Residential with garden / accessible soil					33	6.7	33 Cr(VI)	2,000	100	13	133	2,467	NR	NR
EILs / ESLs - urban residential and public open space[1,2]					33	NR	63 Cr(III)	63	366	NR	56	133	60	NR

Notes: All results are recorded in mg/kg, unless otherwise specified.

Highlighted value indicates concentration exceeds HIL / HSL.

Highlighted value indicates concentration exceeds EIL / ESL.

Highlighted value indicates concentration exceeds HIL / HSL and EIL / ESL.

Note: HIL A and EIL criteria have been divided by the number of discrete samples used in each composite.

HIL A NEPM 2013 'HIL A" - Residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake (no poultry)), also includes childcare centres, preschools and primary schools.

HSL Health based screening level.

EIL Ecological based investigation level.

ESL Ecological based screening level.

Thresholds are for Chromium VI.

NR No current published criterion.

NL 'Not Limiting' If the derived soil vapour limit exceeds the soil concentration at which the pore water phase cannot dissolve any more of the individual chemical, i.e. where the soil vapour is at equilibrium with the pore water, then the soil vapour source cannot exceed a level that would result in the maximum allowable vapour risk for the given scenario, therefore the limit is not limiting.

ND 'Not detected' i.e. all concentrations of the compounds within the analyte group were found to be below the laboratory limits of detection.

NA 'Not Analysed' i.e. the sample was not analysed.

1 As strata is predominantly clay, fine grained soil values were applied.

2 Ecological values relate to selected analytes of pH / CEC analysed across the site.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Table T3 – Summary of Dam Water Results for 230 - 242 Aldington Road, Kemps Creek NSW

Sample Identification	Sampling Date	Heavy Metals								BTEX					TRHs				PAHs			OCPs	PCBs
		As	Cd	Cr	Cu	Pb	Ni	Zn	Hg	Benzene	Toluene	Ethylbenzene	m/p-xylene	o-xylene	F1	F2	F3	F4	Benzo(a)pyrene	Naphthalene	Total PAHs		
W1	04.09.17	1	<0.1	<1	1	<1	2	320	<0.1	<0.5	<0.5	<0.5	<1	<0.5	<50	<60	<500	<500	<0.1	<0.5	<1	ND	ND
W2	04.09.17	<1	<0.1	<1	2	<1	1	7	<0.1	<0.5	<0.5	<0.5	<1	<0.5	<50	<60	<500	<500	<0.1	<0.5	<1	ND	ND
SWILs																							
Fresh Water [4]		24 (AsIII) 13 (AsV)	0.2 [1]	NR (Cr III)	1.4 [1]	3.4 [1]	11 [1]	8 [1, 2]	0.06 [3]	950	180 [5]	80 [5]	350	200	50 [6]	60 [6]	500 [6]	500 [6]	0.2 [5]	16	NR		

Notes:

All values are in µg/L unless stated otherwise.

Highlighted indicates analyte concentration value exceeding the adopted criteria.

NR	No current published criterion.
NL	'Not Limiting' as per NEPM 2013, Schedule B1, Table 1A(4).
ND	'Not detected' i.e. all concentrations of the compounds within the analyte group were found to be below the laboratory limits of detection.
1	Values have been calculated using a hardness of 30mg/L CaCO3 refer to ANZECC & ARMCANZ (2000) for further guidance on recalculating for site-specific hardness.
2	Figure may not protect key species from chronic toxicity, refer to ANZECC & ARMCANZ (2000) for further guidance.
3	Chemical for which possible bioaccumulation and secondary poisoning effects should be considered, refer to ANZECC & ARMCANZ (2000) for further guidance.
4	NEPM (2013) Groundwater Investigation Levels for fresh water quality, based on ANZECC & ARMCANZ (2000).
5	Low reliability criteria (ANZECC & ARMCANZ, 2000).
6	Limit of reporting adopted as per DEC (2007).
F1	TRH C_6-C_{10} less the sum concentration of BTEX.
F2	TRH $C_{>10}$-C_{16} less the concentration of Naphthalene.
F3	TRH $C_{>16}$-C_{34}
F4	TRH $C_{>34}$-C_{40}

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

APPENDIX A

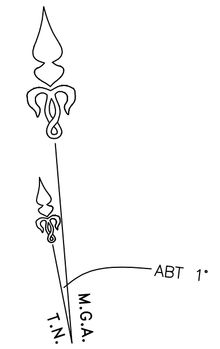
PROPOSED DEVELOPMENT PLANS

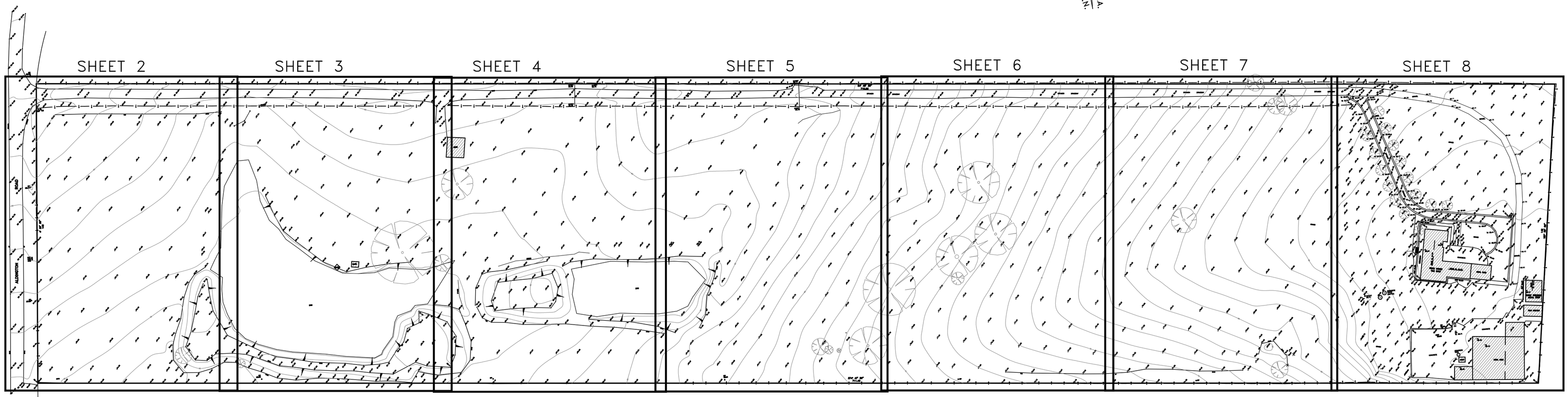
Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

A1

DETAIL PLAN

0 50 100
METRES
SCALE 1 : 1000





LEGEND

EB	EDGE OF BITUMEN
HYD	HYDRANT
PP	POWER POLE
TK	TOP OF KERB
WM	WATER METER

THIS DETAIL SURVEY IS NOT A `SURVEY' AS DEFINED BY THE SURVEYORS ACT 1929. IF ANY CONSTRUCTION IS PLANNED IT WOULD BE ADVISABLE TO CARRY OUT FURTHER SURVEY WORK TO DETERMINE THE BOUNDARY DIMENSIONS.

CitiSurv Pty Ltd
ABN 32 122 758 276
CONSULTING SURVEYORS
35/42 SWAN AVENUE STRATHFIELD, 2135
PHONE: 9764 5880 FAX: 9764 5881
E-mail: info@citisurv.com.au

SCALE	SHEET
1:1000	1 OF 8
DATE OF SURVEY	PLOT FILE
15-12-2015	9987-DET
SURVEY	DRAWN
LK	JC

ISSUE	AMENDMENTS	DATED
A	INITIAL ISSUE	18-12-15

CLIENT: SHREEJI CONSULTANT PTY LTD

DATUM: AHD
ORIGIN OF LEVELS: PM 33562
RL 43.021
DATED: 16-DEC-2015

PLAN: LEVEL & DETAIL SURVEY

SITE: 230-242 ALDINGTON ROAD KEMPS CREEK

L.G.A.: PENRITH

PARISH: MELVILLE

COUNTY: CUMBERLAND

TITLE: LOT 18 DP 253503

NOTES
1. BOUNDARIES NOT SURVEYED.
2. AREAS & DIMENSIONS COMPILED FROM PLANS OBTAINED FROM THE LAND TITLES OFFICE.
3. TREE SYMBOLS ARE TO APPROXIMATE SCALE FOR TRUNK ø AND CANOPY SPREAD
4. ALL OTHER SYMBOLS ARE NOT TO SCALE AND ARE DIAGRAMMATIC ONLY.
5. NO SERVICES SEARCH HAS BEEN UNDERTAKEN.
6. ONLY VISIBLE ABOVE GROUND SERVICES HAVE BEEN LOCATED.
7. ALL KERB LEVELS ARE ON THE TOP OF KERB UNLESS OTHERWISE STATED.
8. PLAN IS ACCURATE TO PLOT SCALE ONLY.
9. PLAN IS TO BE USED FOR DETAIL PURPOSES ONLY.
10. CONTOUR INTERVAL 1m

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

A1

DETAIL PLAN

0 10 20 METRES

SCALE 1 : 200

SEE SHEET 1 FOR LEGEND AND NOTIFICATIONS

ROAD

ALDINGTON

4° 29' 30"
142

ABT 1°

M.G.A.

T.N.

TAP WM

PP 60.47

PP 57.88

PP

HYD

HYD

HYD

BITUMEN

BITUMEN

TOE

TOE

BANK

TOP

TOP

TOE

OF

OF

OF

EDGE

EDGE

ISSUE	AMENDMENTS	DATED
A	INITIAL ISSUE	18–12–15

CitiSurv Pty Ltd
ABN 32 122 758 276
CONSULTING SURVEYORS
35/42 SWAN AVENUE STRATHFIELD, 2135
PHONE: 9764 5880 FAX: 9764 5881
E–mail: info@citisurv.com.au

SCALE	SHEET
1: 200	2 OF 8
DATE OF SURVEY	PLOT FILE
15–12–2015	9987-DET
SURVEY	DRAWN
LK	JC

CLIENT: SHREEJI CONSULTANT PTY LTD

DATUM: AHD

ORIGIN OF LEVELS: PM 33562
RL 43.021
DATED: 16–DEC–2015

PLAN: LEVEL & DETAIL SURVEY

SITE: 230–242 ALDINGTON ROAD
KEMPS CREEK

L.G.A.: PENRITH

PARISH: MELVILLE

COUNTY: CUMBERLAND

TITLE: LOT 18
DP 253503

NOTES
1. BOUNDARIES NOT SURVEYED.
2. AREAS & DIMENSIONS COMPILED FROM PLANS OBTAINED FROM THE LAND TITLES OFFICE.
3. TREE SYMBOLS ARE TO APPROXIMATE SCALE FOR TRUNK ø AND CANOPY SPREAD
4. ALL OTHER SYMBOLS ARE NOT TO SCALE AND ARE DIAGRAMMATIC ONLY.
5. NO SERVICES SEARCH HAS BEEN UNDERTAKEN.
6. ONLY VISIBLE ABOVE GROUND SERVICES HAVE BEEN LOCATED.
7. ALL KERB LEVELS ARE ON THE TOP OF KERB UNLESS OTHERWISE STATED.
8. PLAN IS ACCURATE TO PLOT SCALE ONLY.
9. PLAN IS TO BE USED FOR DETAIL PURPOSES ONLY.
10. CONTOUR INTERVAL 1m

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

A1
DETAIL PLAN

0 10 20
METRES
SCALE 1 : 200

SEE SHEET 1 FOR LEGEND AND NOTIFICATIONS

ISSUE	AMENDMENTS	DATED
A	INITIAL ISSUE	18–12–15

CitiSurv Pty Ltd
ABN 32 122 758 276
CONSULTING SURVEYORS
35/42 SWAN AVENUE STRATHFIELD, 2135
PHONE: 9764 5880 FAX: 9764 5881
E-mail: info@citisurv.com.au

SCALE	SHEET
1:200	3 OF 8
DATE OF SURVEY	PLOT FILE
15–12–2015	9987-DET
SURVEY	DRAWN
LK	JC

CLIENT: SHREEJI CONSULTANT PTY LTD

DATUM: AHD
ORIGIN OF LEVELS: PM 33562
RL 43.021
DATED: 16–DEC–2015

PLAN: LEVEL & DETAIL SURVEY
SITE: 230–242 ALDINGTON ROAD KEMPS CREEK

L.G.A.: PENRITH
PARISH: MELVILLE
COUNTY: CUMBERLAND

TITLE: LOT 18 DP 253503

NOTES
1. BOUNDARIES NOT SURVEYED.
2. AREAS & DIMENSIONS COMPILED FROM PLANS OBTAINED FROM THE LAND TITLES OFFICE.
3. TREE SYMBOLS ARE TO APPROXIMATE SCALE FOR TRUNK ø AND CANOPY SPREAD
4. ALL OTHER SYMBOLS ARE NOT TO SCALE AND ARE DIAGRAMMATIC ONLY.
5. NO SERVICES SEARCH HAS BEEN UNDERTAKEN.
6. ONLY VISIBLE ABOVE GROUND SERVICES HAVE BEEN LOCATED.
7. ALL KERB LEVELS ARE ON THE TOP OF KERB UNLESS OTHERWISE STATED.
8. PLAN IS ACCURATE TO PLOT SCALE ONLY.
9. PLAN IS TO BE USED FOR DETAIL PURPOSES ONLY.
10. CONTOUR INTERVAL 1m

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

A1

DETAIL PLAN

0 10 20

METRES

SCALE 1 : 200

SEE SHEET 1 FOR LEGEND AND NOTIFICATIONS

SHED

DRAIN

SWALE

DAM

ABT 1°

M.G.A.

T.N.

INVERT 58.55

INVERT 59.76

INVERT 58.40

TOP OF BANK

TOE OF BANK

ISSUE	AMENDMENTS	DATED
A	INITIAL ISSUE	18–12–15

CitiSurv Pty Ltd
ABN 32 122 758 276
CONSULTING SURVEYORS
35/42 SWAN AVENUE STRATHFIELD, 2135
PHONE: 9764 5880 FAX: 9764 5881
E–mail: info@citisurv.com.au

SCALE	SHEET
1:200	4 OF 8
DATE OF SURVEY	PLOT FILE
15–12–2015	9987-DET
SURVEY	DRAWN
LK	JC

CLIENT: SHREEJI CONSULTANT PTY LTD

DATUM: AHD

ORIGIN OF LEVELS: PM 33562
RL 43.021
DATED: 16–DEC–2015

PLAN: LEVEL & DETAIL SURVEY

SITE: 230–242 ALDINGTON ROAD
KEMPS CREEK

L.G.A.: PENRITH

PARISH: MELVILLE

COUNTY: CUMBERLAND

TITLE: LOT 18
DP 253503

NOTES

1. BOUNDARIES NOT SURVEYED.
2. AREAS & DIMENSIONS COMPILED FROM PLANS OBTAINED FROM THE LAND TITLES OFFICE.
3. TREE SYMBOLS ARE TO APPROXIMATE SCALE FOR TRUNK ø AND CANOPY SPREAD
4. ALL OTHER SYMBOLS ARE NOT TO SCALE AND ARE DIAGRAMMATIC ONLY.
5. NO SERVICES SEARCH HAS BEEN UNDERTAKEN.
6. ONLY VISIBLE ABOVE GROUND SERVICES HAVE BEEN LOCATED.
7. ALL KERB LEVELS ARE ON THE TOP OF KERB UNLESS OTHERWISE STATED.
8. PLAN IS ACCURATE TO PLOT SCALE ONLY.
9. PLAN IS TO BE USED FOR DETAIL PURPOSES ONLY.
10. CONTOUR INTERVAL 1m

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

A1

DETAIL PLAN

0 10 20

METRES

SCALE 1 : 200

SEE SHEET 1 FOR LEGEND AND NOTIFICATIONS

62.19 62.15 61.77 61.44 INVERT 60.77 61.45 62.45 62.83 63.97

94° 48' 30"
719.93

60.69 EB 61.09 EB 61.04 EB 61.29 EB 61.51 EB 61.48 EB 61.81 EB 61.55 EB 61.88 EB 61.79 EB 62.09 EB 62.35 EB 62.58 EB 62.71 BITUMEN EB

61.54 61.97 61.99 61.80 61.47 61.12 60.61 INVERT 60.46 62.05 62.99 63.92

61.72 61.64 61.31 60.56 60.69 61.72 63.21 63.82

61.27 60.98 60.77 60.34 ABT 1* M.G.A. T.N.

60.21 60.05 60 59.91 60.45 61.32 62.30 63.40 64.65

59.17 59.35 59.35 60.64 61.40 62.64 63.51 64.84 65

58.98 58.74 59.66 60.32 61.90 63.72 64.84

58.67 58.61 58.78 58.68 58.79 59.56 60.68 62.51 64.50 65.11

58.27 58.57 58.48 58.93 60.21 61.63 63.26 65.53 65.99

60.49 BANK 59.60 60 60.71 OF 59.74 60.83 62.57 64.03 65.53 66.50

61.20 60.99 61.46 63.27 64.72 65 66.01 67.07

57.93 60 TOP 61.18 61.69 62.08 62.63 64.02 65.44 66.57

59.77 BANK 60.36 60.09 62.09 62.73 63.24 64.02 65.55 67.05 67.95 69.06

60.88 61.82 62.51 63.14 63.69 64.74 65.78 67.27 68.32 68.97

PP 63.61

61.01 62.23 63.69 64.88 65.55 66.44 67.11 68.67

274° 47' 30"
711.45

ISSUE	AMENDMENTS	DATED
A	INITIAL ISSUE	18–12–15

CitiSurv Pty Ltd
ABN 32 122 758 276
CONSULTING SURVEYORS
35/42 SWAN AVENUE STRATHFIELD, 2135
PHONE: 9764 5880 FAX: 9764 5881
E–mail: info@citisurv.com.au

SCALE 1: 200	SHEET 5 OF 8	CLIENT SHREEJI CONSULTANT PTY LTD	DATUM AHD ORIGIN OF LEVELS: PM 33562 RL 43.021 DATED: 16–DEC–2015	PLAN LEVEL & DETAIL SURVEY	L.G.A. PENRITH	TITLE LOT 18 DP 253503	NOTES
DATE OF SURVEY 15–12–2015	PLOT FILE 9987-DET			SITE 230–242 ALDINGTON ROAD KEMPS CREEK	PARISH MELVILLE		
SURVEY LK	DRAWN JC				COUNTY CUMBERLAND		

NOTES
1. BOUNDARIES NOT SURVEYED.
2. AREAS & DIMENSIONS COMPILED FROM PLANS OBTAINED FROM THE LAND TITLES OFFICE.
3. TREE SYMBOLS ARE TO APPROXIMATE SCALE FOR TRUNK ø AND CANOPY SPREAD
4. ALL OTHER SYMBOLS ARE NOT TO SCALE AND ARE DIAGRAMMATIC ONLY.
5. NO SERVICES SEARCH HAS BEEN UNDERTAKEN.
6. ONLY VISIBLE ABOVE GROUND SERVICES HAVE BEEN LOCATED.
7. ALL KERB LEVELS ARE ON THE TOP OF KERB UNLESS OTHERWISE STATED.
8. PLAN IS ACCURATE TO PLOT SCALE ONLY.
9. PLAN IS TO BE USED FOR DETAIL PURPOSES ONLY.
10. CONTOUR INTERVAL 1m

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

A1
DETAIL PLAN

0 10 20
METRES
SCALE 1 : 200

SEE SHEET 1 FOR LEGEND AND NOTIFICATIONS

63.97 64.98 66.35 67.70 69.30 70.61 71.56 72.69
EB 64.10 DRIVEWAY EB 64.86 EB 66.25 EB 67.69 EB 68.43 EB 70.46 EB 70.79 BITUMEN DRIVEWAY EB 72.30 EB 72.97
.92 64.94 66.31 67.56 68.82 70.09 70.59 71.26 72.45 73.64
65 70 75
.65 65.08 66.15 66.60 68.00 68.57 68.88 69.14 69.18 70.86 71.36 72.34 72.52 73.55 73.92 74.97
65.57 66.38 67.06 67.11 68.29 69.44 71.23 72.74 74.00 75.17 76.04
67.27 67.45 67.73 68.29 68.96 69.25 70.14 70.53 71.10 71.43 72.35 72.81 73.84 74.29 75.94 77.64
67.72 68.36 68.51 69.27 69.63 70.05 70.42 71.01 71.50 72.13 72.31 72.67 73.19 73.39 73.42 74.25 74.37 74.66 75.26 75.39 75.79 76.07 76.40 77.57 77.69
69.60 69.70 70.60 70.67 71.51 71.61 72.53 73.30 73.93 74.22 74.52 74.73 74.97
69.62 70.17 70.25 70.73 70.98 71.07 71.52 71.60 71.96 72.13 72.34 72.64 72.79 72.97 73.15 73.36 73.38
TOE TOE OF
O PP

ABT 1°
M.G.A.
T.N.

ISSUE	AMENDMENTS	DATED
A	INITIAL ISSUE	18–12–15

CitiSurv Pty Ltd
ABN 32 122 758 276
CONSULTING SURVEYORS
35/42 SWAN AVENUE STRATHFIELD, 2135
PHONE: 9764 5880 FAX: 9764 5881
E–mail: info@citisurv.com.au

SCALE	SHEET
1:200	6 OF 8
DATE OF SURVEY	PLOT FILE
15–12–2015	9987–DET
SURVEY	DRAWN
LK	JC

CLIENT: SHREEJI CONSULTANT PTY LTD

DATUM: AHD
ORIGIN OF LEVELS: PM 33562
RL 43.021
DATED: 16–DEC–2015

PLAN: LEVEL & DETAIL SURVEY
SITE: 230–242 ALDINGTON ROAD KEMPS CREEK

L.G.A.: PENRITH
PARISH: MELVILLE
COUNTY: CUMBERLAND

TITLE: LOT 18 DP 253503

NOTES
1. BOUNDARIES NOT SURVEYED.
2. AREAS & DIMENSIONS COMPILED FROM PLANS OBTAINED FROM THE LAND TITLES OFFICE.
3. TREE SYMBOLS ARE TO APPROXIMATE SCALE FOR TRUNK ø AND CANOPY SPREAD
4. ALL OTHER SYMBOLS ARE NOT TO SCALE AND ARE DIAGRAMMATIC ONLY.
5. NO SERVICES SEARCH HAS BEEN UNDERTAKEN.
6. ONLY VISIBLE ABOVE GROUND SERVICES HAVE BEEN LOCATED.
7. ALL KERB LEVELS ARE ON THE TOP OF KERB UNLESS OTHERWISE STATED.
8. PLAN IS ACCURATE TO PLOT SCALE ONLY.
9. PLAN IS TO BE USED FOR DETAIL PURPOSES ONLY.
10. CONTOUR INTERVAL 1m

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

A1

DETAIL PLAN

0 10 20

METRES

SCALE 1 : 200

SEE SHEET 1 FOR LEGEND AND NOTIFICATIONS

BITUMEN DRIVEWAY BITUMEN DRIVEWAY

EB 74.63 EB 75.37 EB 77.37 EB 78.34 EB 80.97 EB 81.07 EB 83

TK 83.9 TK 84

ABT 1°

T.N. M.G.A.

GRASS

TOE BANK BANK

BANK

OF

O PP

ISSUE	AMENDMENTS	DATED
A	INITIAL ISSUE	18–12–15

CitiSurv Pty Ltd
ABN 32 122 758 276
CONSULTING SURVEYORS
35/42 SWAN AVENUE STRATHFIELD, 2135
PHONE: 9764 5880 FAX: 9764 5881
E-mail: info@citisurv.com.au

SCALE	1:200	SHEET	7 OF 8
DATE OF SURVEY	15–12–2015	PLOT FILE	9987-DET
SURVEY	LK	DRAWN	JC

CLIENT: SHREEJI CONSULTANT PTY LTD

DATUM: AHD

ORIGIN OF LEVELS: PM 33562
RL 43.021
DATED: 16–DEC–2015

PLAN: LEVEL & DETAIL SURVEY

SITE: 230–242 ALDINGTON ROAD
KEMPS CREEK

L.G.A.: PENRITH

PARISH: MELVILLE

COUNTY: CUMBERLAND

TITLE: LOT 18
DP 253503

NOTES

1. BOUNDARIES NOT SURVEYED.
2. AREAS & DIMENSIONS COMPILED FROM PLANS OBTAINED FROM THE LAND TITLES OFFICE.
3. TREE SYMBOLS ARE TO APPROXIMATE SCALE FOR TRUNK ø AND CANOPY SPREAD
4. ALL OTHER SYMBOLS ARE NOT TO SCALE AND ARE DIAGRAMMATIC ONLY.
5. NO SERVICES SEARCH HAS BEEN UNDERTAKEN.
6. ONLY VISIBLE ABOVE GROUND SERVICES HAVE BEEN LOCATED.
7. ALL KERB LEVELS ARE ON THE TOP OF KERB UNLESS OTHERWISE STATED.
8. PLAN IS ACCURATE TO PLOT SCALE ONLY.
9. PLAN IS TO BE USED FOR DETAIL PURPOSES ONLY.
10. CONTOUR INTERVAL 1m

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

A1
DETAIL PLAN

0 10 20
METRES
SCALE 1 : 200

SEE SHEET 1 FOR LEGEND AND NOTIFICATIONS

DRIVEWAY
GRAVEL
GRASS
SIGN
ABT 1°
M.G.A.
T.N.
PIT
SL 84.08
GUT 91.55
GUT 91.56
GUT 91.59
GUT 91.80
BITUMEN
VERANDAH
RIDGE RL 94.20
RIDGE RL 93.07
BRICK HOUSE
TILE ROOF
CONCRETE
METAL SHED
PLANTER BOX
FL 88.84
FL 88.83
PP 88.84
PP 88.69
PIT SL 88.71
CONCRETE TANKS (SEPTIC)
INVERT 85.74
SHED
CONCRETE TANK
RIDGE RL 93.12
FL 89.27
BRICK BUILDING
METAL ROOF
TANK SHELTER
FL 89.39
FL 89.43
FL 89.05
187° 55' 00" 142

ISSUE	AMENDMENTS	DATED
A	INITIAL ISSUE	18–12–15

CitiSurv Pty Ltd
ABN 32 122 758 276
CONSULTING SURVEYORS
35/42 SWAN AVENUE STRATHFIELD, 2135
PHONE: 9764 5880 FAX: 9764 5881
E-mail: info@citisurv.com.au

SCALE	SHEET
1:200	8 OF 8
DATE OF SURVEY	PLOT FILE
15–12–2015	9987-DET
SURVEY	DRAWN
LK	JC

CLIENT: SHREEJI CONSULTANT PTY LTD

DATUM: AHD
ORIGIN OF LEVELS: PM 33562
RL 43.021
DATED: 16–DEC–2015

PLAN: LEVEL & DETAIL SURVEY
SITE: 230–242 ALDINGTON ROAD KEMPS CREEK

L.G.A.: PENRITH
PARISH: MELVILLE
COUNTY: CUMBERLAND

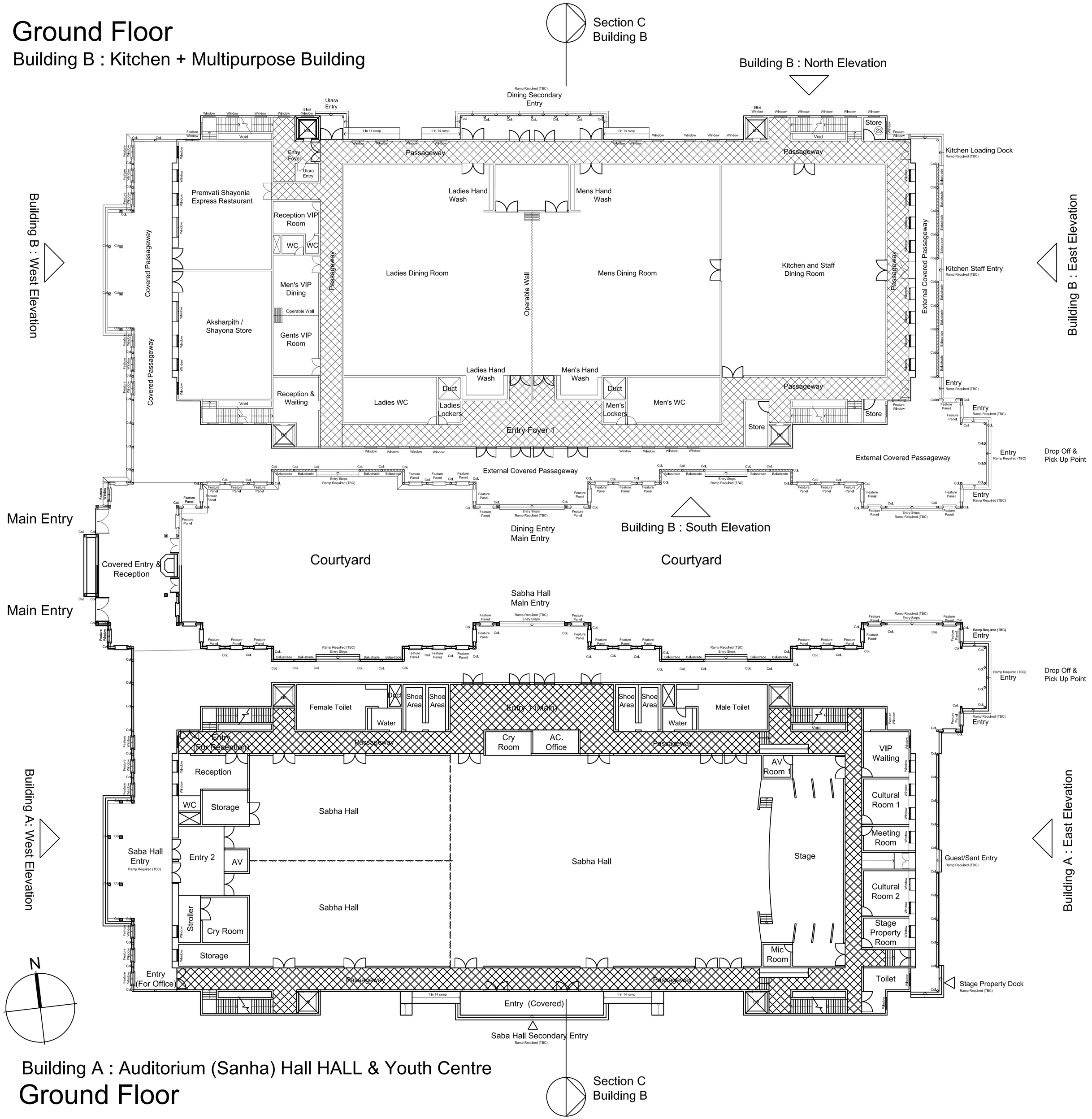
TITLE: LOT 18 DP 253503

NOTES
1. BOUNDARIES NOT SURVEYED.
2. AREAS & DIMENSIONS COMPILED FROM PLANS OBTAINED FROM THE LAND TITLES OFFICE.
3. TREE SYMBOLS ARE TO APPROXIMATE SCALE FOR TRUNK ø AND CANOPY SPREAD
4. ALL OTHER SYMBOLS ARE NOT TO SCALE AND ARE DIAGRAMMATIC ONLY.
5. NO SERVICES SEARCH HAS BEEN UNDERTAKEN.
6. ONLY VISIBLE ABOVE GROUND SERVICES HAVE BEEN LOCATED.
7. ALL KERB LEVELS ARE ON THE TOP OF KERB UNLESS OTHERWISE STATED.
8. PLAN IS ACCURATE TO PLOT SCALE ONLY.
9. PLAN IS TO BE USED FOR DETAIL PURPOSES ONLY.
10. CONTOUR INTERVAL 1m

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Ground Floor

Building B : Kitchen + Multipurpose Building



COPYRIGHT APPLIES TO THIS DOCUMENT AND DESIGN AND IS THE PROPERTY OF RALPH FERRIS ARCHITECTS PTY LTD - REPRODUCTION OF ANY KIND IS NOT PERMITTED WITHOUT OUR CONSENT.

CONTRACTORS TO VERIFY ALL DIMENSIONS AND SETOUTS ON SITE BEFORE COMMENCING WORK.

SHOULD ANY DISCREPANCIES BE FOUND, PLEASE NOTIFY THE AUTHOR IMMEDIATELY SO THAT INSTRUCTION MAY BE ISSUED.

FIGURED DIMENSIONS ARE TO BE USED. DO NOT SCALE FROM THIS DRAWING.

TO BE READ IN CONJUNCTION WITH ENGINEERS DOCUMENTS.

THE NOMINATED RESPONSIBLE ARCHITECT FOR RALPH FERRIS ARCHITECTS PTY LTD TRADING AS DDC ARCHITECTS IS GEOFF FERRIS-SMITH REGISTRATION 8334.
ACN: 145 390 389

ddc architects

Unit 3
112 Russell Street
Emu Plains NSW 2750

02 4728 6500

Project Title
BAPS Temple

Client
BAPS Swaminarayan Sanstha, Australia Ltd

Address
Aldington Road, Kemps Creek

Drawing Title
Building A & B
Ground Floor Plans

Drawn
Author

Checked
Checker

Scale
1:250@A1

Drawing Number

16079 - SK1003

Issue

Date
2/08/2017

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

First Floor

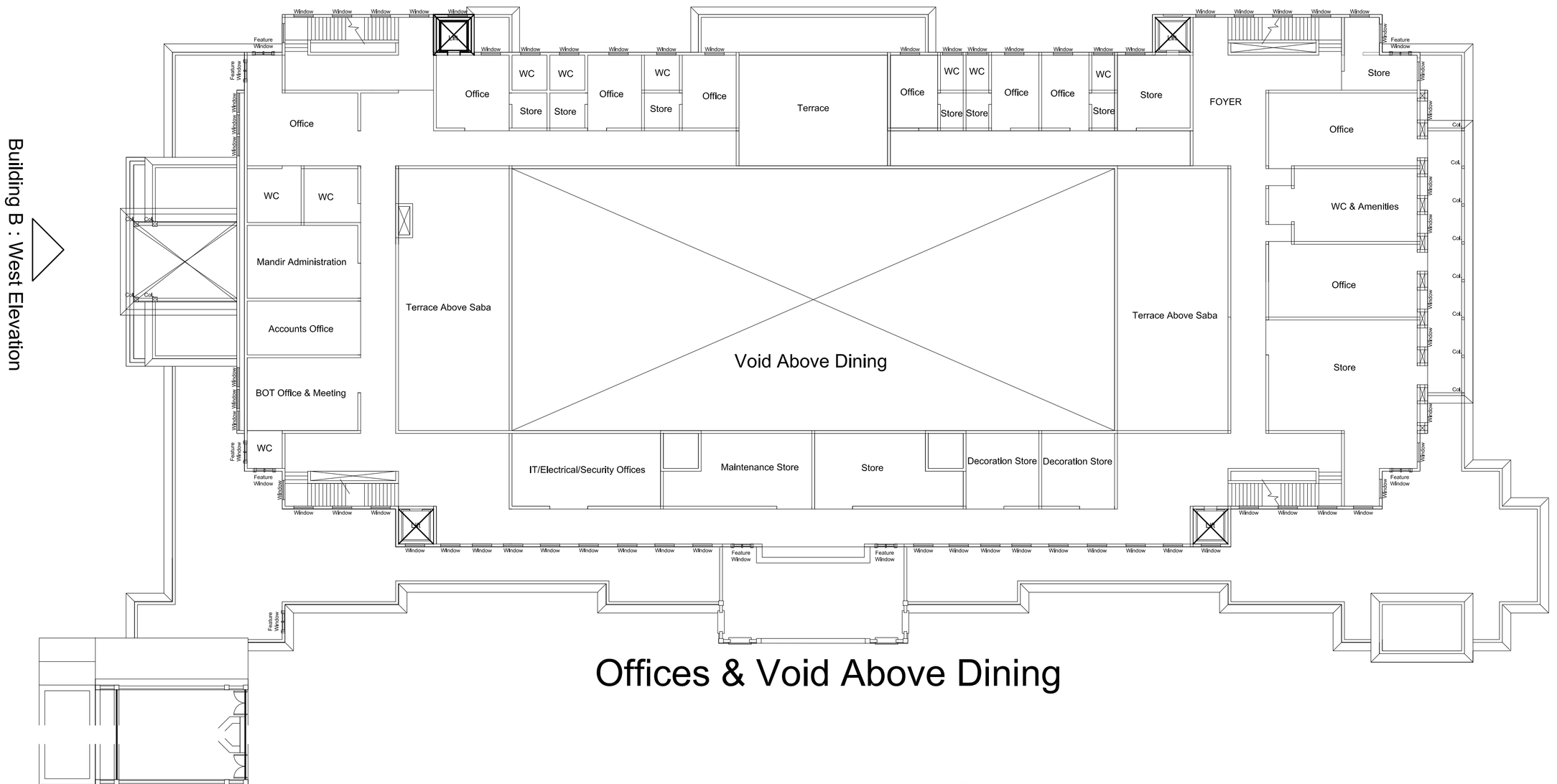
Building B : Kitchen + Multipurpose Building

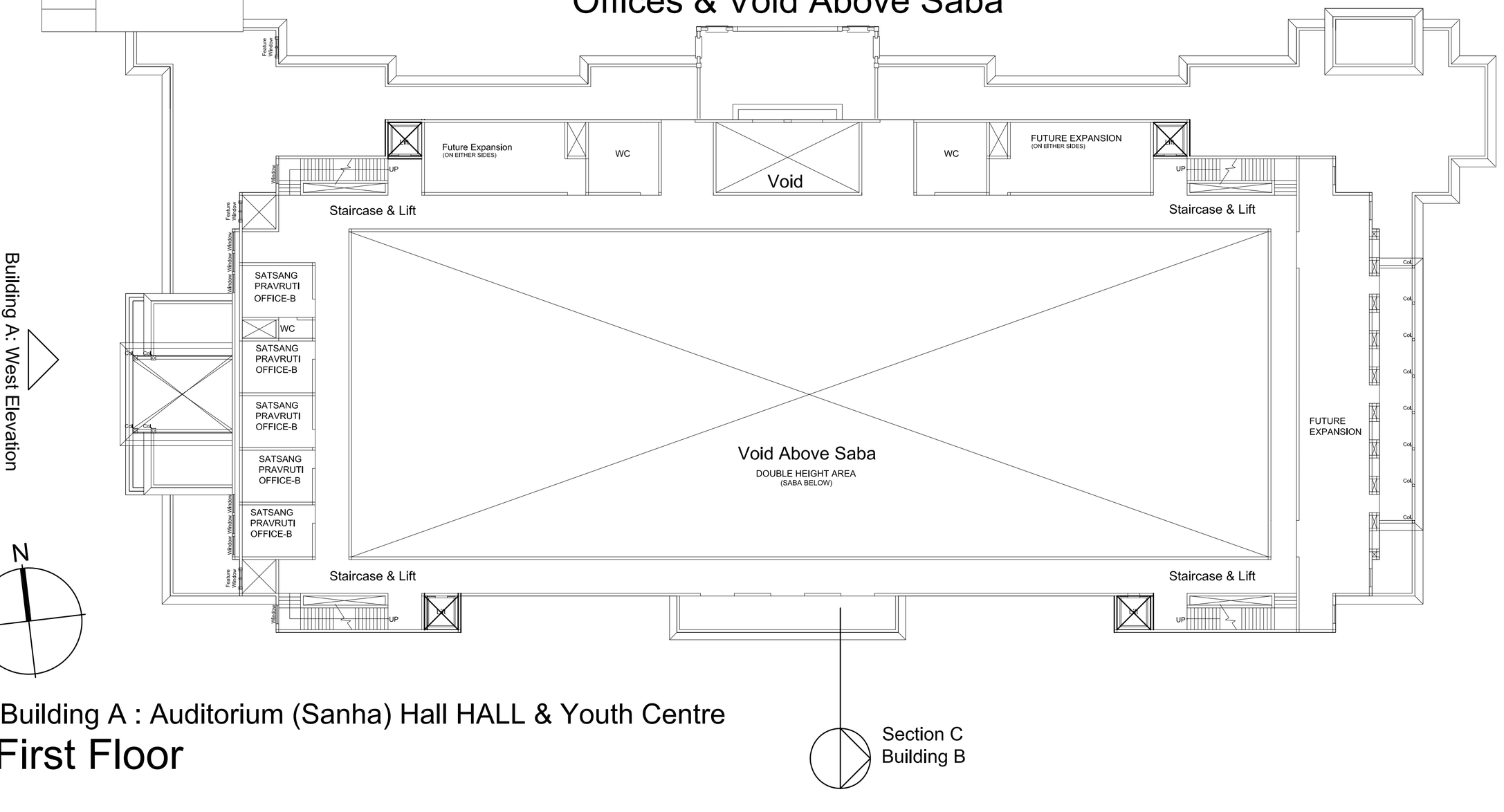
Section C
Building B

Building B : North Elevation

Building B : West Elevation

Building B : East Elevation





Building A: West Elevation

Building A : East Elevation

Building A : Auditorium (Sanha) Hall HALL & Youth Centre

First Floor

Section C
Building B

COPYRIGHT APPLIES TO THIS DOCUMENT AND DESIGN AND IS THE PROPERTY OF RALPH FERRIS ARCHITECTS PTY LTD - REPRODUCTION OF ANY KIND IS NOT PERMITTED WITHOUT OUR CONSENT.

CONTRACTORS TO VERIFY ALL DIMENSIONS AND SETOUTS ON SITE BEFORE COMMENCING WORK.

SHOULD ANY DISCREPANCIES BE FOUND, PLEASE NOTIFY THE AUTHOR IMMEDIATELY SO THAT INSTRUCTION MAY BE ISSUED.

FIGURED DIMENSIONS ARE TO BE USED. DO NOT SCALE FROM THIS DRAWING.

TO BE READ IN CONJUNCTION WITH ENGINEERS DOCUMENTS.

THE NOMINATED RESPONSIBLE ARCHITECT FOR RALPH FERRIS ARCHITECTS PTY LTD TRADING AS DDC ARCHITECTS IS GEOFF FERRIS-SMITH REGISTRATION 8334.
ACN: 145 390 389

ddc architects

Unit 3
112 Russell Street
Emu Plains NSW 2750

02 4728 6500

Project Title
BAPS Temple

Client
BAPS Swaminarayan Sanstha, Australia Ltd

Address
Aldington Road, Kemps Creek

Drawing Title
Building A & B
First Floor Plans

Drawn
Author

Checked
Checker

Scale
1:250@A1

Drawing Number

16079 - SK1004

Issue

Date
2/08/2017

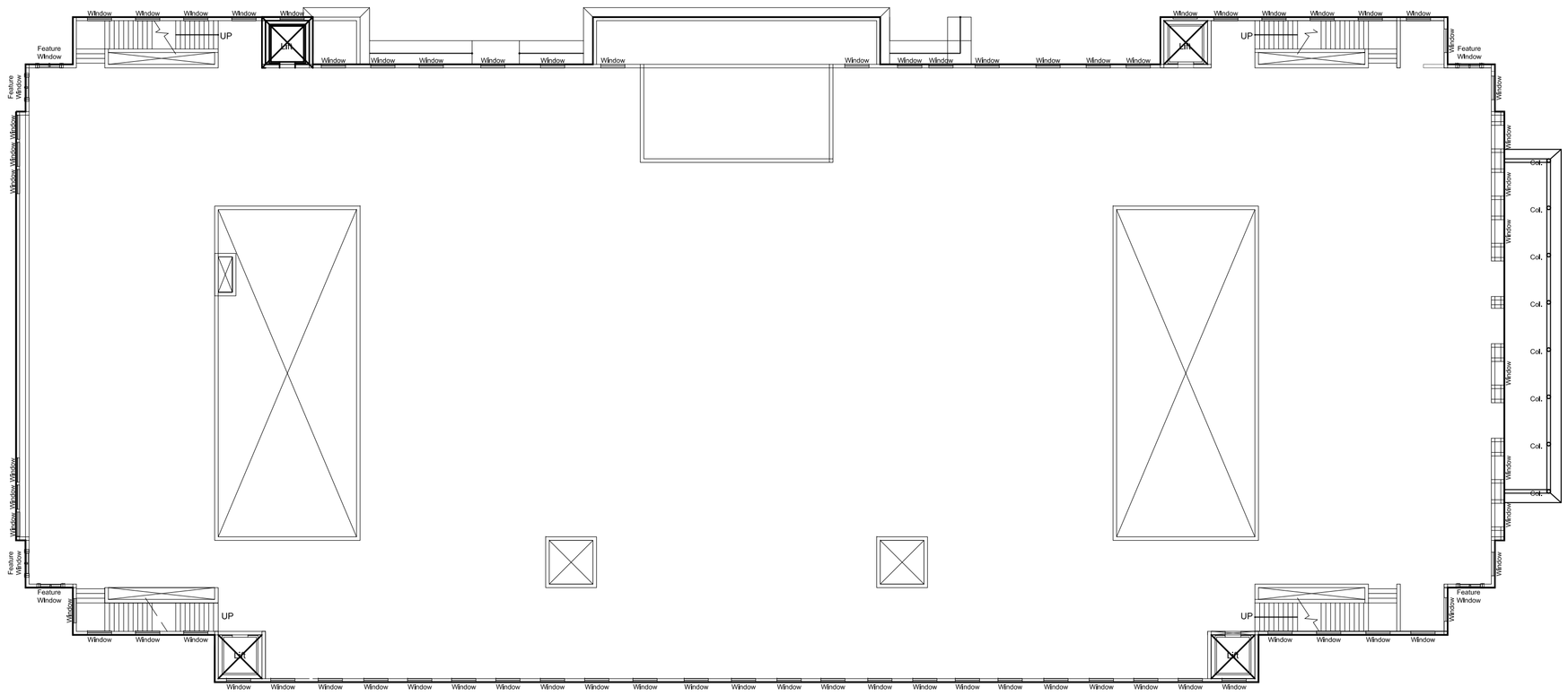
Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Second Floor

Building B : Kitchen + Multipurpose Building

Section C
Building B

Building B : North Elevation



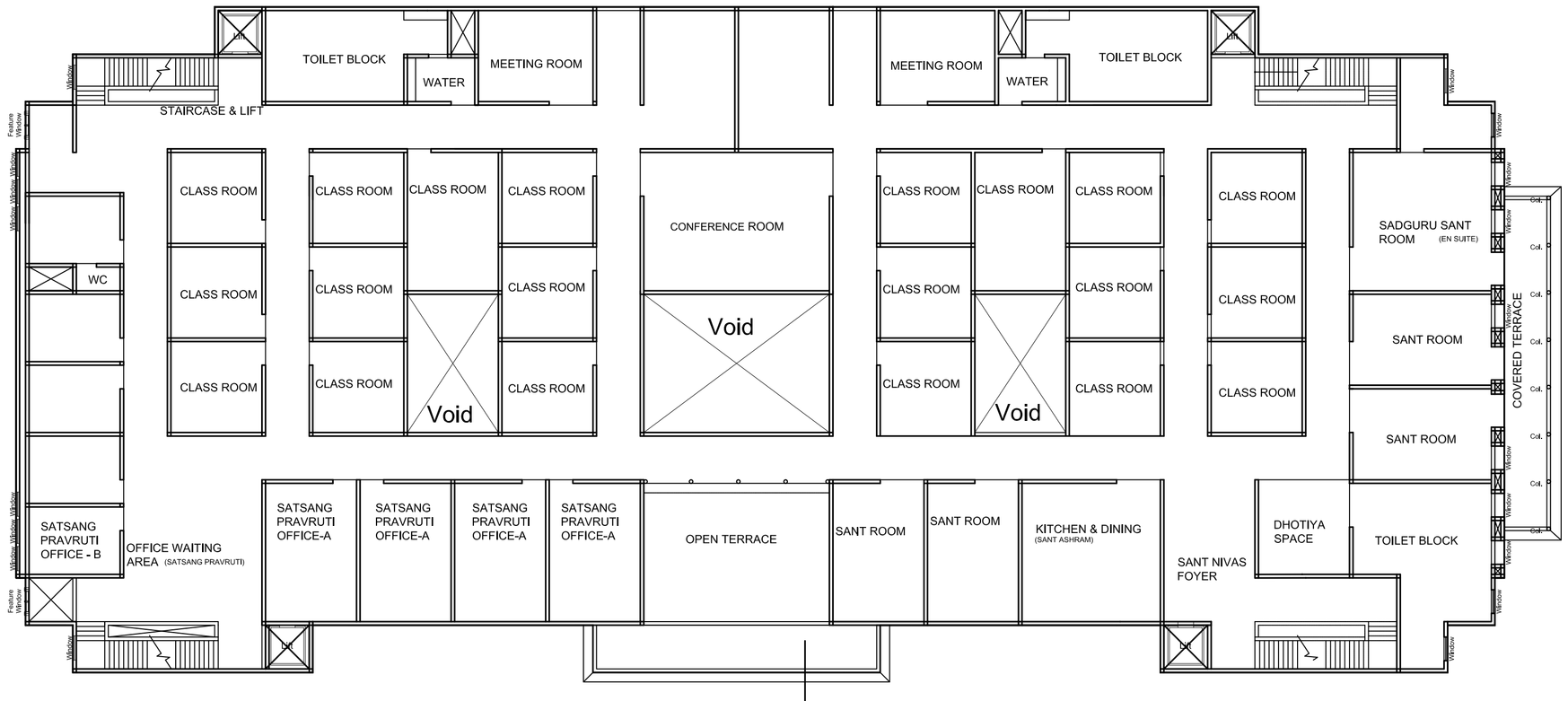
Building B : West Elevation

Building B : East Elevation

Future Expansion

Classrooms & Offices

Building A : West Elevation



Building A : East Elevation

N

Building A : Auditorium (Sanha) Hall HALL & Youth Centre

Second Floor

Section C
Building B

COPYRIGHT APPLIES TO THIS DOCUMENT AND DESIGN AND IS THE PROPERTY OF RALPH FERRIS ARCHITECTS PTY LTD - REPRODUCTION OF ANY KIND IS NOT PERMITTED WITHOUT OUR CONSENT.

CONTRACTORS TO VERIFY ALL DIMENSIONS AND SETOUTS ON SITE BEFORE COMMENCING WORK.

SHOULD ANY DISCREPANCIES BE FOUND, PLEASE NOTIFY THE AUTHOR IMMEDIATELY SO THAT INSTRUCTION MAY BE ISSUED.

FIGURED DIMENSIONS ARE TO BE USED. DO NOT SCALE FROM THIS DRAWING.

TO BE READ IN CONJUNCTION WITH ENGINEERS DOCUMENTS.

THE NOMINATED RESPONSIBLE ARCHITECT FOR RALPH FERRIS ARCHITECTS PTY LTD TRADING AS DDC ARCHITECTS IS GEOFF FERRIS-SMITH REGISTRATION 8334.
ACN: 145 390 389

ddc architects

Unit 3
112 Russell Street
Emu Plains NSW 2750

02 4728 6500

Project Title
BAPS Temple

Client
BAPS Swaminarayan Sanstha, Australia Ltd

Address
Aldington Road, Kemps Creek

Drawing Title
Building A & B
Second Floor Plans

Drawn
Author

Checked
Checker

Scale
1:250@A1

Drawing Number

16079 - SK1005

Issue

Date
2/08/2017

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

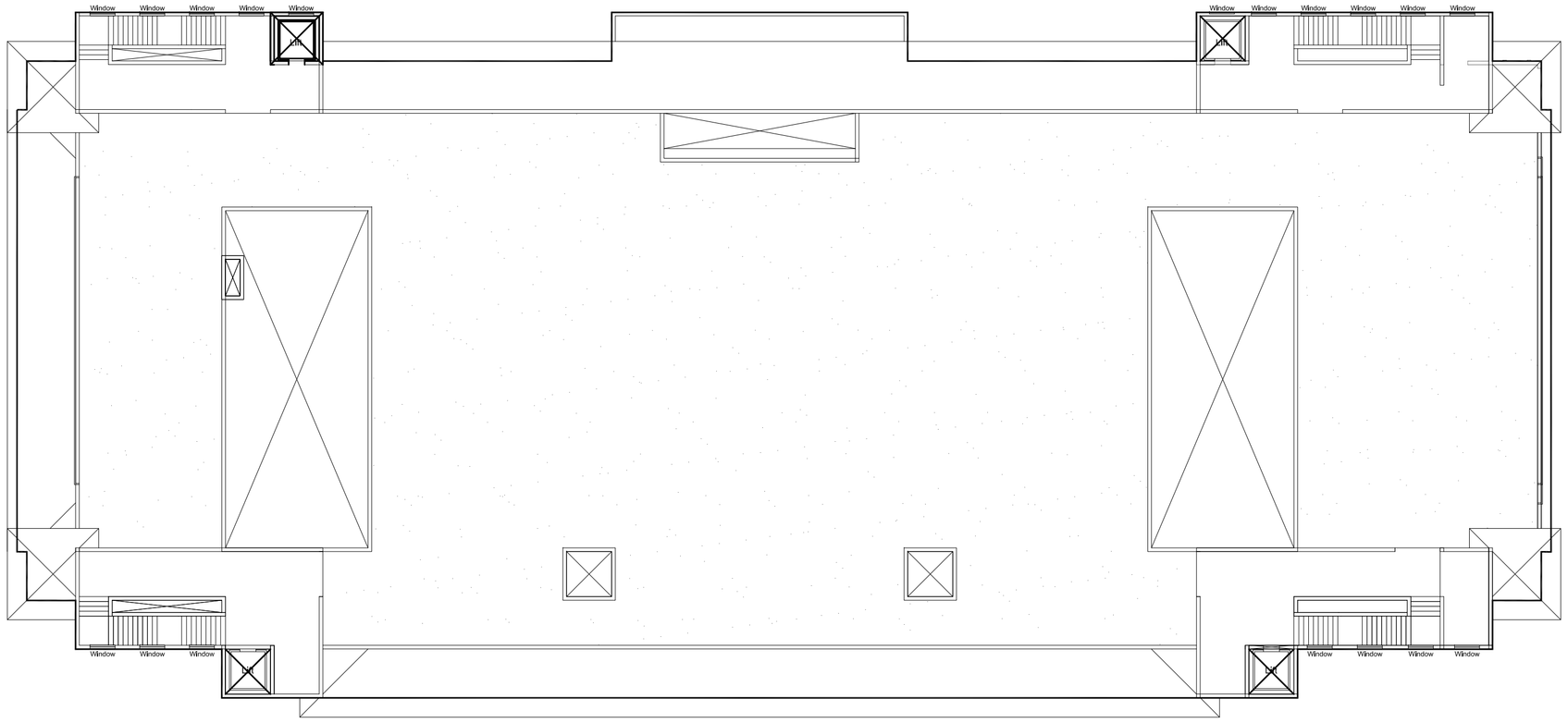
Roof Access Terrace

Building B : Kitchen + Multipurpose Building

Section C
Building B

Building B : North Elevation

Building B : West Elevation



Building B : East Elevation

COPYRIGHT APPLIES TO THIS DOCUMENT AND DESIGN AND IS THE PROPERTY OF RALPH FERRIS ARCHITECTS PTY LTD - REPRODUCTION OF ANY KIND IS NOT PERMITTED WITHOUT OUR CONSENT.

CONTRACTORS TO VERIFY ALL DIMENSIONS AND SETOUTS ON SITE BEFORE COMMENCING WORK.

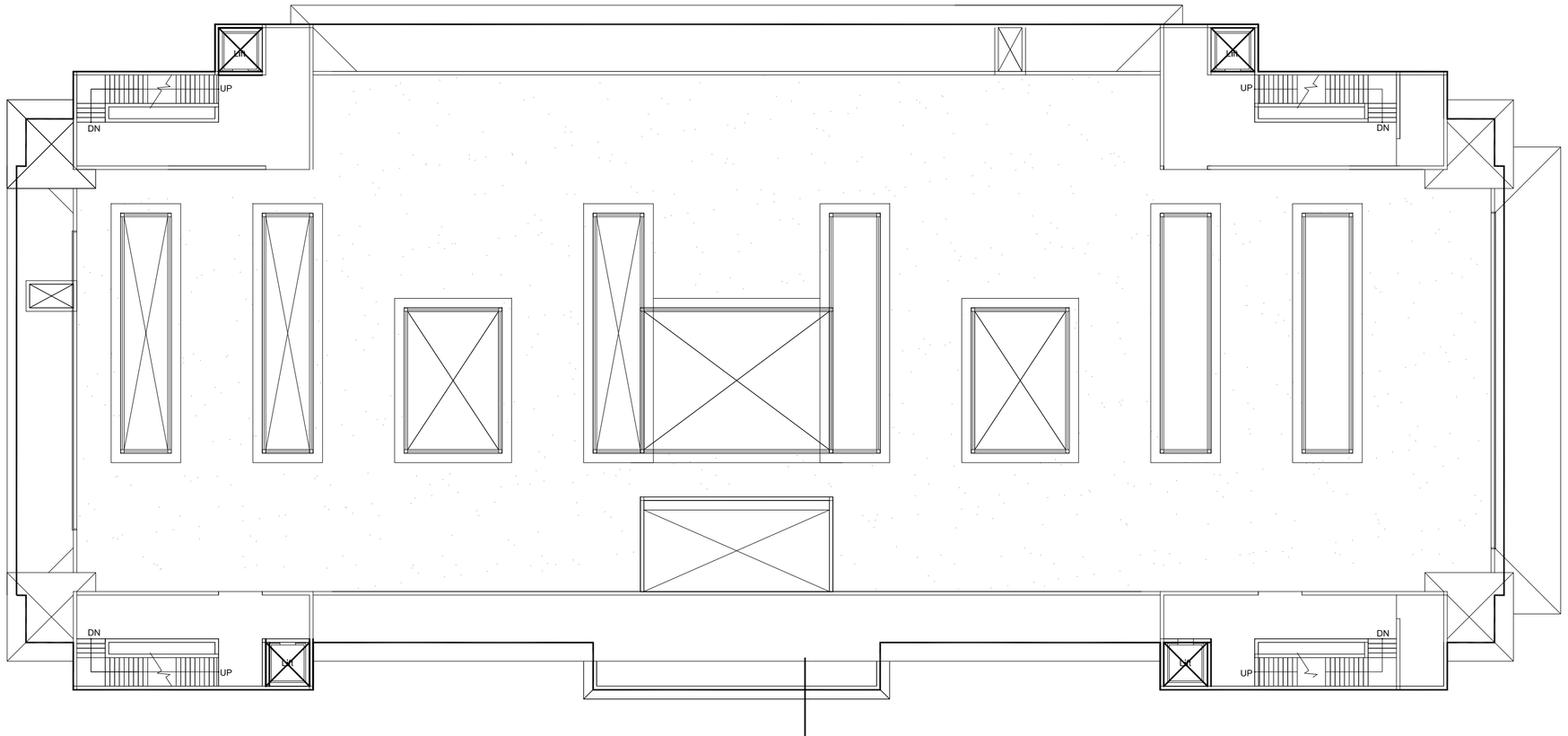
SHOULD ANY DISCREPANCIES BE FOUND, PLEASE NOTIFY THE AUTHOR IMMEDIATELY SO THAT INSTRUCTION MAY BE ISSUED.

FIGURED DIMENSIONS ARE TO BE USED. DO NOT SCALE FROM THIS DRAWING.

TO BE READ IN CONJUNCTION WITH ENGINEERS DOCUMENTS.

THE NOMINATED RESPONSIBLE ARCHITECT FOR RALPH FERRIS ARCHITECTS PTY LTD TRADING AS DDC ARCHITECTS IS GEOFF FERRIS-SMITH REGISTRATION 8334.
ACN: 145 390 389

Building A: West Elevation



Building A : East Elevation

N

Building A : Auditorium (Sanha) Hall HALL & Youth Centre

Roof Access Terrace

Section C
Building B

ddc architects

Unit 3
112 Russell Street
Emu Plains NSW 2750

02 4728 6500

Project Title
BAPS Temple

Client
BAPS Swaminarayan Sanstha, Australia Ltd

Address
Aldington Road, Kemps Creek

Drawing Title
Building A & B
Roof Access Floor Plans

Drawn: Author
Checked: Checker

Scale
1:250@A1

Drawing Number

16079 - SK1006

Issue
Date
2/08/2017

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

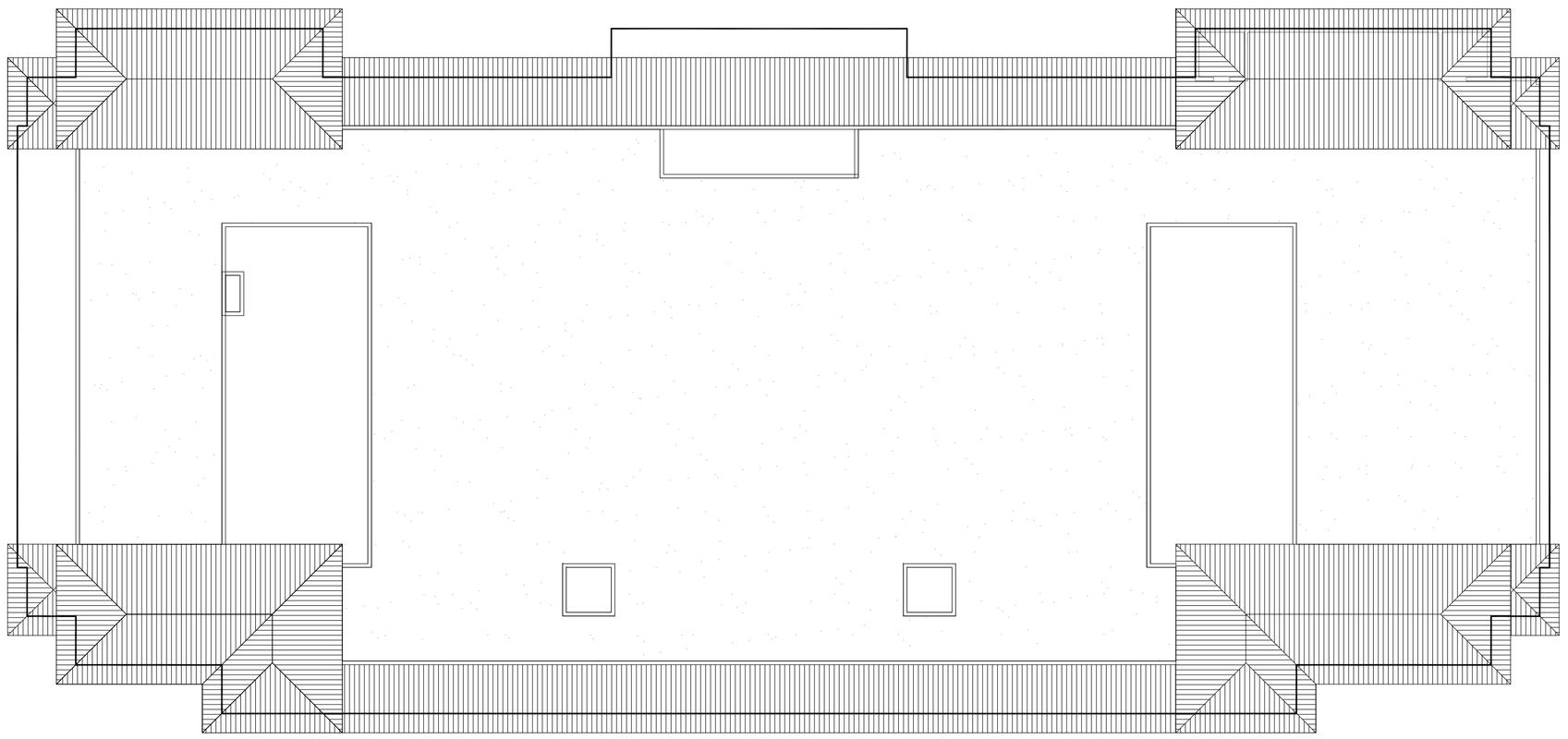
Roof

Building B : Kitchen + Multipurpose Building

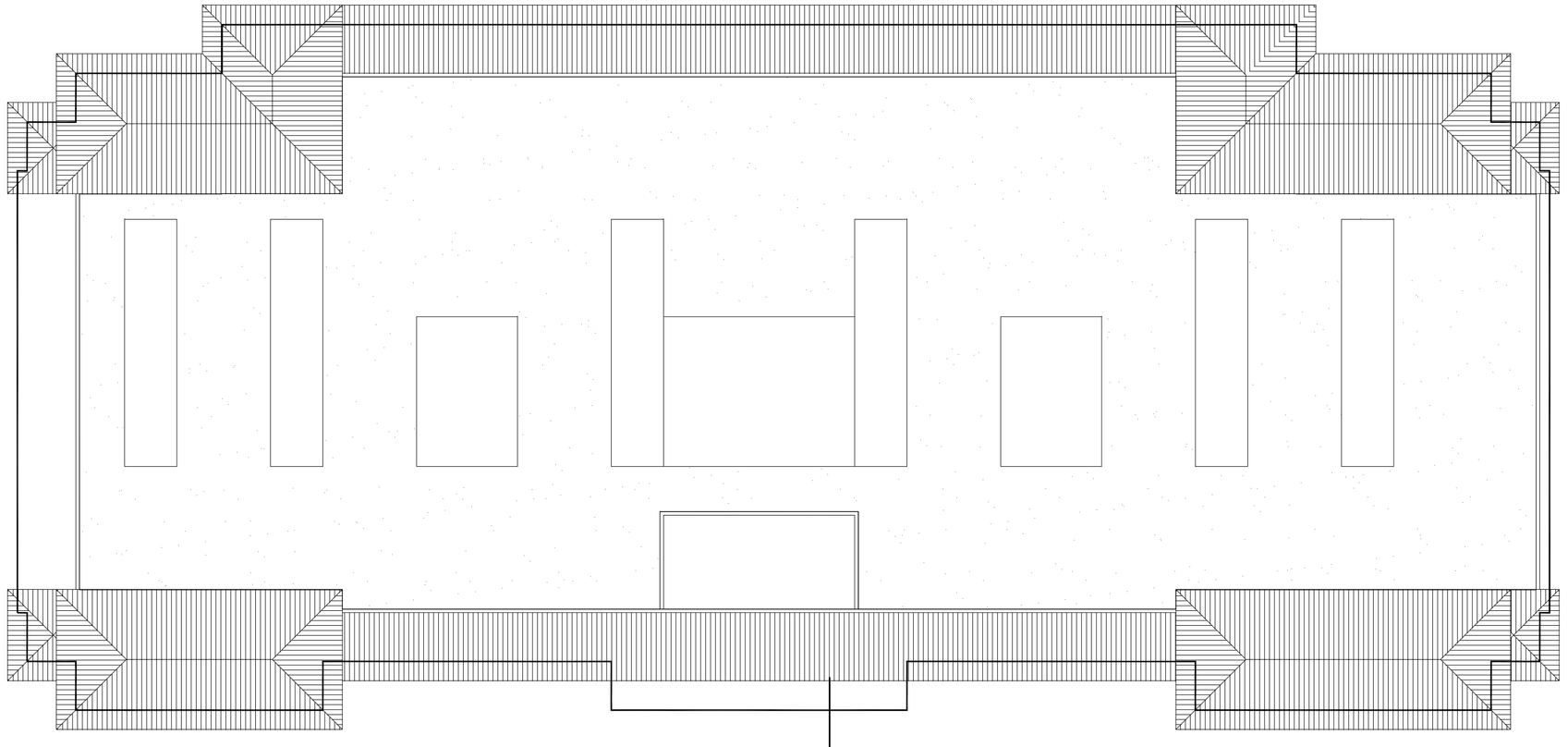
Section C
Building B

Building B : North Elevation

Building B : West Elevation



Building B : East Elevation



Building A: West Elevation

Building A : East Elevation

N

Building A : Auditorium (Sanha) Hall HALL & Youth Centre

Roof

Section C
Building B

COPYRIGHT APPLIES TO THIS DOCUMENT AND DESIGN AND IS THE PROPERTY OF RALPH FERRIS ARCHITECTS PTY LTD - REPRODUCTION OF ANY KIND IS NOT PERMITTED WITHOUT OUR CONSENT.

CONTRACTORS TO VERIFY ALL DIMENSIONS AND SETOUTS ON SITE BEFORE COMMENCING WORK.

SHOULD ANY DISCREPANCIES BE FOUND, PLEASE NOTIFY THE AUTHOR IMMEDIATELY SO THAT INSTRUCTION MAY BE ISSUED.

FIGURED DIMENSIONS ARE TO BE USED. DO NOT SCALE FROM THIS DRAWING.

TO BE READ IN CONJUNCTION WITH ENGINEERS DOCUMENTS.

THE NOMINATED RESPONSIBLE ARCHITECT FOR RALPH FERRIS ARCHITECTS PTY LTD TRADING AS DDC ARCHITECTS IS GEOFF FERRIS-SMITH REGISTRATION 8334.
ACN: 145 390 389

ddc architects

Unit 3
112 Russell Street
Emu Plains NSW 2750

02 4728 6500

Project Title
BAPS Temple

Client
BAPS Swaminarayan Sanstha, Australia Ltd

Address
Aldington Road, Kemps Creek

Drawing Title
Building A & B
Roof Plans

Drawn
Author

Checked
Checker

Scale
1:250@A1

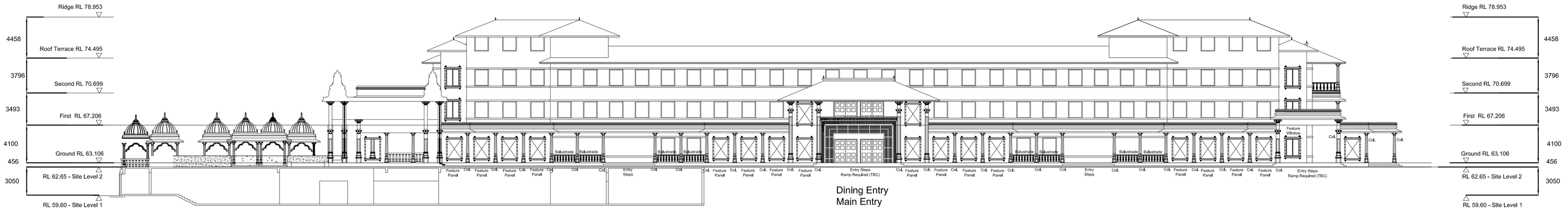
Drawing Number

16079 - SK1007

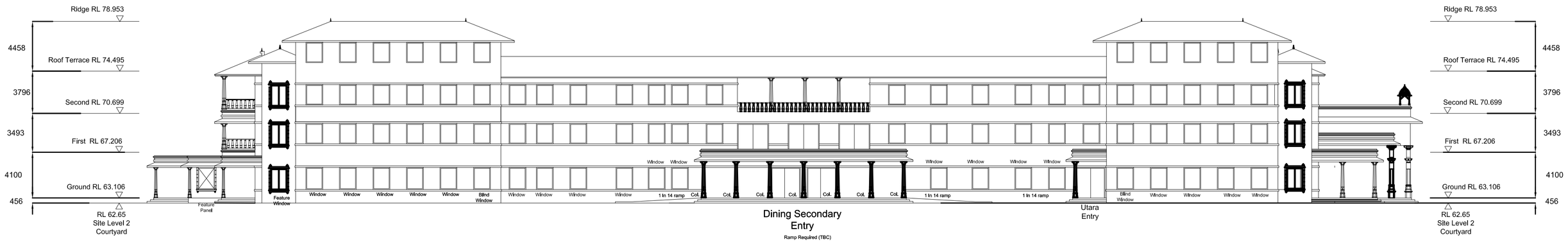
Issue

Date
2/08/2017

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017



Building B (Dining) : South Elevation



Building B (Dining) : North Elevation

COPYRIGHT APPLIES TO THIS DOCUMENT AND DESIGN AND IS THE PROPERTY OF RALPH FERRIS ARCHITECTS PTY LTD - REPRODUCTION OF ANY KIND IS NOT PERMITTED WITHOUT OUR CONSENT.

CONTRACTORS TO VERIFY ALL DIMENSIONS AND SETOUTS ON SITE BEFORE COMMENCING WORK.

SHOULD ANY DISCREPANCIES BE FOUND, PLEASE NOTIFY THE AUTHOR IMMEDIATELY SO THAT INSTRUCTION MAY BE ISSUED.

FIGURED DIMENSIONS ARE TO BE USED. DO NOT SCALE FROM THIS DRAWING.

TO BE READ IN CONJUNCTION WITH ENGINEERS DOCUMENTS.

THE NOMINATED RESPONSIBLE ARCHITECT FOR RALPH FERRIS ARCHITECTS PTY LTD TRADING AS DDC ARCHITECTS IS GEOFF FERRIS-SMITH REGISTRATION 8334.
ACN: 145 390 389

ddc architects

Unit 3
112 Russell Street
Emu Plains NSW 2750

02 4728 6500

Project Title
BAPS Temple

Client
BAPS Swaminarayan Sanstha, Australia Ltd

Address
Aldington Road, Kemps Creek

Drawing Title
Building B Elevations

Drawn
Author

Checked
Checker

Scale
1:250@A1

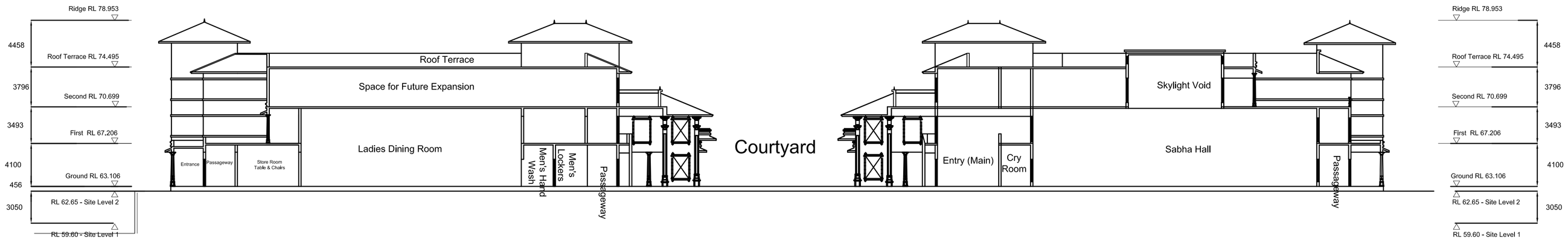
Drawing Number

16079 - SK1001

Issue

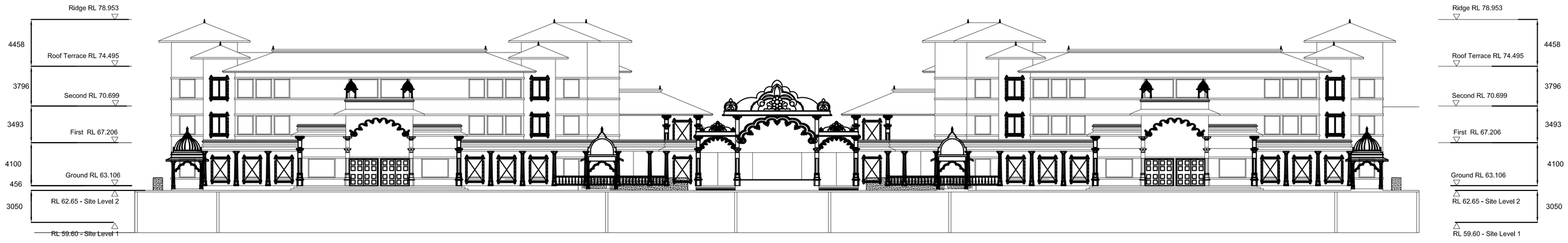
Date
2/08/2017

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017



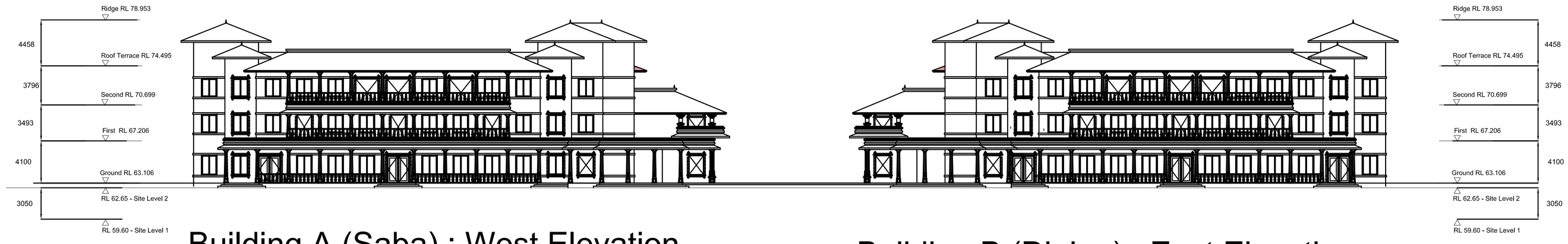
Section C - Building B (Dining)

Section C - Building A (Saba)



Building B (Dining) : West Elevation

Building A (Saba) : West Elevation



Building A (Saba) : West Elevation

Building B (Dining) : East Elevation

COPYRIGHT APPLIES TO THIS DOCUMENT AND DESIGN AND IS THE PROPERTY OF RALPH FERRIS ARCHITECTS PTY LTD - REPRODUCTION OF ANY KIND IS NOT PERMITTED WITHOUT OUR CONSENT.

