JM Environments
0427 893 668
37 Tooke St
COOKS HILL NSW 2300
ABN 67 166 341 288

Detailed Contamination Assessment

21D and 21F School Drive, Tomago

Prepared By:

John Howard BSc (Hons)
Environmental Scientist

Approved By:

James McMahon PhD (Chem)
Principal Environmental Scientist
Certified Environmental Practitioner CEnvP 1235
Site Contamination Specialist SC41110

Date: 13 July 2021

Reference: JME20005-2

RECORD OF DISTRIBUTION

Report File Name	Report Status	Date	Distributed to	Name	Notes
JME20005-2 Detailed Contamination Assessment 21D and 21F School Drive Tomago	Final	3 June 2020	Remondis Australia Pty Ltd	Susie McBurney	
JME20005-2 Detailed Contamination Assessment 21D and 21F School Drive Tomago	Revision 1	29 June 2021	Remondis Australia Pty Ltd GHD Jackson Environment and Planning	Susie McBurney Ian Gregson Mark Jackson	Revision 1 addresses the auditors comments received by email and dated 29 May 2021.
JME20005-2 Detailed Contamination Assessment 21D and 21F School Drive Tomago	Revision 2	13 July 2021	Remondis Australia Pty Ltd GHD Jackson Environment and Planning	Susie McBurney Ian Gregson Mark Jackson	Revision 2 addresses the auditors comments received by email and dated 13 July 2021.

EXECUTIVE SUMMARY

This report presents the findings of a Detailed Contamination Assessment of 21D and 21F School Drive, Tomago NSW (the site), undertaken by JM Environments (JME). The site had previously been used for sand mining and steel and aluminium manufacturing. It was understood that Remondis Australia Pty Ltd intend to develop the site. The purpose of this assessment was to support a Development Application for the site.

The objectives of this assessment were to:

- Identify potentially contaminating activities that are currently being performed on the site, and that may have been performed on the site in the past;
- Assess Areas of Environmental Concern and Contaminants of Concern on the site; and
- Provide recommendations on further assessment or remediation, if considered necessary.

The following scope of works was undertaken:

- Review of previous contamination assessments;
- Review of published information and government records;
- Drilling and sampling of three boreholes in Lot 11 (one of which was converted to a groundwater monitoring well), in the vicinity of an emulsion storage trench;
- Two hand augers were excavated in areas pf accessible soil in the southern part of Lot 11;
- Excavation and sampling of 15 test pits and two hand augers in the eastern part of the site (Lot 8);
- Sampling of a stockpile near the northern boundary of Lot 8; and
- Laboratory analysis.

Sampling and analysis was limited to soil material on the site; groundwater was not sampled as part of this assessment.

The site was mostly flat, and divided into two parts. The western part of the site (Lot 11) was paved, and contained two large sheds, and some smaller buildings and water tanks. Beneath the pavement, brown gravelly sand, containing concrete and brick rubble to a depth of between 1mbgl and 1.8mbgl, was interpreted to be fill. This material had previously been assessed as meeting the criteria for excavated natural material, and for commercial/industrial land use. Approximately 9,000m^3 was removed from Lot 11 for the Medal Cables development. Light brown fine to medium grained sand beneath the fill was interpreted as representing in-situ, 'natural' material. Groundwater was intersected at 2.4mbgl. Hydrocarbon contamination was not detected in samples collected from adjacent to the hydrocarbon trench in Lot 11, indicating that significant contamination of soils in this area had not been caused by leaks from the trench.

The eastern part of the site (Lot 8) was unpaved, and sparsely covered with grass and other low vegetation. Fill mounds including concrete, metal and timber were observed, and concrete beams and concrete-filled tyres had been stockpiled in the northern part of Lot 8.

Fill, comprising brown to black sand, and containing some plastic, road base gravel, brick, concrete, metal and rocks, was observed to a depth of approximately 0.5 - 1mbgl across much of Lot 8. Elevated zinc and copper concentrations in this material were considered to be consistent with the use of sandblasting in the metal manufacturing process.

Beneath the fill, brown sand, interpreted as representing in-situ material, appeared to be largely uncontaminated.

Elevated arsenic, cadmium, copper, lead and zinc concentrations were observed in fill material on the surface in the northeast corner of the site. Elevated lead (4,600mg/kg) was limited to one location, test pit TP8. The lead concentration was more than 250% of adopted Human Health guideline value. Zinc contamination was higher along the northern and eastern borders of Lot 11 with the highest concentrations, 27,000mg/kg (TP8), 25,000mg/kg (TP7) and 18,000mg/kg (TP5), located at or near the lead impact location. Arsenic and copper were also detected at concentrations greater than 250% of the adopted ecological default guideline value at three locations, TP5, TP7 and TP8. Cadmium was detected at concentration less than 250% of the adopted ecological guidelines at the same locations.

Based on this assessment, it was considered that the site had been impacted by contamination comprising heavy metals at concentrations exceeding guideline values for commercial/ industrial land use. JME considers the impact to be minor and that the site could meet the environmental requirements for commercial/industrial land use subject to the development and successful implementation of an appropriate Remedial Action Plan.

Refer to report *JME20005-5 Groundwater Contamination Assessment 21D and 21F School Drive Tomago* for further information regarding groundwater.

CONTENTS

ACRONYMS vi
1 INTRODUCTION 1
2 SCOPE OF WORK 1
3 SITE IDENTIFICATION 2
4 DESKTOP STUDY 2
4.1 Previous Assessment of Lot 11 2
4.1.1 Waste Classification 2
4.1.2 ENM Assessment 3
4.2 Site Topography and Drainage 4
4.3 Local Soils 4
4.4 Local Geology 4
4.5 Hydrogeology 4
4.6 Acid Sulfate Soils 5
4.7 Section 10.7(2) Certificate 5
4.8 Section 10.7(5) Certificate 6
4.9 NSW EPA Records 6
4.9.1 Contaminated Land Management Act 1997 6
4.9.2 Protection of the Environment Operations Act 1997 6
5 SITE HISTORY 7
5.1 Historical Titles Search 7
5.2 Aerial Photograph Review 7
6 SITE WALKOVER 8
7 SAMPLING and ANALYSIS QUALITY PLAN 9
7.1 Preliminary Conceptual Site Model 9
7.2 Data Quality Objectives 9
7.2.1 Step 1 State the Problem 9
7.2.2 Step 2 Identify the Goal of the Study 9
7.2.3 Step 3 Identify the Inputs Into the Decision 9
7.2.4 Step 4 Define the Site Boundaries 9
7.2.5 Step 5 Develop an Analytical Approach 9
7.2.6 Step 6 Specify the Performance or Acceptance Criteria 10
7.2.7 Step 7 Optimise the Design for Obtaining Data 10
7.3 Pre-Mobilisation Requirements 11
7.4 Sampling Plan 11

7.4.1 Sampling Location Rationale 11
7.4.2 Sampling Procedures 11
7.5 Health, Safety and the Environment 12
7.5.1 Hazards and Control Measures 12
7.5.2 Personal Protective Equipment 12
7.6 Analysis Plan 12
7.7 Soil Assessment Criteria 13
7.8 Quality Assurance/Quality Control Plan 15
7.8.1 Data Quality Indicators for the Project 16
7.8.2 Sampling Protocols 16
7.8.3 Field Quality Control Samples 17
7.8.4 Laboratory Quality Control 17
8 FIELD WORK 18
9 LABORATORY ANALYSIS 19
10 QUALITY ASSURANCE / QUALITY CONTROL 20
11 RESULTS 23
11.1 Field Observations 23
11.2 Laboratory Results 24
11.3 Statistical Analysis 26
12 DISCUSSION 26
13 CONCEPTUAL SITE MODEL 27
13.1 Site History Summary 27
13.2 Site Description 27
13.3 Source Zone Characteristics 28
13.3.1 Primary Contaminant Sources 28
13.3.2 Identified Contaminants of Concern 28
13.4 Areas of Environmental Concern 28
13.5 Contaminant Transport Mechanisms 28
13.6 Contaminant Exposure Pathways 28
13.7 Identification of Receptors at Risk 28
14 CONCLUSION AND RECOMMENDATIONS 31
REFERENCES 32
LIMITATIONS 33

ATTACHMENTS

Summary Tables

Figures

Appendix A: Site Photographs

Appendix B: Logs

Appendix C: Section 10.7 Certificates

Appendix D: EPA Search Results

Appendix E: Historic Titles

Appendix F: Laboratory Documentation

Appendix G: MBE2017 ENM Assessment Reports

Appendix H: ProUCL Outputs

ACRONYMS

ABC	assumed background concentration
ACL	added contaminant limits
ACM	asbestos containing material
AEC	Area of Environmental Concern
ALS	ALS Pty Ltd, Sydney
APHA	American Public Health Association
ASS	Acid Sulfate Soils
BaP	benzo[a]pyrene
BaP TEQ	benzo[a]pyrene toxicity equivalent quotient
BTEX	benzene, toluene, ethylbenzene and xylenes
BTEXN	benzene, toluene, ethylbenzene, xylenes and naphthalene
CEC	cation exchange capacity
CLM Act	NSW Contaminated Land Management Act 1997
COC	Contaminant of Concern
CoC	Chain of Custody
CSM	Conceptual Site Model
CRC CARE	Cooperative Research Centre for Contamination Assessment and Remediation of the Environment
DA	Development Application
DBYD	Dial-Before-You-Dig
DCA	Detailed Contamination Assessment
DEC	NSW Department of Environment and Conservation
DGV	default guideline values
DP	Deposited Plan
DQI	Data Quality Indicator
DQO	Data Quality Objective
EIL	ecological investigation level
ENM	excavated natural material
EPA	Environment Protection Authority
ESL	ecological screening level
HIL	health investigation level
HSE	health, safety and the environment

HSL	health screening level
JME	JM Environments
LEP	Local Environmental Plan
LOR	limit of reporting
MBES	MB Engineering Solutions Pty Ltd
mbgl	metres below ground level
NATA	National Association of Testing Authorities
NEPM	National Environment Protection (Assessment of Site Contamination) Measure
NOEH	NSW Office of Environment and Heritage
OCP	organochlorine pesticides
OPP	Organophosphorus pesticides
PAH	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyls
PIL	phytotoxicity based investigation level
POEO Act	NSW Protection of the Environment Operations Act 1997
PPE	Personal Protective Equipment
PSC	Port Stephens Council
QA/QC	Quality Assurance/Quality Control
RAP	Remedial Action Plan
RPD	relative percentage difference
SD	standard deviation
SGS	SGS Australia, Sydney
SPT	Standard Penetrometer Test
SWMS	Safe Work Method Statements
TPH	total petroleum hydrocarbons
TRH	total recoverable hydrocarbons
UCL	upper confidence limit
USEPA	United States Environment Protection Authority
VENM	virgin excavated natural material
VOC	volatile organic compound

1 INTRODUCTION

This report presents the findings of a Detailed Contamination Assessment (DCA) of 21D and 21F School Drive, Tomago NSW (the site), undertaken by JM Environments (JME). The site is identified as Lots 8 and 11 in Deposited Plan (DP) 270328 (as defined in the website maps.six.nsw.gov.au), and is approximately 3.9 hectares in area. The site location is shown in Figure 1, and Lot boundaries are shown in Figure 2.

It is understood that Remondis Australia Pty Ltd intend to develop the site. The purpose of this contamination assessment is to support a Development Application (DA) for the site.

This report includes the results of sampling and analysis previously conducted during a waste classification and excavated natural material (ENM) assessment by MB Engineering Solutions (MBES) (ref: MBE2016 and MBE2017, attached in Appendix G), as well as additional sampling and analysis conducted as part of this assessment. It is noted that MBE2016 was conducted in 2012 and MBE2017 was conducted in 2013 to facilitate the removal of 9,000m^3 of soil for the Midal Cables development. Lot 11 has been covered by a concrete slab since that time, and it is considered that the potential for contamination of that part of the site is limited to the excavation of an emulsion storage trench (addressed in Section 7.4.1).

It is further noted that the emulsion storage trench was excavated to around 5-6 metres below ground level (mbgl), which is beneath the water table. It was considered possible that if there were cracks in the concrete lining of this trench, they could have allowed contamination to seep directly into the water table. However, at this stage Remondis has requested soil sampling only be undertaken.

2 SCOPE OF WORK

The objectives of this assessment were to:

- Identify potentially contaminating activities that are currently being performed on the site, and that may have been performed on the site in the past;
- Assess Areas of Environmental Concern (AECs) and Contaminants of Concern (COCs) on the site; and
- Provide recommendations on further assessment or remediation, if considered necessary.

The proposed scope of work was prepared in accordance with the following guidelines and documents:

- National Environment Protection (Assessment of Site Contamination) Measure (NEPM) 2013;
- NSW Office of Environment and Heritage (NOEH) Guidelines for Consultants Reporting on Contaminated Sites (August 2011); and
- NSW Environment Protection Authority (EPA) Guidelines for the NSW Site Auditor Scheme 3rd Edition (October 2017).

The following scope of works was undertaken:

- Review of previous assessments regarding the site;
- Review of published information related to soils, acid sulfate soils, geology and hydrogeology;

- Review of previous site ownership (land titles search);
- Review of historical aerial photography over the past 60 years;
- Interviews with people familiar with the history of the site;
- Review of the site's Section 10.7 Certificate;
- Review of NSW EPA notices under the Contaminated Land Management Act 1997 (the CLM Act) and the Protection of the Environment Operations Act 1997 (the POEO Act);
- Search of WaterNSW groundwater database for records of nearby registered groundwater bores;
- Review of the above information, and identification of potential AECs and COCs;
- Site walkover;
- Field work including the collection of soil samples;
- Laboratory analysis;
- Tabulation of analytical results (including previous assessments); and
- Preparation of this DCA report.

3 SITE IDENTIFICATION

General site information is provided in Table 1. The site location is shown in Figure 1.

TABLE 1: SUMMARY OF SITE DETAILS

Site Address:	21D and 21F School Drive, Tomago NSW
Site Area:	Approximately 3.9 hectares
Site Identification:	Lots 8 and 11 DP 270328 at Tomago Local government area of Port Stephens Parish of Stockton County of Gloucester
Current Land Use:	Vacant lot and warehouse containing overhead cranes
Previous Land Use:	Sand mining Midal Cables International Pty Ltd
Proposed Land Use:	Unknown
Adjoining Site Uses:	Setco (mechanical engineer) directly west of the site and Tomago Aluminium Smelter further to the west; Vegetated and mostly unoccupied to the north and east; Vacant land with some commercial/industrial premises to the south, and North Channel Hunter River further to the south.
Site Coordinates:	Easting 381044, Northing 6367180
Current Zoning:	General Industrial

4 DESKTOP STUDY

4.1 Previous Assessment of Lot 11

4.1.1 Waste Classification

In 2012, a waste classification assessment of the topsoil/fill was undertaken for Lot 11 by MBES (ref: MBES2016, attached in Appendix G). The purpose of the waste classification was for the removal of the topsoil/fill prior to the construction of the Midal project. MBES2012 included a review of Midal Cables International Pty Limited – Phase 2 Contamination Site Assessment –

Aluminium Rod and Conductor Manufacturing Facility, Tomago NSW – May 2011" (GHD ref 22/15280/93866 R0) was reviewed and the following information was obtained:

- Acid sulfate soils have a low probability of occurring from 2 m below ground surface;
- The adjacent Tomago aluminium smelter began development in 1974;
- Site was developed for metal fabrication in the 1980s;
- 23 samples analysed for a suite of 13 heavy metals;
- 9 samples and composites were analysed for Total Petroleum Hydrocarbons/benzene, toluene, ethylbenzene and xylenes (TPH/BTEX) and Polynuclear Aromatic Hydrocarbons (PAH);
- samples were analysed for Organochlorine Pesticides (OCP) and Polychlorinated Biphenyls (PCB); and
- There were no exceedances of the commercial/industrial health investigation levels in the samples analysed.

Ten test pits were excavated into the natural underlying sand which was intercepted around 0.7mbgs. Twenty-two samples were analysed for BTEX, TRH, PAH and eight heavy metals. Two samples of fibre cement sheeting fragments were collected and analysed for the presence of asbestos. No asbestos was identified in these two samples. The samples analysed by MBES and GHD had chemical concentrations below the general solid waste (CT1) criteria and the ASC HIL D criteria.

The scope of MBES2016 included the installation of three groundwater monitoring wells with deeper samples collected for acid soil assessment purposes. Actual acid sulfate was detected in one sample, MW3 4-4.5mbgs.

4.1.2 ENM Assessment

In 2013, prior to the installation of current buildings and hard stand, ENM assessment was undertaken in the western part of the site (Lot 11) by MBES (ref: MBE2017, attached in Appendix G). Assessment for the presence of acid sulfate soils (ASS) was also undertaken.

It was reported that a previous assessment (MBE2016) considered that subsoils on the site could not be classified as virgin excavated natural material (VENM) due to the impact of past industrial activities, sand mining and contaminated groundwater.

MBE2017 involved the drilling of 35 boreholes (TP1 – TP35, see Figure 3) to a depth of approximately 2mbgl, as well as the excavation of five test pits (1a -1e, see Figure 4) to a depth of approximately 4mbgl.

Field observations from MBE2017 are included with those from this assessment in Section 11.1.

Analytical results from MBE2017 are included with results of this assessment in Summary Table 1, as discussed in Section 11.2.

MBE2017 recorded that:

- Foreign materials (rubber, plastic, paper, cloth, paint, wood and other vegetable matter) were detected at concentrations below those required for ENM exemption; and
- Potential ASS were detected in dark brown material below 3m, at concentrations insufficient to trigger further management.

4.2 Site Topography and Drainage

A review of an online topographic map (www.maps.six.nsw.gov.au) indicates that the site is relatively flat and <10m above sea level. Stormwater runoff from the site would presumably flow south into the Hunter River.

4.3 Local Soils

The NSW Department of Planning, Industry and Environment –"eSPADE NSW Soil and Land Information" online service indicates that the site lies on disturbed terrain (it is understood that sand extraction has previously taken place on the site) within the Tea Gardens Aeolian Soil Landscape, defined as:

- "Landscape – Pleistocene sandsheets on the Tomago Coastal Plain. Local relief <1m, slopes <5%, elevation 5-8m."
- "Soils – deep (>200 cm), well-drained Humus Podzols on ridges with deep (>200 cm), poorly drained Peaty/Humus Podzols in swales and deep (>200 cm), very poorly drained Acid Peats in swamps."
- "Limitations of this soil landscape include:
    - Permanently high water tables;
    - Seasonal waterlogging;
    - Groundwater pollution hazard; and
    - Strongly to extremely acid soils of low fertility."

4.4 Local Geology

The Newcastle 1:250,000 Geology Sheet indicated that the site is located in Quaternary-aged alluvial and fluvial deposits associated with the meandering river valley of the Hunter River, defined by the Newcastle 1:250,000 Geological Sheet as Quaternary Alluvium. As such, the site is underlain by sedimentary deposits comprising mixtures of sands, silts, clays, gravels and "Waterloo Rock".

Soil conditions can vary considerably over relatively short distances in a meandering river valley setting. Generally, the alluvium within the Hexham, Tomago and Raymond Terrace area is made up of barrier sand and channel deposits that exist within the soil profile and are erratically distributed, and both vertically and laterally discontinuous.

Broadly, units within the Quaternary Alluvium comprise (from oldest to youngest) Pleistocene clay, Pleistocene barrier sands, Holocene estuarine clay and recent floodplain deposits. Beneath these sediments, the bedrock comprises interbedded sandstone, siltstone, mudstone and coal of the Permian-aged Tomago Coal Measures.

The Pleistocene clay is typically stiff to hard, and forms the basal surface for the younger deposits. The depth to Pleistocene clay may be typically of the order of 10m to 15m, but can be as deep as 30m to 50m within paleochannels. The Pleistocene barrier sands are typically quartz sands, ranging from 5m to 35m in thickness. Within the sand deposits are cemented 'Coffee Rock' deposits.

4.5 Hydrogeology

WaterNSW operates a website listed as realtimedata.waternsw.com.au/water.stm, with search tools that provide summary reports on registered bores in NSW. A search of this website indicated that there were five registered bores on the site, and nine within 500m of the site. A

summary of groundwater bore information is presented in Table 2. Groundwater bore locations are shown in Figure 5.

TABLE 2: GROUNDWATER WELL SUMMARY INFORMATION

Well ID	Total Depth (m)	Standing Water Level (m)	Water Bearing Zone (m)	Purpose
GW079464	Not recorded	Not recorded	Not recorded	Not recorded
GW079463	Not recorded	Not recorded	Not recorded	Not recorded
GW079465	Not recorded	Not recorded	Not recorded	Not recorded
GW079451	Not recorded	Not recorded	Not recorded	Not recorded
GW079452	Not recorded	Not recorded	Not recorded	Not recorded
GW079542	Not recorded	Not recorded	Not recorded	Not recorded
GW079512	Not recorded	Not recorded	Not recorded	Not recorded
GW026942	10.70	Not recorded	1.50-10.60	Mineral exploration
GW079457	Not recorded	Not recorded	Not recorded	Not recorded
GW079729	Not recorded	Not recorded	Not recorded	Not recorded
GW079439	Not recorded	Not recorded	Not recorded	Not recorded
GW079449	Not recorded	Not recorded	Not recorded	Not recorded
GW059317	11.0	Not recorded	7.0-11.0	Industrial
GW017544	9.10	Not recorded	Not recorded	Domestic stock, irrigation

4.6 Acid Sulfate Soils

The NSW Department of Planning, Industry and Environment –"eSPADE NSW Soil and Land Information" online service indicates that the site is situated in an area of low probability of ASS occurring >3m below the ground surface (see Figure 6).

The Port Stephens Local Environmental Plan (LEP) 2013 indicates that the site is situated on Class 4 ASS land, which means that:

- Works more than 2 metres below the natural ground surface; or
- Works by which the water table is likely to be lowered more than 2 metres below the natural ground surface;

are required to have an ASS management plan.

MBE2017 recorded that potential ASS were detected in dark brown material below 3m, at concentrations insufficient to trigger further management.

4.7 Section 10.7(2) Certificate

A Section 10.7(2) Planning Certificate for the site was obtained from Port Stephens Council (PSC). A copy of the certificate is provided in Appendix C. Table 3 summarises relevant contamination information contained within the certificate.

TABLE 3: SECTION 10.7(2) CERTIFICATE SUMMARY

Current Zoning:	General Industrial
Critical and Conservation Habitat, and Environmental Heritage:	Port Stephens Local Environmental Plan 2013 does not identify the land as including or compromising critical habitat, and is not within a heritage conservation area. The land also does not contain any item of environmental heritage significance.
Coastal Protection Works:	The land is not subject to annual charges under section 496B of the local Government Act 1993 for coastal protection services.
Mine Subsidence:	The land is not within a proclaimed or declared mine subsidence district.
Road:	The land is not affected by any road widening or road alignment.