CONTRACTORS TO VERIFY ALL DIMENSIONS AND SETOUTS ON SITE BEFORE COMMENCING WORK.

SHOULD ANY DISCREPANCIES BE FOUND, PLEASE NOTIFY THE AUTHOR IMMEDIATELY SO THAT INSTRUCTION MAY BE ISSUED.

FIGURED DIMENSIONS ARE TO BE USED. DO NOT SCALE FROM THIS DRAWING.

TO BE READ IN CONJUNCTION WITH ENGINEERS DOCUMENTS.

THE NOMINATED RESPONSIBLE ARCHITECT FOR RALPH FERRIS ARCHITECTS PTY LTD TRADING AS DDC ARCHITECTS IS GEOFF FERRIS-SMITH REGISTRATION 8334.
ACN: 145 390 389

ddc architects

Unit 3
112 Russell Street
Emu Plains NSW 2750

02 4728 6500

Project Title
BAPS Temple

Client
BAPS Swaminarayan Sanstha, Australia Ltd

Address
Aldington Road, Kemps Creek

Drawing Title
Building A & B Elevations & Sections

Drawn
Author

Checked
Checker

Scale
1:250@A1

Drawing Number
16079 - SK1002

Issue

Date
2/08/2017

Document Set ID: 7966098
Version: 1, Version Date: 06/12/2017

COPYRIGHT APPLIES TO THIS DOCUMENT AND DESIGN AND IS THE PROPERTY OF RALPH FERRIS ARCHITECTS PTY LTD - REPRODUCTION OF ANY KIND IS NOT PERMITTED WITHOUT OUR CONSENT.

CONTRACTORS TO VERIFY ALL DIMENSIONS AND SETOUTS ON SITE BEFORE COMMENCING WORK.

SHOULD ANY DISCREPANCIES BE FOUND, PLEASE NOTIFY THE AUTHOR IMMEDIATELY SO THAT INSTRUCTION MAY BE ISSUED.

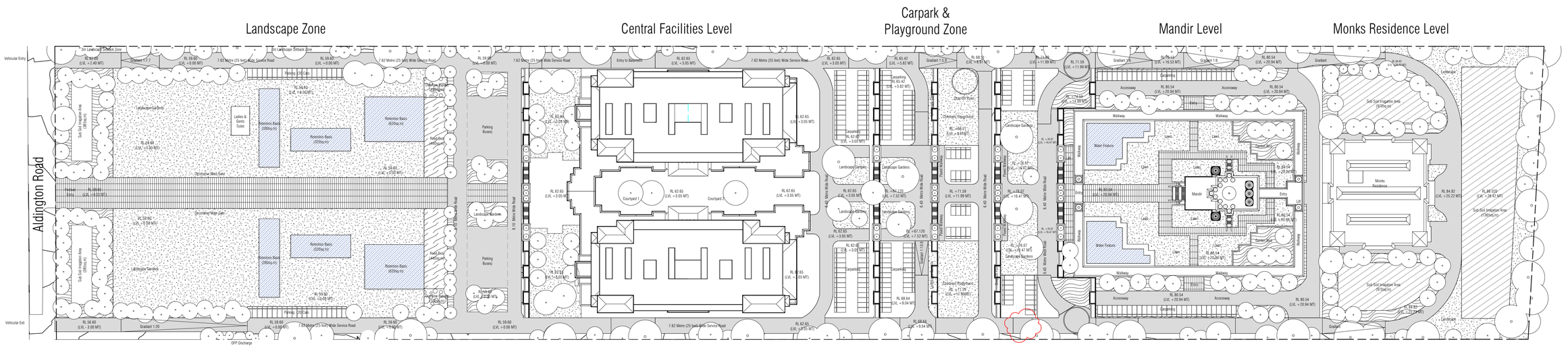
FIGURED DIMENSIONS ARE TO BE USED. DO NOT SCALE FROM THIS DRAWING.

TO BE READ IN CONJUNCTION WITH ENGINEERS DOCUMENTS.

THE NOMINATED RESPONSIBLE ARCHITECT FOR RALPH FERRIS ARCHITECTS PTY LTD TRADING AS DDC ARCHITECTS IS GEOFF FERRIS-SMITH REGISTRATION 8334.
ACN: 145 390 389

Revision Schedule

issue#	date	description
A	02 Aug 2017	For Client Review



ddc architects

Unit 3
112 Russell Street
Emu Plains NSW 2750

02 4728 6500

Project Title
BAPS Temple

Client
BAPS Swaminarayan Sanstha, Australia Ltd

Address
Aldington Road, Kemps Creek

Drawing Title
Proposed Site Plan

Drawn
Author

Checked
Checker

Scale
1 : 1000 @ A1

Drawing Number

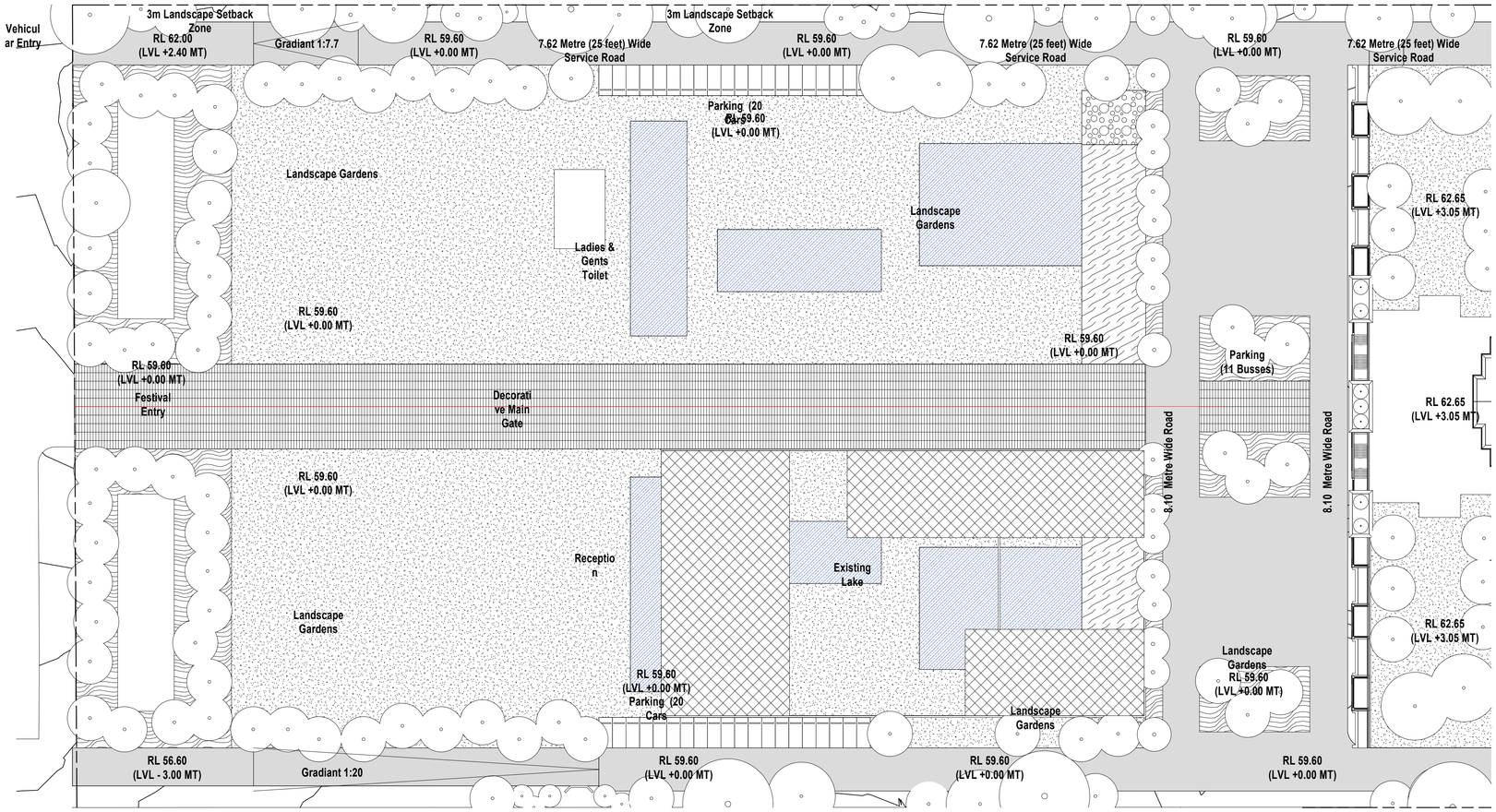
16079 - DA-03

Issue
A

Date
6/09/2017
7:05:49 PM

DEVELOPMENT APPLICATION

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017



1 Proposed Site Plan - Landscaped Garden

1 : 500

COPYRIGHT APPLIES TO THIS DOCUMENT AND DESIGN AND IS THE PROPERTY OF RALPH FERRIS ARCHITECTS PTY LTD - REPRODUCTION OF ANY KIND IS NOT PERMITTED WITHOUT OUR CONSENT.

CONTRACTORS TO VERIFY ALL DIMENSIONS AND SETOUTS ON SITE BEFORE COMMENCING WORK.

SHOULD ANY DISCREPANCIES BE FOUND, PLEASE NOTIFY THE AUTHOR IMMEDIATELY SO THAT INSTRUCTION MAY BE ISSUED.

FIGURED DIMENSIONS ARE TO BE USED. DO NOT SCALE FROM THIS DRAWING.

TO BE READ IN CONJUNCTION WITH ENGINEERS DOCUMENTS.

THE NOMINATED RESPONSIBLE ARCHITECT FOR RALPH FERRIS ARCHITECTS PTY LTD TRADING AS DDC ARCHITECTS IS GEOFF FERRIS-SMITH REGISTRATION 8334.
ACN: 145 390 389

Revision Schedule

issue#	date	description

ddc architects

Unit 3
112 Russell Street
Emu Plains NSW 2750

02 4728 6500

Project Title
BAPS Temple

Client
BAPS Swaminarayan Sanstha, Australia Ltd

Address
Aldington Road, Kemps Creek

Drawing Title
Site and External Works Plan - Landscape Precinct

Drawn
Author

Checked
Checker

Scale
1 : 500 @ A1

Drawing Number

16079 - DA-05

Issue

Date
6/09/2017
7:00:06 PM

DEVELOPMENT APPLICATION

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

COPYRIGHT APPLIES TO THIS DOCUMENT AND DESIGN AND IS THE PROPERTY OF RALPH FERRIS ARCHITECTS PTY LTD - REPRODUCTION OF ANY KIND IS NOT PERMITTED WITHOUT OUR CONSENT.

CONTRACTORS TO VERIFY ALL DIMENSIONS AND SETOUTS ON SITE BEFORE COMMENCING WORK.

SHOULD ANY DISCREPANCIES BE FOUND, PLEASE NOTIFY THE AUTHOR IMMEDIATELY SO THAT INSTRUCTION MAY BE ISSUED.

FIGURED DIMENSIONS ARE TO BE USED. DO NOT SCALE FROM THIS DRAWING.

TO BE READ IN CONJUNCTION WITH ENGINEERS DOCUMENTS.

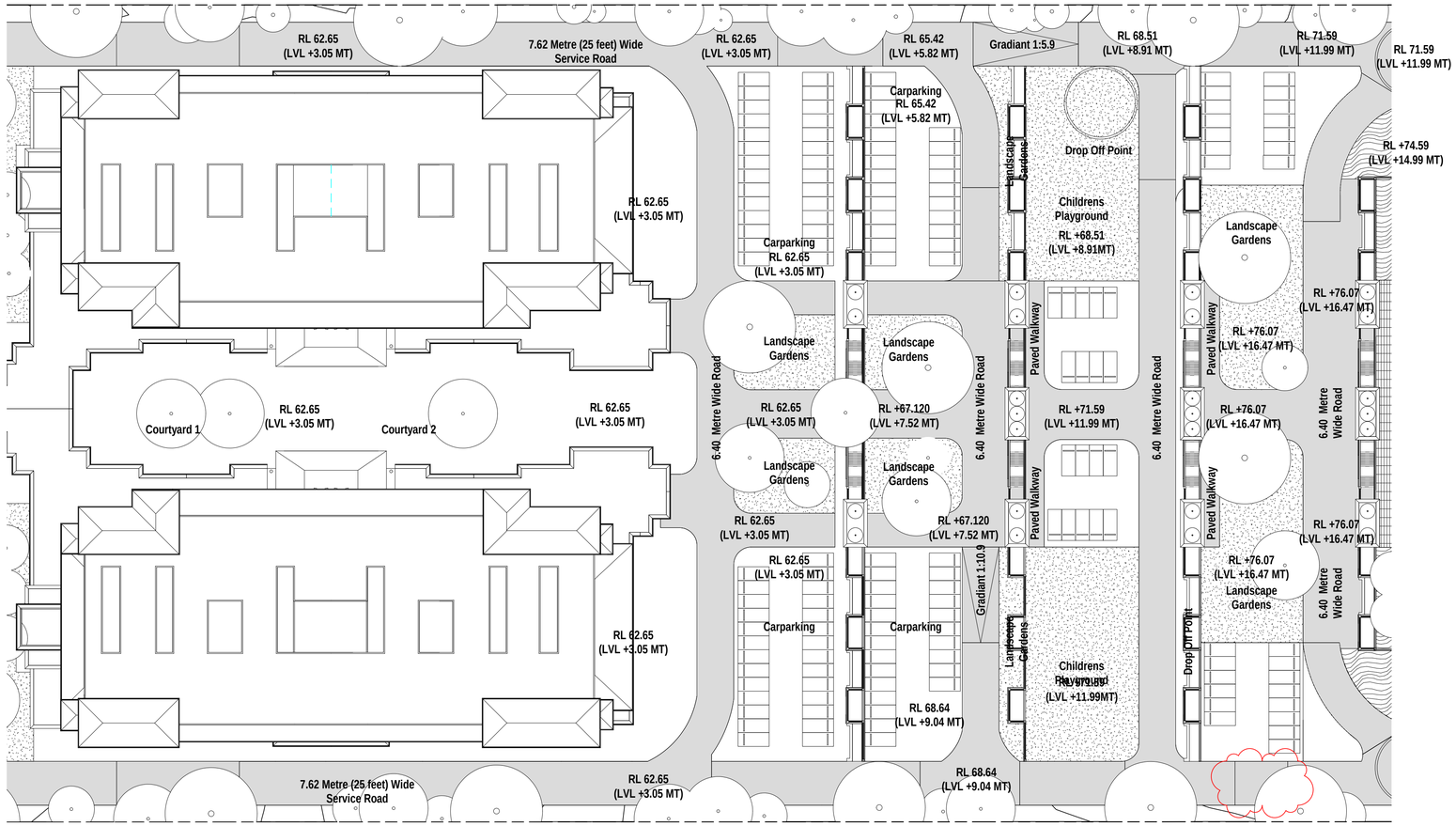
THE NOMINATED RESPONSIBLE ARCHITECT FOR RALPH FERRIS ARCHITECTS PTY LTD TRADING AS DDC ARCHITECTS IS GEOFF FERRIS-SMITH REGISTRATION 8334.
ACN: 145 390 389

Revision Schedule

issue#	date	description
A	02 Aug 2017	For Client Review

Central Facilities Level

Carpark &
Playground Zone



1 Proposed Site Plan - Central Facilities & Parking
1 : 500

ddc architects

Unit 3
112 Russell Street
Emu Plains NSW 2750
02 4728 6500

Project Title
BAPS Temple

Client
BAPS Swaminarayan Sanstha, Australia Ltd

Address
Aldington Road, Kemps Creek

Drawing Title
Site and External Works Plan - Central Precinct

Drawn: Author
Checked: Checker

Scale
1 : 500 @ A1

Drawing Number
16079 - DA-06

Issue: A
Date: 6/09/2017 7:31:03 PM

DEVELOPMENT APPLICATION

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

COPYRIGHT APPLIES TO THIS DOCUMENT AND DESIGN AND IS THE PROPERTY OF RALPH FERRIS ARCHITECTS PTY LTD - REPRODUCTION OF ANY KIND IS NOT PERMITTED WITHOUT OUR CONSENT.

CONTRACTORS TO VERIFY ALL DIMENSIONS AND SETOUTS ON SITE BEFORE COMMENCING WORK.

SHOULD ANY DISCREPANCIES BE FOUND, PLEASE NOTIFY THE AUTHOR IMMEDIATELY SO THAT INSTRUCTION MAY BE ISSUED.

FIGURED DIMENSIONS ARE TO BE USED. DO NOT SCALE FROM THIS DRAWING.

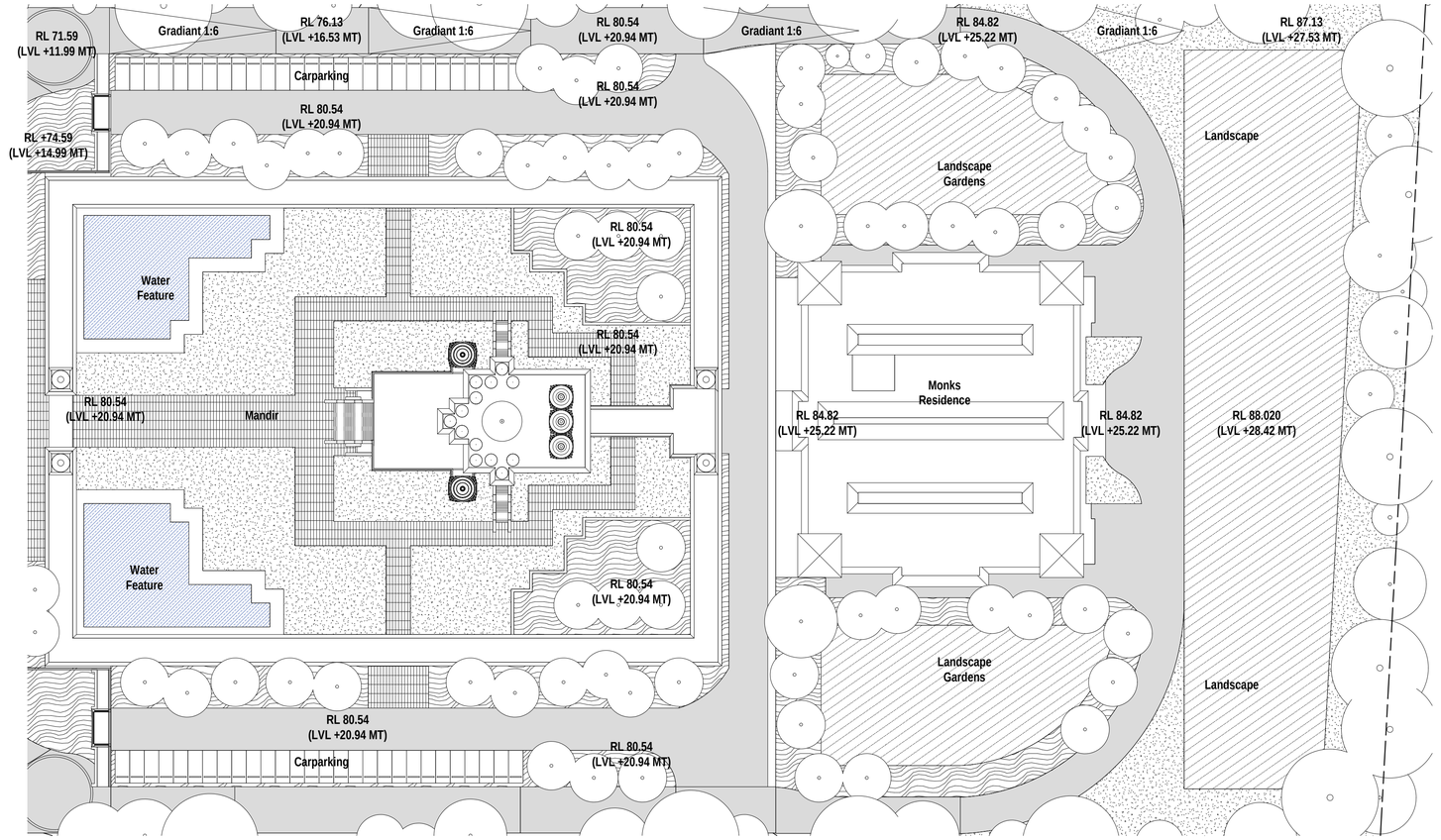
TO BE READ IN CONJUNCTION WITH ENGINEERS DOCUMENTS.

THE NOMINATED RESPONSIBLE ARCHITECT FOR RALPH FERRIS ARCHITECTS PTY LTD TRADING AS DDC ARCHITECTS IS GEOFF FERRIS-SMITH REGISTRATION 8334.
ACN: 145 390 389

Revision Schedule		
issue#	date	description

Mandir Level

Monks Residence Level



1 Proposed Site Plan - Mandir & Monks Residence

1 : 500

ddc architects

Unit 3
112 Russell Street
Emu Plains NSW 2750

02 4728 6500

Project Title
BAPS Temple

Client
BAPS Swaminarayan Sanstha, Australia Ltd

Address
Aldington Road, Kemps Creek

Drawing Title
Site and External Works Plan - Mandir & Monks Precinct

Drawn: Author
Checked: Checker

Scale
1 : 500 @ A1

Drawing Number

16079 - DA-07

Issue: DEVELOPMENT APPLICATION
Date: 6/09/2017 7:31:51 PM

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BASE LINE

ROAD

ENTRY

SECTIONAL ELEVATION CC'
PROPOSED ROAD & RAMPS (8 LEVELS)

EXISTING CONTOUR LINE
PROPOSED NEW LEVELS
PROPOSED ROAD & SLOPES

PROPOSED BASEMENT

2362' [719.93MTR.]

3000 MM SETBACK/ LANDSCAPE BUFFER

26'-6" (8.12 MTR.) WIDE SERVICE ROAD

SECURITY CABIN

LANDSCAPING A2
254'-3" X 151'-9"

LADIES & GENTS TOILET

LANDSCAPING B

DECORATIVE MAIN GATE

LEVEL 1

LEVEL 1

EXISTING LAKE

LANDSCAPING A1
254'-3" X 151'-9"

SECURITY

26'-6" (8.08 MTR.) WIDE SERVICE ROAD

EXIT

FESTIVAL ENTRY

ALDINGTON ROAD

C

A

B

25'-8¼"

465'-10½"

434'-10½"

26'-0" (8.08 MTR) WIDE ROAD

PARKING-1C (11 BUSES)

BLOCK E + D : KITCHEN + MULTIPURPOSE BLOCK

21'-0" (6.40 MTR.) WIDE SERVICE ROAD

21'-0" (6.40 MTR) WIDE ROAD

PLAYGROUND-4A
65'-4" X 95'-0"

10'-0" (3 MTR) WIDE PAVED WALKWAY

PLAYGROUND-4B
84'-0" X 229'-0"

LANDSCAPING-5A

LANDSCAPING-5B

14'-0" (4.30 MTR) PADESTRIAN WALKWAY

PROPOSED WATER BODY

MANDIR ENTRY

MANDIR LEVEL
365'-0" X 260'-0"

BRIDGE

10'-0" (3.05 MTR) PADESTRIAN WALKWAY

PARKING-6A
(48 CARS)

PARKING-6B
(48 CARS)

ROUND ABOUT

LANDSCAPING - 6
115'-0" X 407'-0"

25'-0" WIDE ROAD

465'-2½"

465'-10½" [142.00MTR.]

C'

A'

B'

750'-1" [228.64MTR.] | 75'-0" [22.86 MTR] | 100' [30.48MTR.] | 100' [30.48MTR.] | 100' [30.48MTR.] | 31' | 20' | 150'-9" | 50' | 133'-3" [40.61MTR.]

LEVEL 1 | LEVEL 2 | LEVEL 3 | LEVEL 4 | LEVEL 5 | LEVEL 6 | LEVEL 7 | LEVEL 8

750' [228.60MTR.] | 547'-11" [167.00MTR.] | 410' [124.97MTR.] | 220'-9" [67.28MTR.] | 133'-2¾" [40.61MTR.]

2335'-2" [711.76MTR.]

PLAN

SECTIONAL ELEVATION AA'
PROPOSED ACTIVITIES (8 LEVELS)

ROAD

BASE LINE

GATE-2

FESTIVAL ENTRY

LANDSCAPING | LANDSCAPING WITH EXISTING LAKE | PROPOSED ACTIVITIES BLOCK | PARKING | PLAYGROUND | PARKING | MANDIR | SANTNIVAS | LANSCAPING

750' [228.60MTR.] | 547'-11" [167.00MTR.] | 100' [30.48MTR.] | 100' [30.48MTR.] | 100' [30.48MTR.] | 410' [124.97MTR.] | 220'-9" [67.28MTR.] | 133'-3" [40.61MTR.]

LEVEL 1 | LEVEL 2 | LEVEL 3 | LEVEL 4 | LEVEL 5 | LEVEL 6 | LEVEL 7 | LEVEL 8

SECTIONAL ELEVATION AA'
PROPOSED LEVELS (8 LEVELS)

EXISTING CONTOUR LINE
PROPOSED NEW LEVELS
PROPOSED ROAD & SLOPES

ROAD

BASE LINE

ENTRY
FESTIVAL ENTRY

GATE-2

SECTIONAL ELEVATION BB'
PROPOSED ROAD & RAMPS (8 LEVELS)

EXISTING CONTOUR LINE
PROPOSED NEW LEVELS
PROPOSED ROAD & SLOPES

ROAD

BASE LINE

ENTRY
FESTIVAL ENTRY
EXIT

SECTIONAL ELEVATION AA'
PROPOSED SITE LEVELS (8 LEVELS)

EXISTING CONTOUR LINE
PROPOSED NEW LEVELS
PROPOSED ROAD & SLOPES

ROAD

BASE LINE

FESTIVAL ENTRY

LEVEL 1

+10'-0" +3.05 MT.

LEVEL 2

+14'-8" +4.47 MT.

LEVEL 3

+14'-8" +4.47 MT.

LEVEL 4

+14'-8" +4.47 MT.

LEVEL 5

+14'-8" +4.47 MT.

LEVEL 6

+14'-0" +4.27 MT.

LEVEL 7

+10'-8" +3.26 MT.

LEVEL 8

SECTIONAL ELEVATION AA'/ BB'/ CC'
EXISTING CONTOUR LINE

EXISTING CONTOUR LINE
PROPOSED NEW LEVELS
PROPOSED ROAD & SLOPES

ROAD

BASE LINE

SECTION BB' | SECTION AA' | SECTION CC'

+7" | -6" | -3'-9" | -7'-3" | -8'-2" | -6'-4" | -5'-1" | -4'-2" | -2'-0" | +1" | +1'-6" | +3'-9" | +14'-0" | +24'-6" | +31'-11" | +42'-10" | +57'-9" | +68'-6" | +75'-8" | +83'-8" | +90'-6" | +96'-7" | +101'-0" | +101'-8"

BAPS SWAMINARAYAN MANDIR, SYDNEY, AUSTRALIA.

FACT SHEET:

1) TOTAL CAR PARKING IS OF 260 CARS & 11 BUSES.
2) ALL RAMPS' SLOPE RATIO IS 1:6.

LEGEND:

- LAND FILLING
- EXISTING GROUND & CONTOUR
- LAND CUTTING
- PROPOSED BUILDING BLOCKS
- PROPOSED RAMPS ON ROAD
- PAVED AREA
- PROPOSED ROADS
- PLAY GROUND

SITE LAYOUT R10

N

Date: 31-05-2017 | Dwg No.:

Scale: N.T.S. | Dealt By: HARIKRUSHNA

SHAYONA CONSULTANT
ARCHITECT : PRASHANT PARMAR
ARCHITECTURE & INTERIOR DESIGNING
213, Shivam Complex, Opp. Helarth Party Plot, Science City Road, Sola, Ahmedabad.
Phone : (O) +91-98253 98510.
Email : shayonaconsultant50@yahoo.com

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

APPENDIX B

GROUNDWATER BORE SEARCH

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

All Groundwater
find a site

Find a site
Enter the site ID

search

All Groundwater Map

bandwidth high low

glossary and metadata

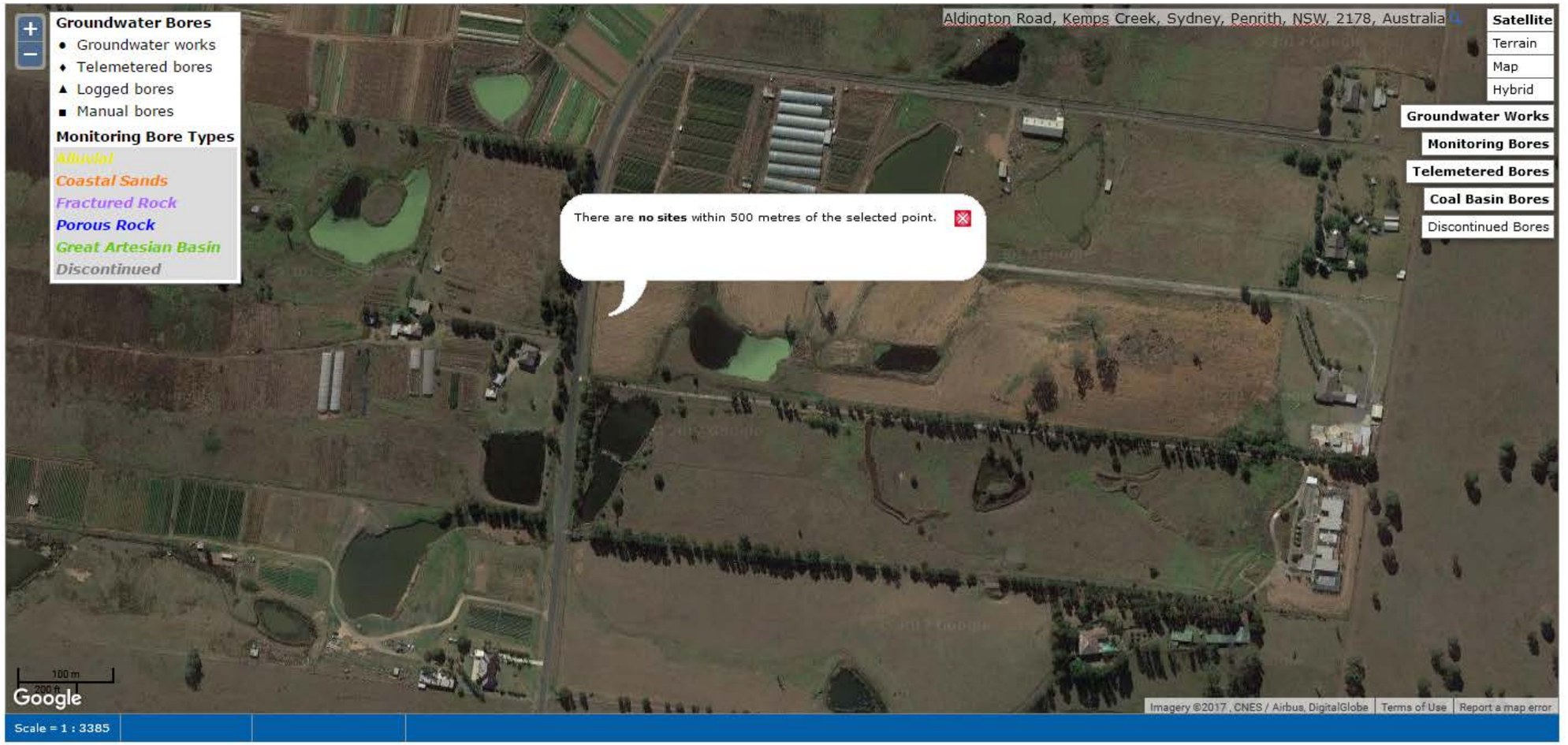
All Groundwater

All Groundwater Map

bookmark this page

All data times are Eastern Standard Time

Map | Info



Scale = 1 : 3385

APPENDIX C
SITE PHOTOGRAPHS

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Photograph 1: View of site looking east.

Photograph 2: Section of overgrown vegetation in the central-eastern portion of the site.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Photograph 3: Looking west at the eastern dam located on site.

Photograph 4: Looking south at the western dam located on site.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Photograph 5: View of the residential house in the eastern portion of the site.

Photograph 6: View of the office / flat on the eastern boundary of the site.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Photograph 7: View of the work shed in the eastern portion of the site. Above ground storage tanks can be seen directly inside the shed.

Photograph 8: Internal view of the work shed in the eastern portion of the site.

Photograph 9: Emtpy plastic bottles of chemicals located in the work shed in the eastern portion of the site.

Photograph 10: Close up view of the chemical previously contained in the plastic bottles in the eastern work shed. *Gramoxone – 250* was identified as a non-selective herbicide.

Photograph 11: View of an underground pit located near the work shed and residential house, in the eastern portion of the site. The pit appears likely to be associated with stormwater or as a silt trap.

Photograph 12: Looking west at septic tanks located in front of the residential dwelling in the eastern portion of the site.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Photograph 13: Looking west along the driveway, which stretches along the northern boundary of the site.

Photograph 14: Looking south-east at the asphalt driveway leading to the residential dwelling in the eastern portion of the site.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Photograph 15: Shed located in the central-western portion of the site. Tyre waste is visible in the photograph.

Photograph 16: An old empty, rusted '*Valvoline'* can. Most likely previously filled with gasoline or mechanical oil.

Photograph 17: An empty chemical drum located in the shed. *Metham Soil Fumigant* was identified as a herbicide / pesticide used for control of soil-borne pests.

Photograph 18: A pump shed located on the banks of the western dam.

Photograph 19: Looking inside the pump shed, an old motor with hosing connected is visible. .

Photograph 20: Old pump motors are placed on the banks of the western dam, next to the current pump shed.

APPENDIX D
LAND TITLE SEARCHES

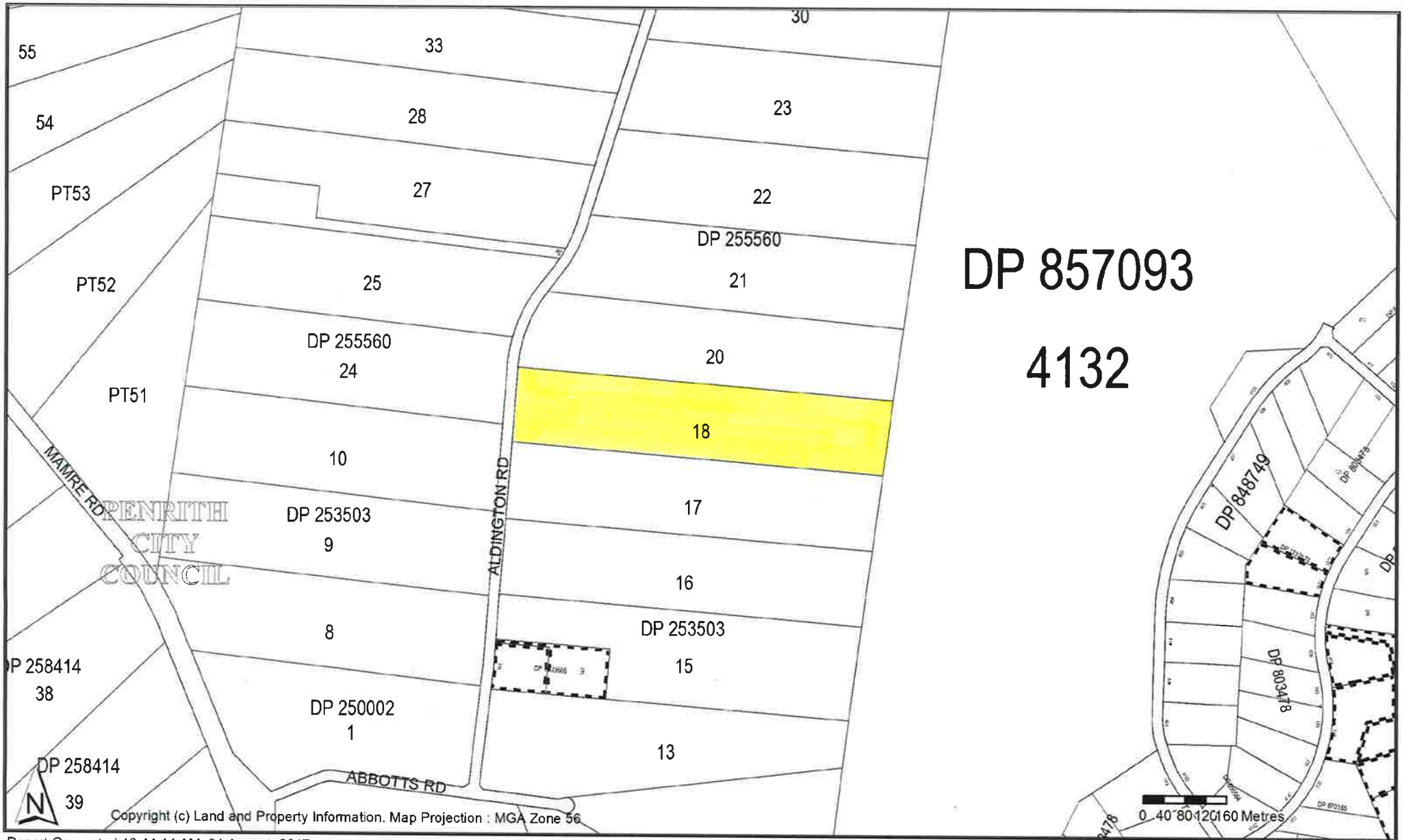
Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

NSW Land & Property Information

Cadastral Records Enquiry Report

Requested Parcel : Lot 18 DP 253503 **Identified Parcel** : Lot 18 DP 253503

Locality : KEMPS CREEK **LGA** : PENRITH **Parish** : MELVILLE **County** : CUMBERLAND



Report Generated 10:44:14 AM, 31 August, 2017

Copyright © Land and Property Information ABN: 23 519 493 925

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Req:R284507 /Doc:DP 0253503 2 /Rev:16-Jun-1992 /Sts:OK.OK /Pgs:ALL /Prt:31-Aug-2017 10:40 /Seq:1 of 3
Ref:kemps /Src:M

PLAN FORM 2

Plan Drawing only to appear in this space

* OFFICE USE ONLY

D. P 253503

Registered: 24.2.1977

C.A.: N° 83/76 N° 9840 or 289.76

Title System: TORRENS

Purpose: SUBDIVISION

Ref. Map: PARISH

Last Plan: D P 250002*

PLAN OF SUBDIVISION OF LOT 7 IN DP. 250002

Reduction Ratio 1: 5000
Lengths are in metres

Y C I 2 A 3 A

Metropolitan City: PENRITH
Locality: ST. MARYS
Parish: MELVILLE
County: CUMBERLAND

This is sheet 1 of my plan in 3 sheets (Delete if inapplicable)

I, BRIAN LINTON LYNE of P.O. BOX 178 ST. LUKES 2075 a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan

is accurate and has been made *(1) by me (2) under my supervision—commenced on 22.3.76 and was completed on 1 .....

Signature: [signature] Date: 22.3.76

Surveyor registered under Surveyors Act, 1929, as amended. Datum Line of Abbotts Rd. *Delete (1) or (2) *(mark date of survey)

Parcel for use only for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements or restrictions as to user.

It is intended to dedicate Abbotts Road and Aldington Road to the Public for road purposes.

Pursuant to Sec 88B of the Conveyancing Act 1919-64 it is intended to create:

1. Easement to drain water 3 wide. #

* INSTRUMENT FILED AS Q 49283

Statements to Surveyors Notes

	Direct Azim	Distance	Remarks
I	338°28'40"	10.909	
J	"	338°28'40"	0.909
K	"	71°55'00"	0.909
L	"	341°55'00"	0.909
M	"	251°55'00"	0.909
N	"	56°55'00"	0.909
T1	Chord on Const. Easement	63°30'40"	4.73
E	Chord Bdy.	24°01'40"	1.96

Structures and mark only.

Council Clerk's Certificate 83/76

I hereby certify that —

(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and

*(b) the requirements of section 24B of the Metropolitan Water, Sewerage and Drainage Act, 1924, as amended, Hunter District Water, Sewerage and Drainage Act, 1938, as amended

have been complied with for the applicant in relation to the

proposed SUBDIVISION
(Insert "new road", "subdivision" or "consolidation" as set out herein)

Subdivision No. 3940

Date 28.9.76

(Signature) [signature] Council Clerk

*This part of certificate to be deleted where the application is only for a consolidation lot or the opening of a new road or where the land is to be subdivided in whole or part by the power of resumption of the Metropolitan Water Sewerage and Drainage Board and the Hunter District Water Board.

†Delete if inapplicable.

M.P.D.

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

SURVEYOR'S REFERENCE: FIGURES ET 3

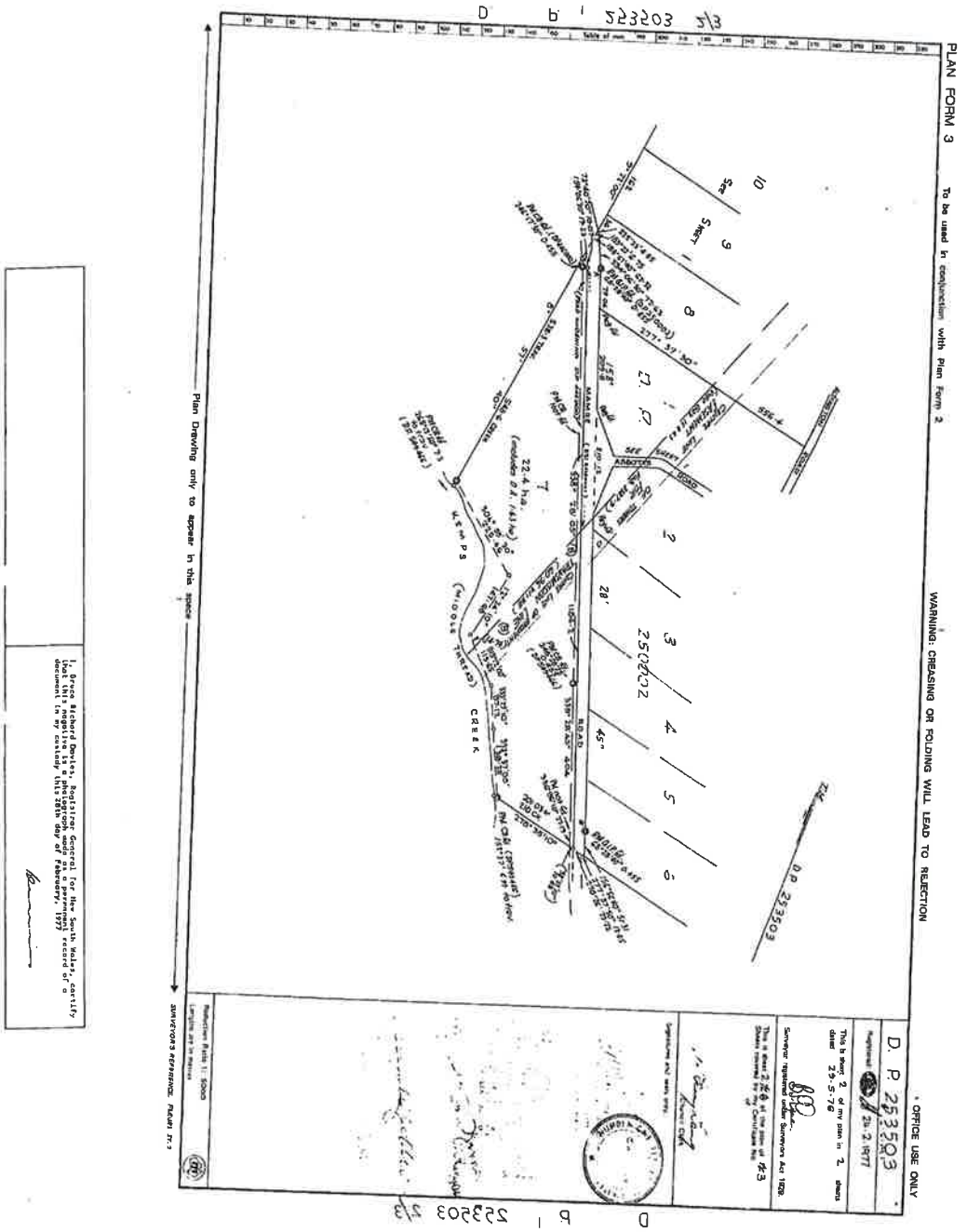
I, Bruce Richard Davies, Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this 28th day of February, 1977

[signature]

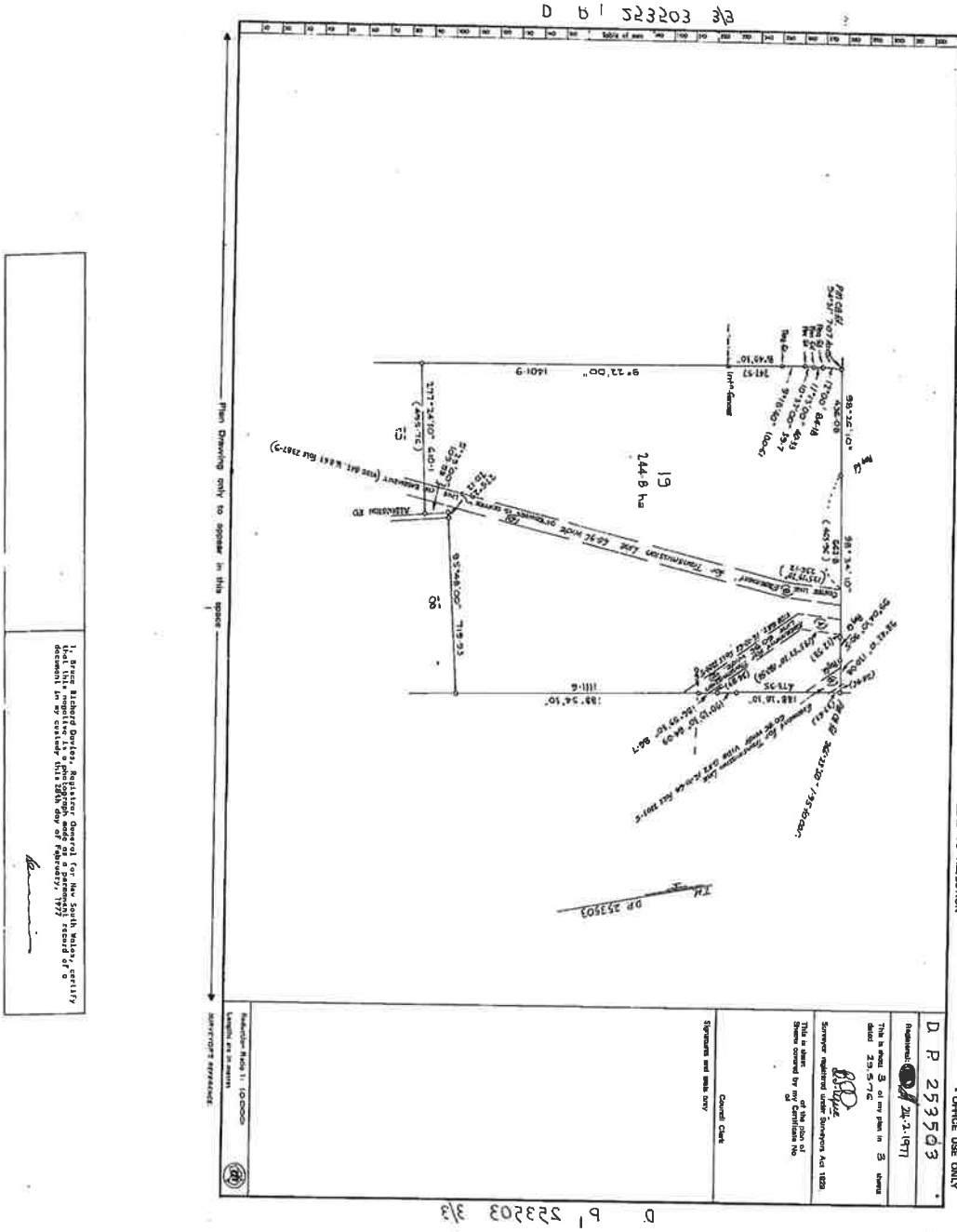
D b 1 253203 1/3

D. P. 1 253203 3/3

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017


PLAN FORM 3
To be used in conjunction with Plan Form 2
WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION
OFFICE USE ONLY
D.P. 253503
Registered 21.2.1977
This is sheet 2 of my plan in 2 sheets dated 29-5-76
Surveyor registered under Surveyors Act 1929.
This is sheet 2 of the plan of 43 Deposited Plans in my Certificate No.
Signature and seal of Surveyor
Plan Drawing only to appear in this space
Reduction Ratio 1: 5000
Lengths are in metres
SURVEYOR'S REFERENCE PLAN 2 of 3
D.P. 253503
I, Bruce Richard Davies, Registrar General for New South Wales, certify that this is a true copy of the original record of a document in my custody, this 28th day of February, 1977
Registrar General
D.P. 253503 2/3
D.P. 253503 2/3

Req:R284507 /Doc:DP 0253503 P /Rev:16-Jun-1992 /Sts:OK.OK /Pgs:ALL /Prt:31-Aug-2017 10:40 /Seq:3 of 3
Ref:kemps /Src:M



Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Reg:R290385 /Doc:DP 0549466 P /Rev:08-Sep-1992 /Sts:OK.OK /Pgs:ALL /Prt:01-Sep-2017 08:42 /Seq:1 of 1
Ref:kemps /Src:M

Plan Form 2—This form must NOT be used where it is intended to dedicate public roads or public reserves or create drainage reserves, easements, or restrictions as to user—See Form 3.

WARNING. CREASING OR FOLDING WILL LEAD TO REJECTION.

WARNING: Plan Drawing only to appear in this space.

DIAGRAM (Not to Scale)

PROPOSED ALIGNMENT (GAZ. 7.11.1958)

MAMRE (66' WIDE) ROAD

PROPOSED ALIGNMENT (GAZ. 7.11.1958)

D.P.30285

D.P.549466

D.P. 523420 (M.A. 7336)

F.P. 102358

D.P. 31924

D.P.32340

D.P.32340

Creek

Kemps

Easement for Transmission Line 200' Wide (M^E899859) (A)

1086ac 3rds. 37½perc. (Incl. 0.A. 4ac 0rds. 5½perc.)

79 Pls.

82 Pls.

Reference to Bearings

Reference to Boundaries

WARNING: Plan Drawing only to appear in this space.

SURVEYOR'S REFERENCE: 49/1972

D.P. 549466
Subsectional Plan

Registered: 26.5.1972

C.A.:

Title System: Old System

Purpose: P.A. 48377

Ref. Map: Parish

Last Plan:

PLAN OF Pts Por 61

Scale: 800 feet to an inch

Municipality

City: Penrith

Locality: St Marys

Parish: Melville

County: Cumberland

This is sheet 1 of my plan in sheets

I, Dennis Lasker

of Land Surveyors of Parramatta NSW

a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan is accurate and has been made in accordance with the Survey Practice Regulation, 1933, and was completed on 5.5.1972

Signature:

Surveyor registered under the Surveyors Act, 1929, as amended.

Date: 15th of August, 19 72

*Delete one of the words (1) or (2). Insert date of survey.

Council Clerk's Certificate.

I hereby certify that—

(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and

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

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

[Insert "new road" or "subdivision"] set out hereto.

Subdivision No.

Date.

(Signature)

Council Clerk.

*This part of certificate to be deleted where the application is only for the opening of a new road or where the land to be subdivided is wholly outside the area of operations of the Metropolitan Water, Sewerage, and Drainage Board and the Hunter District Water Board. [Delete if inapplicable.

SURVEYOR'S REFERENCE: 49/1972

CONVERSION TABLE ADDED IN REGISTRAR GENERAL'S DEPARTMENT

DP 549466

FEET	INCHES	METRES
1	6	0.455
6	4 3/4	1.98
12	7	3.835
15	10 3/4	4.845
22	1 5/8	6.748
22	11	6.985
23	0 7/8	7.038
23	2 1/4	7.065
23	11 1/2	7.3
33	0 5/8	10.075
35	8 1/2	10.885
42	3 1/2	12.565
42	8 1/2	13.015
48	4 1/4	14.74
56	10	17.325
63	1 1/8	19.23
66	-	20.115
75	6 1/2	23.025
89	2 1/8	27.185
89	2 3/4	27.195
95	0 1/4	28.96
114	5 1/2	34.889
123	5 1/2	37.63
130	8 1/8	39.705
132	3 5/8	40.325
166	8	50.6
200	-	60.96
204	8 1/2	62.32
238	3 1/2	72.63
275	10 1/8	83.09
276	2	84.18
284	3 1/2	86.7
285	9 7/8	87.12
296	11	90.9
330	1 1/4	100.62
370	8 3/8	113.66
426	9 1/8	130.08
453	7 1/8	138.26
484	6 1/8	147.68
592	4	180.54
605	2 1/2	184.47
659	6	201.02
669	-	219.21
739	8 3/8	225.96
774	8	236.12
812	3	247.37
889	-	270.97
1258	2 3/4	383.51
1325	7 5/8	404.05
1330	3 5/8	405.48
1431	-	436.17
1522	2	463.96
1554	11 1/2	473.99
1709	4 3/4	521
1765	10 1/8	538.2
1899	-	578.6
1882	5 1/2	573.6
2174	7 1/4	662.8
2181	8 1/2	664.9
2242	7	683.9
2307	9 1/4	703.4
3785	9 7/8	1152.4
3784	1 1/8	1153.4
3884	8 3/4	1184.1
4163	6 3/4	1269.1
5516	5 3/8	1681.4
5811	9 7/8	1771.4
5811	11	1771.5

AC	RD	P	HA
0	-	5 1/2	1.638
81	1	9 1/2	20.76
1086	3	37 1/2	439.9

I, Jack Hayward Watson, Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this 26th day of August, 1976.

Req:R284457 /Doc:CT 11968-173 CT /Rev:11-Jan-2011 /Sts:OK.SC /Pgs:ALL /Prt:31-Aug-2017 10:35 /Seq:1 of 2
Ref:kemps /Src:M

11968173

CERTIFICATE OF TITLE

NEW SOUTH WALES

PROPERTY ACT, 1900

Vol. 11968 Fol. 173

Appln. No. 48377

Edition issued 3-11-1972

CANCELLED

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

Registrar General.

(Page 1) Vol. 11968 Fol. 173

PLAN SHOWING LOCATION OF LAND

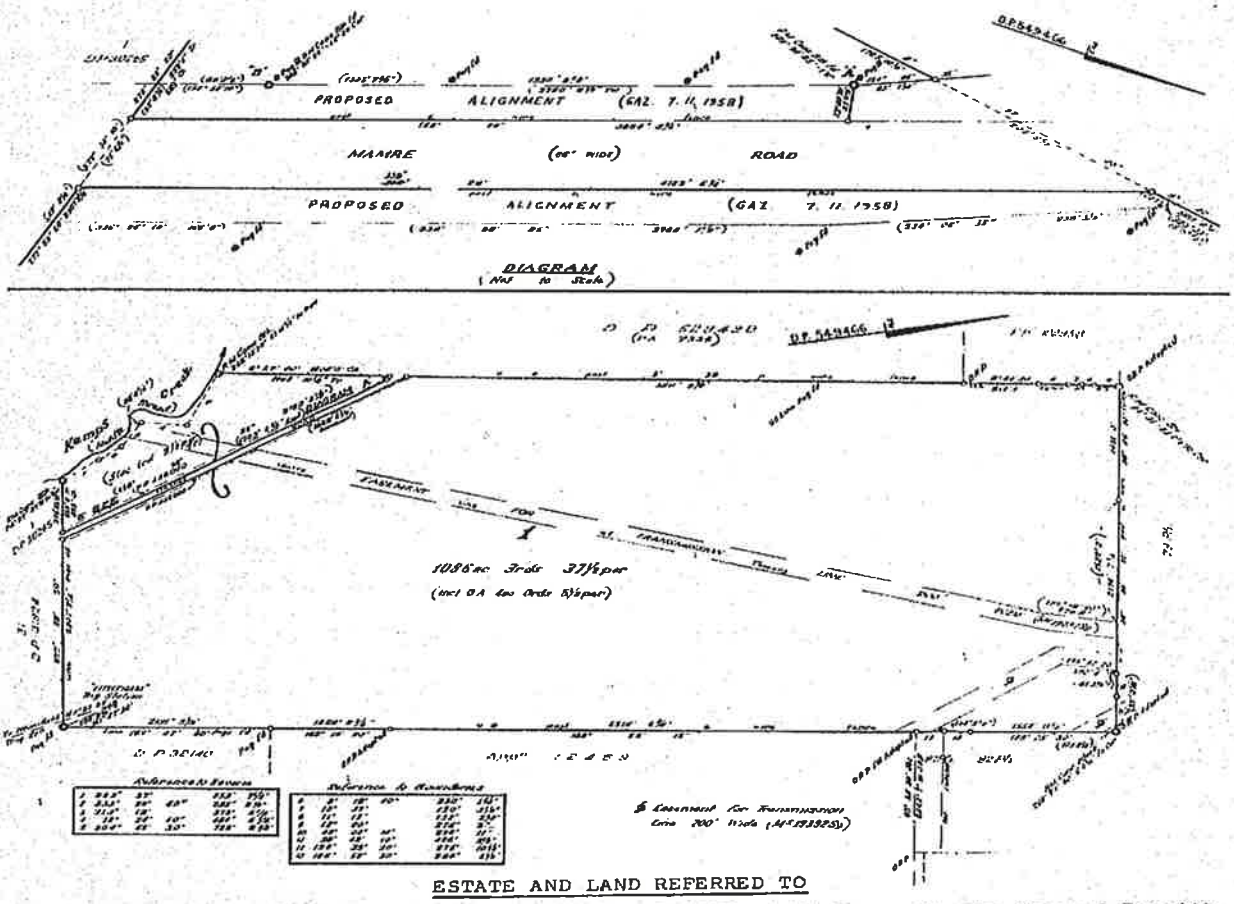


DIAGRAM
(Not to Scale)

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 1 in Deposited Plan 549466 at St.Marys in the City of Penrith Parish of Melville and County of Cumberland being part of Portion 61 granted to Nicholas Bayly on 1-1-1810.

FIRST SCHEDULE

~~UNIT CONSTRUCTION PTY. LIMITED~~

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Easement for Electricity Transmission Line created by notification in Government Gazette of 16-8-1963 Folios 2387 to 2389 affecting the strip of land shown as "Easement for Transmission Line 200' Wide (Ms.19097Sy)" in the plan hereon.
3. Easement for Electricity Transmission Line created by notification in Government Gazette of 16-10-1964 Folios 3203 to 3205 affecting the strip of land shown as "Easement for Transmission Line 200'Wide (Ms.19392Sy.)" in the plan hereon.

Registrar General.

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

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

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Vol. 11968 Fol. 173

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
Number One ~~Fluers~~ FLEURS Pty. Limited	Transfer	N643525	9.11.1973	15.1.1974	
This deed is cancelled as to ~~part~~ the whole as to land					
New Certificates of Title have issued on 29-9-1975					
for lots in Deposited Plan No. 250002 as follows:-					
Lots 1-7 Vol 12886 Fol 204-210 respectively.					
REGISTRAR GENERAL					

The residue of land in this folio comprises the road in DP250002

REGISTRAR GENERAL

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		
Mortgage	N508567	6-5-1971	to Finance Corporation of Australia Limited	21-11-1972		Discharged	N 2090	
Mortgage	N643045	6-5-1971	to Chapman Finance Pty. Limited	21-11-1972		Discharged	N11036	
Mortgage	N745616	16-7-1973	to Finance Mortgage Corporation of Australia Limited	21-11-1973		Discharged	N643524	
Mortgage	N643526	14.12.1973	to Finance Corporation of Australia Limited	15.1.1974				
			The interest of the Council of the City of Penrith in the new road shown on D.P. 250002.	2-9-1975				

(Page 2 of 2 pages)

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

Req:R284457 /Doc:CT 11968-173 CT /Rev:11-Jan-2011 /Sts:OK.SC /Pgs:ALL /Prt:31-Aug-2017 10:35 /Seq:2 of 2
Ref:kemps /Src:M
Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Req:R284438 /Doc:CT 12886-210 CT /Rev:15-Apr-2008 /Sts:SC.OK /Pgs:ALL /Prt:31-Aug-2017 10:34 /Seq:1 of 2
Ref:kemps /Src:M

[redacted]ICATE OF TITLE

NEW SOUTH WALES

PROPERTY ACT, 1900

Vol. 12886 Fol. 210

(Page 1) Vol. 12886 Fol. 210

Appln No.48377

Prior Title Vol.11968 Fol.173

EDITION ISSUED

29 9 1975

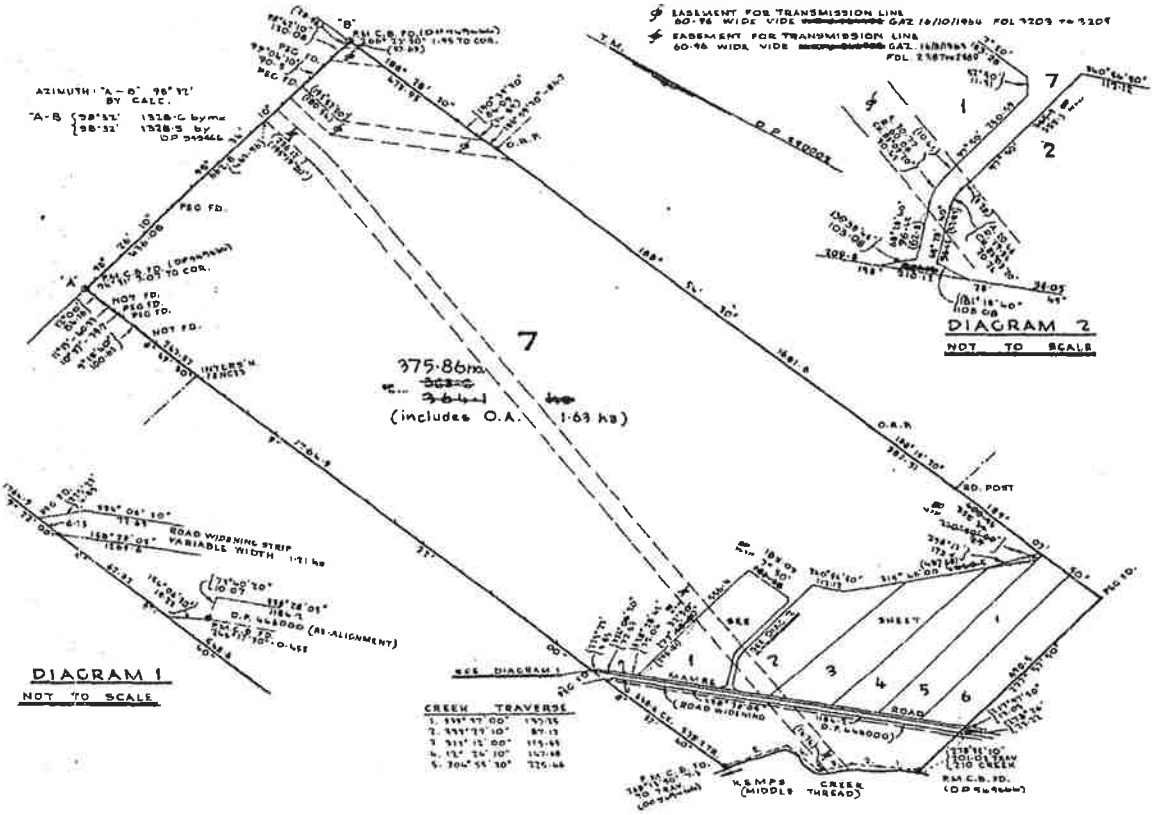
I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Registrar General.

CANCELLED

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 7 in Deposited Plan 250002 at St.Marys in the City of Penrith Parish of Melville and County of Cumberland being part of Portion 61 granted to Nicholas Bayly on 1-1-1810.

FIRST SCHEDULE

NUMBER ONE FLEURS PTY. LIMITED.

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Easement for Electricity Transmission Line created by notification in Government Gazette of 16-8-1963 Folios 2387,2388 and 2389 affecting the piece of land above described shown as "Easement for Transmission Line 60.96 metres wide vide Gaz. 16-8-1963 Fol.2387 to 2389" in the plan hereon.
3. Easement for Electricity Transmission Line created by notification in Government Gazette of 16-10-1964 Folios 3203,3204 and 3205 affecting the piece of land above described shown as "Easement for Transmission Line 60.96 metres wide vide Gaz. 16-10-1964 Fol.3203 to 3205" in the plan hereon.
4. Mortgage No.N643526 to Finance Corporation of Australia Limited. Entered 15-1-1974.

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

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

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Req:R284438 /Doc:CT 12886-210 CT /Rev:15-Apr-2008 /Sts:SC.OK /Pgs:ALL /Prt:31-Aug-2017 10:34 /Seq:2 of 2
Ref:kemps /Src:M

Vol. 12886 Fol. 210

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
This deed is cancelled as to the whole so far as New Certificates of Title have issued on 15-3-1977. for lots in Deposited Plan No. 253503 as follows:- Lots 7 to 19 Vol. 13271 Fol. 51017 respectively. REGISTRAR GENERAL					
	NEW CERTIFICATE(S) OF TITLE ISSUING ON DP 253503 NO DEALING TO BE REGISTERED WITHOUT REFERENCE TO SURVEY DRAFTING BRANCH				

P506089 u/m
P568749 mR
P579692 R/m (N643526)
P711482 PTm XR
CT 19-0-76
D.P 253503. Easement to drain water (all lots) gm 25-2-77

SECOND SCHEDULE (continued)

NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION
Mortgage.	P568749	—	to Finance Corporation of Australia Limited	27-1-1976	[signature]	
Caveat	P711482.	—	in regards part being the land hatched blue on the plan annexed to Caveat No P711482.	24-1-1976	[signature]	
88B INST	Q43283		Interests created pursuant to Section 88B Conveyancing Act, 1919, by the registration of Deposited Plan 253503	24.2.1977	[signature]	
			THE INTEREST OF THE COUNCIL OF THE CITY OF PENRITH IN THE NEW ROADS SHOWN ON DP 253503	24.2.1977	[signature]	
			The residue of land in this folio comprises new roads shown on DP 253503 REGISTRAR GENERAL			

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Req:R284390 /Doc:CT 13277-016 CT /Rev:28-Feb-2011 /Sts:OK.SC /Pgs:ALL /Prt:31-Aug-2017 10:31 /Seq:1 of 2
Ref:kemps /Src:M

CERTIFICATE OF TITLE

NEW SOUTH WALES

PROPERTY ACT, 1900

13277016

Appln. No.48377

Prior Title Vol.12886 Fol.210

Vol. 13277 Fol. 16

EDITION ISSUED

16 3 1977

(Page 1) Vol. 13277 Fol. 16

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

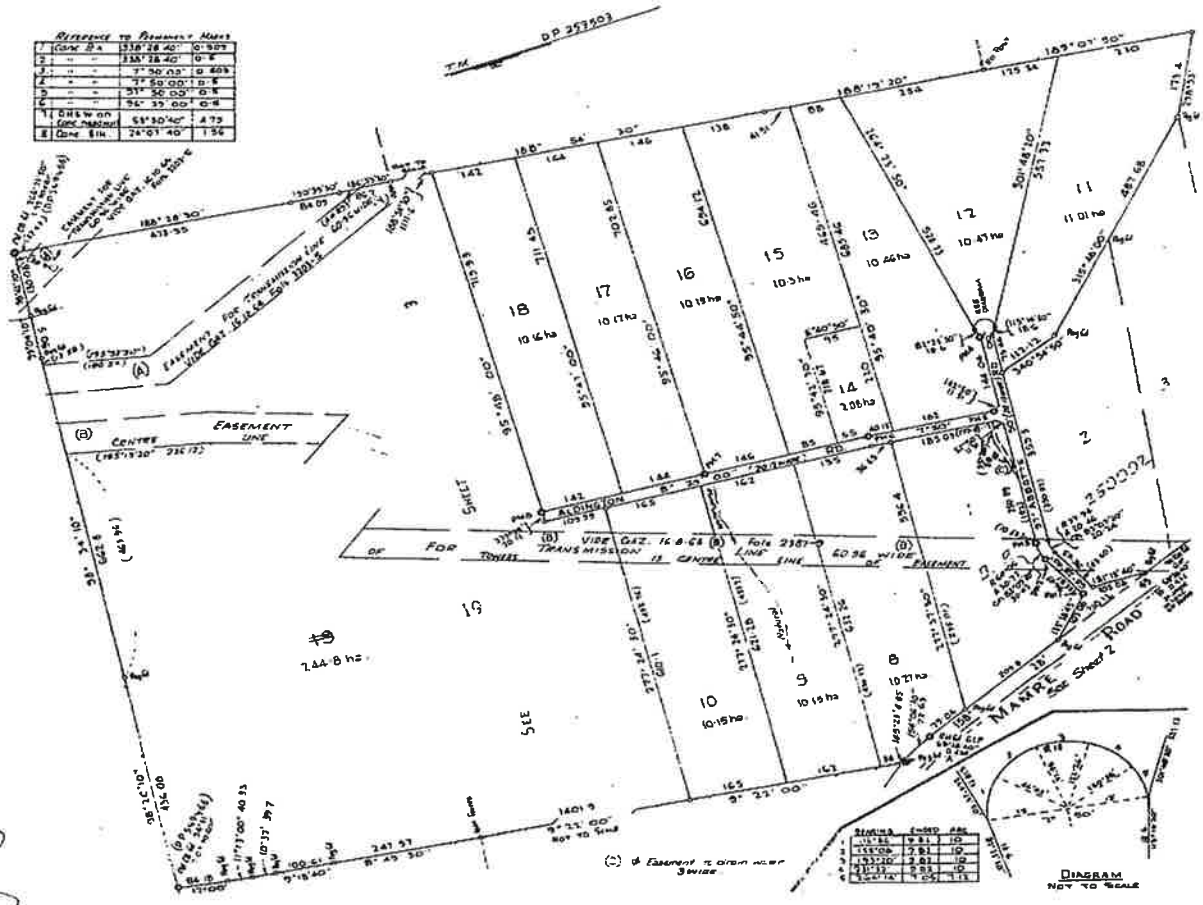
CANCELLED

Registrar General.

SEE AUTO FOLIO

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 18 in Deposited Plan 253503 at St.Marys in the City of Penrith Parish of Melville and County of Cumberland being part of Portion 61 granted to Nicholas Bayly on 1-1-1810.

FIRST SCHEDULE

~~NUMBER ONE FLEURS PTY. LIMITED.~~

SECOND SCHEDULE

GRY

1. Reservations and conditions, if any, contained in the Crown Grant above referred to. Discharged
2. ~~Mortgage No.N643526 to Finance Corporation of Australia Limited. Registered 15-1-1974~~ R472650
3. ~~Mortgage No.P568749 to Finance Corporation of Australia Limited. Registered 27-1-1976~~ Discharged R472650

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

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

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Vol. 13277 Fol. 16

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
Giuseppe Culmone, Haulage Contractor, Pauline Culmone his wife and Giovanni Battista Culmone, Apprentice Ground Instrument Engineer and Anthony Joseph Culmone, Apprentice Motor Engineer, all of Bonnyrigg, as joint tenants	Transfer	R472651	-----	17-10-1979	

Q612539 V/W - 540 V/W1
Q918133/7
R472650 V/W - 51 Tc
T518074 MK C.T. 10.8.83
V72513 Dis 4M
C.T. 5.6.84
D.P. 636465 Rec'd 28-6-84
W316334 Dis 5M RJ

SECOND SCHEDULE (continued)

NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		
Mortgage	N643526	—	~~affected by Q612539. Variation of Mortgage~~	~~2-8-1978~~				
Mortgage	P568749	—	~~affected by Q612540. Variation of Mortgage~~	~~2-8-1978~~				
Mortgage	N643526	—	Affected by P568089 and P579692 Variation of Mortgages.			Cancelled	R472650	
Mortgage	N643526	—	affected by Q612539. Variation of Mortgage	2-8-1978.		Cancelled	R472650	
Mortgage	P568749	—	affected by Q612540. Variation of Mortgage	2-8-1978.		Cancelled	R472650	
Mortgage	Q918133	—	to Finance Corporation of Australia Limited	9-5-1979		Discharged	R472650	
~~T518074 Mortgage to Australia and New Zealand Banking Group Limited. Registered 3-5-1983.~~						Discharged	V72513	
~~V72514 Mortgage to E. & B. Spiteri Pty. Limited. Registered 27-4-1984.~~						Discharged	W316334	
EA D.P. 636465	EASEMENT FOR ELECTRICITY SUPPLY AFFECTING THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BURDENED IN D.P. 636465.			28-6-1984				
EA D.P. 636465	EASEMENTS FOR SERVICES AFFECTING THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BURDENED IN D.P. 636465.			28-6-1984				
D.P. 636465	EASEMENT FOR SERVICES AFFECTING THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BURDENED IN D.P. 636465.			28-6-1984				
W316335	mortgage to australia and New Zealand Banking group Limited Registered			7-5-1986				

(Page 2 of 2 pages)

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

Req:R284390 /Doc:CT 13277-016 CT /Rev:28-Feb-2011 /Sts:OK.SC /Pgs:ALL /Prt:31-Aug-2017 10:31 /Seq:2 of 2
Ref:kemps /Src:M

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

InfoTrack
An Approved LPI NSW
Information Broker

Historical Title

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

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE
29/8/2017 9:42PM

FOLIO: 18/253503

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 13277 FOL 16

Recorded	Number	Type of Instrument	C.T. Issue
5/6/1987		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
26/10/1987		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
12/9/1991	Z914318	DISCHARGE OF MORTGAGE	
12/9/1991	Z914319	MORTGAGE	EDITION 1
12/11/1993		AMENDMENT: LOCAL GOVT AREA	
10/3/1999	5668677	DEPARTMENTAL DEALING	
20/5/2003	9624178	CAVEAT	
18/1/2006	AC57073	DISCHARGE OF MORTGAGE	EDITION 2
5/8/2006	AC509240	TRANSFER	EDITION 3
25/1/2007	AC890769	WITHDRAWAL OF CAVEAT	
13/11/2007	AD560907	CAVEAT	
28/6/2010	AF584843	NOTICE OF DEATH	EDITION 4
14/2/2012	AG810537	WITHDRAWAL OF CAVEAT	
7/7/2015	AJ599058	TRANSMISSION APPLICATION (EXECUTOR, ADMINISTRATOR, TRUSTEE)	EDITION 5
15/12/2015	AK69320	TRANSFER	EDITION 6

*** END OF SEARCH ***

kemps PRINTED ON 29/8/2017

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Req:R284391 /Doc:DL AC509240 /Rev:09-Aug-2006 /Sts:NO.OK /Pgs:ALL /Prt:31-Aug-2017 10:31 /Seq:1 of 1
Ref:kemps /Src:M

Form: 01TWC
Release: 2.1
www.lands.nsw.gov.au

TRANSFER

without monetary consideration

New South Wales
Real Property Act 1900

AC509240Q

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

STAMP DUTY Office of State Revenue use only

(A) **TORRENS TITLE** Folio Identifier 18/253503

(B) **LODGED BY**

Document Collection Box	Name, Address or DX and Telephone	CODES
302G	LLPN: 123824 M BOX 302G LegalStream Tel: 9231 0122 Fax: 9233 6411 Reference: MACRI/CULMONE:060288	T TW (Sheriff)

(C) **TRANSFEROR** Giuseppe Culmone, Pauline Culmone, Giovanni Battista Culmone and Anthony Joseph Culmone

(D)

(E) **ESTATE** and as regards the land specified above transfers to the transferee an estate in fee simple

(F) **SHARE TRANSFERRED**

(G) Encumbrances (if applicable):

(H) **TRANSFEREE** Giuseppe Culmone and Pauline Culmone as joint tenants as to one half share and Giovanni Battista Culmone as to 1/4 share and Anthony Joseph Culmone as to the remaining 1/4 share as tenants in common

(I) **TENANCY:**

DATE 30 June 2006

(J) I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness:

Name of witness: PHILLIP RAM
Address of witness: 13 MOHAWK PL
ERSKINE PARK

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor:

I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness:

Name of witness: PHILLIP RAM
Address of witness: 13 MOHAWK PL
ERSKINE PARK

Certified correct for the purposes of the Real Property Act 1900 by the transferee.

Signature of transferee:

ALL HANDWRITING MUST BE IN BLOCK CAPITALS.
0507

DEPARTMENT OF LANDS
LAND AND PROPERTY INFORMATION DIVISION

9624178

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Form: 02ND
Release: 4.0
www.lands.nsw.gov.au

NOTICE OF DEATI

New South Wales
Section 101 Real Property Act 1

AF584843H

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the [illegible] by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

(A) **TORRENS TITLE**: Folio Identifier 18/253503

(B) **REGISTERED DEALING**

Number	Torrens Title

(C) **LODGED BY**

Document Collection Box	Name, Address or DX, Telephone, and Customer Account Number if any	CODE
302G	LLPN: 123824 M BOX 302G LegalStream Tel: 92310122 Fax: 9233 6411 Reference: MACRI/EST CULMONE: 10:0188	ND

(D) **DECEASED JOINT TENANT**: See Instructions for Completion: Instruction (D) regarding discrepancies in the name
PAULINE CULMONE

(E) **SURVIVING JOINT TENANT**: GIUSEPPE CULMONE

(F) I, the abovementioned surviving joint tenant, apply to be registered as proprietor of the interest of the deceased joint tenant (who died on 19 May 2010 as stated in the copy of death certificate No. 119174/2010 accompanying this application) in the above land.

DATE 18 June 2010

(G) I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness:

Name of witness: ALBERT MACRI
Address of witness: 3/3-5 Norfolk Street
Liverpool NSW 2170

Certified correct for the purposes of the Real Property Act 1900 by the surviving joint tenant.

Signature of surviving joint tenant: G Culmone

(H) *This section is to be completed where a notice of sale is required and the relevant data has been forwarded to LPI through eNOS.*

The applicant certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. [ ] Full name: Signature:

1003 ALL HANDWRITING MUST BE IN BLOCK CAPITALS. REG 85
LAND AND PROPERTY MANAGEMENT AUTHORITY

Office use only—
Evidence sighted and returned:

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Req:R284393 /Doc:DL AJ599058 /Rev:13-Jul-2015 /Sts:NO.OK /Pgs:ALL /Prt:31-Aug-2017 10:31 /Seq:1 of 1
Ref:kemps /Src:M

Form: 03AE
Release: 2·2

TRANSMISSION APPLICATION

by an Executor, Administrator or Trustee
New South Wales
Section 93 Real Property Act 1900

AJ599058U

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

(A) **TORRENS TITLE** 18/253503

(B) **REGISTERED DEALING**

NUMBER	TORRENS TITLE

(C) **LODGED BY**

DOCUMENT COLLECTION BOX	NAME, ADDRESS OR DX, TELEPHONE, AND CUSTOMER ACCOUNT NUMBER IF ANY	CODE
302G	LLPN: 123824M BOX 302G LegalStream Tel: 9231 0122 Fax: 9233 6411 REFERENCE: MACRI: EST CULMONE: 150036	AE

(D) **DECEASED REGISTERED PROPRIETOR** GIUSEPPE CULMONE

(E) **APPLICANT** GIOVANNI BATTISTA CULMONE and ANTHONY JOSEPH CULMONE

(F) The abovementioned applicant, being entitled as executor of the will of the deceased registered proprietor (who died on 17 December 0214) pursuant to probate No. 2015/00044620 granted on 28 April 2015 (a certified copy of which is lodged herewith) hereby applies to be registered as proprietor of the estate or interest of the deceased registered proprietor in the abovementioned land

DATE 12/06/2015

RELODGED
- 3 JUL 2015
TIME: 2.40

(G)

I certify I am an eligible witness and that the applicant signed this dealing in my presence. [See note* below]

Signature of witness:

Name of witness: ALBERT MACRI
Address of witness: SUITE 3, 3-5 NORFOLK ST
LIVERPOOL NSW 2170

Certified correct for the purposes of the Real Property Act 1900 by the applicant.

Signature of applicant:

I certify I am an eligible witness and that the applicant signed this dealing in my presence

Signature of witness:

Name of witness: JESSICA MACRI
Address of witness: SUITE 3, 3-5 NORFOLK ST. LIVERPOOL 2170

(H) *This section is to be completed where a notice of sale is required and the relevant data has been forwarded through eNOS.*

The applicant certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. Full name: Signature:

** s117 RP Act requires that you must have known the signatory for more than 12 months or have sighted identifying documentation.*

ALL HANDWRITING MUST BE IN BLOCK CAPITALS.

Evidence sighted and returned (office use only): ecy pbt

1303

& statutory declaration sighted re: Name update 7/7/15

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 18/253503

SEARCH DATE	TIME	EDITION NO	DATE
31/8/2017	10:32 AM	6	15/12/2015

LAND

LOT 18 IN DEPOSITED PLAN 253503
AT ST.MARYS
LOCAL GOVERNMENT AREA PENRITH
PARISH OF MELVILLE COUNTY OF CUMBERLAND
TITLE DIAGRAM DP253503

FIRST SCHEDULE

BAPS SWAMINARAYAN SANSTHA, AUSTRALIA LIMITED (T AK69320)

SECOND SCHEDULE (3 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 DP636465 EASEMENT FOR ELECTRICITY SUPPLY AFFECTING THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BURDENED IN DP636465
3 DP636465 EASEMENTS FOR SERVICES AFFECTING THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BURDENED IN DP636465

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

kemps PRINTED ON 31/8/2017

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

APPENDIX E

COUNCIL SEARCH INFORMATION

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

PENRITH

Our Ref: JH
Contact: Mr J Howe
Telephone: (02) 4732 7775

10 April 2008

AWJ Civil Pty Ltd
C/O: Giovanni Culmone
155 Newton Road
WETHERILL PARK NSW 2164

Dear Mr Culmone

Section 121B Environmental Planning & Assessment Act 1979
NOTICE OF INTENTION TO SERVE ORDER
Lot 18, DP 253503, 230 - 242 Aldington Rd, Kemps Creek.

Council has conducted investigations into the operation of the business, "AWJ Civil Pty Ltd" (A.C.N 003 789 614) from the above property.

It is Council's responsibility to ensure businesses in Penrith area are located within appropriate zoned areas and that they do not interfere with the amenity of rural and residential areas.

The dwelling situated on the property is zoned primarily for residential use. The commercial use of the property for the storage of equipment, repairing and servicing of heavy equipment and for office space, for commercial purposes is prohibited under the zoning requirements of the Penrith Local Environmental Plan No 201 - Rural Lands.

Penrith City Council, in accordance with the requirements of 121H of the above Act, hereby gives notice of Council's intention to serve an Order No. 1 requiring you to cease operating the business from the property, remove all plant and equipment from the property.

The terms of the proposed Order are attached. It is recommended that you consider the information provided and, within twenty-one (21) days from the date of this notice, make representations to Council as to why the Order should not be given or as to the terms of or period for compliance with the Order.

Representations may be made orally or in writing or both by you or on your behalf either:

1. Directly at Council's Civic Centre, 601 High Street, Penrith; or,
2. In writing to: The General Manager, PO Box 60, PENRITH 2751

Any representations that you make will be considered prior to the issuing of the Order. This may result in modification of the terms of the Order, or in the matter not progressing to the service of the Order.

Yours faithfully,

Penrith City Council
PO Box 60, Penrith
NSW 2751 Australia
T 4732 7777
F 4732 7958
penrithcity.nsw.gov.au

Justin Howe
Health & Environment Unit

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

PROPOSED TERMS OF ORDER 1

Section 121B Environmental Planning & Assessment Act 1979

Order 1(a): To cease using premises for a purpose specified in the order. Premises are being used for a purpose that is prohibited.

Proposed terms of Order	*Timeframe*
1. To cease operating the business "AWJ Civil Pty Ltd" from the property Lot 18, DP 253503, 230 - 242 Aldington Rd, Kemps Creek.	***Within 21 days of the date of the Order***
2. Remove all plant and equipment from the property; including the following: • **Trucks and trailers.** • **Forklifts.** • **Earth moving equipment and the like.** • **Shipping containers.** • **Implements.** • **Fuel storage devices.** • **Site sheds.** • **Concrete stormwater pipes**	***Within 21 days of the date of the Order***
3. The shed is not to be used for any commercial, industrial or habitable residential activity.	***Within 21 days of the date of the Order***

REASON FOR PROPOSED ORDER

On the 17 Janruary 2008 and 7 March 2008 a site inspection was conducted of the property Lot 18, DP 253503, 230 - 242 Aldington Rd, Kemps Creek. This inspection revealed a business by the name of "AWJ Civil Pty Ltd" operating from the property.

The property Lot 18, DP 253503, 230 - 242 Aldington Rd, Kemps Creek is situated within Zone No. 1(a) (Rural "A" Zone – General) under the Penrith Local Environmental Plan No. 201 Rural Lands.

The business, "AWJ Civil Pty Ltd" is defined as a "commercial premises" in accordance with this plan.

A "commercial premises" is prohibited within this zone under the Penrith Local Environmental Plan No 201 - Rural Lands.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

APPENDIX F
BOREHOLE LOGS

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH101

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0	0.20	BH101_0.1-0.2 ES QD1 QT1 0.10-0.20 m			-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.	D		TOPSOIL
			0.5	1.00	BH101_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty CLAY; medium to high plasticity, red-brown, with fine to medium, sub-angular to angular ironstone gravel, no odour.	D - M	-	RESIDUAL SOIL
			1.0	1.50					From 1.0m, red-white.			
			1.5						Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH102

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0	0.20	BH102_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.	D		TOPSOIL
			0.5		BH102_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty CLAY; medium to high plasticity, red-brown, with fine to medium, sub-angular to angular ironstone gravel, no odour.	D - M	-	RESIDUAL SOIL
			1.0	1.00					From 1.0m, red-white.			
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH103

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0	0.20	BH103_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.	D		TOPSOIL
			0.5		BH103_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty CLAY; medium to high plasticity, red-brown, with fine to medium, sub-angular to angular ironstone gravel, no odour.	D - M	-	RESIDUAL SOIL
			1.0	1.00					From 1.0m, red-white.			
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH104

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0	0.20	BH104_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.	D		TOPSOIL
			0.5		BH104_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty CLAY; medium to high plasticity, red-brown, with fine to medium, sub-angular to angular ironstone gravel, no odour.	D - M	-	RESIDUAL SOIL
			1.0	1.00					From 1.0m, red-white.			
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH105

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.	D		TOPSOIL
				0.20	BH105_0.1-0.2 ES 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, red-brown, with fine to medium, sub-angular to angular ironstone gravel, no odour.			RESIDUAL SOIL
			0.5		BH105_0.5-0.6 ES 0.50-0.60 m					D - M	-	
				1.00					From 1.0m, red-white.			
			1.0									
				1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH106

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.	D - M		TOPSOIL
				0.20	BH106_0.1-0.2 ES 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, yellow-white, no odour.	M	-	RESIDUAL SOIL
			0.5		BH106_0.5-0.6 ES 0.50-0.60 m							
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH107

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17:
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.			TOPSOIL
				0.20	BH107_0.1-0.2 ES 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, red, trace sub-angular to angular gravels, no odour.	D - M	-	RESIDUAL SOIL
			0.5		BH107_0.5-0.6 ES 0.50-0.60 m							
			1.0	1.00					From 1.0m, red-white.			
				1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH108

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	FILL: Silty CLAY; medium to high plasticity, brown mottled black, trace gravels and rootlets, no odour.			FILL/ TOPSOIL
				0.20	BH108_0.1-0.2 ES 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, light brown-pale orange, no odour.			RESIDUAL SOIL
			0.5		BH108_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH109

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	FILL: Silty CLAY; medium to high plasticity, brown mottled black, trace gravels and rootlets, no odour.			FILL/ TOPSOIL
				0.20	BH109_0.1-0.2 ES 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, light brown-pale orange, no odour.			RESIDUAL SOIL
			0.5		BH109_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH110

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH110_0.1-0.2 ES 0.10-0.20 m			-	FILL: Silty CLAY; medium to high plasticity, brown mottled black, trace gravels and rootlets, no odour.	M	-	FILL
			1.70	1.70				CI-CH	Silty CLAY; medium to high plasticity, dark grey, trace sub-angular to angular gravels, no odour.			RESIDUAL SOIL
			2.0		BH110_2.0-2.1 ES 2.00-2.10 m							
			2.20	2.20					Hole Terminated at 2.20 m Target Depth Reached.			
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH111

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH111_0.1-0.2 ES 0.10-0.20 m			-	FILL: Silty CLAY; medium to high plasticity, brown mottled black, trace gravels and rootlets, no odour.	M	-	FILL
			0.5		BH111_0.5-0.6 ES 0.50-0.60 m							
			1.0									
			1.5									
			2.0									
				2.30								
				2.50	BH111_2.4-2.5 ES 2.40-2.50 m			CI-CH	Silty CLAY; medium to high plasticity, dark grey, trace sub-angular to angular gravels, no odour.	M - W		RESIDUAL SOIL
			2.5						Hole Terminated at 2.50 m Target Depth Reached.			
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH112

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH112_0.1-0.2 ES 0.10-0.20 m			-	FILL: Silty CLAY; medium to high plasticity, brown mottled black, trace gravels and rootlets, no odour.			FILL
				0.40								
			0.5		BH112_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty CLAY; medium to high plasticity, dark grey, trace sub-angular to angular gravels, no odour.	M	-	RESIDUAL SOIL
			1.0									
			1.5	*1.50*					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH113

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty CLAY; medium to high plasticity, brown, rootlets, no odour.			TOPSOIL
				0.20	BH113_0.1-0.2 ES 0.10-0.20 m			CI-CH	Silty CLAY; medium to high plasticity, red-orange, with trace fine, sub-angular to angular ironstone gravels, no odour.			RESIDUAL SOIL
			0.5		BH113_0.5-0.6 ES 0.50-0.60 m					D - M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH114

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty CLAY; medium to high plasticity, brown, rootlets, no odour.			TOPSOIL
				0.20	BH114_0.1-0.2 ES 0.10-0.20 m			CI-CH	Silty CLAY; medium to high plasticity, red-orange, with trace fine, sub-angular to angular ironstone gravels, no odour.			RESIDUAL SOIL
			0.5		BH114_0.5-0.6 ES 0.50-0.60 m					D - M	-	
			1.0									
			1.5	*1.50*					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH115

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty CLAY; medium to high plasticity, brown, rootlets, no odour.			TOPSOIL
				0.20	BH115_0.1-0.2 ES 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, red-orange, with trace fine, sub-angular to angular ironstone gravels, no odour.			RESIDUAL SOIL
			0.5		BH115_0.5-0.6 ES 0.50-0.60 m					D - M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH116

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH116_0.1-0.2 ES 0.10-0.20 m			CI	Silty CLAY; medium plasticity, pale brown-red/orange, trace fine to medium, sub-angular to angular ironstone gravels, no odour.	D	-	RESIDUAL SOIL
			0.5									
			1.0	1.00					Hole Terminated at 1.00 m Target Depth Reached.			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH117

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty CLAY; medium to high plasticity, brown, rootlets, no odour.			TOPSOIL
				0.20	BH117_0.1-0.2 ES 0.10-0.20 m			CI-CH	Silty CLAY; medium to high plasticity, red-orange, with trace fine, sub-angular to angular ironstone gravels, no odour.			RESIDUAL SOIL
			0.5		BH117_0.5-0.6 ES 0.50-0.60 m					D - M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH118

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0	0.20	BH118_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty Sandy CLAY; low to medium plasticity, brown, with fine to coarse sands, trace fine to medium, sub-angular to angular gravels and rootlets, no odour.			TOPSOIL
								CI	Silty CLAY; medium plasticity, brown mottled grey, trace fine to medium, sub-angular to angular, no odour.	D	-	RESIDUAL SOIL
			0.5		BH118_0.5-0.6 ES 0.50-0.60 m							
			1.0	1.00					Hole Terminated at 1.00 m Target Depth Reached.			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH119

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0	0.20	BH119_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.	D		TOPSOIL
			0.5		BH119_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty CLAY; medium plasticity, pale brown, grey, red, with fine to medium, sub-angular to angular ironstone gravel, no odour.	D - M	-	RESIDUAL SOIL
			1.0	1.00					Hole Terminated at 1.00 m Target Depth Reached.			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH120

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0	0.20	BH120_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.	D - M		TOPSOIL
								CI-CH	Silty CLAY; medium to high plasticity, brown, with fine to medium, no odour.			RESIDUAL SOIL
			0.5		BH120_0.5-0.6 ES 0.50-0.60 m							
				0.80					From 0.8m, white/red-pale yellow.	M	-	
			1.0									
				1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH121

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.			TOPSOIL
				0.20	BH121_0.1-0.2 ES 0.10-0.20 m							
								CL-CI	Silty Sandy CLAY; low to medium plasticity, brown mottled white/red, with fine to medium grained sands and fine to medium, sub-angular to angular gravels, no odour.			RESIDUAL SOIL
			0.5		BH121_0.5-0.6 ES 0.50-0.60 m					D	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH122

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	FILL: GRAVEL; medium, sub-angular to angular, grey, no odour.			FILL
				0.40	BH122_0.3-0.4 ES 0.30-0.40 m			-	SHALE; pale brown, extremely weathered, no odour.	D	-	WEATHERED ROCK
			0.5		BH122_0.6-0.7 ES 0.60-0.70 m							
			1.0	1.00					Hole Terminated at 1.00 m Target Depth Reached.			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH123

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH123_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty Sandy CLAY; medium to high plasticity, brown, with fine to medium grained sand and trace fine, sub-angular to angular and rootlets, no odour.			TOPSOIL
				0.30								
								CI-CH	Silty CLAY; medium to high plasticity, brown mottled grey-red, with trace fine, sub-angular to angular, no odour.			RESIDUAL SOIL
			0.5		BH123_0.5-0.6 ES 0.50-0.60 m					D	-	
			1.0									
				1.50								
			1.5						Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH124

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0	0.20	BH124_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.	D - M		TOPSOIL
								CI-CH	Silty CLAY; medium to high plasticity, brown, with fine to medium, no odour.			RESIDUAL SOIL
			0.5		BH124_0.5-0.6 ES 0.50-0.60 m							
				0.80					From 0.8m, white/red-pale yellow.	M	-	
			1.0									
				1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH125

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH125_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty Sandy CLAY; medium to high plasticity, brown, with fine to medium grained sand and trace fine, sub-angular to angular and rootlets, no odour.			TOPSOIL
				0.30								
			0.5		BH125_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty CLAY; medium to high plasticity, brown mottled grey-red, with trace fine, sub-angular to angular, no odour.	D	-	RESIDUAL SOIL
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:43 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH126

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0	0.20	BH126_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.			TOPSOIL
								CL-CI	Silty Sandy CLAY; low to medium plasticity, brown mottled white/red, with fine to medium grained sands and fine to medium, sub-angular to angular gravels, no odour.			RESIDUAL SOIL
			0.5		BH126_0.5-0.6 ES 0.50-0.60 m							
				0.80						D	-	
			1.0						From 0.8m, red, brown, grey.			
				1.50								
			1.5						Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH127

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.			TOPSOIL
				0.20	BH127_0.1-0.2 ES 0.10-0.20 m							
			0.5		BH127_0.5-0.6 ES 0.50-0.60 m			CL-CI	Silty Sandy CLAY; low to medium plasticity, brown mottled white/red, with fine to medium grained sands and fine to medium, sub-angular to angular gravels, no odour.	D	-	RESIDUAL SOIL
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH128

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.			TOPSOIL
				0.20	BH128_0.1-0.2 ES 0.10-0.20 m							
								CL-CI	Silty Sandy CLAY; low to medium plasticity, brown mottled white/red, with fine to medium grained sands and fine to medium, sub-angular to angular gravels, no odour.			RESIDUAL SOIL
			0.5		BH128_0.5-0.6 ES 0.50-0.60 m					D	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH129

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH129_0.1-0.2 ES 0.10-0.20 m			CI	Silty CLAY; medium plasticity, pale brown-red/orange, trace fine to medium, sub-angular to angular ironstone gravels, no odour.	D	-	RESIDUAL SOIL
			0.5									
			1.0	1.00					Hole Terminated at 1.00 m Target Depth Reached.			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH130

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.	D		TOPSOIL
				0.20	BH130_0.1-0.2 ES 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, red-brown, with fine to medium, sub-angular to angular ironstone gravel, no odour.			RESIDUAL SOIL
			0.5		BH130_0.5-0.6 ES 0.50-0.60 m					D - M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH131

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.	D		TOPSOIL
				0.20	BH131_0.1-0.2 ES 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, red-brown, with fine to medium, sub-angular to angular ironstone gravel, no odour.			RESIDUAL SOIL
			0.5		BH131_0.5-0.6 ES 0.50-0.60 m					D - M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH132

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.	D		TOPSOIL
				0.20	BH132_0.1-0.2 ES QD2 QT2 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, red-brown, with fine to medium, sub-angular to angular ironstone gravel, no odour.			RESIDUAL SOIL
			0.5		BH132_0.5-0.6 ES 0.50-0.60 m					D - M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH133

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.	D		TOPSOIL
				0.20	BH133_0.1-0.2 ES 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, red-brown, with fine to medium, sub-angular to angular ironstone gravel, no odour.			RESIDUAL SOIL
			0.5		BH133_0.5-0.6 ES 0.50-0.60 m					D - M	-	
				1.00					From 1.0m, white, yellow, black.			
			1.0									
				1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH134

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.	D - M		TOPSOIL
				0.20	BH134_0.1-0.2 ES 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, brown, with fine to medium, no odour.			RESIDUAL SOIL
			0.5		BH134_0.5-0.6 ES 0.50-0.60 m							
				0.80					From 0.8m, white/red-pale yellow.	M	-	
			1.0									
				1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH135

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH135_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty Sandy CLAY; medium to high plasticity, brown, with fine to medium grained sand and trace fine, sub-angular to angular and rootlets, no odour.			TOPSOIL
				0.30								
								CI-CH	Silty CLAY; medium to high plasticity, brown mottled grey-red, with trace fine, sub-angular to angular, no odour.			RESIDUAL SOIL
			0.5		BH135_0.5-0.6 ES 0.50-0.60 m					D	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH136

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND/Sandy SILT; fine to medium grained, brown, with angular to sub-angular gravels, no odour.	D		TOPSOIL
				0.20	BH136_0.1-0.2 ES 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, red-brown, with fine to medium, sub-angular to angular ironstone gravel, no odour.			RESIDUAL SOIL
			0.5		BH136_0.5-0.6 ES 0.50-0.60 m					D - M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH137

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0	0.10				-	FILL: GRAVEL; medium, sub-angular to angular, grey, no odour.	D		FILL
					BH137_0.1-0.2 ES 0.10-0.20 m			-	FILL: Silty Gravelly SAND; fine to medium grained, brown, with fine to medium, sub-angular to angular, no odour.	D - M		
				0.30				CL	CLAY; low plasticity, brown, no odour.			RESIDUAL SOIL
			0.5	0.50	BH137_0.5-0.6 ES 0.50-0.60 m			-	SHALE; pale brown, extremely weathered, no odour.		-	WEATHERED ROCK
			1.0	1.00					Hole Terminated at 1.00 m Target Depth Reached.			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH138

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH138_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty SAND; fine to medium grained, dark brown to orange, trace gravel, no odour.			TOPSOIL
				0.30								
			0.5		BH138_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty Sandy CLAY; medium to high plasticity, dark brown-orange, trace ironstone gravel, no odour.	M	-	RESIDUAL SOIL
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH139

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	4/9/17
Position	Refer to Figure 2			Date Completed	4/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 4/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH139_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty SAND; fine to medium grained, dark brown to orange, trace gravel, no odour.			TOPSOIL
				0.30								
			0.5		BH139_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty Sandy CLAY; medium to high plasticity, dark brown-orange, trace ironstone gravel, no odour.	M	-	RESIDUAL SOIL
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH140

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Sandy CLAY; low to medium plasticity, brown, trace angular to sub-angular gravels, no odour.			TOPSOIL
				0.20	BH140_0.1-0.2 ES QD5 QT5 0.10-0.20 m			CL-CI	Silty CLAY; low to medium plasticity, light brown, trace ironstone gravels, no odour.			RESIDUAL SOIL
			0.5		BH140_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH141

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND; fine to medium grained, dark brown to orange, trace gravel, no odour.			TOPSOIL
				0.20	BH141_0.1-0.2 ES 0.10-0.20 m			CL-CI	Silty CLAY; low to medium plasticity, light brown, trace ironstone gravels, no odour.			RESIDUAL SOIL
			0.5		BH141_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH142

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Sandy CLAY; low to medium plasticity, brown, trace angular to sub-angular gravels, no odour.			TOPSOIL
				0.20	BH142_0.1-0.2 ES 0.10-0.20 m							
								CL-CI	Silty CLAY; low to medium plasticity, light brown, trace ironstone gravels, no odour.			RESIDUAL SOIL
			0.5		BH142_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH143

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH143_0.1-0.2 ES QD3 QT3 0.10-0.20 m			-	TOPSOIL: Silty SAND; fine to medium grained, dark brown to orange, trace gravel, no odour.			TOPSOIL
				0.30								
			0.5		BH143_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty Sandy CLAY; medium to high plasticity, dark brown-orange, trace ironstone gravel, no odour.	M	-	RESIDUAL SOIL
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH144

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH144_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty SAND; fine to medium grained, dark brown to orange, trace gravel, no odour.			TOPSOIL
				0.30								
			0.5		BH144_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty Sandy CLAY; medium to high plasticity, dark brown-orange, trace ironstone gravel, no odour.	M	-	RESIDUAL SOIL
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH145

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH145_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty SAND; fine to medium grained, dark brown to orange, trace gravel, no odour.			TOPSOIL
				0.30								
			0.5		BH145_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty Sandy CLAY; medium to high plasticity, dark brown-orange, trace ironstone gravel, no odour.	M	-	RESIDUAL SOIL
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH146

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND; fine to medium grained, dark brown to orange, trace gravel, no odour.			TOPSOIL
				0.20	BH146_0.1-0.2 ES 0.10-0.20 m			CL-CI	Silty CLAY; low to medium plasticity, light brown, trace ironstone gravels, no odour.			RESIDUAL SOIL
			0.5		BH146_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH147

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND; fine to medium grained, dark brown to orange, trace gravel, no odour.			TOPSOIL
				0.20	BH147_0.1-0.2 ES 0.10-0.20 m			CL-CI	Silty CLAY; low to medium plasticity, light brown, trace ironstone gravels, no odour.			RESIDUAL SOIL
			0.5		BH147_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH148

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND; fine to medium grained, dark brown to orange, trace gravel, no odour.			TOPSOIL
				0.20	BH148_0.1-0.2 ES 0.10-0.20 m			CL-CI	Silty CLAY; low to medium plasticity, light brown, trace ironstone gravels, no odour.			RESIDUAL SOIL
			0.5		BH148_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH149

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND; fine to medium grained, dark brown to orange, trace gravel, no odour.			TOPSOIL
				0.20	BH149_0.1-0.2 ES 0.10-0.20 m			CL-CI	Silty CLAY; low to medium plasticity, light brown, trace ironstone gravels, no odour.			RESIDUAL SOIL
			0.5		BH149_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH150

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND; fine to medium grained, dark brown to orange, trace gravel, no odour.			TOPSOIL
				0.20	BH150_0.1-0.2 ES 0.10-0.20 m			CL-CI	Silty CLAY; low to medium plasticity, light brown, trace ironstone gravels, no odour.			RESIDUAL SOIL
			0.5		BH150_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH151

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND; fine to medium grained, dark brown to orange, trace gravel, no odour.			TOPSOIL
				0.20	BH151_0.1-0.2 ES 0.10-0.20 m			CL-CI	Silty CLAY; low to medium plasticity, light brown, trace ironstone gravels, no odour.			RESIDUAL SOIL
			0.5		BH151_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH152

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH152_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty SAND; fine to medium grained, dark brown to orange, trace gravel, no odour.			TOPSOIL
				0.30								
			0.5		BH152_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty Sandy CLAY; medium to high plasticity, dark brown-orange, trace ironstone gravel, no odour.	M	-	RESIDUAL SOIL
			1.0									
			1.5	*1.50*					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH153

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH153_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty SAND; fine to medium grained, dark brown to orange, trace gravel, no odour.			TOPSOIL
				0.30								
			0.5		BH153_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty Sandy CLAY; medium to high plasticity, dark brown-orange, trace ironstone gravel, no odour.	M	-	RESIDUAL SOIL
			1.0									
			1.5	*1.50*					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH154

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH154_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty SAND; fine to medium grained, dark brown to orange, trace gravel, no odour.			TOPSOIL
				0.30								
			0.5		BH154_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty Sandy CLAY; medium to high plasticity, dark brown-orange, trace ironstone gravel, no odour.	M	-	RESIDUAL SOIL
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH155

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH155_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty SAND; fine to medium grained, dark brown to orange, trace gravel, no odour.			TOPSOIL
				0.30								
			0.5		BH155_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty Sandy CLAY; medium to high plasticity, dark brown-orange, trace ironstone gravel, no odour.	M	-	RESIDUAL SOIL
			1.0									
			1.5	*1.50*					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:44 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH156

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	TOPSOIL: Silty SAND; fine to medium grained, dark brown to orange, trace gravel, no odour.			TOPSOIL
				0.20	BH156_0.1-0.2 ES 0.10-0.20 m			CL-CI	Silty CLAY; low to medium plasticity, light brown, trace ironstone gravels, no odour.			RESIDUAL SOIL
			0.5		BH156_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH157

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH157_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Sandy CLAY; low to medium plasticity, dark orange-red, trace gravels, no odour.			TOPSOIL
				0.30								
			0.5		BH157_0.5-0.6 ES 0.50-0.60 m			CL-CI	Silty Sandy CLAY; low to medium plasticity, light orange, trace ironstone gravel, no odour.	M	-	RESIDUAL SOIL
			1.0									
				1.50								
			1.5						Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH158

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH158_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Silty SAND; fine to medium grained, dark brown to orange, trace gravel, no odour.			TOPSOIL
				0.30								
			0.5		BH158_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty Sandy CLAY; medium to high plasticity, dark brown-orange, trace ironstone gravel, no odour.	M	-	RESIDUAL SOIL
			1.0									
			1.5	*1.50*					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH159

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH159_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Sandy CLAY; low to medium plasticity, dark orange-red, trace gravels, no odour.			TOPSOIL
				0.30				CL-CI	Silty Sandy CLAY; low to medium plasticity, light orange, trace ironstone gravel, no odour.	M	-	RESIDUAL SOIL
			0.5		BH159_0.5-0.6 ES 0.50-0.60 m							
			1.0									
			1.5	*1.50*					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH160

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH160_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Sandy CLAY; low to medium plasticity, dark orange-red, trace gravels, no odour.			TOPSOIL
				0.30								
			0.5		BH160_0.5-0.6 ES 0.50-0.60 m			CL-CI	Silty Sandy CLAY; low to medium plasticity, light orange, trace ironstone gravel, no odour.	M	-	RESIDUAL SOIL
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH161

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH161_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Sandy CLAY; low to medium plasticity, dark brown, trace sub-angular to angular gravels, no odour.			TOPSOIL
				0.30								
			0.5		BH161_0.5-0.6 ES 0.50-0.60 m			CL-CI	Silty CLAY; low to medium plasticity, light brown, trace ironstone gravels, no odour.	M	-	RESIDUAL SOIL
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH162

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH162_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Sandy CLAY; low to medium plasticity, dark brown, trace sub-angular to angular gravels, no odour.			TOPSOIL
				0.30								
			0.5		BH162_0.5-0.6 ES 0.50-0.60 m			CL-CI	Silty CLAY; low to medium plasticity, light brown, trace ironstone gravels, no odour.	M	-	RESIDUAL SOIL
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH163

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0	0.10	BH163_0.0-0.1 ES 0.00-0.10 m			-	TOPSOIL: Sandy CLAY; low to medium plasticity, dark brown, trace sub-angular to angular gravels, no odour.			TOPSOIL
								CL-CI	Silty CLAY; low to medium plasticity, light brown, trace ironstone gravels, no odour.			RESIDUAL SOIL
			0.5		BH163_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH164

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH164_0.1-0.2 ES 0.10-0.20 m			-	FILL: Gravelly SAND; fine to medium grained, light brown, with sub-angular to angular gravels, no odour.			FILL
			0.5	0.60	BH164_0.5-0.6 ES 0.50-0.60 m			CI-CH	Sandy CLAY; medium to high plasticity, brown to orange, trace sub-angular to angular ironstone gravels, no odour.	M	-	RESIDUAL SOIL
			1.0		BH164_0.7-0.8 ES 0.70-0.80 m							
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH165

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	FILL: Gravelly SAND; fine to medium grained, grey to brown, with sub-angular to angular gravels, no odour.			FILL/ TOPSOIL
				0.20	BH165_0.1-0.2 ES 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, grey mottled red, no odour.			RESIDUAL SOIL
			0.5		BH165_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH166

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH166_0.1-0.2 ES 0.10-0.20 m			-	TOPSOIL: Sandy CLAY; low to medium plasticity, dark orange-red, trace gravels, no odour.			TOPSOIL
				0.30								
			0.5		BH166_0.5-0.6 ES 0.50-0.60 m			CL-CI	Silty Sandy CLAY; low to medium plasticity, light orange, trace ironstone gravel, no odour.	M	-	RESIDUAL SOIL
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH167

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	FILL: Gravelly SAND; fine to medium grained, grey to brown, with sub-angular to angular gravels, no odour.			FILL/ TOPSOIL
				0.20	BH167_0.1-0.2 ES 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, grey mottled red, no odour.			RESIDUAL SOIL
			0.5		BH167_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH168

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	FILL: Gravelly SAND; fine to medium grained, grey to brown, with sub-angular to angular gravels, no odour.			FILL
				0.20	BH168_0.1-0.2 ES 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, grey mottled red, no odour.			RESIDUAL SOIL
			0.5		BH168_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH169

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH169_0.1-0.2 ES QD4 QT4 0.10-0.20 m			-	FILL: Sandy CLAY; low to medium plasticity, dark orange-red, trace gravels, no odour.			FILL
				0.30								
			0.5		BH169_0.5-0.6 ES 0.50-0.60 m			CL-CI	Silty Sandy CLAY; low to medium plasticity, light orange, trace ironstone gravel, no odour.	M	-	RESIDUAL SOIL
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH170

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH170_0.1-0.2 ES 0.10-0.20 m			-	FILL: Sandy CLAY; low to medium plasticity, grey-orange, trace sub-angular to angular gravels, no odour.			FILL
				0.30								
			0.5		BH170_0.5-0.6 ES 0.50-0.60 m			CL-CI	Silty CLAY; low to medium plasticity, dark orange, trace sub-angular to angular ironstone gravels, no odour.	M	-	RESIDUAL SOIL
			1.0	1.00					Hole Terminated at 1.00 m Target Depth Reached.			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH171

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH171_0.1-0.2 ES 0.10-0.20 m			-	FILL: Silty Gravelly SAND; fine to medium grained, brown, with fine to medium, sub-angular to angular, no odour.			FILL
				0.40								
			0.5		BH171_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty CLAY; medium to high plasticity, grey mottled red, no odour.	M	-	RESIDUAL SOIL
			1.0									
				1.50								
			1.5						Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH172

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH172_0.1-0.2 ES 0.10-0.20 m			-	FILL: Silty Gravelly SAND; fine to medium grained, brown, with fine to medium, sub-angular to angular, no odour.			FILL
				0.40								
			0.5		BH172_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty CLAY; medium to high plasticity, grey mottled red, no odour.	M	-	RESIDUAL SOIL
			1.0									
				1.50								
			1.5						Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH173

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	FILL: Gravelly SAND; fine to medium grained, grey to brown, with sub-angular to angular gravels, no odour.			FILL
				0.20	BH173_0.1-0.2 ES 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, grey mottled red, no odour.			RESIDUAL SOIL
			0.5		BH173_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH174

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH174_0.1-0.2 ES 0.10-0.20 m			-	FILL: Sandy CLAY; low to medium plasticity, grey-orange, trace sub-angular to angular gravels, no odour.			FILL
				0.30								
			0.5		BH174_0.5-0.6 ES 0.50-0.60 m			CL-CI	Silty CLAY; low to medium plasticity, dark orange, trace sub-angular to angular ironstone gravels, no odour.	M	-	RESIDUAL SOIL
			1.0	1.00					Hole Terminated at 1.00 m Target Depth Reached.			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH175

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH175_0.1-0.2 ES 0.10-0.20 m			-	FILL: Silty Gravelly SAND; fine to medium grained, brown, with fine to medium, sub-angular to angular, no odour.			FILL
				0.40								
			0.5		BH175_0.5-0.6 ES 0.50-0.60 m			CI-CH	Silty CLAY; medium to high plasticity, grey mottled red, no odour.	M	-	RESIDUAL SOIL
			1.0									
				1.50								
			1.5						Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH176

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	FILL: Gravelly SAND; fine to medium grained, grey to black, no odour.			FILL
				0.20	BH176_0.1-0.2 ES 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, grey mottled red, no odour.			RESIDUAL SOIL
			0.5		BH176_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH177

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	FILL: Gravelly SAND; fine to medium grained, grey to brown, with sub-angular to angular gravels, no odour.			FILL
				0.20	BH177_0.1-0.2 ES 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, grey mottled red, no odour.			RESIDUAL SOIL
			0.5		BH177_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH178

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed BAPS Temple			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek, NSW			Date Started	5/9/17
Position	Refer to Figure 2			Date Completed	5/9/17
Job No.	E23529.E02	Contractor	HartGeo Pty Ltd	Logged JH	Date: 5/9/17
Client	BAPS Australia	Drill Rig	Ute-Mounted Drill Rig	Checked NF	Date: 27/9/17
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	FILL: Gravelly SAND; fine to medium grained, grey to black, no odour.			FILL
				0.20	BH178_0.1-0.2 ES 0.10-0.20 m							
								CI-CH	Silty CLAY; medium to high plasticity, grey mottled red, no odour.			RESIDUAL SOIL
			0.5		BH178_0.5-0.6 ES 0.50-0.60 m					M	-	
			1.0									
			1.5	1.50					Hole Terminated at 1.50 m Target Depth Reached.			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 20/09/2017 10:45 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH201

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230 Altington Road, Kemps Creek, NSW			Date Started	28/8/17
Position	Refer to Figure 2	Surface RL	88.50 m AHD	Date Completed	28/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE during or after auger drilling	0	88.50				-	TOPSOIL; Silty SAND; fine grained, pale brown, trace fine to medium, sub-angular gravel, trace low plasticity, pale brown clay, trace rootlets.	D	-	TOPSOIL
				0.40	BH201_03-0.4 E							
				88.10	0.30-0.40 m SPT 0.50-0.95 m 1,4,4 N=8 BH201_0.5-0.95 0.50 m PP =230-240 kPa			CI-CH	Silty CLAY; medium to high plasticity, orange-brown, mottled pale brown, trace fine, sub-angular gravel.	M (>PL)	VSt	RESIDUAL SOIL
			1	*1.20*								
				87.30	BH201_1.0-1.1 E 1.00-1.10 m				From 1.2 m, low plasticity, pale brown, trace fine grained, brown sand, trace fine to medium, sub-angular gravels.			
				1.50								
				87.00	SPT 1.50-1.78 m 12,23/130mm HB N>23 BH201_1.5-1.78 1.50 m PP =280->500 kPa				From 1.5 m, grading into brown, extremely weathered, extremely low strength sandstone.	M (<PL) - D	H	
			2									
				3.00								
	VL		3	85.50	SPT 3.00-3.10 m 6/100mm HB N=SPT BH201_3.0-3.1			-	SANDSTONE; fine grained, brown, distinctly weathered.			BEDROCK
			4		BH201_4.0-4.1 D 4.00-4.10 m							
				4.50								
				84.00	BH201_4.5-4.6 D 4.50-4.60 m				From 4.5 m, trace ironstone bands.			
	M		5		BH201_5.0-5.1 D 5.00-5.10 m					-	-	
			6		BH201_6.0-6.2 D 6.00-6.20 m							
				6.85								
			7						Hole Terminated at 6.85 m Backfilled with drilling spoil.			
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:16 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH202

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230 Altington Road, Kemps Creek, NSW			Date Started	28/8/17
Position	Refer to Figure 2	Surface RL	87.31 m AHD	Date Completed	28/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE during or after auger drilling	0	87.31				-	TOPSOIL; Silty SAND; fine grained, dark brown, trace fine to medium, sub-angular gravel, trace medium plasticity, dark brown clay, trace rootlets.	M	-	TOPSOIL
				0.50	BH202_0.4-0.5 E 0.40-0.50 m							
				86.81	SPT 0.50-0.95 m 2,3,3 N=6			CI-CH	Silty CLAY; medium to high plasticity, orange-brown, mottled yellow-brown, trace fine, sub-angular gravel.	M (>PL)	VSt	RESIDUAL SOIL
			1		BH202_0.5-0.95 0.50 m							
				1.30	PP =250-260 kPa							
				86.01	BH202_0.9-1.0 E 0.90-1.00 m				From 1.3 m, grading into extremely weathered, sandstone.	M (<PL)	H	
				1.70	SPT 1.50-1.80 m 8,23/150mm HB N>23			-	SANDSTONE; fine to medium grained, brown, distinctly weathered.			
			2	85.61	BH202_1.5-1.7 1.50 m							
	VL			*2.20*	PP >500 kPa							
				85.11	BH202_1.7-1.8							
					BH202_2.4-2.6 D 2.40-2.60 m							
				2.70					From 2.7 m, with some medium to high plasticity, brown clay bands.			
				84.61								
				3.00								
	L		3	84.31	BH202_3.0-3.2 D 3.00-3.20 m					-	-	
				4.00								
			4	83.31	BH202_4.0-4.2 D 4.00-4.20 m				From 4.0 m, trace ironstone bands.			
					BH202_5.0-5.2 D 5.00-5.20 m							
	L-M		5									
					BH202_6.0-6.2 D 6.00-6.20 m							
	L		6									
				7.00	BH202_6.9-7.0 D 6.90-7.00 m				Hole Terminated at 7.00 m Backfilled with drilling spoil.			
			7									
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:16 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH203

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230 Altington Road, Kemps Creek, NSW			Date Started	28/8/17
Position	Refer to Figure 2	Surface RL	84.93 m AHD	Date Completed	28/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE during or after auger drilling	0	0.10 84.83				-	ASPHALT PAVEMENT; 100 mm thick.	-	-	PAVEMENT
				0.40 84.53	BH203_0.2-0.3 E 0.20-0.30 m BH203_0.4-1.4 CBR 0.40-1.40 m SPT 0.50-0.95 m 2,3,5 N=8			- CI-CH	FILL; Silty SAND; fine to medium grained, dark brown, trace fine to medium, sub-angular gravel, with some medium plasticity, dark brown clay. Silty CLAY; medium to high plasticity, orange-brown, trace fine, sub-angular gravel.	M M (>PL)	- VSt - H	FILL RESIDUAL SOIL
			1	1.10 83.83	BH203_0.5-0.95 0.50 m PP =400-400 kPa				From 1.1 m, pale grey, mottled orange-brown.			
				1.50 83.43	BH203_1.0-1.2 E 1.00-1.20 m SPT 1.50-1.95 m				From 1.5 m, grading into fine grained, yellow-brown, extremely weathered sandstone.	M (<PL)	H	
	VL		2	1.80 83.13	10,16,25 N=41 BH203_1.5-1.8 1.50 m PP >500 kPa BH203_1.8-1.95			-	SANDSTONE; fine grained, brown, mottled dark grey, distinctly weathered.	-	-	BEDROCK
			3	3.50 81.43	BH203_3.5-3.6 D 3.50-3.60 m							
	L			4.00	BH203_3.9-4.0 D 3.90-4.00 m				Hole Terminated at 4.00 m Backfilled with drilling spoil.			
			4									
			5									
			6									
			7									
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:16 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH204

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230 Altington Road, Kemps Creek, NSW			Date Started	28/8/17
Position	Refer to Figure 2	Surface RL	86.49 m AHD	Date Completed	29/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE during or after auger drilling	0	86.49				-	TOPSOIL; Silty SAND; fine grained, dark brown, with some fine to medium, sub-angular gravel, trace coarse, sub-angular gravel, trace medium plasticity, dark brown clay.	M	-	FILL/ TOPSOIL
			1		SPT 0.50-0.95 m 4,3,6 N=9 BH204_0.5-0.6 E 0.50-0.60 m BH204_0.5-0.95							
					BH204_1.3-1.4 E 1.30-1.40 m SPT 1.50-1.95 m 3,6,3 N=9 BH204_1.5-1.95							
			2	*2.50*								
				83.99	BH204_2.5-3.5 CBR 2.50-3.50 m			CI-CH	Silty CLAY; medium to high plasticity, dark brown, with some fine grained, brown sand.	M (<PL)	VSt	RESIDUAL SOIL
			3	*3.00*					From 3.0 m, low plasticity, pale brown.			
				83.49 *3.20* 83.29	SPT 3.00-3.45 m 8,8,15 N=23 BH204_3.0-3.1 E 3.00-3.10 m BH204_3.0-3.45 3.00 m PP >500 kPa				From 3.2 m, grading into extremely weathered sandstone, interbedded with extremely weathered, dark grey shale, trace ironstone bands.	D	H	
			4									
					SPT 4.50-4.95 m 8,15,16 N=31 BH204_4.5-4.95							
			5									
				5.50								
	VL			80.99				-	SANDSTONE; fine grained, grey-dark grey, distinctly weathered.			BEDROCK
			6	*6.00*	BH204_5.9-6.0 D 5.90-6.00 m				From 6.0 m, dark grey.	-	-	
	L			80.49								
			7	*7.00*	BH204_6.9-7.0 D 6.90-7.00 m				Hole Terminated at 7.00 m Backfilled with drilling spoil.			
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:16 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH205

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 2
Location	230 Altington Road, Kemps Creek, NSW			Date Started	28/8/17
Position	Refer to Figure 2	Surface RL	81.40 m AHD	Date Completed	28/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE during or after auger drilling	0	81.40	SPT 0.50-0.95 m 0,0,1 N=1 BH205_0.5-0.6 E 0.50-0.60 m			-	TOPSOIL; Silty CLAY; high plasticity, pale brown, trace fine, sub-angular gravel, with some rootlets.	M	-	TOPSOIL
			1	1.00 80.40	BH205_0.5-0.95 0.50 m PP =140-150 kPa BH205_1.4-1.5 E 1.40-1.50 m			CI-CH	Silty CLAY; medium to high plasticity, pale brown, trace fine, sub-angular gravel.	M (>PL)	VSt	RESIDUAL SOIL
			2	1.50 79.90	SPT 1.50-1.95 m 18,26,22 N=48 BH205_1.5-1.95 1.50 m PP >500 kPa				From 1.5 m, grading into fine grained, pale brown, extremely weathered sandstone, trace ironstone bands.	M (<PL)	H	
			3		SPT 3.00-3.35 m 12,18,10/50mm HB N>28 BH205_3.0-3.35 3.00 m					D		
	VL			3.50 77.90	PP >500 kPa BH205_3.5-3.6 D 3.50-3.60 m			-	SANDSTONE; fine grained, pale brown-pale grey, distinctly weathered.			BEDROCK
	L		4	4.00 77.40						-	-	
			5									
			6		BH205_6.0-6.5 D 6.00-6.50 m							
	M			6.50 74.90 6.85								
			7						Continued as Cored Borehole			
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:16 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH206

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230 Altington Road, Kemps Creek, NSW			Date Started	29/8/17
Position	Refer to Figure 2	Surface RL	84.24 m AHD	Date Completed	29/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	▽	0	84.24 *0.20*	BH206_0.1-0.2 E 0.10-0.20 m			-	TOPSOIL; Silty CLAY; low plasticity, brown, with some fine grained, brown sand and some rootlets.	D	-	TOPSOIL
				84.04				CH	Silty CLAY; high plasticity, orange-brown, mottled dark grey and yellow-brown, trace fine to medium, sub-angular ironstone gravel.			RESIDUAL SOIL
			1		SPT 0.50-0.95 m 3,6,6 N=12 BH206_0.5-0.6 E 0.50-0.60 m BH206_0.5-0.95					M (>PL)	VSt	
				1.50 82.74 *1.80*	SPT 1.50-1.52 m 6/20mm HB N=SPT				From 1.5 m, medium plasticity, yellow-brown, mottled dark grey, trace ironstone gravel.	M (<PL)	H	
	L		2	82.44	BH206_1.5-1.52			-	SANDSTONE; fine grained, dark grey-dark brown, distinctly weathered.			BEDROCK
				2.50 81.74	BH206_2.5-2.6 D 2.50-2.60 m				From 2.5 m, with some ironstone bands.			
			3							-	-	
				3.80								
	M		4	80.44 *4.20*	BH206_3.8-4.0 D 3.80-4.00 m				Hole Terminated at 4.20 m TC-bit refusal. Backfilled with drilling spoil.			
			5									
			6									
			7									
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:16 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH207

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230 Altington Road, Kemps Creek, NSW			Date Started	29/8/17
Position	Refer to Figure 2	Surface RL	79.20 m AHD	Date Completed	29/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE during or after auger drilling	0	79.20				-	TOPSOIL; Silty CLAY; low plasticity, brown, with some fine grained, brown sand and some rootlets.	D	-	TOPSOIL
				0.20	BH207_0.1-0.2 E							
				79.00	0.10-0.20 m			CL-CI	Silty CLAY; low to medium plasticity, orange-brown, mottled yellow-brown, trace fine to medium, sub-angular iron indurated gravel.			RESIDUAL SOIL
					SPT 0.50-0.95 m							
					2,4,6							
					N=10							
				1.00	BH207_0.5-0.95					M		
			1	78.20	0.50 m				From 1.0 m, grading into extremely weathered sandstone.	(<PL)	H	
					PP =500-510 kPa							
					BH207_0.7-0.8 E							
					0.70-0.80 m							
				1.50								
				77.70	SPT 1.50-1.95 m				From 1.5 m, pale grey, trace ironstone bands.			
					3,6,12							
					N=18							
				2.00	BH207_1.5-1.95					D		
	L		2	77.20	BH207_2.0-2.5 D			-	SANDSTONE; fine grained, dark brown, distinctly weathered with some ironstone bands.			BEDROCK
					2.00-2.50 m							
			3									
				3.50						-	-	
				75.70								
			4									
				4.50								
				74.70	BH207_4.5-4.6 D				From 4.5 m, dark grey.			
				4.80	4.50-4.60 m							
	M			74.40	BH207_4.8-5.0 D							
			5		4.80-5.00 m							
	H			5.30	BH207_5.2-5.3 D							
					5.20-5.30 m				Hole Terminated at 5.30 m TC-bit refusal. Backfilled with drilling spoil.			
			6									
			7									
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:16 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH208

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 2
Location	230 Altington Road, Kemps Creek, NSW			Date Started	29/8/17
Position	Refer to Figure 2	Surface RL	74.80 m AHD	Date Completed	29/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE during or after auger drilling	0	74.80				-	TOPSOIL; Silty CLAY; low plasticity, brown, with some fine to medium grained, brown sand, with some rootlets.	D	-	TOPSOIL
				0.30								
				74.50				CL	Silty CLAY; low plasticity, dark brown, mottled pale brown, trace fine to medium, sub-angular iron indurated gravel.			RESIDUAL SOIL
				0.50								
				74.30	SPT 0.50-0.95 m 4,7,8 N=15 BH208_0.5-0.95				From 0.5 m, orange-brown, mottled dark grey.	M (<PL)	H	
			1	1.10								
				73.70					From 1.1 m, grading into fine grained, brown, extremely weathered sandstone.	D		
				1.34	BH208_1.2-1.3 D 1.20-1.30 m							
									Continued as Cored Borehole			
			2									
			3									
			4									
			5									
			6									
			7									
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:17 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH209

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230 Altington Road, Kemps Creek, NSW			Date Started	30/8/17
Position	Refer to Figure 2	Surface RL	80.10 m AHD	Date Completed	30/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE during or after auger drilling	0	80.10	BH209_0.1-0.2 E 0.10-0.20 m			-	TOPSOIL; Silty CLAY; low plasticity, dark brown, with some fine grained, dark brown sand and some rootlets.	M	-	TOPSOIL
				0.30 79.80 *0.50*				CL	Silty CLAY; low plasticity, brown, with some fine grained, brown sand, trace fine, sub-angular gravel.	M (<PL)	H	RESIDUAL SOIL
			1	79.60	SPT 0.50-0.95 m 3,7,5 N=12 BH209_0.5_0.95 BH209_0.7-0.8 E 0.70-0.80 m				From 0.5 m, low plasticity.			
				1.50 78.60	SPT 1.50-1.95 m 10,13,14 N=27 BH209_1.5-1.95				From 1.5 m, grading into fine grained, pale brown, extremely weathered sandstone, trace ironstone bands.	D		
			3	*3.30* 76.80	SPT 3.00-3.45 m 6,12,16 N=28 BH209_3.0-3.45				From 3.3 m, pale grey, extremely weathered.			
			4	*4.60* 75.50	SPT 4.50-4.70 m 23,10/50mm HB N>10 BH209_4.5-4.7			-	SANDSTONE; fine grained, grey, extremely weathered, trace ironstone bands.			BEDROCK
	L		5		BH209_5.0-5.1 D 5.00-5.10 m					-	-	
			6		BH209_6.0-6.1 D 6.00-6.10 m							
			7	*7.00*	BH209_6.9-7.0 D 6.90-7.00 m				Hole Terminated at 7.00 m Backfilled with drilling spoil.			
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:17 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH210

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230 Altington Road, Kemps Creek, NSW			Date Started	30/8/17
Position	Refer to Figure 2	Surface RL	76.40 m AHD	Date Completed	30/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE during or after auger drilling	0	76.40				-	TOPSOIL; Silty CLAY; low plasticity, dark brown, with some fine grained sand, trace fine to medium, sub-angular gravel, trace rootlets.	M	-	TOPSOIL
				0.30	BH210_0.1-0.2 E 0.10-0.20 m							
				76.10 *0.50*	BH210_0.3-1.3 CBR 0.30-1.30 m			CI-CH	Silty CLAY; medium to high plasticity, brown, trace fine to medium, sub-angular iron indurated gravel.	M (>PL)		RESIDUAL SOIL
				75.90	SPT 0.50-0.95 m 3,3,3 N=6				From 0.5 m, pale brown, mottled pale grey, trace fine to medium, sub-angular iron indurated gravel.			
			1		BH210_0.5-0.95 0.50 m PP =280-400 kPa					M (<PL)		
				1.50	BH210_0.8-0.9 E 0.80-0.90 m							
				74.90	SPT 1.50-1.95 m 8,15,26 N=41				From 1.5 m, grading into extremely weathered sandstone, with some ironstone bands.		H	
			2		BH210_1.5-1.95 1.50 m PP >500 kPa					D		
				3.00								
	L		3	73.40	SPT 3.00-3.15 m 16/150mm HB N=SPT			-	SANDSTONE; fine grained, grey, extremely weathered.	-	-	BEDROCK
					BH210_3.0-3.15							
				4.00								
			4						Hole Terminated at 4.00 m Backfilled with drilling spoil.			
			5									
			6									
			7									
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:17 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH211

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230 Altington Road, Kemps Creek, NSW			Date Started	30/8/17
Position	Refer to Figure 2	Surface RL	76.90 m AHD	Date Completed	30/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T		GWNE during or after auger drilling	0	76.90 *0.20*	BH211_0.1-0.2 E 0.10-0.20 m			-	TOPSOIL; Silty CLAY; low plasticity, dark brown, with some fine grained, dark brown sand and some rootlets.	M	-	TOPSOIL
				76.70				CI	Silty CLAY; medium plasticity, brown, with some fine grained, brown sand, trace fine to medium, sub-angular gravel.	M (<PL)	VSt	RESIDUAL SOIL
			1		SPT 0.50-0.95 m 2,3,4 N=7 BH211_0.5-0.95 0.50 m PP =420-450 kPa BH211_0.7-0.8 E 0.70-0.80 m							
	-			*1.50* 75.40	SPT 1.50-1.95 m 8,12,16 N=28 BH211_1.5-1.95				From 1.5 m, grading into extremely weathered.	D	H	
			2									
				3.00 73.90	SPT 3.00 m 0/0mm HB BH211_3.0 BH211_3.0-3.2 D 3.00-3.20 m			-	Interbedded SHALE and SANDSTONE; shale is dark grey, distinctly weathered, sandstone is fine to medium grained, grey, distinctly weathered.			BEDROCK
	VL		4	*4.00* 72.90					From 4.0 m, fine grained, dark grey, distinctly weathered sandstone.			
				5.00 71.90	BH211_5.0-5.2 D 5.00-5.20 m					-	-	
	L		6									
			7	*7.00*	BH211_6.9-7.0 D 6.90-7.00 m				Hole Terminated at 7.00 m Backfilled with drilling spoil.			
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:17 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH212

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230 Altington Road, Kemps Creek, NSW			Date Started	30/8/17
Position	Refer to Figure 2	Surface RL	71.30 m AHD	Date Completed	30/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE during or after auger drilling	0	0.10 71.20	BH212_0.1-0.2 E 0.10-0.20 m			- CL-CI	TOPSOIL; Silty CLAY; low plasticity, dark brown, with some fine grained, brown sand, some fine to medium, sub-angular gravel and some rootlets.	M - D	-	TOPSOIL
					BH212_0.5-0.6 E 0.50-0.60 m				Silty CLAY; low to medium plasticity, brown, trace fine to medium, sub-angular gravel.			RESIDUAL SOIL
			1		BH212_0.5-0.95 0.50 m PP >500 kPa					M (<PL)		
					BH212_0.5-1.5 CBR 0.50-1.50 m							
				1.50 69.80	BH212_1.5-1.95				From 1.5 m, grading into fine grained, grey, extremely weathered sandstone, with some ironstone bands.			
			2	2.00 69.30							H	
										M - D		
			3	3.00 68.30	BH212_3.0-3.45				From 3.0 m, brown, with some ironstone bands and some clay.			
				3.60 67.70								
	L			3.80 67.50 4.00	BH212_3.8-4.0 D 3.80-4.00 m			-	SANDSTONE; fine grained, dark grey.	-	-	BEDROCK
			4						Hole Terminated at 4.00 m Backfilled with drilling spoil.			
			5									
			6									
			7									
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:17 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH213

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230 Altington Road, Kemps Creek, NSW			Date Started	30/8/17
Position	Refer to Figure 2	Surface RL	67.30 m AHD	Date Completed	30/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE during or after auger drilling	0	67.30				-	TOPSOIL; Silty CLAY; low plasticity, dark brown, with some fine to medium grained, dark brown sand and some rootlets.	M - D	-	TOPSOIL
				0.20	BH213_0.1-0.2 E							
				0.10-0.20 m								
				67.10				CL-CI	Silty CLAY; low to medium plasticity, dark brown, trace fine to medium grained, dark brown sand, trace fine to medium, sub-angular iron indurated gravel.		VSt	RESIDUAL SOIL
			1		SPT 0.50-0.95 m 5,5,8 N=13							
					BH213_0.5-0.6 E 0.50-0.60 m							
					BH213_0.5-0.95 0.50 m PP >500 kPa							
					SPT 1.50-1.95 m 8,11,11 N=22							
					BH213_1.5-1.95							
			2	2.00								
				65.30	BH213_2.0-2.1 D 2.00-2.10 m				From 2.0 m, grading into fine grained, dark grey, extremely weathered sandstone.	M (<PL)	H	
				3.00								
			3	64.30	SPT 3.00-3.45 m 5,7,8 N=15				From 3.0 m, with some ironstone bands.			
					BH213_3.0-3.45							
			4									
				4.50								
	VL			62.80	SPT 4.50-4.70 m 17,8/50mm HB N>8			-	SANDSTONE; fine grained, dark grey, distinctly weathered.			BEDROCK
				4.70								
				62.60	BH213_4.5-4.7							
	L		5							-	-	
			6									
			7	7.00	BH213_6.9-7.0 D 6.90-7.00 m				Hole Terminated at 7.00 m Backfilled with drilling spoil.			
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:17 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH214

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230 Altington Road, Kemps Creek, NSW			Date Started	30/8/17
Position	Refer to Figure 2	Surface RL	61.40 m AHD	Date Completed	30/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE during or after auger drilling	0	61.40				-	TOPSOIL; Silty CLAY; low plasticity, dark brown, with some fine grained, dark brown sand and some rootlets.	M	-	TOPSOIL
				0.60 60.80	BH214_0.3-0.4 E 0.30-0.40 m SPT 0.50-0.95 m 5,8,6 N=14 BH214_0.5-0.6 0.50 m PP >500 kPa BH214_0.6-0.95 BH214_1.0-1.1 E 1.00-1.10 m			CL	Silty CLAY; low plasticity, yellow-brown, mottled red-brown, with some fine to medium, sub-angular iron indurated gravel.	M (<PL)		RESIDUAL SOIL
			1									
				1.70 59.70	SPT 1.50-1.95 m 8,10,13 N=23 BH214_1.5-1.95				From 1.7 m, grading into fine grained, grey, extremely weathered sandstone.	D	H	
			2									
				3.00 58.40 3.20 58.20	SPT 3.00-3.30 m 10,25/150mm HB N>25 BH214_3.0-3.3			-	SANDSTONE; fine grained, dark grey, distinctly weathered, trace ironstone bands.			BEDROCK
	VL		3									
			4		BH214_4.0-4.1 D 4.00-4.10 m SPT 4.50-4.95 m 6,11,17 N=28 BH214_4.5-4.95					-	-	
			5	5.30 56.10								
	L				BH214_5.5-5.6 D 5.50-5.60 m							
			6		SPT 6.00-6.03 m 10/30mm HB N=SPT BH214_6.0-6.03							
	M			6.70 54.70	BH214_6.7-6.8 D 6.70-6.80 m				Hole Terminated at 6.80 m TC-bit refusal. Backfilled with drilling spoil.			
			7									
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:17 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH215

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230 Altington Road, Kemps Creek, NSW			Date Started	30/8/17
Position	Refer to Figure 2	Surface RL	60.80 m AHD	Date Completed	30/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	▽	0	60.80	BH215_0.1-0.2 E 0.10-0.20 m			-	TOPSOIL; Silty CLAY; low to medium plasticity, brown, with some fine grained, brown sand and some rootlets.	M	-	TOPSOIL
				0.30 60.50				CH	Silty CLAY; high plasticity, orange-brown, mottled pale grey, trace fine to medium, sub-angular iron indurated gravel.			RESIDUAL SOIL
			1		SPT 0.50-0.95 m 1,1,2 N=3 BH215_0.5-0.95 0.50 m PP =180-200 kPa BH215_0.8-0.9 E 0.80-0.90 m							
					SPT 1.50-1.95 m 2,3,2 N=5 BH215_1.5-1.95 1.50 m PP =200-200 kPa					M (>PL)		
			2									
				3.00							St	
			3	57.80	SPT 3.00-3.45 m 2,3,4 N=7 BH215_3.0-3.45				From 3.0 m, some fine to medium, sub-angular iron indurated gravel.			
			4							W		
				4.50								
				56.30 4.80	SPT 4.50-4.68 m 6,8/30mm HB N>8 BH215_4.5-4.68				From 4.5 m, grading into dark grey, extremely weathered shale.			
	VL		5	56.00				-	SHALE; dark grey, distinctly weathered, trace ironstone bands.			BEDROCK
				6.00	BH215_5.9-6.0 D 5.90-6.00 m					-	-	
	L		6	54.80								
				6.80								
	M		7	54.00 7.00	BH215_6.8-7.0 D 6.80-7.00 m				Hole Terminated at 7.00 m Backfilled with drilling spoil.			
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:17 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH216

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230 Altington Road, Kemps Creek, NSW			Date Started	30/8/17
Position	Refer to Figure 2	Surface RL	61.60 m AHD	Date Completed	30/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-		0	0.10 61.50				-	TOPSOIL; low plasticity, brown, with some fine grained, brown sand and some rootlets.	M - D	-	TOPSOIL
					BH216_0.3-0.4 E 0.30-0.40 m			CH	Silty CLAY; high plasticity, brown, mottled orange-brown and grey, trace fine to medium, sub-angular iron indurated gravel.	M (>PL)	VSt	RESIDUAL SOIL
				0.80 60.80	SPT 0.50-0.95 m 3,4,5 N=9				From 0.8 m, low plasticity, yellow-brown.	M (<PL)		
			1		BH216_0.5-0.95 0.50 m PP =480-500 kPa BH216_0.9-1.0 E 0.90-1.00 m							
				1.50 60.10	SPT 1.50-1.95 m 11,16,18 N=34				From 1.5 m, grading into fine grained, pale brown and pale grey, extremely weathered sandstone.	D	H	
			2		BH216_1.5-1.95 1.50 m PP >500 kPa							
				3.00 58.60 3.20 58.40	SPT 3.00-3.35 m 11,12,6/50mm HB N>18			-	SHALE; dark grey, distinctly weathered.			BEDROCK
			3		BH216_3.0-3.35							
	VL		4									
				4.80 56.80	BH216_4.8-5.0 D 4.80-5.00 m					-	-	
			5	5.50								
	L			56.10	BH216_5.5-5.7 D 5.50-5.70 m							
			6									
	M	▽		6.50 55.10								
			7	7.00	BH216_6.8-7.0 D 6.80-7.00 m				Hole Terminated at 7.00 m Backfilled with drilling spoil.			
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:17 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH217

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230 Altington Road, Kemps Creek, NSW			Date Started	30/8/17
Position	Refer to Figure 2	Surface RL	58.75 m AHD	Date Completed	30/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	▽	0	58.75				-	TOPSOIL; Silty CLAY; high plasticity, dark brown, with some fine to medium grained, brown sand and some rootlets, trace fine to medium, sub-angular gravel.	M	-	TOPSOIL
				0.30	BH217_0.2-0.3 E							
				58.45	0.20-0.30 m			CH	Silty CLAY; high plasticity, brown, trace fine to medium, sub-angular iron indurated gravel.			RESIDUAL SOIL
			1		SPT 0.50-0.95 m 1,2,3 N=5 BH217_0.5-0.95 0.50 m PP =180-200 kPa BH217_0.8-0.9 E 0.80-0.90 m					M (>PL)	St	
					SPT 1.50-1.95 m 3,3,3 N=6 BH217_1.5-1.95 1.50 m PP =100-120 kPa					W	F	
			3		SPT 3.00-3.45 m 5,6,9 N=15 BH217_3.0-3.45 3.00 m PP =220-320 kPa							
				3.40					From 3.4 m, grading into dark grey, extremely weathered shale, with some ironstone bands.		VSt	
				55.35								
			4							M (<PL) - W	H	
				4.60	SPT 4.50-4.52 m 5/20mm HB N=SPT BH217_4.5-4.52			-	SHALE; dark grey, distinctly weathered.			BEDROCK
	VL		5	54.15						-	-	
				6.00								
	L		6	52.75	BH217_6.0-6.2 D 6.00-6.20 m							
				6.20					Hole Terminated at 6.20 m TC-bit refusal. Backfilled with drilling spoil.			
			7									
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:17 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH218

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230 Altington Road, Kemps Creek, NSW			Date Started	31/8/17
Position	Refer to Figure 2	Surface RL	61.10 m AHD	Date Completed	31/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE during or after auger drilling	0	0.10 61.00	BH218_0.0-0.1 E 0.00-0.10 m			-	TOPSOIL; Silty SAND; fine to medium grained, brown, trace dry, brown clay, trace fine to medium, sub-angular gravel, with some rootlets.	D	-	TOPSOIL
								CL				RESIDUAL SOIL
			1		SPT 0.50-0.95 m 5,6,6 N=12 BH218_0.5-0.6 E 0.50-0.60 m BH218_0.5-0.95 0.50 m PP >500 kPa				Silty CLAY; low plasticity, brown, mottled grey, trace fine to medium, sub-angular iron indurated gravel.	M (<PL)		
				1.50 59.60	SPT 1.50-1.95 m 6,9,10 N=19				From 1.5 m, pale brown, mottled orange-brown and grey.		H	
				1.80 59.30	BH218_1.5_1.95 1.50 m PP >600 kPa				From 1.8 m, pale grey, mottled orange-brown.			
			2	2.20 58.90					From 2.2 m, grading into dark grey, extremely weathered shale.	D		
			3	3.20 57.90	SPT 3.00-3.25 m 12,20/100mm HB N>20 BH218_3.0-3.25			-	SHALE; dark grey, distinctly weathered, trace iron staining.			BEDROCK
	VL			4.00 57.10	BH218_4.0-4.5 D 4.00-4.50 m							
			4	4.50 56.60					From 4.5 m, trace ironstone bands.			
	L		5							-	-	
			6	6.00 55.10	BH218_6.0-7.0 D 6.00-7.00 m							
	M		7	7.00					Hole Terminated at 7.00 m Borehole left open.			
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:18 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH219

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230 Altington Road, Kemps Creek, NSW			Date Started	31/8/17
Position	Refer to Figure 2	Surface RL	58.20 m AHD	Date Completed	31/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE during or after auger drilling	0	58.20				-	TOPSOIL; Silty CLAY; low to medium plasticity, dark brown, with some fine to medium grained, brown sand, trace fine to medium, sub-angular gravel and some rootlets.	M	-	TOPSOIL
				0.40 57.80	BH219_0.2-0.3 E 0.20-0.30 m			CH	Silty CLAY; high plasticity, brown, mottled orange-brown and grey, trace fine to medium, sub-angular iron indurated gravel, trace rootlets.			RESIDUAL SOIL
			1		SPT 0.50-0.95 m 2,3,3 N=6 BH219_0.5-0.95 0.50 m PP =350-560 kPa BH219_0.9-1.0 E 0.90-1.00 m					M (>PL)	H	
				1.60 56.60	SPT 1.50-1.95 m 2,3,6 N=9				From 1.6 m, grading into grey, extremely weathered shale.			
			2	*1.90* 56.30	BH219_1.5-1.95			-	SHALE; dark grey, distinctly weathered.			BEDROCK
	VL		3	*3.00* 55.20	BH219_3.0-3.2 D 3.00-3.20 m							
			4									
	L		5	*4.50* 53.70	BH219_4.5-4.7 D 4.50-4.70 m					-	-	
			6									
	M		7	*6.50* 51.70 *7.00*	BH219_6.8-7.0 D 6.80-7.00 m				Hole Terminated at 7.00 m Borehole left open.			
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:18 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH220

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230 Altington Road, Kemps Creek, NSW			Date Started	31/8/17
Position	Refer to Figure 2	Surface RL	56.92 m AHD	Date Completed	31/8/17
Job No.	E23529.G03	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	▽	0	56.92				-	TOPSOIL; Silty CLAY; high plasticity, dark brown, trace fine to medium, sub-angular gravel, trace rootlets.	M	-	TOPSOIL
				0.30 56.62				CH	Silty CLAY; high plasticity, dark brown, mottled grey and orange-brown, trace fine to medium, sub-angular iron indurated gravel.			RESIDUAL SOIL
			1		SPT 0.50-0.95 m 2,2,2 N=4 BH220_0.5-0.95 0.50 m PP =170-200 kPa					M (>PL)	St	
			2		SPT 1.50-1.95 m 2,2,2 N=4 BH220_1.5-1.95 1.50 m PP =150-160 kPa						VSt	
			3	*3.20* 53.72	SPT 3.00-3.45 m 7,11,16 N=27 BH220_3.0-3.45 3.00 m PP =400-450 kPa				From 3.2 m, grading into dark grey, extremely weathered, shale, with some ironstone bands.	M (<PL)	H	
				3.80 53.12 *4.00*	BH220_3.8-4.0 D 3.80-4.00 m							
			4						Hole Terminated at 4.00 m Backfilled with drilling spoil.			
			5									
			6									
			7									
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.G03 BOREHOLE LOGS.GPJ <<DrawingFile>> 15/09/2017 17:18 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH221

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek NSW			Date Started	31/8/17
Position	Refer to Figure 2	Surface RL	57.50 m AHD	Date Completed	31/8/17
Job No.	E23529.E02	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0	57.50				-	TOPSOIL: Silty CLAY; high plasticity, dark brown, trace fine to medium grained, brown sand, some rootlets.	M	-	TOPSOIL
					BH221_0.2-0.3 E 0.20-0.30 m							
				0.50								
				57.00	SPT 0.50-0.95 m 3,5,12 N=17			CI-CH	Silty CLAY: medium to high plasticity, brown mottled orange-brown, trace fine to medium, sub-angular iron indurated gravels, trace rootlets.	M (>PL)	H	RESIDUAL SOIL
					BH221_0.5-0.95 0.50 m PP =470-530 kPa							
			1		BH221_0.9-1.0 E 0.90-1.00 m							
				1.50								
	L			56.00	SPT 1.50-1.95 m 6,15,16 N=31			CL	From 1.5m, low plasticity, grading into extremely weathered, dark grey sandstone.	M (<PL)		
				2.00	BH221_1.5-1.95 1.50 m							
			2	55.50	PP >500 kPa			-	SANDSTONE: fine to medium grained, grey, distinctly weathered, interbedded with shale.			BEDROCK
				3.00								
AD/T		GWNE	3	54.50	SPT 3.00-3.01 m 6/10mm HB BH221_3.0-3.2				From 3.0m, with ironstone bands.	-	-	
	M		5		BH221_5.0-5.1 D 5.00-5.10 m							
			6		BH221_5.9-6.0 D 5.90-6.00 m							
			7	*7.00*	BH221_6.9-7.0 D 6.90-7.00 m				Hole Terminated at 7.00 m Borehole left open.			
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 21/09/2017 10:04 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH222