Hazard Risk Restrictions:	The land is not affected by RAAF Base Williamtown and Salt Ash Weapons Range 2025 ANEF, or the Aircraft Noise Planning Area within Port Stephens Development Control Plan 2014.
Flood:	MINIMAL RISK FLOOD PRONE LAND – Development on the land or part of the land for the purposed of critical emergency response, recovery facilities and infrastructure and development which are particularly vulnerable to emergency response including group homes, seniors housing and child care facilities is subject to flood related development controls.
Biodiversity:	The land is not biodiversity certified land under Part 8 of the Biodiversity Conservation Act 2016. The land is also not a biodiversity stewardship site under a biodiversity stewardship agreement.
Bush Fire:	Part of the land is identified as bush fire prone land.
Loose-fill Asbestos Insulation:	The land does not include any residential residual dwelling identified on the Loose-Fill Asbestos Register as containing loose-fill asbestos ceiling insulation.

4.8 Section 10.7(5) Certificate

A Section 10.7(5) Planning Certificate for the site was also obtained from PSC. A copy of the certificate is provided in Appendix C. Table 4 summarises relevant contamination information contained within the certificate.

TABLE 4: SECTION 10.7(5) CERTIFICATE SUMMARY

Tomago Aluminium Smelter Buffer Zone:	This land is located within the Tomago Aluminium Smelter Buffer zone. Tomago Aluminium Company Pty Ltd are required to take all reasonable steps to acquire certain properties within this buffer zone.
Aircraft Noise:	All areas of the Port Stephens Local Government Area are now, or are forecast to be, affected by aircraft noise from time to time.
Koala Habitat:	Parts of the Port Stephens Local government Area are affected by Koala Habitat and subject to the Port Stephens Comprehensive Koala Plan of Management 2002 made under State Environmental Planning Proposal No. 44.
Invasive Species:	Parts of Port Stephens Local Government Area contain plants that pose a risk according to the Biosecurity Act 2015 which may restrict the use of the land.

4.9 NSW EPA Records

4.9.1 Contaminated Land Management Act 1997

A search of the NSW EPA's public register of contaminated sites under Section 58 of the CLM Act revealed one record of a Notice for the former Hydromet facility at 25 School Drive, Tomago (see Figure 7). The notice recorded that the premises were deemed to be contaminated due to the presence of lead and chromium in soils and groundwater, and was invalidated on 18 August 2010.

Search results are attached in Appendix D.

4.9.2 Protection of the Environment Operations Act 1997

Section 308 of the POEO Act includes:

- environment protection licences;
- applications for new licences and to transfer or vary existing licences;
- environment protection and noise control notices;
- penalty notices issued by the EPA;
- convictions in prosecutions under the POEO Act;

- the results of civil proceedings;
- licence review information. Submissions regarding licence review can be made at any time;
- exemptions from the provisions of the POEO Act or regulations;
- approvals granted under clause 9 of the POEO (Control of Burning) Regulation; and
- approvals granted under clause 7A of the POEO (Clean Air) Regulation.

A search of the public register undertaken on 6 March 2020 returned 126 results for sites in Tomago.

Search results are attached in Appendix D, and are shown in Figure 7.

5 SITE HISTORY

5.1 Historical Titles Search

A search of historical titles for the site was undertaken by JME. A list of past registered proprietors for the lots dating back to approximately 1947 was obtained. The results of the search are included in Appendix E. A summary of the site's owners is shown in Table 5.

TABLE 5: HISTORY OF TITLE

Lot 8 270328	Lot 11 DP 270328
	2018 Tomago Aluminium Company Pty Ltd
	2011 Midal Cables International Pty Ltd
2003 Tomago Aluminium Company Pty Ltd	
2000 Varley Property Pty Ltd	
1990 Allco Construction Pty Ltd	
1985 Allco Steel Construction Pty Ltd	
1983 Tomago Aluminium Pty Ltd	
1950 Courtaulds (Australia) Ltd	
1947 John Thomas McKee	
Jessie Mildred Ruward	

5.2 Aerial Photograph Review

Aerial photographs of the site dating back to 1954 were purchased from the NSW Land and Property Management Authority, and reviewed by a JME environmental scientist, along with imagery available on Google Earth™. The results of the aerial photograph review are summarised in Table 6. Aerial photographs are attached as Figures 11 to 16.

TABLE 6: AERIAL PHOTOGRAPH REVIEW

Year	Site	Surrounding Land
1954	Completely covered by thick vegetation.	Completely covered by vegetation to the north. Land cleared to the south, some trees and low density residential.
1974	Site has been cleared, possibly for sand mining.	Large area including the site and to the north, northwest and south has been cleared, possibly for sand mining. Similar low-density residential areas to 1954.
1987	Allco Steel has been constructed.	Allco Steel has been constructed on and directly around the site. Metal materials stored on site, and a small car park occupies an area to the southwest of the site. More residential lots appear to the south; vegetation has thickened in some parts. Tomago Aluminium has been constructed directly west of the site.

Year	Site	Surrounding Land
		Possible sand mining cleared land has remained unoccupied. Small amounts of vegetation have begun to grow.
1993	Similar to 1987.	Similar to 1987.
2007	Materials appear to have been removed from the site. A small shed appears in the southwest.	Similar to 1993. Additional industrial development to west.
2016	Large sheds (Midal) have been built in the western part of the site.	Similar to 2007. Residences to the south appear to have been replaced by commercial/industrial premises.

6 SITE WALKOVER

A site walkover was conducted by three JME environmental scientists on 9 March 2020, to conduct a visual assessment of current site activities, potential sources of contamination, property boundaries, surrounding land uses, topography and nearby sensitive environments.

Site features are shown in Figure 2, and site photographs are attached in Appendix A.

The site was mostly flat, and divided into two parts. The western part of the site (Lot 11) was paved, with the exception of some small gardens on the southern boundary. Lot 11 contained two large sheds, and some smaller buildings and water tanks. The buildings were metal clad, with guttering and downpipes to underground (see Photograph 1). Car parks and traffic areas in Lot 11 were concrete and asphalt paved, and contained gratings which presumably led to an underground stormwater system (see Photograph 2). Kerb-and-guttering was observed along the front (southern) boundary of Lot 11, and extended along the southern half of the eastern boundary of Lot 11. Lot 11 was fully surrounded by a chain-link wire fence.

The eastern part of the site (Lot 8) was unpaved, and sparsely covered with grass and other low vegetation (see Photograph 3). Lot 8 sloped gently down towards the north, at <5°. Surface water had previously pooled in low-lying areas near the centre of Lot 8.

The surface of Lot 8 comprised dark grey sand, with common road base gravel and rock (see Photograph 4).

In the northern part of Lot 8, concrete beams and concrete-filled tyres had been stockpiled (see Photographs 5 and 6). A soil stockpile with some shrubs was observed near the northern boundary of Lot 8 (see Photograph 7), and a concrete pad was observed near the middle of Lot 8 (see Photograph 3).

The northern boundary of Lot 8 was marked by a chain link fence (see Photograph 6). The southern and eastern boundaries of Lot 8 were not fenced.

Land adjacent to the north of the site was observed to be low scrub on white sand (see Photograph 6). To the east, the land appeared similar to Lot 8, and to the west was commercial/industrial. To the south was vacant land and some commercial/industrial premises, including the former Hydromet facility (as discussed in Section 4.9.1).

The land use to west as a specialised vehicle manufacturer and it is considered likely that PFAS was used in testing fire vehicles. It is not known whether this activity did take place either on the adjoining land or on the subject site at a time it was vacant land.

7 SAMPLING and ANALYSIS QUALITY PLAN

7.1 Preliminary Conceptual Site Model

Soils on the site were considered to comprise mostly sand. The western part of the site (Lot 11) was covered by buildings and pavement, underlain by sand which had been assessed as being suitable for ongoing industrial land use. It was understood that a hydrocarbon trench had been installed in Lot 11 subsequent to the previous assessment.

The site had previously been used for sand mining, and steel and aluminium manufacture. The surface of Lot 8 in the eastern part of the site was darker in appearance than sand in surrounding areas, and there was some anthropogenic material (road base, timber, concrete, metal, etc) on the surface.

7.2 Data Quality Objectives

7.2.1 Step 1 State the Problem

The contamination status of the site was unknown. Remondis had requested the preparation of a DCA to support the submission of a DA.

7.2.2 Step 2 Identify the Goal of the Study

The goal of the study was to provide an assessment as to whether the site was suitable, from a contamination point of view, for its proposed continued industrial land use.

7.2.3 Step 3 Identify the Inputs Into the Decision

Inputs to the assessment of the site's contamination status were to include:

- Results of the desktop study;
- Laboratory results and field observations from MBE2017;
- Field observations regarding depth of fill (if present) on the site;
- The results of sampling and laboratory analysis; and
- Comparison of laboratory results with soil assessment criteria derived in Section 7.7.

7.2.4 Step 4 Define the Site Boundaries

The lateral extent of the site was defined as Lots 8 and 11 DP270328; the site is approximately 3.9 hectares in area. The site location is shown in Figure 1.

The western part of the site (Lot 11) had been the subject of previous assessments (see Section 4.1). Therefore, the majority of this assessment was to focus on the western part of the site, with the addition of the assessment of soil surrounding a hydrocarbon capture trench and areas of exposed soil in Lot 11.

Test pits in Lot 8 were to be terminated at the base of fill. Boreholes in Lot 11 were to be continued to the top of groundwater.

This report represents an assessment of the contamination status of the site, based on observations and sampling conducted between 8 January 2013 and 7 April 2020.

7.2.5 Step 5 Develop an Analytical Approach

The analytical approach was to be as follows:

- Data Quality Indicators (DQIs) were to be applied as per Section 7.8.1. If the results of the analytical data validation were acceptable with respect to the DQIs, then the data was to be deemed suitable for the purposes of this assessment; and
- Analytical results from this assessment were to be assessed against criteria established in Section 7.7. If contaminant concentrations were less than or equal to the adopted default guideline values (DGVs), it would indicate the site's suitability for its ongoing industrial land use.

7.2.6 Step 6 Specify the Performance or Acceptance Criteria

Potential decision errors were considered to include:

- Sampling errors, which occur when collected samples are not representative of conditions within the investigation area; and
- Measurement errors, which occur during sample collection, handling, preparation, analysis and data production.

These errors may lead the decision maker to make the following errors:

- Deciding that the investigation area is suitable for residential land use when it is actually not; and
- Deciding that the investigation area is not suitable for residential land use when it actually is.

An assessment was to be made as to the likelihood of a decision error being made based on the results of a Quality Assurance/Quality Control (QA/QC) assessment, and the closeness of analytical results to the investigation criteria outlined in Section 7.7. It was considered that a margin for error would be accounted for by the level of conservatism built into guideline DGVs.

7.2.7 Step 7 Optimise the Design for Obtaining Data

In order to optimise the efficiency of data collection:

- JME was to use available desktop resources (including previous contamination assessments) to allow sampling operations to be focussed in areas where less information was currently available;
- Two locations only were to be sampled in Lot 11, targeting a hydrocarbon capture trench installed since previous contamination assessments were undertaken. Remaining locations were to be situated in Lot 8 where the contamination status of the site was less well understood;
- A drilling rig with concrete coring capability was to be used for sampling in areas of the site covered by a concrete slab; and
- A 1.8 tonne excavator was to be used in unpaved areas of shallow fill.

In order to optimise the quality of data collected, JME was to use:

- Experienced JME field staff to collect samples;
- National Association of Testing Authorities (NATA)-accredited laboratories. Laboratory analysis was to be in accordance with the requirements of the NEPM Schedule B3 Guideline on Laboratory Analysis of Potentially Contaminated Soils, and to be referenced to United States Environment Protection Authority (USEPA) or American Public Health Association (APHA) methods.

Details of sampling methods and analytical requirements are discussed in Sections 7.4 and 7.6.

7.3 Pre-Mobilisation Requirements

Regulatory provisions required to be completed prior to sampling on site included:

- Preparation of site-specific Safe Work Method Statements (SWMS);
- On-line Tomago Aluminium site inductions for all involved personnel; and
- Granting of a Permit to Excavate, subject to:
    - Dial-Before-You-Dig (DBYD) request;
    - Clearance by a licensed service locator; and
    - Assessment by Tomago Aluminium responsible person.

7.4 Sampling Plan

7.4.1 Sampling Location Rationale

As discussed in Section 4.1, it was considered that the contamination status of the western part of the site (Lot 11) was sufficiently well understood for the purposes of this assessment. Systematic sampling from test pits located to provide overall site coverage was therefore to be concentrated in Lot 8.

The NSW EPA Sampling Design Guidelines (1995) recommend a minimum of 50 sampling points in order to characterise a site of four hectares, with respect to contamination. In order to satisfy this recommendation, JME proposed to sample from 15 test pits as part of this assessment, to complement the 35 boreholes sampled from in MBE2017.

Targeted sampling boreholes were to be located in the vicinity of a hydrocarbon trench and exposed soils on Lot 11, constructed since that part of the site was assessed in MBE2017. It is noted that test pits 1a – 1e in MBE2017 were also sampled to provide information in the vicinity of the hydrocarbon trench.

7.4.2 Sampling Procedures

In Lot 11, two locations in the vicinity of the hydrocarbon capture trench were to be concrete cored and excavated using a truck-mounted drilling rig fitted with solid flight augers. A Standard Penetrometer Test (SPT) was to be conducted at depths of 1m and 2m in each borehole.

Soil samples were to be collected from each borehole:

- At the surface, directly from disturbed soil below the concrete pavement;
- From each SPT interval, from the split spoon sampler; and
- At additional intervals from the auger flights, if changes in lithology were observed.

Boreholes were to be terminated at the perceived top of groundwater.

In Lot 8, 15 test pits were to be excavated using a 1.8 tonne excavator. Soil samples were to be collected from the surface, and at approximately 1m intervals in fill thereafter. Additional samples were to be collected at observed changes in lithology;

Test pits were to be terminated at the base of fill.

Test pits and boreholes were to be logged to record changes in lithology and sampling intervals, and locations were to be recorded on a site plan.

7.5 Health, Safety and the Environment

7.5.1 Hazards and Control Measures

During drilling and sampling operations, there is potential for hazards to be encountered that present risks to health, safety and the environment (HSE). These risks were to be addressed via the use of SWMS, including considerations as listed in Table 7.

TABLE 7: HSE HAZARDS and CONTROL MEASURES

Activity	Hazard	Control
Set up on site	Interaction with other site users	Sign onto site register Demarcate work area, exclusion zone
Drilling/excavation	Underground services	DBYD Service location Permit to Excavate
	Noise	Hearing protection
	Interaction with rig/excavator	Exclusion zone Communicate with operators
Collecting samples	Unknown contaminants	Disposable gloves and cut-resistant gloves

7.5.2 Personal Protective Equipment

Personal Protective Equipment (PPE) for the site was to include:

- Hard hat;
- Safety glasses;
- High visibility workwear;
- Long sleeves and trousers;
- Steel-capped boots;
- Chemical resistant rubber gloves (for persons coming in contact with soil); and
- Dust resistant disposable overalls and P1 (minimum) dust masks (when handling potentially asbestos contaminated soil).

7.6 Analysis Plan

Primary and duplicate samples were to be analysed by SGS Australia (SGS), Sydney, and triplicate samples were to be analysed by ALS Pty Ltd (ALS), Sydney. Selected samples were to be analysed for the following:

- Benzene, toluene, ethylbenzene, xylenes and naphthalene (BTEXN);
- Total recoverable hydrocarbons (TRH, also reported as total petroleum hydrocarbons (TPH)) ;
- Polycyclic aromatic hydrocarbons (PAH);
- Volatile organic compounds (VOCs);
- Heavy metals (As, Cd, Cr, Cu, Pb, Ni, Zn and Hg);
- Per- and polyfluoroalkyl substances (PFAS)
- Phenols;
- Organochlorine pesticides (OCP);
- Organophosphorus pesticides (OPP);
- Polychlorinated biphenyls (PCB);
- pH; and
- Cation exchange capacity (CEC).

Laboratory analytical methods are summarised in Table 8.

TABLE 8: SUMMARY OF ANALYTICAL METHOD REFERENCES

Analysis	Medium	SGS Reference	ALS Reference
Metals	Soil	USEPA Method 200.8 and 6010C	APHA 3120 and USEPA SW 846 - 6010
Mercury	Soil	APHA 3112 and 3500	AS 3550 and APHA 3112
BTEXN	Soil	USEPA 5030B, 8020A and 8260	USEPA SW 846 - 8260B
TRH	Soil	USEPA 5030B, 8020A and 8260	USEPA SW 846 - 8260B and USEPA SW 846 - 8015A
PAH	Soil	USEPA 3500C and 8270D	USEPA SW 846 - 8270D
VOC	Soil	USEPA 5030B, 8020A and 8260	-
Phenols	Soil	USEPA 3500C and 8270D	-
OCP/OPP/PCB	Soil	USEPA 3510, 3550, 8140, 8080, 3500C and 8270D	-
pH	Soil	APHA 4500-H+	-

7.7 Soil Assessment Criteria

Soil DGVs were established from the NEPM Schedule B1, Guideline on Investigation Levels for Soil and Groundwater. The NEPM provides a framework for the use of investigation and screening levels. The framework is based on a matrix of human health and ecological soil investigation screening levels and guidance for specific contaminants. The selection of the most appropriate investigation levels for use in a range of environmental settings and land use scenarios should consider factors including the protection of human health, ecosystems, groundwater resources and aesthetics. A balance between the use of generic soil, soil vapour and groundwater criteria and site-specific considerations is essential practice in site assessment.

The site's current zoning is General Industrial. It is not known what Remondis propose to use the site for. JME considers the land use setting applicable to the site to be:

- HIL D - commercial/industrial such as shops, offices, factories and industrial sites.

Soil health investigation level (HILs), health screening levels (HSLs), ecological investigation level (EILs), ecological screening level (ESLs) and management limits were developed from:

- Table 1A(1) Health investigation levels for soil contaminants;
- Table 1A(3) Soil HSLs for vapour intrusion;
- Table 1B(1) Soil-specific added contaminants for aged zinc in soil (dependent on soil pH and CEC;
- Table 1B(2) Soil-specific added contaminant limits for aged copper in soils (dependent on soil pH or CEC);
- Table 1B(3) Soil-specific added contaminant limits for aged chromium III (dependent on
- % clay) and nickel (dependent on CEC) in soil;
- Table 1B(4) Generic added contaminant limits for lead in soils irrespective of their physicochemical properties;
- Table 1B(5) Generic EILs for aged As, fresh DDT and fresh naphthalene in soils irrespective of their physicochemical properties;
- Table 1B(6) ESLs for TPH fractions F1 – F4, BTEX and benzo[a]pyrene in soil;

- Table 1B(7) Management Limits for TPH fractions F1-F4 in soil;
- Table 7 Health screening levels for asbestos contamination in soil; and
- NEPM 1999 Errata Updated 30 April 2014.

No EILs are listed for cadmium or mercury, hence the provisional phytotoxicity based investigation levels (PILs) from Column 5 of Appendix II of the NSW Department of Environment and Conservation (DEC) Guidelines for the NSW Site Auditor Scheme (2nd edition) have been adopted.

The ESL for benzo[a]pyrene (BaP) listed in the NEPM is derived from an older set of Canadian soil quality guidelines, which have subsequently been revised. A higher reliability ecological guideline value for BaP has been adopted from CRC CARE Technical Report No. 39 'Risk-based management and remediation guidance for benzo(a)pyrene'.

Where a COC has a level listed in more than one table, the more conservative value was adopted as the DGV.

Tables 1B (1-3) require that CEC and soil pH be analysed in order to select added contaminant limits (ACL) values for zinc, copper and nickel. ACLs were selected based on the most conservative (ie lowest) values for CEC (0.79cmolc/kg) and pH (7.0) detected during this assessment.

EILs for copper, chromium, nickel, lead and zinc were calculated by adding the ACL to an assumed background concentration (ABC) for 'old suburb, high traffic' sites (taken from NEPM Schedule B5c, Guideline on Ecological Investigation Level for Arsenic, Chromium (III), Copper, DDT, Lead, Naphthalene, Nickel & Zinc).

Sampled material was observed to be predominantly sandy (see Section 11.1); therefore where ESLs are dependent on particle size, the coarsest grain size has been used.

PFS DGVs were taken from the 'PFAS National Environmental Management Plan Version 2.0', Heads of EPA Australia and New Zealand 2020 (NEMP2.0). NEMP2.0 provides human health investigation levels for perfluorooctane sulfonic acid (PFOS), perfluorohexane sulfonate (PFHxS) and perfluorooctanoic acid (PFOA). These were derived using the methodology consistent with assumptions set out in the NEPM for HIL D.

Adopted soil assessment criteria are shown in Table 9.

TABLE 9: SOIL ASSESSMENT CRITERIA

Analyte Name	Units	HIL	HSL	EIL	ESL	ACL	ABC	Management Limit
Benzene	mg/kg	-	3	-	75	-	-	-
Toluene	mg/kg	-	-	-	135	-	-	-
Ethylbenzene	mg/kg	-	-	-	165	-	-	-
Xylenes	mg/kg	-	230	-	180	-	-	-
TRH C6-C10 (F1)	mg/kg	-	250	-	215	-	-	700
TRH >C10-C16 (F2)	mg/kg	-	-	-	170	-	-	1,000
TRH >C16-C34 (F3)	mg/kg	-	-	-	1,700	-	-	3,500
TRH >C34-C40 (F4)	mg/kg	-	-	-	3,300	-	-	10,000
Naphthalene	mg/kg	-	-	370	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	172	-	-	-
BaP TEQ	TEQ	40	-	-	-	-	-	-
Total PAH	mg/kg	4,000	-	-	-	-	-	-
Sum of PFOS and PFHxS	mg/kg	20						

Analyte Name	Units	HIL	HSL	EIL	ESL	ACL	ABC	Management Limit
PFOA	mg/kg	50						
Total Phenols	mg/kg	240,000	-	-	-	-	-	-
Cresols	mg/kg	25,000						
DDT	mg/kg	-	-	640	-	-	-	-
DDT+DDE+DDD	mg/kg	3,600	-	-	-	-	-	-
Aldrin and Dieldrin	mg/kg	45	-	-	-	-	-	-
Chlordane	mg/kg	530	-	-	-	-	-	-
Endosulfan	mg/kg	2,000	-	-	-	-	-	-
Endrin	mg/kg	100	-	-	-	-	-	-
Heptachlor	mg/kg	50	-	-	-	-	-	-
HCB	mg/kg	80	-	-	-	-	-	-
Methoxychlor	mg/kg	2,500	-	-	-	-	-	-
Chlorpyrifos	mg/kg	2,000	-	-	-	-	-	-
Total PCBs	mg/kg	7	-	-	-	-	-	-
Arsenic, As	mg/kg	3,000	-	160	-	-	5	-
Cadmium, Cd	mg/kg	900	-	3	-	-	-	-
Chromium, Cr	mg/kg	3,600	-	330	-	310	15	-
Copper, Cu	mg/kg	240,000	-	170	-	140	30	-
Lead, Pb	mg/kg	1,500	-	2,000	-	1,800	160	-
Nickel, Ni	mg/kg	6,000	-	60	-	55	5	-
Zinc, Zn	mg/kg	400,000	-	480	-	360	120	-
Mercury	mg/kg	730	-	1	-	-	-	-
Bonded ACM	%	-	0.05%	-	-	-	-	-
FA and AF (friable asbestos)	%	-	0.001%	-	-	-	-	-
All forms of asbestos	No visible asbestos for surface soil							

In the NEPM, the preferred approach is to examine a range of summary statistics including the contaminant range, median, arithmetic/geometric mean, standard deviation (SD) and 95% upper confidence limit (UCL).