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek NSW			Date Started	31/8/17
Position	Refer to Figure 2	Surface RL	58.40 m AHD	Date Completed	31/8/17
Job No.	E23529.E02	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T			0	58.40				-	TOPSOIL: Silty CLAY; high plasticity, dark brown, trace fine to medium, brown sand, some rootlets.	M	-	TOPSOIL
				0.20	BH222_0.1-0.2 E							
				58.20	0.10-0.20 m			CH	Silty CLAY: high plasticity, brown mottled orange-brown, trace fine to medium, sub-angular, iron indurated gravels, trace rootlets.			RESIDUAL SOIL
					SPT 0.50-0.95 m 1,2,2 N=4						St	
			1		BH222_0.5-0.95 0.50 m PP =130-140 kPa							
					BH222_0.7-0.8 E 0.70-0.80 m							
	VL				SPT 1.50-1.95 m 4,4,5 N=9					M (>PL)		
			2		BH222_1.5-1.95 1.50 m PP =200-250 kPa						VSt	
				3.00								
			3	55.40	SPT 3.00-3.45 m 6,6,8 N=14			Cl	From 3.0m, some fine to medium, sub-angular, iron indurated gravels, grading into extremely weathered material.			
					BH222_3.0-3.45					M (<PL)	H	
	L			4.00								
			4	54.40				-	SANDSTONE: fine to medium grained, grey and yellow-brown, distinctly weathered.			BEDROCK
					SPT 4.50-4.67 m 9,5/20mm HB N=5/20mm							
				4.80								
				53.60	BH222_4.5-4.67				From 4.8m, dark grey, distinctly weathered.	-	-	
		▽	5	5.00								
	M			53.40	BH222_5.0-5.2							
					BH222_5.6_5.8							
				5.80								
			6						Hole Terminated at 5.80 m TC-bit refusal. Backfilled with drilling spoil.			
			7									
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 21/09/2017 10:05 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH223

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek NSW			Date Started	31/8/17
Position	Refer to Figure 2	Surface RL	57.90 m AHD	Date Completed	31/8/17
Job No.	E23529.E02	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	L	GWNE	0	0.10 57.80				-	TOPSOIL: Silty CLAY; medium plasticity. brown, some fine to medium grained, brown sand, some rootlets.	M	-	TOPSOIL
								CI	Silty CLAY: medium plasticity, brown mottled pale grey and orange-brown, trace fine to medium grained, sub-angular, iron indurated gravels.			RESIDUAL SOIL
					SPT 0.50-0.95 m 3,5,7 N=12 BH223_0.5-0.95 0.50 m PP =450-500 kPa					M (>PL)	H	
			1									
				1.50 56.40	SPT 1.50-1.95 m 3,5,20 N=25 BH223_1.5-1.8 1.50 m PP >500 kPa BH223_1.8-1.95			CL	From 1.5m, some iron indurated gravels.	M (<PL)		
				1.80 56.10 2.00					From 1.8m, grading into extremely weathered, dark grey material.			
			2	55.90				-	SANDSTONE: fine to medium grained, grey, distinctly weathered, interbedded with dark grey shale.			BEDROCK
				3.00 54.90	SPT 3.00-3.10 m 12 HB BH223_3.0-3.1							
	M		3									
			4		BH223_4.0-4.5 D 4.00-4.50 m					-	-	
			5									
				5.50 52.40	BH223_5.5-6.0 D 5.50-6.00 m							
			6	6.00 51.90								
			7	7.00	BH223_6.8-7.0 D 6.80-7.00 m				Hole Terminated at 7.00 m Target Depth Reached.			
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 21/09/2017 10:07 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH224

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek NSW			Date Started	31/8/17
Position	Refer to Figure 2	Surface RL	56.80 m AHD	Date Completed	31/8/17
Job No.	E23529.E02	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T			0	56.80 *0.20*				-	TOPSOIL: Silty CLAY; medium plasticity, dark brown, some fine to medium grained brown sands, some rootlets.	M	-	TOPSOIL
				56.60				CH	Silty CLAY: high plasticity, pale brown mottled orange-brown, trace fine to medium, sub-angular, iron indurated gravels.			RESIDUAL SOIL
			1		SPT 0.50-0.95 m 2,2,3 N=5 BH224_0.5-0.95 0.50 m PP =480-600 kPa					M (>PL)		
				1.50								
	L			55.30	SPT 1.50-1.95 m 5,8,10 N=18 BH224_1.5-1.95 1.50 m			CI	From 1.5m, pale brown and pale grey, some ironstone bands.		H	
			2							M (>PL)		
				3.00								
			3	53.80	SPT 3.00-3.42 m 15,16,16 N=32/270mm BH224_3.0-3.42				From 3.0m, grading into extremely weathered, dark grey bedrock, some ironstone bands.			
				3.50								
				53.30				-	SANDSTONE: fine to medium grained, distinctly weathered, interbedded with shale.			BEDROCK
			4									
					BH224_4.5-4.7 D 4.50-4.70 m							
	M		5		BH224_5.0-6.0 D 5.00-6.00 m					-	-	
			6									
				7.00								
			7						Hole Terminated at 7.00 m Target Depth Reached.			
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 21/09/2017 10:08 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH225

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek NSW			Date Started	31/8/17
Position	Refer to Figure 2	Surface RL	55.60 m AHD	Date Completed	31/8/17
Job No.	E23529.E02	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0	55.60 *0.20*				-	TOPSOIL: Silty CLAY: medium to high plasticity, dark brown, some fine to medium grained, brown sand, some rootlets.	M	-	TOPSOIL
				55.40				CH	Silty CLAY: high plasticity, orange-brown mottled pale brown & pale grey, trace fine to medium, sub-angular, iron indurated gravels.	M (>PL)	H	RESIDUAL SOIL
			1		SPT 0.50-0.95 m 2,2,3 N=5 BH225_0.5-0.95 0.50 m PP =480-530 kPa CBR:0.5-1.5 CBR 0.50-1.50 m							
				1.20 54.40 *1.50*				CI		M (<PL)		
AD/T	L	GWNE	2	*1.60* 54.00	SPT 1.50-1.60 m 6 BH225_1.5-1.6			-	From 1.5m, trace ironstone bands, grading into extremely weathered bedrock. SANDSTONE: dark grey, distinctly weathered.			BEDROCK
			3	*3.50* 52.10					From 3.5m, some ironstone bands.	-	-	
	M		4	*4.00* 51.60	BH225_3.8-4.0 D 3.80-4.00 m				At 4.0, low strength, some ironstone bands. Hole Terminated at 4.00 m Target Depth Reached.			
			5									
			6									
			7									
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 21/09/2017 10:09 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH226

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek NSW			Date Started	31/8/17
Position	Refer to Figure 2	Surface RL	54.30 m AHD	Date Completed	31/8/17
Job No.	E23529.E02	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	L	GWNE	0	54.30 *0.20*				-	TOPSOIL: Silty CLAY: high plasticity, dark brown, trace fine to medium grained, brown sand, some rootlets.	M	-	TOPSOIL
				54.10				CH	Silty CLAY: high plascity, brown mottled orange brown & pale grey, trace fine to medium, sub-angular, iron indurated gravels.			RESIDUAL SOIL
			1		SPT 0.50-0.95 m 1,1,2 N=3 BH226_0.5-0.95 0.50 m PP =180-190 kPa CBR:0.5-1.5 CBR 0.50-1.50 m					M (>PL)	St	
					SPT 1.50-1.95 m 3,3,5 N=8 BH226_1.5-1.95 1.50 m PP =300-330 kPa							
			2	*1.80* 52.50					From 1.8m, pale grey mottled yellow-brown and orange-brown.			
				2.60 51.70				CI		M (<PL)	VSt to H	
			3	*3.20* 51.10	SPT 3.00-3.10 m 8 BH226_3.0-3.05 BH226_3.05-3.10			-	SANDSTONE: fine grained, distinctly weathered.	-	-	BEDROCK
				3.80 50.50	BH226_3.8-4.0 D 3.80-4.00 m				From 3.8m, interbedded with dark grey, distinctly weathered shale.			
			4	*4.00*					Hole Terminated at 4.00 m Target Depth Reached.			
			5									
			6									
			7									
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 21/09/2017 10:10 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH227

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek NSW			Date Started	1/9/17
Position	Refer to Figure 2	Surface RL	62.09 m AHD	Date Completed	1/9/17
Job No.	E23529.E02	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	L	GWNE	0	62.09				-	TOPSOIL: Silty CLAY: medium plasticity, brownm some fine to medium brown sand, trace fine to medium, sub-angular gravels.	M to D	-	TOPSOIL
				0.30								
				61.79	CBR:0.3-1.3 CBR 0.30-1.30 m SPT 0.50-0.77 m 2,8 HB N=8/120mm BH227_0.5-0.77			CI	Silty CLAY: low to medium plasticity, brown mottled pale grey, some fine to medium grained, brown sand, some fine to medium, sub-angular, iron indurated gravels.	M (<PL)	H	RESIDUAL SOIL
			1	1.00								
				61.09				CL	From 1.0m, grading into extremely weathered, dark grey bedrock.	D		
				1.40								
	M			60.69	BH227_1.5-1.6 D 1.50-1.60 m			-	SANDSTONE: fine grained, distinctly weathered, with some ironstone bands.	-	-	BEDROCK
			2	2.00								
				60.09	BH227_2.0-2.1 D 2.00-2.10 m				Hole Terminated at 2.10 m TC-bit refusal. Backfilled with drilling spoil.			
			3									
			4									
			5									
			6									
			7									
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 21/09/2017 10:11 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH228

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek NSW			Date Started	1/9/17
Position	Refer to Figure 2	Surface RL	59.13 m AHD	Date Completed	1/9/17
Job No.	E23529.E02	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	L	GWNE	0	59.13				-	TOPSOIL: Silty CLAY; high plasticity, dark brown mottled red-brown, some fine to medium, sub-angular, igneous gravels.	M	-	FILL
				0.80	SPT 0.50-0.95 m 3,4,5 N=9							
			1	58.33	BH228_0.5-0.8 BH228_0.8-0.95 0.80 m PP =200-210 kPa CBR:0.8-1.8 CBR 0.80-1.80 m SPT 1.50-1.95 m 2,3,3 N=6 BH228_1.5-1.95 1.50 m PP =220-230 kPa			CH	Silty CLAY: high plasticity, pale grey mottled orange-brown, trace fine to medium grained, sub-angular, iron indurated gravels.	M (>PL)	St to VSt	RESIDUAL SOIL
			2	*2.20* 56.93				CI				
				2.80 56.33				CL		M (<PL)		
			3	*3.20* 55.93	SPT 3.00-3.45 m 12,16,23 N=39 BH228_3.0-3.45			-	SANDSTONE: fine grained, distinctly weathered.			BEDROCK
	M			*3.80* 55.33 *4.00*	Bh228_3.8-4.0 D 3.80-4.00 m					-	-	
			4						Hole Terminated at 4.00 m Target Depth Reached.			
			5									
			6									
			7									
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 21/09/2017 10:13 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH229

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek NSW			Date Started	1/9/17
Position	Refer to Figure 2	Surface RL	60.00 m AHD	Date Completed	1/9/17
Job No.	E23529.E02	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	L	GWNE	0	60.00				-	FILL: Silty SAND; fine to medium grained, dark brown and brown, trace medium to high plasticity, dark brown clay, stinky odour.	M	-	FILL
				0.60 59.40 *0.80* 59.20 *1.00*	SPT 0.50-0.95 m 2,3,7 N=10 BH229_0.6-0.95 0.60 m PP =230-240 kPa CBR:0.6-1.6 CBR 0.60-1.60 m			CH	Silty CLAY: high plasticity, orange-brown mottled brown, trace fine to medium grained, sub-angular, iron indurated gravels.	M (>PL)	VSt	RESIDUAL SOIL
			1	59.00				CL-CI	From 0.8m, grading into extremely weathered bedrock.	M (<PL)	H	
				1.60 58.40	SPT 1.50-1.95 m 6,16,18 N=34 BH229_1.6-1.95 1.60 m PP =500-600 kPa			-	SANDSTONE: fine grained, grey, distinctly weathered.	-	-	BEDROCK
			2									
			3	*3.00* 57.00	BH229_3.0-4.0 D 3.00-4.00 m							
				4.00					Hole Terminated at 4.00 m Target Depth Reached.			
			4									
			5									
			6									
			7									
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 21/09/2017 10:14 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH230

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek NSW			Date Started	1/9/17
Position	Refer to Figure 2	Surface RL	66.40 m AHD	Date Completed	1/9/17
Job No.	E23529.E02	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	L	GWNE	0	66.40				-	FILL: Silty SAND; fine to medium grained, dark brown, trace high plasticity, dark brown clay, trace fine to medium grained, sub-angular gravels.	M	-	FILL
				0.30								
				66.10				CH	Silty CLAY: high plasticity, yellow-brown mottled dark grey, some fine to medium grained, brown sand, trace fine to medium grained, sub-angular gravels.	M (>PL)	H	RESIDUAL SOIL
				1.00	SPT 0.50-0.95 m 2,3,6 N=9 BH230_0.5-0.95 0.50 m PP =500-600 kPa CBR:0.5-1.5 CBR 0.50-1.50 m							
			1	65.40				CI		M (<PL)		
				1.50								
				64.90	SPT 1.50-1.95 m 6,8,10 N=18 BH230_1.5-1.95			CL	From 1.5m, grading into extremely weathered bedrock, some fine to medium grained, brown sand, some ironstone bands.	D		
			2	2.50								
				63.90				-	SANDSTONE: fine grained, grey, distinctly weathered.			BEDROCK
	M			3.00								
			3	63.40	BH230_3.0-4.0 D 3.00-4.00 m					-	-	
				4.00								
			4						Hole Terminated at 4.00 m Target Depth Reached.			
			5									
			6									
			7									
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 21/09/2017 10:15 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

BOREHOLE: BH231

eiaustralia
Contamination | Remediation | Geotechnical

Project	Proposed New Redevelopment			Sheet	1 OF 1
Location	230-242 Aldington Road, Kemps Creek NSW			Date Started	1/9/17
Position	Refer to Figure 2	Surface RL	75.10 m AHD	Date Completed	1/9/17
Job No.	E23529.E02	Contractor	Geosense Drilling Pty Ltd	Logged BZ	Date:
Client	BAPS Australia	Drill Rig	Hanjin DB8	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	L	GWNE	0	75.10				-	FILL: Silty SAND; fine to medium grained, dark brown sand, trace high plasticity. dark brown clay, trace fine to medium grained, sub-angular gravels.	M	-	FILL
				0.60	SPT 0.50-0.95 m 2,3,5 N=8 BH231_0.6-0.95			CH	Silty CLAY: high plasticity, yellow-brown mottled pale grey, some fine to medium grained, yellow-brown sand, trace fine to medium grained, sub-angular, iron indurated gravels.	M (>PL)	VSt	RESIDUAL SOIL
			1	74.50 *1.00* 74.10	0.60 m PP =240-250 kPa			CI				
				1.50 73.60	SPT 1.50-1.95 m 3,6,10 N=16 BH231_1.5-1.95			CL	From 1.5m, pale grey, some ironstone bands.	M (<PL)	H	
			2									
			3	*3.20* 71.90	SPT 3.00-3.45 m 8,12,16 N=28 BH231_3.0-3.45				From 3.2m, orange-brown.			
				3.50 71.60					From 3.5m, grading into extremely weathered, fine grained, pale grey sandstone.			
			4	*4.00*	BH231_3.8-4.0 D 3.80-4.00 m				Hole Terminated at 4.00 m Target Depth Reached.			
			5									
			6									
			7									
			8									
			9									
			10									

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

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E23529.GPJ <<DrawingFile>> 21/09/2017 10:17 8.30.004 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

APPENDIX G

COC AND SAMPLE RECEIPT FORMS

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 1 of 1

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: Envirolab Services
12 Ashley Street,
CHATSWOOD NSW 2067
P: 02 9910 6200

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]
QT1	1	J	4/9/17	AM/PM		X				X														
QT2	2	J				X				X														
QT3	3	J				X				X														
QT4	4	J				X				X														
QT5	5	J	5/9/17			X				X														
QT6	6	2VC,P,S	4/9/17	AM/PM	X					X														

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

JOB NO: 175240
Received: 8/9/17
15:00
MT
Ambient 16.6
Icepack
Broken/None

LABORATORY TURNAROUND
- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments: Please send to Envirolab.

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

Sampler's Name (EI): TK/MD
Print: Mitchell Duley
Signature:
Date: 5-9-17

Received by (Envirolab): MT
Print:
Signature:
Date: 8/9/17 15:00

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

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

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	EI Australia
Attention	Mitchell Duley

Sample Login Details

Your reference	E23529
Envirolab Reference	175240
Date Sample Received	08/09/2017
Date Instructions Received	08/09/2017
Date Results Expected to be Reported	15/09/2017

Sample Condition

Samples received in appropriate condition for analysis	YES
No. of Samples Provided	5 Soils, 1 Waters
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	16.6
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	Acid Extractable metalsin soil	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	HM in water - dissolved
QT1	✓	✓	✓			
QT2	✓	✓	✓			
QT3	✓	✓	✓			
QT4	✓	✓	✓			
QT5	✓	✓	✓			
QT6				✓	✓	✓

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

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

source: HPMFPM630SR_20170926112526.pdf page: 1 SGS Ref: PE119668_COC

CHAIN OF CUSTODY RECORD

COC#: SE170024B

Owner job:

Ship to: XML	Project Name:	Due date: 25/09/2017 3:41:00 PM
	Client: EI AUSTRALIA 12269923_11762409	Send Results to: AUENVSE
	Sampler Name: JH/MD	
Carrier:	Airbill #:	

Field Sample ID	Date sampling	Time	Matrix	# of Containers	Analyses Requested										Comments
					AHERB_S	AN002_MOIS	PRP_SVOC_S								
SE170024B.018	4/09/2017	Soil			X	X	X								
SE170024B.085	4/09/2017	Soil			X	X	X								
SE170024B.149	4/09/2017	Soil			X	X	X								

SGS Alexandria Environmental

SE170024B SUBCON
Received: 20 – Sep – 2017

SGS Perth Environmental

PE119668 COC
Received: 20 – Sep – 2017

Sample Condition Upon Receipt at Laboratory:	Cooler temperature:
Special Instructions/Comments:	

#1 Released by: (Sig)	Date:	#2 Released by: (Sig)	Date:	#3 Released by: (Sig)	Date:
Company Name:	Time	Company Name:	Time	Company Name:	Time
#1 Received by: (Sig) HR	Date 22/9/17	#2 Received by: (Sig)	Date	#3 Received by: (Sig)	Date
Company Name:	Time: 12 pm	Company Name:	Time:	Company Name:	Time:

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SGS

AUSTRALIA-ENVIRONMENTAL-PERTH AIRPORT- PROFORMA -QU101

REGISTRATION DETAILS

APPROVED BY: R. MA

Bottle Map Sample Numbers:	1L Plastic Green	500mL Plastic Green	250mL Plastic Purple	500mL Amber Green	250mL Plastic Green	125mL Plastic Green	125mL UF/F Plastic Red	1L Amber Green	500mL Amber Orange	100mL Amber Green	40mL Glass Vial VOC	40mL Glass Vial HAA	500mL Plastic Blue	250mL Plastic Orange	125mL Plastic Brown	1L Plastic Yellow	250mL Glass Jar	125ml Glass Jar	Bottles Supplied By	Ziplock Bag/ Other
18																		1		
85, 149																		1		

Job Number: PE119668

# of Eskies: 1

Esky Numbers:

IB / ICE / None

Temp: 16.5 °C

Tray Numbers: Q006.

Registration comments:

Action Taken:

Registered By: ITR 22/9/17

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

PE119668

CLIENT DETAILS

Contact	Huong Crawford
Client	SGS EHS SYDNEY
Address	Unit 16, 33 Maddox Street Alexandria NSW 2015
Telephone	02 8594 0400
Facsimile	02 8594 0499
Email	au.environmental.sydney@sgs.com
Project	**SE170024B**
Order Number	**N/A**
Samples	162

LABORATORY DETAILS

Manager	Ros Ma
Laboratory	SGS Perth Environmental
Address	28 Reid Rd Perth Airport WA 6105
Telephone	(08) 9373 3500
Facsimile	(08) 9373 3556
Email	au.environmental.perth@sgs.com
Samples Received	Fri 22/9/2017
Report Due	Thu 28/9/2017
SGS Reference	**PE119668**

SUBMISSION DETAILS

This is to confirm that 162 samples were received on Friday 22/9/2017. Results are expected to be ready by COB Thursday 28/9/2017. Please quote SGS reference PE119668 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	3 Soil
Date documentation received	22/9/2017	Type of documentation received	XML
Number of eskies/boxes received	1	Samples received in good order	Yes
Samples received without headspace	Yes	Sample temperature upon receipt	16.5°C
Sufficient sample for analysis	Yes	Turnaround time requested	72 Hr

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

COMMENTS

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

SAMPLE RECEIPT ADVICE

PE119668

CLIENT DETAILS

Client SGS EHS SYDNEY

Project SE170024B

SUMMARY OF ANALYSIS

No.	Sample ID	Acid Herbicides in Soil	Moisture Content
018	SE170024B.018	21	2

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

PE119668

CLIENT DETAILS

Client SGS EHS SYDNEY

Project SE170024B

SUMMARY OF ANALYSIS

No.	Sample ID	Acid Herbicides in Soil	Moisture Content
085	SE170024B.085	21	2

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

PE119668

CLIENT DETAILS

Client SGS EHS SYDNEY

Project SE170024B

SUMMARY OF ANALYSIS

No.	Sample ID	Acid Herbicides in Soil	Moisture Content
149	SE170024B.149	21	2

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

source: M630_SR_20170908120619.pdf page: 1 SGS Ref: SE170024_COC

E-MAILED 7/9/17 @ 12.22

Sheet 1 of 2

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]
BH101_0.1-0.2	1	J, ZLB	04/09/2017	AM/PM				X																
BH101_0.5-0.6		J																						
BH102_0.1-0.2	2	J, ZLB					C1																	
BH102_0.5-0.6		J																						
BH103_0.1-0.2	3	J, ZLB					C1																	
BH103_0.5-0.6		J																						
BH104_0.1-0.2	4	J, ZLB					C2																	
BH104_0.5-0.6		J																						
BH105_0.1-0.2	5	J, ZLB					C2																	
BH105_0.5-0.6		J																						
BH106_0.1-0.2	6	J, ZLB					C2																	
BH106_0.5-0.6		J																						

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

SGS EHS Alexandria Laboratory

SE170024 COC
Received: 06 – Sep – 2017

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

Sampler's Comments:

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

Sampler's Name (EI):	Received by (SGS):
JH, MD	
Print M. Fickell Delay	Print Aver
Signature	Signature
Date 5-9-17	Date 6/9/17 @ 3:00

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

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

COC July 2016 FORM v.3 - SGS

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 2 of 26

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]
BH107_0.1-0.2	7	J, ZLB	04/09/2017	AM/PM		X	C8																	
BH107_0.5-0.6		J				X																		
BH108_0.1-0.2	8	J, ZLB				X		X																
BH108_0.5-0.6		J				X																		
BH109_0.1-0.2	9	J, ZLB				X	C9																	
BH109_0.5-0.6		J				X																		
BH110_0.1-0.2	10	J, ZLB				X	C9																	
BH110_2.0-2.1		J				X																		
BH111_0.1-0.2	11	J, ZLB				X		X																
BH111_0.5-0.6		J, ZLB				X																		
BH111_2.4-2.5	12	J				X			X															
BH112_0.1-0.2	13	J, ZLB	"	"		X	C8																	

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

Sampler's Name (EI):	Received by (SGS):
JH/MD	
Print Mitchell Dale	Print Owen
Signature	Signature
Date 5-9-17	Date 6/9/17 @ 3:00

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

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

COC July 2016 FORM v.3 - SGS

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 3 of 26

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]
BH112_0.5-0.6		J	04/09/2017	AM/PM		X																		
BH113_0.1-0.2	14	J, ZLB				X	C8																	
BH113_0.5-0.6		J				X																		
BH114_0.1-0.2	15	J, ZLB				X	C8																	
BH114_0.5-0.6		J				X																		
BH115_0.1-0.2	16	J, ZLB				X	C7																	
BH115_0.5-0.6		J				X																		
BH116_0.1-0.2	17	J				X		X																
BH117_0.1-0.2	18	J, ZLB				X		X																
BH117_0.5-0.6	19	J				X			X															
BH118_0.1-0.2	20	J, ZLB				X	C7																	
BH118_0.5-0.6		J	"	"		X																		

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

Sampler's Name (EI):	Received by (SGS):
JH/MD	
Print: Mitchell Dube	Print:
Signature: MD	Signature:
Date: 5-9-17	Date: 6/9/17 @ 3:00

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

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 1 of 2

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]
BH119_0.1-0.2	21	J, ZLB	04/09/2017	AM/PM		X	C6																	
BH119_0.5-0.6		J	↓	↓		X																		

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

Sampler's Name (EI):	Received by (SGS):
JH / MP	
Print: Mitchell Pulley	Print:
Signature:	Signature:
Date: 5-9-17	Date: 6/9/17 @ 3pm

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

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 5 of 26

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]
BH120_0.1-0.2	22	J, ZLB	04/09/2017	AM/PM			C6																	
BH120_0.5-0.6		J																						
BH121_0.1-0.2	23	J, ZLB					C6																	
BH121_0.5-0.6		J																						
BH122_0.3-0.4	24	J, ZLB					C5																	
BH122_0.6-0.7		J																						
BH123_0.1-0.2	25	J, ZLB					C5																	
BH123_0.5-0.6		J																						
BH124_0.1-0.2	26	J, ZLB						X																
BH124_0.5-0.6		J																						
BH125_0.1-0.2	27	J, ZLB					C4																	

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

Sampler's Name (EI): JM / MD

Print: Mitchell Duley

Signature:

Date: 5.9.17

Received by (SGS):

Print: Oliver

Signature:

Date: 6/9/17 @ 3pm

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

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

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 6 of 26

Site: 230 Aldington ROad, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]
BH125_0.5-0.6		J	04/09/2017	AM/PM		X																		
BH126_0.1-0.2	28	J, ZLB				X	C11																	
BH126_0.5-0.6		J				X																		
BH127_0.1-0.2	29	J, ZLB				X	C12																	
BH127_0.5-0.6		J				X																		
BH128_0.1-0.2	30	J, ZLB				X	C12																	
BH128_0.5-0.6		J				X																		
BH129_0.1-0.2	31	J				X		X																
BH130_0.1-0.2	32	J, ZLB				X	C10																	
BH130_0.5-0.6		J				X																		
BH131_0.1-0.2	33	J, ZLB				X	C10																	
BH131_0.5-0.6		J				X																		

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

Container Type:
J= solvent washed, acid rinsed,Teflon sealed, glass jaR
S= solvent washed, acid rinsed glass bottle
P= natural HDPE plastic bottle
VC= glass vial, Teflon Septum
ZLB= Ziplock bag

Sampler's Name (EI):	Received by (SGS):
JK/MD	
Print Mitchell Dale	Print Owen
Signature	Signature
Date 5-9-17	Date 6/9/17 2pm

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

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 7 of 26

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]	Comments
BH132_0.1-0.2	34	J, ZLB	04/09/2017	AM/PM		X		X																
BH132_0.5-0.6	35	J				X			X															
BH133_0.1-0.2	36	J, ZLB				X	C15																	
BH133_0.5-0.6		J				X																		
BH134_0.1-0.2	37	J, ZLB				X	C14																	
BH134_0.5-0.6		J				X																		
BH135_0.1-0.2	38	J, ZLB				X	C14																	
BH135_0.5-0.6		J				X																		
BH136_0.1-0.2	39	J, ZLB				X	C13																	
BH136_0.5-0.6		J				X																		
BH137_0.1-0.2	40	J, ZLB				X		X																
BH137_0.5-0.6		J				X																		

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

Container Type:
J= solvent washed, acid rinsed,Teflon sealed, glass jaR
S= solvent washed, acid rinsed glass bottle
P= natural HDPE plastic bottle
VC= glass vial, Teflon Septum
ZLB= Ziplock bag

	Sampler's Name (EI):	Received by (SGS):
	JH/MD	
Print	M. Mitchell Dicker	Print
Signature		Signature
Date	5-9-17	Date 6/9/17 2:30

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

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

COC July 2016 FORM v.3 - SGS

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 8 of 26

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]
BH138_0.1-0.2	41	J, ZLB	04/09/2017	AM/PM		X	C13																
BH138_0.5-0.6		J				X																	
BH139_0.1-0.2	42	J, ZLB				X	C16																
BH139_0.5-0.6		J				X																	
BH140_0.1-0.2	43	J, ZLB	05/09/2017			X		X															
BH140_0.5-0.6		J	05/09/2017			X																	
BH141_0.1-0.2	44	J, ZLB	05/09/2017			X	C19																
BH141_0.5-0.6		J	05/09/2017			X																	
BH142_0.1-0.2	45	J, ZLB	05/09/2017			X	C16																
BH142_0.5-0.6		J	05/09/2017			X																	
BH143_0.1-0.2	46	J, ZLB	04/09/2017			X		X															
BH143_0.5-0.6	47	J				X			X														

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

Sampler's Name (EI):	Received by (SGS):
JH/MD	
Print: Mitchell Duke	Print: Owen
Signature:	Signature:
Date: 5-9-17	Date: 6/9/17 @ 3pm

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

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 9 of 26

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]
BH144_0.1-0.2	48	J, ZLB	04/09/2017	AM/PM		X	C17																	
BH144_0.5-0.6		J				X																		
BH145_0.1-0.2	49	J, ZLB				X	C17																	
BH145_0.5-0.6		J				X																		
BH146_0.1-0.2	50	J, ZLB	05/09/2017			X	C18																	
BH146_0.5-0.6		J	05/09/2017			X																		
BH147_0.1-0.2	51	J, ZLB	05/09/2017			X	C19																	
BH147_0.5-0.6		J	05/09/2017			X																		
BH148_0.1-0.2	52	J, ZLB	05/09/2017			X		X																
BH148_0.5-0.6		J	05/09/2017			X																		
BH149_0.1-0.2	53	J, ZLB	05/09/2017			X	C20																	
BH149_0.5-0.6		J	05/09/2017			X																		

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

Sampler's Name (EI):	Received by (SGS):
JH / MD	
Print: Mitchell Duley	Print: Oven
Signature:	Signature:
Date: 5-9-17	Date: 6/9/17 e3pm

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

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

COC July 2016 FORM v.3 - SGS

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 10 of 26

Site: 230 Aldington ROad, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS	TCLP PAHs	TCLP HM [A]	TCLP HM [B]
BH150_0.1-0.2	54	J, ZLB	05/09/2017	AM/PM		X	C20														
BH150_0.5-0.6		J	05/09/2017			X															
BH151_0.1-0.2	55	J, ZLB	05/09/2017			X	C18														
BH151_0.5-0.6		J	05/09/2017			X															
BH152_0.1-0.2	56	J, ZLB	04/09/2017			X	C18														
BH152_0.5-0.6		J				X															
BH153_0.1-0.2	57	J, ZLB				X		X													
BH153_0.5-0.6		J				X															
BH154_0.1-0.2	58	J, ZLB				X		X													
BH154_0.5-0.6	59	J				X			X												
BH155_0.1-0.2	60	J, ZLB				X	C22														
BH155_0.5-0.6		J				X															

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

Sampler's Name (EI):	Received by (SGS):
JH/MD	
Print: Mitchell Dutt	Print:
Signature:	Signature:
Date: 5-9-17	Date: 6/9/17 3pm

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

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 1 of 6

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]
BH156_0.1-0.2	61	J, ZLB	05/09/2017	AM/PM		X		X																
BH156_0.5-0.6		J	05/09/2017			X																		
BH157_0.1-0.2	62	J, ZLB	04/09/2017			X	C22																	
BH157_0.5-0.6		J				X																		
BH158_0.1-0.2	63	J, ZLB				X	C23																	
BH158_0.5-0.6		J				X																		
BH159_0.1-0.2	64	J, ZLB				X	C24																	
BH159_0.5-0.6		J				X																		
BH160_0.1-0.2	65	J, ZLB				X		X																
BH160_0.5-0.6	66	J				X			X															
BH161_0.1-0.2	67	J, ZLB	05/09/17			X	C25																	
BH161_0.5-0.6		J	05/09/17			X																		

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

Sampler's Name (EI): JP/MD

Print: Mitchell Dale

Signature:

Date: 5-9-17

Received by (SGS):

Print:

Signature:

Date: 6/9/17 @ 3p

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

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

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

COC July 2016 FORM v.3 - SGS

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 12 of 26

Site: 230 Aldington Road, Kemps Creek NSW

Project No: F23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]
BH162_0.1-0.2	68	J, ZLB	05/09/2017	AM/PM		X	C21																	
BH162_0.5-0.6		J	05/09/2017			X																		
BH163_0.1-0.2	69	J, ZLB	05/09/2017			X	C26																	
BH163_0.5-0.6		J	05/09/2017			X																		
BH164_0.1-0.2	70	J, ZLB	04/09/2017			X		X																
BH164_0.5-0.6		J, ZLB				X																		
BH164_0.7-0.8	71	J				X			X															
BH165_0.1-0.2	72	J, ZLB				X	C25																	
BH165_0.5-0.6		J				X																		
BH166_0.1-0.2	73	J, ZLB				X	C25																	
BH166_0.5-0.6		J				X																		
BH167_0.1-0.2	74	J, ZLB				X	C27																	

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

	Sampler's Name (EI):	Received by (SGS):
	JH/MD	
Print	Mitchell Duke	Print
Signature		Signature
Date	5-9-17	Date 6/9/17 2:30pm

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

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

COC July 2016 FORM v.3 - SGS

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 13 of 26

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	HM Δ /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM Δ /TRH/BTEX/PAHs	HM Δ /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM Δ	TCLP HM B
BH167_0.5-0.6		J	04/09/2017	AM/PM		X																		
BH168_0.1-0.2	75	J, ZLB				X	C24																	
BH168_0.5-0.6		J				X																		
BH169_0.1-0.2		J, ZLB				X																		
BH169_0.5-0.6	76	J				X		X																
BH170_0.1-0.2	77	J, ZLB				X	C28																	
BH170_0.5-0.6		J				X																		
BH171_0.1-0.2	78	J, ZLB				X	C28																	
BH171_0.5-0.6		J				X																		
BH172_0.1-0.2	79	J, ZLB				X		X																
BH172_0.5-0.6		J				X																		
BH173_0.1-0.2	80	J, ZLB				X	C29																	

Comments

HM Δ
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM B
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

Sampler's Name (EI):	Received by (SGS):
JH / MD	
Print: Mitchell Dalby	Print: Oliver
Signature:	Signature:
Date: 5-9-17	Date: 6/9/17 eSpan

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

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

COC July 2016 FORM v.3 - SGS

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 4 of 26

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM[A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM[A] /TRH/BTEX/PAHs	HM[A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM[A]	TCLP HM[B]
BH173_0.5-0.6		J	04/09/2017	AM/PM																				
BH174_0.1-0.2	81	J, ZLB					C29																	
BH174_0.5-0.6		J																						
BH175_0.1-0.2	82	J, ZLB					C29																	
BH175_0.5-0.6		J																						
BH176_0.1-0.2	83	J, ZLB						X																
BH176_0.5-0.6		J																						
BH177_0.1-0.2	84	J, ZLB						X																
BH177_0.5-0.6		J																						
BH178_0.1-0.2	85	J, ZLB						X																
BH178_0.5-0.6	86	J							X															

Comments

HM[A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM[B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

Sampler's Name (EI):	Received by (SGS):
JH/MD	
Print Mitchell Dale	Print
Signature	Signature
Date 05-9-17	Date 6/9/17 0830

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

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

COC July 2015 FORM v.3 - SGS

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 15 of 26

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]
BH201_0.3-0.4	87	J, ZLB	28/08/2017	AM/PM		X	C27																
BH201_1.0-1.1		J, ZLB				X																	
BH202_0.4-0.5	88	J, ZLB				X	C27																
BH202_0.9-1.0		J, ZLB				X																	
BH203_0.2-0.3	89	J, ZLB				X	C29																
BH203_1.0-1.2		J, ZLB				X																	
BH204_0.5-0.6	90	J, ZLB				X	C26																
BH204_1.3-1.4		J, ZLB				X																	
BH204_3.1-3.0		J, ZLB				X																	
BH205_0.5-0.6	91	J, ZLB				X	C26																
BH205_1.4-1.5		J, ZLB				X																	
BH206_0.1-0.2	92	J, ZLB	29-08-17			X	C24																

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

Sampler's Name (EI):	Received by (SGS):
BZ	
Print: Mitchell Dutz	Print: Owen
Signature: MDutz	Signature:
Date: 6-9-17	Date: 6/9/17

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

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 15 of 26

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibre, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]
BH206_0.5-0.6		J, ZLB	29-8-17	AM/PM		X																		
BH207_0.1-0.2	93	J, ZLB				X	C22																	
BH207_0.7-0.8		J, ZLB				X																		
BH208_0.2-0.3	94	J, ZLB				X	C23																	
BH208_0.8-1.0		J, ZLB				X																		
BH209_0.1-0.2	95	J, ZLB	30-8-17			X	C21																	
BH209_0.7-0.8		J, ZLB				X																		
BH210_0.1-0.2	96	J, ZLB				X	C21																	
BH210_0.8-0.9		J, ZLB				X																		
BH211_0.1-0.2	97	J, ZLB				X	C20																	
BH211_0.7-0.8		J, ZLB				X																		
BH212_0.1-0.2	98	J, ZLB				X	C19																	

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

Sampler's Name (EI):	Received by (SGS):
BZ	
Print: Mitchell Daly	Print:
Signature:	Signature:
Date: 6-9-17	Date: 6/9/17

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

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

COC July 2016 FORM v.3 - SGS

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 1 of 2

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]
BH212_0.5-0.6		J, ZLB	30-8-17	AM/PM		X																		
BH213_0.1-0.2	99	J, ZLB				X	C15																	
BH213_0.5-0.6		J, ZLB				X																		
BH214_0.3-0.4	100	J, ZLB				X	C16																	
BH214_1.0-1.1		J, ZLB				X																		
BH215_0.1-0.2	101	J, ZLB				X	C13																	
BH215_0.8-0.9		J, ZLB				X																		
BH216_0.3-0.4	102	J, ZLB				X	C12																	
BH216_0.9-1.0		J, ZLB				X																		
BH217_0.2-0.3	103	J, ZLB				X	C14																	
BH217_0.8-0.9		J, ZLB				X																		

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

Sampler's Name (EI):	Received by (SGS):
BZ	
Print: Mitchell Dube	Print: Oliver
Signature:	Signature:
Date: 6-9-17	Date: 6/9/2017

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

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 18 of 26

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]
BH218_0.0-0.1	104	J, ZLB	31.8.17	AM/PM			C15																	
BH218_0.5-0.6	~~104~~	J, ZLB	↓																					

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

Sampler's Name (EI):	Received by (SGS):
BZ	
Print Mitchell Dulay	Print
Signature	Signature
Date 6-9-17	Date 6/9/17 @ 3p

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

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 19 of 26

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]
BH219_0.2-0.3	105	J, ZLB	31-8-17	AM/PM		X	C10																	
BH219_0.9-1.0		J, ZLB				X																		
BH220_0.1-0.2	106	J, ZLB				X	C9																	
BH220_0.7-0.8		J, ZLB				X																		
BH221_0.2-0.3	107	J, ZLB				X	C11																	
BH221_0.9-1.0		J, ZLB				X																		
BH222_0.1-0.2	108	J, ZLB				X	C11																	
BH222_0.7-0.8		J, ZLB				X																		
BH223_0.0-0.1	109	J, ZLB				X	C4																	
BH224_0.1-0.2	110	J, ZLB				X	C4																	
BH224_0.5-0.6	~~110~~	J, ZLB				X																		
BH225_0.1-0.2	111	J, ZLB				X	C3																	

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

Sampler's Name (EI):	Received by (SGS):
BZ	
Print: Mitchell Daly	Print:
Signature: MDy	Signature:
Date: 6-9-17	Date: 6/9/17

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

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 20 of 26

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

	Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]
6	BH225_0.7-0.8		J, ZLB	31-8-17	AM/PM		X																		
7	BH226_0.1-0.2	112	J, ZLB				X	C3																	
8	BH226_0.7-0.8		J, ZLB				X																		
1	BH227_0.1-0.2	113	J, ZLB	01-9-17			X	C1																	
2	BH227_0.8-0.9		J, ZLB				X																		
3	BH228_0.2-0.3	114	J, ZLB				X	C5																	
4	BH228_0.7-0.8		J, ZLB				X																		
5	BH228_1.2-1.3		J, ZLB				X																		
6	BH229_0.2-0.3	115	J, ZLB				X	C7																	
7	BH229_0.9-1.0		J, ZLB				X																		
8	BH230_0.2-0.3	116	J, ZLB				X	C17																	
9	BH230_0.8-0.9		J, ZLB				X																		

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

Sampler's Name (EI):	Received by (SGS):
BZ	
Print: Mitchell Dubey	Print:
Signature:	Signature:
Date: 6-9-17	Date: 6/9/17

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

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 21 of 26

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS				TCLP PAHs	TCLP HM [A]	TCLP HM [B]
BH231_0.3-0.4	117	J, ZLB	8-9-17	AM/PM		X	(23)																	
BH231_0.9-1.0		J, ZLB	↓			X																		
BH223-0.6-0.7			31/8																					

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

Sampler's Name (EI):	Received by (SGS):
BZ	
Print: Mitchell Duke	Print: Over
Signature:	Signature:
Date: 6-9-17	Date: 6/9/17

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

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

COC July 2016 FORM v.3 - SGS

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 22 of 26

Site: As per sheet 1

Project No:

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	HM[A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM[A] /TRH/BTEX/PAHs	HM[A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS	HM[A] OCPs, OPPs			TCLP PAHs	TCLP HM[A]	TCLP HM[B]
C1	118	Composite																	X					
C2	119																		X					
C3	120																		X					
C4	121																		X					
C5	122																		X					
C6	123																		X					
C7	124																		X					
C8	125																		X					
C9	126																		X					
C10	127																		X					
C11	128																		X					
C12	129																		X					

Comments

HM[A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM[B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments: C stands for composite soil sample, comprising three discrete samples.

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

Sampler's Name (EI):	Received by (SGS):
JH/MD	
Print M.Isbell Duke	Print Owen
Signature	Signature
Date 6-9-17	Date 6/9/17 2pm

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

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 23 of 26

Site: As per sheet 1

Project No:

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS	HM, OCPs, OPPs			TCLP PAHs	TCLP HM [A]	TCLP HM [B]
C13	130	Composite																	X					
C14	131																		X					
C15	132																		X					
C16	133																		X					
C17	134																		X					
C18	135																		X					
C19	136																		X					
C20	137																		X					
C21	138																		X					
C22	139																		X					
C23	140																		X					
C24	141	"																	X					

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

Sampler's Name (EI):	Received by (SGS):
JH/MD	
Print: Mitchell Dale	Print:
Signature:	Signature:
Date: 6-9-17	Date: 6/9/17

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

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 24 of 26

Site: As per sheet 1

Project No:

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS	HM, OCPs, OPPs			TCLP PAHs	TCLP HM [A]	TCLP HM [B]
C25	142	Composite																	X					
C26	143																		X					
C27	144																		X					
C28	145																		X					
C29	146	▽																	X					

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

Sampler's Name (EI):	Received by (SGS):
JH/MD	
Print: Mitchell Dixley	Print:
Signature:	Signature:
Date: 6-9-17	Date:

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

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 15 of 16

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB Pesticides	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS	TCLP PAHs	TCLP HM [A]	TCLP HM [B]
W1	147	2xVC,P,S	04/09/2017	AM/PM	X			X													
W2	148	2xVC,P,S			X			X													
SS1	149	S				X		X													
SS2	150	S				X		X													
QD1	151	J				X				X											
QD2	152	J				X				X											
QD3	153	J				X				X											
QD4	154	J	▼			X				X											
QD5	155	J	05/09/17			X				X											
TB1	156	Vial	04-9-17			X						X									
TS1	157	Vial		▼		X						X									
QD6	158	2xVC,P,S	▼	AM/PM	X					X											

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

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

	Sampler's Name (EI):	Received by (SGS):
	JH/MD	
Print	Mitchell Duby	Print
Signature		Signature
Date	5-9-17	Date 6/9/17

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

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Sheet 26 of 26

Site: 230 Aldington Road, Kemps Creek NSW

Project No: E23521

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS	BTEX			TCLP PAHs	TCLP HM [A]	TCLP HM [B]
TB2	159	VC	5-9-17	AM/PM		X													x					
TS2	160	VC	5-9-17			X													x					
QR1	161	2xVC,P,S	4-9-17		X					x														
QR1 BLANK			4-9-17		X																			
QR2	166		5-9-17		X					x														
QR2 BLANK			5-9-17		X																			

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Sampler's Comments:

Container Type:
J= solvent washed, acid rinsed, Teflon sealed, glass jaR
S= solvent washed, acid rinsed glass bottle
P= natural HDPE plastic bottle
VC= glass vial, Teflon Septum
Z= Ziplock Bag

Sampler's Name (EI): JH/MD

Print: Mitchell Daly

Signature:

Date: 6-9-17

Received by (SGS):

Print:

Signature:

Date: 6/9/17

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

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

COC July 2016 FORM v.3 - SGS

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024

CLIENT DETAILS

Contact	Mitchell Duley
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	mitchell.duley@eiaustralia.com.au
Project	**E23529 - 230 Aldington Road, Kemps Creek**
Order Number	**E23529**
Samples	162

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
Samples Received	Wed 6/9/2017
Report Due	Thu 14/9/2017
SGS Reference	**SE170024**

SUBMISSION DETAILS

This is to confirm that 162 samples were received on Wednesday 6/9/2017. Results are expected to be ready by Thursday 14/9/2017. Please quote SGS reference SE170024 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	
Date documentation received	7/9/17@12:22pm	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	11.4°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

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

COMMENTS

103 soil and 2 water samples have been placed on hold.
Extra sample received, BH223_0.6-0.7.

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

SAMPLE RECEIPT ADVICE

SE170024

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 - 230 Aldington Road, Kemps Creek

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Total Recoverable Metals in Soil/Waste	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
001	BH101_0.1-0.2	29	14	26	11	7	10	12	8
008	BH108_0.1-0.2	29	14	26	11	7	10	12	8
011	BH111_0.1-0.2	29	14	26	11	7	10	12	8
012	BH111_2.4-2.5	-	-	26	-	7	10	12	8
017	BH116_0.1-0.2	29	14	26	11	7	10	12	8
018	BH117_0.1-0.2	29	14	26	11	7	10	12	8
019	BH117_0.5-0.6	-	-	26	-	7	10	12	8

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 - 230 Aldington Road, Kemps Creek

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Total Recoverable Metals in Soil/Waste	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
026	BH124_0.1-0.2	29	14	26	11	7	10	12	8
031	BH129_0.1-0.2	29	14	26	11	7	10	12	8
034	BH132_0.1-0.2	29	14	26	11	7	10	12	8
035	BH132_0.5-0.6	-	-	26	-	7	10	12	8
040	BH137_0.1-0.2	29	14	26	11	7	10	12	8
043	BH140_0.1-0.2	29	14	26	11	7	10	12	8
046	BH143_0.1-0.2	29	14	26	11	7	10	12	8
047	BH143_0.5-0.6	-	-	26	-	7	10	12	8

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 - 230 Aldington Road, Kemps Creek

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Total Recoverable Metals in Soil/Waste	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
052	BH148_0.1-0.2	29	14	26	11	7	10	12	8
057	BH153_0.1-0.2	29	14	26	11	7	10	12	8
058	BH154_0.1-0.2	29	14	26	11	7	10	12	8
059	BH154_0.5-0.6	-	-	26	-	7	10	12	8
061	BH156_0.1-0.2	29	14	26	11	7	10	12	8
065	BH160_0.1-0.2	29	14	26	11	7	10	12	8
066	BH160_0.5-0.6	-	-	26	-	7	10	12	8
070	BH164_0.1-0.2	29	14	26	11	7	10	12	8
071	BH164_0.7-0.8	-	-	26	-	7	10	12	8

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 - 230 Aldington Road, Kemps Creek

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Total Recoverable Metals in Soil/Waste	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
076	BH169_0.5-0.6	29	14	26	11	7	10	12	8
079	BH172_0.1-0.2	29	14	26	11	7	10	12	8
083	BH176_0.1-0.2	29	14	26	11	7	10	12	8
084	BH177_0.1-0.2	29	14	26	11	7	10	12	8
085	BH178_0.1-0.2	29	14	26	11	7	10	12	8
086	BH178_0.5-0.6	-	-	26	-	7	10	12	8

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 - 230 Aldington Road, Kemps Creek

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	Total Recoverable Metals in Soil/Waste
118	C1	29	14	7
119	C2	29	14	7
120	C3	29	14	7

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 - 230 Aldington Road, Kemps Creek

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	Total Recoverable Metals in Soil/Waste
121	C4	29	14	7
122	C5	29	14	7
123	C6	29	14	7
124	C7	29	14	7
125	C8	29	14	7
126	C9	29	14	7
127	C10	29	14	7
128	C11	29	14	7
129	C12	29	14	7
130	C13	29	14	7
131	C14	29	14	7
132	C15	29	14	7
133	C16	29	14	7
134	C17	29	14	7
135	C18	29	14	7
136	C19	29	14	7
137	C20	29	14	7
138	C21	29	14	7
139	C22	29	14	7
140	C23	29	14	7
141	C24	29	14	7
142	C25	29	14	7
143	C26	29	14	7
144	C27	29	14	7

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 - 230 Aldington Road, Kemps Creek

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	Total Recoverable Metals in Soil/Waste	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
145	C28	29	14	-	7	-	-	-
146	C29	29	14	-	7	-	-	-
149	SS1	29	14	26	7	10	12	8
150	SS2	29	14	26	7	10	12	8
151	QD1	-	-	-	7	10	12	8
152	QD2	-	-	-	7	10	12	8
153	QD3	-	-	-	7	10	12	8
154	QD4	-	-	-	7	10	12	8
155	QD5	-	-	-	7	10	12	8
156	TB1	-	-	-	-	-	12	-
157	TS1	-	-	-	-	-	12	-
159	TB2	-	-	-	-	-	12	-
160	TS2	-	-	-	-	-	12	-

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 - 230 Aldington Road, Kemps Creek

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre Identification in soil	Mercury in Soil	Moisture Content
001	BH101_0.1-0.2	2	1	1
008	BH108_0.1-0.2	2	1	1
011	BH111_0.1-0.2	2	1	1
012	BH111_2.4-2.5	-	1	1
017	BH116_0.1-0.2	2	1	1
018	BH117_0.1-0.2	2	1	1
019	BH117_0.5-0.6	-	1	1

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 - 230 Aldington Road, Kemps Creek

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre Identification in soil	Mercury in Soil	Moisture Content
026	BH124_0.1-0.2	2	1	1
031	BH129_0.1-0.2	2	1	1
034	BH132_0.1-0.2	2	1	1
035	BH132_0.5-0.6	-	1	1
040	BH137_0.1-0.2	2	1	1
043	BH140_0.1-0.2	2	1	1
046	BH143_0.1-0.2	2	1	1
047	BH143_0.5-0.6	-	1	1

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 - 230 Aldington Road, Kemps Creek

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre Identification in soil	Mercury in Soil	Moisture Content
052	BH148_0.1-0.2	2	1	1
057	BH153_0.1-0.2	2	1	1
058	BH154_0.1-0.2	2	1	1
059	BH154_0.5-0.6	-	1	1
061	BH156_0.1-0.2	2	1	1
065	BH160_0.1-0.2	2	1	1
066	BH160_0.5-0.6	-	1	1
070	BH164_0.1-0.2	2	1	1
071	BH164_0.7-0.8	-	1	1

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 - 230 Aldington Road, Kemps Creek

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre Identification in soil	Mercury in Soil	Moisture Content
076	BH169_0.5-0.6	2	1	1
079	BH172_0.1-0.2	2	1	1
083	BH176_0.1-0.2	2	1	1
084	BH177_0.1-0.2	2	1	1
085	BH178_0.1-0.2	2	1	1
086	BH178_0.5-0.6	-	1	1

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 - 230 Aldington Road, Kemps Creek

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury in Soil	Moisture Content
118	C1	1	1
119	C2	1	1
120	C3	1	1

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 - 230 Aldington Road, Kemps Creek

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury in Soil	Moisture Content
121	C4	1	1
122	C5	1	1
123	C6	1	1
124	C7	1	1
125	C8	1	1
126	C9	1	1
127	C10	1	1
128	C11	1	1
129	C12	1	1
130	C13	1	1
131	C14	1	1
132	C15	1	1
133	C16	1	1
134	C17	1	1
135	C18	1	1
136	C19	1	1
137	C20	1	1
138	C21	1	1
139	C22	1	1
140	C23	1	1
141	C24	1	1
142	C25	1	1
143	C26	1	1
144	C27	1	1

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 - 230 Aldington Road, Kemps Creek

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury in Soil	Moisture Content
145	C28	1	1
146	C29	1	1
149	SS1	1	1
150	SS2	1	1
151	QD1	1	1
152	QD2	1	1
153	QD3	1	1
154	QD4	1	1
155	QD5	1	1
156	TB1	-	1
159	TB2	-	1

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 - 230 Aldington Road, Kemps Creek

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Water	OP Pesticides in Water	PAH (Polynuclear Aromatic Hydrocarbons) in Water	TRH (Total Recoverable Hydrocarbons) in Water	VOCs in Water	Volatile Petroleum Hydrocarbons in Water
147	W1	28	13	22	9	12	8
148	W2	28	13	22	9	12	8
158	QD6	-	-	-	9	12	8
161	QR1	-	-	-	9	12	8
162	QR2	-	-	-	9	12	8

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 - 230 Aldington Road, Kemps Creek

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury (dissolved) in Water	Trace Metals (Dissolved) in Water by ICPMS
147	W1	1	7
148	W2	1	7
158	QD6	1	7
161	QR1	1	7
162	QR2	1	7

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

source: M630_SR_20170920161738.pdf page: 1 SGS Ref: SE170024A_COC

RE: Re-send report Job SE170024, your reference E23529 - 230 Aldington Road, Kemps Creek, order number E23529

Linda Xiao - EIAustralia <linda.xiao@eiaustralia.com.au>

Wed 20/09/2017 4:31 PM

To: Joel Heininger - EI Australia <joel.heininger@eiaustralia.com.au>; AU.Environmental.Sydney (Sydney) <AU.Environmental.Sydney@sgs.com>;

Cc: AU.SampleReceipt.Sydney (Sydney) <AU.SampleReceipt.Sydney@sgs.com>;

Hi Team,

Please note in regards to the previous email, the samples that require chromium speciation on 24 hr TAT are:

- BH167_0.1-0.2; ~~C7~~
- BH201_0.3-0.4; and ~~C8~~
- BH202_0.4-0.5. ~~C88~~

Kind regards,

Linda Xiao | Civil/Environmental Engineer – Project Coordinator

E: linda.xiao@eiaustralia.com.au

T: 02 9516 0722 M: 0433 355 487

EI Australia
Suite 6.01, 55 Miller Street, Pyrmont, NSW 2009
www.eiaustralia.com.au

CONFIDENTIALITY - This email contains confidential and privileged information. If you are not the intended recipient, our apologies - please destroy it and notify us so that we can appropriately re-address it. Disclosure, copying, distribution or use of the contents of this email is strictly prohibited.

-----Original Message-----
From: Joel Heininger - EI Australia
Sent: Wednesday, 20 September 2017 3:41 PM
To: AU.Environmental.Sydney@SGS.com
Cc: AU.SampleReceipt.Sydney (Sydney); Linda Xiao - EIAustralia
Subject: RE: Re-send report Job SE170024, your reference E23529 - 230 Aldington Road, Kemps Creek, order number E23529

Dear SGS Team,

Please disregard the previous email regarding chromium speciation of sample C27.

Instead could you please test the following samples for chromium speciation:
- BH167;
- BH201; and
- BH202.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

RE: Re-send report Job SE170024, your reference E23529 - 230 Aldington Road, Kemps Creek, order number E23529

Joel Heininger - EI Australia <joel.heininger@eiaustralia.com.au>

Wed 20/09/2017 3:10 PM

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

Cc: AU.SampleReceipt.Sydney (Sydney) <AU.SampleReceipt.Sydney@sgs.com>; Linda Xiao - EIAustralia <linda.xiao@eiaustralia.com.au>;

Dear SGS Team,

Could I please get some additional testing for this job number?

Could I please get the following samples analysed for pH / CEC:
- C1; # 118
- C8; # 125
- C13; # 130
- C19; and # 136
- C25. # 142

Could I also please get the following samples analysed for Herbicides (as referenced in the NEPM):
- BH117_0.1-0.2; # 18
- BH178_0.1-0.2; and # 85
- SS1 # 149

In addition, am I able to please get a chromium speciation on the following sample
- C27 # 144

Could I please get all of the above analysis on a 24 hour TAT?

If there are any issues please get in touch with me.

Many thanks,

Joel Heininger | Environmental Scientist

E: joel.heininiger@eiaustralia.com.au

T: 02 9516 0722 M: 0413 493 535

EI Australia
Suite 6.01, 55 Miller Street, Pyrmont, NSW 2009
www.eiaustralia.com.au

CONFIDENTIALITY - This email contains confidential and privileged information. If you are not the intended recipient, our apologies - please destroy it and notify us so that we can appropriately re-address it. Disclosure, copying, distribution or use of the contents of this email is strictly prohibited.

-----Original Message-----
From: AU.Environmental.Sydney@SGS.com [mailto:AU.Environmental.Sydney@SGS.com]
Sent: Monday, 18 September 2017 12:31 PM
To: Laboratory Results - EIAustralia <lab@eiaustralia.com.au>; Mitchell Duley - EI Australia

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024A

CLIENT DETAILS

Contact	Joel Heininger
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	joel.heininger@eiaustralia.com.au
Project	**E23529 230 Aldington Road, Kemps Creek A**
Order Number	**E23529**
Samples	162

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
Samples Received	Wed 20/9/2017
Report Due	Thu 21/9/2017
SGS Reference	**SE170024A**

SUBMISSION DETAILS

This is to confirm that 162 samples were received on Wednesday 20/9/2017. Results are expected to be ready by COB Thursday 21/9/2017.
Please quote SGS reference SE170024A when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	8 Soil
Date documentation received	20/9/17@3:41pm	Type of documentation received	Email
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	11.4°C	Sufficient sample for analysis	Yes
Turnaround time requested	Next Day		

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

COMMENTS

Herbicides will be reported in SE170024B.

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.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024A

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 230 Aldington Road, Kemps Creek A

SUMMARY OF ANALYSIS

No.	Sample ID	Hexavalent Chromium in Soil UV/Vis	Moisture Content	Total Recoverable Metals in Soil/Waste
074	BH167_0.1-0.2	2	1	1
087	BH201_0.3-0.4	2	1	1
088	BH202_0.4-0.5	2	1	1

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024A

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 230 Aldington Road, Kemps Creek A

SUMMARY OF ANALYSIS

No.	Sample ID	Exchangeable Cations and Cation Exchange Capacity	pH in soil (1:5)
118	C1	13	1

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024A

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 230 Aldington Road, Kemps Creek A

SUMMARY OF ANALYSIS

No.	Sample ID	Exchangeable Cations and Cation Exchange Capacity	pH in soil (1:5)
125	C8	13	1
130	C13	13	1
136	C19	13	1
142	C25	13	1

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

source: M630_SR_20170925150312.pdf page: 1 SGS Ref: SE170024C_COC

RE: Re-send report Job SE170024, your reference E23529 - 230 Aldington Road, Kemps Creek, order number E23529

Joel Heininger - EI Australia <joel.heininger@eiaustralia.com.au>

Mon 25/09/2017 3:09 PM

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

Cc AU.SampleReceipt.Sydney (Sydney) <AU.SampleReceipt.Sydney@sgs.com>; Linda Xiao - EIAustralia <linda.xiao@eiaustralia.com.au>;

Dear SGS Team,

Could I please get some additional testing done for this job on a 24hr TAT?

-BH159_0.1-0.2; #64
-BH168_0.1-0.2; and #75
-BH206_0.1-0.2. #92

The above samples tested for copper (Cu) please.

Kind regards,

Joel Heininger | Environmental Scientist

E: joel.heininiger@eiaustralia.com.au

T: 02 9516 0722 M: 0413 493 535

EI Australia
Suite 6.01, 55 Miller Street, Pyrmont, NSW 2009
www.eiaustralia.com.au

CONFIDENTIALITY - This email contains confidential and privileged information. If you are not the intended recipient, our apologies - please destroy it and notify us so that we can appropriately re-address it. Disclosure, copying, distribution or use of the contents of this email is strictly prohibited.

-----Original Message-----
From: AU.Environmental.Sydney@SGS.com [mailto:AU.Environmental.Sydney@SGS.com]
Sent: Monday, 18 September 2017 12:31 PM
To: Laboratory Results - EIAustralia <lab@eiaustralia.com.au>; Mitchell Duley - EI Australia <mitchell.duley@eiaustralia.com.au>; Linda Xiao - EIAustralia <linda.xiao@eiaustralia.com.au>
Subject: Re-send report Job SE170024, your reference E23529 - 230 Aldington Road, Kemps Creek, order number E23529

Dear Linda/Mitchell,

Please find attached the re-send report for SGS job SE170024, your reference E23529 - 230 Aldington Road, Kemps Creek, order number E23529.

-IMPORTANT INFORMATION ABOUT YOUR REPORT- To align with NEPM 1999 (2013), SGS Environmental has changed the way Silica Gel Clean-up of TRH extracts is reported. TPH Silica Gel has now become TRH – Silica. NEPM 1999(2013) seeks to clarify TRH and TPH in Schedule B3, 10.2.7.

If you have any questions or concerns, please don't hesitate to contact your SGS Client Services representative.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024C

CLIENT DETAILS

Contact	Joel Heininger
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	joel.heininger@eiaustralia.com.au
Project	**E23529 230 Aldington Road, Kemps Creek A**
Order Number	**E23529**
Samples	162

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
Samples Received	Mon 25/9/2017
Report Due	Tue 26/9/2017
SGS Reference	**SE170024C**

SUBMISSION DETAILS

This is to confirm that 162 samples were received on Monday 25/9/2017. Results are expected to be ready by COB Tuesday 26/9/2017. Please quote SGS reference SE170024C when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	3 Soil
Date documentation received	25/9/17@3:09pm	Type of documentation received	Email
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	11.4°C	Sufficient sample for analysis	Yes
Turnaround time requested	Next Day		

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

COMMENTS

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.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024C

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 230 Aldington Road, Kemps Creek A

SUMMARY OF ANALYSIS

No.	Sample ID	Moisture Content	Total Recoverable Metals in Soil/Waste
064	BH159_0.1-0.2	1	1

CONTINUED OVERLEAF

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170024C

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 230 Aldington Road, Kemps Creek A

SUMMARY OF ANALYSIS

No.	Sample ID	Moisture Content	Total Recoverable Metals in Soil/Waste
075	BH168_0.1-0.2	1	1
092	BH206_0.1-0.2	1	1

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

source: M630_SR_20170918120905.pdf page: 1 SGS Ref: SE170270_COC

Sheet 1 of _____

Site: 230 Aldington Road, Kemps Creek, NSW

Project No: E23529

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM[A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM[A] /TRH/BTEX/PAHs	HM[A] /TRH/BTEX	TRH/BTEX/Lead	TRH/BTEX	PAHs	VOCs	Asbestos	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	sPOCAS	Chloride (Cl)	Sulphate (SO_4)		TCLP PAHs	TCLP HM[A]	TCLP HM[B]
BH201_0.5-1.95	1	ZLB	28/8/17	–		X											X		X	X				
BH202_0.5-0.95	2	↓	28/8/17	–		X											X		X	X				
BH205_0.5-0.95	3		28/8/17	–		X											X		X	X				
BH209_0.5-0.95	4		29/8/17	–		X											X		X	X				
BH209_1.5-1.95	5		30/8/17	–		X											X		X	X				
BH221_1.5-1.95	6	ZLB	31/8/17	–		X											X		X	X				

Comments

HM[A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM[B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

LABORATORY TURNAROUND

- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

SGS EHS Alexandria Laboratory

SE170270 COC
Received: 14 – Sep – 2017

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

Sampler's Comments:
please test pH/EC in 1:5 soil:water

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

Sampler's Name (EI):	Received by (SGS):
Alexander Hrnic on behalf of	
Print: Bryan Zhang	Print:
Signature:	Signature:
Date: 14/9/17	Date: 14/9/17 @ 1:10

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

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

COC July 2016 FORM v.3 - SGS

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

RE: SGS Sample Receipt Advice (Ref: E23529 - 230 Aldington Rd Kemps Creek, Lab Ref: SE170270) DUE 19/9/17

Crawford, Huong (Sydney)

Mon 18/09/2017 12:18 PM

To: alexander.hanna@eiaustralia.com.au <alexander.hanna@eiaustralia.com.au>;

Cc: bryan.zheng@eiaustralia.com.au <bryan.zheng@eiaustralia.com.au>; lab@eiaustralia.com.au <lab@eiaustralia.com.au>; AU.SampleReceipt.Sydney (Sydney) <AU.SampleReceipt.Sydney@sgs.com>;

Hi Alexander,

Will report the above job tomorrow, please note 1 day TAT surcharge will apply- new TAT starts from when the new request comes through- please let us know if any questions.

Thanks.

Kind Regards,
Huong Crawford
Environment, Health & Safety
Production Manager
SGS Australia Pty Ltd
Unit 16, 33 Maddox Street
Alexandria NSW 2015
Phone: +61 (0)2 8594 0403
Fax: + 61 (0)2 8594 0499
E-mail: Huong.Crawford@sgs.com
Web: www.au.sgs.com
SGS DataNet: View Results Online

From: Alexander Hanna - EIAustralia <alexander.hanna@eiaustralia.com.au>
Sent: Monday, 18 September 2017 11:05 AM
To: AU.SampleReceipt.Sydney (Sydney); Bryan Zheng - EIAustralia; Laboratory Results - EIAustralia
Cc: Joseph Chaghouri - EIAustralia
Subject: RE: SGS Sample Receipt Advice (Ref: E23529 - 230 Aldington Rd Kemps Creek, Lab Ref: SE170270)

Hi,

Could we please have these samples placed on a fast turnaround time.

If we could receive the results by tomorrow that would be preferable, if possible.

Please confirm.

Regards,
Alexander

SAMPLE RECEIPT ADVICE

SE170270

CLIENT DETAILS

Contact	Bryan Zheng
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	bryan.zheng@eiaustralia.com.au
Project	**E23529 - 230 Aldington Rd Kemps Creek**
Order Number	**E23529**
Samples	6

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
Samples Received	Thu 14/9/2017
Report Due	Tue 19/9/2017
SGS Reference	**SE170270**

SUBMISSION DETAILS

This is to confirm that 6 samples were received on Thursday 14/9/2017. Results are expected to be ready by COB Tuesday 19/9/2017. Please quote SGS reference SE170270 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	Client	Sample cooling method	None
Samples received in correct containers	Yes	Sample counts by matrix	6 Soil
Date documentation received	14/9/2017	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	N/A
Sample temperature upon receipt	19.5°C	Sufficient sample for analysis	Yes
Turnaround time requested	Next Day		

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

COMMENTS

This SRA cancels and supersedes the previous SRA sent due to amended TAT .

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.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

SAMPLE RECEIPT ADVICE

SE170270

CLIENT DETAILS

Client EI AUSTRALIA

Project E23529 - 230 Aldington Rd Kemps Creek

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)	Soluble Anions (1:5) in Soil by Ion Chromatography
001	BH201_1.5-1.78	1	1	1	2
002	BH202_0.5-0.95	1	1	1	2
003	BH205_0.5-0.95	1	1	1	2
004	BH209_0.5-0.95	1	1	1	2
005	BH209_1.5-1.95	1	1	1	2
006	BH221_1.5-1.95	1	1	1	2

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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

APPENDIX H

LABORATORY ANALYTICAL REPORTS

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 175240

Client Details

Client	EI Australia
Attention	Mitchell Duley
Address	Suite 6.01, 55 Miller Street, Pyrmont, NSW, 2009

Sample Details

Your Reference	**E23529**
Number of Samples	5 Soils, 1 Waters
Date samples received	08/09/2017
Date completed instructions received	08/09/2017

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	15/09/2017
Date of Issue	13/09/2017

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Giovanni Agosti, Group Technical Manager
Jeremy Faircloth, Organics Supervisor
Steven Luong, Chemist

Authorised By

David Springer, General Manager

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		175240-1	175240-2	175240-3	175240-4	175240-5
Your Reference	UNITS	QT1	QT2	QT3	QT4	QT5
Date Sampled		04/09/2017	04/09/2017	04/09/2017	04/09/2017	05/09/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	11/09/2017	11/09/2017	11/09/2017	11/09/2017	11/09/2017
Date analysed	-	12/09/2017	12/09/2017	12/09/2017	12/09/2017	12/09/2017
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	93	99	102	100	98

svTRH (C10-C40) in Soil						
Our Reference		175240-1	175240-2	175240-3	175240-4	175240-5
Your Reference	UNITS	QT1	QT2	QT3	QT4	QT5
Date Sampled		04/09/2017	04/09/2017	04/09/2017	04/09/2017	05/09/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	11/09/2017	11/09/2017	11/09/2017	11/09/2017	11/09/2017
Date analysed	-	12/09/2017	12/09/2017	12/09/2017	12/09/2017	12/09/2017
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	77	77	76	76	77

Acid Extractable metals in soil						
Our Reference		175240-1	175240-2	175240-3	175240-4	175240-5
Your Reference	UNITS	QT1	QT2	QT3	QT4	QT5
Date Sampled		04/09/2017	04/09/2017	04/09/2017	04/09/2017	05/09/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	11/09/2017	11/09/2017	11/09/2017	11/09/2017	11/09/2017
Date analysed	-	11/09/2017	11/09/2017	11/09/2017	11/09/2017	11/09/2017
Arsenic	mg/kg	6	<4	7	7	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	16	16	13	16	16
Copper	mg/kg	29	49	23	27	35
Lead	mg/kg	12	23	18	17	16
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	14	11	16	11	22
Zinc	mg/kg	54	56	40	49	49

Moisture						
Our Reference		175240-1	175240-2	175240-3	175240-4	175240-5
Your Reference	UNITS	QT1	QT2	QT3	QT4	QT5
Date Sampled		04/09/2017	04/09/2017	04/09/2017	04/09/2017	05/09/2017
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	11/09/2017	11/09/2017	11/09/2017	11/09/2017	11/09/2017
Date analysed	-	12/09/2017	12/09/2017	12/09/2017	12/09/2017	12/09/2017
Moisture	%	19	14	13	11	16

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

vTRH(C6-C10)/BTEXN in Water		
Our Reference		175240-6
Your Reference	UNITS	QT6
Date Sampled		04/09/2017
Type of sample		Water
Date extracted	-	11/09/2017
Date analysed	-	12/09/2017
TRH C_6 - C_9	µg/L	<10
TRH C_6 - C_{10}	µg/L	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	104
Surrogate toluene-d8	%	100
Surrogate 4-BFB	%	98

svTRH (C10-C40) in Water		
Our Reference		175240-6
Your Reference	UNITS	QT6
Date Sampled		04/09/2017
Type of sample		Water
Date extracted	-	12/09/2017
Date analysed	-	12/09/2017
TRH C_{10} - C_{14}	µg/L	<50
TRH C_{15} - C_{28}	µg/L	<100
TRH C_{29} - C_{36}	µg/L	<100
TRH >C_{10} - C_{16}	µg/L	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50
TRH >C_{16} - C_{34}	µg/L	<100
TRH >C_{34} - C_{40}	µg/L	<100
Surrogate o-Terphenyl	%	106

HM in water - dissolved		
Our Reference	UNITS	175240-6
Your Reference		QT6
Date Sampled		04/09/2017
Type of sample		Water
Date prepared	-	11/09/2017
Date analysed	-	11/09/2017
Arsenic-Dissolved	µg/L	1
Cadmium-Dissolved	µg/L	<0.1
Chromium-Dissolved	µg/L	<1
Copper-Dissolved	µg/L	2
Lead-Dissolved	µg/L	<1
Mercury-Dissolved	µg/L	<0.05
Nickel-Dissolved	µg/L	2
Zinc-Dissolved	µg/L	1

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-013	Water samples are analysed directly by purge and trap GC-MS.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			11/09/2017	[NT]	[NT]	[NT]	[NT]	11/09/2017	[NT]
Date analysed	-			12/09/2017	[NT]	[NT]	[NT]	[NT]	12/09/2017	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	<25	[NT]	[NT]	[NT]	[NT]	107	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	<25	[NT]	[NT]	[NT]	[NT]	107	[NT]
Benzene	mg/kg	0.2	Org-016	<0.2	[NT]	[NT]	[NT]	[NT]	110	[NT]
Toluene	mg/kg	0.5	Org-016	<0.5	[NT]	[NT]	[NT]	[NT]	110	[NT]
Ethylbenzene	mg/kg	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
m+p-xylene	mg/kg	2	Org-016	<2	[NT]	[NT]	[NT]	[NT]	105	[NT]
o-Xylene	mg/kg	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]
naphthalene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	108	[NT]	[NT]	[NT]	[NT]	109	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			11/09/2017	[NT]	[NT]	[NT]	[NT]	11/09/2017	[NT]
Date analysed	-			12/09/2017	[NT]	[NT]	[NT]	[NT]	12/09/2017	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	85	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	85	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	91	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	85	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	85	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	91	[NT]
Surrogate o-Terphenyl	%		Org-003	84	[NT]	[NT]	[NT]	[NT]	86	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date prepared	-			11/09/2017	[NT]	[NT]	[NT]	[NT]	11/09/2017	[NT]
Date analysed	-			11/09/2017	[NT]	[NT]	[NT]	[NT]	11/09/2017	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	108	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	102	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	111	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	105	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			11/09/2017	[NT]	[NT]	[NT]	[NT]	11/09/2017	[NT]
Date analysed	-			12/09/2017	[NT]	[NT]	[NT]	[NT]	12/09/2017	[NT]
TRH C_6 - C_9	µg/L	10	Org-016	<10	[NT]	[NT]	[NT]	[NT]	107	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-016	<10	[NT]	[NT]	[NT]	[NT]	107	[NT]
Benzene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Toluene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	110	[NT]
Ethylbenzene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	105	[NT]
m+p-xylene	µg/L	2	Org-016	<2	[NT]	[NT]	[NT]	[NT]	106	[NT]
o-xylene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Naphthalene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-016	102	[NT]	[NT]	[NT]	[NT]	103	[NT]
Surrogate toluene-d8	%		Org-016	101	[NT]	[NT]	[NT]	[NT]	104	[NT]
Surrogate 4-BFB	%		Org-016	97	[NT]	[NT]	[NT]	[NT]	103	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			12/09/2017	[NT]	[NT]	[NT]	[NT]	12/09/2017	[NT]
Date analysed	-			12/09/2017	[NT]	[NT]	[NT]	[NT]	12/09/2017	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	124	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	129	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	100	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	124	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	129	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate o-Terphenyl	%		Org-003	108	[NT]	[NT]	[NT]	[NT]	104	[NT]

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	175240-6
Date prepared	-			11/09/2017	[NT]	[NT]	[NT]	[NT]	11/09/2017	11/09/2017
Date analysed	-			11/09/2017	[NT]	[NT]	[NT]	[NT]	11/09/2017	11/09/2017
Arsenic-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	98	103
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	[NT]	[NT]	[NT]	[NT]	100	100
Chromium-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	97	96
Copper-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	98	93
Lead-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	108	102
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	[NT]	[NT]	[NT]	[NT]	103	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	95	90
Zinc-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	97	97

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Mitchell Duley
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	mitchell.duley@eiaustralia.com.au
Project	**E23529 - 230 Aldington Road, Kemps Creek**
Order Number	**E23529**
Samples	162

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE170024 R0**
Date Received	6/9/2017
Date Reported	15/9/2017

COMMENTS

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

Samples#17,31,76 : A portion of the sample supplied has been sub-sampled for asbestos according to SGS In-house procedures. We therefore cannot guarantee that the sub-sample is representative of the entire sample supplied. SGS Environment, Health and Safety recommends supplying approximately 50-100g of sample in a separate container.