The NEPM recommends, at the very least, the maximum and the 95% UCL of the arithmetic mean contaminant concentration should be compared to the relevant DGV. The implications of localised elevated values (hot spots) should also be considered. The results should meet the following criteria:

- The SD of the results should be less than 50% of the relevant investigation or screening level; and
- No single value should exceed 250% of the relevant investigation or screening level.

Laboratory results were compared with soil investigation and screening levels for commercial/industrial land use. The comparisons are summarised in Summary Table 1 (attached).

7.8 Quality Assurance/Quality Control Plan

The QA/QC plan was designed to achieve predetermined DQIs that would demonstrate accuracy, precision, comparability, representativeness and completeness of the data generated.

7.8.1 Data Quality Indicators for the Project

DQIs for the project were to be based on field and laboratory considerations in the table in Appendix V of the NSW DEC Guidelines for the NSW Site Auditor Scheme (2nd Edition) and NEMP2.0. Specific DQIs for field and laboratory QA/QC samples are shown in Table 10.

TABLE 10: DATA QUALITY INDICATORS

Type of Quality Control Sample	Control Limit
Duplicate Samples	RPDs within 50% for analyte concentrations greater than 5 x LOR.
Rinsate Samples (deionised water)	Analytes not detected at concentrations greater than the blank water.
Spikes	Laboratory spike acceptance limits are a "live" range and updated regularly. The laboratory acceptance limits at the time of analysis will be used.
Blanks	Analytes not detected.

A review of the DQIs was to be undertaken to assess the usability and representative nature of data generated from the project. The outcome of the DQI assessment would either:

- Recommend the data is suitable to be used for the project; or
- Limit the suitability of the data to be used, or
- Recommend further contamination/validation sampling.

7.8.2 Sampling Protocols

The following sampling protocols were to be observed during the project:

- Test pit samples were to be collected from the centre of the excavator bucket load, to reduce the potential for cross-contamination;
- Borehole samples were to be collected either directly from the auger flight, or from the SPT split spoon, which was to be decontaminated prior to each use by scrubbing with a mixture of Decon90® phosphate-free detergent and potable water;
- Samples were to be collected using a clean pair of disposable nitrile gloves, which were to be changed between each sample;
- Samples were to be placed into appropriate laboratory-supplied glass jars with Teflon™ lined lids, and kept on ice during transport to the laboratory;
- Samples were to be dispatched to the laboratory under chain of custody (CoC) conditions. CoC documentation was to include:
    - sample identification of each sample;
    - date sampled; and
    - date dispatched to the laboratory; and
- Samples were to be dispatched within two days of collection, to avoid holding time exceedances.
- PFAS specific handling protols
    - Prior to sampling, the sampling personnel must wash their hands with plain soap and rinse thoroughly in tap water before donning a clean, new pair of disposable nitrile gloves;
    - Teflon®-coated materials and aluminium foil may not come into contact with the sample.
    - During sampling and storage, minimise the exposure of the sample to light by storing in a cooler box with the lid on.

7.8.3 Field Quality Control Samples

The following quality control samples were to be collected in the field:

- Intra-laboratory duplicate samples were to be collected at the rate of 1 per 20 primary samples collected;
- Inter-laboratory triplicate samples were to be collected at the rate of 1 per 20 primary samples collected;
- The relative percentage difference (RPD) of analyte concentrations between duplicates and triplicates and their respective primary samples was to be calculated to assess whether field sampling procedures produce reproducible results;
- A rinsate sample was to be collected from the SPT split spoon using demineralised water purchased from a service station. The rinsate sample was to be submitted and analysed to assess the effectiveness of decontamination procedures;
- A rinsate sample was to be collected from the hand auger using tap water between sampling for PFAS. The tap was to be tested before and after the auger had been rinsed; and
- Trip blank and trip BTEX spike samples were to accompany samples to SGS.

7.8.4 Laboratory Quality Control

Laboratory quality control protocols were to include the following:

- Laboratory analysis of samples was to be undertaken by NATA-accredited environmental testing laboratories;
- Laboratories were to implement a quality control plan conforming to the NEPM Schedule B3 Guidelines for Analysis of Potentially Contaminated Soils;
- Laboratory methods were to conform with USEPA methods (laboratory analytical methods are summarised in Table 8);
- Laboratories were to analyse reagent blanks, spike samples, duplicate spikes, matrix spikes, and surrogate spikes and duplicates to assess the laboratory's quality control; and
- Laboratories were to extract and/or analyse the samples within the required holding times. A summary of the holding times for extraction and/or analysis for COCs in this assessment is shown in Table 11.

TABLE 11: EXTRACTION AND ANALYSIS HOLDING TIME SUMMARY

Analysis	Medium	Extraction	Analysis
BTEXN	Soil	14 days	35 days from extraction
TRH	Soil	14 days	35 days from extraction
PAH	Soil	14 days	35 days from extraction
VOC	Soil	14 days	35 days from extraction
Metals	Soil	6 months	6 months
Mercury	Soil	26 days	26 days
Phenols	Soil	14 days	35 days from extraction
OCP/OPP/PCB	Soil	14 days	35 days from extraction
pH	Soil	7 days	4 days from extraction
CEC	Soil	26 days	26 days
PFAS	Soil	6 months	35 days from extraction

8 FIELD WORK

Prior to sampling, JME undertook a DBYD search and engaged an underground service locator to clear each of the sampling locations. Excavation permits were provided by Tomago Aluminium.

Test pit and borehole locations are recorded in Figure 8.

Field work was conducted by three JME environmental scientists on 6 and 7 April 2020 and by a JME environmental scientist on 3 and 11 June 2021.

Three locations (BH1, BH2 and MW10) were concrete cored and excavated using a 4truck-mounted drilling rig fitted with solid flight augers. Location MW10 was drilled three times in close proximity due to refusal of on large rock ballast at around 1.5m depth in the first two attempts. Boreholes BH1 and BH2 were terminated at the perceived top of groundwater. Borehole MW10 was extended to 2m beyond the perceived groundwater depth for the purposes of constructing a groundwater well. Refer to report *JME20005-5 Groundwater Contamination Assessment 21D and 21F School Drive Tomago* for further information regarding groundwater.

At depths of 1m and 2m in borehole BH2, an SPT was conducted. Results are recorded in Table 12. The SPT was not conducted in BH1 due to the risk of equipment damage in an off-centred hole, caused by rubble in fill near the top of the hole.

Four locations were excavated using a hand auger, two locations HA1 and HA2, targeted exposed soils on Lot 11 and two locations, HA3 and HA4 were on Lot 8.

Soil samples were collected from each borehole:

- Immediately below the concrete slab (0.2-0.3m);
- From each SPT interval, from the split spoon sampler; or
- At 1m intervals from borehole BH1 where the SPT was not deployed; and
- At additional intervals from the auger flights, when changes in lithology were observed. or
- From the hand auger flight.

In Lot 8, 15 sites (TP1 – TP15) were excavated using a 1.8 tonne excavator and three samples (FM1-FM3) were collected from a fill mound located in Lot 8.

Samples were collected from the surface, and at observed changes in lithology in 0.1m intervals. Test pits were terminated at the base of fill.

TABLE 12: BOREHOLE SAMPLES

Borehole	SPT		Sample	
	Depth	Result	Depth	Collected From
BH1			0.2m – 0.3m	Surface
			1.0m – 1.1m	Auger flight
			1.4m – 1.5m	Auger flight
			1.9m – 2.0m	Auger flight
			2.4m – 2.5m	Auger flight
BH2			0.2m – 0.3m	Surface
	1.0m – 1.45m	10, 19, 25	1.0m – 1.45m	SPT split spoon
	2.0m – 2.45m	9, 13, 13	2.0m – 2.45m	SPT split spoon
HA1			0.1-0.3	Surface
			0.9-1.1	Auger flight
			1.9-2.1	Auger flight
HA2			0.1-0.3	Surface
			0.9-1.1	Auger flight
			1.9-2.1	Auger flight
HA3			0.1-0.3	Surface
			0.9-1.1	Auger flight
			1.9-2.1	Auger flight
HA4			0.1-0.3	Surface
			0.9-1.1	Auger flight
			1.9-2.1	Auger flight
MW10			0.1-0.3	Surface
			0.9-1.1	Hand auger flight
			1.9-2.1	Auger flight

Removal of roots etc from the 0-0.1 of hand augers samples caused substantial loss of soil limiting the amount sample that could be collected for the actual surface.

9 LABORATORY ANALYSIS

Primary and duplicate samples were analysed by SGS, Sydney, and triplicate samples were analysed by ALS, Sydney. Selected samples were analysed for the following:

- BTEXN;
- TRH;
- PAH;

- VOC;
- Heavy metals (As, Cd, Cr, Cu, Pb, Ni, Zn and Hg);
- PFAS
- Phenols;
- OCP;
- OPP;
- PCB;
- pH; and
- CEC.

10 QUALITY ASSURANCE / QUALITY CONTROL

QA/QC protocols for ENM sampling and analysis in Lot 11 conducted by MBES are discussed in MBE2017 (attached in Appendix G).

Test pit samples were collected from the centre of the excavator bucket load, to reduce the potential for cross-contamination. Borehole samples were collected either directly from the auger flight, or from the SPT split spoon, which was decontaminated prior to each use by scrubbing with a mixture of Decon90® phosphate-free detergent and potable water. The hand auger was washed twice with tap water (sourced from site) after each sampling event. Samples, QCA and QCB, of the tap water was collected before and after the auger was washed, See Plates 1 and 2.

Plate 1: QCA collected prior to washing the hand auger.

Plate2: QCB collected after washing the hand auger.

Samples were collected using a clean pair of disposable nitrile gloves, which were changed between each sample. General contamination samples were placed into appropriate laboratory-supplied glass jars with Teflon™ lined lids. Samples collected specifically for the analysis of

PFAS were placed laboratory supplied plastic jars that were deemed by the labortaory to be free of PFAS. Samples were kept on ice during transport, and received by the primary laboratory at a temperature of:

- 16°C for samples collected on 6 and 7 April 2020;
- 15°C for samples collected on 3 June 2021; and
- 5°C for samples collected on 11 June 2021;

Samples were transported to the laboratory under CoC conditions (CoC documentation is included in Appendix F), and received by the laboratories with sufficient time to undertake analyses within specified holding times.

During the assessment, field duplicate and triplicate, and rinsate samples were collected and analysed, to check whether field sampling procedures produced reliable results. The RPD of analyte concentrations between duplicates and their respective primary samples were calculated to be within the acceptance criterion of 50% for concentrations greater than 5x the laboratory limit of reporting (LOR), with the following exceptions (note that RPD calculations that rely of the addition of individual analytes or bands of analytes are not considered relevant):

- Samples collected 6 and 7 April 2020:
    - TP8 0 and QC2
        - Arsenic 108%
        - Nickel 74%
    - TP8 0 and QC2A
        - Arsenic 143%
        - Cadmium 52%
        - Nickel 125%
- Samples collected on 3 June 2021:
    - FM1 and QC3
        - Arsenic 127%
        - Chromium 53%
        - Copper 73%
        - Lead 53%
        - Zinc 199%
    - FM1 and QC3A
        - Chromium 62%
        - Copper 55%
        - Lead 71%
        - Nickel 58%
        - Zinc 199%
- Samples collected on 11 June 2021:
    - No exceedances

RPD results are included in Summary Table 3 (attached). Of note is the primary result for zinc in the primary sample FM1 (5.5mg/kg) compared to the intra-laboratory duplicate QC3 (1,600mg/kg) and interlaboratory QC3A (1,750mg/kg). The primary result was significantly below the adopted ecological default guideline value whereas the QA/QC samples were greater than 250% of the adopted ecological default guideline value. The result from QC3A will be adopted as the primary result for the contamination assessment of the site.

During the assessment a rinsate sample (QCA) was collected on the 6/4/2021 using demineralised water purchased from a service station, from the SPT split spoon used to sample BH2. The rinsate sample was submitted and analysed to assess the effectiveness of decontamination procedures. Analytes were not detected at concentrations above the laboratory LOR, with the exception of zinc (43 µg/L). This indicates that the risk of cross contamination is minimal.

During the assessment a 'trip spike' sample was submitted and analysed to assess the potential for loss of volatile contaminants during transit. Analytes were detected at concentrations between 95% and 101% of the original value.

During the assessment a 'trip blank' sample was submitted and analysed to assess the potential for cross-contamination between samples during transit. Analytes were not detected at concentrations above the laboratory LOR.

QA/QC results are included in Summary Table 3 (attached).

During the PFAS soil assessment two 'rinsate' samples were collected from the final auger rinse. One before the final rinse was used, QCA 11/6/2021, and one after the final rinse was used, QCB 11/6/2021. PFOS was detected at 0.003µg/L, compared to a reporting limit of 0.002 µg/L, in QCB, indicating the potential of significant cross or introduced contamination from the sampling equipment was low.

SGS is NATA-accredited for the analyses requested. SGS conducted internal quality control using spikes, laboratory duplicates and method blanks. A review of SGS's data quality objectives (DQOs) for the analysis of soil samples indicated that DQOs were met, with the exception of:

- For samples collected 6 and 7 April 2020:
    - Extraction date exceedance of 3 days for pH in soil for 8 items;
    - Surrogate analysis for PAH in Soil for 1 item (at least 2 of 3 surrogates were within acceptance criteria);
    - Duplicate analysis for Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES for 10 items, due to sample heterogeneity;
    - Duplicate analysis for Volatile Petroleum Hydrocarbons in Soil for 3 items;
    - Duplicate analysis for Volatile Petroleum Hydrocarbons in Soil for 1 item (at least 2 of 3 surrogates were within acceptance criteria);
    - Matrix Spike analysis for Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES for 1 item, due to sample heterogeneity;
    - Matrix Spike analysis for Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES for 3 items, due to matrix interference; and
    - Matrix Spike analysis for VOCs in Soil for 1 item (at least 2 of 3 surrogates were within acceptance criteria).
- Samples collected on 3 June 2021:
    - Duplicate analysis for Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES for 4 items, due to sample heterogeneity;
    - Matrix Spike analysis for Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES for 3 item, due to sample heterogeneity or Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).

- Samples collected on 11 June 2021:
    - No exceedances in QA/QC analysis on samples submitted by JME.

ALS is NATA-accredited for the analyses requested. ALS conducted internal quality control using spikes, laboratory duplicates and method blanks. A review of ALS's DQOs for the analysis of soil samples indicated that DQOs were met in QA/QC analysis on samples submitted by JME.

Based on a review of QA/QC results it is considered that analytical results are indicative of the contamination status of the site at the time of sampling. The highest value of the primary sample, duplicate sample and triplicate sample was used for the assessment.

Laboratory QA/QC documentation is included in Appendix F.

11 RESULTS

11.1 Field Observations

Sampling locations are shown in Figure 8, borehole and test pit logs are included in Appendix B, and photographs are included in Appendix A.

MBE2017 (attached in Appendix G) recorded that soils in Lot 11 generally comprised fine to medium grained sand, white to dark brown in colour, with some gravel. Up to 0.2m of gravelly sandy clay fill was observed over some of the site.

During this assessment, the three borehole locations in Lot 11 were covered by concrete pavement 0.20m thick. Beneath the pavement, brown gravelly sand, containing concrete and brick rubble to a depth of between 1mbgl and 1.8mbgl, was interpreted to be imported recovered aggregate used for haul road construction of the former Midal development (based on JME observations during the Midal construction period). Light brown fine to medium grained sand was observed to the base of the boreholes, interpreted as representing in-situ, 'natural' material. Groundwater was interpreted as having been intersected at 2.4mbgl, and boreholes were terminated at 2.5mbgl.

Test pit observations are detailed in Table 13 (below).

In general, Lot 8 was covered by sand, grey to grey brown, with common road base gravel. Beneath this, dark grey to black sand was interpreted as representing fill. A layer of yellow brown to orange brown gravelly clay and clayey gravel was observed in some test pits. Below approximately 0.5 – 1.0mbgl, grey brown sand was interpreted as being in-situ, natural material.

The fill mound was considered to be a designed stockpile as evident from the silt fencing placed around it. It is considered likely that stockpile was generated from the Midal project construction.

Additional observations were as follows:

- Test pit TP1 was terminated at 1.6mbgl in dark brown fine grained sand fill, containing trace amounts of large rocks, plastic, terra cotta, concrete and brick;
- Plastic, brick, wood and metal were observed in surface fill in TP8, TP10 and TP12; and
- Test pit TP9 was terminated at excavator refusal in orange brown gravelly clay at approximately 0.5mbgl.

11.2 Laboratory Results

Laboratory results are summarised in Summary Table 1 (attached) and laboratory documentation is attached in Appendix F (note that analysis is included for test pits TP16 – TP22, which do not form part of this assessment).

JME2017 is attached in Appendix G.

Sampling locations are shown in Figures 3, 4 and 8.

The following analytes were not detected at concentrations above the laboratory LOR:

- Benzene;
- Toluene;
- Ethylbenzene;
- TRH F1;
- Naphthalene;
- OCP;
- OPP;
- PCB; and
- Mercury.

The following analytes were detected at concentrations above the laboratory LOR, but below adopted DGVs:

- PFOS (detected in the field triplicate sample)
- Xylenes;
- TRH F3 and F4;
- BaP;
- Chromium; and
- Nickel.

TRH were not detected at concentrations exceeding the laboratory LOR, with the exception of one sample from JME20005 TP9.

Heavy metals were detected in several samples in Lot 8, at concentrations which exceeded adopted DGVs. Observed exceedances included:

- Lead exceeded 250% of the adopted HIL in a surface sample collected from TP8. No other lead exceedances were observed;
- Zinc exceeded the adopted EIL in 17 samples from across Lot 8 with 10 samples exceeding the EIL by more than 250%. The ten samples were collected from test pits TP1, TP2, TP3, TP5, TP7, TP8, TP11, TP13 and TP14. as well as three samples from the fill mound on Lot 8 with two samples exceeding the EIL by more than 250%. Zinc exceeded the adopted EIL in a sample from hand auger HA2 on Lot 11.
- Copper exceeded the adopted EIL by more than 250% in five samples from test pits TP3, TP5, TP7, TP8 and TP13(see Figure 9);
- Arsenic exceeded adopted EILs by more than 250% in surface samples collected from TP5, TP7 and TP8, and arsenic exceeded adopted EIL in a sample collected from hand auger HA2 on Lot 11 (see Figure 10); and
- Cadmium exceeded adopted EILs in surface samples collected from TP5, TP7 and TP8.

Heavy metal DGV exceedances are summarised in Table 14 (below).

TABLE 13: TEST PIT OBSERVATIONS

	Lithology	TP1	TP2	TP3	TP4	TP5	TP6	TP7	TP8	TP9	TP10	TP11	TP12	TP13	TP14	TP15
Fill	Grey road base GRAVEL and gravelly SAND, grey brown to black, common plant roots	-	0.5	-	-	0.2	-	0.1	-	-	-	-	0.3	-	0.2	0.25
	Silty SAND, dark grey to black, fine grained, common plant roots	-	-	-	-	-	-	-	0.2	0.15	-	-	-	-	-	-
	Sandy clayey GRAVEL and gravelly CLAY, red brown, brown and yellow brown	-	-	-	-	-	-	0.2	-	0.5	0.1	0.1	0.6	0.2	-	0.3
	SAND, grey to dark grey brown to black, fine to medium grained	1.6	-	0.4	0.5	0.4	0.8	-	-	-	0.4	0.4	-	0.4	0.4	0.6
Natural	SAND, brown to orange brown to red brown, very fine to medium grained	-	1.0	1.0	0.7	0.8	1.1	0.7	0.7	-	0.6	0.8	0.7	0.7	0.6	0.7

TABLE 14: HEAVY METAL DGV EXCEEDANCES

Analyte	HIL	EIL	TP1 0	TP1 1.6	TP2 0.7	TP3 0	TP5 0	TP7 0	TP8 0	TP9 0.3	TP9 0.5	TP10 0	TP11 0	TP11 0.2	TP12 0.5	HA2-1	HA2-2
Arsenic	3,000	160					900	940	1,000								290
Cadmium	900	3					4.8	3.4	5.1								
Copper	240,000	170				680	1,700	2,100	2,400								
Lead	1,500	2,000							4,200								
Zinc	400,000	480	1,300	510	1,500	13,000	18,000	25,000	27,000	1,100	780	1,200	1,600	620	900	1,800	

Analyte	HIL	EIL	TP13 0	TP13 0.3	TP13 0.5	TP14 0.3	QC3A	FM2	FM3
Arsenic	3,000	160							
Cadmium	900	3							
Copper	240,000	170		520					
Lead	1,500	2,000							
Zinc	400,000	480	1,200	10,000	490	2,500	1,750	1,900	850

11.3 Statistical Analysis

Analytical results were assessed using the USEPA's ProUCL software package. The purpose of MBES2016 and MBES2017 was to facilitate the removal of 9,000m^3 of surface soils from Lot 11. The upper soils assessed in MBES2016 were likely to have been removed first and the deeper soils assessed in MBE2017 removed later. It is uncertain whether all of the soils assessed in MBES2017 were removed from all locations. Therefore, the results from MBES2017 were included in the data set along with results collected by JME this assessment. Observations were as follows:

- The SD of arsenic concentrations exceeded 50% of the DGV. When 'hot spot' results (where concentrations were >250% of the DGV) for samples TP5 0, TP7 0 and TP8 0 were removed from statistical analysis, the SD result satisfied the NEPM requirements for commercial/industrial land use (as discussed in Section 7.7);
- The SD of cadmium concentrations exceeded 50% of the DGV. When the two highest concentrations from TP5 and TP8 were removed from statistical analysis, the SD satisfied the NEPM requirements for commercial/industrial land use (as discussed in Section 7.7);
- The SD of copper concentrations exceeded 50% of the DGV, and the 95% UCL of the mean copper concentration exceeded the DGV. When 'hot spot' results from TP3, TP5, TP7, TP8 and TP13were removed from statistical analysis, the SD and 95% UCL results satisfied the NEPM requirements for commercial/industrial land use (as discussed in Section 7.7); and
- The SD of zinc concentrations exceeded 50% of the DGV, and the 95% UCL of the mean zinc concentration exceeded the DGV. When 'hot spot' results from TP3, TP5, TP 7, TP8 and TP13 were removed from statistical analysis, the SD and 95% UCL results satisfied the NEPM requirements for commercial/industrial land use (as discussed in Section 7.7).

The data sets and UCL calculation outputs are included in Appendix H.

12 DISCUSSION

Hydrocarbon contamination was not detected in samples collected from adjacent to the emulsion trench in Lot 11, indicating that significant contamination of soils in this area had not been caused by leaks from the trench.

The site was mostly flat, and divided into two parts. The western part of the site (Lot 11) was paved, and contained two large sheds, and some smaller buildings and water tanks. Beneath the pavement, brown gravelly sand, containing concrete and brick rubble to a depth of between 1mbgl and 1.8mbgl, was interpreted to be fill. This material had previously been assessed as meeting the criteria for excavated natural material, and for commercial/industrial land use. Approximately 9,000m^3 was removed from Lot 11 for the Medal Cables development. Light brown fine to medium grained sand beneath the fill was interpreted as representing in-situ, 'natural' material. Groundwater was intersected at 2.4mbgl. Hydrocarbon contamination was not detected in samples collected from adjacent to the hydrocarbon trench in Lot 11, indicating that significant contamination of soils in this area had not been caused by leaks from the trench.

The eastern part of the site (Lot 8) was unpaved, and sparsely covered with grass and other low vegetation. Fill mounds including concrete, metal and timber were observed, and concrete beams and concrete-filled tyres had been stockpiled in the northern part of Lot 8.

Fill, comprising brown to black sand, and containing some plastic, road base gravel, brick, concrete, metal and rocks, was observed to a depth of approximately 0.5 - 1mbgl across much of Lot 8. Elevated zinc and copper concentrations in this material were considered to be consistent with the use of sandblasting in the metal manufacturing process.

Beneath the fill, brown sand, interpreted as representing in-situ material, appeared to be largely uncontaminated.

Elevated arsenic, cadmium, copper, lead and zinc concentrations were observed in fill material on the surface in the northeast corner of the site. Elevated lead (4,600mg/kg) was limited to one location, test pit TP8. The lead concentration was more than 250% of adopted Human Health guideline value. Zinc contamination was higher along the northern and eastern borders of Lot 11 with the highest concentrations, 27,000mg/kg (TP8), 25,000mg/kg (TP7) and 18,000mg/kg (TP5), located at or near the lead impact location. Arsenic and copper were also detected at concentrations greater than 250% of the adopted ecological default guideline value at three locations, TP5, TP7 and TP8. Cadmium was detected at concentration less than 250% of the adopted ecological guidelines at the same locations.

13 CONCEPTUAL SITE MODEL

A Conceptual Site Model (CSM) has been prepared for the site, with reference to the NEPM Schedule B2, Guideline on Site Characterisation. The CSM identifies potential contaminant sources and COCs, contaminant release mechanisms, exposure pathways and potential receptors. The CSM is summarised in Table 15 (below).

13.1 Site History Summary

The site had been cleared for sand mining some time between 1954 and 1974. The site was used for steel and aluminium manufacturing from prior to 1987 to 2017. It was considered possible that sandblasting had taken place on the site, associated with the manufacture of metal products.

13.2 Site Description

Sampling locations are shown in Figure 8. Lot boundaries are shown in Figure 2.

Soils on the site were observed to comprise mostly sand. Fill, comprising brown to black sand, and containing some plastic, road base gravel, brick, concrete, metal and rocks, was observed to a depth of approximately 0.5 - 1mbgl across much of the site. Elevated zinc and copper concentrations in this material were considered to be consistent with the use of sandblasting in the metal manufacturing process.

It was considered possible that slag from the former Pasminco lead smelter had been deposited on the surface in limited areas of the site, particularly in the northeast.

Below the fill, grey brown sand was interpreted as being in-situ, natural material.

Groundwater was intersected at approximately 2.4mbgl in boreholes BH1 and BH2.

The western part of the site (Lot 11) was covered by concrete pavement (0.2m thick at BH1 and BH2), and underlain by sand which had been assessed as being suitable for ongoing industrial land use. A north-south concrete-lined trench, understood to have been used for emulsion storage, was observed in a large shed in the northwest corner of the site. Hydrocarbon contamination was not observed in samples collected from this area.

13.3 Source Zone Characteristics

13.3.1 Primary Contaminant Sources

JME considered potential sources of impact on the site to include:

- Use of the site for manufacture of metal products (potentially including sandblasting operations); and
- Potential importation of uncontrolled fill.

13.3.2 Identified Contaminants of Concern

Based on the results of this assessment, COCs on the site were considered to include heavy metals (arsenic, cadmium, copper, lead and zinc).

13.4 Areas of Environmental Concern

AECs on the site were considered to include fill across the site's surface.

13.5 Contaminant Transport Mechanisms

Primary transport mechanisms on the site were considered to include:

- Wind transport of fine surface material;
- Surface water flow; and
- Percolation of stormwater through permeable sediments into groundwater, and groundwater migration towards the Hunter River.

13.6 Contaminant Exposure Pathways

For contaminated soil to pose a risk to a receptor, a complete exposure pathway must exist between the source of impact and the receptor. A complete exposure pathway consists of the following elements:

- A source and mechanism for release;
- A storage and/or transport medium (e.g. contaminants stored in fine soil types and transported into the atmosphere as dust);
- An exposure point, where the receptor comes in contact with the contamination; and
- An exposure route (e.g. inhalation).

Potential exposure pathways on the site were considered to include:

- Metabolisation by the local ecology;
- Dermal contact, incidental ingestion and inhalation of dust by workers on the site and neighbouring premises; and
- Off-site migration of groundwater potentially impacting hydraulically down-gradient surface water users and ecology.

13.7 Identification of Receptors at Risk

Potential receptors were considered to include:

- Current and future workers and visitors to the site;
- Local ecology;
- Groundwater; and
- Down-gradient surface water (Hunter River) users and ecology.

TABLE 15: CONCEPTUAL SITE MODEL 21D and 21F SCHOOL DRIVE TOMAGO

Known and Potential Primary Sources	Contaminants of Concern	Potentially Impacted Media	Transport Mechanism	Exposure Pathways	Potential Receptors
Fill used to level site Previous metalworking operations	Heavy metals	Soil Air Ground and surface water	Surface water Groundwater Wind	Metabolisation Dermal contact Inhalation Ingestion	Site and neighbouring workers Ecology

14 CONCLUSION AND RECOMMENDATIONS

Based on this assessment, it was considered that the site had been impacted by contamination comprising heavy metals at concentrations exceeding guideline values for commercial/ industrial land use. JME considers the impact to be minor and that the site could meet the environmental requirements for commercial/industrial land use subject to the development and successful implementation of an appropriate Remedial Action Plan.

REFERENCES

CRC CARE Technical Report No. 39 'Risk-based management and remediation guidance for benzo(a)pyrene'

MB Engineering Solutions Pty Ltd (2012) MBE2016-Report (ref: MBE2016)

MB Engineering Solutions Pty Ltd (2013) Excavated Natural Material Assessment Lot 11 McIntyre Rd, Tomago (ref: MBE2017)

MB Engineering Solutions Pty Ltd (2013) Excavated Natural Material Assessment Addendum Lot 11 McIntyre Rd, Tomago (ref: MBE2017)

National Environment Protection (Assessment of Site Contamination) Measure (NEPM) 1999 (amended 2013) Schedule B1, Guideline on Investigation Levels for Soil and Groundwater

National Environment Protection (Assessment of Site Contamination) Measure (NEPM) 1999 (amended 2013) Schedule B2, Guideline on Site Characterisation

National Environment Protection (Assessment of Site Contamination) Measure (NEPM) 1999 (amended 2013) Schedule B3, Guideline on Laboratory Analysis of Potentially Contaminated Soils

National Environment Protection (Assessment of Site Contamination) Measure (NEPM) 1999 (amended 2013) Schedule B5c, Guideline on Ecological Investigation Level for Arsenic, Chromium (III), Copper, DDT, Lead, Naphthalene, Nickel & Zinc

NSW Contaminated Land Management Act 1997

NSW Department of Environment and Conservation (2006) Guidelines for the NSW Site Auditor Scheme 2nd edition

NSW Department of Mineral Resources (1966) Newcastle 1:250,000 Geological Sheet (SI/56-02)

NSW Environment Protection Authority (1995) Sampling Design Guidelines

NSW Environment Protection Authority (2017) Guidelines for the NSW Site Auditor Scheme 3rd Edition

NSW Office of Environment and Heritage (2011) Guidelines for Consultants Reporting on Contaminated Sites

NSW Protection of the Environment Operations Act 1997

Google Earth

www.maps.six.nsw.gov.au

NSW Department of Planning, Industry and Environment –"eSPADE NSW Soil and Land Information" online service

Port Stephens Local Environmental Plan

realtimedata.waternsw.com.au/water.stm

LIMITATIONS

This report was prepared for Remondis with the objective of assessing the presence of potential contamination on the site that could impact on the future development of the site. The report is not intended for other parties or other uses. No warranty, expressed or implied, is made as to the information and professional advice included in this report. Anyone using this document does so at their own risk and should satisfy themselves concerning its applicability and, where necessary, should seek expert advice in relation to the particular situation at the time.

In preparing this report, current guidelines for the assessment and management of contaminated land were followed. This work has been conducted in good faith, in accordance with JME's understanding of the client's brief, and general accepted practice for environmental consulting. The findings within this report are the result of discrete/specific sampling practices used in accordance with normal practices and standards. To the best of JME's knowledge, they represent a reasonable interpretation of the general conditions of the site. Under no circumstances, however, can it be considered that these findings represent the actual state of the site at all points. It is the nature of contaminated site investigations that the degree of variability in site conditions cannot be known completely, and no sampling and analysis program can eliminate all uncertainty concerning the condition of the site. Professional judgement must be exercised in the collection and interpretation of data.

It was considered possible that groundwater had been contaminated via previous activities on the site; however, at this stage Remondis has requested soil sampling only be undertaken.

This report does not contain geotechnical information and should not be used for geotechnical purposes.

Summary Tables

Summary Table 1
Laboratory Analysis
VOC/TRH/PAH/8 HM/OCP/PCB/pH/CEC

Analyte Name	Units	Adopted DGV	Origin of Adopted DGV	Sample ID	TP1 1m	TP1 2m	TP2 1m	TP2 2m	TP3 1m	TP3 2m	TP4 1m	TP4 2m	TP5 1m	TP5 2m	TP6 1m	TP6 2m	TP7 1m	TP7 2m	TP8 1m	TP8 2m	TP9 1m	TP9 2m	TP10 1m	TP10 2m	TP11 1m	TP11 2m	TP12 1m	TP12 2m	TP13 1m	TP13 2m	TP14 1m	TP14 2m	TP15 1m
				Sample Date	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013
				Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
				LOR	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Benzene	mg/kg	3	2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	135	7	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	165	7	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	180	7	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total VOC	mg/kg	-	-	24	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRH C6-C10 minus BTEX (F1)	mg/kg	215	7	25	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRH >C10-C16	mg/kg	170	7	25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	1700	7	90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	3300	7	120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120
Naphthalene	mg/kg	370	6	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	172	9	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ	TEQ (mg/kg)	40	1	0.3	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Total PAH	mg/kg	4000	1	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
DDT	mg/kg	640	6	0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
DDT+DDE+DDD	mg/kg	3600	1	0.6	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Aldrin and Dieldrin	mg/kg	45	1	0.3	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Chlordane	mg/kg	530	1	0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Endosulfan	mg/kg	2000	1	0.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Hexachlorobenzene (HCB)	mg/kg	80	1	0.1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Heptachlor	mg/kg	50	1	0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Endrin	mg/kg	100	1	0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Methoxychlor	mg/kg	2500	1	0.1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	2000	1	0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Total OP Pesticides	mg/kg	-	-	1.7	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Total PCBs (Arochlors)	mg/kg	7	1	1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Phenol	mg/kg	240000	1	0.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Cresols	mg/kg	25000	1	1.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Arsenic, As	mg/kg	160	6	1	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Cadmium, Cd	mg/kg	3	8	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	330	5	0.5	**2.1**	**1.9**	**1.1**	**1.8**	**1.5**	**1.1**	**1.1**	**1.1**	**1.6**	**0.7**	**1.5**	**1.0**	**17**	**9.1**	**1.8**	**2.0**	**1.4**	**1.8**	**2.3**	**2.2**	**2.3**	**2.7**	**1.6**	**1.1**	**1.2**	**1.2**	**1.1**	**1.1**	**1.3**
Copper, Cu	mg/kg	170	4	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**9.7**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.5**	**2.6**	**0.5**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1500	1	1	<1	<1	<1	<1	<1	<1	<1	<1	**1**	<1	<1	<1	**12**	**3**	<1	<1	<1	<1	**1**	**2**	**3**	**1**	<1	<1	<1	<1	<1	<1	<1
Nickel, Ni	mg/kg	60	5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**4.3**	**0.6**	<0.5	<0.5	<0.5	<0.5	**0.6**	**0.9**	**1.5**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Zinc, Zn	mg/kg	480	3	1	**1**	**1**	**1**	**8**	**4**	**2**	**1**	**1**	**6**	**5**	**1**	**23**	**170**	**4**	**3**	**1**	**1**	**3**	**12**	**25**	**46**	**67**	**6**	**2**	**2**	**2**	**1**	**1**	**2**
Mercury	mg/kg	1	8	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
pH	pH Units	-	-		**6.8**	**6.2**	**5.2**	**6.5**	**6.3**	**6.4**	**6.1**	**5.9**	**5.9**	**6.0**	**6.6**	**6.3**	**6.8**	**6.2**	**6.7**	**6.3**	**7.1**	**5.8**	**4.7**	**5.6**	**7.6**	**8.2**	**6.4**	**6.6**	**5.9**	**5.9**	**6.0**	**5.8**	**5.8**
Cation Exchange Capacity	meq/100g	-	-		N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

EILs are based on soil pH of 7.0 and CEC of 0.79meq/100g
Unless otherwise specified, referred tables are within the National Environment Protection (Assessment of Site Contamination) Measure (NEPM) 1999 (amended 2013) Schedule B1, Guideline on Investigation Levels for Soil and Groundwater.

1	Table 1A(1) Health investigation levels for soil contaminants (D - commercial/industrial).
2	Table 1A(3) Soil HSLs for vapour intrusion (HSL D - commercial/industrial) 0m to <1m
3	Table 1B(1) Soil-specific added contaminant limits for aged zinc in soil (Commercial/industrial)
4	Table 1B(2) Soil-specific added contaminant limits for aged copper in soils (Commercial/industrial)
5	Table 1B(3) Soil-specific added contaminant limits for aged chromium III and nickel in soil (Commercial/industrial)
6	Table 1B(5) Generic EILs for aged As, fresh DDT and fresh naphthalene in soils irrespective of their physicochemical properties (Commercial/industrial)
7	Table 1B(6) ESLs for TPH fractions F1 – F4, BTEX and benzo(a)pyrene in soil (Commercial/industrial) mst conservative value from fine or coarse grained soil.
8	NSW DEC. (2006). Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (2nd Edition). Department of Environment and Conservation NSW, Sydney Appendix II Column 5
9	CRC CARE Technical Report No. 39 'Risk-based management and remediation guidance for benzo(a)pyrene'

1800	Exceeds 50% of the adopted human health assessment criterion
1800	Exceeds the adopted human health assessment criterion
1800	Exceeds 250% of the adopted human health assessment criterion
1800	Exceeds 50% of the adopted ecological assessment criterion
1800	Exceeds the adopted ecological assessment criterion
1800	Exceeds 250% of the adopted ecological assessment criterion

Summary Table 1
Laboratory Analysis
VOC/TRH/PAH/8 HM/OCP/PCB/pH/CEC

		Adopted	Origin of Adopted	Sample ID	TP15 2m	TP16 1m	TP16 2m	TP17 1m	TP17 2m	TP18 1m	TP18 2m	TP19 1m	TP19 2m	TP20 1m	TP20 2m	TP21 1m	TP21 2m	TP22 1m	TP22 2m	TP23 1m	TP23 2m	TP24 1m	TP24 2m	TP25 1m	TP25 2m	TP26 1m	TP26 2m	TP27 1m	TP27 2m	TP28 1m	TP28 2m	TP29 1m
				Sample Date	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013
				Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Analyte Name	**Units**	**DGV**	**DGV**	**LOR**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
Benzene	mg/kg	3	2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	135	7	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	165	7	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	180	7	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total VOC	mg/kg	-	-	24	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRH C6-C10 minus BTEX (F1)	mg/kg	215	7	25	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRH >C10-C16	mg/kg	170	7	25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	1700	7	90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	3300	7	120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120
Naphthalene	mg/kg	370	6	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	172	9	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ	TEQ (mg/kg)	40	1	0.3	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Total PAH	mg/kg	4000	1	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
DDT	mg/kg	640	6	0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
DDT+DDE+DDD	mg/kg	3600	1	0.6	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Aldrin and Dieldrin	mg/kg	45	1	0.3	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Chlordane	mg/kg	530	1	0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Endosulfan	mg/kg	2000	1	0.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Hexachlorobenzene (HCB)	mg/kg	80	1	0.1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Heptachlor	mg/kg	50	1	0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Endrin	mg/kg	100	1	0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Methoxychlor	mg/kg	2500	1	0.1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	2000	1	0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Total OP Pesticides	mg/kg	-	-	1.7	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Total PCBs (Arochlors)	mg/kg	7	1	1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Phenol	mg/kg	240000	1	0.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Cresols	mg/kg	25000	1	1.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Arsenic, As	mg/kg	160	6	1	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Cadmium, Cd	mg/kg	3	8	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	330	5	0.5	**1.2**	**1.1**	**1.6**	**1.4**	**0.8**	**2.5**	**6.1**	**4.6**	**1.9**	**1.0**	**1.8**	**1.3**	**1.4**	**0.7**	**2.0**	**2.4**	**2.0**	**1.6**	**1.9**	**1.7**	**1.7**	**1.6**	**1.1**	**1.7**	**1.4**	**1.9**	**1.7**	**2.5**
Copper, Cu	mg/kg	170	4	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.5**	**1.3**	**5.9**	**1.3**	<0.5	<0.5	<0.5	<0.5	<0.5	**1.1**	**1.4**	<0.5	**1.0**	<0.5	<0.5	**1.1**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1500	1	1	<1	<1	<1	**1**	<1	**1**	**4**	**7**	**2**	<1	<1	<1	<1	<1	**2**	**3**	**1**	**2**	**1**	<1	**2**	<1	<1	<1	<1	**1**	**1**	<1
Nickel, Ni	mg/kg	60	5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	**3.3**	**0.9**	<0.5	<0.5	<0.5	<0.5	<0.5	**0.5**	**1.0**	**0.6**	<0.5	**0.6**	**0.7**	<0.5	**0.6**	<0.5	**0.8**	<0.5	**0.6**	<0.5	**0.8**
Zinc, Zn	mg/kg	480	3	1	**1**	**1**	**1**	**50**	**12**	**24**	**50**	**140**	**29**	**1**	**2**	**2**	**1**	**2**	**42**	**120**	**12**	**21**	**13**	**7**	**30**	**3**	**8**	**8**	**7**	**56**	**34**	**35**
Mercury	mg/kg	1	8	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
pH	pH Units	-	-		**5.6**	**5.1**	**6.1**	**6.5**	**6.6**	**6.8**	**6.7**	**6.9**	**6.6**	**4.9**	**4.5**	**5.8**	**5.9**	**5.8**	**6.1**	**6.3**	**6.0**	**6.3**	**6.4**	**6.7**	**6.7**	**5.7**	**5.7**	**6.4**	**5.3**	**6.0**	**6.2**	**6.0**
Cation Exchange Capacity	meq/100g	-	-		N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

EILs are based on soil pH of 7.0 and CEC of 0.79meq/100g
Unless otherwise specified, referred tables are within the National Environment Protection (Assessment of Site Contamination) Measure (NEPM) 1999 (amended 2013) Schedule B1, Guideline on Investigation Levels for Soil and Groundwater.