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

Asbestos analysed by Approved Identifier Ravee Sivasubramaniam .

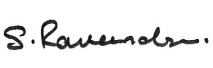
SIGNATORIES

Akheeqar Beniameen
Chemist

Bennet Lo
Senior Organic Chemist/Metals Chemist

Kamrul Ahsan
Senior Chemist

Ly Kim Ha
Organic Section Head



Ravee Sivasubramaniam
Hygiene Team Leader

Teresa Nguyen
Organic Chemist

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

VOC's in Soil [AN433] Tested: 12/9/2017

PARAMETER	UOM	LOR	BH101_0.1-0.2 SOIL - 4/9/2017 SE170024.001	BH108_0.1-0.2 SOIL - 4/9/2017 SE170024.008	BH111_0.1-0.2 SOIL - 4/9/2017 SE170024.011	BH111_2.4-2.5 SOIL - 4/9/2017 SE170024.012	BH116_0.1-0.2 SOIL - 4/9/2017 SE170024.017
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	BH117_0.1-0.2 SOIL - 4/9/2017 SE170024.018	BH117_0.5-0.6 SOIL - 4/9/2017 SE170024.019	BH124_0.1-0.2 SOIL - 4/9/2017 SE170024.026	BH129_0.1-0.2 SOIL - 4/9/2017 SE170024.031	BH132_0.1-0.2 SOIL - 4/9/2017 SE170024.034
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	BH132_0.5-0.6 SOIL - 4/9/2017 SE170024.035	BH137_0.1-0.2 SOIL - 4/9/2017 SE170024.040	BH140_0.1-0.2 SOIL - 5/9/2017 SE170024.043	BH143_0.1-0.2 SOIL - 4/9/2017 SE170024.046	BH143_0.5-0.6 SOIL - 4/9/2017 SE170024.047
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	BH148_0.1-0.2 SOIL - 5/9/2017 SE170024.052	BH153_0.1-0.2 SOIL - 4/9/2017 SE170024.057	BH154_0.1-0.2 SOIL - 4/9/2017 SE170024.058	BH154_0.5-0.6 SOIL - 4/9/2017 SE170024.059	BH156_0.1-0.2 SOIL - 5/9/2017 SE170024.061
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

VOC's in Soil [AN433] Tested: 12/9/2017 (continued)

PARAMETER	UOM	LOR	BH160_0.1-0.2 SOIL - 4/9/2017 SE170024.065	BH160_0.5-0.6 SOIL - 4/9/2017 SE170024.066	BH164_0.1-0.2 SOIL - 4/9/2017 SE170024.070	BH164_0.7-0.8 SOIL - 4/9/2017 SE170024.071	BH169_0.5-0.6 SOIL - 4/9/2017 SE170024.076
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	BH172_0.1-0.2 SOIL - 4/9/2017 SE170024.079	BH176_0.1-0.2 SOIL - 4/9/2017 SE170024.083	BH177_0.1-0.2 SOIL - 4/9/2017 SE170024.084	BH178_0.1-0.2 SOIL - 4/9/2017 SE170024.085	BH178_0.5-0.6 SOIL - 4/9/2017 SE170024.086
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	SS1 SOIL - 4/9/2017 SE170024.149	SS2 SOIL - 4/9/2017 SE170024.150	QD1 SOIL - 4/9/2017 SE170024.151	QD2 SOIL - 4/9/2017 SE170024.152	QD3 SOIL - 4/9/2017 SE170024.153
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	QD4 SOIL - 4/9/2017 SE170024.154	QD5 SOIL - 5/9/2017 SE170024.155	TB1 SOIL - 4/9/2017 SE170024.156	TS1 SOIL - 4/9/2017 SE170024.157	TB2 SOIL - 5/9/2017 SE170024.159
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	[82%]	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	[83%]	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	[93%]	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	[90%]	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	[89%]	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	-	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	-	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	-	<0.1

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

VOC's in Soil [AN433] Tested: 12/9/2017 (continued)

PARAMETER	UOM	LOR	TS2 SOIL - 5/9/2017 SE170024.160
Benzene	mg/kg	0.1	[86%]
Toluene	mg/kg	0.1	[92%]
Ethylbenzene	mg/kg	0.1	[84%]
m/p-xylene	mg/kg	0.2	[92%]
o-xylene	mg/kg	0.1	[91%]
Total Xylenes	mg/kg	0.3	-
Total BTEX	mg/kg	0.6	-
Naphthalene	mg/kg	0.1	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 12/9/2017

PARAMETER	UOM	LOR	BH101_0.1-0.2 SOIL - 4/9/2017 SE170024.001	BH108_0.1-0.2 SOIL - 4/9/2017 SE170024.008	BH111_0.1-0.2 SOIL - 4/9/2017 SE170024.011	BH111_2.4-2.5 SOIL - 4/9/2017 SE170024.012	BH116_0.1-0.2 SOIL - 4/9/2017 SE170024.017
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH117_0.1-0.2 SOIL - 4/9/2017 SE170024.018	BH117_0.5-0.6 SOIL - 4/9/2017 SE170024.019	BH124_0.1-0.2 SOIL - 4/9/2017 SE170024.026	BH129_0.1-0.2 SOIL - 4/9/2017 SE170024.031	BH132_0.1-0.2 SOIL - 4/9/2017 SE170024.034
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH132_0.5-0.6 SOIL - 4/9/2017 SE170024.035	BH137_0.1-0.2 SOIL - 4/9/2017 SE170024.040	BH140_0.1-0.2 SOIL - 5/9/2017 SE170024.043	BH143_0.1-0.2 SOIL - 4/9/2017 SE170024.046	BH143_0.5-0.6 SOIL - 4/9/2017 SE170024.047
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH148_0.1-0.2 SOIL - 5/9/2017 SE170024.052	BH153_0.1-0.2 SOIL - 4/9/2017 SE170024.057	BH154_0.1-0.2 SOIL - 4/9/2017 SE170024.058	BH154_0.5-0.6 SOIL - 4/9/2017 SE170024.059	BH156_0.1-0.2 SOIL - 5/9/2017 SE170024.061
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH160_0.1-0.2 SOIL - 4/9/2017 SE170024.065	BH160_0.5-0.6 SOIL - 4/9/2017 SE170024.066	BH164_0.1-0.2 SOIL - 4/9/2017 SE170024.070	BH164_0.7-0.8 SOIL - 4/9/2017 SE170024.071	BH169_0.5-0.6 SOIL - 4/9/2017 SE170024.076
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH172_0.1-0.2 SOIL - 4/9/2017 SE170024.079	BH176_0.1-0.2 SOIL - 4/9/2017 SE170024.083	BH177_0.1-0.2 SOIL - 4/9/2017 SE170024.084	BH178_0.1-0.2 SOIL - 4/9/2017 SE170024.085	BH178_0.5-0.6 SOIL - 4/9/2017 SE170024.086
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 12/9/2017 (continued)

PARAMETER	UOM	LOR	SS1 SOIL - 4/9/2017 SE170024.149	SS2 SOIL - 4/9/2017 SE170024.150	QD1 SOIL - 4/9/2017 SE170024.151	QD2 SOIL - 4/9/2017 SE170024.152	QD3 SOIL - 4/9/2017 SE170024.153
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	QD4 SOIL - 4/9/2017 SE170024.154	QD5 SOIL - 5/9/2017 SE170024.155
TRH C6-C9	mg/kg	20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 11/9/2017

PARAMETER	UOM	LOR	BH101_0.1-0.2 SOIL - 4/9/2017 SE170024.001	BH108_0.1-0.2 SOIL - 4/9/2017 SE170024.008	BH111_0.1-0.2 SOIL - 4/9/2017 SE170024.011	BH111_2.4-2.5 SOIL - 4/9/2017 SE170024.012	BH116_0.1-0.2 SOIL - 4/9/2017 SE170024.017
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 (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 (F2) - Naphthalene	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	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH117_0.1-0.2 SOIL - 4/9/2017 SE170024.018	BH117_0.5-0.6 SOIL - 4/9/2017 SE170024.019	BH124_0.1-0.2 SOIL - 4/9/2017 SE170024.026	BH129_0.1-0.2 SOIL - 4/9/2017 SE170024.031	BH132_0.1-0.2 SOIL - 4/9/2017 SE170024.034
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 (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 (F2) - Naphthalene	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	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH132_0.5-0.6 SOIL - 4/9/2017 SE170024.035	BH137_0.1-0.2 SOIL - 4/9/2017 SE170024.040	BH140_0.1-0.2 SOIL - 5/9/2017 SE170024.043	BH143_0.1-0.2 SOIL - 4/9/2017 SE170024.046	BH143_0.5-0.6 SOIL - 4/9/2017 SE170024.047
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	**74**	<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 (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	**110**	<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	mg/kg	210	<210	<210	<210	<210	<210

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	BH148_0.1-0.2 SOIL - 5/9/2017 SE170024.052	BH153_0.1-0.2 SOIL - 4/9/2017 SE170024.057	BH154_0.1-0.2 SOIL - 4/9/2017 SE170024.058	BH154_0.5-0.6 SOIL - 4/9/2017 SE170024.059	BH156_0.1-0.2 SOIL - 5/9/2017 SE170024.061
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 (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 (F2) - Naphthalene	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	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH160_0.1-0.2 SOIL - 4/9/2017 SE170024.065	BH160_0.5-0.6 SOIL - 4/9/2017 SE170024.066	BH164_0.1-0.2 SOIL - 4/9/2017 SE170024.070	BH164_0.7-0.8 SOIL - 4/9/2017 SE170024.071	BH169_0.5-0.6 SOIL - 4/9/2017 SE170024.076
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	**220**	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	**350**	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	**490**	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	**570**	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	**490**	<210	<210

PARAMETER	UOM	LOR	BH172_0.1-0.2 SOIL - 4/9/2017 SE170024.079	BH176_0.1-0.2 SOIL - 4/9/2017 SE170024.083	BH177_0.1-0.2 SOIL - 4/9/2017 SE170024.084	BH178_0.1-0.2 SOIL - 4/9/2017 SE170024.085	BH178_0.5-0.6 SOIL - 4/9/2017 SE170024.086
TRH C10-C14	mg/kg	20	**25**	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	**200**	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	**120**	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16 (F2)	mg/kg	25	**56**	<25	<25	<25	<25
TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	**56**	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	**260**	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	**350**	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	**310**	<210	<210	<210	<210

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	SS1 SOIL - 4/9/2017 SE170024.149	SS2 SOIL - 4/9/2017 SE170024.150	QD1 SOIL - 4/9/2017 SE170024.151	QD2 SOIL - 4/9/2017 SE170024.152	QD3 SOIL - 4/9/2017 SE170024.153
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 (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 (F2) - Naphthalene	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	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	QD4 SOIL - 4/9/2017 SE170024.154	QD5 SOIL - 5/9/2017 SE170024.155
TRH C10-C14	mg/kg	20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100
TRH >C10-C16 (F2)	mg/kg	25	<25	<25
TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 11/9/2017

PARAMETER	UOM	LOR	BH101_0.1-0.2 SOIL - 4/9/2017 SE170024.001	BH108_0.1-0.2 SOIL - 4/9/2017 SE170024.008	BH111_0.1-0.2 SOIL - 4/9/2017 SE170024.011	BH111_2.4-2.5 SOIL - 4/9/2017 SE170024.012	BH116_0.1-0.2 SOIL - 4/9/2017 SE170024.017
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	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	BH117_0.1-0.2 SOIL - 4/9/2017 SE170024.018	BH117_0.5-0.6 SOIL - 4/9/2017 SE170024.019	BH124_0.1-0.2 SOIL - 4/9/2017 SE170024.026	BH129_0.1-0.2 SOIL - 4/9/2017 SE170024.031	BH132_0.1-0.2 SOIL - 4/9/2017 SE170024.034
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	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

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	BH132_0.5-0.6 SOIL - 4/9/2017 SE170024.035	BH137_0.1-0.2 SOIL - 4/9/2017 SE170024.040	BH140_0.1-0.2 SOIL - 5/9/2017 SE170024.043	BH143_0.1-0.2 SOIL - 4/9/2017 SE170024.046	BH143_0.5-0.6 SOIL - 4/9/2017 SE170024.047
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	**0.1**	<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	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	BH148_0.1-0.2 SOIL - 5/9/2017 SE170024.052	BH153_0.1-0.2 SOIL - 4/9/2017 SE170024.057	BH154_0.1-0.2 SOIL - 4/9/2017 SE170024.058	BH154_0.5-0.6 SOIL - 4/9/2017 SE170024.059	BH156_0.1-0.2 SOIL - 5/9/2017 SE170024.061
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	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	BH160_0.1-0.2 SOIL - 4/9/2017 SE170024.065	BH160_0.5-0.6 SOIL - 4/9/2017 SE170024.066	BH164_0.1-0.2 SOIL - 4/9/2017 SE170024.070	BH164_0.7-0.8 SOIL - 4/9/2017 SE170024.071	BH169_0.5-0.6 SOIL - 4/9/2017 SE170024.076
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	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	BH172_0.1-0.2 SOIL - 4/9/2017 SE170024.079	BH176_0.1-0.2 SOIL - 4/9/2017 SE170024.083	BH177_0.1-0.2 SOIL - 4/9/2017 SE170024.084	BH178_0.1-0.2 SOIL - 4/9/2017 SE170024.085	BH178_0.5-0.6 SOIL - 4/9/2017 SE170024.086
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	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	SS1 SOIL - 4/9/2017 SE170024.149	SS2 SOIL - 4/9/2017 SE170024.150
Naphthalene	mg/kg	0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ	0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

OC Pesticides in Soil [AN420] Tested: 11/9/2017

PARAMETER	UOM	LOR	BH101_0.1-0.2 SOIL - 4/9/2017 SE170024.001	BH108_0.1-0.2 SOIL - 4/9/2017 SE170024.008	BH111_0.1-0.2 SOIL - 4/9/2017 SE170024.011	BH116_0.1-0.2 SOIL - 4/9/2017 SE170024.017	BH117_0.1-0.2 SOIL - 4/9/2017 SE170024.018
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

OC Pesticides in Soil [AN420] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	BH124_0.1-0.2 SOIL - 4/9/2017 SE170024.026	BH129_0.1-0.2 SOIL - 4/9/2017 SE170024.031	BH132_0.1-0.2 SOIL - 4/9/2017 SE170024.034	BH137_0.1-0.2 SOIL - 4/9/2017 SE170024.040	BH140_0.1-0.2 SOIL - 5/9/2017 SE170024.043
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

OC Pesticides in Soil [AN420] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	BH143_0.1-0.2 SOIL - 4/9/2017 SE170024.046	BH148_0.1-0.2 SOIL - 5/9/2017 SE170024.052	BH153_0.1-0.2 SOIL - 4/9/2017 SE170024.057	BH154_0.1-0.2 SOIL - 4/9/2017 SE170024.058	BH156_0.1-0.2 SOIL - 5/9/2017 SE170024.061
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

OC Pesticides in Soil [AN420] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	BH160_0.1-0.2 SOIL - 4/9/2017 SE170024.065	BH164_0.1-0.2 SOIL - 4/9/2017 SE170024.070	BH169_0.5-0.6 SOIL - 4/9/2017 SE170024.076	BH172_0.1-0.2 SOIL - 4/9/2017 SE170024.079	BH176_0.1-0.2 SOIL - 4/9/2017 SE170024.083
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

OC Pesticides in Soil [AN420] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	BH177_0.1-0.2 SOIL - 4/9/2017 SE170024.084	BH178_0.1-0.2 SOIL - 4/9/2017 SE170024.085	C1 SOIL - 4/9/2017 SE170024.118	C2 SOIL - 4/9/2017 SE170024.119	C3 SOIL - 4/9/2017 SE170024.120
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

OC Pesticides in Soil [AN420] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	C4 SOIL - 4/9/2017 SE170024.121	C5 SOIL - 4/9/2017 SE170024.122	C6 SOIL - 4/9/2017 SE170024.123	C7 SOIL - 4/9/2017 SE170024.124	C8 SOIL - 4/9/2017 SE170024.125
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	C9 SOIL - 4/9/2017 SE170024.126	C10 SOIL - 4/9/2017 SE170024.127	C11 SOIL - 4/9/2017 SE170024.128	C12 SOIL - 4/9/2017 SE170024.129	C13 SOIL - 4/9/2017 SE170024.130
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	C14 SOIL - 4/9/2017 SE170024.131	C15 SOIL - 4/9/2017 SE170024.132	C16 SOIL - 4/9/2017 SE170024.133	C17 SOIL - 4/9/2017 SE170024.134	C18 SOIL - 4/9/2017 SE170024.135
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

OC Pesticides in Soil [AN420] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	C19 SOIL - 4/9/2017 SE170024.136	C20 SOIL - 4/9/2017 SE170024.137	C21 SOIL - 4/9/2017 SE170024.138	C22 SOIL - 4/9/2017 SE170024.139	C23 SOIL - 4/9/2017 SE170024.140
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	C24 SOIL - 4/9/2017 SE170024.141	C25 SOIL - 4/9/2017 SE170024.142	C26 SOIL - 4/9/2017 SE170024.143	C27 SOIL - 4/9/2017 SE170024.144	C28 SOIL - 4/9/2017 SE170024.145
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

OC Pesticides in Soil [AN420] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	C29 SOIL - 4/9/2017 SE170024.146	SS1 SOIL - 4/9/2017 SE170024.149	SS2 SOIL - 4/9/2017 SE170024.150
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

OP Pesticides in Soil [AN420] Tested: 11/9/2017

PARAMETER	UOM	LOR	BH101_0.1-0.2 SOIL - 4/9/2017 SE170024.001	BH108_0.1-0.2 SOIL - 4/9/2017 SE170024.008	BH111_0.1-0.2 SOIL - 4/9/2017 SE170024.011	BH116_0.1-0.2 SOIL - 4/9/2017 SE170024.017	BH117_0.1-0.2 SOIL - 4/9/2017 SE170024.018
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	BH124_0.1-0.2 SOIL - 4/9/2017 SE170024.026	BH129_0.1-0.2 SOIL - 4/9/2017 SE170024.031	BH132_0.1-0.2 SOIL - 4/9/2017 SE170024.034	BH137_0.1-0.2 SOIL - 4/9/2017 SE170024.040	BH140_0.1-0.2 SOIL - 5/9/2017 SE170024.043
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	BH143_0.1-0.2 SOIL - 4/9/2017 SE170024.046	BH148_0.1-0.2 SOIL - 5/9/2017 SE170024.052	BH153_0.1-0.2 SOIL - 4/9/2017 SE170024.057	BH154_0.1-0.2 SOIL - 4/9/2017 SE170024.058	BH156_0.1-0.2 SOIL - 5/9/2017 SE170024.061
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

OP Pesticides in Soil [AN420] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	BH160_0.1-0.2 SOIL - 4/9/2017 SE170024.065	BH164_0.1-0.2 SOIL - 4/9/2017 SE170024.070	BH169_0.5-0.6 SOIL - 4/9/2017 SE170024.076	BH172_0.1-0.2 SOIL - 4/9/2017 SE170024.079	BH176_0.1-0.2 SOIL - 4/9/2017 SE170024.083
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	BH177_0.1-0.2 SOIL - 4/9/2017 SE170024.084	BH178_0.1-0.2 SOIL - 4/9/2017 SE170024.085	C1 SOIL - 4/9/2017 SE170024.118	C2 SOIL - 4/9/2017 SE170024.119	C3 SOIL - 4/9/2017 SE170024.120
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	C4 SOIL - 4/9/2017 SE170024.121	C5 SOIL - 4/9/2017 SE170024.122	C6 SOIL - 4/9/2017 SE170024.123	C7 SOIL - 4/9/2017 SE170024.124	C8 SOIL - 4/9/2017 SE170024.125
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

OP Pesticides in Soil [AN420] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	C9 SOIL - 4/9/2017 SE170024.126	C10 SOIL - 4/9/2017 SE170024.127	C11 SOIL - 4/9/2017 SE170024.128	C12 SOIL - 4/9/2017 SE170024.129	C13 SOIL - 4/9/2017 SE170024.130
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	C14 SOIL - 4/9/2017 SE170024.131	C15 SOIL - 4/9/2017 SE170024.132	C16 SOIL - 4/9/2017 SE170024.133	C17 SOIL - 4/9/2017 SE170024.134	C18 SOIL - 4/9/2017 SE170024.135
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	C19 SOIL - 4/9/2017 SE170024.136	C20 SOIL - 4/9/2017 SE170024.137	C21 SOIL - 4/9/2017 SE170024.138	C22 SOIL - 4/9/2017 SE170024.139	C23 SOIL - 4/9/2017 SE170024.140
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

OP Pesticides in Soil [AN420] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	C24 SOIL - 4/9/2017 SE170024.141	C25 SOIL - 4/9/2017 SE170024.142	C26 SOIL - 4/9/2017 SE170024.143	C27 SOIL - 4/9/2017 SE170024.144	C28 SOIL - 4/9/2017 SE170024.145
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	C29 SOIL - 4/9/2017 SE170024.146	SS1 SOIL - 4/9/2017 SE170024.149	SS2 SOIL - 4/9/2017 SE170024.150
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

PCBs in Soil [AN420] Tested: 11/9/2017

PARAMETER	UOM	LOR	BH101_0.1-0.2 SOIL - 4/9/2017 SE170024.001	BH108_0.1-0.2 SOIL - 4/9/2017 SE170024.008	BH111_0.1-0.2 SOIL - 4/9/2017 SE170024.011	BH116_0.1-0.2 SOIL - 4/9/2017 SE170024.017	BH117_0.1-0.2 SOIL - 4/9/2017 SE170024.018
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PARAMETER	UOM	LOR	BH124_0.1-0.2 SOIL - 4/9/2017 SE170024.026	BH129_0.1-0.2 SOIL - 4/9/2017 SE170024.031	BH132_0.1-0.2 SOIL - 4/9/2017 SE170024.034	BH137_0.1-0.2 SOIL - 4/9/2017 SE170024.040	BH140_0.1-0.2 SOIL - 5/9/2017 SE170024.043
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PARAMETER	UOM	LOR	BH143_0.1-0.2 SOIL - 4/9/2017 SE170024.046	BH148_0.1-0.2 SOIL - 5/9/2017 SE170024.052	BH153_0.1-0.2 SOIL - 4/9/2017 SE170024.057	BH154_0.1-0.2 SOIL - 4/9/2017 SE170024.058	BH156_0.1-0.2 SOIL - 5/9/2017 SE170024.061
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PCBs in Soil [AN420] Tested: 11/9/2017 (continued)

PARAMETER	UOM	LOR	BH160_0.1-0.2 SOIL - 4/9/2017 SE170024.065	BH164_0.1-0.2 SOIL - 4/9/2017 SE170024.070	BH169_0.5-0.6 SOIL - 4/9/2017 SE170024.076	BH172_0.1-0.2 SOIL - 4/9/2017 SE170024.079	BH176_0.1-0.2 SOIL - 4/9/2017 SE170024.083
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PARAMETER	UOM	LOR	BH177_0.1-0.2 SOIL - 4/9/2017 SE170024.084	BH178_0.1-0.2 SOIL - 4/9/2017 SE170024.085
Arochlor 1016	mg/kg	0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Total Recoverable Metals in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 12/9/2017

PARAMETER	UOM	LOR	BH101_0.1-0.2 SOIL - 4/9/2017 SE170024.001	BH108_0.1-0.2 SOIL - 4/9/2017 SE170024.008	BH111_0.1-0.2 SOIL - 4/9/2017 SE170024.011	BH111_2.4-2.5 SOIL - 4/9/2017 SE170024.012	BH116_0.1-0.2 SOIL - 4/9/2017 SE170024.017
Arsenic, As	mg/kg	3	10	8	8	9	7
Cadmium, Cd	mg/kg	0.3	0.4	0.4	0.5	0.7	0.8
Chromium, Cr	mg/kg	0.3	14	16	14	18	17
Copper, Cu	mg/kg	0.5	25	19	31	30	26
Lead, Pb	mg/kg	1	12	19	17	22	21
Nickel, Ni	mg/kg	0.5	11	7.1	13	11	11
Zinc, Zn	mg/kg	0.5	55	29	61	44	46

PARAMETER	UOM	LOR	BH117_0.1-0.2 SOIL - 4/9/2017 SE170024.018	BH117_0.5-0.6 SOIL - 4/9/2017 SE170024.019	BH124_0.1-0.2 SOIL - 4/9/2017 SE170024.026	BH129_0.1-0.2 SOIL - 4/9/2017 SE170024.031	BH132_0.1-0.2 SOIL - 4/9/2017 SE170024.034
Arsenic, As	mg/kg	3	7	7	9	5	3
Cadmium, Cd	mg/kg	0.3	0.7	0.5	0.6	0.3	0.6
Chromium, Cr	mg/kg	0.3	20	14	17	9.8	14
Copper, Cu	mg/kg	0.5	25	27	22	38	55
Lead, Pb	mg/kg	1	20	13	22	15	19
Nickel, Ni	mg/kg	0.5	6.6	3.1	11	5.2	10
Zinc, Zn	mg/kg	0.5	34	21	40	29	65

PARAMETER	UOM	LOR	BH132_0.5-0.6 SOIL - 4/9/2017 SE170024.035	BH137_0.1-0.2 SOIL - 4/9/2017 SE170024.040	BH140_0.1-0.2 SOIL - 5/9/2017 SE170024.043	BH143_0.1-0.2 SOIL - 4/9/2017 SE170024.046	BH143_0.5-0.6 SOIL - 4/9/2017 SE170024.047
Arsenic, As	mg/kg	3	<3	<3	6	8	9
Cadmium, Cd	mg/kg	0.3	0.5	0.5	0.4	0.7	0.6
Chromium, Cr	mg/kg	0.3	13	18	13	12	14
Copper, Cu	mg/kg	0.5	77	48	28	25	24
Lead, Pb	mg/kg	1	21	9	12	17	16
Nickel, Ni	mg/kg	0.5	11	53	19	18	14
Zinc, Zn	mg/kg	0.5	81	72	47	62	39

PARAMETER	UOM	LOR	BH148_0.1-0.2 SOIL - 5/9/2017 SE170024.052	BH153_0.1-0.2 SOIL - 4/9/2017 SE170024.057	BH154_0.1-0.2 SOIL - 4/9/2017 SE170024.058	BH154_0.5-0.6 SOIL - 4/9/2017 SE170024.059	BH156_0.1-0.2 SOIL - 5/9/2017 SE170024.061
Arsenic, As	mg/kg	3	16	11	24	20	10
Cadmium, Cd	mg/kg	0.3	0.8	0.7	0.8	1.0	0.5
Chromium, Cr	mg/kg	0.3	14	13	18	16	18
Copper, Cu	mg/kg	0.5	85	60	39	32	59
Lead, Pb	mg/kg	1	17	17	18	17	16
Nickel, Ni	mg/kg	0.5	19	12	23	31	19
Zinc, Zn	mg/kg	0.5	73	56	68	76	67

Total Recoverable Metals in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 12/9/2017 (continued)

PARAMETER	UOM	LOR	BH160_0.1-0.2 SOIL - 4/9/2017 SE170024.065	BH160_0.5-0.6 SOIL - 4/9/2017 SE170024.066	BH164_0.1-0.2 SOIL - 4/9/2017 SE170024.070	BH164_0.7-0.8 SOIL - 4/9/2017 SE170024.071	BH169_0.5-0.6 SOIL - 4/9/2017 SE170024.076
Arsenic, As	mg/kg	3	5	7	4	7	10
Cadmium, Cd	mg/kg	0.3	0.5	0.6	0.8	0.5	0.6
Chromium, Cr	mg/kg	0.3	16	21	26	14	16
Copper, Cu	mg/kg	0.5	87	35	51	22	36
Lead, Pb	mg/kg	1	18	17	27	16	15
Nickel, Ni	mg/kg	0.5	24	22	54	14	29
Zinc, Zn	mg/kg	0.5	72	58	130	38	79

PARAMETER	UOM	LOR	BH172_0.1-0.2 SOIL - 4/9/2017 SE170024.079	BH176_0.1-0.2 SOIL - 4/9/2017 SE170024.083	BH177_0.1-0.2 SOIL - 4/9/2017 SE170024.084	BH178_0.1-0.2 SOIL - 4/9/2017 SE170024.085	BH178_0.5-0.6 SOIL - 4/9/2017 SE170024.086
Arsenic, As	mg/kg	3	<3	<3	6	4	10
Cadmium, Cd	mg/kg	0.3	0.5	0.3	0.3	0.6	<0.3
Chromium, Cr	mg/kg	0.3	17	6.7	13	12	12
Copper, Cu	mg/kg	0.5	43	31	19	49	15
Lead, Pb	mg/kg	1	7	29	12	5	8
Nickel, Ni	mg/kg	0.5	70	19	8.7	70	8.8
Zinc, Zn	mg/kg	0.5	55	43	39	47	19

PARAMETER	UOM	LOR	C1 SOIL - 4/9/2017 SE170024.118	C2 SOIL - 4/9/2017 SE170024.119	C3 SOIL - 4/9/2017 SE170024.120	C4 SOIL - 4/9/2017 SE170024.121	C5 SOIL - 4/9/2017 SE170024.122
Arsenic, As	mg/kg	3	10	9	11	6	9
Cadmium, Cd	mg/kg	0.3	0.7	0.5	0.8	0.8	0.7
Chromium, Cr	mg/kg	0.3	16	15	20	15	19
Copper, Cu	mg/kg	0.5	36	37	45	34	37
Lead, Pb	mg/kg	1	15	16	22	18	20
Nickel, Ni	mg/kg	0.5	13	8.3	12	10	23
Zinc, Zn	mg/kg	0.5	59	43	52	58	65

PARAMETER	UOM	LOR	C6 SOIL - 4/9/2017 SE170024.123	C7 SOIL - 4/9/2017 SE170024.124	C8 SOIL - 4/9/2017 SE170024.125	C9 SOIL - 4/9/2017 SE170024.126	C10 SOIL - 4/9/2017 SE170024.127
Arsenic, As	mg/kg	3	20	5	9	6	6
Cadmium, Cd	mg/kg	0.3	0.6	0.5	0.6	0.4	0.5
Chromium, Cr	mg/kg	0.3	19	20	17	14	16
Copper, Cu	mg/kg	0.5	41	31	29	20	37
Lead, Pb	mg/kg	1	18	16	22	18	20
Nickel, Ni	mg/kg	0.5	11	35	8.3	7.8	9.2
Zinc, Zn	mg/kg	0.5	58	54	40	32	41

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Total Recoverable Metals in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 12/9/2017 (continued)

PARAMETER	UOM	LOR	C11 SOIL - 4/9/2017 SE170024.128	C12 SOIL - 4/9/2017 SE170024.129	C13 SOIL - 4/9/2017 SE170024.130	C14 SOIL - 4/9/2017 SE170024.131	C15 SOIL - 4/9/2017 SE170024.132
Arsenic, As	mg/kg	3	7	4	11	6	6
Cadmium, Cd	mg/kg	0.3	0.5	0.4	0.7	0.5	0.5
Chromium, Cr	mg/kg	0.3	15	14	21	12	15
Copper, Cu	mg/kg	0.5	32	47	33	25	62
Lead, Pb	mg/kg	1	16	15	21	14	17
Nickel, Ni	mg/kg	0.5	13	15	7.9	6.9	13
Zinc, Zn	mg/kg	0.5	58	64	34	27	61

PARAMETER	UOM	LOR	C16 SOIL - 4/9/2017 SE170024.133	C17 SOIL - 4/9/2017 SE170024.134	C18 SOIL - 4/9/2017 SE170024.135	C19 SOIL - 4/9/2017 SE170024.136	C20 SOIL - 4/9/2017 SE170024.137
Arsenic, As	mg/kg	3	9	5	10	11	12
Cadmium, Cd	mg/kg	0.3	0.7	0.5	0.3	0.4	0.4
Chromium, Cr	mg/kg	0.3	15	22	13	13	16
Copper, Cu	mg/kg	0.5	53	53	52	52	53
Lead, Pb	mg/kg	1	17	17	15	16	16
Nickel, Ni	mg/kg	0.5	15	29	13	14	20
Zinc, Zn	mg/kg	0.5	54	58	46	47	65

PARAMETER	UOM	LOR	C21 SOIL - 4/9/2017 SE170024.138	C22 SOIL - 4/9/2017 SE170024.139	C23 SOIL - 4/9/2017 SE170024.140	C24 SOIL - 4/9/2017 SE170024.141	C25 SOIL - 4/9/2017 SE170024.142
Arsenic, As	mg/kg	3	8	10	11	7	9
Cadmium, Cd	mg/kg	0.3	0.5	0.5	0.4	0.5	0.6
Chromium, Cr	mg/kg	0.3	16	17	20	18	20
Copper, Cu	mg/kg	0.5	64	57	46	67	39
Lead, Pb	mg/kg	1	18	20	15	16	17
Nickel, Ni	mg/kg	0.5	20	27	15	11	26
Zinc, Zn	mg/kg	0.5	75	68	43	51	67

PARAMETER	UOM	LOR	C26 SOIL - 4/9/2017 SE170024.143	C27 SOIL - 4/9/2017 SE170024.144	C28 SOIL - 4/9/2017 SE170024.145	C29 SOIL - 4/9/2017 SE170024.146	SS1 SOIL - 4/9/2017 SE170024.149
Arsenic, As	mg/kg	3	10	5	7	6	11
Cadmium, Cd	mg/kg	0.3	0.7	0.4	0.4	0.5	0.6
Chromium, Cr	mg/kg	0.3	22	40	20	20	25
Copper, Cu	mg/kg	0.5	48	23	40	23	81
Lead, Pb	mg/kg	1	18	14	15	14	26
Nickel, Ni	mg/kg	0.5	39	18	31	23	13
Zinc, Zn	mg/kg	0.5	120	53	69	38	80

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Total Recoverable Metals in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 12/9/2017 (continued)

PARAMETER	UOM	LOR	SS2 SOIL - 4/9/2017 SE170024.150	QD1 SOIL - 4/9/2017 SE170024.151	QD2 SOIL - 4/9/2017 SE170024.152	QD3 SOIL - 4/9/2017 SE170024.153	QD4 SOIL - 4/9/2017 SE170024.154
Arsenic, As	mg/kg	3	12	6	5	10	7
Cadmium, Cd	mg/kg	0.3	0.6	0.5	0.6	0.6	0.3
Chromium, Cr	mg/kg	0.3	19	15	15	14	14
Copper, Cu	mg/kg	0.5	26	30	58	26	25
Lead, Pb	mg/kg	1	20	13	22	20	14
Nickel, Ni	mg/kg	0.5	7.7	14	11	14	9.5
Zinc, Zn	mg/kg	0.5	38	60	65	52	44

PARAMETER	UOM	LOR	QD5 SOIL - 5/9/2017 SE170024.155
Arsenic, As	mg/kg	3	6
Cadmium, Cd	mg/kg	0.3	0.4
Chromium, Cr	mg/kg	0.3	14
Copper, Cu	mg/kg	0.5	29
Lead, Pb	mg/kg	1	13
Nickel, Ni	mg/kg	0.5	18
Zinc, Zn	mg/kg	0.5	48

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Mercury in Soil [AN312] Tested: 13/9/2017

PARAMETER	UOM	LOR	BH101_0.1-0.2 SOIL - 4/9/2017 SE170024.001	BH108_0.1-0.2 SOIL - 4/9/2017 SE170024.008	BH111_0.1-0.2 SOIL - 4/9/2017 SE170024.011	BH111_2.4-2.5 SOIL - 4/9/2017 SE170024.012	BH116_0.1-0.2 SOIL - 4/9/2017 SE170024.017
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH117_0.1-0.2 SOIL - 4/9/2017 SE170024.018	BH117_0.5-0.6 SOIL - 4/9/2017 SE170024.019	BH124_0.1-0.2 SOIL - 4/9/2017 SE170024.026	BH129_0.1-0.2 SOIL - 4/9/2017 SE170024.031	BH132_0.1-0.2 SOIL - 4/9/2017 SE170024.034
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH132_0.5-0.6 SOIL - 4/9/2017 SE170024.035	BH137_0.1-0.2 SOIL - 4/9/2017 SE170024.040	BH140_0.1-0.2 SOIL - 5/9/2017 SE170024.043	BH143_0.1-0.2 SOIL - 4/9/2017 SE170024.046	BH143_0.5-0.6 SOIL - 4/9/2017 SE170024.047
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH148_0.1-0.2 SOIL - 5/9/2017 SE170024.052	BH153_0.1-0.2 SOIL - 4/9/2017 SE170024.057	BH154_0.1-0.2 SOIL - 4/9/2017 SE170024.058	BH154_0.5-0.6 SOIL - 4/9/2017 SE170024.059	BH156_0.1-0.2 SOIL - 5/9/2017 SE170024.061
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH160_0.1-0.2 SOIL - 4/9/2017 SE170024.065	BH160_0.5-0.6 SOIL - 4/9/2017 SE170024.066	BH164_0.1-0.2 SOIL - 4/9/2017 SE170024.070	BH164_0.7-0.8 SOIL - 4/9/2017 SE170024.071	BH169_0.5-0.6 SOIL - 4/9/2017 SE170024.076
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH172_0.1-0.2 SOIL - 4/9/2017 SE170024.079	BH176_0.1-0.2 SOIL - 4/9/2017 SE170024.083	BH177_0.1-0.2 SOIL - 4/9/2017 SE170024.084	BH178_0.1-0.2 SOIL - 4/9/2017 SE170024.085	BH178_0.5-0.6 SOIL - 4/9/2017 SE170024.086
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	C1 SOIL - 4/9/2017 SE170024.118	C2 SOIL - 4/9/2017 SE170024.119	C3 SOIL - 4/9/2017 SE170024.120	C4 SOIL - 4/9/2017 SE170024.121	C5 SOIL - 4/9/2017 SE170024.122
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Mercury in Soil [AN312] Tested: 13/9/2017 (continued)

PARAMETER	UOM	LOR	C6 SOIL - 4/9/2017 SE170024.123	C7 SOIL - 4/9/2017 SE170024.124	C8 SOIL - 4/9/2017 SE170024.125	C9 SOIL - 4/9/2017 SE170024.126	C10 SOIL - 4/9/2017 SE170024.127
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	C11 SOIL - 4/9/2017 SE170024.128	C12 SOIL - 4/9/2017 SE170024.129	C13 SOIL - 4/9/2017 SE170024.130	C14 SOIL - 4/9/2017 SE170024.131	C15 SOIL - 4/9/2017 SE170024.132
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	C16 SOIL - 4/9/2017 SE170024.133	C17 SOIL - 4/9/2017 SE170024.134	C18 SOIL - 4/9/2017 SE170024.135	C19 SOIL - 4/9/2017 SE170024.136	C20 SOIL - 4/9/2017 SE170024.137
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	C21 SOIL - 4/9/2017 SE170024.138	C22 SOIL - 4/9/2017 SE170024.139	C23 SOIL - 4/9/2017 SE170024.140	C24 SOIL - 4/9/2017 SE170024.141	C25 SOIL - 4/9/2017 SE170024.142
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	C26 SOIL - 4/9/2017 SE170024.143	C27 SOIL - 4/9/2017 SE170024.144	C28 SOIL - 4/9/2017 SE170024.145	C29 SOIL - 4/9/2017 SE170024.146	SS1 SOIL - 4/9/2017 SE170024.149
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	SS2 SOIL - 4/9/2017 SE170024.150	QD1 SOIL - 4/9/2017 SE170024.151	QD2 SOIL - 4/9/2017 SE170024.152	QD3 SOIL - 4/9/2017 SE170024.153	QD4 SOIL - 4/9/2017 SE170024.154
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	QD5 SOIL - 5/9/2017 SE170024.155
Mercury	mg/kg	0.05	<0.05

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Moisture Content [AN002] Tested: 12/9/2017

PARAMETER	UOM	LOR	BH101_0.1-0.2 SOIL - 4/9/2017 SE170024.001	BH108_0.1-0.2 SOIL - 4/9/2017 SE170024.008	BH111_0.1-0.2 SOIL - 4/9/2017 SE170024.011	BH111_2.4-2.5 SOIL - 4/9/2017 SE170024.012	BH116_0.1-0.2 SOIL - 4/9/2017 SE170024.017
% Moisture	%w/w	0.5	18	22	19	18	16

PARAMETER	UOM	LOR	BH117_0.1-0.2 SOIL - 4/9/2017 SE170024.018	BH117_0.5-0.6 SOIL - 4/9/2017 SE170024.019	BH124_0.1-0.2 SOIL - 4/9/2017 SE170024.026	BH129_0.1-0.2 SOIL - 4/9/2017 SE170024.031	BH132_0.1-0.2 SOIL - 4/9/2017 SE170024.034
% Moisture	%w/w	0.5	12	18	16	17	13

PARAMETER	UOM	LOR	BH132_0.5-0.6 SOIL - 4/9/2017 SE170024.035	BH137_0.1-0.2 SOIL - 4/9/2017 SE170024.040	BH140_0.1-0.2 SOIL - 5/9/2017 SE170024.043	BH143_0.1-0.2 SOIL - 4/9/2017 SE170024.046	BH143_0.5-0.6 SOIL - 4/9/2017 SE170024.047
% Moisture	%w/w	0.5	13	8.6	16	11	13

PARAMETER	UOM	LOR	BH148_0.1-0.2 SOIL - 5/9/2017 SE170024.052	BH153_0.1-0.2 SOIL - 4/9/2017 SE170024.057	BH154_0.1-0.2 SOIL - 4/9/2017 SE170024.058	BH154_0.5-0.6 SOIL - 4/9/2017 SE170024.059	BH156_0.1-0.2 SOIL - 5/9/2017 SE170024.061
% Moisture	%w/w	0.5	12	12	16	11	14

PARAMETER	UOM	LOR	BH160_0.1-0.2 SOIL - 4/9/2017 SE170024.065	BH160_0.5-0.6 SOIL - 4/9/2017 SE170024.066	BH164_0.1-0.2 SOIL - 4/9/2017 SE170024.070	BH164_0.7-0.8 SOIL - 4/9/2017 SE170024.071	BH169_0.5-0.6 SOIL - 4/9/2017 SE170024.076
% Moisture	%w/w	0.5	12	17	4.4	14	17

PARAMETER	UOM	LOR	BH172_0.1-0.2 SOIL - 4/9/2017 SE170024.079	BH176_0.1-0.2 SOIL - 4/9/2017 SE170024.083	BH177_0.1-0.2 SOIL - 4/9/2017 SE170024.084	BH178_0.1-0.2 SOIL - 4/9/2017 SE170024.085	BH178_0.5-0.6 SOIL - 4/9/2017 SE170024.086
% Moisture	%w/w	0.5	4.7	12	13	9.0	15

PARAMETER	UOM	LOR	C1 SOIL - 4/9/2017 SE170024.118	C2 SOIL - 4/9/2017 SE170024.119	C3 SOIL - 4/9/2017 SE170024.120	C4 SOIL - 4/9/2017 SE170024.121	C5 SOIL - 4/9/2017 SE170024.122
% Moisture	%w/w	0.5	14	13	15	12	14

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Moisture Content [AN002] Tested: 12/9/2017 (continued)

PARAMETER	UOM	LOR	C6 SOIL - 4/9/2017 SE170024.123	C7 SOIL - 4/9/2017 SE170024.124	C8 SOIL - 4/9/2017 SE170024.125	C9 SOIL - 4/9/2017 SE170024.126	C10 SOIL - 4/9/2017 SE170024.127
% Moisture	%w/w	0.5	14	11	14	16	14

PARAMETER	UOM	LOR	C11 SOIL - 4/9/2017 SE170024.128	C12 SOIL - 4/9/2017 SE170024.129	C13 SOIL - 4/9/2017 SE170024.130	C14 SOIL - 4/9/2017 SE170024.131	C15 SOIL - 4/9/2017 SE170024.132
% Moisture	%w/w	0.5	16	15	16	15	13

PARAMETER	UOM	LOR	C16 SOIL - 4/9/2017 SE170024.133	C17 SOIL - 4/9/2017 SE170024.134	C18 SOIL - 4/9/2017 SE170024.135	C19 SOIL - 4/9/2017 SE170024.136	C20 SOIL - 4/9/2017 SE170024.137
% Moisture	%w/w	0.5	12	8.1	10	10	15

PARAMETER	UOM	LOR	C21 SOIL - 4/9/2017 SE170024.138	C22 SOIL - 4/9/2017 SE170024.139	C23 SOIL - 4/9/2017 SE170024.140	C24 SOIL - 4/9/2017 SE170024.141	C25 SOIL - 4/9/2017 SE170024.142
% Moisture	%w/w	0.5	14	14	11	11	15

PARAMETER	UOM	LOR	C26 SOIL - 4/9/2017 SE170024.143	C27 SOIL - 4/9/2017 SE170024.144	C28 SOIL - 4/9/2017 SE170024.145	C29 SOIL - 4/9/2017 SE170024.146	SS1 SOIL - 4/9/2017 SE170024.149
% Moisture	%w/w	0.5	17	12	10	11	66

PARAMETER	UOM	LOR	SS2 SOIL - 4/9/2017 SE170024.150	QD1 SOIL - 4/9/2017 SE170024.151	QD2 SOIL - 4/9/2017 SE170024.152	QD3 SOIL - 4/9/2017 SE170024.153	QD4 SOIL - 4/9/2017 SE170024.154
% Moisture	%w/w	0.5	31	18	14	11	12

PARAMETER	UOM	LOR	QD5 SOIL - 5/9/2017 SE170024.155	TB1 SOIL - 4/9/2017 SE170024.156	TB2 SOIL - 5/9/2017 SE170024.159
% Moisture	%w/w	0.5	15	<0.5	<0.5

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Fibre Identification in soil [AN602] Tested: 13/9/2017

PARAMETER	UOM	LOR	BH101_0.1-0.2 SOIL - 4/9/2017 SE170024.001	BH108_0.1-0.2 SOIL - 4/9/2017 SE170024.008	BH111_0.1-0.2 SOIL - 4/9/2017 SE170024.011	BH116_0.1-0.2 SOIL - 4/9/2017 SE170024.017	BH117_0.1-0.2 SOIL - 4/9/2017 SE170024.018
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH124_0.1-0.2 SOIL - 4/9/2017 SE170024.026	BH129_0.1-0.2 SOIL - 4/9/2017 SE170024.031	BH132_0.1-0.2 SOIL - 4/9/2017 SE170024.034	BH137_0.1-0.2 SOIL - 4/9/2017 SE170024.040	BH140_0.1-0.2 SOIL - 5/9/2017 SE170024.043
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH143_0.1-0.2 SOIL - 4/9/2017 SE170024.046	BH148_0.1-0.2 SOIL - 5/9/2017 SE170024.052	BH153_0.1-0.2 SOIL - 4/9/2017 SE170024.057	BH154_0.1-0.2 SOIL - 4/9/2017 SE170024.058	BH156_0.1-0.2 SOIL - 5/9/2017 SE170024.061
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH160_0.1-0.2 SOIL - 4/9/2017 SE170024.065	BH164_0.1-0.2 SOIL - 4/9/2017 SE170024.070	BH169_0.5-0.6 SOIL - 4/9/2017 SE170024.076	BH172_0.1-0.2 SOIL - 4/9/2017 SE170024.079	BH176_0.1-0.2 SOIL - 4/9/2017 SE170024.083
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH177_0.1-0.2 SOIL - 4/9/2017 SE170024.084	BH178_0.1-0.2 SOIL - 4/9/2017 SE170024.085
Asbestos Detected	No unit	-	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

VOCs in Water [AN433] Tested: 11/9/2017

PARAMETER	UOM	LOR	W1 WATER - 4/9/2017 SE170024.147	W2 WATER - 4/9/2017 SE170024.148	QD6 WATER - 4/9/2017 SE170024.158	QR1 WATER - 4/9/2017 SE170024.161	QR2 WATER - 5/9/2017 SE170024.162
Benzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-xylene	µg/L	1	<1	<1	<1	<1	<1
o-xylene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Xylenes	µg/L	1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Total BTEX	µg/L	3	<3	<3	<3	<3	<3
Naphthalene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 11/9/2017

PARAMETER	UOM	LOR	W1 WATER - 4/9/2017 SE170024.147	W2 WATER - 4/9/2017 SE170024.148	QD6 WATER - 4/9/2017 SE170024.158	QR1 WATER - 4/9/2017 SE170024.161	QR2 WATER - 5/9/2017 SE170024.162
TRH C6-C9	µg/L	40	<40	<40	<40	<40	<40
Benzene (F0)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TRH C6-C10	µg/L	50	<50	<50	<50	<50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	<50	<50	<50

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 13/9/2017

PARAMETER	UOM	LOR	W1 WATER - 4/9/2017 SE170024.147	W2 WATER - 4/9/2017 SE170024.148	QD6 WATER - 4/9/2017 SE170024.158	QR1 WATER - 4/9/2017 SE170024.161	QR2 WATER - 5/9/2017 SE170024.162
TRH C10-C14	µg/L	50	<50	<50	<50	<50	<50
TRH C15-C28	µg/L	200	<200	<200	<200	<200	<200
TRH C29-C36	µg/L	200	<200	<200	<200	<200	<200
TRH C37-C40	µg/L	200	<200	<200	<200	<200	<200
TRH >C10-C16 (F2)	µg/L	60	<60	<60	<60	<60	<60
TRH >C16-C34 (F3)	µg/L	500	<500	<500	<500	<500	<500
TRH >C34-C40 (F4)	µg/L	500	<500	<500	<500	<500	<500
TRH C10-C36	µg/L	450	<450	<450	<450	<450	<450
TRH C10-C40	µg/L	650	<650	<650	<650	<650	<650

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

PAH (Polynuclear Aromatic Hydrocarbons) in Water [AN420] Tested: 13/9/2017

PARAMETER	UOM	LOR	W1 WATER - 4/9/2017 SE170024.147	W2 WATER - 4/9/2017 SE170024.148
Naphthalene	µg/L	0.1	<0.1	<0.1
2-methylnaphthalene	µg/L	0.1	<0.1	<0.1
1-methylnaphthalene	µg/L	0.1	<0.1	<0.1
Acenaphthylene	µg/L	0.1	<0.1	<0.1
Acenaphthene	µg/L	0.1	<0.1	<0.1
Fluorene	µg/L	0.1	<0.1	<0.1
Phenanthrene	µg/L	0.1	<0.1	<0.1
Anthracene	µg/L	0.1	<0.1	<0.1
Fluoranthene	µg/L	0.1	<0.1	<0.1
Pyrene	µg/L	0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	0.1	<0.1	<0.1
Chrysene	µg/L	0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	µg/L	0.1	<0.1	<0.1
Benzo(k)fluoranthene	µg/L	0.1	<0.1	<0.1
Benzo(a)pyrene	µg/L	0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1	<0.1
Dibenzo(ah)anthracene	µg/L	0.1	<0.1	<0.1
Benzo(ghi)perylene	µg/L	0.1	<0.1	<0.1
Total PAH (18)	µg/L	1	<1	<1

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

OC Pesticides in Water [AN420] Tested: 13/9/2017

PARAMETER	UOM	LOR	W1 WATER - 4/9/2017 SE170024.147	W2 WATER - 4/9/2017 SE170024.148
Hexachlorobenzene (HCB)	µg/L	0.1	<0.1	<0.1
Alpha BHC	µg/L	0.1	<0.1	<0.1
Lindane (gamma BHC)	µg/L	0.1	<0.1	<0.1
Heptachlor	µg/L	0.1	<0.1	<0.1
Aldrin	µg/L	0.1	<0.1	<0.1
Beta BHC	µg/L	0.1	<0.1	<0.1
Delta BHC	µg/L	0.1	<0.1	<0.1
Heptachlor epoxide	µg/L	0.1	<0.1	<0.1
o,p'-DDE	µg/L	0.1	<0.1	<0.1
Alpha Endosulfan	µg/L	0.1	<0.1	<0.1
Gamma Chlordane	µg/L	0.1	<0.1	<0.1
Alpha Chlordane	µg/L	0.1	<0.1	<0.1
trans-Nonachlor	µg/L	0.1	<0.1	<0.1
p,p'-DDE	µg/L	0.1	<0.1	<0.1
Dieldrin	µg/L	0.1	<0.1	<0.1
Endrin	µg/L	0.1	<0.1	<0.1
o,p'-DDD	µg/L	0.1	<0.1	<0.1
o,p'-DDT	µg/L	0.1	<0.1	<0.1
Beta Endosulfan	µg/L	0.1	<0.1	<0.1
p,p'-DDD	µg/L	0.1	<0.1	<0.1
p,p'-DDT	µg/L	0.1	<0.1	<0.1
Endosulfan sulphate	µg/L	0.1	<0.1	<0.1
Endrin aldehyde	µg/L	0.1	<0.1	<0.1
Methoxychlor	µg/L	0.1	<0.1	<0.1
Endrin ketone	µg/L	0.1	<0.1	<0.1
Isodrin	µg/L	0.1	<0.1	<0.1
Mirex	µg/L	0.1	<0.1	<0.1

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

OP Pesticides in Water [AN420] Tested: 13/9/2017

PARAMETER	UOM	LOR	W1 WATER - 4/9/2017 SE170024.147	W2 WATER - 4/9/2017 SE170024.148
Dichlorvos	µg/L	0.5	<0.5	<0.5
Dimethoate	µg/L	0.5	<0.5	<0.5
Diazinon (Dimpylate)	µg/L	0.5	<0.5	<0.5
Fenitrothion	µg/L	0.2	<0.2	<0.2
Malathion	µg/L	0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	µg/L	0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	µg/L	0.2	<0.2	<0.2
Bromophos Ethyl	µg/L	0.2	<0.2	<0.2
Methidathion	µg/L	0.5	<0.5	<0.5
Ethion	µg/L	0.2	<0.2	<0.2
Azinphos-methyl	µg/L	0.2	<0.2	<0.2

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 11/9/2017

PARAMETER	UOM	LOR	W1 WATER - 4/9/2017 SE170024.147	W2 WATER - 4/9/2017 SE170024.148	QD6 WATER - 4/9/2017 SE170024.158	QR1 WATER - 4/9/2017 SE170024.161	QR2 WATER - 5/9/2017 SE170024.162
Arsenic, As	µg/L	1	1	<1	1	<1	<1
Cadmium, Cd	µg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium, Cr	µg/L	1	<1	<1	<1	<1	<1
Copper, Cu	µg/L	1	1	2	2	<1	<1
Lead, Pb	µg/L	1	<1	<1	<1	<1	<1
Nickel, Ni	µg/L	1	2	1	2	<1	<1
Zinc, Zn	µg/L	5	320	7	650	<5	<5

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 13/9/2017

PARAMETER	UOM	LOR	W1 WATER - 4/9/2017 SE170024.147	W2 WATER - 4/9/2017 SE170024.148	QD6 WATER - 4/9/2017 SE170024.158	QR1 WATER - 4/9/2017 SE170024.161	QR2 WATER - 5/9/2017 SE170024.162
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	**0.0003**

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

METHOD	METHODOLOGY SUMMARY
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
AN020	Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.
AN040/AN320	A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.
AN040	A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by ASS or ICP as per USEPA Method 200.8.
AN311(Perth)/AN312	Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.
AN312	Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid , mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser . Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500
AN318	Determination of elements at trace level in waters by ICP-MS technique, in accordance with USEPA 6020A.
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 Petroleum Hydrocarbons (TPH) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents .
AN403	The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup /fractionation techniques. Reference USEPA 3510B, 8015B.
AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN420	SVOC Compounds: Semi-Volatile Organic Compounds (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols in soils, sediments and waters are determined by GCMS /ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN433	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC`s are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.
AN602	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
AN602	Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.
AN602	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."

AN602	The sample can be reported “no asbestos found at the reporting limit of 0.1 g/kg” (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (a) no trace asbestos fibres have been detected (i.e. no ‘respirable’ fibres): (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
		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.		

Samples 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 criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here : http://www.sgs.com.au/~/media/Local/Australia/Documents/Technical%20Documents/MP-AU-ENV-QU-022%20QA%20QC%20Plan.pdf

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 .

This report must not be reproduced, except in full.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Mitchell Duley
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	mitchell.duley@eiaustralia.com.au
Project	**E23529 - 230 Aldington Road, Kemps Creek**
Order Number	**E23529**
Samples	22

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE170024 R0**
Date Received	06 Sep 2017
Date Reported	15 Sep 2017

COMMENTS

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

Samples#17,31,76 : A portion of the sample supplied has been sub-sampled for asbestos according to SGS In-house procedures.
We therefore cannot guarantee that the sub-sample is representative of the entire sample supplied. SGS Environment, Health and Safety recommends supplying approximately 50-100g of sample in a separate container.

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

Asbestos analysed by Approved Identifier Ravee Sivasubramaniam .

SIGNATORIES

Akheeqar Beniameen
Chemist

Bennet Lo
Senior Organic Chemist/Metals Chemis

Kamrul Ahsan
Senior Chemist

Ly Kim Ha
Organic Section Head

Ravee Sivasubramaniam
Hygiene Team Leader

Teresa Nguyen
Organic Chemist

RESULTS

Fibre Identification in soil — Method AN602

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Fibre Identification	Est.%w/w*
SE170024.001	BH101_0.1-0.2	Soil	163g Clay	04 Sep 2017	No Asbestos Found	<0.01
SE170024.008	BH108_0.1-0.2	Soil	194g Clay	04 Sep 2017	No Asbestos Found	<0.01
SE170024.011	BH111_0.1-0.2	Soil	195g Clay	04 Sep 2017	No Asbestos Found	<0.01
SE170024.017	BH116_0.1-0.2	Soil	54g Clay	04 Sep 2017	No Asbestos Found	<0.01
SE170024.018	BH117_0.1-0.2	Soil	126g Clay	04 Sep 2017	No Asbestos Found	<0.01
SE170024.026	BH124_0.1-0.2	Soil	158g Clay	04 Sep 2017	No Asbestos Found	<0.01
SE170024.031	BH129_0.1-0.2	Soil	53g Clay	04 Sep 2017	No Asbestos Found	<0.01
SE170024.034	BH132_0.1-0.2	Soil	99g Clay	04 Sep 2017	No Asbestos Found	<0.01
SE170024.040	BH137_0.1-0.2	Soil	139g Clay, Soil, Rocks	04 Sep 2017	No Asbestos Found	<0.01
SE170024.043	BH140_0.1-0.2	Soil	145g Clay, Sand, Soil, Rocks	05 Sep 2017	No Asbestos Found Organic Fibres Detected	<0.01
SE170024.046	BH143_0.1-0.2	Soil	153g Clay, Soil, Rocks	04 Sep 2017	No Asbestos Found	<0.01
SE170024.052	BH148_0.1-0.2	Soil	150g Clay, Sand, Soil	05 Sep 2017	No Asbestos Found	<0.01
SE170024.057	BH153_0.1-0.2	Soil	160g Clay, Sand, Rocks	04 Sep 2017	No Asbestos Found	<0.01
SE170024.058	BH154_0.1-0.2	Soil	115g Clay, Soil, Rocks	04 Sep 2017	No Asbestos Found Organic Fibres Detected	<0.01
SE170024.061	BH156_0.1-0.2	Soil	110g Clay, Soil	05 Sep 2017	No Asbestos Found	<0.01
SE170024.065	BH160_0.1-0.2	Soil	113g Clay, Soil	04 Sep 2017	No Asbestos Found	<0.01
SE170024.070	BH164_0.1-0.2	Soil	143g Clay, Sand, Soil, Rocks, Plant matter	04 Sep 2017	No Asbestos Found Organic Fibres Detected	<0.01
SE170024.076	BH169_0.5-0.6	Soil	56g Clay, Rocks	04 Sep 2017	No Asbestos Found	<0.01
SE170024.079	BH172_0.1-0.2	Soil	183g Sand, Soil, Rocks	04 Sep 2017	No Asbestos Found	<0.01
SE170024.083	BH176_0.1-0.2	Soil	118g Sand, Soil, Rocks	04 Sep 2017	No Asbestos Found	<0.01
SE170024.084	BH177_0.1-0.2	Soil	108g Sand, Soil, Plant matter	04 Sep 2017	No Asbestos Found Organic Fibres Detected	<0.01
SE170024.085	BH178_0.1-0.2	Soil	130g Clay, Rocks	04 Sep 2017	No Asbestos Found	<0.01

METHOD SUMMARY

SE170024 R0

METHOD	METHODOLOGY SUMMARY
AN602	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
AN602	Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.
AN602	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples , Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."
AN602	The sample can be reported “no asbestos found at the reporting limit of 0.1 g/kg” (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (a) no trace asbestos fibres have been detected (i.e. no ‘respirable’ fibres): (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

FOOTNOTES

Amosite	-	Brown Asbestos	NA	-	Not Analysed
Chrysotile	-	White Asbestos	LNR	-	Listed, Not Required
Crocidolite	-	Blue Asbestos	*	-	NATA accreditation does not cover the performance of this service .
Amphiboles	-	Amosite and/or Crocidolite	**	-	Indicative data, theoretical holding time exceeded.

(In reference to soil samples only) This report does not comply with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment and Remediation and Management of Asbestos Contaminated sites in Western Australia - May 2009.

Sampled by the client.

Where reported: 'Asbestos Detected': Asbestos detected by polarised light microscopy, including dispersion staining.
Where reported: 'No Asbestos Found': No Asbestos Found by polarised light microscopy, including dispersion staining.
Where reported: 'UMF Detected': Mineral fibres of unknown type detected by polarised light microscopy, including dispersion staining. Confirmation by another independent analytical technique may be necessary.

Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos -containing bulk materials using polarised light microscopy. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials.

The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here : http://www.sgs.com.au/~/media/Local/Australia/Documents/Technical%20Documents/MP-AU-ENV-QU-022%20QA%20QC%20Plan.pdf

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 .

This test report shall not be reproduced, except in full.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Joel Heininger
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	joel.heininger@eiaustralia.com.au
Project	**E23529 230 Aldington Road, Kemps Creek A**
Order Number	**E23529**
Samples	162

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE170024A R0**
Date Received	20/9/2017
Date Reported	21/9/2017

COMMENTS

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

SIGNATORIES

Bennet Lo
Senior Organic Chemist/Metals Chemist

Dong Liang
Metals/Inorganics Team Leader

Kamrul Ahsan
Senior Chemist

Ly Kim Ha
Organic Section Head

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

pH in soil (1:5) [AN101] Tested: 21/9/2017

PARAMETER	UOM	LOR	C1 SOIL - 4/9/2017 SE170024A.118	C8 SOIL - 4/9/2017 SE170024A.125	C13 SOIL - 4/9/2017 SE170024A.130	C19 SOIL - 4/9/2017 SE170024A.136	C25 SOIL - 4/9/2017 SE170024A.142
pH	pH Units	-	**6.2**	**7.0**	**7.0**	**6.3**	**6.2**

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR) [AN122] Tested: 20/9/2017

PARAMETER	UOM	LOR	C1 SOIL - 4/9/2017 SE170024A.118	C8 SOIL - 4/9/2017 SE170024A.125	C13 SOIL - 4/9/2017 SE170024A.130	C19 SOIL - 4/9/2017 SE170024A.136	C25 SOIL - 4/9/2017 SE170024A.142
Exchangeable Sodium, Na	mg/kg	2	530	210	450	160	220
Exchangeable Sodium, Na	meq/100g	0.01	2.3	0.92	1.9	0.69	0.97
Exchangeable Sodium Percentage*	%	0.1	17.2	11.3	20.8	5.6	6.0
Exchangeable Potassium, K	mg/kg	2	120	110	91	180	250
Exchangeable Potassium, K	meq/100g	0.01	0.31	0.29	0.23	0.46	0.65
Exchangeable Potassium Percentage*	%	0.1	2.3	3.6	2.5	3.7	4.0
Exchangeable Calcium, Ca	mg/kg	2	1000	720	550	1500	2100
Exchangeable Calcium, Ca	meq/100g	0.01	5.1	3.6	2.8	7.7	10
Exchangeable Calcium Percentage*	%	0.1	38.4	43.9	29.5	62.5	63.7
Exchangeable Magnesium, Mg	mg/kg	2	690	410	540	420	520
Exchangeable Magnesium, Mg	meq/100g	0.02	5.6	3.4	4.4	3.5	4.3
Exchangeable Magnesium Percentage*	%	0.1	42.2	41.2	47.2	28.1	26.4
Cation Exchange Capacity	meq/100g	0.02	13	8.2	9.3	12	16

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Hexavalent Chromium in Soil UV/Vis [AN075/AN201] Tested: 21/9/2017

PARAMETER	UOM	LOR	BH167_0.1-0.2 SOIL - 4/9/2017 SE170024A.074	BH201_0.3-0.4 SOIL - 28/8/2017 SE170024A.087	BH202_0.4-0.5 SOIL - 28/8/2017 SE170024A.088
Hexavalent Chromium, Cr6+	mg/kg	0.5	<0.5	<0.5	<0.5
Trivalent Chromium, Cr3+	mg/kg	1	**13**	**50**	**14**

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Total Recoverable Metals in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 20/9/2017

PARAMETER	UOM	LOR	BH167_0.1-0.2 SOIL - 4/9/2017 SE170024A.074	BH201_0.3-0.4 SOIL - 28/8/2017 SE170024A.087	BH202_0.4-0.5 SOIL - 28/8/2017 SE170024A.088
Chromium, Cr	mg/kg	0.5	**13**	**50**	**14**

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Moisture Content [AN002] Tested: 20/9/2017

PARAMETER	UOM	LOR	BH167_0.1-0.2 SOIL - 4/9/2017 SE170024A.074	BH201_0.3-0.4 SOIL - 28/8/2017 SE170024A.087	BH202_0.4-0.5 SOIL - 28/8/2017 SE170024A.088
% Moisture	%w/w	0.5	**15**	**4.7**	**13**

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

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 ASS or ICP as per USEPA Method 200.8.
AN075	This method uses an alkaline digestion to solubilise both water-soluble and water-insoluble forms of hexavalent chromium in solids. The solution is then pH adjusted and the hexavalent chromium concentration in solution determined colourimetrically.
AN101	pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode and is calibrated against 3 buffers purchased commercially. For soils, sediments and sludges, an extract with water (or 0.01M CaCl2) is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA 4500-H+.
AN122	Exchangeable Cations, CEC and ESP: Soil sample is extracted in 1M Ammonium Acetate at pH=7 (or 1M Ammonium Chloride at pH=7) with cations (Na, K, Ca & Mg) then determined by ICP OES/ICP MS and reported as Exchangeable Cations. For saline soils, these results can be corrected for water soluble cations and reported as Exchangeable cations in meq/100g or soil can be pre-treated (aqueous ethanol/aqueous glycerol) prior to extraction. Cation Exchange Capacity (CEC) is the sum of the exchangeable cations in meq/100g.
AN122	The Exchangeable Sodium Percentage (ESP) is calculated as the exchangeable sodium divided by the CEC (all in meq/100g) times 100. ESP can be used to categorise the sodicity of the soil as below: ESP < 6% non-sodic ESP 6-15% sodic ESP >15% strongly sodic Method is refernced to Rayment and Higginson, 1992, sections 15D3 and 15N1.-
AN201	Cr6+ is determined colourimetrically by reaction with diphenylcarbazide in acid solution. A red-violet colour of unknown composition is produced.

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.		

Samples 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 criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here : http://www.sgs.com.au/~/media/Local/Australia/Documents/Technical%20Documents/MP-AU-ENV-QU-022%20QA%20QC%20Plan.pdf

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 .

This report must not be reproduced, except in full.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS		LABORATORY DETAILS	
Contact	Huong Crawford	Manager	Ros Ma
Client	SGS EHS SYDNEY	Laboratory	SGS Perth Environmental
Address	Unit 16, 33 Maddox Street Alexandria NSW 2015	Address	28 Reid Rd Perth Airport WA 6105
Telephone	02 8594 0400	Telephone	(08) 9373 3500
Facsimile	02 8594 0499	Facsimile	(08) 9373 3556
Email	au.environmental.sydney@sgs.com	Email	au.environmental.perth@sgs.com
Project	**SE170024B**	SGS Reference	**PE119668 R0**
Order Number	**N/A**	Date Received	22 Sep 2017
Samples	162	Date Reported	27 Sep 2017

COMMENTS

Accredited for compliance with ISO/IEC 17025- Testing. NATA accredited laboratory 2562(898/20210).