1	Table 1A(1) Health investigation levels for soil contaminants (D - commercial/industrial).
2	Table 1A(3) Soil HSLs for vapour intrusion (HSL D - commercial/industrial) 0m to <1m
3	Table 1B(1) Soil-specific added contaminant limits for aged zinc in soil (Commercial/industrial)
4	Table 1B(2) Soil-specific added contaminant limits for aged copper in soils (Commercial/industrial)
5	Table 1B(3) Soil-specific added contaminant limits for aged chromium III and nickel in soil (Commercial/industrial)
6	Table 1B(5) Generic EILs for aged As, fresh DDT and fresh naphthalene in soils irrespective of their physicochemical properties (Commercial/industrial)
7	Table 1B(6) ESLs for TPH fractions F1 – F4, BTEX and benzo(a)pyrene in soil (Commercial/industrial) mst conservative value from fine or coarse grained soil.
8	NSW DEC. (2006). Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (2nd Edition). Department of Environment and Conservation NSW, Sydney Appendix II Column 5
9	CRC CARE Technical Report No. 39 'Risk-based management and remediation guidance for benzo(a)pyrene'

1800	Exceeds 50% of the adopted human health assessment criterion
1800	Exceeds the adopted human health assessment criterion
1800	Exceeds 250% of the adopted human health assessment criterion
1800	Exceeds 50% of the adopted ecological assessment criterion
1800	Exceeds the adopted ecological assessment criterion
1800	Exceeds 250% of the adopted ecological assessment criterion

Summary Table 1
Laboratory Analysis
VOC/TRH/PAH/8 HM/OCP/PCB/pH/CEC

		Adopted	Origin of Adopted	Sample ID	TP29 2m	TP30 1m	TP30 2m	TP31 1m	TP31 2m	TP31 3m	TP32 1m	TP32 2m	TP33 1m	TP33 2m	TP34 1m	TP34 2m	TP35 1m	TP35 2m	BH1 1-1.1	BH1 2-4.2.5	BH2 1-1.45	BH2 2-2.45	TP1 0	TP1 1.6	TP2 0	TP2 0.7	TP3 0	TP3 0.55	TP4 0	TP4 0.7	TP5 0
				Sample Date	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020
				Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Analyte Name	**Units**	**DGV**	**DGV**	**LOR**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
Benzene	mg/kg	3	2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	135	7	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	165	7	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	180	7	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total VOC	mg/kg	-	-	24	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<24	<24	N.A.	N.A.	<24	N.A.	N.A.	N.A.	N.A.	N.A.	<24	N.A.
TRH C6-C10 minus BTEX (F1)	mg/kg	215	7	25	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
TRH >C10-C16	mg/kg	170	7	25	<25	<25	<25	<25	<25	N.A.	<25	<25	<25	<25	**52**	**490**	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	1700	7	90	<90	<90	<90	<90	<90	N.A.	<90	<90	<90	<90	**580**	**1400**	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	3300	7	120	<120	<120	<120	<120	<120	N.A.	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120
Naphthalene	mg/kg	370	6	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	N.A.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	172	9	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**
Carcinogenic PAHs, BaP TEQ	TEQ (mg/kg)	40	1	0.3	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.3	<0.3	<0.3	<0.3	**0.3**	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	**0.3**
Total PAH	mg/kg	4000	1	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	**1.7**	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	**1.3**
DDT	mg/kg	640	6	0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	<0.2	N.A.	N.A.	N.A.
DDT+DDE+DDD	mg/kg	3600	1	0.6	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.6	N.A.	<0.6	N.A.	N.A.	N.A.
Aldrin and Dieldrin	mg/kg	45	1	0.3	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.3	N.A.	<0.3	N.A.	N.A.	N.A.
Chlordane	mg/kg	530	1	0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	<0.2	N.A.	N.A.	N.A.
Endosulfan	mg/kg	2000	1	0.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.5	N.A.	<0.5	N.A.	N.A.	N.A.
Hexachlorobenzene (HCB)	mg/kg	80	1	0.1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.1	N.A.	<0.1	N.A.	N.A.	N.A.
Heptachlor	mg/kg	50	1	0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	<0.2	N.A.	N.A.	N.A.
Endrin	mg/kg	100	1	0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	<0.2	N.A.	N.A.	N.A.
Methoxychlor	mg/kg	2500	1	0.1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.1	N.A.	<0.1	N.A.	N.A.	N.A.
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	2000	1	0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	<0.2	N.A.	N.A.	N.A.
Total OP Pesticides	mg/kg	-	-	1.7	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<1.7	N.A.	<1.7	N.A.	N.A.	N.A.
Total PCBs (Arochlors)	mg/kg	7	1	1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<1	N.A.	<1	N.A.	N.A.	N.A.
Phenol	mg/kg	240000	1	0.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.5	N.A.	<0.5	N.A.	N.A.	N.A.
Cresols	mg/kg	25000	1	1.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<1.5	N.A.	<1.5	N.A.	N.A.	N.A.
Arsenic, As	mg/kg	160	6	1	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	**2**	**2**	<1	<1	**6**	**80**	**6**	**7**	**100**	<1	**3**	<1	900
Cadmium, Cd	mg/kg	3	8	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	**0.3**	<0.3	<0.3	<0.3	**1.2**	<0.3	<0.3	<0.3	4.8
Chromium, Cr	mg/kg	330	5	0.5	**2.7**	**2.4**	**1.5**	**2.2**	**2.3**	**3.0**	**2.0**	**1.3**	**2.1**	**2.7**	**4.1**	**1.3**	**1.4**	**2.4**	**4.0**	**1.0**	**5.7**	**2.2**	**42**	**11**	**3.6**	**8.2**	**31**	**1.7**	**7.3**	**1.4**	**61**
Copper, Cu	mg/kg	170	4	0.5	**1.8**	<0.5	<0.5	<0.5	<0.5	**1.0**	<0.5	<0.5	<0.5	**0.6**	**1.2**	<0.5	<0.5	**3.4**	**6.8**	**1.2**	**4.2**	**0.9**	**56**	**53**	**11**	**67**	680	**1.3**	**22**	**2.8**	1700
Lead, Pb	mg/kg	1500	1	1	**3**	**1**	<1	<1	<1	**2**	<1	<1	<1	**2**	**5**	<1	<1	**6**	**6**	<1	**4**	<1	**70**	**33**	**9**	**120**	**840**	**2**	**34**	**4**	**940**
Nickel, Ni	mg/kg	60	5	0.5	**0.6**	**0.6**	<0.5	<0.5	**0.5**	**0.8**	<0.5	<0.5	<0.5	**0.6**	**0.6**	<0.5	<0.5	**0.7**	**8.2**	**0.9**	**4.5**	**0.5**	**17**	**11**	**9.8**	**4.1**	**4.8**	<0.5	**7.1**	**0.9**	**52**
Zinc, Zn	mg/kg	480	3	1	**140**	**24**	**24**	**34**	**4**	**66**	**2**	**5**	**92**	**190**	660	**13**	**2**	**110**	**57**	<2	**61**	**4.0**	1300	510	**74**	1500	13000	**33**	**400**	**59**	18000
Mercury	mg/kg	1	8	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
pH	pH Units	-	-		**5.9**	**6.2**	**6.5**	**6.7**	**6.8**	**7.2**	**6.0**	**5.8**	**6.4**	**6.5**	**6.4**	**6.3**	**6.2**	**7.5**	**8.8**	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Cation Exchange Capacity	meq/100g	-	-		N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	**3.6**	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

EILs are based on soil pH of 7.0 and CEC of 0.79meq/100g
Unless otherwise specified, referred tables are within the National Environment Protection (Assessment of Site Contamination) Measure (NEPM) 1999 (amended 2013) Schedule B1, Guideline on Investigation Levels for Soil and Groundwater.

1	Table 1A(1) Health investigation levels for soil contaminants (D - commercial/industrial).
2	Table 1A(3) Soil HSLs for vapour intrusion (HSL D - commercial/industrial) 0m to <1m
3	Table 1B(1) Soil-specific added contaminant limits for aged zinc in soil (Commercial/industrial)
4	Table 1B(2) Soil-specific added contaminant limits for aged copper in soils (Commercial/industrial)
5	Table 1B(3) Soil-specific added contaminant limits for aged chromium III and nickel in soil (Commercial/industrial)
6	Table 1B(5) Generic EILs for aged As, fresh DDT and fresh naphthalene in soils irrespective of their physicochemical properties (Commercial/industrial)
7	Table 1B(6) ESLs for TPH fractions F1 – F4, BTEX and benzo(a)pyrene in soil (Commercial/industrial) mst conservative value from fine or coarse grained soil.
8	NSW DEC. (2006). Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (2nd Edition). Department of Environment and Conservation NSW, Sydney Appendix II Column 5
9	CRC CARE Technical Report No. 39 'Risk-based management and remediation guidance for benzo(a)pyrene'

1800	Exceeds 50% of the adopted human health assessment criterion
1800	Exceeds the adopted human health assessment criterion
1800	Exceeds 250% of the adopted human health assessment criterion
1800	Exceeds 50% of the adopted ecological assessment criterion
1800	Exceeds the adopted ecological assessment criterion
1800	Exceeds 250% of the adopted ecological assessment criterion

Summary Table 1
Laboratory Analysis
VOC/TRH/PAH/8 HM/OCP/PCB/pH/CEC

Analyte Name	Units	Adopted DGV	Origin of Adopted DGV	Sample ID	TP5 0.5	TP6 1	TP7 0	TP7 0.6	TP8 0	TP8 0.7	TP9 0.3	TP9 0.5	TP10 0	TP10 0.3	TP10 0.6	TP11 0	TP11 0.2	TP11 0.5	TP12 0	TP12 0.5	TP12 0.7	TP13 0	TP13 0.3	TP13 0.5	TP14 0.3	TP14 0.5	TP15 0	TP15 0.5	HA1-3	HA2-1	HA2-2
				Sample Date	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	6/4/2020	11/6/2021	3/06/2021	3/06/2021
				Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
				LOR	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Benzene	mg/kg	3	2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	135	7	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	165	7	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	180	7	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	**0.4**	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total VOC	mg/kg	-	-	24	N.A.	<24	N.A.	N.A.	N.A.	N.A.	N.A.	<24	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<24	N.A.	N.A.	<24	N.A.	N.A.	N.A.	<24	N.A.	N.A.	N.A.	N.A.
TRH C6-C10 minus BTEX (F1)	mg/kg	215	7	25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
TRH >C10-C16	mg/kg	170	7	25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	1700	7	90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	3300	7	120	<120	<120	<120	<120	<120	<120	**180**	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120
Naphthalene	mg/kg	370	6	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	172	9	0.1	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	**0.4**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ	TEQ (mg/kg)	40	1	0.3	<0.3	<0.3	**0.3**	<0.3	<0.3	<0.3	<0.3	<0.3	**0.6**	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total PAH	mg/kg	4000	1	0.8	<0.8	<0.8	**1.3**	<0.8	<0.8	<0.8	<0.8	<0.8	**3.7**	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
DDT	mg/kg	640	6	0.2	N.A.	N.A.	<0.2	<0.2	N.A.	N.A.	<0.2	N.A.	N.A.	<0.2	<0.2	N.A.	<0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.	N.A.	N.A.	N.A.
DDT+DDE+DDD	mg/kg	3600	1	0.6	N.A.	N.A.	<0.6	<0.6	N.A.	N.A.	<0.6	N.A.	N.A.	<0.6	<0.6	N.A.	<0.6	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.6	N.A.	N.A.	N.A.	N.A.	N.A.
Aldrin and Dieldrin	mg/kg	45	1	0.3	N.A.	N.A.	<0.3	<0.3	N.A.	N.A.	<0.3	N.A.	N.A.	<0.3	<0.3	N.A.	<0.3	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.3	N.A.	N.A.	N.A.	N.A.	N.A.
Chlordane	mg/kg	530	1	0.2	N.A.	N.A.	<0.2	<0.2	N.A.	N.A.	<0.2	N.A.	N.A.	<0.2	<0.2	N.A.	<0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.	N.A.	N.A.	N.A.
Endosulfan	mg/kg	2000	1	0.5	N.A.	N.A.	<0.5	<0.5	N.A.	N.A.	<0.5	N.A.	N.A.	<0.5	<0.5	N.A.	<0.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.5	N.A.	N.A.	N.A.	N.A.	N.A.
Hexachlorobenzene (HCB)	mg/kg	80	1	0.1	N.A.	N.A.	<0.1	<0.1	N.A.	N.A.	<0.1	N.A.	N.A.	<0.1	<0.1	N.A.	<0.1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.1	N.A.	N.A.	N.A.	N.A.	N.A.
Heptachlor	mg/kg	50	1	0.2	N.A.	N.A.	<0.2	<0.2	N.A.	N.A.	<0.2	N.A.	N.A.	<0.2	<0.2	N.A.	<0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.	N.A.	N.A.	N.A.
Endrin	mg/kg	100	1	0.2	N.A.	N.A.	<0.2	<0.2	N.A.	N.A.	<0.2	N.A.	N.A.	<0.2	<0.2	N.A.	<0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.	N.A.	N.A.	N.A.
Methoxychlor	mg/kg	2500	1	0.1	N.A.	N.A.	<0.1	<0.1	N.A.	N.A.	<0.1	N.A.	N.A.	<0.1	<0.1	N.A.	<0.1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.1	N.A.	N.A.	N.A.	N.A.	N.A.
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	2000	1	0.2	N.A.	N.A.	<0.2	<0.2	N.A.	N.A.	<0.2	N.A.	N.A.	<0.2	<0.2	N.A.	<0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.	N.A.	N.A.	N.A.
Total OP Pesticides	mg/kg	-	-	1.7	N.A.	N.A.	<1.7	<1.7	N.A.	N.A.	<1.7	N.A.	N.A.	<1.7	<1.7	N.A.	<1.7	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<1.7	N.A.	N.A.	N.A.	N.A.	N.A.
Total PCBs (Arochlors)	mg/kg	7	1	1	N.A.	N.A.	<1	<1	N.A.	N.A.	<1	N.A.	N.A.	<1	<1	N.A.	<1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<1	N.A.	N.A.	N.A.	N.A.	N.A.
Phenol	mg/kg	240000	1	0.5	N.A.	N.A.	<0.5	<0.5	N.A.	N.A.	<0.5	N.A.	N.A.	<0.5	<0.5	N.A.	<0.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.5	N.A.	N.A.	N.A.	N.A.	N.A.
Cresols	mg/kg	25000	1	1.5	N.A.	N.A.	<1.5	<1.5	N.A.	N.A.	<1.5	N.A.	N.A.	<1.5	<1.5	N.A.	<1.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<1.5	N.A.	N.A.	N.A.	N.A.	N.A.
Arsenic, As	mg/kg	160	6	1	**1**	<1	**940**	**2**	**1000**	<1	**24**	**6**	**27**	<1	**1**	**12**	<1	<1	**3**	**29**	<1	**17**	**100**	**4**	**11**	<1	**4**	**1**	**2**	**16**	290
Cadmium, Cd	mg/kg	3	8	0.3	<0.3	<0.3	**3.4**	<0.3	**5.1**	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	**0.9**	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	**0.4**	**3.2**
Chromium, Cr	mg/kg	330	5	0.5	**0.6**	**1.4**	**72**	**3.9**	**37**	**2.8**	**7.9**	**6**	**6.7**	**1.8**	**4.7**	**13**	**3.9**	**1.9**	**8.2**	**7.8**	**1.9**	**11**	**27**	**3.1**	**18**	**2.9**	**5.8**	**11.0**	**8.0**	**110**	**6.0**
Copper, Cu	mg/kg	170	4	0.5	**3.7**	**0.9**	**2100**	**18**	**2400**	**11**	**40**	**41**	**71**	**11**	**21**	**66**	**4.0**	**1.0**	**13**	**55**	**3.5**	**66**	**520**	**25**	**65**	**0.8**	**14**	**2**	**8**	**62**	**170**
Lead, Pb	mg/kg	1500	1	1	**5**	**2**	**1100**	**33**	**4200**	**18**	**46**	**60**	**83**	**12**	**36**	**83**	**6**	<1	**25**	**71**	**6**	**75**	**1100**	**62**	**120**	**2**	**27**	**17**	**8**	**66**	**33**
Nickel, Ni	mg/kg	60	5	0.5	<0.5	<0.5	**38**	**0.8**	**26**	<0.5	**6.3**	**7.5**	**10**	<0.5	**0.7**	**11**	<0.5	<0.5	**3.7**	**8.4**	**0.8**	**16**	**5.1**	<0.5	**1.4**	<0.5	**2.7**	**0.8**	**3.0**	**15**	**6.4**
Zinc, Zn	mg/kg	480	3	1	**65**	**56**	**25000**	**430**	**27000**	**170**	**1100**	**780**	**1200**	**170**	**430**	**1600**	**620**	**30**	**370**	**900**	**69**	**1200**	**10000**	**490**	**2500**	**170**	**400**	**480**	**150**	**1800**	**6.4**
Mercury	mg/kg	1	8	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
pH	pH Units	-	-		N.A.	N.A.	N.A.	N.A.	**7.7**	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	**8.8**	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	**8.0**	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Cation Exchange Capacity	meq/100g	-	-		N.A.	N.A.	N.A.	N.A.	**0.79**	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	**13**	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	**1.5**	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

EILs are based on soil pH of 7.0 and CEC of 0.79meq/100g
Unless otherwise specified, referred tables are within the National Environment Protection (Assessment of Site Contamination) Measure (NEPM) 1999 (amended 2013) Schedule B1, Guideline on Investigation Levels for Soil and Groundwater.

1	Table 1A(1) Health investigation levels for soil contaminants (D - commercial/industrial).
2	Table 1A(3) Soil HSLs for vapour intrusion (HSL D - commercial/industrial) 0m to <1m
3	Table 1B(1) Soil-specific added contaminant limits for aged zinc in soil (Commercial/industrial)
4	Table 1B(2) Soil-specific added contaminant limits for aged copper in soils (Commercial/industrial)
5	Table 1B(3) Soil-specific added contaminant limits for aged chromium III and nickel in soil (Commercial/industrial)
6	Table 1B(5) Generic EILs for aged As, fresh DDT and fresh naphthalene in soils irrespective of their physicochemical properties (Commercial/industrial)
7	Table 1B(6) ESLs for TPH fractions F1 – F4, BTEX and benzo(a)pyrene in soil (Commercial/industrial) mst conservative value from fine or coarse grained soil.
8	NSW DEC. (2006). Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (2nd Edition). Department of Environment and Conservation NSW, Sydney Appendix II Column 5
9	CRC CARE Technical Report No. 39 'Risk-based management and remediation guidance for benzo(a)pyrene'

1800	Exceeds 50% of the adopted human health assessment criterion
1800	Exceeds the adopted human health assessment criterion
1800	Exceeds 250% of the adopted human health assessment criterion
1800	Exceeds 50% of the adopted ecological assessment criterion
1800	Exceeds the adopted ecological assessment criterion
1800	Exceeds 250% of the adopted ecological assessment criterion

Summary Table 1
Laboratory Analysis
VOC/TRH/PAH/8 HM/OCP/PCB/pH/CEC

Analyte Name	Units	Adopted DGV	Origin of Adopted DGV	Sample ID	HA2-3	HA3-1	HA3-2	HA4-0	HA4-1	HA4-2	MW10-1	MW10-2	MW10-3	FM1	FM2	FM3	Maximum Concentration	Standard Deviation	95% UCL of Mean Concentration
				Sample Date	11/06/2021	11/06/2021	11/06/2021	11/06/2021	11/06/2021	11/06/2021	3/06/2021	3/06/2021	3/06/2021	3/06/2021	3/06/2021	3/06/2021			
				Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
				LOR	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result			
Benzene	mg/kg	3	2	0.1	<0.1	N.A.	N.A.	N.A.	N.A.	N.A.	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	N.A.	N.A.
Toluene	mg/kg	135	7	0.1	<0.1	N.A.	N.A.	N.A.	N.A.	N.A.	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	N.A.	N.A.
Ethylbenzene	mg/kg	165	7	0.1	<0.1	N.A.	N.A.	N.A.	N.A.	N.A.	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	N.A.	N.A.
Total Xylenes	mg/kg	180	7	0.3	<0.3	N.A.	N.A.	N.A.	N.A.	N.A.	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	**0.4**	N.A.	N.A.
Total VOC	mg/kg	-	-	24	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<24	N.A.	N.A.
TRH C6-C10 minus BTEX (F1)	mg/kg	215	7	25	<25	N.A.	N.A.	N.A.	N.A.	N.A.	<25	<25	<25	<10	<25	<25	<25	N.A.	N.A.
TRH >C10-C16	mg/kg	170	7	25	<25	N.A.	N.A.	N.A.	N.A.	N.A.	<25	<25	<25	<50	<25	<25	**490**	N.A.	N.A.
TRH >C16-C34 (F3)	mg/kg	1700	7	90	<90	N.A.	N.A.	N.A.	N.A.	N.A.	<90	<90	<90	<100	<90	<90	**1400**	N.A.	N.A.
TRH >C34-C40 (F4)	mg/kg	3300	7	120	<120	N.A.	N.A.	N.A.	N.A.	N.A.	<120	<120	<120	<100	<120	<120	**180**	N.A.	N.A.
Naphthalene	mg/kg	370	6	0.1	<0.1	N.A.	N.A.	N.A.	N.A.	N.A.	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	N.A.	N.A.
Benzo(a)pyrene	mg/kg	172	9	0.1	<0.1	N.A.	N.A.	N.A.	N.A.	N.A.	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	**0.4**	N.A.	N.A.
Carcinogenic PAHs, BaP TEQ	TEQ (mg/kg)	40	1	0.3	<0.3	N.A.	N.A.	N.A.	N.A.	N.A.	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	**0.6**	N.A.	N.A.
Total PAH	mg/kg	4000	1	0.8	<0.8	N.A.	N.A.	N.A.	N.A.	N.A.	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	**3.7**	N.A.	N.A.
DDT	mg/kg	640	6	0.2	<0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.	<0.2	N.A.	<0.2	N.A.	N.A.
DDT+DDE+DDD	mg/kg	3600	1	0.6	<0.6	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.6	N.A.	N.A.	<0.6	N.A.	<0.6	N.A.	N.A.
Aldrin and Dieldrin	mg/kg	45	1	0.3	<0.3	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.3	N.A.	N.A.	<0.3	N.A.	<0.3	N.A.	N.A.
Chlordane	mg/kg	530	1	0.2	<0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.	<0.2	N.A.	<0.2	N.A.	N.A.
Endosulfan	mg/kg	2000	1	0.5	<0.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.5	N.A.	N.A.	<0.5	N.A.	<0.5	N.A.	N.A.
Hexachlorobenzene (HCB)	mg/kg	80	1	0.1	<0.1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.1	N.A.	N.A.	<0.1	N.A.	<0.1	N.A.	N.A.
Heptachlor	mg/kg	50	1	0.2	<0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.	<0.2	N.A.	<0.2	N.A.	N.A.
Endrin	mg/kg	100	1	0.2	<0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.	<0.2	N.A.	<0.2	N.A.	N.A.
Methoxychlor	mg/kg	2500	1	0.1	<0.1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.1	N.A.	N.A.	<0.1	N.A.	<0.1	N.A.	N.A.
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	2000	1	0.2	<0.2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.	<0.2	N.A.	<0.2	N.A.	N.A.
Total OP Pesticides	mg/kg	-	-	1.7	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<1.7	N.A.	N.A.
Total PCBs (Arochlors)	mg/kg	7	1	1	<1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<1	N.A.	N.A.	<1	N.A.	<1	N.A.	N.A.
Phenol	mg/kg	240000	1	0.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.5	N.A.	N.A.
Cresols	mg/kg	25000	1	1.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<1.5	N.A.	N.A.
Arsenic, As	mg/kg	160	6	1	<1	N.A.	N.A.	N.A.	N.A.	N.A.	**3**	**3**	<1	<5	**3**	**2**	**1000**	**300**	**98**
Cadmium, Cd	mg/kg	3	8	0.3	<0.3	N.A.	N.A.	N.A.	N.A.	N.A.	<0.3	<0.3	<0.3	<1	<0.3	<0.3	**5.1**	**2.1**	**0.55**
Chromium, Cr	mg/kg	330	5	0.5	**2.9**	N.A.	N.A.	N.A.	N.A.	N.A.	**2.4**	**16**	**1.7**	**19**	**29**	**11**	**72**	**11**	**10**
Copper, Cu	mg/kg	170	4	0.5	**2.4**	N.A.	N.A.	N.A.	N.A.	N.A.	**2.1**	**9.5**	<0.5	**37**	**31**	**25**	**2400**	**490**	**220**
Lead, Pb	mg/kg	1500	1	1	**4**	N.A.	N.A.	N.A.	N.A.	N.A.	**6**	**11**	<1	**76**	**52**	**68**	**4200**	**590**	**270**
Nickel, Ni	mg/kg	60	5	0.5	**1.3**	N.A.	N.A.	N.A.	N.A.	N.A.	**2.5**	**3.9**	**0.7**	**10**	**6.1**	**5.4**	**52**	**9.6**	**4.1**
Zinc, Zn	mg/kg	480	3	1	**100**	N.A.	N.A.	N.A.	N.A.	N.A.	**2.5**	**3.9**	<2	**1750**	**1900**	**850**	**27000**	**4200**	**2800**
Mercury	mg/kg	1	8	0.05	<0.05	N.A.	N.A.	N.A.	N.A.	N.A.	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	N.A.	N.A.
pH	pH Units	-	-		N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	**8.8**	N.A.	N.A.
Cation Exchange Capacity	meq/100g	-	-		N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	**13**	N.A.	N.A.

EILs are based on soil pH of 7.0 and CEC of 0.79meq/100g
Unless otherwise specified, referred tables are within the National Environment Protection (Assessment of Site Contamination) Measure (NEPM) 1999 (amended 2013) Schedule B1, Guideline on Investigation Levels for Soil and Groundwater.

1	Table 1A(1) Health investigation levels for soil contaminants (D - commercial/industrial).
2	Table 1A(3) Soil HSLs for vapour intrusion (HSL D - commercial/industrial) 0m to <1m
3	Table 1B(1) Soil-specific added contaminant limits for aged zinc in soil (Commercial/industrial)
4	Table 1B(2) Soil-specific added contaminant limits for aged copper in soils (Commercial/industrial)
5	Table 1B(3) Soil-specific added contaminant limits for aged chromium III and nickel in soil (Commercial/industrial)
6	Table 1B(5) Generic EILs for aged As, fresh DDT and fresh naphthalene in soils irrespective of their physicochemical properties (Commercial/industrial)
7	Table 1B(6) ESLs for TPH fractions F1 – F4, BTEX and benzo(a)pyrene in soil (Commercial/industrial) mst conservative value from fine or coarse grained soil.
8	NSW DEC. (2006). Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (2nd Edition). Department of Environment and Conservation NSW, Sydney Appendix II Column 5
9	CRC CARE Technical Report No. 39 'Risk-based management and remediation guidance for benzo(a)pyrene'

1800	Exceeds 50% of the adopted human health assessment criterion
1800	Exceeds the adopted human health assessment criterion
1800	Exceeds 250% of the adopted human health assessment criterion
1800	Exceeds 50% of the adopted ecological assessment criterion
1800	Exceeds the adopted ecological assessment criterion
1800	Exceeds 250% of the adopted ecological assessment criterion

Summary Table 1

Laboratory Analysis

PFAS

	Description	HA1-1	HA1-2	HA1-3	HA2-1	HA2-2	HA2-3	HA3-1	HA3-2
	Sample Date	3/6/2021	3/6/2021	11/6/2021	3/6/2021	3/6/2021	11/6/2021	3/6/2021	11/6/2021
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Analyte Name	**Units**	**Reporting Limit**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Sum PFOS and PFHXS	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
2-(N-Methylperfluorooctane sulfonamido)-ethanol (N-MeFOSE)	mg/kg	0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016
2-(N-Ethylperfluorooctane sulfonamido)-ethanol (N-EtFOSE)	mg/kg	0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016
N-Methylperfluorooctanesulfonamidoacetic acid (N_MeFOSAA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
N-Ethylperfluorooctanesulfonamidoacetic Acid (N-EtFOSAA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008

Summary Table 1

Laboratory Analysis

PFAS

	Description	HA3-3	HA4-1	HA4-2	HA4-3	MW10-1	MW10-2	MW10-3	QC1
	Sample Date	11/6/2021	11/6/2021	11/6/2021	11/6/2021	3/6/2021	3/6/2021	3/6/2021	11/6/2021
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Analyte Name	**Units**	**Reporting Limit**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Sum PFOS and PFHXS	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroctane sulfonamide (PFOSA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
N-Methylperfluoroctane sulfonamide (N-MeFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
N-Ethylperfluoroctane sulfonamide (N-EtFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
2-(N-Methylperfluorooctane sulfonamido)-ethanol (N-MeFOSE)	mg/kg	0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016
2-(N-Ethylperfluorooctane sulfonamido)-ethanol (N-EtFOSE)	mg/kg	0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016
N-Methylperfluorooctanesulfonamidoacetic acid (N_MeFOSAA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
N-Ethylperfluorooctanesulfonamidoacetic Acid (N-EtFOSAA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008

Summary Table 1

Laboratory Analysis

PFAS

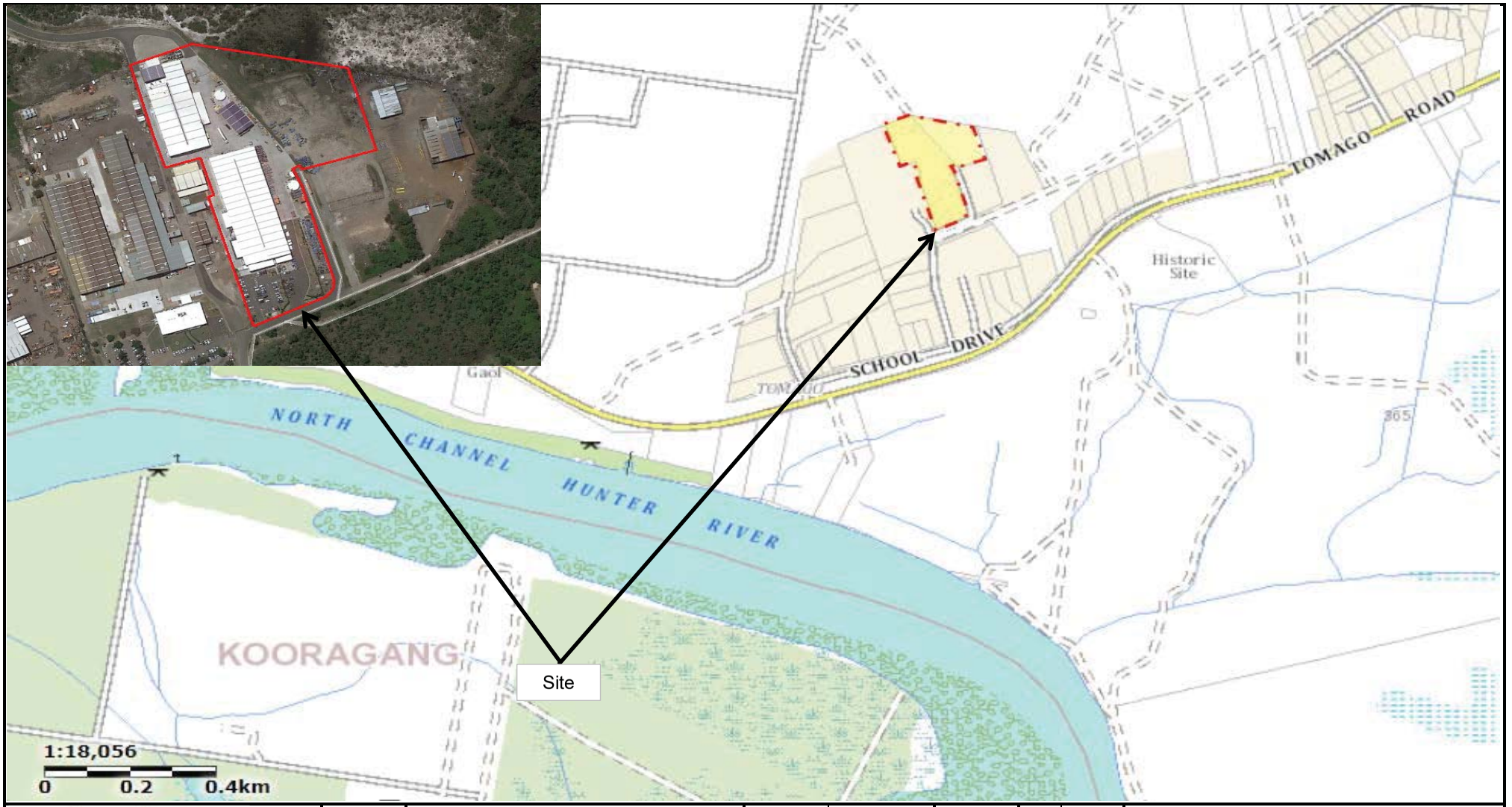
	Description	QC1A		QCA	QCB
	Sample Date	11/6/2021		11/6/2021	11/6/2021
	Matrix	Soil		Rinsate	Rinsate
Analyte Name	**Units**	**Reporting Limit**	**Result**	**Units**		
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	<0.001	µg/L	<0.002	<0.002
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	<0.0002	µg/L	<0.002	<0.002
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	<0.0002	µg/L	<0.002	<0.002
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	<0.0002	µg/L	<0.002	<0.002
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	<0.0002	µg/L	<0.002	<0.002
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	<0.0002	µg/L	<0.004	<0.004
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	<0.0002	µg/L	<0.004	<0.004
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	<0.0002	µg/L	<0.004	<0.004
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	<0.0002	µg/L	<0.004	<0.004
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	<0.0002	µg/L	<0.004	<0.004
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	<0.0005	µg/L	<0.004	<0.004
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	N.A.	µg/L	<0.008	<0.008
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	<0.0002	µg/L	<0.004	<0.004
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	<0.0002	µg/L	<0.004	<0.004
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	<0.0002	µg/L	<0.002	<0.002
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	<0.0002	µg/L	<0.002	<0.002
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	**0.0004**	µg/L	<0.002	**0.003**
Sum PFOS and PFHXS	mg/kg	0.0016	**0.0004**	µg/L	<0.002	**0.003**
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	N.A.	µg/L	<0.002	<0.002
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	<0.0002	µg/L	<0.002	<0.002
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	N.A.	µg/L	<0.002	<0.002
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	<0.0005	µg/L	<0.002	<0.002
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	<0.0005	µg/L	<0.002	<0.002
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	<0.0005	µg/L	<0.002	<0.002
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	<0.0002	µg/L	<0.008	<0.008
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	<0.0005	µg/L	<0.01	<0.01
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	<0.0005	µg/L	<0.01	<0.01
2-(N-Methylperfluorooctane sulfonamido)-ethanol (N-MeFOSE)	mg/kg	0.016	<0.0005	µg/L	<0.01	<0.01
2-(N-Ethylperfluorooctane sulfonamido)-ethanol (N-EtFOSE)	mg/kg	0.016	<0.0005	µg/L	<0.01	<0.01
N-Methylperfluorooctanesulfonamidoacetic acid (N_MeFOSAA)	mg/kg	0.008	<0.0002	µg/L	<0.01	<0.01
N-Ethylperfluorooctanesulfonamidoacetic Acid (N-EtFOSAA)	mg/kg	0.008	<0.0002	µg/L	<0.01	<0.01

Summary Table 2

QA/QC

			Sample ID	QC1	QC1A	Relative	TP8 0	QC2	Relative	QC2A	Relative	HA2-3	QC1	Relative	QC1A	Relative	FM1	QC3	Relative	QC3A	Relative	Trip Blank	Trip Spike	QCA
		Adopted	Sample Date	6/4/2020	6/4/2020	Percentage	6/4/2020	6/4/2020	Percentage	6/4/2020	Percentage	11/06/2021	11/6/2021	Percentage	11/6/2021	Percentage	3/06/2021	3/06/2021	Percentage	3/06/2021	Percentage	6/4/2020	6/4/2020	6/4/2020
		Trigger	Matrix	Soil	Soil	Difference	Soil	Soil	Difference	Soil	Difference	Soil	Soil	Difference	Soil	Difference	Soil	Soil	Difference	Soil	Difference	Soil	Soil	Water
Analyte Name	**Units**	**Level**	**Reporting Limit**	**Result**	**Result**		**Result**	**Result**		**Result**												**Result**	**Result**	**Result (µg/L)**
Benzene	mg/kg	3	0.1	<0.1	<0.2	0%	<0.1	<0.1	0%	<0.2	0%	<0.1	<0.1	0%	<0.2	0%	<0.1	<0.1	0%	<0.2	0%	<0.1	[101%]	N.A.
Toluene	mg/kg	135	0.1	<0.1	<0.5	0%	<0.1	<0.1	0%	<0.5	0%	<0.1	<0.1	0%	<0.5	0%	<0.1	<0.1	0%	<0.5	0%	<0.1	[97%]	N.A.
Ethylbenzene	mg/kg	165	0.1	<0.1	<0.5	0%	<0.1	<0.1	0%	<0.5	0%	<0.1	<0.1	0%	<0.5	0%	<0.1	<0.1	0%	<0.5	0%	<0.1	[95%]	N.A.
Total Xylenes	mg/kg	95	0.3	<0.3	<0.5	N.A.	<0.3	<0.3	N.A.	<0.5	N.A.	<0.3	<0.3	0%	<0.5	0%	<0.3	<0.3	0%	<0.5	0%	<0.3	N.A.	N.A.
TRH C6-C10 minus BTEX (F1)	mg/kg	215	25	<25	<10	N.A.	<25	<25	N.A.	<10	N.A.	<25	<25	0%	<10	0%	<25	<25	0%	<10	0%	N.A.	N.A.	N.A.
TRH >C10-C16	mg/kg	170	25	<25	<50	N.A.	<25	<25	N.A.	<50	N.A.	<25	<25	0%	<50	0%	<25	<25	0%	<50	0%	N.A.	N.A.	N.A.
TRH >C16-C34 (F3)	mg/kg	1700	90	<90	<100	N.A.	<90	<50	N.A.	<100	N.A.	<90	<90	0%	<100	0%	<90	<90	0%	<100	0%	N.A.	N.A.	N.A.
TRH >C34-C40 (F4)	mg/kg	3300	120	<120	<100	N.A.	<120	<100	N.A.	<100	N.A.	<120	<120	0%	<100	0%	<120	<120	0%	<100	0%	N.A.	N.A.	N.A.
Naphthalene	mg/kg	370	0.1	<0.1	<0.5	0%	<0.1	<100	0%	<0.5	0%	<0.1	<0.1	0%	<0.5	0%	<0.1	<0.1	0%	<0.5	0%	N.A.	N.A.	N.A.
Benzo(a)pyrene	mg/kg	172	0.1	<0.1	<0.5	0%	<0.1	<0.1	0%	<0.5	0%	<0.1	<0.1	0%	<0.5	0%	<0.1	**0.5**	0%	<0.5	0%	N.A.	N.A.	N.A.
BaP TEQ	TEQ (mg/kg)	40	0.3	<0.3	1.2	N.A.	<0.3	<0.3	N.A.	**1.2**	N.A.	<0.3	<0.3	0%	<0.5	0%	<0.3	**0.7**	0%	<0.5	0%	N.A.	N.A.	N.A.
Total PAH	mg/kg	4000	0.8	<0.8	<0.5	N.A.	<0.8	<0.8	N.A.	<0.5	N.A.	<0.8	<0.8	0%	<0.5	0%	<0.8	**3.5**	0%	<0.5	0%	N.A.	N.A.	N.A.
Arsenic, As	mg/kg	160	1	**2**	<5	0%	**1000**	**300**	108%	**166**	143%	<1	<1	0%	<5	0%	**2**	**9**	**127%**	<5	**0**	N.A.	N.A.	<1
Cadmium, Cd	mg/kg	3	0.3	<0.3	<1	0%	**5.1**	**3.4**	40%	**3.0**	52%	<0.3	<0.3	0%	<1	0%	<0.3	<0.3	0%	<1	0	N.A.	N.A.	<0.1
Chromium, Cr	mg/kg	330	0.5	**4.8**	**4.0**	18%	**37**	**51**	32%	**56**	41%	**2.9**	**3.1**	7%	4	32%	**10**	**22**	**75%**	**19**	**62%**	N.A.	N.A.	<1
Copper, Cu	mg/kg	170	0.5	**14**	**12**	15%	**2400**	**3200**	29%	**2720**	13%	**2.4**	**2.5**	4%	<5	0%	**21**	**45**	**73%**	**37**	**55%**	N.A.	N.A.	<1
Lead, Pb	mg/kg	1500	1	**8**	**8**	0%	**4200**	**6000**	35%	**4560**	8%	**4**	**3**	29%	<5	0%	**36**	**62**	**53%**	**76**	**71%**	N.A.	N.A.	<1
Nickel, Ni	mg/kg	60	0.5	**5.1**	**4.0**	24%	**26**	**12**	74%	**6**	125%	**1.3**	**1.3**	0%	<2	0%	**5.5**	**6.6**	**18%**	**10**	**58%**	N.A.	N.A.	<1
Zinc, Zn	mg/kg	480	2	**170**	**252**	39%	**27000**	**44000**	48%	**42600**	45%	**100**	**95**	5%	107	7%	**5.5**	**1600**	**199%**	**1750**	**199%**	N.A.	N.A.	**43**
Mercury	mg/kg	1	0.05	<0.05	<0.1	0%	<0.05	<0.05	0%	<0.1	0%	<0.05	<0.05	0%	<0.1	0%	<0.05	<0.05	0%	<0.01	0	N.A.	N.A.	<0.1

Figures



ENVIRONMENTS

CLIENT: **Remondis**

PROJECT TITLE: **School Drive, Tomago**

PROJECT:	JME20005	DESIGNED:	JMc	
DWG #:	1	DRAWN:	JH	
REVISION:	1	STATUS:	NFC	
SCALE:	As shown			
DATE:	2/06/2020			

FIGURE TITLE: **Site Location Plan**

FIGURE NUMBER: **1**

CLIENT: **Remondis**		PROJECT:	JME20005	DESIGNED:	JMc	FIGURE TITLE
		DWG #:	1	DRAWN:	JH	**Site Features**
		REVISION:	1			
PROJECT TITLE: **School Drive, Tomago**		SCALE:	As shown	STATUS:		
		DATE:	2/6			FIGURE: **2**

ENVIRONMENTS

ENVIRONMENTS

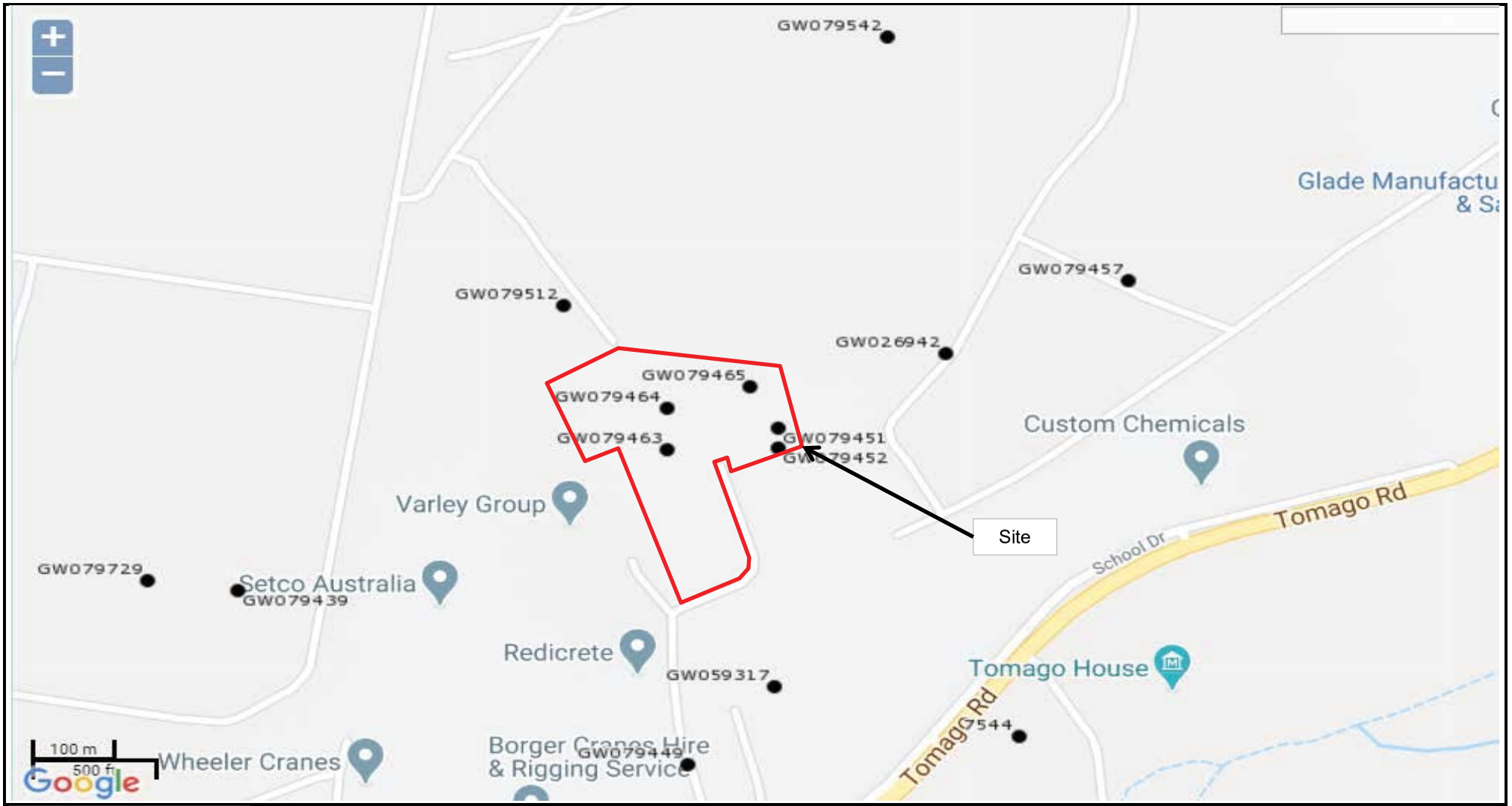
CLIENT: **Remondis**	PROJECT:	JME20005	DESIGNED:	JMc	FIGURE TITLE:
	DWG #:	1	DRAWN:	JH	**MBE2017 Boreholes**
	REVISION:	1			
PROJECT TITLE: **School Drive, Tomago**	SCALE:	NTS	STATUS:	NFC	
	DATE:	2/06/2020			FIGURE NUMBER: **3**