SIGNATORIES

Michael McKay
Inorganics and ARD Supervisor

Stefani Dewi
Chemist

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number: PE119668.001 Sample Matrix: Soil Sample Date: 04 Sep 2017 Sample Name: SE170024B.001	PE119668.002 Soil 04 Sep 2017 SE170024B.002	PE119668.003 Soil 04 Sep 2017 SE170024B.003	PE119668.004 Soil 04 Sep 2017 SE170024B.004
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017						
Clopyralid*	mg/kg	0.2	-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5	-	-	-	-
Dicamba*	mg/kg	0.2	-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2	-	-	-	-
MCPA*	mg/kg	0.2	-	-	-	-
2,6-D*	mg/kg	0.2	-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2	-	-	-	-
2,4-D*	mg/kg	0.2	-	-	-	-
Bromoxynil*	mg/kg	0.2	-	-	-	-
Triclopyr*	mg/kg	0.2	-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2	-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2	-	-	-	-
2,4,5-T*	mg/kg	0.2	-	-	-	-
MCPB*	mg/kg	0.5	-	-	-	-
Dinoseb*	mg/kg	0.2	-	-	-	-
Fluroxypyr*	mg/kg	0.2	-	-	-	-
2,4-DB*	mg/kg	0.2	-	-	-	-
Ioxynil*	mg/kg	0.5	-	-	-	-
Picloram*	mg/kg	0.5	-	-	-	-
Surrogates						
2,4-dichlorophenylacetic acid (Surrogate)	%	-	-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-	-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017						
% Moisture	%w/w	1	-	-	-	-
% Total Solids	%w/w	1	-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number: PE119668.005 Sample Matrix: Soil Sample Date: 04 Sep 2017 Sample Name: SE170024B.005	PE119668.006 Soil 04 Sep 2017 SE170024B.006	PE119668.007 Soil 04 Sep 2017 SE170024B.007	PE119668.008 Soil 04 Sep 2017 SE170024B.008
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017						
Clopyralid*	mg/kg	0.2	-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5	-	-	-	-
Dicamba*	mg/kg	0.2	-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2	-	-	-	-
MCPA*	mg/kg	0.2	-	-	-	-
2,6-D*	mg/kg	0.2	-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2	-	-	-	-
2,4-D*	mg/kg	0.2	-	-	-	-
Bromoxynil*	mg/kg	0.2	-	-	-	-
Triclopyr*	mg/kg	0.2	-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2	-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2	-	-	-	-
2,4,5-T*	mg/kg	0.2	-	-	-	-
MCPB*	mg/kg	0.5	-	-	-	-
Dinoseb*	mg/kg	0.2	-	-	-	-
Fluroxypyr*	mg/kg	0.2	-	-	-	-
2,4-DB*	mg/kg	0.2	-	-	-	-
Ioxynil*	mg/kg	0.5	-	-	-	-
Picloram*	mg/kg	0.5	-	-	-	-
Surrogates						
2,4-dichlorophenylacetic acid (Surrogate)	%	-	-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-	-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017						
% Moisture	%w/w	1	-	-	-	-
% Total Solids	%w/w	1	-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.009 Soil 04 Sep 2017 SE170024B.009	PE119668.010 Soil 04 Sep 2017 SE170024B.010	PE119668.011 Soil 04 Sep 2017 SE170024B.011	PE119668.012 Soil 04 Sep 2017 SE170024B.012
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.013 Soil 04 Sep 2017 SE170024B.013	PE119668.014 Soil 04 Sep 2017 SE170024B.014	PE119668.015 Soil 04 Sep 2017 SE170024B.015	PE119668.016 Soil 04 Sep 2017 SE170024B.016
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.017 Soil 04 Sep 2017 SE170024B.017	PE119668.018 Soil 04 Sep 2017 SE170024B.018	PE119668.019 Soil 04 Sep 2017 SE170024B.019	PE119668.020 Soil 04 Sep 2017 SE170024B.020
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	<0.2	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	<0.5	-	-
Dicamba*	mg/kg	0.2		-	<0.2	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	<0.2	-	-
MCPA*	mg/kg	0.2		-	<0.2	-	-
2,6-D*	mg/kg	0.2		-	<0.2	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	<0.2	-	-
2,4-D*	mg/kg	0.2		-	<0.2	-	-
Bromoxynil*	mg/kg	0.2		-	<0.2	-	-
Triclopyr*	mg/kg	0.2		-	<0.2	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	<0.2	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	<0.2	-	-
2,4,5-T*	mg/kg	0.2		-	<0.2	-	-
MCPB*	mg/kg	0.5		-	<0.5	-	-
Dinoseb*	mg/kg	0.2		-	<0.2	-	-
Fluroxypyr*	mg/kg	0.2		-	<0.2	-	-
2,4-DB*	mg/kg	0.2		-	<0.2	-	-
Ioxynil*	mg/kg	0.5		-	<0.5	-	-
Picloram*	mg/kg	0.5		-	<0.5	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	**103**	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	**12.3**	-	-
% Total Solids	%w/w	1		-	**87.7**	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.021 Soil 04 Sep 2017 SE170024B.021	PE119668.022 Soil 04 Sep 2017 SE170024B.022	PE119668.023 Soil 04 Sep 2017 SE170024B.023	PE119668.024 Soil 04 Sep 2017 SE170024B.024
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.025 Soil 04 Sep 2017 SE170024B.025	PE119668.026 Soil 04 Sep 2017 SE170024B.026	PE119668.027 Soil 04 Sep 2017 SE170024B.027	PE119668.028 Soil 04 Sep 2017 SE170024B.028
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.029 Soil 04 Sep 2017 SE170024B.029	PE119668.030 Soil 04 Sep 2017 SE170024B.030	PE119668.031 Soil 04 Sep 2017 SE170024B.031	PE119668.032 Soil 04 Sep 2017 SE170024B.032
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.033 Soil 04 Sep 2017 SE170024B.033	PE119668.034 Soil 04 Sep 2017 SE170024B.034	PE119668.035 Soil 04 Sep 2017 SE170024B.035	PE119668.036 Soil 04 Sep 2017 SE170024B.036
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number: PE119668.037 Sample Matrix: Soil Sample Date: 04 Sep 2017 Sample Name: SE170024B.037	PE119668.038 Soil 04 Sep 2017 SE170024B.038	PE119668.039 Soil 04 Sep 2017 SE170024B.039	PE119668.040 Soil 04 Sep 2017 SE170024B.040
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017						
Clopyralid*	mg/kg	0.2	-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5	-	-	-	-
Dicamba*	mg/kg	0.2	-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2	-	-	-	-
MCPA*	mg/kg	0.2	-	-	-	-
2,6-D*	mg/kg	0.2	-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2	-	-	-	-
2,4-D*	mg/kg	0.2	-	-	-	-
Bromoxynil*	mg/kg	0.2	-	-	-	-
Triclopyr*	mg/kg	0.2	-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2	-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2	-	-	-	-
2,4,5-T*	mg/kg	0.2	-	-	-	-
MCPB*	mg/kg	0.5	-	-	-	-
Dinoseb*	mg/kg	0.2	-	-	-	-
Fluroxypyr*	mg/kg	0.2	-	-	-	-
2,4-DB*	mg/kg	0.2	-	-	-	-
Ioxynil*	mg/kg	0.5	-	-	-	-
Picloram*	mg/kg	0.5	-	-	-	-
Surrogates						
2,4-dichlorophenylacetic acid (Surrogate)	%	-	-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-	-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017						
% Moisture	%w/w	1	-	-	-	-
% Total Solids	%w/w	1	-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.041 Soil 04 Sep 2017 SE170024B.041	PE119668.042 Soil 04 Sep 2017 SE170024B.042	PE119668.043 Soil 05 Sep 2017 SE170024B.043	PE119668.044 Soil 05 Sep 2017 SE170024B.044
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.045 Soil 05 Sep 2017 SE170024B.045	PE119668.046 Soil 04 Sep 2017 SE170024B.046	PE119668.047 Soil 04 Sep 2017 SE170024B.047	PE119668.048 Soil 04 Sep 2017 SE170024B.048
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.049 Soil 04 Sep 2017 SE170024B.049	PE119668.050 Soil 05 Sep 2017 SE170024B.050	PE119668.051 Soil 05 Sep 2017 SE170024B.051	PE119668.052 Soil 05 Sep 2017 SE170024B.052
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.053 Soil 05 Sep 2017 SE170024B.053	PE119668.054 Soil 05 Sep 2017 SE170024B.054	PE119668.055 Soil 05 Sep 2017 SE170024B.055	PE119668.056 Soil 04 Sep 2017 SE170024B.056
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.057 Soil 04 Sep 2017 SE170024B.057	PE119668.058 Soil 04 Sep 2017 SE170024B.058	PE119668.059 Soil 04 Sep 2017 SE170024B.059	PE119668.060 Soil 04 Sep 2017 SE170024B.060
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.061 Soil 05 Sep 2017 SE170024B.061	PE119668.062 Soil 04 Sep 2017 SE170024B.062	PE119668.063 Soil 04 Sep 2017 SE170024B.063	PE119668.064 Soil 04 Sep 2017 SE170024B.064
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.065 Soil 04 Sep 2017 SE170024B.065	PE119668.066 Soil 04 Sep 2017 SE170024B.066	PE119668.067 Soil 05 Sep 2017 SE170024B.067	PE119668.068 Soil 05 Sep 2017 SE170024B.068
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.069 Soil 05 Sep 2017 SE170024B.069	PE119668.070 Soil 04 Sep 2017 SE170024B.070	PE119668.071 Soil 04 Sep 2017 SE170024B.071	PE119668.072 Soil 04 Sep 2017 SE170024B.072
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.073 Soil 04 Sep 2017 SE170024B.073	PE119668.074 Soil 04 Sep 2017 SE170024B.074	PE119668.075 Soil 04 Sep 2017 SE170024B.075	PE119668.076 Soil 04 Sep 2017 SE170024B.076
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.077 Soil 04 Sep 2017 SE170024B.077	PE119668.078 Soil 04 Sep 2017 SE170024B.078	PE119668.079 Soil 04 Sep 2017 SE170024B.079	PE119668.080 Soil 04 Sep 2017 SE170024B.080
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.081 Soil 04 Sep 2017 SE170024B.081	PE119668.082 Soil 04 Sep 2017 SE170024B.082	PE119668.083 Soil 04 Sep 2017 SE170024B.083	PE119668.084 Soil 04 Sep 2017 SE170024B.084
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number: PE119668.085 Sample Matrix: Soil Sample Date: 04 Sep 2017 Sample Name: SE170024B.085	PE119668.086 Soil 04 Sep 2017 SE170024B.086	PE119668.087 Soil 28 Aug 2017 SE170024B.087	PE119668.088 Soil 28 Aug 2017 SE170024B.088
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017						
Clopyralid*	mg/kg	0.2	<0.2	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5	<0.5	-	-	-
Dicamba*	mg/kg	0.2	<0.2	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2	<0.2	-	-	-
MCPA*	mg/kg	0.2	<0.2	-	-	-
2,6-D*	mg/kg	0.2	<0.2	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2	<0.2	-	-	-
2,4-D*	mg/kg	0.2	<0.2	-	-	-
Bromoxynil*	mg/kg	0.2	<0.2	-	-	-
Triclopyr*	mg/kg	0.2	<0.2	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2	<0.2	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2	<0.2	-	-	-
2,4,5-T*	mg/kg	0.2	<0.2	-	-	-
MCPB*	mg/kg	0.5	<0.5	-	-	-
Dinoseb*	mg/kg	0.2	<0.2	-	-	-
Fluroxypyr*	mg/kg	0.2	<0.2	-	-	-
2,4-DB*	mg/kg	0.2	<0.2	-	-	-
Ioxynil*	mg/kg	0.5	<0.5	-	-	-
Picloram*	mg/kg	0.5	<0.5	-	-	-
Surrogates						
2,4-dichlorophenylacetic acid (Surrogate)	%	-	**101**	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-	-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017						
% Moisture	%w/w	1	**7.4**	-	-	-
% Total Solids	%w/w	1	**92.6**	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.089 Soil 28 Aug 2017 SE170024B.089	PE119668.090 Soil 28 Aug 2017 SE170024B.090	PE119668.091 Soil 28 Aug 2017 SE170024B.091	PE119668.092 Soil 29 Aug 2017 SE170024B.092
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.093 Soil 29 Aug 2017 SE170024B.093	PE119668.094 Soil 29 Aug 2017 SE170024B.094	PE119668.095 Soil 30 Aug 2017 SE170024B.095	PE119668.096 Soil 30 Aug 2017 SE170024B.096
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.097 Soil 30 Aug 2017 SE170024B.097	PE119668.098 Soil 30 Aug 2017 SE170024B.098	PE119668.099 Soil 30 Aug 2017 SE170024B.099	PE119668.100 Soil 30 Aug 2017 SE170024B.100
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.101 Soil 30 Aug 2017 SE170024B.101	PE119668.102 Soil 30 Aug 2017 SE170024B.102	PE119668.103 Soil 30 Aug 2017 SE170024B.103	PE119668.104 Soil 31 Aug 2017 SE170024B.104
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.105 Soil 31 Aug 2017 SE170024B.105	PE119668.106 Soil 31 Aug 2017 SE170024B.106	PE119668.107 Soil 31 Aug 2017 SE170024B.107	PE119668.108 Soil 31 Aug 2017 SE170024B.108
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.109 Soil 31 Aug 2017 SE170024B.109	PE119668.110 Soil 31 Aug 2017 SE170024B.110	PE119668.111 Soil 31 Aug 2017 SE170024B.111	PE119668.112 Soil 31 Aug 2017 SE170024B.112
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.113 Soil 31 Aug 2017 SE170024B.113	PE119668.114 Soil 31 Aug 2017 SE170024B.114	PE119668.115 Soil 31 Aug 2017 SE170024B.115	PE119668.116 Soil 31 Aug 2017 SE170024B.116
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number: PE119668.117 Sample Matrix: Soil Sample Date: 01 Sep 2017 Sample Name: SE170024B.117	PE119668.118 Soil 04 Sep 2017 SE170024B.118	PE119668.119 Soil 04 Sep 2017 SE170024B.119	PE119668.120 Soil 04 Sep 2017 SE170024B.120
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017						
Clopyralid*	mg/kg	0.2	-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5	-	-	-	-
Dicamba*	mg/kg	0.2	-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2	-	-	-	-
MCPA*	mg/kg	0.2	-	-	-	-
2,6-D*	mg/kg	0.2	-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2	-	-	-	-
2,4-D*	mg/kg	0.2	-	-	-	-
Bromoxynil*	mg/kg	0.2	-	-	-	-
Triclopyr*	mg/kg	0.2	-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2	-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2	-	-	-	-
2,4,5-T*	mg/kg	0.2	-	-	-	-
MCPB*	mg/kg	0.5	-	-	-	-
Dinoseb*	mg/kg	0.2	-	-	-	-
Fluroxypyr*	mg/kg	0.2	-	-	-	-
2,4-DB*	mg/kg	0.2	-	-	-	-
Ioxynil*	mg/kg	0.5	-	-	-	-
Picloram*	mg/kg	0.5	-	-	-	-
Surrogates						
2,4-dichlorophenylacetic acid (Surrogate)	%	-	-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-	-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017						
% Moisture	%w/w	1	-	-	-	-
% Total Solids	%w/w	1	-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.121 Soil 04 Sep 2017 SE170024B.121	PE119668.122 Soil 04 Sep 2017 SE170024B.122	PE119668.123 Soil 04 Sep 2017 SE170024B.123	PE119668.124 Soil 04 Sep 2017 SE170024B.124
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.125 Soil 04 Sep 2017 SE170024B.125	PE119668.126 Soil 04 Sep 2017 SE170024B.126	PE119668.127 Soil 04 Sep 2017 SE170024B.127	PE119668.128 Soil 04 Sep 2017 SE170024B.128
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.129 Soil 04 Sep 2017 SE170024B.129	PE119668.130 Soil 04 Sep 2017 SE170024B.130	PE119668.131 Soil 04 Sep 2017 SE170024B.131	PE119668.132 Soil 04 Sep 2017 SE170024B.132
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number: PE119668.133 Sample Matrix: Soil Sample Date: 04 Sep 2017 Sample Name: SE170024B.133	PE119668.134 Soil 04 Sep 2017 SE170024B.134	PE119668.135 Soil 04 Sep 2017 SE170024B.135	PE119668.136 Soil 04 Sep 2017 SE170024B.136
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017						
Clopyralid*	mg/kg	0.2	-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5	-	-	-	-
Dicamba*	mg/kg	0.2	-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2	-	-	-	-
MCPA*	mg/kg	0.2	-	-	-	-
2,6-D*	mg/kg	0.2	-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2	-	-	-	-
2,4-D*	mg/kg	0.2	-	-	-	-
Bromoxynil*	mg/kg	0.2	-	-	-	-
Triclopyr*	mg/kg	0.2	-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2	-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2	-	-	-	-
2,4,5-T*	mg/kg	0.2	-	-	-	-
MCPB*	mg/kg	0.5	-	-	-	-
Dinoseb*	mg/kg	0.2	-	-	-	-
Fluroxypyr*	mg/kg	0.2	-	-	-	-
2,4-DB*	mg/kg	0.2	-	-	-	-
Ioxynil*	mg/kg	0.5	-	-	-	-
Picloram*	mg/kg	0.5	-	-	-	-
Surrogates						
2,4-dichlorophenylacetic acid (Surrogate)	%	-	-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-	-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017						
% Moisture	%w/w	1	-	-	-	-
% Total Solids	%w/w	1	-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number: PE119668.137 Sample Matrix: Soil Sample Date: 04 Sep 2017 Sample Name: SE170024B.137	PE119668.138 Soil 04 Sep 2017 SE170024B.138	PE119668.139 Soil 04 Sep 2017 SE170024B.139	PE119668.140 Soil 04 Sep 2017 SE170024B.140
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017						
Clopyralid*	mg/kg	0.2	-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5	-	-	-	-
Dicamba*	mg/kg	0.2	-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2	-	-	-	-
MCPA*	mg/kg	0.2	-	-	-	-
2,6-D*	mg/kg	0.2	-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2	-	-	-	-
2,4-D*	mg/kg	0.2	-	-	-	-
Bromoxynil*	mg/kg	0.2	-	-	-	-
Triclopyr*	mg/kg	0.2	-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2	-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2	-	-	-	-
2,4,5-T*	mg/kg	0.2	-	-	-	-
MCPB*	mg/kg	0.5	-	-	-	-
Dinoseb*	mg/kg	0.2	-	-	-	-
Fluroxypyr*	mg/kg	0.2	-	-	-	-
2,4-DB*	mg/kg	0.2	-	-	-	-
Ioxynil*	mg/kg	0.5	-	-	-	-
Picloram*	mg/kg	0.5	-	-	-	-
Surrogates						
2,4-dichlorophenylacetic acid (Surrogate)	%	-	-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-	-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017						
% Moisture	%w/w	1	-	-	-	-
% Total Solids	%w/w	1	-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number: PE119668.141 Sample Matrix: Soil Sample Date: 04 Sep 2017 Sample Name: SE170024B.141	PE119668.142 Soil 04 Sep 2017 SE170024B.142	PE119668.143 Soil 04 Sep 2017 SE170024B.143	PE119668.144 Soil 04 Sep 2017 SE170024B.144
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017						
Clopyralid*	mg/kg	0.2	-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5	-	-	-	-
Dicamba*	mg/kg	0.2	-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2	-	-	-	-
MCPA*	mg/kg	0.2	-	-	-	-
2,6-D*	mg/kg	0.2	-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2	-	-	-	-
2,4-D*	mg/kg	0.2	-	-	-	-
Bromoxynil*	mg/kg	0.2	-	-	-	-
Triclopyr*	mg/kg	0.2	-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2	-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2	-	-	-	-
2,4,5-T*	mg/kg	0.2	-	-	-	-
MCPB*	mg/kg	0.5	-	-	-	-
Dinoseb*	mg/kg	0.2	-	-	-	-
Fluroxypyr*	mg/kg	0.2	-	-	-	-
2,4-DB*	mg/kg	0.2	-	-	-	-
Ioxynil*	mg/kg	0.5	-	-	-	-
Picloram*	mg/kg	0.5	-	-	-	-
Surrogates						
2,4-dichlorophenylacetic acid (Surrogate)	%	-	-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-	-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017						
% Moisture	%w/w	1	-	-	-	-
% Total Solids	%w/w	1	-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	PE119668.145 Soil 04 Sep 2017 SE170024B.145	PE119668.146 Soil 04 Sep 2017 SE170024B.146	PE119668.147 Water 04 Sep 2017 SE170024B.147	PE119668.148 Water 04 Sep 2017 SE170024B.148
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017							
Clopyralid*	mg/kg	0.2		-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5		-	-	-	-
Dicamba*	mg/kg	0.2		-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2		-	-	-	-
MCPA*	mg/kg	0.2		-	-	-	-
2,6-D*	mg/kg	0.2		-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2		-	-	-	-
2,4-D*	mg/kg	0.2		-	-	-	-
Bromoxynil*	mg/kg	0.2		-	-	-	-
Triclopyr*	mg/kg	0.2		-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2		-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2		-	-	-	-
2,4,5-T*	mg/kg	0.2		-	-	-	-
MCPB*	mg/kg	0.5		-	-	-	-
Dinoseb*	mg/kg	0.2		-	-	-	-
Fluroxypyr*	mg/kg	0.2		-	-	-	-
2,4-DB*	mg/kg	0.2		-	-	-	-
Ioxynil*	mg/kg	0.5		-	-	-	-
Picloram*	mg/kg	0.5		-	-	-	-
Surrogates							
2,4-dichlorophenylacetic acid (Surrogate)	%	-		-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017							
% Moisture	%w/w	1		-	-	-	-
% Total Solids	%w/w	1		-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number: PE119668.149 Sample Matrix: Soil Sample Date: 04 Sep 2017 Sample Name: SE170024B.149	PE119668.150 Soil 04 Sep 2017 SE170024B.150	PE119668.151 Soil 04 Sep 2017 SE170024B.151	PE119668.152 Soil 04 Sep 2017 SE170024B.152
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017						
Clopyralid*	mg/kg	0.2	<0.2	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5	<0.5	-	-	-
Dicamba*	mg/kg	0.2	<0.2	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2	<0.2	-	-	-
MCPA*	mg/kg	0.2	<0.2	-	-	-
2,6-D*	mg/kg	0.2	<0.2	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2	<0.2	-	-	-
2,4-D*	mg/kg	0.2	<0.2	-	-	-
Bromoxynil*	mg/kg	0.2	<0.2	-	-	-
Triclopyr*	mg/kg	0.2	<0.2	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2	<0.2	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2	<0.2	-	-	-
2,4,5-T*	mg/kg	0.2	<0.2	-	-	-
MCPB*	mg/kg	0.5	<0.5	-	-	-
Dinoseb*	mg/kg	0.2	<0.2	-	-	-
Fluroxypyr*	mg/kg	0.2	<0.2	-	-	-
2,4-DB*	mg/kg	0.2	<0.2	-	-	-
Ioxynil*	mg/kg	0.5	<0.5	-	-	-
Picloram*	mg/kg	0.5	<0.5	-	-	-
Surrogates						
2,4-dichlorophenylacetic acid (Surrogate)	%	-	**98**	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-	-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017						
% Moisture	%w/w	1	**57.3**	-	-	-
% Total Solids	%w/w	1	**42.7**	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number: PE119668.153 Sample Matrix: Soil Sample Date: 04 Sep 2017 Sample Name: SE170024B.153	PE119668.154 Soil 04 Sep 2017 SE170024B.154	PE119668.155 Soil 05 Sep 2017 SE170024B.155	PE119668.156 Soil 04 Sep 2017 SE170024B.156
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017						
Clopyralid*	mg/kg	0.2	-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5	-	-	-	-
Dicamba*	mg/kg	0.2	-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2	-	-	-	-
MCPA*	mg/kg	0.2	-	-	-	-
2,6-D*	mg/kg	0.2	-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2	-	-	-	-
2,4-D*	mg/kg	0.2	-	-	-	-
Bromoxynil*	mg/kg	0.2	-	-	-	-
Triclopyr*	mg/kg	0.2	-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2	-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2	-	-	-	-
2,4,5-T*	mg/kg	0.2	-	-	-	-
MCPB*	mg/kg	0.5	-	-	-	-
Dinoseb*	mg/kg	0.2	-	-	-	-
Fluroxypyr*	mg/kg	0.2	-	-	-	-
2,4-DB*	mg/kg	0.2	-	-	-	-
Ioxynil*	mg/kg	0.5	-	-	-	-
Picloram*	mg/kg	0.5	-	-	-	-
Surrogates						
2,4-dichlorophenylacetic acid (Surrogate)	%	-	-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-	-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017						
% Moisture	%w/w	1	-	-	-	-
% Total Solids	%w/w	1	-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number: PE119668.157 Sample Matrix: Soil Sample Date: 04 Sep 2017 Sample Name: SE170024B.157	PE119668.158 Water 04 Sep 2017 SE170024B.158	PE119668.159 Soil 05 Sep 2017 SE170024B.159	PE119668.160 Soil 05 Sep 2017 SE170024B.160
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017						
Clopyralid*	mg/kg	0.2	-	-	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5	-	-	-	-
Dicamba*	mg/kg	0.2	-	-	-	-
MCPP (Mecoprop)*	mg/kg	0.2	-	-	-	-
MCPA*	mg/kg	0.2	-	-	-	-
2,6-D*	mg/kg	0.2	-	-	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2	-	-	-	-
2,4-D*	mg/kg	0.2	-	-	-	-
Bromoxynil*	mg/kg	0.2	-	-	-	-
Triclopyr*	mg/kg	0.2	-	-	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2	-	-	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2	-	-	-	-
2,4,5-T*	mg/kg	0.2	-	-	-	-
MCPB*	mg/kg	0.5	-	-	-	-
Dinoseb*	mg/kg	0.2	-	-	-	-
Fluroxypyr*	mg/kg	0.2	-	-	-	-
2,4-DB*	mg/kg	0.2	-	-	-	-
Ioxynil*	mg/kg	0.5	-	-	-	-
Picloram*	mg/kg	0.5	-	-	-	-
Surrogates						
2,4-dichlorophenylacetic acid (Surrogate)	%	-	-	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-	-	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017						
% Moisture	%w/w	1	-	-	-	-
% Total Solids	%w/w	1	-	-	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name PE119668.161 Water 04 Sep 2017 SE170024B.161	PE119668.162 Water 05 Sep 2017 SE170024B.162
Acid Herbicides in Soil Method: AN420 Tested: 27/9/2017				
Clopyralid*	mg/kg	0.2	-	-
4-chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5	-	-
Dicamba*	mg/kg	0.2	-	-
MCPP (Mecoprop)*	mg/kg	0.2	-	-
MCPA*	mg/kg	0.2	-	-
2,6-D*	mg/kg	0.2	-	-
Dichlorprop (2,4-DP)*	mg/kg	0.2	-	-
2,4-D*	mg/kg	0.2	-	-
Bromoxynil*	mg/kg	0.2	-	-
Triclopyr*	mg/kg	0.2	-	-
2,4,6-trichlorophenoxyacetic acid*	mg/kg	0.2	-	-
2,4,5-TP (Silvex, Fenopop)*	mg/kg	0.2	-	-
2,4,5-T*	mg/kg	0.2	-	-
MCPB*	mg/kg	0.5	-	-
Dinoseb*	mg/kg	0.2	-	-
Fluroxypyr*	mg/kg	0.2	-	-
2,4-DB*	mg/kg	0.2	-	-
Ioxynil*	mg/kg	0.5	-	-
Picloram*	mg/kg	0.5	-	-
Surrogates				
2,4-dichlorophenylacetic acid (Surrogate)	%	-	-	-
2,4,6-Tribromophenol (Surrogate)	%	-	-	-
Moisture Content Method: AN002 Tested: 27/9/2017				
% Moisture	%w/w	1	-	-
% Total Solids	%w/w	1	-	-

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

QC SUMMARY

MB blank results are compared to the Limit of Reporting
LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula : *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

Acid Herbicides in Soil **Method: ME-(AU)-[ENV]AN420**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery	MSD %RPD
Clopyralid*	LB136816	mg/kg	0.2	<0.2	0%			
4-chlorophenoxy acetic acid (4-CPA)*	LB136816	mg/kg	0.5	<0.5	0%			
Dicamba*	LB136816	mg/kg	0.2	<0.2	0%			
MCPP (Mecoprop)*	LB136816	mg/kg	0.2	<0.2	0%	103%	97%	3%
MCPA*	LB136816	mg/kg	0.2	<0.2	0%	98%	89%	4%
2,6-D*	LB136816	mg/kg	0.2	<0.2	0%			
Dichlorprop (2,4-DP)*	LB136816	mg/kg	0.2	<0.2	0%			
2,4-D*	LB136816	mg/kg	0.2	<0.2	0%	92%	83%	1%
Bromoxynil*	LB136816	mg/kg	0.2	<0.2	0%			
Triclopyr*	LB136816	mg/kg	0.2	<0.2	0%			
2,4,6-trichlorophenoxyacetic acid*	LB136816	mg/kg	0.2	<0.2	0%			
2,4,5-TP (Silvex, Fenopop)*	LB136816	mg/kg	0.2	<0.2	0%	97%	90%	3%
2,4,5-T*	LB136816	mg/kg	0.2	<0.2	0%	91%	90%	3%
MCPB*	LB136816	mg/kg	0.5	<0.5	0%			
Dinoseb*	LB136816	mg/kg	0.2	<0.2	0%			
Fluroxypyr*	LB136816	mg/kg	0.2	<0.2	0%			
2,4-DB*	LB136816	mg/kg	0.2	<0.2	0%			
Ioxynil*	LB136816	mg/kg	0.5	<0.5	0%			
Picloram*	LB136816	mg/kg	0.5	<0.5	0%			

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery	MSD %RPD
2,4-dichlorophenylacetic acid (Surrogate)	LB136816	%	-	96%	7%	104%	92%	6%

Moisture Content **Method: ME-(AU)-[ENV]AN002**

Parameter	QC Reference	Units	LOR	DUP %RPD
% Moisture	LB136895	%w/w	1	0%

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

METHOD SUMMARY

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.
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).

FOOTNOTES

IS	Insufficient sample for analysis.	LOR	Limit of Reporting
LNR	Sample listed, but not received.	↑↓	Raised or Lowered Limit of Reporting
*	NATA accreditation does not cover the performance of this service.	QFH	QC result is above the upper tolerance
		QFL	QC result is below the lower tolerance
**	Indicative data, theoretical holding time exceeded.	-	The sample was not analysed for this analyte
		NVL	Not Validated

Samples 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 calcuated 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 criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here : http://www.sgs.com.au/~/media/Local/Australia/Documents/Technical%20Documents/MP-AU-ENV-QU-022%20QA%20QC%20Plan.pdf

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 .

This report must not be reproduced, except in full.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Joel Heininger
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	joel.heininger@eiaustralia.com.au
Project	**E23529 230 Aldington Road, Kemps Creek A**
Order Number	**E23529**
Samples	162

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE170024C R0**
Date Received	25/9/2017
Date Reported	26/9/2017

COMMENTS

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

SIGNATORIES

Bennet Lo
Senior Organic Chemist/Metals Chemist

Ly Kim Ha
Organic Section Head

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 25/9/2017

PARAMETER	UOM	LOR	BH159_0.1-0.2 SOIL - 4/9/2017 SE170024C.064	BH168_0.1-0.2 SOIL - 4/9/2017 SE170024C.075	BH206_0.1-0.2 SOIL - 29/8/2017 SE170024C.092
Copper, Cu	mg/kg	0.5	**69**	**23**	**69**

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Moisture Content [AN002] Tested: 25/9/2017

PARAMETER	UOM	LOR	BH159_0.1-0.2 SOIL - 4/9/2017 SE170024C.064	BH168_0.1-0.2 SOIL - 4/9/2017 SE170024C.075	BH206_0.1-0.2 SOIL - 29/8/2017 SE170024C.092
% Moisture	%w/w	0.5	**10.4**	**13.8**	**6.3**

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

METHOD SUMMARY

SE170024C 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 ASS or ICP as per USEPA Method 200.8.

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.		

Samples 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 criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here : http://www.sgs.com.au/~/media/Local/Australia/Documents/Technical%20Documents/MP-AU-ENV-QU-022%20QA%20QC%20Plan.pdf

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 .

This report must not be reproduced, except in full.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Bryan Zheng
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	bryan.zheng@eiaustralia.com.au
Project	**E23529 - 230 Aldington Rd Kemps Creek**
Order Number	**E23529**
Samples	6

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE170270 R0**
Date Received	14/9/2017
Date Reported	19/9/2017

COMMENTS

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

SIGNATORIES

Ly Kim Ha
Organic Section Head

Shane McDermott
Inorganic/Metals Chemist

Snezana Kostoska
2IC Inorganics Chemist

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

pH in soil (1:5) [AN101] Tested: 18/9/2017

PARAMETER	UOM	LOR	BH201_1.5-1.78 SOIL - 28/8/2017 SE170270.001	BH202_0.5-0.95 SOIL - 28/8/2017 SE170270.002	BH205_0.5-0.95 SOIL - 28/8/2017 SE170270.003	BH209_0.5-0.95 SOIL - 29/8/2017 SE170270.004	BH209_1.5-1.95 SOIL - 30/8/2017 SE170270.005
pH	pH Units	-	9.6	5.4	8.6	8.2	9.5

PARAMETER	UOM	LOR	BH221_1.5-1.95 SOIL - 31/8/2017 SE170270.006
pH	pH Units	-	9.3

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Conductivity and TDS by Calculation - Soil [AN106] Tested: 18/9/2017

PARAMETER	UOM	LOR	BH201_1.5-1.78 SOIL - 28/8/2017 SE170270.001	BH202_0.5-0.95 SOIL - 28/8/2017 SE170270.002	BH205_0.5-0.95 SOIL - 28/8/2017 SE170270.003	BH209_0.5-0.95 SOIL - 29/8/2017 SE170270.004	BH209_1.5-1.95 SOIL - 30/8/2017 SE170270.005
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	410	550	160	150	250

PARAMETER	UOM	LOR	BH221_1.5-1.95 SOIL - 31/8/2017 SE170270.006
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	560

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Soluble Anions (1:5) in Soil by Ion Chromatography [AN245] Tested: 18/9/2017

PARAMETER	UOM	LOR	BH201_1.5-1.78 SOIL - 28/8/2017 SE170270.001	BH202_0.5-0.95 SOIL - 28/8/2017 SE170270.002	BH205_0.5-0.95 SOIL - 28/8/2017 SE170270.003	BH209_0.5-0.95 SOIL - 29/8/2017 SE170270.004	BH209_1.5-1.95 SOIL - 30/8/2017 SE170270.005
Chloride	mg/kg	0.25	70	370	10	67	63
Sulfate	mg/kg	5	160	250	60	78	12

PARAMETER	UOM	LOR	BH221_1.5-1.95 SOIL - 31/8/2017 SE170270.006
Chloride	mg/kg	0.25	580
Sulfate	mg/kg	5	97

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

Moisture Content [AN002] Tested: 18/9/2017

PARAMETER	UOM	LOR	BH201_1.5-1.78 SOIL - 28/8/2017 SE170270.001	BH202_0.5-0.95 SOIL - 28/8/2017 SE170270.002	BH205_0.5-0.95 SOIL - 28/8/2017 SE170270.003	BH209_0.5-0.95 SOIL - 29/8/2017 SE170270.004	BH209_1.5-1.95 SOIL - 30/8/2017 SE170270.005
% Moisture	%w/w	0.5	9.6	17	17	12	11

PARAMETER	UOM	LOR	BH221_1.5-1.95 SOIL - 31/8/2017 SE170270.006
% Moisture	%w/w	0.5	14

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

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.
AN101	pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode and is calibrated against 3 buffers purchased commercially. For soils, sediments and sludges, an extract with water (or 0.01M CaCl2) is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA 4500-H+.
AN106	Conductivity and TDS by Calculation: Conductivity is measured by meter with temperature compensation and is calibrated against a standard solution of potassium chloride. Conductivity is generally reported as µmhos/cm or µS/cm @ 25°C. For soils, an extract with water is made at a ratio of 1:5 and the EC determined and reported on the extract, or calculated back to the as-received sample. Salinity can be estimated from conductivity using a conversion factor, which for natural waters, is in the range 0.55 to 0.75. Reference APHA 2510 B.
AN245	Anions by Ion Chromatography: A water sample is injected into an eluent stream that passes through the ion chromatographic system where the anions of interest ie Br, Cl, NO2, NO3 and SO4 are separated on their relative affinities for the active sites on the column packing material. Changes to the conductivity and the UV-visible absorbance of the eluent enable identification and quantitation of the anions based on their retention time and peak height or area. APHA 4110 B

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.		

Samples 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 criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here : http://www.sgs.com.au/~/media/Local/Australia/Documents/Technical%20Documents/MP-AU-ENV-QU-022%20QA%20QC%20Plan.pdf

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 .

This report must not be reproduced, except in full.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

APPENDIX I
QA/QC ASSESSMENT

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

I1 QUALITY CONTROL PROGRAM

I1.1 Introduction

For the purpose of assessing the quality of data presented in this Detailed Site Investigation, EI collected field QC samples for analysis. The primary laboratory, SGS Australia Pty Ltd (SGS) and secondary laboratory, Envirolab Services Pty Ltd (Envirolab) also prepared and analysed QC samples. Details of the field and laboratory QC samples are provided, with the allowable acceptance ranges for the data presented in **Table I-1**.

Table I-1 Sampling Data Quality Indicators

QA/QC Measures	Data Quality Indicators	Have the DQIs Been Met?	Comment
Precision – A quantitative measure of the variability (or reproducibility) of data	Data precision would be assessed by reviewing the performance of blind field duplicate sample sets, through calculation of relative percentage differences (RPD). Data precision would be deemed acceptable if RPDs are found to be less than 30%. RPDs that exceed this range may be considered acceptable where: Results are less than 10 times the limits of reporting (LOR). Results are less than 20 times the LOR and the RPD is less than 50%. Heterogeneous materials or volatile compounds are encountered.	Yes	Calculated RPD values between primary and duplicate field samples, are presented in **Table I-2** and **Table I-3**, and discussed below. The RPD exceedances were generally considered to be acceptable due to material heterogeneity and results being within 10 times LOR.
Accuracy – A quantitative measure of the closeness of reported data to the "true" value	Data accuracy would be assessed through the analysis of: Method blanks, which are analysed for the analytes targeted in the primary samples. Matrix spike and matrix spike duplicate sample sets. Laboratory control samples. Calibration of instruments against known standards.	Yes	As detailed in **Section I3**, surrogates, duplicates, method blanks, and laboratory control samples conformed to the data acceptance criteria.

QA/QC Measures	Data Quality Indicators	Have the DQIs Been Met?	Comment
Representativeness – The confidence (expressed qualitatively) that data are representative of each medium present onsite	To ensure the data produced by the laboratory is representative of conditions encountered in the field, the laboratory would carry out the following: Blank samples will be run in parallel with field samples to confirm there are no unacceptable instances of laboratory artefacts. Review of relative percentage differences (RPD) values for field and laboratory duplicates to provide an indication that the samples are generally homogeneous, with no unacceptable instances of significant sample matrix heterogeneities. The appropriateness of collection methodologies, handling, storage and preservation techniques will be assessed to ensure/confirm there was minimal opportunity for sample interference or degradation (i.e. volatile loss during transport due to incorrect preservation / transport methods).	Yes	As discussed in **Table 6-2**, the collection methodologies, handling, storage and preservation techniques utilised are considered to be satisfactory. Calculated RPD values between primary and duplicate field samples are presented in **Table I-2** and **Table I-3**.
Completeness – A measure of the amount of useable data from a data collection activity	Analytical data sets acquired during the assessment will be evaluated as complete, upon confirmation that: Standard operating procedures (SOPs) for sampling protocols were adhered to. Copies of all COC documentation are presented, reviewed and found to be properly completed. It can therefore be considered whether the proportion of "useable data" generated in the data collection activities is sufficient for the purposes of the land use assessment.	Yes	COC and SRA forms are attached in **Appendix G.** Although a small number of discrepancies were identified, the data generally confirms that the analytical results for soil and creek water laboratory testing were valid and useable for interpretation purposes.
Comparability – The confidence (expressed qualitatively) that data may be considered to be equivalent for each sampling and analytical event	Given that a reported data set can comprise several data sets from separate sampling episodes, issues of comparability between data sets are reduced through adherence to SOPs and regulator-endorsed or published guidelines and standards on each data gathering activity. In addition the data will be collected by experienced samplers and NATA-accredited laboratory methodologies will be employed in all laboratory testing programs.	Yes	SOPs were adhered to during each soil and creek water event. Data was collected by experienced samplers and NATA-accredited laboratory methodologies were employed.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

I1.2 Calculation of Relative Percentage Difference (RPD)

The RPD values were calculated using the following equation:

$$RPD = \frac{|C_O - C_R|}{[(C_O + C_R)/2]} \times 100$$

Where:

C_O = Concentration obtained for the primary sample; and

C_R = Concentration obtained for the blind replicate or split duplicate sample.

I2 Field QA/QC Data Evaluation

The field quality assurance/quality control (QA/QC) samples collected during the soil and creek water investigation works were as follows:

- Blind field duplicates
- Inter-laboratory duplicates
- Trip blanks
- Trip spikes
- Rinsate blanks

Analytical results for tested soil and creek water QA/QC samples, including the calculated RPD values between primary and duplicate samples, are presented in **Table I-2** and **Table I-3,** respectively.

I2.1 Soil Investigation

I2.1.1 Blind Field Duplicate

The following blind field duplicates (BFD) were collected:

- Sample QD1 was collected as a BFD of the primary sample BH101_0.1-0.2 on 4 September 2017;
- Sample QD2 was collected as a BFD of the primary sample BH132_0.1-0.2 on 4 September 2017;
- Sample QD3 was collected as a BFD of the primary sample BH143_0.1-0.2 on 4 September 2017;
- Sample QD4 was collected as a BFD of the primary sample BH169_0.1-0.2 on 4 September 2017; and
- Sample QD5 was collected as a BFD of the primary sample BH140_0.1-0.2 on 5 September 2017;

The preparation of a BFD sample involved the collection of a bulk quantity of soil from the same sampling point without mixing, before dividing the material into identical sampling vessels. The duplicate samples were then presented blind to the primary laboratory (SGS) to avoid any potential

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

analytical bias. The BFD soil samples was analysed for TRHs, BTEX, selected heavy metals and calculated RPD values were found to be within the Data Acceptance Criteria.

I2.1.3 Inter-Laboratory Duplicate

The following inter-laboratory duplicates (ILD) were collected:

- Sample QT1 was collected as a BFD of the primary sample BH101_0.1-0.2 on 4 September 2017;
- Sample QT2 was collected as a BFD of the primary sample BH132_0.1-0.2 on 4 September 2017;
- Sample QT3 was collected as a BFD of the primary sample BH143_0.1-0.2 on 4 September 2017;
- Sample QT4 was collected as a BFD of the primary sample BH169_0.1-0.2 on 4 September 2017; and
- Sample QT5 was collected as a BFD of the primary sample BH140_0.1-0.2 on 5 September 2017;

The preparation of an ILD sample was identical to a BFD sample, as described above, and was analysed for TRHs, BTEX, and selected heavy metals. The calculated RPD values were within the Data Acceptance Criteria, with the exception of cadmium (54.55%) for QT2 due to material heterogeneity. The concentrations of cadmium were also well below any human health criteria.

Furthermore, soil samples were placed immediately into jars following sampling to reduce the loss of volatiles from samples. Analytical results indicated that the samples collected were representative of the soils present at respective sampling locations.

I2.1.3 Trip Blank

One trip blank sample was submitted to the primary laboratory (SGS). The sample was analysed for BTEX. Analytical results for this sample were below the laboratory LOR, indicating that satisfactory sample transport and handling conditions were achieved.

I2.2.4 Trip Spikes

One trip spike sample was submitted to the primary laboratory for BTEX analysis, the results for which were reported within the RPD acceptance levels for trip spike recovery. It was therefore concluded that satisfactory sample transport and handling conditions were achieved.

I2.1.5 Rinsate Blank

One rinsate blank sample QR1 was submitted to the primary laboratory for TRHs, BTEX and selected heavy metals, the results for which were reported below laboratory LOR.Therefore it was concluded that decontamination procedures performed during the field works had been effective.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

I2.2 Dam Water Investigation

I2.2.1 Blind Field Duplicate

Sample QD6 was collected as a BFD of the primary sample W1 on 4 August 2017. The preparation of the BFD sample involved the decanting of the water collected from the dam into two separate groups of appropriately labelled sampling containers. Volumes were split equally between the groups of sampling bottles such that the sample contained in each individual bottle, contained a similar proportion of each water volume. Sample mixing did not occur prior to decanting, in order to preserve the concentrations of volatiles potentially present within the sample. The duplicate sample was then presented blind to the primary laboratory (SGS) to avoid any potential analytical bias. The BFD was analysed for TRHs, BTEX and heavy metals. The RPD values calculated for all the analytes tested were found to be within the Data Acceptance Criteria, with the exception of copper (66.67%), due to results being within 10 times the LOR, and zinc (68.04%) due to sample heterogeneity.

I2.2.2 Inter-Laboratory Duplicate

Sample QT6 was collected as an ILD of the primary sample W1 on 4 August 2017. The preparation of the ILD sample was identical to the BFD sample as described above and was also analysed for TRHs, BTEX and heavy metals. The RPD values calculated for all the analytes tested were also found to be within the Data Acceptance Criteria, with the exception of copper (66.67 %), due to results being within 10 times the LOR, and zinc (198.75%) due to sample heterogeneity.

I2.2.5 Rinsate Blank

One rinsate blank sample QR2 was submitted to the primary laboratory for TRHs, BTEX and selected heavy metals, the results for which were reported below laboratory LOR.Therefore it was concluded that decontamination procedures performed during the field works had been effective.

I2.3 Assessment of Field QA/QC Data

All samples were classified in the field with respect to soil/fill characteristics and any observable signs of contamination based on visual and odour assessment, in regards to soil and dam water.

All samples, including field QC samples, were transported to the primary and secondary laboratories under strict Chain-of-Custody conditions and appropriate copies of relevant documentation were included in the respective reports.

The overall completeness of documentation produced under the field program of the subject assessment was considered to be adequate for the purposes of drawing valid conclusions regarding the environmental condition of the site.

Based on the results of the field QA/QC data, EI considered the field QA/QC programme carried out during the investigation works to be appropriate and the results to be acceptable.

I3 LABORATORY QA/QC

I3.1 Laboratory Accreditation

To undertake all analytical testing, EI commissioned SGS as the primary laboratory and Envirolab as the secondary laboratory. SGS and Envirolab, both established analytical laboratories which operate in accordance with the guidelines set out in ISO/IEC Guide 25 “General requirements for the

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

competence of calibration and testing laboratories", conducted all respective analyses using National Association Testing Authorities (NATA)-registered procedures.

In relation to contingencies, should the pre-determined DQOs not be achieved, in accordance with each laboratory's QC policy (**Appendix J**), respective tests are accordingly repeated. Should the results again fall outside the DQOs, then sample heterogeneity may be assumed and written comment will be provided to this effect on the final laboratory certificate. The laboratory QA/QC reports are included in **Appendix J**.

I3.2 Sample Holding Times

All sample holding times were within standard environmental protocols provided in **Appendix J**, with the exception of:

- OC pesticides in water for W1, W2, QD6, QR1 and QR2 (outside of the extracted holding time);
- OP pesticides in water for W1, W2, QD6, QR1 and QR2 (outside of the extracted holding time);
- PAHs in water for W1, W2, QD6, QR1 and QR2 (outside of the extracted holding time); and
- TRHs in water for W1, W2, QD6, QR1 and QR2 (outside of the extracted holding time).

The samples outlined above were transported in chilled insulated chests and held by the laboratory in refrigerated storage and this physical environment will have retarded any potential loss of volatile compounds. The samples were all within analysed holding times and only one day outside of extracted holding times and therefore, the exceedances are not considered to have affected data interpretation or findings for the site.

I3.3 Test Methods and Limits of Reporting (LOR)

Limits of reporting for the tested parameters during the assessments of soils are presented in the laboratory analytical reports in **Appendix H**.

LORs were less than the adopted remedial acceptance criteria for soil assessment and the creek water investigation levels (GILs) for water assessment and so were satisfactory.

I3.4 Method Blanks

Concentrations of all parameters in method blanks during the assessment were below the laboratory LORs and were therefore within the DAC.

I3.5 Laboratory Duplicate Samples

The RPD values of Laboratory Duplicate Samples (LDS) for the analysis batches were all within acceptable ranges and conformed to the DAC, with the exception of soil sample SE170024.119 due to sample heterogeneity.

I3.6 Laboratory Control Samples

The Laboratory Control Samples (LCS) for the analysis batches were within acceptable ranges and conformed to the DAC.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

I3.7 Matrix Spikes

The matrix spikes of the analysis batches were within acceptable ranges and conformed to the DAC, with the exception of SE170024.046 due to matrix interference and sample SE170024.147 which due to a significant concentration of analyte.

I3.8 Surrogate

The recoveries of surrogates were within the acceptable range and conformed to the DAC.

I3.9 Concluding Remark

Based on the laboratory QA/QC results, EI considers that although a small number of discrepancies were identified, the data confirms that the analytical results for soil and creek water laboratory testing were valid and useable for interpretation purposes.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

TABLE I2 - Soil QA/QC Results

Sample identification	Description	TRH				BTEX				Heavy Metals							
		F1*	F2**	F3 (>C_{16} - C_{34})	F4 (>C_{34} - C_{40})	Benzene	Toluene	Ethylbenzene	Xylene (total)	Arsenic	Cadmium	Chromium (Total)	Copper	Lead	Mercury	Nickel	Zinc
Intra-laboratory Duplicates - Soil Validation																	
BH101_0.1-0.2	Fill	<45	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	10	0.4	14	25	12	<0.05	11	55
QD1	BFD of BH101_0.1-0.2	<45	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	6	0.5	15	30	13	<0.05	14	60
	RPD	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*50.00*	*22.22*	*6.90*	*18.18*	*8.00*	*0.00*	*24.00*	*8.70*
BH132_0.1-0.2	Fill	<45	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	3	0.6	14	55	19	<0.05	10	65
QD2	BFD of BH132_0.1-0.2	<45	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	5	0.6	15	58	22	<0.05	11	65
	RPD	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*50.00*	*0.00*	*6.90*	*5.31*	*14.63*	*0.00*	*9.52*	*0.00*
BH143_0.1-0.2	Fill	<45	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	8	0.7	12	25	17	<0.05	18	62
QD3	BFD of BH143_0.1-0.2	<45	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	10	0.6	14	26	20	<0.05	14	52
	RPD	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*22.22*	*15.38*	*15.38*	*3.92*	*16.22*	*0.00*	*25.00*	*17.54*
BH169_0.1-0.2	Fill	<45	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	9	0.4	14	29	12	<0.05	12	50
QD4	BFD of BH169_0.1-0.2	<45	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	7	0.3	14	25	14	<0.05	9.5	44
	RPD	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*25.00*	*28.57*	*0.00*	*14.81*	*15.38*	*0.00*	*23.26*	*12.77*
BH140_0.1-0.2	Fill	<45	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	6	0.4	13	28	12	<0.05	19	47
QD5	BFD of BH140_0.1-0.2	<45	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	6	0.4	14	29	13	<0.05	18	48
	RPD	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*7.41*	*3.51*	*8.00*	*0.00*	*5.41*	*2.11*
Inter-laboratory Duplicate - Soil Validation																	
BH101_0.1-0.2	Fill	<45	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	10	0.4	14	25	12	<0.05	11	55
QT1	BFD of BH101_0.1-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	6	<0.4	16	29	12	<0.1	14	54
	RPD	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*50.00*	*0.00*	*13.33*	*14.81*	*0.00*	*NA*	*24.00*	*1.83*
BH101_0.1-0.2	Fill	<45	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	3	0.6	14	55	19	<0.05	10	65
QT2	BFD of BH101_0.1-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<4	<0.4	16	49	23	<0.1	11	56
	RPD	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*28.57*	*40.00*	*13.33*	*11.54*	*19.05*	*NA*	*9.52*	*14.88*
BH101_0.1-0.2	Fill	<45	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	8	0.7	12	25	17	<0.05	18	62
QT3	BFD of BH101_0.1-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	7	<0.4	13	23	18	<0.1	16	40
	RPD	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*13.33*	54.55	*8.00*	*8.33*	*5.71*	*NA*	*11.76*	*43.14*
BH101_0.1-0.2	Fill	<45	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	9	0.4	14	29	12	<0.05	12	50
QT4	BFD of BH101_0.1-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	7	<0.4	16	27	17	<0.1	11	49
	RPD	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*25.00*	*0.00*	*13.33*	*7.14*	*34.48*	*NA*	*8.70*	*2.02*
BH101_0.1-0.2	Fill	<45	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	6	0.4	13	28	12	<0.05	19	47
QT5	BFD of BH101_0.1-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	6	<0.4	16	35	16	<0.1	22	49
	RPD	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*0.00*	*0.00*	*20.69*	*22.22*	*28.57*	*NA*	*14.63*	*4.17*

NOTE: All results are reported in mg/kg (soil) or µg/L (water)

0.00	RPD calculated by halving detection limit exceeds 30-50% range referenced from AS4482.1 (2005)
80.00	RPD exceeds 30-50% range referenced from AS4482.1 (2005)

TABLE I3 - Soil QA/QC Results

Sample identification	Description	TRH				BTEX				Heavy Metals							
		F1*	F2**	F3 ($>C_{16}$ - C_{34})	F4 ($>C_{34}$ - C_{40})	Benzene	Toluene	Ethylbenzene	Xylene (total)	Arsenic	Cadmium	Chromium (Total)	Copper	Lead	Mercury	Nickel	Zinc
Intra-laboratory Duplicate - Groundwater Investigation																	
WS1	Dam Water	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	1	<0.1	<1	1	<1	<0.0001	2	320
QD6	BFD of WS1	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	1	<0.1	<1	2	<1	<0.0001	2	650
	RPD	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	66.67	*0.00*	*0.00*	*0.00*	68.04
Inter-laboratory Duplicate - Groundwater Investigation																	
WS1	Dam Water	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	1	<0.1	<1	1	<1	<0.0001	2	320
QT6	BFD of WS1	<10	<50	<100	<100	<1	<1	<1	<1	1	<0.1	<1	2	<1	<0.05	2	1
	RPD	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*0.00*	*0.00*	*0.00*	66.67	*0.00*	*NA*	*0.00*	198.75

NOTE: All results are reported in mg/kg (soil) or µg/L (water)

66.67	RPD calculated by halving detection limit exceeds 30-50% range referenced from AS4482.1 (2005)
66.67	RPD exceeds 30-50% range referenced from AS4482.1 (2005)

APPENDIX J

LABORATORY QA/QC ASSESSMENT AND DQOS

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

STATEMENT OF QA/QC PERFORMANCE

SE170024 R0

CLIENT DETAILS

Contact	Mitchell Duley
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	mitchell.duley@eiaustralia.com.au
Project	**E23529 - 230 Aldington Road, Kemps Creek**
Order Number	**E23529**
Samples	162

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE170024 R0**
Date Received	06 Sep 2017
Date Reported	15 Sep 2017

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 and was supplied by the Client.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

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

Extraction Date	OC Pesticides in Water	2 items
	OP Pesticides in Water	2 items
	PAH (Polynuclear Aromatic Hydrocarbons) in Water	2 items
	TRH (Total Recoverable Hydrocarbons) in Water	5 items
Duplicate	Total Recoverable Metals in Soil/Waste Solids/Materials by ICPOES	1 item
Matrix Spike	Total Recoverable Metals in Soil/Waste Solids/Materials by ICPOES	1 item
	Trace Metals (Dissolved) in Water by ICPMS	1 item

SAMPLE SUMMARY

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	
Date documentation received	7/9/17@12:22pm	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	11.4°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

HOLDING TIME SUMMARY

SE170024 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 sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Fibre Identification in soil

Method: ME-(AU)-[ENV]AN602

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.1-0.2	SE170024.001	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017
BH108_0.1-0.2	SE170024.008	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017
BH111_0.1-0.2	SE170024.011	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017
BH116_0.1-0.2	SE170024.017	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017
BH117_0.1-0.2	SE170024.018	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017
BH124_0.1-0.2	SE170024.026	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017
BH129_0.1-0.2	SE170024.031	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017
BH132_0.1-0.2	SE170024.034	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017
BH137_0.1-0.2	SE170024.040	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017
BH140_0.1-0.2	SE170024.043	LB132150	05 Sep 2017	06 Sep 2017	05 Sep 2018	13 Sep 2017	05 Sep 2018	14 Sep 2017
BH143_0.1-0.2	SE170024.046	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017
BH148_0.1-0.2	SE170024.052	LB132150	05 Sep 2017	06 Sep 2017	05 Sep 2018	13 Sep 2017	05 Sep 2018	14 Sep 2017
BH153_0.1-0.2	SE170024.057	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017
BH154_0.1-0.2	SE170024.058	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017
BH156_0.1-0.2	SE170024.061	LB132150	05 Sep 2017	06 Sep 2017	05 Sep 2018	13 Sep 2017	05 Sep 2018	14 Sep 2017
BH160_0.1-0.2	SE170024.065	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017
BH164_0.1-0.2	SE170024.070	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017
BH169_0.5-0.6	SE170024.076	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017
BH172_0.1-0.2	SE170024.079	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017
BH176_0.1-0.2	SE170024.083	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017
BH177_0.1-0.2	SE170024.084	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017
BH178_0.1-0.2	SE170024.085	LB132150	04 Sep 2017	06 Sep 2017	04 Sep 2018	13 Sep 2017	04 Sep 2018	14 Sep 2017

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
W1	SE170024.147	LB132176	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
W2	SE170024.148	LB132176	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
QD6	SE170024.158	LB132176	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
QR1	SE170024.161	LB132176	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
QR2	SE170024.162	LB132176	05 Sep 2017	06 Sep 2017	03 Oct 2017	13 Sep 2017	03 Oct 2017	14 Sep 2017

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.1-0.2	SE170024.001	LB132109	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH108_0.1-0.2	SE170024.008	LB132109	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH111_0.1-0.2	SE170024.011	LB132109	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH111_2.4-2.5	SE170024.012	LB132109	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH116_0.1-0.2	SE170024.017	LB132109	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH117_0.1-0.2	SE170024.018	LB132109	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH117_0.5-0.6	SE170024.019	LB132109	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH124_0.1-0.2	SE170024.026	LB132110	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH129_0.1-0.2	SE170024.031	LB132110	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH132_0.1-0.2	SE170024.034	LB132110	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH132_0.5-0.6	SE170024.035	LB132110	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH137_0.1-0.2	SE170024.040	LB132110	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH140_0.1-0.2	SE170024.043	LB132110	05 Sep 2017	06 Sep 2017	03 Oct 2017	13 Sep 2017	03 Oct 2017	14 Sep 2017
BH143_0.1-0.2	SE170024.046	LB132110	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH143_0.5-0.6	SE170024.047	LB132110	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH148_0.1-0.2	SE170024.052	LB132110	05 Sep 2017	06 Sep 2017	03 Oct 2017	13 Sep 2017	03 Oct 2017	14 Sep 2017
BH153_0.1-0.2	SE170024.057	LB132110	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH154_0.1-0.2	SE170024.058	LB132110	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH154_0.5-0.6	SE170024.059	LB132110	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH156_0.1-0.2	SE170024.061	LB132110	05 Sep 2017	06 Sep 2017	03 Oct 2017	13 Sep 2017	03 Oct 2017	14 Sep 2017
BH160_0.1-0.2	SE170024.065	LB132110	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH160_0.5-0.6	SE170024.066	LB132110	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH164_0.1-0.2	SE170024.070	LB132110	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH164_0.7-0.8	SE170024.071	LB132110	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH169_0.5-0.6	SE170024.076	LB132110	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH172_0.1-0.2	SE170024.079	LB132110	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH176_0.1-0.2	SE170024.083	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH177_0.1-0.2	SE170024.084	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

HOLDING TIME SUMMARY

SE170024 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 sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Mercury in Soil (continued)

Method: ME-(AU)-[ENV]AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH178_0.1-0.2	SE170024.085	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
BH178_0.5-0.6	SE170024.086	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C1	SE170024.118	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C2	SE170024.119	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C3	SE170024.120	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C4	SE170024.121	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C5	SE170024.122	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C6	SE170024.123	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C7	SE170024.124	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C8	SE170024.125	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C9	SE170024.126	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C10	SE170024.127	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C11	SE170024.128	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C12	SE170024.129	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C13	SE170024.130	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C14	SE170024.131	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C15	SE170024.132	LB132111	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C16	SE170024.133	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C17	SE170024.134	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C18	SE170024.135	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C19	SE170024.136	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C20	SE170024.137	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C21	SE170024.138	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C22	SE170024.139	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C23	SE170024.140	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C24	SE170024.141	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C25	SE170024.142	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C26	SE170024.143	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C27	SE170024.144	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C28	SE170024.145	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
C29	SE170024.146	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
SS1	SE170024.149	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
SS2	SE170024.150	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
QD1	SE170024.151	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
QD2	SE170024.152	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
QD3	SE170024.153	LB132112	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
QD4	SE170024.154	LB132138	04 Sep 2017	06 Sep 2017	02 Oct 2017	13 Sep 2017	02 Oct 2017	14 Sep 2017
QD5	SE170024.155	LB132138	05 Sep 2017	06 Sep 2017	03 Oct 2017	13 Sep 2017	03 Oct 2017	14 Sep 2017

Moisture Content

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.1-0.2	SE170024.001	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH102_0.1-0.2	SE170024.002	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH103_0.1-0.2	SE170024.003	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH104_0.1-0.2	SE170024.004	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH105_0.1-0.2	SE170024.005	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH106_0.1-0.2	SE170024.006	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH107_0.1-0.2	SE170024.007	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH108_0.1-0.2	SE170024.008	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH109_0.1-0.2	SE170024.009	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH110_0.1-0.2	SE170024.010	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH111_0.1-0.2	SE170024.011	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH111_2.4-2.5	SE170024.012	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH112_0.1-0.2	SE170024.013	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH113_0.1-0.2	SE170024.014	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH114_0.1-0.2	SE170024.015	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH115_0.1-0.2	SE170024.016	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH116_0.1-0.2	SE170024.017	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH117_0.1-0.2	SE170024.018	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH117_0.5-0.6	SE170024.019	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017

HOLDING TIME SUMMARY

SE170024 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 sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Moisture Content (continued) — **Method: ME-(AU)-[ENV]AN002**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH118_0.1-0.2	SE170024.020	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH119_0.1-0.2	SE170024.021	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH120_0.1-0.2	SE170024.022	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH121_0.1-0.2	SE170024.023	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH122_0.3-0.4	SE170024.024	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH123_0.1-0.2	SE170024.025	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH124_0.1-0.2	SE170024.026	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH125_0.1-0.2	SE170024.027	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH126_0.1-0.2	SE170024.028	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH127_0.1-0.2	SE170024.029	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH128_0.1-0.2	SE170024.030	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH129_0.1-0.2	SE170024.031	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH130_0.1-0.2	SE170024.032	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH131_0.1-0.2	SE170024.033	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH132_0.1-0.2	SE170024.034	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH132_0.5-0.6	SE170024.035	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH133_0.1-0.2	SE170024.036	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH134_0.1-0.2	SE170024.037	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH135_0.1-0.2	SE170024.038	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH136_0.1-0.2	SE170024.039	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH137_0.1-0.2	SE170024.040	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH138_0.1-0.2	SE170024.041	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH139_0.1-0.2	SE170024.042	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH140_0.1-0.2	SE170024.043	LB132019	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH141_0.1-0.2	SE170024.044	LB132019	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH142_0.1-0.2	SE170024.045	LB132019	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH143_0.1-0.2	SE170024.046	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH143_0.5-0.6	SE170024.047	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH144_0.1-0.2	SE170024.048	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH145_0.1-0.2	SE170024.049	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH146_0.1-0.2	SE170024.050	LB132019	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH147_0.1-0.2	SE170024.051	LB132019	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH148_0.1-0.2	SE170024.052	LB132019	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH149_0.1-0.2	SE170024.053	LB132019	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH150_0.1-0.2	SE170024.054	LB132019	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH151_0.1-0.2	SE170024.055	LB132019	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH152_0.1-0.2	SE170024.056	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH153_0.1-0.2	SE170024.057	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH154_0.1-0.2	SE170024.058	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH154_0.5-0.6	SE170024.059	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH155_0.1-0.2	SE170024.060	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH156_0.1-0.2	SE170024.061	LB132019	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH157_0.1-0.2	SE170024.062	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH158_0.1-0.2	SE170024.063	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH159_0.1-0.2	SE170024.064	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH160_0.1-0.2	SE170024.065	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH160_0.5-0.6	SE170024.066	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH161_0.1-0.2	SE170024.067	LB132019	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH162_0.1-0.2	SE170024.068	LB132019	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH163_0.1-0.2	SE170024.069	LB132019	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH164_0.1-0.2	SE170024.070	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH164_0.7-0.8	SE170024.071	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH165_0.1-0.2	SE170024.072	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH166_0.1-0.2	SE170024.073	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH167_0.1-0.2	SE170024.074	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH168_0.1-0.2	SE170024.075	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH169_0.5-0.6	SE170024.076	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH170_0.1-0.2	SE170024.077	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH171_0.1-0.2	SE170024.078	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH172_0.1-0.2	SE170024.079	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

HOLDING TIME SUMMARY

SE170024 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 sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Moisture Content (continued) — **Method: ME-(AU)-[ENV]AN002**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH173_0.1-0.2	SE170024.080	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH174_0.1-0.2	SE170024.081	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH175_0.1-0.2	SE170024.082	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH176_0.1-0.2	SE170024.083	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH177_0.1-0.2	SE170024.084	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH178_0.1-0.2	SE170024.085	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH178_0.5-0.6	SE170024.086	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH201_0.3-0.4	SE170024.087	LB132019	28 Aug 2017	06 Sep 2017	11 Sep 2017	12 Sep 2017†	17 Sep 2017	14 Sep 2017
BH202_0.4-0.5	SE170024.088	LB132019	28 Aug 2017	06 Sep 2017	11 Sep 2017	12 Sep 2017†	17 Sep 2017	14 Sep 2017
BH203_0.2-0.3	SE170024.089	LB132019	28 Aug 2017	06 Sep 2017	11 Sep 2017	12 Sep 2017†	17 Sep 2017	14 Sep 2017
BH204_0.5-0.6	SE170024.090	LB132019	28 Aug 2017	06 Sep 2017	11 Sep 2017	12 Sep 2017†	17 Sep 2017	14 Sep 2017
BH205_0.5-0.6	SE170024.091	LB132019	28 Aug 2017	06 Sep 2017	11 Sep 2017	12 Sep 2017†	17 Sep 2017	14 Sep 2017
BH206_0.1-0.2	SE170024.092	LB132019	29 Aug 2017	06 Sep 2017	12 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH207_0.1-0.2	SE170024.093	LB132019	29 Aug 2017	06 Sep 2017	12 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH208_0.2-0.3	SE170024.094	LB132019	29 Aug 2017	06 Sep 2017	12 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH209_0.1-0.2	SE170024.095	LB132019	30 Aug 2017	06 Sep 2017	13 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH210_0.1-0.2	SE170024.096	LB132019	30 Aug 2017	06 Sep 2017	13 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH211_0.1-0.2	SE170024.097	LB132019	30 Aug 2017	06 Sep 2017	13 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH212_0.1-0.2	SE170024.098	LB132019	30 Aug 2017	06 Sep 2017	13 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH213_0.1-0.2	SE170024.099	LB132019	30 Aug 2017	06 Sep 2017	13 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH214_0.3-0.4	SE170024.100	LB132019	30 Aug 2017	06 Sep 2017	13 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH215_0.1-0.2	SE170024.101	LB132019	30 Aug 2017	06 Sep 2017	13 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH216_0.3-0.4	SE170024.102	LB132019	30 Aug 2017	06 Sep 2017	13 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH217_0.2-0.3	SE170024.103	LB132019	30 Aug 2017	06 Sep 2017	13 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH218_0.0-0.1	SE170024.104	LB132019	31 Aug 2017	06 Sep 2017	14 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH219_0.2-0.2	SE170024.105	LB132019	31 Aug 2017	06 Sep 2017	14 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH220_0.1-0.2	SE170024.106	LB132019	31 Aug 2017	06 Sep 2017	14 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH221_0.2-0.3	SE170024.107	LB132019	31 Aug 2017	06 Sep 2017	14 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH222_0.1-0.2	SE170024.108	LB132019	31 Aug 2017	06 Sep 2017	14 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH223_0.0-0.1	SE170024.109	LB132019	31 Aug 2017	06 Sep 2017	14 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH224_0.1-0.2	SE170024.110	LB132019	31 Aug 2017	06 Sep 2017	14 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH225_0.1-0.2	SE170024.111	LB132019	31 Aug 2017	06 Sep 2017	14 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH226_0.1-0.2	SE170024.112	LB132019	31 Aug 2017	06 Sep 2017	14 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH227_0.1-0.2	SE170024.113	LB132019	31 Aug 2017	06 Sep 2017	14 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH228_0.2-0.3	SE170024.114	LB132019	31 Aug 2017	06 Sep 2017	14 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH229_0.2-0.3	SE170024.115	LB132019	31 Aug 2017	06 Sep 2017	14 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH230_0.2-0.3	SE170024.116	LB132019	31 Aug 2017	06 Sep 2017	14 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
BH231_0.3-0.4	SE170024.117	LB132019	01 Sep 2017	06 Sep 2017	15 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C1	SE170024.118	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C2	SE170024.119	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C3	SE170024.120	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C4	SE170024.121	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C5	SE170024.122	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C6	SE170024.123	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C7	SE170024.124	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C8	SE170024.125	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C9	SE170024.126	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C10	SE170024.127	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C11	SE170024.128	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C12	SE170024.129	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C13	SE170024.130	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C14	SE170024.131	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C15	SE170024.132	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C16	SE170024.133	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C17	SE170024.134	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C18	SE170024.135	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C19	SE170024.136	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C20	SE170024.137	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C21	SE170024.138	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C22	SE170024.139	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017

HOLDING TIME SUMMARY

SE170024 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 sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Moisture Content (continued)

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
C23	SE170024.140	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C24	SE170024.141	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C25	SE170024.142	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C26	SE170024.143	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C27	SE170024.144	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C28	SE170024.145	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
C29	SE170024.146	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
SS1	SE170024.149	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
SS2	SE170024.150	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
QD1	SE170024.151	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
QD2	SE170024.152	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
QD3	SE170024.153	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
QD4	SE170024.154	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
QD5	SE170024.155	LB132019	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
TB1	SE170024.156	LB132019	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017
TB2	SE170024.159	LB132019	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	17 Sep 2017	14 Sep 2017

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.1-0.2	SE170024.001	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH108_0.1-0.2	SE170024.008	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH111_0.1-0.2	SE170024.011	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH111_2.4-2.5	SE170024.012	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH116_0.1-0.2	SE170024.017	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH117_0.1-0.2	SE170024.018	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH117_0.5-0.6	SE170024.019	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH124_0.1-0.2	SE170024.026	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH129_0.1-0.2	SE170024.031	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH132_0.1-0.2	SE170024.034	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH132_0.5-0.6	SE170024.035	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH137_0.1-0.2	SE170024.040	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH140_0.1-0.2	SE170024.043	LB131957	05 Sep 2017	06 Sep 2017	19 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH143_0.1-0.2	SE170024.046	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH143_0.5-0.6	SE170024.047	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH148_0.1-0.2	SE170024.052	LB131957	05 Sep 2017	06 Sep 2017	19 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH153_0.1-0.2	SE170024.057	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH154_0.1-0.2	SE170024.058	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH154_0.5-0.6	SE170024.059	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH156_0.1-0.2	SE170024.061	LB131957	05 Sep 2017	06 Sep 2017	19 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH160_0.1-0.2	SE170024.065	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH160_0.5-0.6	SE170024.066	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH164_0.1-0.2	SE170024.070	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH164_0.7-0.8	SE170024.071	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH169_0.5-0.6	SE170024.076	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH172_0.1-0.2	SE170024.079	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH176_0.1-0.2	SE170024.083	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH177_0.1-0.2	SE170024.084	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH178_0.1-0.2	SE170024.085	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH178_0.5-0.6	SE170024.086	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C1	SE170024.118	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C2	SE170024.119	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C3	SE170024.120	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C4	SE170024.121	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C5	SE170024.122	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C6	SE170024.123	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C7	SE170024.124	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C8	SE170024.125	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C9	SE170024.126	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C10	SE170024.127	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C11	SE170024.128	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

HOLDING TIME SUMMARY

SE170024 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 sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

OC Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
C12	SE170024.129	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C13	SE170024.130	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C14	SE170024.131	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C15	SE170024.132	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C16	SE170024.133	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C17	SE170024.134	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C18	SE170024.135	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C19	SE170024.136	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C20	SE170024.137	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C21	SE170024.138	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C22	SE170024.139	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C23	SE170024.140	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C24	SE170024.141	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C25	SE170024.142	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C26	SE170024.143	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C27	SE170024.144	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C28	SE170024.145	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C29	SE170024.146	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
SS1	SE170024.149	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
SS2	SE170024.150	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD1	SE170024.151	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	15 Sep 2017
QD2	SE170024.152	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	15 Sep 2017
QD3	SE170024.153	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	15 Sep 2017
QD4	SE170024.154	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	15 Sep 2017
QD5	SE170024.155	LB132012	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	22 Oct 2017	15 Sep 2017

OC Pesticides in Water

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
W1	SE170024.147	LB132091	04 Sep 2017	06 Sep 2017	11 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017
W2	SE170024.148	LB132091	04 Sep 2017	06 Sep 2017	11 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017
QD6	SE170024.158	LB132091	04 Sep 2017	06 Sep 2017	11 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017
QR1	SE170024.161	LB132091	04 Sep 2017	06 Sep 2017	11 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017
QR2	SE170024.162	LB132091	05 Sep 2017	06 Sep 2017	12 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.1-0.2	SE170024.001	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH108_0.1-0.2	SE170024.008	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH111_0.1-0.2	SE170024.011	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH111_2.4-2.5	SE170024.012	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH116_0.1-0.2	SE170024.017	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH117_0.1-0.2	SE170024.018	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH117_0.5-0.6	SE170024.019	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH124_0.1-0.2	SE170024.026	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH129_0.1-0.2	SE170024.031	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH132_0.1-0.2	SE170024.034	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH132_0.5-0.6	SE170024.035	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH137_0.1-0.2	SE170024.040	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH140_0.1-0.2	SE170024.043	LB131957	05 Sep 2017	06 Sep 2017	19 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH143_0.1-0.2	SE170024.046	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH143_0.5-0.6	SE170024.047	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH148_0.1-0.2	SE170024.052	LB131957	05 Sep 2017	06 Sep 2017	19 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH153_0.1-0.2	SE170024.057	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH154_0.1-0.2	SE170024.058	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH154_0.5-0.6	SE170024.059	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH156_0.1-0.2	SE170024.061	LB131957	05 Sep 2017	06 Sep 2017	19 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH160_0.1-0.2	SE170024.065	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH160_0.5-0.6	SE170024.066	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH164_0.1-0.2	SE170024.070	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH164_0.7-0.8	SE170024.071	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH169_0.5-0.6	SE170024.076	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

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 sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

OP Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH172_0.1-0.2	SE170024.079	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH176_0.1-0.2	SE170024.083	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH177_0.1-0.2	SE170024.084	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH178_0.1-0.2	SE170024.085	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH178_0.5-0.6	SE170024.086	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C1	SE170024.118	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C2	SE170024.119	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C3	SE170024.120	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C4	SE170024.121	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C5	SE170024.122	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C6	SE170024.123	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C7	SE170024.124	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C8	SE170024.125	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C9	SE170024.126	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C10	SE170024.127	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C11	SE170024.128	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C12	SE170024.129	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C13	SE170024.130	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C14	SE170024.131	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C15	SE170024.132	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C16	SE170024.133	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C17	SE170024.134	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C18	SE170024.135	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C19	SE170024.136	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C20	SE170024.137	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C21	SE170024.138	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C22	SE170024.139	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C23	SE170024.140	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C24	SE170024.141	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C25	SE170024.142	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C26	SE170024.143	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C27	SE170024.144	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C28	SE170024.145	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C29	SE170024.146	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
SS1	SE170024.149	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
SS2	SE170024.150	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	13 Sep 2017
QD1	SE170024.151	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD2	SE170024.152	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD3	SE170024.153	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD4	SE170024.154	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD5	SE170024.155	LB132012	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017

OP Pesticides in Water

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
W1	SE170024.147	LB132091	04 Sep 2017	06 Sep 2017	11 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017
W2	SE170024.148	LB132091	04 Sep 2017	06 Sep 2017	11 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017
QD6	SE170024.158	LB132091	04 Sep 2017	06 Sep 2017	11 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017
QR1	SE170024.161	LB132091	04 Sep 2017	06 Sep 2017	11 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017
QR2	SE170024.162	LB132091	05 Sep 2017	06 Sep 2017	12 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017

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
BH101_0.1-0.2	SE170024.001	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH108_0.1-0.2	SE170024.008	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH111_0.1-0.2	SE170024.011	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH111_2.4-2.5	SE170024.012	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH116_0.1-0.2	SE170024.017	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH117_0.1-0.2	SE170024.018	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH117_0.5-0.6	SE170024.019	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH124_0.1-0.2	SE170024.026	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH129_0.1-0.2	SE170024.031	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017

HOLDING TIME SUMMARY

SE170024 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 sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

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
BH132_0.1-0.2	SE170024.034	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH132_0.5-0.6	SE170024.035	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH137_0.1-0.2	SE170024.040	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH140_0.1-0.2	SE170024.043	LB131957	05 Sep 2017	06 Sep 2017	19 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH143_0.1-0.2	SE170024.046	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH143_0.5-0.6	SE170024.047	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH148_0.1-0.2	SE170024.052	LB131957	05 Sep 2017	06 Sep 2017	19 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH153_0.1-0.2	SE170024.057	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH154_0.1-0.2	SE170024.058	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH154_0.5-0.6	SE170024.059	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH156_0.1-0.2	SE170024.061	LB131957	05 Sep 2017	06 Sep 2017	19 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH160_0.1-0.2	SE170024.065	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH160_0.5-0.6	SE170024.066	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH164_0.1-0.2	SE170024.070	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH164_0.7-0.8	SE170024.071	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH169_0.5-0.6	SE170024.076	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH172_0.1-0.2	SE170024.079	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH176_0.1-0.2	SE170024.083	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH177_0.1-0.2	SE170024.084	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH178_0.1-0.2	SE170024.085	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH178_0.5-0.6	SE170024.086	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C1	SE170024.118	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C2	SE170024.119	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C3	SE170024.120	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C4	SE170024.121	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C5	SE170024.122	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C6	SE170024.123	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C7	SE170024.124	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C8	SE170024.125	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C9	SE170024.126	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C10	SE170024.127	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C11	SE170024.128	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C12	SE170024.129	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C13	SE170024.130	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C14	SE170024.131	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C15	SE170024.132	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C16	SE170024.133	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C17	SE170024.134	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C18	SE170024.135	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C19	SE170024.136	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C20	SE170024.137	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C21	SE170024.138	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C22	SE170024.139	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C23	SE170024.140	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C24	SE170024.141	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C25	SE170024.142	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C26	SE170024.143	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C27	SE170024.144	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C28	SE170024.145	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C29	SE170024.146	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
SS1	SE170024.149	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
SS2	SE170024.150	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	13 Sep 2017
QD1	SE170024.151	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD2	SE170024.152	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD3	SE170024.153	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD4	SE170024.154	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD5	SE170024.155	LB132012	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017

PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref

HOLDING TIME SUMMARY

SE170024 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 sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

PAH (Polynuclear Aromatic Hydrocarbons) in Water (continued)

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
W1	SE170024.147	LB132091	04 Sep 2017	06 Sep 2017	11 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017
W2	SE170024.148	LB132091	04 Sep 2017	06 Sep 2017	11 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017
QD6	SE170024.158	LB132091	04 Sep 2017	06 Sep 2017	11 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017
QR1	SE170024.161	LB132091	04 Sep 2017	06 Sep 2017	11 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017
QR2	SE170024.162	LB132091	05 Sep 2017	06 Sep 2017	12 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.1-0.2	SE170024.001	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH108_0.1-0.2	SE170024.008	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH111_0.1-0.2	SE170024.011	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH111_2.4-2.5	SE170024.012	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH116_0.1-0.2	SE170024.017	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH117_0.1-0.2	SE170024.018	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH117_0.5-0.6	SE170024.019	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH124_0.1-0.2	SE170024.026	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH129_0.1-0.2	SE170024.031	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH132_0.1-0.2	SE170024.034	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH132_0.5-0.6	SE170024.035	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH137_0.1-0.2	SE170024.040	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH140_0.1-0.2	SE170024.043	LB131957	05 Sep 2017	06 Sep 2017	19 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH143_0.1-0.2	SE170024.046	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH143_0.5-0.6	SE170024.047	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH148_0.1-0.2	SE170024.052	LB131957	05 Sep 2017	06 Sep 2017	19 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH153_0.1-0.2	SE170024.057	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH154_0.1-0.2	SE170024.058	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH154_0.5-0.6	SE170024.059	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH156_0.1-0.2	SE170024.061	LB131957	05 Sep 2017	06 Sep 2017	19 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH160_0.1-0.2	SE170024.065	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH160_0.5-0.6	SE170024.066	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH164_0.1-0.2	SE170024.070	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH164_0.7-0.8	SE170024.071	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH169_0.5-0.6	SE170024.076	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH172_0.1-0.2	SE170024.079	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH176_0.1-0.2	SE170024.083	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH177_0.1-0.2	SE170024.084	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH178_0.1-0.2	SE170024.085	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
BH178_0.5-0.6	SE170024.086	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C1	SE170024.118	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C2	SE170024.119	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C3	SE170024.120	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C4	SE170024.121	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C5	SE170024.122	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C6	SE170024.123	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C7	SE170024.124	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C8	SE170024.125	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C9	SE170024.126	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C10	SE170024.127	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C11	SE170024.128	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C12	SE170024.129	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C13	SE170024.130	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C14	SE170024.131	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C15	SE170024.132	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C16	SE170024.133	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C17	SE170024.134	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C18	SE170024.135	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C19	SE170024.136	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C20	SE170024.137	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C21	SE170024.138	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C22	SE170024.139	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017