ENVIRONMENTS

CLIENT: **Remondis**

PROJECT TITLE: **School Drive, Tomago**

PROJECT:	JME20005	DESIGNED:	JMc		FIGURE TITLE:
DWG #:	1	DRAWN:	JH		**MBE2017 Test Pits**
REVISION:	1				
SCALE:	As shown	STATUS:	NFC		
DATE:	2/06/2020				FIGURE NUMBER: **4**



ENVIRONMENTS

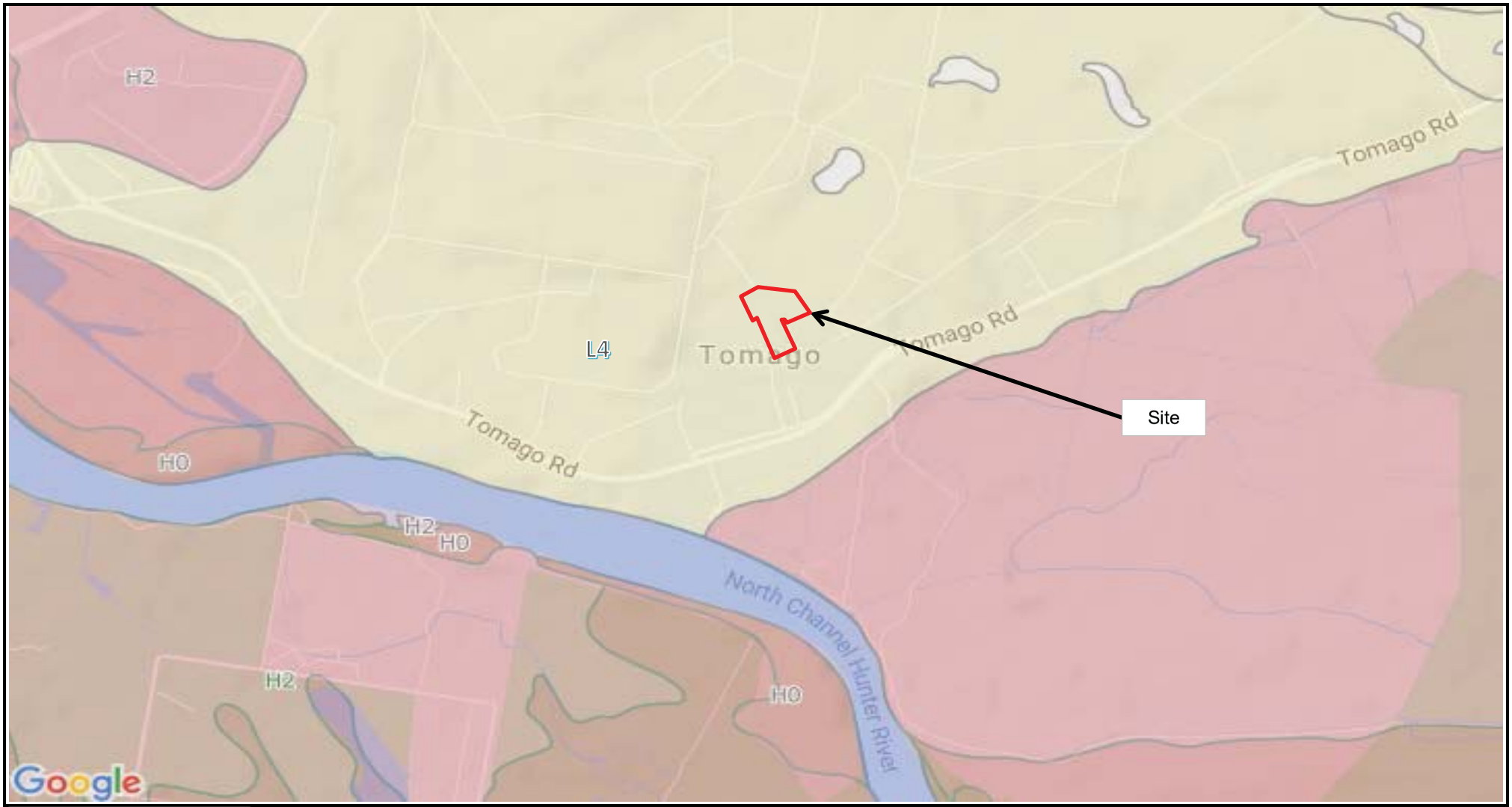
CLIENT: **Remondis**

PROJECT TITLE: **School Drive, Tomago**

PROJECT:	JME20005	DESIGNED:	JMc	
DWG #:	1	DRAWN:	JH	
REVISION:	1	STATUS:	NFC	
SCALE:	As shown			
DATE:	2/06/2020			

FIGURE TITLE: **Groundwater Bores**

FIGURE NUMBER: **5**



JM ENVIRONMENTS	CLIENT: **Remondis**	PROJECT:	JME20005	DESIGNED:	JMc	FIGURE TITLE:
		DWG #:	1	DRAWN:	JH	**Acid Sulfate Soils**
		REVISION:	1	STATUS:	NFC	
	PROJECT TITLE: **School Drive, Tomago**	SCALE:	NTS			
		DATE:	2/06/2020			FIGURE NUMBER: **6**

ENVIRONMENTS	CLIENT: **Remondis**	PROJECT:	JME20005	DESIGNED:	JMc	FIGURE TITLE:
		DWG #:	1	DRAWN:	JH	**EPA Records**
		REVISION:	1	STATUS:	NFC	
	PROJECT TITLE: **School Drive, Tomago**	SCALE:	As shown			
		DATE:	2/06/2020			FIGURE NUMBER: **7**

ENVIRONMENTS	CLIENT: **Remondis**	PROJECT:	JME20005	DESIGNED:	JMc	FIGURE TITLE:
		DWG #:	1	DRAWN:	JH	**Sampling Locations**
		REVISION:	1			
	PROJECT TITLE: **School Drive, Tomago**	SCALE:	As shown	STATUS:	NFC	
		DATE:	2/06/2020			FIGURE NUMBER: **8**

ENVIRONMENTS

CLIENT: **Remondis**

PROJECT TITLE: **School Drive, Tomago**

PROJECT:	JME20005	DESIGNED:	JMc	
DWG #:	1	DRAWN:	JH	
REVISION:	1			
SCALE:	As shown	STATUS:	NFC	
DATE:	21/04/2020			

FIGURE TITLE: **Copper Exceedances**

FIGURE NUMBER: **9**

		HA2-1
Analyte Name	Units	Result
Arsenic, As	mg/kg	290
Cadmium, Cd	mg/kg	3.2
Lead, Pb	mg/kg	33

		TP7 0
Analyte Name	Units	Result
Arsenic, As	mg/kg	940
Cadmium, Cd	mg/kg	3.4
Lead, Pb	mg/kg	1100

		TP5 0
Analyte Name	Units	Result
Arsenic, As	mg/kg	900
Cadmium, Cd	mg/kg	4.8
Lead, Pb	mg/kg	940

		TP8 0
Analyte Name	Units	Result
Arsenic, As	mg/kg	1000
Cadmium, Cd	mg/kg	5.1
Lead, Pb	mg/kg	4200

ENVIRONMENTS

CLIENT: **Remondis**

PROJECT TITLE: **School Drive, Tomago**

PROJECT:	JME20005	DESIGNED:	JMc	
DWG #:	1	DRAWN:	JH	
REVISION:	1			
SCALE:	As shown	STATUS:	NFC	
DATE:	30/06/2021			

FIGURE TITLE: **As, Cd, Pb Exceedances**

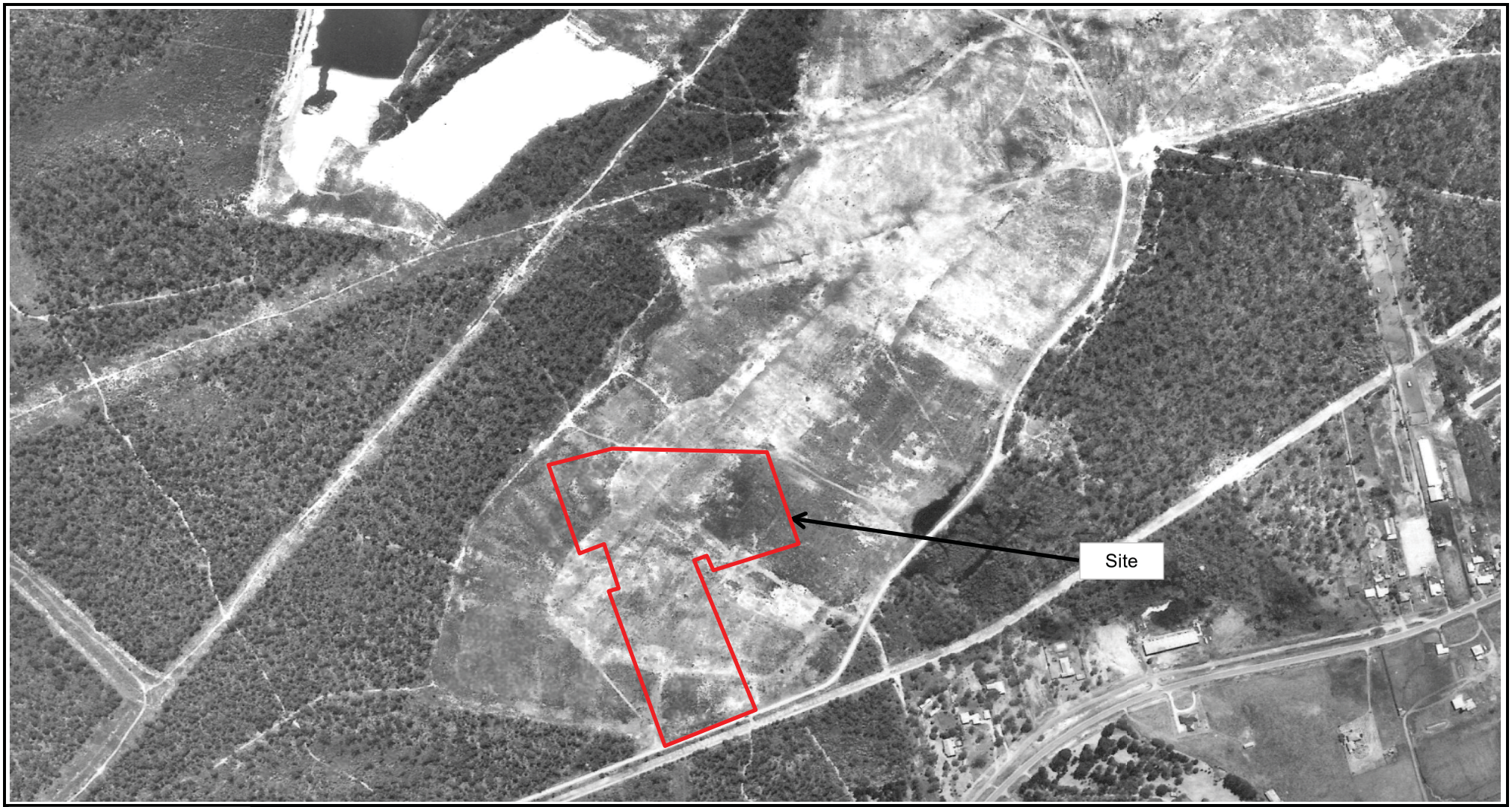
FIGURE NUMBER: **10**

ENVIRONMENTS

CLIENT: **Remondis**

PROJECT TITLE: **School Drive, Tomago**

PROJECT:	JME20005	DESIGNED:	JMc		FIGURE TITLE:
DWG #:	1	DRAWN:	JH		**Aerial photograph 1954**
REVISION:	1	STATUS:	NFC		
SCALE:	NTS				
DATE:	2/06/2020				FIGURE NUMBER: **11**

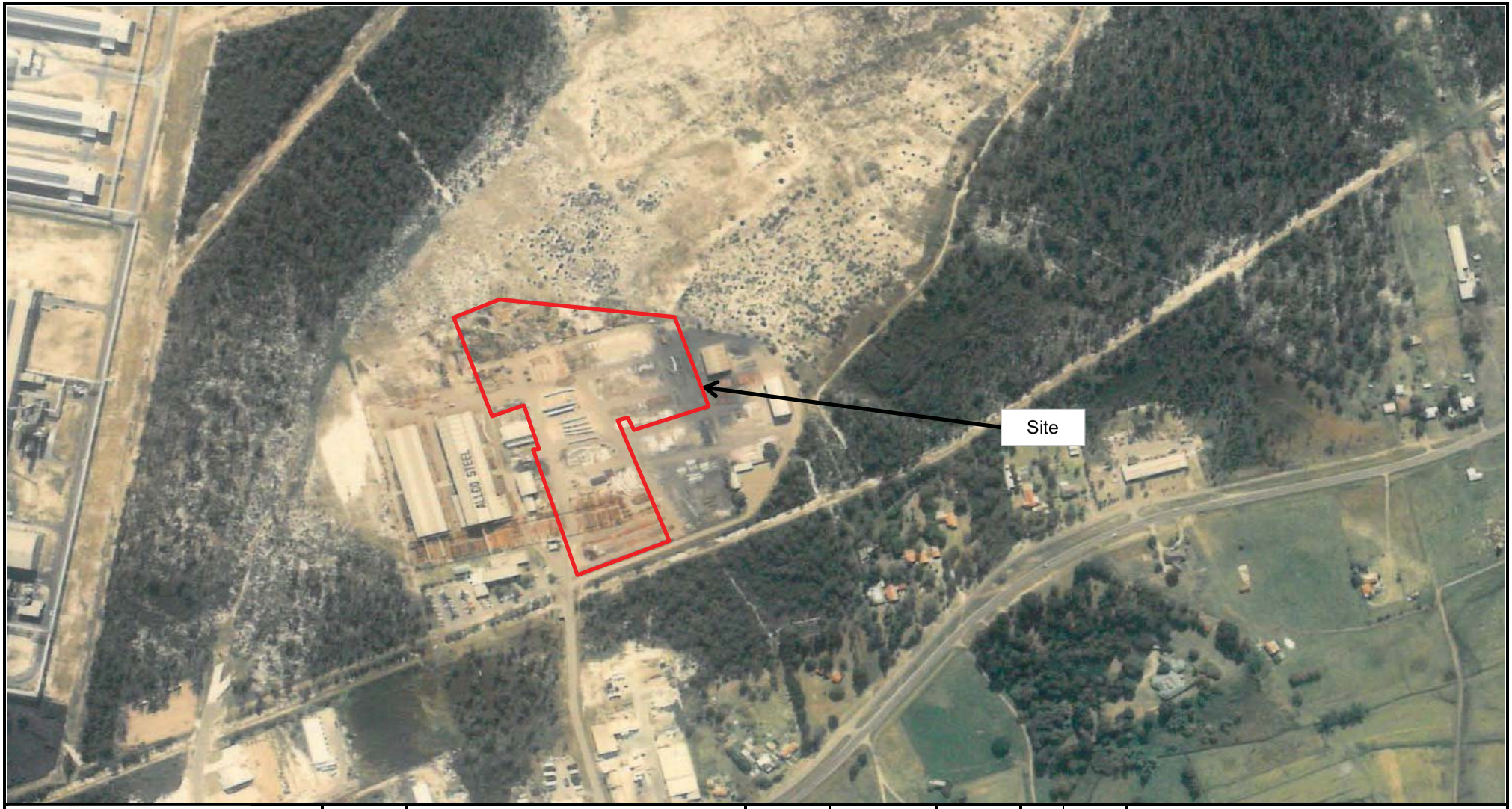


ENVIRONMENTS

CLIENT: **Remondis**

PROJECT TITLE: **School Drive, Tomago**

PROJECT:	JME20005	DESIGNED:	JMc		FIGURE TITLE:
DWG #:	1	DRAWN:	JH		**Aerial photograph 1974**
REVISION:	1				
SCALE:	NTS	STATUS:	NFC		
DATE:	2/06/2020				FIGURE NUMBER: **12**



ENVIRONMENTS	CLIENT: **Remondis**	PROJECT:	JME20005	DESIGNED:	JMc	FIGURE TITLE:
		DWG #:	1	DRAWN:	JH	**Aerial photograph 1987**
		REVISION:	1			
	PROJECT TITLE: **School Drive, Tomago**	SCALE:	NTS	STATUS:	NFC	
		DATE:	2/06/2020			FIGURE NUMBER: **13**

JM ENVIRONMENTS	CLIENT: **Remondis**	PROJECT:	JME20005	DESIGNED:	JMc	FIGURE TITLE:
		DWG #:	1	DRAWN:	JH	**Aerial photograph 1993**
		REVISION:	1	STATUS:	NFC	
	PROJECT TITLE: **School Drive, Tomago**	SCALE:	NTS			
		DATE:	2/06/2020			FIGURE NUMBER: **14**

ENVIRONMENTS

CLIENT: **Remondis**

PROJECT TITLE: **School Drive, Tomago**

PROJECT:	JME20005	DESIGNED:	JMc		FIGURE TITLE:
DWG #:	1	DRAWN:	JH		**Aerial photograph 2007**
REVISION:	1				
SCALE:	As shown	STATUS:	NFC		
DATE:	2/06/2020				FIGURE NUMBER: **15**

ENVIRONMENTS	CLIENT: **Remondis**	PROJECT:	JME20005	DESIGNED:	JMc	FIGURE TITLE:
		DWG #:	1	DRAWN:	JH	**Aerial photograph 2016**
		REVISION:	1			
	PROJECT TITLE: **School Drive, Tomago**	SCALE:	As shown	STATUS:	NFC	
		DATE:	2/06/2020			FIGURE NUMBER: **16**

Appendix A

Site Photographs

Photograph 1: Metal-clad building with guttering and down pipes

Photograph 2: Gratings in paved area of Lot 11

Photograph 3: Concrete pad in Lot 8

Photograph 4: Dark sand on surface of Lot 8

Photograph 5: Concrete beams and concrete-filled tyres in Lot 8

Photograph 6: Concrete-filled tyres near northern boundary of Lot 8, white sand through boundary fence to north

Photograph 7: Soil stockpile in Lot 8

Photograph 8: Light brown sand on auger, dark brown sandy fill on ground, borehole BH1

Photograph 9: BH2 SPT sample 1.0 – 1.45mbgl

Photograph 10: BH2 SPT sample 2.0 – 2.45mbgl

No photograph
Photograph 11: Test pit TP1

Photograph 12: Test pit TP2

Photograph 13: Test pit TP3

Photograph 14: Test pit TP4

Photograph 15: Test pit TP5

Photograph 16: Test pit TP6

Photograph 17: Test pit TP7

Photograph 18: Test pit TP8

Photograph 19: Test pit TP9

Photograph 20: Test pit TP10

Photograph 21: Test pit TP11

Photograph 22: Test pit TP12

Photograph 23: Test pit TP13

Photograph 34: Test pit TP14

Photograph 35: Test pit TP15

Appendix B

Logs

TEST PIT LOG: BH1

PROJECT No: JME20005
DATE: 06/04/2020
EASTING: 380923
SITE: 21 School Drive, Tomago
LOGGED BY: J Howard
NORTHING: 6367297
CLIENT: Remondis
TOTAL DEPTH: 2.5

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
		Ground Surface			
0		CONCRETE			
		SAND, brown, fine to medium grained, common gravel		BH1 0.2 - 0.3 QC1, QC1A	
					Fill, brick and concrete rubble below 0.5m
1				BH1 1 - 1.1	
		SAND, light brown fine grained			
				BH1 1.4 - 1.5	
					Groundwater 2.4m, EOH 2.5m
				BH1 1.9 - 2	
2					
				BH1 2.4 - 2.5	

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: 2.4m

Static Groundwater Level:

	Reviewed By:	FILE

TEST PIT LOG: BH2

PROJECT No: JME20005
DATE: 06/04/2020
EASTING: 380961
SITE: 21 School Drive, Tomago
LOGGED BY: J Howard
NORTHING: 6367279
CLIENT: Remondis
TOTAL DEPTH: 2.45

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
		~~Ground Surface~~			
0		CONCRETE			
		SAND, brown, fine to medium grained		BH2 0.2 - 0.3	Fill
		SAND, light brown, fine to medium grained, common gravel			Fill
1		SAND, light brown, fine to medium grained, some gravel		BH2 1 - 1.45	Fill, some brick rubble, SPT @ 1m 10,19,25
2		SAND, light brown, fine to medium grained		BH2 2 - 2.45	SPT @ 2m 9,13,13, groundwater 2.4m, EOH 2.45m

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: 2.4m

Static Groundwater Level:

	Reviewed By:	FILE

TEST PIT LOG: TP1

PROJECT No: JME20005
SITE: 21 School Drive, Tomago
CLIENT: Remondis

DATE: 06/04/2020
LOGGED BY: J McCreery
TOTAL DEPTH: 1.6

EASTING: 380983
NORTHING: 6367349

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
		Ground Surface			
0		SAND, dark brown, fine grained		TP1 0	
1					Fill, common organic matter, trace amounts of large rocks, plastic, terra cotta, concrete and brick, EOH 1.6m
				TP1 1.6	
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: Not encountered

Static Groundwater Level:

Reviewed By:

FILE

TEST PIT LOG: TP2

PROJECT No: JME20005
SITE: 21 School Drive, Tomago
CLIENT: Remondis

DATE: 06/04/2020
LOGGED BY: J McCreery
TOTAL DEPTH: 1

EASTING: 381044
NORTHING: 6367334

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
		Ground Surface			
0		Gravelly SAND, dark yellow to light brown, fine to medium grained		TP2 0	Fill, common organic matter
		SAND, grey, fine grained		TP2 0.75	EOH 1m
1					
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: Not encountered

Static Groundwater Level:

Reviewed By:

FILE

TEST PIT LOG: TP3

PROJECT No: JME20005
DATE: 06/04/2020
EASTING: 381111
SITE: 21 School Drive, Tomago
LOGGED BY: J McCreery
NORTHING: 6367323
CLIENT: Remondis
TOTAL DEPTH: 1

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
		~~Ground Surface~~			
0		SAND, black, fine grained		TP3 0	Fill
		SAND, brown, fine grained			EOH 1m
				TP3 0.9	
1					
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: Not encountered

Static Groundwater Level:

Reviewed By: | **FILE**

TEST PIT LOG: TP4

PROJECT No: JME20005
SITE: 21 School Drive, Tomago
CLIENT: Remondis

DATE: 06/04/2020
LOGGED BY: J McCreery
TOTAL DEPTH: 0.7

EASTING: 381031
NORTHING: 6367318

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
		~~Ground Surface~~			
0		SAND, dark brown, medium grained		TP4 0	Fill, common organic matter
		SAND, dark brown, medium grained			Fill, some cobbles
		SAND, grey		TP4 0.6	EOH 0.7m
1					
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: Not encountered