HOLDING TIME SUMMARY

SE170024 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 sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

PCBs in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
C23	SE170024.140	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C24	SE170024.141	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C25	SE170024.142	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C26	SE170024.143	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C27	SE170024.144	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C28	SE170024.145	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
C29	SE170024.146	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
SS1	SE170024.149	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	15 Sep 2017
SS2	SE170024.150	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	15 Sep 2017
QD1	SE170024.151	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	15 Sep 2017
QD2	SE170024.152	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	15 Sep 2017
QD3	SE170024.153	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	15 Sep 2017
QD4	SE170024.154	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	15 Sep 2017
QD5	SE170024.155	LB132012	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	22 Oct 2017	15 Sep 2017

Total Recoverable Metals 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
BH101_0.1-0.2	SE170024.001	LB132070	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH108_0.1-0.2	SE170024.008	LB132070	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH111_0.1-0.2	SE170024.011	LB132070	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH111_2.4-2.5	SE170024.012	LB132070	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH116_0.1-0.2	SE170024.017	LB132070	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH117_0.1-0.2	SE170024.018	LB132070	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH117_0.5-0.6	SE170024.019	LB132070	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH124_0.1-0.2	SE170024.026	LB132070	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH129_0.1-0.2	SE170024.031	LB132070	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH132_0.1-0.2	SE170024.034	LB132070	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH132_0.5-0.6	SE170024.035	LB132070	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH137_0.1-0.2	SE170024.040	LB132070	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH140_0.1-0.2	SE170024.043	LB132070	05 Sep 2017	06 Sep 2017	04 Mar 2018	12 Sep 2017	04 Mar 2018	14 Sep 2017
BH143_0.1-0.2	SE170024.046	LB132071	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH143_0.5-0.6	SE170024.047	LB132071	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH148_0.1-0.2	SE170024.052	LB132071	05 Sep 2017	06 Sep 2017	04 Mar 2018	12 Sep 2017	04 Mar 2018	14 Sep 2017
BH153_0.1-0.2	SE170024.057	LB132071	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH154_0.1-0.2	SE170024.058	LB132071	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH154_0.5-0.6	SE170024.059	LB132071	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH156_0.1-0.2	SE170024.061	LB132071	05 Sep 2017	06 Sep 2017	04 Mar 2018	12 Sep 2017	04 Mar 2018	14 Sep 2017
BH160_0.1-0.2	SE170024.065	LB132071	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH160_0.5-0.6	SE170024.066	LB132071	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH164_0.1-0.2	SE170024.070	LB132071	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH164_0.7-0.8	SE170024.071	LB132071	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH169_0.5-0.6	SE170024.076	LB132071	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH172_0.1-0.2	SE170024.079	LB132071	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH176_0.1-0.2	SE170024.083	LB132071	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH177_0.1-0.2	SE170024.084	LB132071	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH178_0.1-0.2	SE170024.085	LB132071	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
BH178_0.5-0.6	SE170024.086	LB132071	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C1	SE170024.118	LB132071	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C2	SE170024.119	LB132071	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C3	SE170024.120	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C4	SE170024.121	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C5	SE170024.122	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C6	SE170024.123	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C7	SE170024.124	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C8	SE170024.125	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C9	SE170024.126	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C10	SE170024.127	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C11	SE170024.128	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C12	SE170024.129	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C13	SE170024.130	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017

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 sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Total Recoverable Metals 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
C14	SE170024.131	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C15	SE170024.132	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C16	SE170024.133	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C17	SE170024.134	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C18	SE170024.135	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C19	SE170024.136	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C20	SE170024.137	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C21	SE170024.138	LB132072	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C22	SE170024.139	LB132073	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C23	SE170024.140	LB132073	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C24	SE170024.141	LB132073	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C25	SE170024.142	LB132073	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C26	SE170024.143	LB132073	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C27	SE170024.144	LB132073	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C28	SE170024.145	LB132073	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
C29	SE170024.146	LB132073	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
SS1	SE170024.149	LB132073	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
SS2	SE170024.150	LB132073	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
QD1	SE170024.151	LB132073	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
QD2	SE170024.152	LB132073	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
QD3	SE170024.153	LB132073	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
QD4	SE170024.154	LB132073	04 Sep 2017	06 Sep 2017	03 Mar 2018	12 Sep 2017	03 Mar 2018	14 Sep 2017
QD5	SE170024.155	LB132073	05 Sep 2017	06 Sep 2017	04 Mar 2018	12 Sep 2017	04 Mar 2018	14 Sep 2017

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
W1	SE170024.147	LB131926	04 Sep 2017	06 Sep 2017	03 Mar 2018	11 Sep 2017	03 Mar 2018	12 Sep 2017
W2	SE170024.148	LB131926	04 Sep 2017	06 Sep 2017	03 Mar 2018	11 Sep 2017	03 Mar 2018	12 Sep 2017
QD6	SE170024.158	LB131926	04 Sep 2017	06 Sep 2017	03 Mar 2018	11 Sep 2017	03 Mar 2018	12 Sep 2017
QR1	SE170024.161	LB131926	04 Sep 2017	06 Sep 2017	03 Mar 2018	11 Sep 2017	03 Mar 2018	12 Sep 2017
QR2	SE170024.162	LB131926	05 Sep 2017	06 Sep 2017	04 Mar 2018	11 Sep 2017	04 Mar 2018	12 Sep 2017

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
BH101_0.1-0.2	SE170024.001	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH108_0.1-0.2	SE170024.008	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH111_0.1-0.2	SE170024.011	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH111_2.4-2.5	SE170024.012	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH116_0.1-0.2	SE170024.017	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH117_0.1-0.2	SE170024.018	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH117_0.5-0.6	SE170024.019	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH124_0.1-0.2	SE170024.026	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH129_0.1-0.2	SE170024.031	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH132_0.1-0.2	SE170024.034	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH132_0.5-0.6	SE170024.035	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH137_0.1-0.2	SE170024.040	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH140_0.1-0.2	SE170024.043	LB131957	05 Sep 2017	06 Sep 2017	19 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH143_0.1-0.2	SE170024.046	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH143_0.5-0.6	SE170024.047	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH148_0.1-0.2	SE170024.052	LB131957	05 Sep 2017	06 Sep 2017	19 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH153_0.1-0.2	SE170024.057	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH154_0.1-0.2	SE170024.058	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH154_0.5-0.6	SE170024.059	LB131957	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH156_0.1-0.2	SE170024.061	LB131957	05 Sep 2017	06 Sep 2017	19 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH160_0.1-0.2	SE170024.065	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH160_0.5-0.6	SE170024.066	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH164_0.1-0.2	SE170024.070	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH164_0.7-0.8	SE170024.071	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH169_0.5-0.6	SE170024.076	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH172_0.1-0.2	SE170024.079	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH176_0.1-0.2	SE170024.083	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017

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 sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

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
BH177_0.1-0.2	SE170024.084	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH178_0.1-0.2	SE170024.085	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
BH178_0.5-0.6	SE170024.086	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C1	SE170024.118	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C2	SE170024.119	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C3	SE170024.120	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C4	SE170024.121	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C5	SE170024.122	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C6	SE170024.123	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C7	SE170024.124	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C8	SE170024.125	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C9	SE170024.126	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C10	SE170024.127	LB131958	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C11	SE170024.128	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C12	SE170024.129	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C13	SE170024.130	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C14	SE170024.131	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C15	SE170024.132	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C16	SE170024.133	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C17	SE170024.134	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C18	SE170024.135	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C19	SE170024.136	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C20	SE170024.137	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C21	SE170024.138	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C22	SE170024.139	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C23	SE170024.140	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C24	SE170024.141	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C25	SE170024.142	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C26	SE170024.143	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C27	SE170024.144	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C28	SE170024.145	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
C29	SE170024.146	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
SS1	SE170024.149	LB131959	04 Sep 2017	06 Sep 2017	18 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
SS2	SE170024.150	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD1	SE170024.151	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD2	SE170024.152	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD3	SE170024.153	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD4	SE170024.154	LB132012	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD5	SE170024.155	LB132012	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
W1	SE170024.147	LB132091	04 Sep 2017	06 Sep 2017	11 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017
W2	SE170024.148	LB132091	04 Sep 2017	06 Sep 2017	11 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017
QD6	SE170024.158	LB132091	04 Sep 2017	06 Sep 2017	11 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017
QR1	SE170024.161	LB132091	04 Sep 2017	06 Sep 2017	11 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017
QR2	SE170024.162	LB132091	05 Sep 2017	06 Sep 2017	12 Sep 2017	13 Sep 2017†	23 Oct 2017	14 Sep 2017

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.1-0.2	SE170024.001	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH108_0.1-0.2	SE170024.008	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH111_0.1-0.2	SE170024.011	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH111_2.4-2.5	SE170024.012	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH116_0.1-0.2	SE170024.017	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH117_0.1-0.2	SE170024.018	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH117_0.5-0.6	SE170024.019	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH124_0.1-0.2	SE170024.026	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH129_0.1-0.2	SE170024.031	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH132_0.1-0.2	SE170024.034	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH132_0.5-0.6	SE170024.035	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017

HOLDING TIME SUMMARY

SE170024 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 sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH137_0.1-0.2	SE170024.040	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH140_0.1-0.2	SE170024.043	LB132005	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH143_0.1-0.2	SE170024.046	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH143_0.5-0.6	SE170024.047	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH148_0.1-0.2	SE170024.052	LB132005	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH153_0.1-0.2	SE170024.057	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH154_0.1-0.2	SE170024.058	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH154_0.5-0.6	SE170024.059	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH156_0.1-0.2	SE170024.061	LB132005	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH160_0.1-0.2	SE170024.065	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH160_0.5-0.6	SE170024.066	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH164_0.1-0.2	SE170024.070	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH164_0.7-0.8	SE170024.071	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH169_0.5-0.6	SE170024.076	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH172_0.1-0.2	SE170024.079	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH176_0.1-0.2	SE170024.083	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH177_0.1-0.2	SE170024.084	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH178_0.1-0.2	SE170024.085	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH178_0.5-0.6	SE170024.086	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
SS1	SE170024.149	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
SS2	SE170024.150	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD1	SE170024.151	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD2	SE170024.152	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD3	SE170024.153	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD4	SE170024.154	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD5	SE170024.155	LB132006	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
TB1	SE170024.156	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
TS1	SE170024.157	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
TB2	SE170024.159	LB132006	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
TS2	SE170024.160	LB132006	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
W1	SE170024.147	LB131967	04 Sep 2017	06 Sep 2017	11 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
W2	SE170024.148	LB131967	04 Sep 2017	06 Sep 2017	11 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
QD6	SE170024.158	LB131967	04 Sep 2017	06 Sep 2017	11 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
QR1	SE170024.161	LB131967	04 Sep 2017	06 Sep 2017	11 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
QR2	SE170024.162	LB131967	05 Sep 2017	06 Sep 2017	12 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.1-0.2	SE170024.001	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH108_0.1-0.2	SE170024.008	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH111_0.1-0.2	SE170024.011	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH111_2.4-2.5	SE170024.012	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH116_0.1-0.2	SE170024.017	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH117_0.1-0.2	SE170024.018	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH117_0.5-0.6	SE170024.019	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH124_0.1-0.2	SE170024.026	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH129_0.1-0.2	SE170024.031	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH132_0.1-0.2	SE170024.034	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH132_0.5-0.6	SE170024.035	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH137_0.1-0.2	SE170024.040	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH140_0.1-0.2	SE170024.043	LB132005	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH143_0.1-0.2	SE170024.046	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH143_0.5-0.6	SE170024.047	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH148_0.1-0.2	SE170024.052	LB132005	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH153_0.1-0.2	SE170024.057	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH154_0.1-0.2	SE170024.058	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH154_0.5-0.6	SE170024.059	LB132005	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH156_0.1-0.2	SE170024.061	LB132005	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017

HOLDING TIME SUMMARY

SE170024 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 sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

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
BH160_0.1-0.2	SE170024.065	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH160_0.5-0.6	SE170024.066	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH164_0.1-0.2	SE170024.070	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH164_0.7-0.8	SE170024.071	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH169_0.5-0.6	SE170024.076	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH172_0.1-0.2	SE170024.079	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH176_0.1-0.2	SE170024.083	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH177_0.1-0.2	SE170024.084	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH178_0.1-0.2	SE170024.085	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
BH178_0.5-0.6	SE170024.086	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
SS1	SE170024.149	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
SS2	SE170024.150	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD1	SE170024.151	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD2	SE170024.152	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD3	SE170024.153	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD4	SE170024.154	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
QD5	SE170024.155	LB132006	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
TB1	SE170024.156	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
TS1	SE170024.157	LB132006	04 Sep 2017	06 Sep 2017	18 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
TB2	SE170024.159	LB132006	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017
TS2	SE170024.160	LB132006	05 Sep 2017	06 Sep 2017	19 Sep 2017	12 Sep 2017	22 Oct 2017	14 Sep 2017

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
W1	SE170024.147	LB131967	04 Sep 2017	06 Sep 2017	11 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
W2	SE170024.148	LB131967	04 Sep 2017	06 Sep 2017	11 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
QD6	SE170024.158	LB131967	04 Sep 2017	06 Sep 2017	11 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
QR1	SE170024.161	LB131967	04 Sep 2017	06 Sep 2017	11 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017
QR2	SE170024.162	LB131967	05 Sep 2017	06 Sep 2017	12 Sep 2017	11 Sep 2017	21 Oct 2017	14 Sep 2017

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

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)	BH101_0.1-0.2	SE170024.001	%	60 - 130%	97
	BH108_0.1-0.2	SE170024.008	%	60 - 130%	98
	BH111_0.1-0.2	SE170024.011	%	60 - 130%	96
	BH116_0.1-0.2	SE170024.017	%	60 - 130%	97
	BH117_0.1-0.2	SE170024.018	%	60 - 130%	95
	BH124_0.1-0.2	SE170024.026	%	60 - 130%	100
	BH129_0.1-0.2	SE170024.031	%	60 - 130%	99
	BH132_0.1-0.2	SE170024.034	%	60 - 130%	95
	BH137_0.1-0.2	SE170024.040	%	60 - 130%	95
	BH140_0.1-0.2	SE170024.043	%	60 - 130%	92
	BH143_0.1-0.2	SE170024.046	%	60 - 130%	96
	BH148_0.1-0.2	SE170024.052	%	60 - 130%	97
	BH153_0.1-0.2	SE170024.057	%	60 - 130%	92
	BH154_0.1-0.2	SE170024.058	%	60 - 130%	93
	BH156_0.1-0.2	SE170024.061	%	60 - 130%	96
	BH160_0.1-0.2	SE170024.065	%	60 - 130%	95
	BH164_0.1-0.2	SE170024.070	%	60 - 130%	95
	BH169_0.5-0.6	SE170024.076	%	60 - 130%	100
	BH172_0.1-0.2	SE170024.079	%	60 - 130%	92
	BH176_0.1-0.2	SE170024.083	%	60 - 130%	96
	BH177_0.1-0.2	SE170024.084	%	60 - 130%	99
	BH178_0.1-0.2	SE170024.085	%	60 - 130%	100
	C1	SE170024.118	%	60 - 130%	97
	C2	SE170024.119	%	60 - 130%	95
	C3	SE170024.120	%	60 - 130%	98
	C4	SE170024.121	%	60 - 130%	93
	C5	SE170024.122	%	60 - 130%	96
	C6	SE170024.123	%	60 - 130%	95
	C7	SE170024.124	%	60 - 130%	99
	C8	SE170024.125	%	60 - 130%	91
	C9	SE170024.126	%	60 - 130%	96
	C10	SE170024.127	%	60 - 130%	93
	C11	SE170024.128	%	60 - 130%	95
	C12	SE170024.129	%	60 - 130%	99
	C13	SE170024.130	%	60 - 130%	85
	C14	SE170024.131	%	60 - 130%	82
	C15	SE170024.132	%	60 - 130%	85
	C16	SE170024.133	%	60 - 130%	94
	C17	SE170024.134	%	60 - 130%	92
	C18	SE170024.135	%	60 - 130%	94
	C19	SE170024.136	%	60 - 130%	105
	C20	SE170024.137	%	60 - 130%	97
	C21	SE170024.138	%	60 - 130%	94
	C22	SE170024.139	%	60 - 130%	95
	C23	SE170024.140	%	60 - 130%	91
	C24	SE170024.141	%	60 - 130%	93
	C25	SE170024.142	%	60 - 130%	102
	C26	SE170024.143	%	60 - 130%	95
	C27	SE170024.144	%	60 - 130%	101
	C28	SE170024.145	%	60 - 130%	93
	C29	SE170024.146	%	60 - 130%	82
	SS1	SE170024.149	%	60 - 130%	83
	SS2	SE170024.150	%	60 - 130%	90

OC Pesticides in Water

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	W1	SE170024.147	%	40 - 130%	65
	W2	SE170024.148	%	40 - 130%	64

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units

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.

OP Pesticides in Soil (continued) — **Method: ME-(AU)-[ENV]AN420**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH101_0.1-0.2	SE170024.001	%	60 - 130%	92
	BH108_0.1-0.2	SE170024.008	%	60 - 130%	92
	BH111_0.1-0.2	SE170024.011	%	60 - 130%	92
	BH116_0.1-0.2	SE170024.017	%	60 - 130%	82
	BH117_0.1-0.2	SE170024.018	%	60 - 130%	92
	BH124_0.1-0.2	SE170024.026	%	60 - 130%	92
	BH129_0.1-0.2	SE170024.031	%	60 - 130%	90
	BH132_0.1-0.2	SE170024.034	%	60 - 130%	98
	BH137_0.1-0.2	SE170024.040	%	60 - 130%	94
	BH140_0.1-0.2	SE170024.043	%	60 - 130%	90
	BH143_0.1-0.2	SE170024.046	%	60 - 130%	90
	BH148_0.1-0.2	SE170024.052	%	60 - 130%	100
	BH153_0.1-0.2	SE170024.057	%	60 - 130%	90
	BH154_0.1-0.2	SE170024.058	%	60 - 130%	88
	BH156_0.1-0.2	SE170024.061	%	60 - 130%	94
	BH160_0.1-0.2	SE170024.065	%	60 - 130%	92
	BH164_0.1-0.2	SE170024.070	%	60 - 130%	94
	BH169_0.5-0.6	SE170024.076	%	60 - 130%	90
	BH172_0.1-0.2	SE170024.079	%	60 - 130%	90
	BH176_0.1-0.2	SE170024.083	%	60 - 130%	90
	BH177_0.1-0.2	SE170024.084	%	60 - 130%	94
	BH178_0.1-0.2	SE170024.085	%	60 - 130%	100
	C1	SE170024.118	%	60 - 130%	88
	C2	SE170024.119	%	60 - 130%	78
	C3	SE170024.120	%	60 - 130%	92
	C4	SE170024.121	%	60 - 130%	94
	C5	SE170024.122	%	60 - 130%	112
	C6	SE170024.123	%	60 - 130%	96
	C7	SE170024.124	%	60 - 130%	90
	C8	SE170024.125	%	60 - 130%	96
	C9	SE170024.126	%	60 - 130%	94
	C10	SE170024.127	%	60 - 130%	92
	C11	SE170024.128	%	60 - 130%	92
	C12	SE170024.129	%	60 - 130%	98
	C13	SE170024.130	%	60 - 130%	96
	C14	SE170024.131	%	60 - 130%	100
	C15	SE170024.132	%	60 - 130%	92
	C16	SE170024.133	%	60 - 130%	98
	C17	SE170024.134	%	60 - 130%	96
	C18	SE170024.135	%	60 - 130%	96
	C19	SE170024.136	%	60 - 130%	102
	C20	SE170024.137	%	60 - 130%	90
	C21	SE170024.138	%	60 - 130%	92
	C22	SE170024.139	%	60 - 130%	94
	C23	SE170024.140	%	60 - 130%	92
	C24	SE170024.141	%	60 - 130%	90
	C25	SE170024.142	%	60 - 130%	104
	C26	SE170024.143	%	60 - 130%	80
	C27	SE170024.144	%	60 - 130%	100
	C28	SE170024.145	%	60 - 130%	86
	C29	SE170024.146	%	60 - 130%	90
	SS1	SE170024.149	%	60 - 130%	88
	SS2	SE170024.150	%	60 - 130%	82
d14-p-terphenyl (Surrogate)	BH101_0.1-0.2	SE170024.001	%	60 - 130%	94
	BH108_0.1-0.2	SE170024.008	%	60 - 130%	90
	BH111_0.1-0.2	SE170024.011	%	60 - 130%	92
	BH116_0.1-0.2	SE170024.017	%	60 - 130%	80
	BH117_0.1-0.2	SE170024.018	%	60 - 130%	90
	BH124_0.1-0.2	SE170024.026	%	60 - 130%	90
	BH129_0.1-0.2	SE170024.031	%	60 - 130%	86
	BH132_0.1-0.2	SE170024.034	%	60 - 130%	94

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OP Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d14-p-terphenyl (Surrogate)	BH137_0.1-0.2	SE170024.040	%	60 - 130%	96
	BH140_0.1-0.2	SE170024.043	%	60 - 130%	90
	BH143_0.1-0.2	SE170024.046	%	60 - 130%	90
	BH148_0.1-0.2	SE170024.052	%	60 - 130%	98
	BH153_0.1-0.2	SE170024.057	%	60 - 130%	88
	BH154_0.1-0.2	SE170024.058	%	60 - 130%	84
	BH156_0.1-0.2	SE170024.061	%	60 - 130%	90
	BH160_0.1-0.2	SE170024.065	%	60 - 130%	94
	BH164_0.1-0.2	SE170024.070	%	60 - 130%	92
	BH169_0.5-0.6	SE170024.076	%	60 - 130%	92
	BH172_0.1-0.2	SE170024.079	%	60 - 130%	96
	BH176_0.1-0.2	SE170024.083	%	60 - 130%	88
	BH177_0.1-0.2	SE170024.084	%	60 - 130%	94
	BH178_0.1-0.2	SE170024.085	%	60 - 130%	118
	C1	SE170024.118	%	60 - 130%	80
	C2	SE170024.119	%	60 - 130%	122
	C3	SE170024.120	%	60 - 130%	84
	C4	SE170024.121	%	60 - 130%	94
	C5	SE170024.122	%	60 - 130%	92
	C6	SE170024.123	%	60 - 130%	98
	C7	SE170024.124	%	60 - 130%	90
	C8	SE170024.125	%	60 - 130%	84
	C9	SE170024.126	%	60 - 130%	80
	C10	SE170024.127	%	60 - 130%	90
	C11	SE170024.128	%	60 - 130%	110
	C12	SE170024.129	%	60 - 130%	106
	C13	SE170024.130	%	60 - 130%	86
	C14	SE170024.131	%	60 - 130%	106
	C15	SE170024.132	%	60 - 130%	82
	C16	SE170024.133	%	60 - 130%	100
	C17	SE170024.134	%	60 - 130%	94
	C18	SE170024.135	%	60 - 130%	100
	C19	SE170024.136	%	60 - 130%	112
	C20	SE170024.137	%	60 - 130%	110
	C21	SE170024.138	%	60 - 130%	94
	C22	SE170024.139	%	60 - 130%	106
	C23	SE170024.140	%	60 - 130%	84
	C24	SE170024.141	%	60 - 130%	84
	C25	SE170024.142	%	60 - 130%	120
	C26	SE170024.143	%	60 - 130%	76
	C27	SE170024.144	%	60 - 130%	112
	C28	SE170024.145	%	60 - 130%	88
	C29	SE170024.146	%	60 - 130%	106
	SS1	SE170024.149	%	60 - 130%	102
	SS2	SE170024.150	%	60 - 130%	100

OP Pesticides in Water

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	W1	SE170024.147	%	40 - 130%	56
	W2	SE170024.148	%	40 - 130%	56
d14-p-terphenyl (Surrogate)	W1	SE170024.147	%	40 - 130%	64
	W2	SE170024.148	%	40 - 130%	62

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH101_0.1-0.2	SE170024.001	%	70 - 130%	92
	BH108_0.1-0.2	SE170024.008	%	70 - 130%	92
	BH111_0.1-0.2	SE170024.011	%	70 - 130%	92
	BH111_2.4-2.5	SE170024.012	%	70 - 130%	92
	BH116_0.1-0.2	SE170024.017	%	70 - 130%	82
	BH117_0.1-0.2	SE170024.018	%	70 - 130%	92
	BH117_0.5-0.6	SE170024.019	%	70 - 130%	94

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason 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)	BH124_0.1-0.2	SE170024.026	%	70 - 130%	92
	BH129_0.1-0.2	SE170024.031	%	70 - 130%	90
	BH132_0.1-0.2	SE170024.034	%	70 - 130%	98
	BH132_0.5-0.6	SE170024.035	%	70 - 130%	90
	BH137_0.1-0.2	SE170024.040	%	70 - 130%	94
	BH140_0.1-0.2	SE170024.043	%	70 - 130%	90
	BH143_0.1-0.2	SE170024.046	%	70 - 130%	90
	BH143_0.5-0.6	SE170024.047	%	70 - 130%	88
	BH148_0.1-0.2	SE170024.052	%	70 - 130%	100
	BH153_0.1-0.2	SE170024.057	%	70 - 130%	90
	BH154_0.1-0.2	SE170024.058	%	70 - 130%	88
	BH154_0.5-0.6	SE170024.059	%	70 - 130%	90
	BH156_0.1-0.2	SE170024.061	%	70 - 130%	94
	BH160_0.1-0.2	SE170024.065	%	70 - 130%	92
	BH160_0.5-0.6	SE170024.066	%	70 - 130%	96
	BH164_0.1-0.2	SE170024.070	%	70 - 130%	94
	BH164_0.7-0.8	SE170024.071	%	70 - 130%	92
	BH169_0.5-0.6	SE170024.076	%	70 - 130%	90
	BH172_0.1-0.2	SE170024.079	%	70 - 130%	90
	BH176_0.1-0.2	SE170024.083	%	70 - 130%	90
	BH177_0.1-0.2	SE170024.084	%	70 - 130%	94
	BH178_0.1-0.2	SE170024.085	%	70 - 130%	100
	BH178_0.5-0.6	SE170024.086	%	70 - 130%	86
	SS1	SE170024.149	%	70 - 130%	88
	SS2	SE170024.150	%	70 - 130%	82
d14-p-terphenyl (Surrogate)	BH101_0.1-0.2	SE170024.001	%	70 - 130%	94
	BH108_0.1-0.2	SE170024.008	%	70 - 130%	90
	BH111_0.1-0.2	SE170024.011	%	70 - 130%	92
	BH111_2.4-2.5	SE170024.012	%	70 - 130%	90
	BH116_0.1-0.2	SE170024.017	%	70 - 130%	80
	BH117_0.1-0.2	SE170024.018	%	70 - 130%	90
	BH117_0.5-0.6	SE170024.019	%	70 - 130%	90
	BH124_0.1-0.2	SE170024.026	%	70 - 130%	90
	BH129_0.1-0.2	SE170024.031	%	70 - 130%	86
	BH132_0.1-0.2	SE170024.034	%	70 - 130%	94
	BH132_0.5-0.6	SE170024.035	%	70 - 130%	88
	BH137_0.1-0.2	SE170024.040	%	70 - 130%	96
	BH140_0.1-0.2	SE170024.043	%	70 - 130%	90
	BH143_0.1-0.2	SE170024.046	%	70 - 130%	90
	BH143_0.5-0.6	SE170024.047	%	70 - 130%	86
	BH148_0.1-0.2	SE170024.052	%	70 - 130%	98
	BH153_0.1-0.2	SE170024.057	%	70 - 130%	88
	BH154_0.1-0.2	SE170024.058	%	70 - 130%	84
	BH154_0.5-0.6	SE170024.059	%	70 - 130%	84
	BH156_0.1-0.2	SE170024.061	%	70 - 130%	90
	BH160_0.1-0.2	SE170024.065	%	70 - 130%	94
	BH160_0.5-0.6	SE170024.066	%	70 - 130%	98
	BH164_0.1-0.2	SE170024.070	%	70 - 130%	92
	BH164_0.7-0.8	SE170024.071	%	70 - 130%	92
	BH169_0.5-0.6	SE170024.076	%	70 - 130%	92
	BH172_0.1-0.2	SE170024.079	%	70 - 130%	96
	BH176_0.1-0.2	SE170024.083	%	70 - 130%	88
	BH177_0.1-0.2	SE170024.084	%	70 - 130%	94
	BH178_0.1-0.2	SE170024.085	%	70 - 130%	118
	BH178_0.5-0.6	SE170024.086	%	70 - 130%	92
	SS1	SE170024.149	%	70 - 130%	102
	SS2	SE170024.150	%	70 - 130%	100
d5-nitrobenzene (Surrogate)	BH101_0.1-0.2	SE170024.001	%	70 - 130%	120
	BH108_0.1-0.2	SE170024.008	%	70 - 130%	114
	BH111_0.1-0.2	SE170024.011	%	70 - 130%	112
	BH111_2.4-2.5	SE170024.012	%	70 - 130%	110

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)	BH116_0.1-0.2	SE170024.017	%	70 - 130%	96
	BH117_0.1-0.2	SE170024.018	%	70 - 130%	108
	BH117_0.5-0.6	SE170024.019	%	70 - 130%	112
	BH124_0.1-0.2	SE170024.026	%	70 - 130%	108
	BH129_0.1-0.2	SE170024.031	%	70 - 130%	104
	BH132_0.1-0.2	SE170024.034	%	70 - 130%	114
	BH132_0.5-0.6	SE170024.035	%	70 - 130%	104
	BH137_0.1-0.2	SE170024.040	%	70 - 130%	108
	BH140_0.1-0.2	SE170024.043	%	70 - 130%	106
	BH143_0.1-0.2	SE170024.046	%	70 - 130%	104
	BH143_0.5-0.6	SE170024.047	%	70 - 130%	102
	BH148_0.1-0.2	SE170024.052	%	70 - 130%	116
	BH153_0.1-0.2	SE170024.057	%	70 - 130%	104
	BH154_0.1-0.2	SE170024.058	%	70 - 130%	100
	BH154_0.5-0.6	SE170024.059	%	70 - 130%	102
	BH156_0.1-0.2	SE170024.061	%	70 - 130%	106
	BH160_0.1-0.2	SE170024.065	%	70 - 130%	90
	BH160_0.5-0.6	SE170024.066	%	70 - 130%	96
	BH164_0.1-0.2	SE170024.070	%	70 - 130%	92
	BH164_0.7-0.8	SE170024.071	%	70 - 130%	94
	BH169_0.5-0.6	SE170024.076	%	70 - 130%	92
	BH172_0.1-0.2	SE170024.079	%	70 - 130%	96
	BH176_0.1-0.2	SE170024.083	%	70 - 130%	90
	BH177_0.1-0.2	SE170024.084	%	70 - 130%	92
	BH178_0.1-0.2	SE170024.085	%	70 - 130%	98
	BH178_0.5-0.6	SE170024.086	%	70 - 130%	100
	SS1	SE170024.149	%	70 - 130%	92
	SS2	SE170024.150	%	70 - 130%	84

PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	W1	SE170024.147	%	40 - 130%	56
	W2	SE170024.148	%	40 - 130%	56
d14-p-terphenyl (Surrogate)	W1	SE170024.147	%	40 - 130%	64
	W2	SE170024.148	%	40 - 130%	62
d5-nitrobenzene (Surrogate)	W1	SE170024.147	%	40 - 130%	60
	W2	SE170024.148	%	40 - 130%	60

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	BH101_0.1-0.2	SE170024.001	%	60 - 130%	97
	BH108_0.1-0.2	SE170024.008	%	60 - 130%	98
	BH111_0.1-0.2	SE170024.011	%	60 - 130%	96
	BH116_0.1-0.2	SE170024.017	%	60 - 130%	97
	BH117_0.1-0.2	SE170024.018	%	60 - 130%	95
	BH124_0.1-0.2	SE170024.026	%	60 - 130%	100
	BH129_0.1-0.2	SE170024.031	%	60 - 130%	99
	BH132_0.1-0.2	SE170024.034	%	60 - 130%	95
	BH137_0.1-0.2	SE170024.040	%	60 - 130%	95
	BH140_0.1-0.2	SE170024.043	%	60 - 130%	92
	BH143_0.1-0.2	SE170024.046	%	60 - 130%	96
	BH148_0.1-0.2	SE170024.052	%	60 - 130%	97
	BH153_0.1-0.2	SE170024.057	%	60 - 130%	92
	BH154_0.1-0.2	SE170024.058	%	60 - 130%	93
	BH156_0.1-0.2	SE170024.061	%	60 - 130%	96
	BH160_0.1-0.2	SE170024.065	%	60 - 130%	95
	BH164_0.1-0.2	SE170024.070	%	60 - 130%	95
	BH169_0.5-0.6	SE170024.076	%	60 - 130%	100
	BH172_0.1-0.2	SE170024.079	%	60 - 130%	92
	BH176_0.1-0.2	SE170024.083	%	60 - 130%	96
	BH177_0.1-0.2	SE170024.084	%	60 - 130%	99
	BH178_0.1-0.2	SE170024.085	%	60 - 130%	100

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 — **Method: ME-(AU)-[ENV]AN433**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH101_0.1-0.2	SE170024.001	%	60 - 130%	79
	BH108_0.1-0.2	SE170024.008	%	60 - 130%	74
	BH111_0.1-0.2	SE170024.011	%	60 - 130%	74
	BH111_2.4-2.5	SE170024.012	%	60 - 130%	83
	BH116_0.1-0.2	SE170024.017	%	60 - 130%	76
	BH117_0.1-0.2	SE170024.018	%	60 - 130%	85
	BH117_0.5-0.6	SE170024.019	%	60 - 130%	80
	BH124_0.1-0.2	SE170024.026	%	60 - 130%	84
	BH129_0.1-0.2	SE170024.031	%	60 - 130%	80
	BH132_0.1-0.2	SE170024.034	%	60 - 130%	85
	BH132_0.5-0.6	SE170024.035	%	60 - 130%	103
	BH137_0.1-0.2	SE170024.040	%	60 - 130%	89
	BH140_0.1-0.2	SE170024.043	%	60 - 130%	88
	BH143_0.1-0.2	SE170024.046	%	60 - 130%	83
	BH143_0.5-0.6	SE170024.047	%	60 - 130%	79
	BH148_0.1-0.2	SE170024.052	%	60 - 130%	79
	BH153_0.1-0.2	SE170024.057	%	60 - 130%	77
	BH154_0.1-0.2	SE170024.058	%	60 - 130%	89
	BH154_0.5-0.6	SE170024.059	%	60 - 130%	77
	BH156_0.1-0.2	SE170024.061	%	60 - 130%	84
	BH160_0.1-0.2	SE170024.065	%	60 - 130%	98
	BH160_0.5-0.6	SE170024.066	%	60 - 130%	97
	BH164_0.1-0.2	SE170024.070	%	60 - 130%	94
	BH164_0.7-0.8	SE170024.071	%	60 - 130%	94
	BH169_0.5-0.6	SE170024.076	%	60 - 130%	93
	BH172_0.1-0.2	SE170024.079	%	60 - 130%	95
	BH176_0.1-0.2	SE170024.083	%	60 - 130%	91
	BH177_0.1-0.2	SE170024.084	%	60 - 130%	100
	BH178_0.1-0.2	SE170024.085	%	60 - 130%	90
	BH178_0.5-0.6	SE170024.086	%	60 - 130%	92
	SS1	SE170024.149	%	60 - 130%	106
	SS2	SE170024.150	%	60 - 130%	103
	QD1	SE170024.151	%	60 - 130%	122
	QD2	SE170024.152	%	60 - 130%	126
	QD3	SE170024.153	%	60 - 130%	129
	QD4	SE170024.154	%	60 - 130%	128
	QD5	SE170024.155	%	60 - 130%	112
	TB1	SE170024.156	%	60 - 130%	100
	TS1	SE170024.157	%	60 - 130%	112
	TB2	SE170024.159	%	60 - 130%	104
	TS2	SE170024.160	%	60 - 130%	109
d4-1,2-dichloroethane (Surrogate)	BH101_0.1-0.2	SE170024.001	%	60 - 130%	76
	BH108_0.1-0.2	SE170024.008	%	60 - 130%	70
	BH111_0.1-0.2	SE170024.011	%	60 - 130%	76
	BH111_2.4-2.5	SE170024.012	%	60 - 130%	78
	BH116_0.1-0.2	SE170024.017	%	60 - 130%	71
	BH117_0.1-0.2	SE170024.018	%	60 - 130%	78
	BH117_0.5-0.6	SE170024.019	%	60 - 130%	81
	BH124_0.1-0.2	SE170024.026	%	60 - 130%	78
	BH129_0.1-0.2	SE170024.031	%	60 - 130%	72
	BH132_0.1-0.2	SE170024.034	%	60 - 130%	79
	BH132_0.5-0.6	SE170024.035	%	60 - 130%	100
	BH137_0.1-0.2	SE170024.040	%	60 - 130%	83
	BH140_0.1-0.2	SE170024.043	%	60 - 130%	88
	BH143_0.1-0.2	SE170024.046	%	60 - 130%	80
	BH143_0.5-0.6	SE170024.047	%	60 - 130%	78
	BH148_0.1-0.2	SE170024.052	%	60 - 130%	76
	BH153_0.1-0.2	SE170024.057	%	60 - 130%	81
	BH154_0.1-0.2	SE170024.058	%	60 - 130%	98
	BH154_0.5-0.6	SE170024.059	%	60 - 130%	81
	BH156_0.1-0.2	SE170024.061	%	60 - 130%	90

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason 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)	BH160_0.1-0.2	SE170024.065	%	60 - 130%	122
	BH160_0.5-0.6	SE170024.066	%	60 - 130%	113
	BH164_0.1-0.2	SE170024.070	%	60 - 130%	108
	BH164_0.7-0.8	SE170024.071	%	60 - 130%	118
	BH169_0.5-0.6	SE170024.076	%	60 - 130%	120
	BH172_0.1-0.2	SE170024.079	%	60 - 130%	123
	BH176_0.1-0.2	SE170024.083	%	60 - 130%	109
	BH177_0.1-0.2	SE170024.084	%	60 - 130%	119
	BH178_0.1-0.2	SE170024.085	%	60 - 130%	118
	BH178_0.5-0.6	SE170024.086	%	60 - 130%	127
	SS1	SE170024.149	%	60 - 130%	111
	SS2	SE170024.150	%	60 - 130%	104
	QD1	SE170024.151	%	60 - 130%	115
	QD2	SE170024.152	%	60 - 130%	117
	QD3	SE170024.153	%	60 - 130%	127
	QD4	SE170024.154	%	60 - 130%	120
	QD5	SE170024.155	%	60 - 130%	112
	TB1	SE170024.156	%	60 - 130%	108
	TS1	SE170024.157	%	60 - 130%	121
	TB2	SE170024.159	%	60 - 130%	110
	TS2	SE170024.160	%	60 - 130%	115
d8-toluene (Surrogate)	BH101_0.1-0.2	SE170024.001	%	60 - 130%	102
	BH108_0.1-0.2	SE170024.008	%	60 - 130%	93
	BH111_0.1-0.2	SE170024.011	%	60 - 130%	85
	BH111_2.4-2.5	SE170024.012	%	60 - 130%	107
	BH116_0.1-0.2	SE170024.017	%	60 - 130%	101
	BH117_0.1-0.2	SE170024.018	%	60 - 130%	112
	BH117_0.5-0.6	SE170024.019	%	60 - 130%	113
	BH124_0.1-0.2	SE170024.026	%	60 - 130%	113
	BH129_0.1-0.2	SE170024.031	%	60 - 130%	107
	BH132_0.1-0.2	SE170024.034	%	60 - 130%	119
	BH132_0.5-0.6	SE170024.035	%	60 - 130%	125
	BH137_0.1-0.2	SE170024.040	%	60 - 130%	129
	BH140_0.1-0.2	SE170024.043	%	60 - 130%	129
	BH143_0.1-0.2	SE170024.046	%	60 - 130%	129
	BH143_0.5-0.6	SE170024.047	%	60 - 130%	97
	BH148_0.1-0.2	SE170024.052	%	60 - 130%	95
	BH153_0.1-0.2	SE170024.057	%	60 - 130%	108
	BH154_0.1-0.2	SE170024.058	%	60 - 130%	122
	BH154_0.5-0.6	SE170024.059	%	60 - 130%	129
	BH156_0.1-0.2	SE170024.061	%	60 - 130%	123
	BH160_0.1-0.2	SE170024.065	%	60 - 130%	102
	BH160_0.5-0.6	SE170024.066	%	60 - 130%	112
	BH164_0.1-0.2	SE170024.070	%	60 - 130%	99
	BH164_0.7-0.8	SE170024.071	%	60 - 130%	97
	BH169_0.5-0.6	SE170024.076	%	60 - 130%	91
	BH172_0.1-0.2	SE170024.079	%	60 - 130%	129
	BH176_0.1-0.2	SE170024.083	%	60 - 130%	129
	BH177_0.1-0.2	SE170024.084	%	60 - 130%	123
	BH178_0.1-0.2	SE170024.085	%	60 - 130%	101
	BH178_0.5-0.6	SE170024.086	%	60 - 130%	112
	SS1	SE170024.149	%	60 - 130%	80
	SS2	SE170024.150	%	60 - 130%	70
	QD1	SE170024.151	%	60 - 130%	87
	QD2	SE170024.152	%	60 - 130%	105
	QD3	SE170024.153	%	60 - 130%	93
	QD4	SE170024.154	%	60 - 130%	107
	QD5	SE170024.155	%	60 - 130%	106
	TB1	SE170024.156	%	60 - 130%	104
	TS1	SE170024.157	%	60 - 130%	113
	TB2	SE170024.159	%	60 - 130%	108

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

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)	TS2	SE170024.160	%	60 - 130%	106
Dibromofluoromethane (Surrogate)	BH101_0.1-0.2	SE170024.001	%	60 - 130%	75
	BH108_0.1-0.2	SE170024.008	%	60 - 130%	70
	BH111_0.1-0.2	SE170024.011	%	60 - 130%	80
	BH111_2.4-2.5	SE170024.012	%	60 - 130%	78
	BH116_0.1-0.2	SE170024.017	%	60 - 130%	72
	BH117_0.1-0.2	SE170024.018	%	60 - 130%	79
	BH117_0.5-0.6	SE170024.019	%	60 - 130%	80
	BH124_0.1-0.2	SE170024.026	%	60 - 130%	78
	BH129_0.1-0.2	SE170024.031	%	60 - 130%	71
	BH132_0.1-0.2	SE170024.034	%	60 - 130%	79
	BH132_0.5-0.6	SE170024.035	%	60 - 130%	98
	BH137_0.1-0.2	SE170024.040	%	60 - 130%	85
	BH140_0.1-0.2	SE170024.043	%	60 - 130%	91
	BH143_0.1-0.2	SE170024.046	%	60 - 130%	81
	BH143_0.5-0.6	SE170024.047	%	60 - 130%	74
	BH148_0.1-0.2	SE170024.052	%	60 - 130%	71
	BH153_0.1-0.2	SE170024.057	%	60 - 130%	80
	BH154_0.1-0.2	SE170024.058	%	60 - 130%	99
	BH154_0.5-0.6	SE170024.059	%	60 - 130%	80
	BH156_0.1-0.2	SE170024.061	%	60 - 130%	89
	BH160_0.1-0.2	SE170024.065	%	60 - 130%	118
	BH160_0.5-0.6	SE170024.066	%	60 - 130%	111
	BH164_0.1-0.2	SE170024.070	%	60 - 130%	106
	BH164_0.7-0.8	SE170024.071	%	60 - 130%	115
	BH169_0.5-0.6	SE170024.076	%	60 - 130%	120
	BH172_0.1-0.2	SE170024.079	%	60 - 130%	120
	BH176_0.1-0.2	SE170024.083	%	60 - 130%	107
	BH177_0.1-0.2	SE170024.084	%	60 - 130%	117
	BH178_0.1-0.2	SE170024.085	%	60 - 130%	114
	BH178_0.5-0.6	SE170024.086	%	60 - 130%	127
	SS1	SE170024.149	%	60 - 130%	104
	SS2	SE170024.150	%	60 - 130%	92
	QD1	SE170024.151	%	60 - 130%	108
	QD2	SE170024.152	%	60 - 130%	120
	QD3	SE170024.153	%	60 - 130%	118
	QD4	SE170024.154	%	60 - 130%	121
	QD5	SE170024.155	%	60 - 130%	129
	TB1	SE170024.156	%	60 - 130%	100
	TS1	SE170024.157	%	60 - 130%	113
	TB2	SE170024.159	%	60 - 130%	101
	TS2	SE170024.160	%	60 - 130%	104

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	W1	SE170024.147	%	40 - 130%	89
	W2	SE170024.148	%	40 - 130%	84
	QD6	SE170024.158	%	40 - 130%	100
	QR1	SE170024.161	%	40 - 130%	87
	QR2	SE170024.162	%	40 - 130%	90
d4-1,2-dichloroethane (Surrogate)	W1	SE170024.147	%	40 - 130%	75
	W2	SE170024.148	%	40 - 130%	75
	QD6	SE170024.158	%	40 - 130%	85
	QR1	SE170024.161	%	40 - 130%	84
	QR2	SE170024.162	%	40 - 130%	78
d8-toluene (Surrogate)	W1	SE170024.147	%	40 - 130%	101
	W2	SE170024.148	%	40 - 130%	95
	QD6	SE170024.158	%	40 - 130%	109
	QR1	SE170024.161	%	40 - 130%	89
	QR2	SE170024.162	%	40 - 130%	103
Dibromofluoromethane (Surrogate)	W1	SE170024.147	%	40 - 130%	87

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.

VOCs in Water (continued)

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Dibromofluoromethane (Surrogate)	W2	SE170024.148	%	40 - 130%	87
	QD6	SE170024.158	%	40 - 130%	98
	QR1	SE170024.161	%	40 - 130%	100
	QR2	SE170024.162	%	40 - 130%	89

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH101_0.1-0.2	SE170024.001	%	60 - 130%	79
	BH108_0.1-0.2	SE170024.008	%	60 - 130%	74
	BH111_0.1-0.2	SE170024.011	%	60 - 130%	74
	BH111_2.4-2.5	SE170024.012	%	60 - 130%	83
	BH116_0.1-0.2	SE170024.017	%	60 - 130%	76
	BH117_0.1-0.2	SE170024.018	%	60 - 130%	85
	BH117_0.5-0.6	SE170024.019	%	60 - 130%	80
	BH124_0.1-0.2	SE170024.026	%	60 - 130%	84
	BH129_0.1-0.2	SE170024.031	%	60 - 130%	80
	BH132_0.1-0.2	SE170024.034	%	60 - 130%	85
	BH132_0.5-0.6	SE170024.035	%	60 - 130%	103
	BH137_0.1-0.2	SE170024.040	%	60 - 130%	89
	BH140_0.1-0.2	SE170024.043	%	60 - 130%	88
	BH143_0.1-0.2	SE170024.046	%	60 - 130%	83
	BH143_0.5-0.6	SE170024.047	%	60 - 130%	79
	BH148_0.1-0.2	SE170024.052	%	60 - 130%	79
	BH153_0.1-0.2	SE170024.057	%	60 - 130%	77
	BH154_0.1-0.2	SE170024.058	%	60 - 130%	89
	BH154_0.5-0.6	SE170024.059	%	60 - 130%	77
	BH156_0.1-0.2	SE170024.061	%	60 - 130%	84
	BH160_0.1-0.2	SE170024.065	%	60 - 130%	98
	BH160_0.5-0.6	SE170024.066	%	60 - 130%	97
	BH164_0.1-0.2	SE170024.070	%	60 - 130%	94
	BH164_0.7-0.8	SE170024.071	%	60 - 130%	94
	BH169_0.5-0.6	SE170024.076	%	60 - 130%	93
	BH172_0.1-0.2	SE170024.079	%	60 - 130%	95
	BH176_0.1-0.2	SE170024.083	%	60 - 130%	91
	BH177_0.1-0.2	SE170024.084	%	60 - 130%	100
	BH178_0.1-0.2	SE170024.085	%	60 - 130%	90
	BH178_0.5-0.6	SE170024.086	%	60 - 130%	92
	SS1	SE170024.149	%	60 - 130%	106
	SS2	SE170024.150	%	60 - 130%	103
	QD1	SE170024.151	%	60 - 130%	122
	QD2	SE170024.152	%	60 - 130%	126
	QD3	SE170024.153	%	60 - 130%	129
	QD4	SE170024.154	%	60 - 130%	128
	QD5	SE170024.155	%	60 - 130%	112
d4-1,2-dichloroethane (Surrogate)	BH101_0.1-0.2	SE170024.001	%	60 - 130%	76
	BH108_0.1-0.2	SE170024.008	%	60 - 130%	70
	BH111_0.1-0.2	SE170024.011	%	60 - 130%	76
	BH111_2.4-2.5	SE170024.012	%	60 - 130%	78
	BH116_0.1-0.2	SE170024.017	%	60 - 130%	71
	BH117_0.1-0.2	SE170024.018	%	60 - 130%	78
	BH117_0.5-0.6	SE170024.019	%	60 - 130%	81
	BH124_0.1-0.2	SE170024.026	%	60 - 130%	78
	BH129_0.1-0.2	SE170024.031	%	60 - 130%	72
	BH132_0.1-0.2	SE170024.034	%	60 - 130%	79
	BH132_0.5-0.6	SE170024.035	%	60 - 130%	100
	BH137_0.1-0.2	SE170024.040	%	60 - 130%	83
	BH140_0.1-0.2	SE170024.043	%	60 - 130%	88
	BH143_0.1-0.2	SE170024.046	%	60 - 130%	80
	BH143_0.5-0.6	SE170024.047	%	60 - 130%	78
	BH148_0.1-0.2	SE170024.052	%	60 - 130%	76
	BH153_0.1-0.2	SE170024.057	%	60 - 130%	81

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)	BH154_0.1-0.2	SE170024.058	%	60 - 130%	98
	BH154_0.5-0.6	SE170024.059	%	60 - 130%	81
	BH156_0.1-0.2	SE170024.061	%	60 - 130%	90
	BH160_0.1-0.2	SE170024.065	%	60 - 130%	122
	BH160_0.5-0.6	SE170024.066	%	60 - 130%	113
	BH164_0.1-0.2	SE170024.070	%	60 - 130%	108
	BH164_0.7-0.8	SE170024.071	%	60 - 130%	118
	BH169_0.5-0.6	SE170024.076	%	60 - 130%	120
	BH172_0.1-0.2	SE170024.079	%	60 - 130%	123
	BH176_0.1-0.2	SE170024.083	%	60 - 130%	109
	BH177_0.1-0.2	SE170024.084	%	60 - 130%	119
	BH178_0.1-0.2	SE170024.085	%	60 - 130%	118
	BH178_0.5-0.6	SE170024.086	%	60 - 130%	127
	SS1	SE170024.149	%	60 - 130%	111
	SS2	SE170024.150	%	60 - 130%	104
	QD1	SE170024.151	%	60 - 130%	115
	QD2	SE170024.152	%	60 - 130%	117
	QD3	SE170024.153	%	60 - 130%	127
	QD4	SE170024.154	%	60 - 130%	120
	QD5	SE170024.155	%	60 - 130%	112
d8-toluene (Surrogate)	BH101_0.1-0.2	SE170024.001	%	60 - 130%	102
	BH108_0.1-0.2	SE170024.008	%	60 - 130%	93
	BH111_0.1-0.2	SE170024.011	%	60 - 130%	85
	BH111_2.4-2.5	SE170024.012	%	60 - 130%	107
	BH116_0.1-0.2	SE170024.017	%	60 - 130%	101
	BH117_0.1-0.2	SE170024.018	%	60 - 130%	112
	BH117_0.5-0.6	SE170024.019	%	60 - 130%	113
	BH124_0.1-0.2	SE170024.026	%	60 - 130%	113
	BH129_0.1-0.2	SE170024.031	%	60 - 130%	107
	BH132_0.1-0.2	SE170024.034	%	60 - 130%	119
	BH132_0.5-0.6	SE170024.035	%	60 - 130%	125
	BH137_0.1-0.2	SE170024.040	%	60 - 130%	129
	BH140_0.1-0.2	SE170024.043	%	60 - 130%	129
	BH143_0.1-0.2	SE170024.046	%	60 - 130%	129
	BH143_0.5-0.6	SE170024.047	%	60 - 130%	97
	BH148_0.1-0.2	SE170024.052	%	60 - 130%	95
	BH153_0.1-0.2	SE170024.057	%	60 - 130%	108
	BH154_0.1-0.2	SE170024.058	%	60 - 130%	122
	BH154_0.5-0.6	SE170024.059	%	60 - 130%	129
	BH156_0.1-0.2	SE170024.061	%	60 - 130%	123
	BH160_0.1-0.2	SE170024.065	%	60 - 130%	102
	BH160_0.5-0.6	SE170024.066	%	60 - 130%	112
	BH164_0.1-0.2	SE170024.070	%	60 - 130%	99
	BH164_0.7-0.8	SE170024.071	%	60 - 130%	97
	BH169_0.5-0.6	SE170024.076	%	60 - 130%	91
	BH172_0.1-0.2	SE170024.079	%	60 - 130%	129
	BH176_0.1-0.2	SE170024.083	%	60 - 130%	129
	BH177_0.1-0.2	SE170024.084	%	60 - 130%	123
	BH178_0.1-0.2	SE170024.085	%	60 - 130%	101
	BH178_0.5-0.6	SE170024.086	%	60 - 130%	112
	SS1	SE170024.149	%	60 - 130%	80
	SS2	SE170024.150	%	60 - 130%	70
	QD1	SE170024.151	%	60 - 130%	87
	QD2	SE170024.152	%	60 - 130%	105
	QD3	SE170024.153	%	60 - 130%	93
	QD4	SE170024.154	%	60 - 130%	107
	QD5	SE170024.155	%	60 - 130%	106
Dibromofluoromethane (Surrogate)	BH101_0.1-0.2	SE170024.001	%	60 - 130%	75
	BH108_0.1-0.2	SE170024.008	%	60 - 130%	70
	BH111_0.1-0.2	SE170024.011	%	60 - 130%	80
	BH111_2.4-2.5	SE170024.012	%	60 - 130%	78

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 %
Dibromofluoromethane (Surrogate)	BH116_0.1-0.2	SE170024.017	%	60 - 130%	72
	BH117_0.1-0.2	SE170024.018	%	60 - 130%	79
	BH117_0.5-0.6	SE170024.019	%	60 - 130%	80
	BH124_0.1-0.2	SE170024.026	%	60 - 130%	78
	BH129_0.1-0.2	SE170024.031	%	60 - 130%	71
	BH132_0.1-0.2	SE170024.034	%	60 - 130%	79
	BH132_0.5-0.6	SE170024.035	%	60 - 130%	98
	BH137_0.1-0.2	SE170024.040	%	60 - 130%	85
	BH140_0.1-0.2	SE170024.043	%	60 - 130%	91
	BH143_0.1-0.2	SE170024.046	%	60 - 130%	81
	BH143_0.5-0.6	SE170024.047	%	60 - 130%	74
	BH148_0.1-0.2	SE170024.052	%	60 - 130%	71
	BH153_0.1-0.2	SE170024.057	%	60 - 130%	80
	BH154_0.1-0.2	SE170024.058	%	60 - 130%	99
	BH154_0.5-0.6	SE170024.059	%	60 - 130%	80
	BH156_0.1-0.2	SE170024.061	%	60 - 130%	89
	BH160_0.1-0.2	SE170024.065	%	60 - 130%	118
	BH160_0.5-0.6	SE170024.066	%	60 - 130%	111
	BH164_0.1-0.2	SE170024.070	%	60 - 130%	106
	BH164_0.7-0.8	SE170024.071	%	60 - 130%	115
	BH169_0.5-0.6	SE170024.076	%	60 - 130%	120
	BH172_0.1-0.2	SE170024.079	%	60 - 130%	120
	BH176_0.1-0.2	SE170024.083	%	60 - 130%	107
	BH177_0.1-0.2	SE170024.084	%	60 - 130%	117
	BH178_0.1-0.2	SE170024.085	%	60 - 130%	114
	BH178_0.5-0.6	SE170024.086	%	60 - 130%	127
	SS1	SE170024.149	%	60 - 130%	104
	SS2	SE170024.150	%	60 - 130%	92
	QD1	SE170024.151	%	60 - 130%	108
	QD2	SE170024.152	%	60 - 130%	120
	QD3	SE170024.153	%	60 - 130%	118
	QD4	SE170024.154	%	60 - 130%	121
	QD5	SE170024.155	%	60 - 130%	129

Volatile Petroleum Hydrocarbons in Water — Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	W1	SE170024.147	%	40 - 130%	89
	W2	SE170024.148	%	40 - 130%	84
	QD6	SE170024.158	%	40 - 130%	100
	QR1	SE170024.161	%	40 - 130%	87
	QR2	SE170024.162	%	40 - 130%	90
d4-1,2-dichloroethane (Surrogate)	W1	SE170024.147	%	60 - 130%	75
	W2	SE170024.148	%	60 - 130%	75
	QD6	SE170024.158	%	60 - 130%	85
	QR1	SE170024.161	%	60 - 130%	84
	QR2	SE170024.162	%	60 - 130%	78
d8-toluene (Surrogate)	W1	SE170024.147	%	40 - 130%	101
	W2	SE170024.148	%	40 - 130%	95
	QD6	SE170024.158	%	40 - 130%	109
	QR1	SE170024.161	%	40 - 130%	89
	QR2	SE170024.162	%	40 - 130%	103
Dibromofluoromethane (Surrogate)	W1	SE170024.147	%	40 - 130%	87
	W2	SE170024.148	%	40 - 130%	87
	QD6	SE170024.158	%	40 - 130%	98
	QR1	SE170024.161	%	40 - 130%	100
	QR2	SE170024.162	%	40 - 130%	89

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 (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Sample Number	Parameter	Units	LOR	Result
LB132176.001	Mercury	mg/L	0.0001	<0.0001

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result
LB132109.001	Mercury	mg/kg	0.05	<0.05
LB132110.001	Mercury	mg/kg	0.05	<0.05
LB132111.001	Mercury	mg/kg	0.05	<0.05
LB132112.001	Mercury	mg/kg	0.05	<0.05
LB132138.001	Mercury	mg/kg	0.05	<0.05

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB131957.001		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
		Alpha BHC	mg/kg	0.1	<0.1
		Lindane	mg/kg	0.1	<0.1
		Heptachlor	mg/kg	0.1	<0.1
		Aldrin	mg/kg	0.1	<0.1
		Beta BHC	mg/kg	0.1	<0.1
		Delta BHC	mg/kg	0.1	<0.1
		Heptachlor epoxide	mg/kg	0.1	<0.1
		Alpha Endosulfan	mg/kg	0.2	<0.2
		Gamma Chlordane	mg/kg	0.1	<0.1
		Alpha Chlordane	mg/kg	0.1	<0.1
		p,p'-DDE	mg/kg	0.1	<0.1
		Dieldrin	mg/kg	0.2	<0.2
		Endrin	mg/kg	0.2	<0.2
		Beta Endosulfan	mg/kg	0.2	<0.2
		p,p'-DDD	mg/kg	0.1	<0.1
		p,p'-DDT	mg/kg	0.1	<0.1
		Endosulfan sulphate	mg/kg	0.1	<0.1
		Endrin Aldehyde	mg/kg	0.1	<0.1
		Methoxychlor	mg/kg	0.1	<0.1
		Endrin Ketone	mg/kg	0.1	<0.1
		Isodrin	mg/kg	0.1	<0.1
		Mirex	mg/kg	0.1	<0.1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	94
LB131958.001		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
		Alpha BHC	mg/kg	0.1	<0.1
		Lindane	mg/kg	0.1	<0.1
		Heptachlor	mg/kg	0.1	<0.1
		Aldrin	mg/kg	0.1	<0.1
		Beta BHC	mg/kg	0.1	<0.1
		Delta BHC	mg/kg	0.1	<0.1
		Heptachlor epoxide	mg/kg	0.1	<0.1
		Alpha Endosulfan	mg/kg	0.2	<0.2
		Gamma Chlordane	mg/kg	0.1	<0.1
		Alpha Chlordane	mg/kg	0.1	<0.1
		p,p'-DDE	mg/kg	0.1	<0.1
		Dieldrin	mg/kg	0.2	<0.2
		Endrin	mg/kg	0.2	<0.2
		Beta Endosulfan	mg/kg	0.2	<0.2
		p,p'-DDD	mg/kg	0.1	<0.1
		p,p'-DDT	mg/kg	0.1	<0.1
		Endosulfan sulphate	mg/kg	0.1	<0.1
		Endrin Aldehyde	mg/kg	0.1	<0.1
		Methoxychlor	mg/kg	0.1	<0.1
		Endrin Ketone	mg/kg	0.1	<0.1
		Isodrin	mg/kg	0.1	<0.1
		Mirex	mg/kg	0.1	<0.1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	102

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

OC Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB131959.001		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
		Alpha BHC	mg/kg	0.1	<0.1
		Lindane	mg/kg	0.1	<0.1
		Heptachlor	mg/kg	0.1	<0.1
		Aldrin	mg/kg	0.1	<0.1
		Beta BHC	mg/kg	0.1	<0.1
		Delta BHC	mg/kg	0.1	<0.1
		Heptachlor epoxide	mg/kg	0.1	<0.1
		Alpha Endosulfan	mg/kg	0.2	<0.2
		Gamma Chlordane	mg/kg	0.1	<0.1
		Alpha Chlordane	mg/kg	0.1	<0.1
		p,p'-DDE	mg/kg	0.1	<0.1
		Dieldrin	mg/kg	0.2	<0.2
		Endrin	mg/kg	0.2	<0.2
		Beta Endosulfan	mg/kg	0.2	<0.2
		p,p'-DDD	mg/kg	0.1	<0.1
		p,p'-DDT	mg/kg	0.1	<0.1
		Endosulfan sulphate	mg/kg	0.1	<0.1
		Endrin Aldehyde	mg/kg	0.1	<0.1
		Methoxychlor	mg/kg	0.1	<0.1
		Endrin Ketone	mg/kg	0.1	<0.1
		Isodrin	mg/kg	0.1	<0.1
		Mirex	mg/kg	0.1	<0.1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	93
LB132012.001		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
		Alpha BHC	mg/kg	0.1	<0.1
		Lindane	mg/kg	0.1	<0.1
		Heptachlor	mg/kg	0.1	<0.1
		Aldrin	mg/kg	0.1	<0.1
		Beta BHC	mg/kg	0.1	<0.1
		Delta BHC	mg/kg	0.1	<0.1
		Heptachlor epoxide	mg/kg	0.1	<0.1
		Alpha Endosulfan	mg/kg	0.2	<0.2
		Gamma Chlordane	mg/kg	0.1	<0.1
		Alpha Chlordane	mg/kg	0.1	<0.1
		p,p'-DDE	mg/kg	0.1	<0.1
		Dieldrin	mg/kg	0.2	<0.2
		Endrin	mg/kg	0.2	<0.2
		Beta Endosulfan	mg/kg	0.2	<0.2
		p,p'-DDD	mg/kg	0.1	<0.1
		p,p'-DDT	mg/kg	0.1	<0.1
		Endosulfan sulphate	mg/kg	0.1	<0.1
		Endrin Aldehyde	mg/kg	0.1	<0.1
		Methoxychlor	mg/kg	0.1	<0.1
		Endrin Ketone	mg/kg	0.1	<0.1
		Isodrin	mg/kg	0.1	<0.1
		Mirex	mg/kg	0.1	<0.1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	90

OC Pesticides in Water

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB132091.001		Hexachlorobenzene (HCB)	µg/L	0.1	<0.1
		Alpha BHC	µg/L	0.1	<0.1
		Lindane (gamma BHC)	µg/L	0.1	<0.1
		Heptachlor	µg/L	0.1	<0.1
		Aldrin	µg/L	0.1	<0.1
		Beta BHC	µg/L	0.1	<0.1
		Delta BHC	µg/L	0.1	<0.1
		Heptachlor epoxide	µg/L	0.1	<0.1
		Alpha Endosulfan	µg/L	0.1	<0.1
		Gamma Chlordane	µg/L	0.1	<0.1

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

OC Pesticides in Water (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB132091.001		Alpha Chlordane	µg/L	0.1	<0.1
		p,p'-DDE	µg/L	0.1	<0.1
		Dieldrin	µg/L	0.1	<0.1
		Endrin	µg/L	0.1	<0.1
		Beta Endosulfan	µg/L	0.1	<0.1
		p,p'-DDD	µg/L	0.1	<0.1
		p,p'-DDT	µg/L	0.1	<0.1
		Endosulfan sulphate	µg/L	0.1	<0.1
		Endrin aldehyde	µg/L	0.1	<0.1
		Methoxychlor	µg/L	0.1	<0.1
		Endrin ketone	µg/L	0.1	<0.1
		Isodrin	µg/L	0.1	<0.1
		Mirex	µg/L	0.1	<0.1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	60

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB131957.001		Dichlorvos	mg/kg	0.5	<0.5
		Dimethoate	mg/kg	0.5	<0.5
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5
		Fenitrothion	mg/kg	0.2	<0.2
		Malathion	mg/kg	0.2	<0.2
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2
		Bromophos Ethyl	mg/kg	0.2	<0.2
		Methidathion	mg/kg	0.5	<0.5
		Ethion	mg/kg	0.2	<0.2
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2
	Surrogates	2-fluorobiphenyl (Surrogate)	%	-	108
		d14-p-terphenyl (Surrogate)	%	-	110
LB131958.001		Dichlorvos	mg/kg	0.5	<0.5
		Dimethoate	mg/kg	0.5	<0.5
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5
		Fenitrothion	mg/kg	0.2	<0.2
		Malathion	mg/kg	0.2	<0.2
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2
		Bromophos Ethyl	mg/kg	0.2	<0.2
		Methidathion	mg/kg	0.5	<0.5
		Ethion	mg/kg	0.2	<0.2
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2
	Surrogates	2-fluorobiphenyl (Surrogate)	%	-	78
		d14-p-terphenyl (Surrogate)	%	-	78
LB131959.001		Dichlorvos	mg/kg	0.5	<0.5
		Dimethoate	mg/kg	0.5	<0.5
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5
		Fenitrothion	mg/kg	0.2	<0.2
		Malathion	mg/kg	0.2	<0.2
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2
		Bromophos Ethyl	mg/kg	0.2	<0.2
		Methidathion	mg/kg	0.5	<0.5
		Ethion	mg/kg	0.2	<0.2
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2
	Surrogates	2-fluorobiphenyl (Surrogate)	%	-	86
		d14-p-terphenyl (Surrogate)	%	-	94
LB132012.001		Dichlorvos	mg/kg	0.5	<0.5
		Dimethoate	mg/kg	0.5	<0.5
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5
		Fenitrothion	mg/kg	0.2	<0.2
		Malathion	mg/kg	0.2	<0.2

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

OP Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB132012.001		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2
		Bromophos Ethyl	mg/kg	0.2	<0.2
		Methidathion	mg/kg	0.5	<0.5
		Ethion	mg/kg	0.2	<0.2
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2
	Surrogates	2-fluorobiphenyl (Surrogate)	%	-	90
		d14-p-terphenyl (Surrogate)	%	-	84

OP Pesticides in Water

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB132091.001		Dichlorvos	µg/L	0.5	<0.5
		Dimethoate	µg/L	0.5	<0.5
		Diazinon (Dimpylate)	µg/L	0.5	<0.5
		Fenitrothion	µg/L	0.2	<0.2
		Malathion	µg/L	0.2	<0.2
		Chlorpyrifos (Chlorpyrifos Ethyl)	µg/L	0.2	<0.2
		Parathion-ethyl (Parathion)	µg/L	0.2	<0.2
		Bromophos Ethyl	µg/L	0.2	<0.2
		Methidathion	µg/L	0.5	<0.5
		Ethion	µg/L	0.2	<0.2
		Azinphos-methyl	µg/L	0.2	<0.2
	Surrogates	2-fluorobiphenyl (Surrogate)	%	-	70
		d14-p-terphenyl (Surrogate)	%	-	62

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB131957.001		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)	%	-	108
		d14-p-terphenyl (Surrogate)	%	-	110
LB131958.001		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

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
LB131958.001		Benzo(ghi)perylene	mg/kg	0.1	<0.1
		Total PAH (18)	mg/kg	0.8	<0.8
	Surrogates	d5-nitrobenzene (Surrogate)	%	-	72
		2-fluorobiphenyl (Surrogate)	%	-	78
		d14-p-terphenyl (Surrogate)	%	-	78
LB131959.001		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)	%	-	86
		2-fluorobiphenyl (Surrogate)	%	-	86
		d14-p-terphenyl (Surrogate)	%	-	94
LB132012.001		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)	%	-	92
		2-fluorobiphenyl (Surrogate)	%	-	90
		d14-p-terphenyl (Surrogate)	%	-	84

PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result
LB132091.001	Naphthalene	µg/L	0.1	<0.1
	2-methylnaphthalene	µg/L	0.1	<0.1
	1-methylnaphthalene	µg/L	0.1	<0.1
	Acenaphthylene	µg/L	0.1	<0.1
	Acenaphthene	µg/L	0.1	<0.1
	Fluorene	µg/L	0.1	<0.1
	Phenanthrene	µg/L	0.1	<0.1
	Anthracene	µg/L	0.1	<0.1
	Fluoranthene	µg/L	0.1	<0.1
	Pyrene	µg/L	0.1	<0.1
	Benzo(a)anthracene	µg/L	0.1	<0.1
	Chrysene	µg/L	0.1	<0.1
	Benzo(a)pyrene	µg/L	0.1	<0.1

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 Water (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB132091.001		Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1
		Dibenzo(ah)anthracene	µg/L	0.1	<0.1
		Benzo(ghi)perylene	µg/L	0.1	<0.1
	Surrogates	d5-nitrobenzene (Surrogate)	%	-	62
		2-fluorobiphenyl (Surrogate)	%	-	70
		d14-p-terphenyl (Surrogate)	%	-	62

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB131957.001		Arochlor 1016	mg/kg	0.2	<0.2
		Arochlor 1221	mg/kg	0.2	<0.2
		Arochlor 1232	mg/kg	0.2	<0.2
		Arochlor 1242	mg/kg	0.2	<0.2
		Arochlor 1248	mg/kg	0.2	<0.2
		Arochlor 1254	mg/kg	0.2	<0.2
		Arochlor 1260	mg/kg	0.2	<0.2
		Arochlor 1262	mg/kg	0.2	<0.2
		Arochlor 1268	mg/kg	0.2	<0.2
		Total PCBs (Arochlors)	mg/kg	1	<1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	94
LB131958.001		Arochlor 1016	mg/kg	0.2	<0.2
		Arochlor 1221	mg/kg	0.2	<0.2
		Arochlor 1232	mg/kg	0.2	<0.2
		Arochlor 1242	mg/kg	0.2	<0.2
		Arochlor 1248	mg/kg	0.2	<0.2
		Arochlor 1254	mg/kg	0.2	<0.2
		Arochlor 1260	mg/kg	0.2	<0.2
		Arochlor 1262	mg/kg	0.2	<0.2
		Arochlor 1268	mg/kg	0.2	<0.2
		Total PCBs (Arochlors)	mg/kg	1	<1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	102

Total Recoverable Metals in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result
LB132070.001	Arsenic, As	mg/kg	3	<3
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.3	<0.3
	Copper, Cu	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Nickel, Ni	mg/kg	0.5	<0.5
	Zinc, Zn	mg/kg	0.5	<0.5
LB132071.001	Arsenic, As	mg/kg	3	<3
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.3	<0.3
	Copper, Cu	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Nickel, Ni	mg/kg	0.5	<0.5
	Zinc, Zn	mg/kg	0.5	<0.5
LB132072.001	Arsenic, As	mg/kg	3	<3
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.3	<0.3
	Copper, Cu	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Nickel, Ni	mg/kg	0.5	<0.5
	Zinc, Zn	mg/kg	0.5	<0.5
LB132073.001	Arsenic, As	mg/kg	3	<3
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.3	<0.3
	Copper, Cu	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Nickel, Ni	mg/kg	0.5	<0.5
	Zinc, Zn	mg/kg	0.5	<0.5

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.

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result
LB131926.001	Arsenic, As	µg/L	1	<1
	Cadmium, Cd	µg/L	0.1	<0.1
	Chromium, Cr	µg/L	1	<1
	Copper, Cu	µg/L	1	<1
	Lead, Pb	µg/L	1	<1
	Nickel, Ni	µg/L	1	<1
	Zinc, Zn	µg/L	5	<5

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter	Units	LOR	Result
LB131957.001	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
LB131958.001	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
LB131959.001	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
LB132012.001	TRH C10-C14	mg/kg	20	<20
	TRH C15-C28	mg/kg	45	<45
	TRH C29-C36	mg/kg	45	<45
	TRH C37-C40	mg/kg	100	<100
	TRH C10-C36 Total	mg/kg	110	<110

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter	Units	LOR	Result
LB132091.001	TRH C10-C14	µg/L	50	<50
	TRH C15-C28	µg/L	200	<200
	TRH C29-C36	µg/L	200	<200
	TRH C37-C40	µg/L	200	<200

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB132005.001	Monocyclic Aromatic	Benzene	mg/kg	0.1	<0.1
	Hydrocarbons	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	mg/kg	0.1	<0.1
	Surrogates	Dibromofluoromethane (Surrogate)	%	-	74
		d4-1,2-dichloroethane (Surrogate)	%	-	75
		d8-toluene (Surrogate)	%	-	99
		Bromofluorobenzene (Surrogate)	%	-	78
	Totals	Total BTEX	mg/kg	0.6	<0.6
LB132006.001	Monocyclic Aromatic	Benzene	mg/kg	0.1	<0.1
	Hydrocarbons	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	mg/kg	0.1	<0.1
	Surrogates	Dibromofluoromethane (Surrogate)	%	-	90
		d4-1,2-dichloroethane (Surrogate)	%	-	90
		d8-toluene (Surrogate)	%	-	99
		Bromofluorobenzene (Surrogate)	%	-	74
	Totals	Total BTEX	mg/kg	0.6	<0.6

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB131967.001	Monocyclic Aromatic Hydrocarbons	Benzene	µg/L	0.5	<0.5
		Toluene	µg/L	0.5	<0.5
		Ethylbenzene	µg/L	0.5	<0.5
		m/p-xylene	µg/L	1	<1
		o-xylene	µg/L	0.5	<0.5
	Polycyclic VOCs	Naphthalene	µg/L	0.5	<0.5
	Surrogates	Dibromofluoromethane (Surrogate)	%	-	102
		d4-1,2-dichloroethane (Surrogate)	%	-	114
		d8-toluene (Surrogate)	%	-	108
		Bromofluorobenzene (Surrogate)	%	-	103

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB132005.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	Dibromofluoromethane (Surrogate)	%	-	74
		d4-1,2-dichloroethane (Surrogate)	%	-	75
		d8-toluene (Surrogate)	%	-	99
LB132006.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	Dibromofluoromethane (Surrogate)	%	-	90
		d4-1,2-dichloroethane (Surrogate)	%	-	90
		d8-toluene (Surrogate)	%	-	99

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB131967.001		TRH C6-C9	µg/L	40	<40
	Surrogates	Dibromofluoromethane (Surrogate)	%	-	96
		d4-1,2-dichloroethane (Surrogate)	%	-	110
		d8-toluene (Surrogate)	%	-	98
		Bromofluorobenzene (Surrogate)	%	-	91

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.

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE169996.002	LB132176.014	Mercury	µg/L	0.0001	<0.0001	<0.0001	200	0

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170024.019	LB132109.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE170024.057	LB132110.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE170024.079	LB132110.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE170024.123	LB132111.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE170024.132	LB132111.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE170024.142	LB132112.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE170024.153	LB132112.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE170024.155	LB132138.019	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE170042.001	LB132109.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE170167.010	LB132138.014	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 %
SE170024.040	LB132019.044	% Moisture	%w/w	0.5	8.6	8.8	42	2
SE170024.070	LB132019.077	% Moisture	%w/w	0.5	4.4	4.5	52	3
SE170024.120	LB132019.132	% Moisture	%w/w	0.5	15	13	37	9
SE170024.130	LB132019.143	% Moisture	%w/w	0.5	16	16	36	0
SE170024.140	LB132019.154	% Moisture	%w/w	0.5	11	12	39	12
SE170024.152	LB132019.165	% Moisture	%w/w	0.5	14	15	37	0
SE170024.159	LB132019.171	% Moisture	%w/w	0.5	<0.5	<0.5	200	0

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170000.005	LB132012.014		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Lindane	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
			Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
			Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
			Endrin	mg/kg	0.2	<0.2	<0.2	200	0
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0
			Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
			Mirex	mg/kg	0.1	<0.1	<0.1	200	0
			Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.15	0.14	30	2
SE170024.034	LB131957.014		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Lindane	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0

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.

OC Pesticides in Soil (continued) — **Method: ME-(AU)-[ENV]AN420**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170024.034	LB131957.014		Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
			Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
			Endrin	mg/kg	0.2	<0.2	<0.2	200	0
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0
			Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
			Mirex	mg/kg	0.1	<0.1	<0.1	200	0
			Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.14	30	0
SE170024.127	LB131958.025		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Lindane	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
			Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
			Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
			Endrin	mg/kg	0.2	<0.2	<0.2	200	0
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0
			Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
			Mirex	mg/kg	0.1	<0.1	<0.1	200	0
			Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.15	30	4
SE170024.136	LB131959.027		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Lindane	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
			Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
			Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0

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.

OC Pesticides in Soil (continued) — Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170024.136	LB131959.027		Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
			Endrin	mg/kg	0.2	<0.2	<0.2	200	0
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0
			Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
			Mirex	mg/kg	0.1	<0.1	<0.1	200	0
			Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.16	0.14	30	9
SE170024.146	LB131959.028		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Lindane	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
			Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
			Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
			Endrin	mg/kg	0.2	<0.2	<0.2	200	0
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0
			Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
			Mirex	mg/kg	0.1	<0.1	<0.1	200	0
			Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.12	0.13	30	3
SE170042.002	LB132012.027		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	0	200	0
			Alpha BHC	mg/kg	0.1	<0.1	0	200	0
			Lindane	mg/kg	0.1	<0.1	0	200	0
			Heptachlor	mg/kg	0.1	<0.1	0	200	0
			Aldrin	mg/kg	0.1	<0.1	0	200	0
			Beta BHC	mg/kg	0.1	<0.1	0	200	0
			Delta BHC	mg/kg	0.1	<0.1	0	200	0
			Heptachlor epoxide	mg/kg	0.1	<0.1	0	200	0
			o,p'-DDE	mg/kg	0.1	<0.1	0	200	0
			Alpha Endosulfan	mg/kg	0.2	<0.2	0	200	0

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.

OC Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170042.002	LB132012.027		Gamma Chlordane	mg/kg	0.1	<0.1	0	200	0
			Alpha Chlordane	mg/kg	0.1	<0.1	0	200	0
			trans-Nonachlor	mg/kg	0.1	<0.1	0	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	0	200	0
			Dieldrin	mg/kg	0.2	<0.2	0	200	0
			Endrin	mg/kg	0.2	<0.2	0	200	0
			o,p'-DDD	mg/kg	0.1	<0.1	0	200	0
			o,p'-DDT	mg/kg	0.1	<0.1	0	200	0
			Beta Endosulfan	mg/kg	0.2	<0.2	0	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	0	200	0
			p,p'-DDT	mg/kg	0.1	<0.1	0	200	0
			Endosulfan sulphate	mg/kg	0.1	<0.1	0	200	0
			Endrin Aldehyde	mg/kg	0.1	<0.1	0	200	0
			Methoxychlor	mg/kg	0.1	<0.1	0	200	0
			Endrin Ketone	mg/kg	0.1	<0.1	0	200	0
			Isodrin	mg/kg	0.1	<0.1	0	200	0
			Mirex	mg/kg	0.1	<0.1	0	200	0
			Total CLP OC Pesticides	mg/kg	1	<1	0	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.127	30	9

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170000.005	LB132012.014		Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
			Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
			Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
			Malathion	mg/kg	0.2	<0.2	<0.2	200	0
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
			Methidathion	mg/kg	0.5	<0.5	<0.5	200	0
			Ethion	mg/kg	0.2	<0.2	<0.2	200	0
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
			Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	7
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	10
SE170024.034	LB131957.014		Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
			Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
			Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
			Malathion	mg/kg	0.2	<0.2	<0.2	200	0
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
			Methidathion	mg/kg	0.5	<0.5	<0.5	200	0
			Ethion	mg/kg	0.2	<0.2	<0.2	200	0
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	197	0
			Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	9
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	9
SE170024.061	LB131957.025		Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
			Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
			Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
			Malathion	mg/kg	0.2	<0.2	<0.2	200	0
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
			Methidathion	mg/kg	0.5	<0.5	<0.5	200	0
			Ethion	mg/kg	0.2	<0.2	<0.2	200	0
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	197	0

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.

OP Pesticides in Soil (continued) — Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170024.061	LB131957.025		Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	2
SE170024.085	LB131958.027		Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
			Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
			Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
			Malathion	mg/kg	0.2	<0.2	<0.2	200	0
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
			Methidathion	mg/kg	0.5	<0.5	<0.5	200	0
			Ethion	mg/kg	0.2	<0.2	<0.2	200	0
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
			Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	6
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.5	30	23
SE170024.127	LB131958.025		Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
			Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
			Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
			Malathion	mg/kg	0.2	<0.2	<0.2	200	0
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
			Methidathion	mg/kg	0.5	<0.5	<0.5	200	0
			Ethion	mg/kg	0.2	<0.2	<0.2	200	0
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
			Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	8
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	5
SE170024.136	LB131959.027		Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
			Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
			Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
			Malathion	mg/kg	0.2	<0.2	<0.2	200	0
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
			Methidathion	mg/kg	0.5	<0.5	<0.5	200	0
			Ethion	mg/kg	0.2	<0.2	<0.2	200	0
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
			Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.5	30	11
SE170024.146	LB131959.028		Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
			Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
			Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
			Malathion	mg/kg	0.2	<0.2	<0.2	200	0
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
			Methidathion	mg/kg	0.5	<0.5	<0.5	200	0
			Ethion	mg/kg	0.2	<0.2	<0.2	200	0
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
			Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	6
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	0
SE170042.002	LB132012.027		Dichlorvos	mg/kg	0.5	<0.5	0	200	0
			Dimethoate	mg/kg	0.5	<0.5	0	200	0

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.

OP Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170042.002	LB132012.027		Diazinon (Dimpylate)	mg/kg	0.5	<0.5	0	200	0
			Fenitrothion	mg/kg	0.2	<0.2	0	200	0
			Malathion	mg/kg	0.2	<0.2	0	200	0
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	0	200	0
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	0	200	0
			Bromophos Ethyl	mg/kg	0.2	<0.2	0.01	200	0
			Methidathion	mg/kg	0.5	<0.5	0	200	0
			Ethion	mg/kg	0.2	<0.2	0	200	0
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	0	200	0
			Total OP Pesticides*	mg/kg	1.7	<1.7	0.01	200	0
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.42	30	5
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.48	30	6

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170000.005	LB132012.014		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	TEQ (mg/kg)	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.4	30	13
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	7
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	10
SE170024.034	LB131957.014		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	TEQ (mg/kg)	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	175	0

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.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued) — **Method: ME-(AU)-[ENV]AN420**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170024.034	LB131957.014		Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.5	30	11
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	9
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	9
SE170024.061	LB131957.025		Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
			Phenanthrene	mg/kg	0.1	<0.1	<0.1	200	0
			Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	0
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	2
SE170024.085	LB131958.027		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	TEQ (mg/kg)	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	4
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	6
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.5	30	23
SE170042.002	LB132012.027		Naphthalene	mg/kg	0.1	<0.1	0	200	0
			2-methylnaphthalene	mg/kg	0.1	<0.1	0	200	0
			1-methylnaphthalene	mg/kg	0.1	<0.1	0	200	0
			Acenaphthylene	mg/kg	0.1	<0.1	0	200	0
			Acenaphthene	mg/kg	0.1	<0.1	0	200	0
			Fluorene	mg/kg	0.1	<0.1	0	200	0
			Phenanthrene	mg/kg	0.1	<0.1	0.01	200	0

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.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170042.002	LB132012.027		Anthracene	mg/kg	0.1	<0.1	0	200	0
			Fluoranthene	mg/kg	0.1	<0.1	0	200	0
			Pyrene	mg/kg	0.1	<0.1	0	200	0
			Benzo(a)anthracene	mg/kg	0.1	<0.1	0.01	200	0
			Chrysene	mg/kg	0.1	<0.1	0.01	200	0
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	0	200	0
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	0	200	0
			Benzo(a)pyrene	mg/kg	0.1	<0.1	0.01	200	0
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	0	200	0
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	0	200	0
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	0	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	0	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	0.242	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	0.121	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	0	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.42	30	2
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.42	30	5
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.48	30	6

PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE169995.001	LB132091.023		Naphthalene	µg/L	0.1	<0.1	<0.1	200	0
			2-methylnaphthalene	µg/L	0.1	<0.1	<0.1	200	0
			1-methylnaphthalene	µg/L	0.1	<0.1	<0.1	200	0
			Acenaphthylene	µg/L	0.1	<0.1	<0.1	200	0
			Acenaphthene	µg/L	0.1	<0.1	<0.1	200	0
			Fluorene	µg/L	0.1	<0.1	<0.1	200	0
			Phenanthrene	µg/L	0.1	<0.1	<0.1	200	0
			Anthracene	µg/L	0.1	<0.1	<0.1	200	0
			Fluoranthene	µg/L	0.1	<0.1	<0.1	200	0
			Pyrene	µg/L	0.1	<0.1	<0.1	200	0
			Benzo(a)anthracene	µg/L	0.1	<0.1	<0.1	200	0
			Chrysene	µg/L	0.1	<0.1	<0.1	200	0
			Benzo(b&j)fluoranthene	µg/L	0.1	<0.1	<0.1	200	0
			Benzo(k)fluoranthene	µg/L	0.1	<0.1	<0.1	200	0
			Benzo(a)pyrene	µg/L	0.1	<0.1	<0.1	200	0
			Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1	<0.1	200	0
			Dibenzo(ah)anthracene	µg/L	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	µg/L	0.1	<0.1	<0.1	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	µg/L	-	0.3	0.3	30	4
			2-fluorobiphenyl (Surrogate)	µg/L	-	0.3	0.3	30	4
			d14-p-terphenyl (Surrogate)	µg/L	-	0.3	0.3	30	9

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170024.034	LB131957.014		Arochlor 1016	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1221	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1232	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1242	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1248	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1254	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1260	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1262	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1268	mg/kg	0.2	<0.2	<0.2	200	0
			Total PCBs (Arochlors)	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	30	0

Total Recoverable Metals in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170024.012	LB132070.014	Arsenic, As	mg/kg	3	9	9	41	7
		Cadmium, Cd	mg/kg	0.3	0.7	0.5	79	22
		Chromium, Cr	mg/kg	0.3	18	17	33	8

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.

Total Recoverable Metals in Soil/Waste Solids/Materials by ICPOES (continued) — **Method: ME-(AU)-[ENV]AN040/AN320**

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170024.012	LB132070.014	Copper, Cu	mg/kg	0.5	30	30	32	2
		Lead, Pb	mg/kg	1	22	18	35	20
		Nickel, Ni	mg/kg	0.5	11	11	35	2
		Zinc, Zn	mg/kg	0.5	44	42	35	4
SE170024.043	LB132070.024	Arsenic, As	mg/kg	3	6	7	46	9
		Cadmium, Cd	mg/kg	0.3	0.4	0.4	104	2
		Chromium, Cr	mg/kg	0.3	13	15	34	13
		Copper, Cu	mg/kg	0.5	28	32	32	15
		Lead, Pb	mg/kg	1	12	15	37	22
		Nickel, Ni	mg/kg	0.5	19	24	32	20
		Zinc, Zn	mg/kg	0.5	47	51	34	8
SE170024.070	LB132071.014	Arsenic, As	mg/kg	3	4	4	56	17
		Cadmium, Cd	mg/kg	0.3	0.8	0.8	67	5
		Chromium, Cr	mg/kg	0.3	26	24	32	8
		Copper, Cu	mg/kg	0.5	51	53	31	4
		Lead, Pb	mg/kg	1	27	30	34	10
		Nickel, Ni	mg/kg	0.5	54	55	31	2
		Zinc, Zn	mg/kg	0.5	130	130	32	4
SE170024.119	LB132071.024	Arsenic, As	mg/kg	3	9	10	41	15
		Cadmium, Cd	mg/kg	0.3	0.5	1.1	67	70 ②
		Chromium, Cr	mg/kg	0.3	15	18	33	20
		Copper, Cu	mg/kg	0.5	37	34	31	8
		Lead, Pb	mg/kg	1	16	20	36	18
		Nickel, Ni	mg/kg	0.5	8.3	8.0	36	5
		Zinc, Zn	mg/kg	0.5	43	51	34	17
SE170024.129	LB132072.014	Arsenic, As	mg/kg	3	4	4	53	4
		Cadmium, Cd	mg/kg	0.3	0.4	0.5	100	15
		Chromium, Cr	mg/kg	0.3	14	15	34	5
		Copper, Cu	mg/kg	0.5	47	51	31	8
		Lead, Pb	mg/kg	1	15	17	36	13
		Nickel, Ni	mg/kg	0.5	15	15	33	1
		Zinc, Zn	mg/kg	0.5	64	66	33	3
SE170024.138	LB132072.024	Arsenic, As	mg/kg	3	8	8	42	1
		Cadmium, Cd	mg/kg	0.3	0.5	0.7	81	21
		Chromium, Cr	mg/kg	0.3	16	16	33	4
		Copper, Cu	mg/kg	0.5	64	63	31	2
		Lead, Pb	mg/kg	1	18	18	36	2
		Nickel, Ni	mg/kg	0.5	20	21	32	3
		Zinc, Zn	mg/kg	0.5	75	76	33	1
SE170024.150	LB132073.014	Arsenic, As	mg/kg	3	12	9	39	21
		Cadmium, Cd	mg/kg	0.3	0.6	0.7	75	5
		Chromium, Cr	mg/kg	0.3	19	16	33	14
		Copper, Cu	mg/kg	0.5	26	27	32	5
		Lead, Pb	mg/kg	1	20	23	35	16
		Nickel, Ni	mg/kg	0.5	7.7	8.7	36	12
		Zinc, Zn	mg/kg	0.5	38	46	35	19
SE170107.004	LB132073.024	Arsenic, As	mg/kg	3	<3	<3	66	0
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	197	0
		Chromium, Cr	mg/kg	0.3	8.5	7.9	36	7
		Copper, Cu	mg/kg	0.5	6.8	5.4	38	24
		Lead, Pb	mg/kg	1	6	6	47	4
		Nickel, Ni	mg/kg	0.5	3.4	3.2	45	7
		Zinc, Zn	mg/kg	0.5	17	15	43	13

Trace Metals (Dissolved) in Water by ICPMS — **Method: ME-(AU)-[ENV]AN318**

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170049.004	LB131926.014	Arsenic, As	µg/L	1	3	3	51	1
		Cadmium, Cd	µg/L	0.1	0.3	0.3	46	6
		Chromium, Cr	µg/L	1	<1	<1	200	0
		Copper, Cu	µg/L	1	2	2	61	1
		Lead, Pb	µg/L	1	<1	<1	200	0

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.

Trace Metals (Dissolved) in Water by ICPMS (continued)

Method: ME-(AU)-[ENV]AN318

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170049.004	LB131926.014		Nickel, Ni	µg/L	1	24	24	19	0
			Zinc, Zn	µg/L	5	120	120	19	0

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170000.005	LB132012.014		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	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16 (F2)	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 (F2) - Naphthalene	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
SE170024.034	LB131957.014		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	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16 (F2)	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 (F2) - Naphthalene	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
SE170024.061	LB131957.025		TRH C10-C14	mg/kg	20	<20	<20	200	0
			TRH C15-C28	mg/kg	45	<45	<45	200	0
			TRH C29-C36	mg/kg	45	<45	<45	200	0
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
			TRH C10-C40 Total	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16 (F2)	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 (F2) - Naphthalene	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
SE170024.085	LB131958.027		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	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16 (F2)	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 (F2) - Naphthalene	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
SE170042.002	LB132012.026		TRH C10-C14	mg/kg	20	<20	0	200	0
			TRH C15-C28	mg/kg	45	<45	0	200	0
			TRH C29-C36	mg/kg	45	<45	0	200	0
			TRH C37-C40	mg/kg	100	<100	0	200	0
			TRH C10-C36 Total	mg/kg	110	<110	0	200	0
			TRH C10-C40 Total	mg/kg	210	<210	0	200	0
		TRH F Bands	TRH >C10-C16 (F2)	mg/kg	25	<25	0	200	0
			TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	<25	0	200	0
			TRH >C16-C34 (F3)	mg/kg	90	<90	0	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	0	200	0

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE169995.001	LB132091.023	TRH C10-C14	µg/L	50	<50	<50	200	0
		TRH C15-C28	µg/L	200	<200	<200	200	0
		TRH C29-C36	µg/L	200	<200	<200	200	0
		TRH C37-C40	µg/L	200	<200	<200	200	0

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.

TRH (Total Recoverable Hydrocarbons) in Water (continued)

Method: ME-(AU)-[ENV]AN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE169995.001	LB132091.023		TRH C10-C36	µg/L	450	<450	<450	200	0
			TRH C10-C40	µg/L	650	<650	<650	200	0
		TRH F Bands	TRH >C10-C16 (F2)	µg/L	60	<60	<60	200	0
			TRH >C16-C34 (F3)	µg/L	500	<500	<500	200	0
			TRH >C34-C40 (F4)	µg/L	500	<500	<500	200	0

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170024.034	LB132005.014	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	4.0	4.0	50	1
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	4.0	4.0	50	1
			d8-toluene (Surrogate)	mg/kg	-	6.0	6.1	50	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	4.2	4.3	50	1
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0
SE170024.061	LB132005.025	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	4.4	4.0	50	10
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	4.5	4.1	50	8
			d8-toluene (Surrogate)	mg/kg	-	6.1	6.5	50	5
			Bromofluorobenzene (Surrogate)	mg/kg	-	4.2	3.8	50	9
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0
SE170024.086	LB132006.015	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	6.4	6.1	50	5
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	6.4	6.1	50	5
			d8-toluene (Surrogate)	mg/kg	-	5.6	5.8	50	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	4.6	4.6	50	0
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0
SE170024.155	LB132006.031	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	6.5	4.9	50	28
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	5.6	5.2	50	7
			d8-toluene (Surrogate)	mg/kg	-	5.3	4.1	50	25
			Bromofluorobenzene (Surrogate)	mg/kg	-	5.6	5.0	50	12
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR

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.

VOCs in Water (continued)

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE169995.004	LB131967.027	Monocyclic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
		Aromatic	Toluene	µg/L	0.5	<0.5	<0.5	200	0
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	µg/L	0.5	<0.5	<0.5	200	0
		Polycyclic	Naphthalene	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	µg/L	-	4.2	5.4	30	25
			d4-1,2-dichloroethane (Surrogate)	µg/L	-	3.9	4.6	30	17
			d8-toluene (Surrogate)	µg/L	-	5.4	6.3	30	15
			Bromofluorobenzene (Surrogate)	µg/L	-	4.3	4.6	30	6
SE170024.148	LB131967.028	Monocyclic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
		Aromatic	Toluene	µg/L	0.5	<0.5	<0.5	200	0
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	µg/L	0.5	<0.5	<0.5	200	0
		Polycyclic	Naphthalene	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	µg/L	-	4.4	5.2	30	18
			d4-1,2-dichloroethane (Surrogate)	µg/L	-	3.7	4.8	30	25
			d8-toluene (Surrogate)	µg/L	-	4.7	5.0	30	6
			Bromofluorobenzene (Surrogate)	µg/L	-	4.2	4.6	30	9

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170024.034	LB132005.014		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	4.0	4.0	30	1
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	4.0	4.0	30	1
			d8-toluene (Surrogate)	mg/kg	-	6.0	6.1	30	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	4.2	4.3	30	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
SE170024.061	LB132005.025		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	4.4	4.0	30	10
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	4.5	4.1	30	8
			d8-toluene (Surrogate)	mg/kg	-	6.1	6.5	30	5
			Bromofluorobenzene (Surrogate)	mg/kg	-	4.2	3.8	30	9
		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
SE170024.086	LB132006.015		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	6.4	6.1	30	5
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	6.4	6.1	30	5
			d8-toluene (Surrogate)	mg/kg	-	5.6	5.8	30	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	4.6	4.6	30	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
SE170024.155	LB132006.031		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	6.5	4.9	30	28
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	5.6	5.2	30	7
			d8-toluene (Surrogate)	mg/kg	-	5.3	4.1	30	25
			Bromofluorobenzene (Surrogate)	mg/kg	-	5.6	5.0	30	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

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE169995.004	LB131967.027		TRH C6-C10	µg/L	50	<50	<50	200	0
			TRH C6-C9	µg/L	40	<40	<40	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	µg/L	-	4.2	5.4	30	25
			d4-1,2-dichloroethane (Surrogate)	µg/L	-	3.9	4.6	30	17

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.

Volatile Petroleum Hydrocarbons in Water (continued) — **Method: ME-(AU)-[ENV]AN433**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE169995.004	LB131967.027	Surrogates	d8-toluene (Surrogate)	µg/L	-	5.4	6.3	30	15
			Bromofluorobenzene (Surrogate)	µg/L	-	4.3	4.6	30	6
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
			TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200	0
SE170024.148	LB131967.028		TRH C6-C10	µg/L	50	<50	<50	200	0
			TRH C6-C9	µg/L	40	<40	<40	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	µg/L	-	4.4	5.2	30	18
			d4-1,2-dichloroethane (Surrogate)	µg/L	-	3.7	4.8	30	25
			d8-toluene (Surrogate)	µg/L	-	4.7	5.0	30	6
			Bromofluorobenzene (Surrogate)	µg/L	-	4.2	4.6	30	9
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
			TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200	0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB132109.002		Mercury	mg/kg	0.05	0.22	0.2	70 - 130	111
LB132110.002		Mercury	mg/kg	0.05	0.19	0.2	70 - 130	96
LB132111.002		Mercury	mg/kg	0.05	0.21	0.2	70 - 130	103
LB132112.002		Mercury	mg/kg	0.05	0.18	0.2	70 - 130	90
LB132138.002		Mercury	mg/kg	0.05	0.18	0.2	70 - 130	92

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB131957.002		Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	117
		Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	123
		Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	121
		Dieldrin	mg/kg	0.2	0.2	0.2	60 - 140	114
		Endrin	mg/kg	0.2	0.2	0.2	60 - 140	109
		p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	97
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.15	0.15	40 - 130	97
LB131958.002		Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	116
		Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	121
		Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	121
		Dieldrin	mg/kg	0.2	0.2	0.2	60 - 140	112
		Endrin	mg/kg	0.2	0.2	0.2	60 - 140	101
		p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	109
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.15	0.15	40 - 130	99
LB131959.002		Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	112
		Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	114
		Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	116
		Dieldrin	mg/kg	0.2	0.2	0.2	60 - 140	106
		Endrin	mg/kg	0.2	<0.2	0.2	60 - 140	96
		p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	100
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.15	40 - 130	94
LB132012.002		Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	125
		Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	124
		Delta BHC	mg/kg	0.1	0.3	0.2	60 - 140	125
		Dieldrin	mg/kg	0.2	0.2	0.2	60 - 140	122
		Endrin	mg/kg	0.2	0.2	0.2	60 - 140	122
		p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	124
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.15	40 - 130	95

OC Pesticides in Water

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB132091.002		Heptachlor	µg/L	0.1	0.2	0.2	60 - 140	106
		Aldrin	µg/L	0.1	0.2	0.2	60 - 140	96
		Delta BHC	µg/L	0.1	0.2	0.2	60 - 140	107
		Dieldrin	µg/L	0.1	0.2	0.2	60 - 140	101
		Endrin	µg/L	0.1	0.2	0.2	60 - 140	100
		p,p'-DDT	µg/L	0.1	0.2	0.2	60 - 140	104
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	µg/L	-	0.08	0.15	40 - 130	56

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB131957.002		Dichlorvos	mg/kg	0.5	1.7	2	60 - 140	85
		Diazinon (Dimpylate)	mg/kg	0.5	1.8	2	60 - 140	90
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.6	2	60 - 140	82
		Ethion	mg/kg	0.2	1.5	2	60 - 140	73
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	86
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	86
LB131958.002		Dichlorvos	mg/kg	0.5	1.6	2	60 - 140	80
		Diazinon (Dimpylate)	mg/kg	0.5	2.0	2	60 - 140	99
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.9	2	60 - 140	95
		Ethion	mg/kg	0.2	1.6	2	60 - 140	78
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	92
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	90
LB131959.002		Dichlorvos	mg/kg	0.5	2.0	2	60 - 140	99

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

OP Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB131959.002		Diazinon (Dimpylate)	mg/kg	0.5	1.8	2	60 - 140	88
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.8	2	60 - 140	92
		Ethion	mg/kg	0.2	1.4	2	60 - 140	71
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	82
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	94
LB132012.002		Dichlorvos	mg/kg	0.5	2.0	2	60 - 140	100
		Diazinon (Dimpylate)	mg/kg	0.5	1.8	2	60 - 140	89
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.8	2	60 - 140	92
		Ethion	mg/kg	0.2	1.5	2	60 - 140	73
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	84
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	96

OP Pesticides in Water

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB132091.002		Dichlorvos	µg/L	0.5	9.1	8	60 - 140	114
		Diazinon (Dimpylate)	µg/L	0.5	8.8	8	60 - 140	110
		Chlorpyrifos (Chlorpyrifos Ethyl)	µg/L	0.2	8.0	8	60 - 140	100
		Ethion	µg/L	0.2	6.1	8	60 - 140	76
	Surrogates	2-fluorobiphenyl (Surrogate)	µg/L	-	0.3	0.5	40 - 130	60
		d14-p-terphenyl (Surrogate)	µg/L	-	0.3	0.5	40 - 130	62

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB131957.002		Naphthalene	mg/kg	0.1	3.8	4	60 - 140	94
		Acenaphthylene	mg/kg	0.1	3.7	4	60 - 140	91
		Acenaphthene	mg/kg	0.1	3.6	4	60 - 140	90
		Phenanthrene	mg/kg	0.1	3.7	4	60 - 140	93
		Anthracene	mg/kg	0.1	3.7	4	60 - 140	93
		Fluoranthene	mg/kg	0.1	3.6	4	60 - 140	90
		Pyrene	mg/kg	0.1	3.6	4	60 - 140	90
		Benzo(a)pyrene	mg/kg	0.1	4.0	4	60 - 140	101
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.5	40 - 130	112
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	86
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	86
LB131958.002		Naphthalene	mg/kg	0.1	4.1	4	60 - 140	103
		Acenaphthylene	mg/kg	0.1	3.9	4	60 - 140	98
		Acenaphthene	mg/kg	0.1	4.2	4	60 - 140	104
		Phenanthrene	mg/kg	0.1	4.1	4	60 - 140	103
		Anthracene	mg/kg	0.1	4.1	4	60 - 140	103
		Fluoranthene	mg/kg	0.1	4.0	4	60 - 140	100
		Pyrene	mg/kg	0.1	3.9	4	60 - 140	98
		Benzo(a)pyrene	mg/kg	0.1	3.9	4	60 - 140	96
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	96
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	92
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	90
LB131959.002		Naphthalene	mg/kg	0.1	4.3	4	60 - 140	108
		Acenaphthylene	mg/kg	0.1	3.5	4	60 - 140	88
		Acenaphthene	mg/kg	0.1	3.9	4	60 - 140	97
		Phenanthrene	mg/kg	0.1	3.6	4	60 - 140	91
		Anthracene	mg/kg	0.1	3.5	4	60 - 140	88
		Fluoranthene	mg/kg	0.1	4.7	4	60 - 140	116
		Pyrene	mg/kg	0.1	4.2	4	60 - 140	104
		Benzo(a)pyrene	mg/kg	0.1	3.8	4	60 - 140	96
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	86
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	82
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	94
LB132012.002		Naphthalene	mg/kg	0.1	4.3	4	60 - 140	107
		Acenaphthylene	mg/kg	0.1	3.5	4	60 - 140	88
		Acenaphthene	mg/kg	0.1	3.8	4	60 - 140	95
		Phenanthrene	mg/kg	0.1	3.7	4	60 - 140	92
		Anthracene	mg/kg	0.1	3.7	4	60 - 140	92
		Fluoranthene	mg/kg	0.1	4.8	4	60 - 140	119

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 %
LB132012.002		Pyrene	mg/kg	0.1	4.4	4	60 - 140	110
		Benzo(a)pyrene	mg/kg	0.1	4.0	4	60 - 140	99
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	88
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	84
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	96

PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB132091.002		Naphthalene	µg/L	0.1	26	40	60 - 140	65
		Acenaphthylene	µg/L	0.1	27	40	60 - 140	68
		Acenaphthene	µg/L	0.1	28	40	60 - 140	71
		Phenanthrene	µg/L	0.1	27	40	60 - 140	68
		Anthracene	µg/L	0.1	28	40	60 - 140	69
		Fluoranthene	µg/L	0.1	33	40	60 - 140	83
		Pyrene	µg/L	0.1	28	40	60 - 140	69
		Benzo(a)pyrene	µg/L	0.1	36	40	60 - 140	89
	Surrogates	d5-nitrobenzene (Surrogate)	µg/L	-	0.3	0.5	40 - 130	58
		2-fluorobiphenyl (Surrogate)	µg/L	-	0.3	0.5	40 - 130	60
		d14-p-terphenyl (Surrogate)	µg/L	-	0.3	0.5	40 - 130	62

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB131957.002	Arochlor 1260	mg/kg	0.2	0.4	0.4	60 - 140	112
LB131958.002	Arochlor 1260	mg/kg	0.2	0.5	0.4	60 - 140	113

Total Recoverable Metals in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB132070.002	Arsenic, As	mg/kg	3	50	50	80 - 120	101
	Cadmium, Cd	mg/kg	0.3	51	50	80 - 120	103
	Chromium, Cr	mg/kg	0.3	52	50	80 - 120	105
	Copper, Cu	mg/kg	0.5	52	50	80 - 120	104
	Lead, Pb	mg/kg	1	53	50	80 - 120	106
	Nickel, Ni	mg/kg	0.5	53	50	80 - 120	106
	Zinc, Zn	mg/kg	0.5	53	50	80 - 120	105
LB132071.002	Arsenic, As	mg/kg	3	51	50	80 - 120	102
	Cadmium, Cd	mg/kg	0.3	53	50	80 - 120	106
	Chromium, Cr	mg/kg	0.3	53	50	80 - 120	106
	Copper, Cu	mg/kg	0.5	53	50	80 - 120	106
	Lead, Pb	mg/kg	1	53	50	80 - 120	107
	Nickel, Ni	mg/kg	0.5	54	50	80 - 120	107
	Zinc, Zn	mg/kg	0.5	54	50	80 - 120	108
LB132072.002	Arsenic, As	mg/kg	3	52	50	80 - 120	104
	Cadmium, Cd	mg/kg	0.3	53	50	80 - 120	106
	Chromium, Cr	mg/kg	0.3	54	50	80 - 120	107
	Copper, Cu	mg/kg	0.5	54	50	80 - 120	109
	Lead, Pb	mg/kg	1	54	50	80 - 120	107
	Nickel, Ni	mg/kg	0.5	54	50	80 - 120	108
	Zinc, Zn	mg/kg	0.5	54	50	80 - 120	108
LB132073.002	Arsenic, As	mg/kg	3	50	50	80 - 120	100
	Cadmium, Cd	mg/kg	0.3	51	50	80 - 120	103
	Chromium, Cr	mg/kg	0.3	52	50	80 - 120	104
	Copper, Cu	mg/kg	0.5	52	50	80 - 120	103
	Lead, Pb	mg/kg	1	52	50	80 - 120	105
	Nickel, Ni	mg/kg	0.5	53	50	80 - 120	105
	Zinc, Zn	mg/kg	0.5	52	50	80 - 120	104

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB131926.002	Arsenic, As	µg/L	1	21	20	80 - 120	103
	Cadmium, Cd	µg/L	0.1	20	20	80 - 120	99
	Chromium, Cr	µg/L	1	20	20	80 - 120	100
	Copper, Cu	µg/L	1	20	20	80 - 120	102

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.

Trace Metals (Dissolved) in Water by ICPMS (continued)

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB131926.002	Lead, Pb	µg/L	1	22	20	80 - 120	108
	Nickel, Ni	µg/L	1	20	20	80 - 120	99
	Zinc, Zn	µg/L	5	20	20	80 - 120	101

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB131957.002		TRH C10-C14	mg/kg	20	44	40	60 - 140	110
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	110
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	68
	TRH F Bands	TRH >C10-C16 (F2)	mg/kg	25	43	40	60 - 140	108
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	98
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	70
LB131958.002		TRH C10-C14	mg/kg	20	50	40	60 - 140	125
		TRH C15-C28	mg/kg	45	46	40	60 - 140	115
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	83
	TRH F Bands	TRH >C10-C16 (F2)	mg/kg	25	50	40	60 - 140	125
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	98
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	80
LB131959.002		TRH C10-C14	mg/kg	20	50	40	60 - 140	125
		TRH C15-C28	mg/kg	45	46	40	60 - 140	115
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	83
	TRH F Bands	TRH >C10-C16 (F2)	mg/kg	25	50	40	60 - 140	125
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	98
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	80
LB132012.002		TRH C10-C14	mg/kg	20	46	40	60 - 140	115
		TRH C15-C28	mg/kg	45	45	40	60 - 140	113
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	83
	TRH F Bands	TRH >C10-C16 (F2)	mg/kg	25	47	40	60 - 140	118
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	100
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	75

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB132091.002		TRH C10-C14	µg/L	50	980	1200	60 - 140	81
		TRH C15-C28	µg/L	200	1300	1200	60 - 140	106
		TRH C29-C36	µg/L	200	1400	1200	60 - 140	114
	TRH F Bands	TRH >C10-C16 (F2)	µg/L	60	1100	1200	60 - 140	94
		TRH >C16-C34 (F3)	µg/L	500	1400	1200	60 - 140	114
		TRH >C34-C40 (F4)	µg/L	500	700	600	60 - 140	117

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB132005.002	Monocyclic	Benzene	mg/kg	0.1	1.8	2.9	60 - 140	62
	Aromatic	Toluene	mg/kg	0.1	1.8	2.9	60 - 140	63
		Ethylbenzene	mg/kg	0.1	1.8	2.9	60 - 140	63
		m/p-xylene	mg/kg	0.2	3.8	5.8	60 - 140	66
		o-xylene	mg/kg	0.1	1.9	2.9	60 - 140	65
	Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	3.9	5	60 - 140	78
		d4-1,2-dichloroethane (Surrogate)	mg/kg	-	4.1	5	60 - 140	81
		d8-toluene (Surrogate)	mg/kg	-	5.1	5	60 - 140	101
		Bromofluorobenzene (Surrogate)	mg/kg	-	4.8	5	60 - 140	97
LB132006.002	Monocyclic	Benzene	mg/kg	0.1	2.6	2.9	60 - 140	89
	Aromatic	Toluene	mg/kg	0.1	2.6	2.9	60 - 140	89
		Ethylbenzene	mg/kg	0.1	2.1	2.9	60 - 140	72
		m/p-xylene	mg/kg	0.2	5.1	5.8	60 - 140	87
		o-xylene	mg/kg	0.1	2.4	2.9	60 - 140	83
	Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	5.5	5	60 - 140	109
		d4-1,2-dichloroethane (Surrogate)	mg/kg	-	5.6	5	60 - 140	112
		d8-toluene (Surrogate)	mg/kg	-	4.8	5	60 - 140	96
		Bromofluorobenzene (Surrogate)	mg/kg	-	5.7	5	60 - 140	115

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Number	Parameter	Units	LOR

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.

VOCs in Water (continued)

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB131967.002	Monocyclic	Benzene	µg/L	0.5	50	45.45	60 - 140	110
	Aromatic	Toluene	µg/L	0.5	50	45.45	60 - 140	109
		Ethylbenzene	µg/L	0.5	50	45.45	60 - 140	109
		m/p-xylene	µg/L	1	99	90.9	60 - 140	109
		o-xylene	µg/L	0.5	50	45.45	60 - 140	109
	Surrogates	Dibromofluoromethane (Surrogate)	µg/L	-	5.0	5	60 - 140	100
		d4-1,2-dichloroethane (Surrogate)	µg/L	-	4.9	5	60 - 140	99
		d8-toluene (Surrogate)	µg/L	-	3.9	5	60 - 140	79
		Bromofluorobenzene (Surrogate)	µg/L	-	5.1	5	60 - 140	103

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB132005.002		TRH C6-C10	mg/kg	25	<25	24.65	60 - 140	77
		TRH C6-C9	mg/kg	20	<20	23.2	60 - 140	75
	Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	3.9	5	60 - 140	78
		d4-1,2-dichloroethane (Surrogate)	mg/kg	-	4.1	5	60 - 140	81
		d8-toluene (Surrogate)	mg/kg	-	5.1	5	60 - 140	101
		Bromofluorobenzene (Surrogate)	mg/kg	-	4.8	5	60 - 140	97
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	7.25	60 - 140	110
LB132006.002		TRH C6-C10	mg/kg	25	<25	24.65	60 - 140	96
		TRH C6-C9	mg/kg	20	22	23.2	60 - 140	95
	Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	5.5	5	60 - 140	109
		d4-1,2-dichloroethane (Surrogate)	mg/kg	-	5.6	5	60 - 140	112
		d8-toluene (Surrogate)	mg/kg	-	4.8	5	60 - 140	96
		Bromofluorobenzene (Surrogate)	mg/kg	-	5.7	5	60 - 140	115
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	7.25	60 - 140	122

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB131967.002		TRH C6-C10	µg/L	50	940	946.63	60 - 140	99
		TRH C6-C9	µg/L	40	770	818.71	60 - 140	94
	Surrogates	Dibromofluoromethane (Surrogate)	µg/L	-	4.9	5	60 - 140	99
		d4-1,2-dichloroethane (Surrogate)	µg/L	-	5.0	5	60 - 140	99
		d8-toluene (Surrogate)	µg/L	-	5.1	5	60 - 140	101
		Bromofluorobenzene (Surrogate)	µg/L	-	5.2	5	60 - 140	104
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	640	639.67	60 - 140	100

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 (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE169971.002	LB132176.004	Mercury	mg/L	0.0001	0.0078	<0.0001	0.008	97

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE170000.001	LB132109.004	Mercury	mg/kg	0.05	0.18	<0.05	0.2	80
SE170024.026	LB132110.004	Mercury	mg/kg	0.05	0.20	<0.05	0.2	89
SE170024.083	LB132111.004	Mercury	mg/kg	0.05	0.17	<0.05	0.2	70
SE170024.133	LB132112.004	Mercury	mg/kg	0.05	0.17	<0.05	0.2	76
SE170167.001	LB132138.004	Mercury	mg/kg	0.05	0.55	0.34	0.2	109

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE169998.001	LB132012.026		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	-	-
			Lindane	mg/kg	0.1	<0.1	<0.1	-	-
			Heptachlor	mg/kg	0.1	0.2	<0.1	0.2	125
			Aldrin	mg/kg	0.1	0.2	<0.1	0.2	119
			Beta BHC	mg/kg	0.1	<0.1	<0.1	-	-
			Delta BHC	mg/kg	0.1	0.2	<0.1	0.2	125
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	-	-
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	-	-
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
			Dieldrin	mg/kg	0.2	0.2	<0.2	0.2	120
			Endrin	mg/kg	0.2	0.2	<0.2	0.2	117
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	-	-
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
			p,p'-DDT	mg/kg	0.1	0.2	<0.1	0.2	117
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	-	-
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	-	-
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	-	-
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	-	-
			Isodrin	mg/kg	0.1	<0.1	<0.1	-	-
			Mirex	mg/kg	0.1	<0.1	<0.1	-	-
			Total CLP OC Pesticides	mg/kg	1	1	<1	-	-
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.13	0.13	-	85
SE170024.001	LB131957.026		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	-	-
			Lindane	mg/kg	0.1	<0.1	<0.1	-	-
			Heptachlor	mg/kg	0.1	0.2	<0.1	0.2	112
			Aldrin	mg/kg	0.1	0.2	<0.1	0.2	120
			Beta BHC	mg/kg	0.1	<0.1	<0.1	-	-
			Delta BHC	mg/kg	0.1	0.2	<0.1	0.2	120
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	-	-
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	-	-
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
			Dieldrin	mg/kg	0.2	0.2	<0.2	0.2	112
			Endrin	mg/kg	0.2	0.2	<0.2	0.2	112
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	-	-

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OC Pesticides in Soil (continued) — **Method: ME-(AU)-[ENV]AN420**

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE170024.001	LB131957.026		Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
			p,p'-DDT	mg/kg	0.1	0.2	<0.1	0.2	78
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	-	-
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	-	-
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	-	-
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	-	-
			Isodrin	mg/kg	0.1	<0.1	<0.1	-	-
			Mirex	mg/kg	0.1	<0.1	<0.1	-	-
			Total CLP OC Pesticides	mg/kg	1	1	<1	-	-
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.15	-	94
SE170024.118	LB131958.028		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	-	-
			Lindane	mg/kg	0.1	<0.1	<0.1	-	-
			Heptachlor	mg/kg	0.1	0.2	<0.1	0.2	122
			Aldrin	mg/kg	0.1	0.2	<0.1	0.2	123
			Beta BHC	mg/kg	0.1	<0.1	<0.1	-	-
			Delta BHC	mg/kg	0.1	0.2	<0.1	0.2	123
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	-	-
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	-	-
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
			Dieldrin	mg/kg	0.2	0.2	<0.2	0.2	121
			Endrin	mg/kg	0.2	0.2	<0.2	0.2	120
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	-	-
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
			p,p'-DDT	mg/kg	0.1	0.2	<0.1	0.2	90
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	-	-
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	-	-
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	-	-
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	-	-
			Isodrin	mg/kg	0.1	<0.1	<0.1	-	-
			Mirex	mg/kg	0.1	<0.1	<0.1	-	-
			Total CLP OC Pesticides	mg/kg	1	1	<1	-	-
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.15	0.15	-	98
SE170024.128	LB131959.029		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	-	-
			Lindane	mg/kg	0.1	<0.1	<0.1	-	-
			Heptachlor	mg/kg	0.1	0.2	<0.1	0.2	118
			Aldrin	mg/kg	0.1	0.3	<0.1	0.2	125
			Beta BHC	mg/kg	0.1	<0.1	<0.1	-	-
			Delta BHC	mg/kg	0.1	0.2	<0.1	0.2	124
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	-	-
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	-	-
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
			Dieldrin	mg/kg	0.2	0.2	<0.2	0.2	117
			Endrin	mg/kg	0.2	0.2	<0.2	0.2	111
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	-	-
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
			p,p'-DDT	mg/kg	0.1	0.2	<0.1	0.2	86

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OC Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE170024.128	LB131959.029		Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	-	-
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	-	-
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	-	-
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	-	-
			Isodrin	mg/kg	0.1	<0.1	<0.1	-	-
			Mirex	mg/kg	0.1	<0.1	<0.1	-	-
			Total CLP OC Pesticides	mg/kg	1	1	<1	-	-
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.15	0.14	-	97

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE169998.001	LB132012.026		Dichlorvos	mg/kg	0.5	1.8	<0.5	2	88
			Dimethoate	mg/kg	0.5	<0.5	<0.5	-	-
			Diazinon (Dimpylate)	mg/kg	0.5	1.7	<0.5	2	87
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	-	-
			Malathion	mg/kg	0.2	<0.2	<0.2	-	-
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	2.1	<0.2	2	103
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	-	-
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	-	-
			Methidathion	mg/kg	0.5	<0.5	<0.5	-	-
			Ethion	mg/kg	0.2	1.5	<0.2	2	75
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	-	-
			Total OP Pesticides*	mg/kg	1.7	7.1	<1.7	-	-
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	82
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	90
SE170024.001	LB131957.026		Dichlorvos	mg/kg	0.5	1.5	<0.5	2	74
			Dimethoate	mg/kg	0.5	<0.5	<0.5	-	-
			Diazinon (Dimpylate)	mg/kg	0.5	1.7	<0.5	2	86
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	-	-
			Malathion	mg/kg	0.2	<0.2	<0.2	-	-
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.5	<0.2	2	76
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	-	-
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	-	-
			Methidathion	mg/kg	0.5	<0.5	<0.5	-	-
			Ethion	mg/kg	0.2	1.6	<0.2	2	78
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	-	-
			Total OP Pesticides*	mg/kg	1.7	6.5	<1.7	-	-
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	94
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	90
SE170024.065	LB131958.026		Dichlorvos	mg/kg	0.5	1.6	<0.5	2	82
			Dimethoate	mg/kg	0.5	<0.5	<0.5	-	-
			Diazinon (Dimpylate)	mg/kg	0.5	1.6	<0.5	2	79
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	-	-
			Malathion	mg/kg	0.2	<0.2	<0.2	-	-
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.6	<0.2	2	78
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	-	-
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	-	-
			Methidathion	mg/kg	0.5	<0.5	<0.5	-	-
			Ethion	mg/kg	0.2	1.6	<0.2	2	81
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	-	-
			Total OP Pesticides*	mg/kg	1.7	6.6	<1.7	-	-
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	90
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	-	88
SE170024.129	LB131959.026		Dichlorvos	mg/kg	0.5	1.9	<0.5	2	95
			Dimethoate	mg/kg	0.5	<0.5	<0.5	-	-
			Diazinon (Dimpylate)	mg/kg	0.5	1.7	<0.5	2	83
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	-	-
			Malathion	mg/kg	0.2	<0.2	<0.2	-	-
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.6	<0.2	2	81
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	-	-
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	-	-

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OP Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE170024.129	LB131959.026		Methidathion	mg/kg	0.5	<0.5	<0.5	-	-
			Ethion	mg/kg	0.2	1.5	<0.2	2	73
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	-	-
			Total OP Pesticides*	mg/kg	1.7	6.6	<1.7	-	-
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	94
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	98

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE169998.001	LB132012.026		Naphthalene	mg/kg	0.1	4.3	<0.1	4	107
			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	3.4	<0.1	4	84
			Acenaphthene	mg/kg	0.1	3.8	<0.1	4	95
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	3.3	<0.1	4	83
			Anthracene	mg/kg	0.1	3.4	<0.1	4	86
			Fluoranthene	mg/kg	0.1	3.7	<0.1	4	93
			Pyrene	mg/kg	0.1	3.1	<0.1	4	77
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
			Chrysene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(a)pyrene	mg/kg	0.1	3.8	<0.1	4	95
			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	0.2	3.8	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	3.9	<0.3	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	3.9	<0.2	-	-
			Total PAH (18)	mg/kg	0.8	29	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	-	76
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	82
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	90
SE170024.001	LB131957.026		Naphthalene	mg/kg	0.1	3.9	<0.1	4	98
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
			Acenaphthylene	mg/kg	0.1	3.8	<0.1	4	95
			Acenaphthene	mg/kg	0.1	3.8	<0.1	4	95
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	3.9	<0.1	4	96
			Anthracene	mg/kg	0.1	3.8	<0.1	4	96
			Fluoranthene	mg/kg	0.1	3.7	<0.1	4	93
			Pyrene	mg/kg	0.1	3.7	<0.1	4	93
			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	4.1	<0.1	4	101
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	-	-
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ	0.2	4.1	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	4.2	<0.3	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	4.1	<0.2	-	-
			Total PAH (18)	mg/kg	0.8	31	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.6	-	118
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	94
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	90
SE170024.065	LB131958.026		Naphthalene	mg/kg	0.1	4.1	<0.1	4	101
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason 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%
SE170024.065	LB131958.026		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	101
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.0	<0.1	4	99
			Anthracene	mg/kg	0.1	4.0	<0.1	4	100
			Fluoranthene	mg/kg	0.1	4.0	<0.1	4	99
			Pyrene	mg/kg	0.1	3.8	<0.1	4	95
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
			Chrysene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(a)pyrene	mg/kg	0.1	3.7	<0.1	4	92
			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	0.2	3.7	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	3.8	<0.3	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	3.8	<0.2	-	-
			Total PAH (18)	mg/kg	0.8	31	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	-	92
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	90
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	-	88

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE170024.001	LB131957.026		Arochlor 1016	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1221	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1232	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1242	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1248	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1254	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1260	mg/kg	0.2	0.5	<0.2	0.4	114
			Arochlor 1262	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1268	mg/kg	0.2	<0.2	<0.2	-	-
			Total PCBs (Arochlors)	mg/kg	1	<1	<1	-	-
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	-	101

Total Recoverable Metals in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE170024.046	LB132071.004	Arsenic, As	mg/kg	3	51	8	50	87
		Cadmium, Cd	mg/kg	0.3	45	0.7	50	89
		Chromium, Cr	mg/kg	0.3	59	12	50	94
		Copper, Cu	mg/kg	0.5	74	25	50	99
		Lead, Pb	mg/kg	1	59	17	50	85
		Nickel, Ni	mg/kg	0.5	59	18	50	83
		Zinc, Zn	mg/kg	0.5	97	62	50	69 ④
SE170024.120	LB132072.004	Arsenic, As	mg/kg	3	51	11	50	79
		Cadmium, Cd	mg/kg	0.3	43	0.8	50	83
		Chromium, Cr	mg/kg	0.3	61	20	50	81
		Copper, Cu	mg/kg	0.5	87	45	50	85
		Lead, Pb	mg/kg	1	59	22	50	75
		Nickel, Ni	mg/kg	0.5	55	12	50	86
		Zinc, Zn	mg/kg	0.5	99	52	50	96
SE170024.139	LB132073.004	Arsenic, As	mg/kg	3	56	10	50	91
		Cadmium, Cd	mg/kg	0.3	45	0.5	50	90
		Chromium, Cr	mg/kg	0.3	64	17	50	93
		Copper, Cu	mg/kg	0.5	100	57	50	87
		Lead, Pb	mg/kg	1	61	20	50	82
		Nickel, Ni	mg/kg	0.5	70	27	50	87
		Zinc, Zn	mg/kg	0.5	110	68	50	86
SE170152.005	LB132070.004	Arsenic, As	mg/kg	3	49	<3	50	96

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 Metals 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%
SE170152.005	LB132070.004	Cadmium, Cd	mg/kg	0.3	51	<0.3	50	102
		Chromium, Cr	mg/kg	0.3	63	10	50	107
		Copper, Cu	mg/kg	0.5	56	1.8	50	108
		Lead, Pb	mg/kg	1	64	15	50	98
		Nickel, Ni	mg/kg	0.5	54	2.6	50	102
		Zinc, Zn	mg/kg	0.5	81	26	50	110

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE170024.147	LB131926.004	Arsenic, As	µg/L	1	24	1	20	113
		Cadmium, Cd	µg/L	0.1	21	<0.1	20	103
		Chromium, Cr	µg/L	1	20	<1	20	101
		Copper, Cu	µg/L	1	18	1	20	82
		Lead, Pb	µg/L	1	18	<1	20	91
		Nickel, Ni	µg/L	1	21	2	20	94
		Zinc, Zn	µg/L	5	230	320	20	-466 ⑤

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE169998.001	LB132012.027		TRH C10-C14	mg/kg	20	34	<20	40	85
			TRH C15-C28	mg/kg	45	<45	<45	40	95
			TRH C29-C36	mg/kg	45	<45	<45	40	80
			TRH C37-C40	mg/kg	100	<100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	<110	<110	-	-
			TRH C10-C40 Total	mg/kg	210	<210	<210	-	-
		TRH F Bands	TRH >C10-C16 (F2)	mg/kg	25	36	<25	40	90
			TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	36	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	95
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE170024.001	LB131957.026		TRH C10-C14	mg/kg	20	40	<20	40	100
			TRH C15-C28	mg/kg	45	<45	<45	40	98
			TRH C29-C36	mg/kg	45	<45	<45	40	63
			TRH C37-C40	mg/kg	100	<100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	<110	<110	-	-
			TRH C10-C40 Total	mg/kg	210	<210	<210	-	-
		TRH F Bands	TRH >C10-C16 (F2)	mg/kg	25	39	<25	40	98
			TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	39	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	85
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE170024.065	LB131958.026		TRH C10-C14	mg/kg	20	51	<20	40	128
			TRH C15-C28	mg/kg	45	47	<45	40	118
			TRH C29-C36	mg/kg	45	<45	<45	40	105
			TRH C37-C40	mg/kg	100	<100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	140	<110	-	-
			TRH C10-C40 Total	mg/kg	210	<210	<210	-	-
		TRH F Bands	TRH >C10-C16 (F2)	mg/kg	25	51	<25	40	128
			TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	51	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	118
			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%
SE170024.001	LB132005.004	Monocyclic	Benzene	mg/kg	0.1	1.9	<0.1	2.9	64
		Aromatic	Toluene	mg/kg	0.1	2.0	<0.1	2.9	69
			Ethylbenzene	mg/kg	0.1	2.2	<0.1	2.9	75
			m/p-xylene	mg/kg	0.2	4.6	<0.2	5.8	79
			o-xylene	mg/kg	0.1	2.3	<0.1	2.9	79
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	3.9	3.7	-	79
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	3.9	3.8	-	77
			d8-toluene (Surrogate)	mg/kg	-	5.1	5.1	-	103
			Bromofluorobenzene (Surrogate)	mg/kg	-	5.4	4.0	-	108

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%
SE170024.001	LB132005.004	Totals	Total Xylenes	mg/kg	0.3	6.9	<0.3	-	-
			Total BTEX	mg/kg	0.6	13	<0.6	-	-

VOCs in Water

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE169995.003	LB131967.029	Monocyclic	Benzene	µg/L	0.5	47	<0.5	45.45	104
		Aromatic	Toluene	µg/L	0.5	45	<0.5	45.45	99
			Ethylbenzene	µg/L	0.5	52	<0.5	45.45	114
			m/p-xylene	µg/L	1	99	<1	90.9	108
			o-xylene	µg/L	0.5	51	<0.5	45.45	112
		Polycyclic	Naphthalene	µg/L	0.5	63	<0.5	-	-
		Surrogates	Dibromofluoromethane (Surrogate)	µg/L	-	5.6	4.5	-	112
			d4-1,2-dichloroethane (Surrogate)	µg/L	-	4.8	3.7	-	96
			d8-toluene (Surrogate)	µg/L	-	4.8	5.1	-	96
			Bromofluorobenzene (Surrogate)	µg/L	-	5.2	4.7	-	104

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE170024.001	LB132005.004		TRH C6-C10	mg/kg	25	<25	<25	24.65	86
			TRH C6-C9	mg/kg	20	<20	<20	23.2	86
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	3.9	3.7	-	79
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	3.9	3.8	-	77
			d8-toluene (Surrogate)	mg/kg	-	5.1	5.1	-	103
			Bromofluorobenzene (Surrogate)	mg/kg	-	5.4	4.0	-	108
		VPH F	Benzene (F0)	mg/kg	0.1	1.9	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	7.25	115

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE169995.003	LB131967.029		TRH C6-C10	µg/L	50	840	<50	946.63	89
			TRH C6-C9	µg/L	40	760	<40	818.71	93
		Surrogates	Dibromofluoromethane (Surrogate)	µg/L	-	5.6	4.5	-	112
			d4-1,2-dichloroethane (Surrogate)	µg/L	-	4.8	3.7	-	96
			d8-toluene (Surrogate)	µg/L	-	4.8	5.1	-	96
			Bromofluorobenzene (Surrogate)	µg/L	-	5.2	4.7	-	104
		VPH F	Benzene (F0)	µg/L	0.5	47	<0.5	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	550	<50	639.67	86

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 end of this report for failure reasons.

QC Sample	Sample Number	Parameter	Units	LOR

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: http://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.
-	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 Analytical Report comments for further information.

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.

This test report shall not be reproduced, except in full.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

STATEMENT OF QA/QC PERFORMANCE

SE170024A R0

CLIENT DETAILS

Contact	Joel Heininger
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	joel.heininger@eiaustralia.com.au
Project	**E23529 230 Aldington Road, Kemps Creek A**
Order Number	**E23529**
Samples	162

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE170024A R0**
Date Received	20 Sep 2017
Date Reported	21 Sep 2017

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 and was supplied by the Client.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

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

Extraction Date	Moisture Content	3 items
	pH in soil (1:5)	5 items

SAMPLE SUMMARY

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	8 Soil
Date documentation received	20/9/17@3:41pm	Type of documentation received	Email
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	11.4°C	Sufficient sample for analysis	Yes
Turnaround time requested	Next Day		

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

HOLDING TIME SUMMARY

SE170024A 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 sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR)

Method: ME-(AU)-[ENV]AN122

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
C1	SE170024A.118	LB132663	04 Sep 2017	20 Sep 2017	02 Oct 2017	20 Sep 2017	02 Oct 2017	21 Sep 2017
C8	SE170024A.125	LB132663	04 Sep 2017	20 Sep 2017	02 Oct 2017	20 Sep 2017	02 Oct 2017	21 Sep 2017
C13	SE170024A.130	LB132663	04 Sep 2017	20 Sep 2017	02 Oct 2017	20 Sep 2017	02 Oct 2017	21 Sep 2017
C19	SE170024A.136	LB132663	04 Sep 2017	20 Sep 2017	02 Oct 2017	20 Sep 2017	02 Oct 2017	21 Sep 2017
C25	SE170024A.142	LB132663	04 Sep 2017	20 Sep 2017	02 Oct 2017	20 Sep 2017	02 Oct 2017	21 Sep 2017

Hexavalent Chromium in Soil UV/Vis

Method: ME-(AU)-[ENV]AN075/AN201

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH167_0.1-0.2	SE170024A.074	LB132689	04 Sep 2017	20 Sep 2017	02 Oct 2017	21 Sep 2017	28 Sep 2017	21 Sep 2017
BH201_0.3-0.4	SE170024A.087	LB132689	28 Aug 2017	20 Sep 2017	25 Sep 2017	21 Sep 2017	28 Sep 2017	21 Sep 2017
BH202_0.4-0.5	SE170024A.088	LB132689	28 Aug 2017	20 Sep 2017	25 Sep 2017	21 Sep 2017	28 Sep 2017	21 Sep 2017

Moisture Content

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH167_0.1-0.2	SE170024A.074	LB132664	04 Sep 2017	20 Sep 2017	18 Sep 2017	20 Sep 2017†	25 Sep 2017	21 Sep 2017
BH201_0.3-0.4	SE170024A.087	LB132664	28 Aug 2017	20 Sep 2017	11 Sep 2017	20 Sep 2017†	25 Sep 2017	21 Sep 2017
BH202_0.4-0.5	SE170024A.088	LB132664	28 Aug 2017	20 Sep 2017	11 Sep 2017	20 Sep 2017†	25 Sep 2017	21 Sep 2017

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
C1	SE170024A.118	LB132688	04 Sep 2017	20 Sep 2017	11 Sep 2017	21 Sep 2017†	22 Sep 2017	21 Sep 2017
C8	SE170024A.125	LB132688	04 Sep 2017	20 Sep 2017	11 Sep 2017	21 Sep 2017†	22 Sep 2017	21 Sep 2017
C13	SE170024A.130	LB132688	04 Sep 2017	20 Sep 2017	11 Sep 2017	21 Sep 2017†	22 Sep 2017	21 Sep 2017
C19	SE170024A.136	LB132688	04 Sep 2017	20 Sep 2017	11 Sep 2017	21 Sep 2017†	22 Sep 2017	21 Sep 2017
C25	SE170024A.142	LB132688	04 Sep 2017	20 Sep 2017	11 Sep 2017	21 Sep 2017†	22 Sep 2017	21 Sep 2017

Total Recoverable Metals 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
BH167_0.1-0.2	SE170024A.074	LB132653	04 Sep 2017	20 Sep 2017	03 Mar 2018	20 Sep 2017	03 Mar 2018	21 Sep 2017
BH201_0.3-0.4	SE170024A.087	LB132653	28 Aug 2017	20 Sep 2017	24 Feb 2018	20 Sep 2017	24 Feb 2018	21 Sep 2017
BH202_0.4-0.5	SE170024A.088	LB132653	28 Aug 2017	20 Sep 2017	24 Feb 2018	20 Sep 2017	24 Feb 2018	21 Sep 2017

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

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.

No surrogates were required for this job.

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.

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR)

Method: ME-(AU)-[ENV]AN122

Sample Number	Parameter	Units	LOR	Result
LB132663.001	Exchangeable Sodium, Na	mg/kg	2	0
	Exchangeable Potassium, K	mg/kg	2	0
	Exchangeable Calcium, Ca	mg/kg	2	0
	Exchangeable Magnesium, Mg	mg/kg	2	0

Hexavalent Chromium in Soil UV/Vis

Method: ME-(AU)-[ENV]AN075/AN201

Sample Number	Parameter	Units	LOR	Result
LB132689.001	Hexavalent Chromium, Cr6+	mg/kg	0.5	0

Total Recoverable Metals in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result
LB132653.001	Chromium, Cr	mg/kg	0.5	<0.5

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.

Hexavalent Chromium in Soil UV/Vis

Method: ME-(AU)-[ENV]AN075/AN201

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170342.001	LB132689.009	Hexavalent Chromium, Cr6+	mg/kg	0.5	0.401128880	50.4412417685	149	0

Moisture Content

Method: ME-(AU)-[ENV]AN002

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170024A.074	LB132664.011	% Moisture	%w/w	0.5	15	14	37	2
SE170024A.088	LB132664.014	% Moisture	%w/w	0.5	13	12	38	2

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170469.001	LB132688.014	pH	pH Units	-	8.1	8.3	31	2
SE170472.003	LB132688.023	pH	pH Units	-	11.5	11.3	31	1

Total Recoverable Metals in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170259RE.00	LB132653.014	Chromium, Cr	mg/kg	0.5	7.831182266	08.2091457286	36	5
SE170272.004	LB132653.020	Chromium, Cr	mg/kg	0.5	12.3576268256	5.696798245	34	24

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.

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR)

Method: ME-(AU)-[ENV]AN122

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB132663.003	Exchangeable Sodium, Na	mg/kg	2	NA	390	80 - 120	97
	Exchangeable Potassium, K	mg/kg	2	NA	343	80 - 120	95
	Exchangeable Calcium, Ca	mg/kg	2	NA	2570	80 - 120	91
	Exchangeable Magnesium, Mg	mg/kg	2	NA	635	80 - 120	94

Hexavalent Chromium in Soil UV/Vis

Method: ME-(AU)-[ENV]AN075/AN201

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB132689.002	Hexavalent Chromium, Cr6+	mg/kg	0.5	NA	20	70 - 130	101

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB132688.003	pH	pH Units	-	7.4	7.415	98 - 102	100

Total Recoverable Metals in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB132653.002	Chromium, Cr	mg/kg	0.5	49	50	80 - 120	98

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 Metals in Soil/Waste Solids/Materials by ICPOES — **Method: ME-(AU)-[ENV]AN040/AN320**

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE170469.001	LB132653.004	Chromium, Cr	mg/kg	0.5	62	14	50	95

MATRIX SPIKE DUPLICATES

SE170024A 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 end of this report for failure reasons.

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: http://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.
-	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 Analytical Report comments for further information.

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.

This test report shall not be reproduced, except in full.

STATEMENT OF QA/QC PERFORMANCE

SE170024C R0

CLIENT DETAILS

Contact	Joel Heininger
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	joel.heininger@eiaustralia.com.au
Project	**E23529 230 Aldington Road, Kemps Creek A**
Order Number	**E23529**
Samples	162

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE170024C R0**
Date Received	25 Sep 2017
Date Reported	26 Sep 2017

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 and was supplied by the Client.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

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

Extraction Date	Moisture Content	3 items

SAMPLE SUMMARY

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	3 Soil
Date documentation received	25/9/17@3:09pm	Type of documentation received	Email
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	11.4°C	Sufficient sample for analysis	Yes
Turnaround time requested	Next Day		

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

HOLDING TIME SUMMARY

SE170024C 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 sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Moisture Content

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH159_0.1-0.2	SE170024C.064	LB132940	04 Sep 2017	25 Sep 2017	18 Sep 2017	25 Sep 2017†	30 Sep 2017	26 Sep 2017
BH168_0.1-0.2	SE170024C.075	LB132940	04 Sep 2017	25 Sep 2017	18 Sep 2017	25 Sep 2017†	30 Sep 2017	26 Sep 2017
BH206_0.1-0.2	SE170024C.092	LB132940	29 Aug 2017	25 Sep 2017	12 Sep 2017	25 Sep 2017†	30 Sep 2017	26 Sep 2017

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
BH159_0.1-0.2	SE170024C.064	LB132939	04 Sep 2017	25 Sep 2017	03 Mar 2018	25 Sep 2017	03 Mar 2018	26 Sep 2017
BH168_0.1-0.2	SE170024C.075	LB132939	04 Sep 2017	25 Sep 2017	03 Mar 2018	25 Sep 2017	03 Mar 2018	26 Sep 2017
BH206_0.1-0.2	SE170024C.092	LB132939	29 Aug 2017	25 Sep 2017	25 Feb 2018	25 Sep 2017	25 Feb 2018	26 Sep 2017

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

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.

No surrogates were required for this job.

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.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES — **Method: ME-(AU)-[ENV]AN040/AN320**

Sample Number	Parameter	Units	LOR	Result
LB132939.001	Copper, Cu	mg/kg	0.5	<0.5

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.

Moisture Content — Method: ME-(AU)-[ENV]AN002

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170630.001	LB132940.016	% Moisture	%w/w	0.5	77.624602332	77.1739130434	31	1
SE170633.002	LB132940.011	% Moisture	%w/w	0.5	6.38792102	206.4755838641	46	1

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 %
SE170024C.075	LB132939.014	Copper, Cu	mg/kg	0.5	23	23	32	2
SE170024C.092	LB132939.016	Copper, Cu	mg/kg	0.5	69	74	31	7

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 — **Method: ME-(AU)-[ENV]AN040/AN320**

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB132939.002	Copper, Cu	mg/kg	0.5	48	50	80 - 120	95

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.

QC Sample	Sample Number	Parameter	Units	LOR

MATRIX SPIKE DUPLICATES

SE170024C 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 end of this report for failure reasons.

No matrix spike duplicates were required for this job.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

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: http://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.
-	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 Analytical Report comments for further information.

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.

This test report shall not be reproduced, except in full.

STATEMENT OF QA/QC PERFORMANCE

SE170270 R0

CLIENT DETAILS

Contact	Bryan Zheng
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	bryan.zheng@eiaustralia.com.au
Project	**E23529 - 230 Aldington Rd Kemps Creek**
Order Number	**E23529**
Samples	6

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE170270 R0**
Date Received	14 Sep 2017
Date Reported	19 Sep 2017

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 and was supplied by the Client.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

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

Extraction Date	Conductivity and TDS by Calculation - Soil	6 items
	Moisture Content	6 items
	pH in soil (1:5)	6 items
	Soluble Anions (1:5) in Soil by Ion Chromatography	6 items
Analysis Date	Conductivity and TDS by Calculation - Soil	6 items

SAMPLE SUMMARY

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

HOLDING TIME SUMMARY

SE170270 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 sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-[ENV]AN106

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH201_1.5-1.78	SE170270.001	LB132416	28 Aug 2017	14 Sep 2017	04 Sep 2017	18 Sep 2017†	04 Sep 2017	19 Sep 2017†
BH202_0.5-0.95	SE170270.002	LB132416	28 Aug 2017	14 Sep 2017	04 Sep 2017	18 Sep 2017†	04 Sep 2017	19 Sep 2017†
BH205_0.5-0.95	SE170270.003	LB132416	28 Aug 2017	14 Sep 2017	04 Sep 2017	18 Sep 2017†	04 Sep 2017	19 Sep 2017†
BH209_0.5-0.95	SE170270.004	LB132416	29 Aug 2017	14 Sep 2017	05 Sep 2017	18 Sep 2017†	05 Sep 2017	19 Sep 2017†
BH209_1.5-1.95	SE170270.005	LB132416	30 Aug 2017	14 Sep 2017	06 Sep 2017	18 Sep 2017†	06 Sep 2017	19 Sep 2017†
BH221_1.5-1.95	SE170270.006	LB132416	31 Aug 2017	14 Sep 2017	07 Sep 2017	18 Sep 2017†	07 Sep 2017	19 Sep 2017†

Moisture Content

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH201_1.5-1.78	SE170270.001	LB132454	28 Aug 2017	14 Sep 2017	11 Sep 2017	18 Sep 2017†	23 Sep 2017	19 Sep 2017
BH202_0.5-0.95	SE170270.002	LB132454	28 Aug 2017	14 Sep 2017	11 Sep 2017	18 Sep 2017†	23 Sep 2017	19 Sep 2017
BH205_0.5-0.95	SE170270.003	LB132454	28 Aug 2017	14 Sep 2017	11 Sep 2017	18 Sep 2017†	23 Sep 2017	19 Sep 2017
BH209_0.5-0.95	SE170270.004	LB132454	29 Aug 2017	14 Sep 2017	12 Sep 2017	18 Sep 2017†	23 Sep 2017	19 Sep 2017
BH209_1.5-1.95	SE170270.005	LB132454	30 Aug 2017	14 Sep 2017	13 Sep 2017	18 Sep 2017†	23 Sep 2017	19 Sep 2017
BH221_1.5-1.95	SE170270.006	LB132454	31 Aug 2017	14 Sep 2017	14 Sep 2017	18 Sep 2017†	23 Sep 2017	19 Sep 2017

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH201_1.5-1.78	SE170270.001	LB132416	28 Aug 2017	14 Sep 2017	04 Sep 2017	18 Sep 2017†	19 Sep 2017	19 Sep 2017
BH202_0.5-0.95	SE170270.002	LB132416	28 Aug 2017	14 Sep 2017	04 Sep 2017	18 Sep 2017†	19 Sep 2017	19 Sep 2017
BH205_0.5-0.95	SE170270.003	LB132416	28 Aug 2017	14 Sep 2017	04 Sep 2017	18 Sep 2017†	19 Sep 2017	19 Sep 2017
BH209_0.5-0.95	SE170270.004	LB132416	29 Aug 2017	14 Sep 2017	05 Sep 2017	18 Sep 2017†	19 Sep 2017	19 Sep 2017
BH209_1.5-1.95	SE170270.005	LB132416	30 Aug 2017	14 Sep 2017	06 Sep 2017	18 Sep 2017†	19 Sep 2017	19 Sep 2017
BH221_1.5-1.95	SE170270.006	LB132416	31 Aug 2017	14 Sep 2017	07 Sep 2017	18 Sep 2017†	19 Sep 2017	19 Sep 2017

Soluble Anions (1:5) in Soil by Ion Chromatography

Method: ME-(AU)-[ENV]AN245

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH201_1.5-1.78	SE170270.001	LB132398	28 Aug 2017	14 Sep 2017	04 Sep 2017	18 Sep 2017†	16 Oct 2017	19 Sep 2017
BH202_0.5-0.95	SE170270.002	LB132398	28 Aug 2017	14 Sep 2017	04 Sep 2017	18 Sep 2017†	16 Oct 2017	19 Sep 2017
BH205_0.5-0.95	SE170270.003	LB132398	28 Aug 2017	14 Sep 2017	04 Sep 2017	18 Sep 2017†	16 Oct 2017	19 Sep 2017
BH209_0.5-0.95	SE170270.004	LB132398	29 Aug 2017	14 Sep 2017	05 Sep 2017	18 Sep 2017†	16 Oct 2017	19 Sep 2017
BH209_1.5-1.95	SE170270.005	LB132398	30 Aug 2017	14 Sep 2017	06 Sep 2017	18 Sep 2017†	16 Oct 2017	19 Sep 2017
BH221_1.5-1.95	SE170270.006	LB132398	31 Aug 2017	14 Sep 2017	07 Sep 2017	18 Sep 2017†	16 Oct 2017	19 Sep 2017

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.

No surrogates were required for this job.

METHOD BLANKS

SE170270 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.

Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-[ENV]AN106

Sample Number	Parameter	Units	LOR	Result
LB132416.001	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0

Soluble Anions (1:5) in Soil by Ion Chromatography

Method: ME-(AU)-[ENV]AN245

Sample Number	Parameter	Units	LOR	Result
LB132398.001	Chloride	mg/kg	0.25	<0.25
	Sulfate	mg/kg	5	<5.0

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.

Moisture Content — Method: ME-(AU)-[ENV]AN002

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170295.004	LB132454.011	% Moisture	%w/w	0.5	7.95306388525	.8315334773	45	31
SE170295.014	LB132454.022	% Moisture	%w/w	0.5	8.10419681628	.1560283687	42	1
SE170349.006	LB132454.031	% Moisture	%w/w	0.5	26.427061310	25.437572928	34	4

pH in soil (1:5) — Method: ME-(AU)-[ENV]AN101

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE170255.002	LB132416.026	pH	pH Units	-	6.938	6.912	31	0
SE170295.008	LB132416.025	pH	pH Units	-	7.079	6.843	31	3

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.

Conductivity and TDS by Calculation - Soil — Method: ME-(AU)-[ENV]AN106

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB132416.002	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	103

pH in soil (1:5) — Method: ME-(AU)-[ENV]AN101

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB132416.003	pH	pH Units	-	7.4	7.415	98 - 102	100

Soluble Anions (1:5) in Soil by Ion Chromatography — Method: ME-(AU)-[ENV]AN245

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB132398.002	Chloride	mg/kg	0.25	92	100	70 - 130	92
	Sulfate	mg/kg	5	92	100	70 - 130	92

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.

No matrix spikes were required for this job.

MATRIX SPIKE DUPLICATES

SE170270 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 end of this report for failure reasons.

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: http://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.
-	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 Analytical Report comments for further information.

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.

This test report shall not be reproduced, except in full.

APPENDIX K

PID CALIBRATION CERTIFICATES

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017

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

ABN 42 909 129 957
E service@eiaustralia.com.au
W www.eiaustralia.com.au
T 02 9516 0722

CALIBRATION CERTIFICATE FOR PHOTO IONISATION DETECTOR

Instrument: Mini RAE 3000

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

Instrument Conditions: Good.

Calibration gas species: Isobutylene.

Calibration gas concentration: 100 ppm

Gas bottle number: 218055-

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

The PID is initially zero calibrated in fresh air.

Remaining gas in bottle: 300 psi (if reading is <250 psi, notify Equipment Manager to arrange new gas bottle order)

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

Signed: Joel Flemings

Date: 4.8.17

Time: 07:30 am.

Document Set ID: 7966098
Version: 1, Version Date: 08/12/2017