Static Groundwater Level:

	Reviewed By:	FILE

TEST PIT LOG: TP5

PROJECT No: JME20005
SITE: 21 School Drive, Tomago
CLIENT: Remondis

DATE: 06/04/2020
LOGGED BY: J McCreery
TOTAL DEPTH: 0.8

EASTING: 381086
NORTHING: 6367310

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
		~~Ground Surface~~			
0		SAND, mottled light and dark brown, fine grained		TP5 0	Fill, common organic matter, trace amounts of large rocks and sandstone cobbles
		SAND, brown, medium grained			Fill
		SAND, grey, medium grained		TP5 0.5	EOH 0.8m
1					
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: Not encountered

Static Groundwater Level:

	Reviewed By:	FILE

TEST PIT LOG: TP6

PROJECT No: JME20005
DATE: 06/04/2020
EASTING: 381020
SITE: 21 School Drive, Tomago
LOGGED BY: J McCreery
NORTHING: 6367303
CLIENT: Remondis
TOTAL DEPTH: 1.1

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
		~~Ground Surface~~			
0		Gravelly SAND, dark brown, medium grained		TP6 0	Fill
		SAND, light brown, fine grained			EOH 1.1m
1				TP6 1	
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: Not encountered

Static Groundwater Level:

Reviewed By: | **FILE**

TEST PIT LOG: TP7

PROJECT No: JME20005
DATE: 06/04/2020
EASTING: 381065
SITE: 21 School Drive, Tomago
LOGGED BY: J Howard
NORTHING: 6367300
CLIENT: Remondis
TOTAL DEPTH: 0.7

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
0		~~Ground Surface~~			
		Gravelly SAND, dark brown to black		TP7 0	Fill
		Sandy gravelly CLAY, red brown			Fill
		SAND, brown, fine to medium grained			EOH 0.7m
				TP7 0.6	
1					
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: Not encountered

Static Groundwater Level:

Reviewed By: | **FILE**

TEST PIT LOG: TP8

PROJECT No: JME20005
DATE: 06/04/2020
EASTING: 381119
SITE: 21 School Drive, Tomago
LOGGED BY: J Howard
NORTHING: 6367294
CLIENT: Remondis
TOTAL DEPTH: 0.7

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
		~~Ground Surface~~			
0		SAND, black, fine grained		TP8 0 QC2, QC2A	Fill, some plastic
		SAND, brown, fine to medium grained			EOH 0.7m
				TP8 0.7	
1					
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: Not encountered

Static Groundwater Level:

	Reviewed By:	FILE

TEST PIT LOG: TP9

PROJECT No: JME20005
DATE: 06/04/2020
EASTING: 381051
SITE: 21 School Drive, Tomago
LOGGED BY: J Howard
NORTHING: 6367285
CLIENT: Remondis
TOTAL DEPTH: 0.5

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
		~~Ground Surface~~			
0		Silty SAND, black, fine grained		TP9 0	Fill, common roots
		Clayey GRAVEL, brown		TP9 0.3	Fill
		Gravelly CLAY, orange brown		TP9 0.5	EOH 0.5m at excavator refusal
1					
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: Not encountered

Static Groundwater Level:

	Reviewed By:	FILE

TEST PIT LOG: TP10

PROJECT No: JME20005
SITE: 21 School Drive, Tomago
CLIENT: Remondis

DATE: 06/04/2020
LOGGED BY: J Howard
TOTAL DEPTH: 0.6

EASTING: 381100
NORTHING: 6367280

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
0		~~Ground Surface~~			
		Gravelly CLAY, orange brown		TP10 0	Fill
		SAND, grey		TP10 0.3	Fill
		SAND, brown to red brown, fine to medium grained		TP10 0.6	EOH 0.6m
1					
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: Not encountered

Static Groundwater Level:

	Reviewed By:	FILE

TEST PIT LOG: TP11

PROJECT No: JME20005
SITE: 21 School Drive, Tomago
CLIENT: Remondis

DATE: 06/04/2020
LOGGED BY: J Howard
TOTAL DEPTH: 0.8

EASTING: 381054
NORTHING: 6367262

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
0		Ground Surface			
		Gravelly SAND, brown to orange brown		TP11 0	Fill
		SAND, grey to grey brown, fine grained		TP11 0.2	Fill
		SAND, orange brown, fine to medium grained		TP11 0.5	EOH 0.8m
1					
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: Not encountered

Static Groundwater Level:

	Reviewed By:	FILE

TEST PIT LOG: TP12

PROJECT No: JME20005
DATE: 06/04/2020
EASTING: 381090
SITE: 21 School Drive, Tomago
LOGGED BY: J Howard
NORTHING: 6367259
CLIENT: Remondis
TOTAL DEPTH: 0.7

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
		Ground Surface			
0		Gravelly SAND, brown		TP12 0	Fill, some brick
		Clayey sandy GRAVEL, yellow brown		TP12 0.5	Fill
		SAND, orange brown, fine to medium grained		TP12 0.7	EOH 0.7m
1					
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: Not encountered

Static Groundwater Level:

Reviewed By: | **FILE**

TEST PIT LOG: TP13

PROJECT No: JME20005
DATE: 06/04/2020
EASTING: 381132
SITE: 21 School Drive, Tomago
LOGGED BY: J Howard
NORTHING: 6367257
CLIENT: Remondis
TOTAL DEPTH: 0.7

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
0		~~Ground Surface~~			
		Gravelly clayey SILT, brown		TP13 0	Fill
		SAND, dark grey brown, fine grained		TP13 0.3	Fill
		SAND, brown, fine to medium grained		TP13 0.5	EOH 0.7m
1					
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: Not encountered

Static Groundwater Level:

	Reviewed By:	FILE

TEST PIT LOG: TP14

PROJECT No: JME20005
DATE: 06/04/2020
EASTING: 381081
SITE: 21 School Drive, Tomago
LOGGED BY: J Howard
NORTHING: 6367246
CLIENT: Remondis
TOTAL DEPTH: 0.6

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
0		~~Ground Surface~~			
		Road base GRAVEL, grey		TP14 0	Fill
		SAND, dark grey brown, fine grained		TP14 0.3	Fill
		SAND, brown, fine to medium grained		TP14 0.5	EOH 0.6m
1					
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: Not encountered

Static Groundwater Level:

Reviewed By: | **FILE**

TEST PIT LOG: TP15

PROJECT No: JME20005
DATE: 06/04/2020
EASTING: 381119
SITE: 21 School Drive, Tomago
LOGGED BY: J Howard
NORTHING: 6367242
CLIENT: Remondis
TOTAL DEPTH: 0.7

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
		Ground Surface			
0		SAND, brown, fine to medium grained, some gravel		TP15 0	Fill
		Sandy clayey GRAVEL, yellow brown			Fill, irregular band
		SAND, dark grey to black, very fine to fine grained		TP15 0.5	Fill
		SAND, orange brown, fine to medium grained			EOH 0.7m
1					
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: Not encountered

Static Groundwater Level:

Reviewed By: | **FILE**

TEST PIT LOG: HA1

PROJECT No: JME20005
DATE: 06/06/2021 and 13/6/2021
EASTING: 381060
SITE: 21 School Drive, Tomago
LOGGED BY: J McMahon
NORTHING: 6367088
CLIENT: Remondis
TOTAL DEPTH: 2

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
		~~Ground Surface~~			
0		Sands and Gravel			Hand auger
		SAND, brown, fine to medium grained, with some common gravel		HA1-1	
1				HA1-2	
		SAND, light brown fine grained			Damp
				HA1-3	
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: not rencountered

Static Groundwater Level:

Reviewed By: | **FILE**

TEST PIT LOG: HA2

PROJECT No: JME20005
DATE: 06/06/2021 and 13/6/2021
EASTING: 381068
SITE: 21 School Drive, Tomago
LOGGED BY: J McMahon
NORTHING: 6367171
CLIENT: Remondis
TOTAL DEPTH: 2

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
		Ground Surface			
0		Sands and Gravel	Nil		Hand auger
		SAND, brown, fine to medium grained, with some common gravel		HA2-1	
1				HA2-2	
		SAND, light brown fine grained			Damp
				HA2-3	
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: not rencountered

Static Groundwater Level:

Reviewed By: | **FILE**

TEST PIT LOG: HA3

PROJECT No: JME20005
DATE: 06/06/2021 and 13/6/2021
EASTING: 381108
SITE: 21 School Drive, Tomago
LOGGED BY: J McMahon
NORTHING: 6367265
CLIENT: Remondis
TOTAL DEPTH: 2

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
0		~~Ground Surface~~			
		Sands gravels and sandstone cobbles	Nil		Pincer shovel
		SAND, brown, fine to medium grained, with some common gravel		HA3-1	Hand auger
1				HA3-2	
		SAND, light brown fine grained			
				HA3-3	Damp
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

First Occurrence of Groundwater: not rencountered

Static Groundwater Level:

	Reviewed By:	FILE

TEST PIT LOG: HA4

PROJECT No: JME20005
DATE: 06/06/2021 and 13/6/2021
EASTING: 381036
SITE: 21 School Drive, Tomago
LOGGED BY: J McMahon
NORTHING: 6367314
CLIENT: Remondis
TOTAL DEPTH: 2

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
		~~Ground Surface~~			
0		Sands and Gravels with some brick and concrete rubble.	Nil		Hand auger
		SAND, brown, fine to medium grained, with some common gravel		HA4-1	
1				HA4-2	
		SAND, light brown fine grained			
				HA4-3	Damp
2					

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical tests were not performed unless otherwise stated.

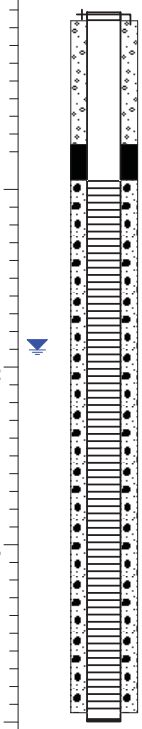
First Occurrence of Groundwater: not rencountered

Static Groundwater Level:

Reviewed By: | **FILE**

MONITORING WELL LOG: MW10

PROJECT No: JME20005	DATE: 3 June 2021	EASTING: 381010
SITE: 21D School Drive Tomago	LOGGED BY: J.McMahon	NORTHING: 6367258
CLIENT: Remondis	TOTAL DEPTH: 4	CASING HEIGHT: 0m
CONTRACTOR: FICO Group	DRILLER: Sean Curry	DRILLING METHOD: Solid Flight Auger

DEPTH (m)	WELL CONSTRUCTION	LEGEND	DESCRIPTION	ODOUR	PID (ppmv)	SAMPLE LABEL	REMARKS
			Ground Surface Concrete Fill: grey brown SAND			MW10-1 MW10-2	
1							MW10 was drilled three times. First two times the auger was refused on large ballast
2			Light brown SAND. Potential sand mining tailings?			MW10-3	
3							
4							
5							
6							

NOTES

Descriptions are based on observations and hand testing of grab samples. Mechanical Tests were not performed unless otherwise stated.

First Occurrence of Groundwater: 2 mbgs

Static Groundwater Level: 2.904 mbtoc 13/04/2021

	Reviewed By: JMc	FILE

Appendix C

Section 10.7 Certificates

PORT STEPHENS COUNCIL

ABN 16 744 377 876

116 Adelaide Street, Raymond Terrace NSW 2324
PO Box 42, Raymond Terrace NSW 2324
Ph: (02) 4988 0255 Fax: (02) 4987 3612
Email: plancert@portstephens.nsw.gov.au
http://www.portstephens.nsw.gov.au

PLANNING CERTIFICATE PURSUANT TO SECTION 10.7 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

APPLICANT DETAILS:

JM Environments
37 Tooke Street
Cooks Hill
NSW 2300

Reference:

Issue Date: **05/02/2020**

PROPERTY DESCRIPTION:

21G School Drive TOMAGO NSW 2322 **Parcel No: 38075**
LOT: 7 DP: 270328

Disclaimer
Information contained in this certificate relates only to the land for which this certificate is issued on the day it is issued. This information is provided in good faith and Council shall not incur any liability in respect of any such advice. Council relies on state agencies for advice and accordingly can only provide that information in accordance with the advice. Verification of the currency of agency advice should occur. For further information, please contact Council by telephoning (02) 4988 0255 or email plancert@portstephens.nsw.gov.au.

Title Information
Title information shown on this Planning Certificate is provided from Council's records and may not conform to information shown on the current Certificate of Title. Easements, restrictions as to user, rights of way and other similar information shown on the title of the land are not provided on this planning certificate.

Inspection of the land
The Council has made no inspection of the land for the purposes of this Planning Certificate.

PART A: INFORMATION PROVIDED UNDER SECTION 10.7(2)

Matters contained in this certificate apply only to the land on the date of issue.

1. Names of relevant planning instruments and DCPs

(1) The name of each environmental planning instrument that applies to the development on the land.

State Environmental Planning Policies

State Environmental Planning Policy No 21 – Caravan Parks

State Environmental Planning Policy No 33 – Hazardous and Offensive Development

State Environmental Planning Policy No 36 – Manufactured Home Estates

State Environmental Planning Policy No 44 – Koala Habitat Protection

State Environmental Planning Policy No 50 – Canal Estate Development

State Environmental Planning Policy No 55 – Remediation of Land

State Environmental Planning Policy No 64 – Advertising and Signage

State Environmental Planning Policy No 65 – Design Quality of Residential Apartment Development

State Environmental Planning Policy (Affordable Rental Housing) 2006

State Environmental Planning Policy (Building Sustainability Index BASIX) 2004

State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004

State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (State and Regional Development) 2011

State Environmental Planning Policy (State Significant Precincts) 2005

State Environmental Planning Policy (Primary Production and Rural Development) 2019

State Environmental Planning Policy (Koala Habitat Protection) 2019

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017

Local Environmental Plan

Port Stephens Local Environmental Plan 2013

(2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act (unless Secretary has notified the Council that the making of the proposed instrument has been deferred indefinitely or has not been approved).

Draft State Environmental Planning Policies
No draft State Environmental Planning Policies affect the site the subject of this Certificate.

Draft Local Environmental Plan
No draft Local Environmental Plans currently exist which affect the site the subject of this certificate.

Development Control Plans
(3) The name of each development control plan that applies to the carrying out of development on the land.

Port Stephens Development Control Plan 2014.

2. Zoning and land use under relevant Local Environmental Plan(s)
What is the identity of the zoning for the land?

IN1 General Industrial

Land Use Table – IN1 General Industrial

(a) The land is zoned IN1 General Industrial under the provisions of Part 2 in the Port Stephens Local Environmental Plan 2013.

(b) **Item 2 – Permitted without consent**

Nil

(c) **Item 3 – Permitted with consent**

Airstrips; Boat building and repair facilities; Boat launching ramps; Boat sheds; Correctional centres; Crematoria; Depots; Environmental facilities; Environmental protection works; Flood mitigation works; Freight transport facilities; Garden centres; General industries; Hardware and building supplies; Heavy industrial storage establishments; Heavy industries; Helipads; Heliports; Highway service centres; Industrial retail outlets; Industrial training facilities; Jetties; Landscaping material supplies; Light industries; Mortuaries; Neighbourhood shops; Oyster aquaculture; Places of public worship; Plant nurseries; Port facilities; Research stations; Restricted premises; Roads; Rural supplies; Sawmill or log processing works; Service station; Sex services premises; Signage; Stock and sale yards; Storage premises; Tank-based aquaculture; Timber yards; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Warehouse or distribution centres; Water supply systems; Wharf or boating facilities; Wholesale supplies

(d) **Item 4 - Prohibited**

Pond-based aquaculture; Any development not specified in item 2 or 3

(e) **Development Standard for the erection of a dwelling-house**

No development standard that fixes a minimum land dimension for the erection of a dwelling-house applies to the land.

(f) Does the land include or comprise a critical habitat?
Port Stephens Local Environmental Plan 2013 does not identify the land as including or comprising critical habitat.

(g) Is the land in a heritage conservation area?
The land is not located within a heritage conservation area under the Port Stephens Local Environmental Plan 2013.

(h) Is an item of environmental heritage situated on the land?

The land is not identified as containing an item of environmental heritage significance under the provisions in Port Stephens Local Environmental Plan 2013.

Note. The land subject of this certificate does not have a site specific clause applying to it.

2A. Zoning and land use under *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*

Not applicable to the Port Stephens Local Government Area.

3. Complying Development

Whether or not the land to which the certificate relates is land on which complying development may be carried out under *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*?

Housing Code
Complying development under the General Housing Code MAY be carried out on the land.

Inland Code
Complying development under the Inland Code MAY be carried out on the land.

Rural Housing Code
Complying development under the Rural Housing Code MAY be carried out on the land.

Low Rise Medium Denisty Housing Code
Complying development under the Low Rise Medium Density Housing Code MAY be carried out on the land.

Greenfield Housing Code
Complying development under the Greenfield Housing Code MAY be carried out on the land.

Housing Alterations Code
Complying development under the Housing Alterations Code MAY be carried out on the land.

General Development Code
Complying development under the General Development Code MAY be carried out on the land.

Commercial and Industrial Alterations Code
Complying development under the Commercial and Industrial alterations Code MAY be carried out on the land.

Commercial and Industrial (New Buildings and Additions) Code
Complying development under the Commercial and Industrial (New Buildings and Additions) Code MAY be carried out on the land.

Container Recycling Facilities Code
Complying development under the Container Recycling Facilities code MAY be carried out on the land.

Subdivisions Code
Complying development under the Subdivision Code MAY be carried out on the land.

Demolition Code
Complying development under the Demolition Code MAY be carried out on the land.

Fire Safety Code
Complying development under the Fire Safety Code MAY be carried out on the land.

Note. If the land is a lot to which the Housing Code, Rural Housing Code, Low Rise Medium Density Housing Code, Greenfield Housing Code, Housing Alterations Code, General Development Code, or Commercial and Industrial (New Buildings and Additions) Code (within the meaning of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008* applies, complying development may be carried out on any part of the lot that is not affected by the provisions of clause 1.19 of that Policy

4. (Repealed)

4A. (Repealed)

4B. Annual charges under *Local Government Act 1993* for coastal protection services that relate to existing coastal protection works

The land is not subject to annual charges under section 496B of the *Local Government Act 1993* for coastal protection services relating to existing coastal protection works to which the owner (or any previous owner) of the land has consented.

Note. "existing coastal protection works" are works to reduce the impact of coastal hazards on land (such as seawalls, revetments, groynes and beach nourishment) that existed before the commencement of section 553B of the *Local Government Act 1993.*

5. Mine Subsidence
Whether or not the land is proclaimed to be a mine subsidence district within the meaning of section 15 of the *Mine Subsidence Compensation Act 1961* or within an area declared to be a mine subsidence district under the *Coal Mine Subsidence Compensation Act 2017*.

The land is not within a proclaimed or declared mine subsidence district.

6. Road widening and road realignment
Council's records indicate that the land the subject of this Certificate is not affected by any road widening or road realignment under:- (1) Section 25 of the Roads Act 1993; or (2) any environmental planning instrument; or (3) any resolution of the Council.

7. Council and other public authority policies on hazard risk restrictions
Council's records indicate that the land subject of this certificate IS NOT affected by RAAF Base Williamtown & Salt Ash Weapons Range 2025 ANEF (10th August 2011); or the Aircraft Noise Planning Area within Port Stephens Development Control Plan 2014 - Chapter B7 Aircraft Noise for Buildings.

7A. Flood related development controls information

MINIMAL RISK FLOOD PRONE LAND - Development on the land or part of the land for the purposes of critical emergency response, recovery facilities and infrastructure and development which are particularly vulnerable to emergency response including group homes, seniors housing and child care facilities is subject to flood related development controls. If you wish to apply for a Flood Certificate, please refer to Council's Flood Certificate Information on our website at www.portstephens.nsw.gov.au

8. Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument makes provision in relation to the acquisition of the land by a public authority, as referred to in Section 3.15 of the Environmental Planning and Assessment Act 1979 (the Act).

The Port Stephens Local Environmental Plan 2013 DOES NOT provide for the acquisition of this land, or part thereof, by a public authority as referred to in Section 3.15 of the Act.

9. Contributions plans

The name of each contributions plan applying to the land

* Port Stephens Local Infrastructure Contributions Plan 2020
* Port Stephens Fixed Local Infrastructure Contributions Plan 2020

.

Note. These documents specify development contributions required towards the cost of providing additional community services or facilities if a property is developed. They are available on request from Council or can be viewed www.portstephens.nsw.gov.au.

9A. Biodiversity certified land

If the land is biodiversity certified land under Part 8 of the *Biodiversity Conservation Act 2016*, a statement to that effect.

No

Note. Biodiversity certified land includes land certified under Part 7AA of the *Threatened Species Conservation Act 1995* that is taken to be certified under Part 8 of the *Biodiversity Conservation Act 2016*.

10. Biodiversity stewardship sites

If the land is a biodiversity stewardship site under a biodiversity stewardship agreement under Part 5 of the *Biodiversity Conservation Act 2016*, a statement to that effect (but only if the council has been notified of the existence of the agreement by the Chief Executive of the Office of Environment and Heritage).

No

Note. Biodiversity stewardship agreements include biobanking agreements under Part 7A of the *Threatened Species Conservation Act 1995* that are taken to be biodiversity stewardship agreements under Part 5 of the *Biodiversity Conservation Act 2016*.

10A. Native vegetation clearing set asides

If the land contains a set aside area under section 60ZC of the *Local Land Services Act 2013*, a statement to that effect (but only if the council has been notified of the existence of the set aside area by Local Land Services or it is registered in the public register under that section).

The land DOES NOT contain a set aside area under section 60ZC of the Local Land Services Act 2013.

11. Bush fire prone land

Whether or not some, all or none of the land is bush fire prone land.

Part of the land is identified as bush fire prone land in Council's records. Further details of any applicable restrictions on development of the land may be obtained on application to Council. For further information, please contact Council's Duty Officer by telephoning 49880115.

12. Property vegetation plans

If the land is land to which a property vegetation plan under the *Native Vegetation Act 2003* (and that continues in force) applies, a statement to that effect (but only if the council has been notified of the existence of the plan by the person or body that approved the plan under that Act).

Council has not been notified of any Property Vegetation Plans under the Native Vegetation Act 2003 (and that continues in force) that affect the land to which this certificate applies.

13. Orders under *Trees (Disputes Between Neighbours) Act 2006*

Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land (but only if the council has been notified of the order).

The land is not affected by an order under the *Trees (Disputes Between Neighbours) Act 2006* (of which Council is aware).

14. Directions under Part 3A

Whether there is a direction by the Minister in force under section 75P(2)(c1) of the Act.

The land is not affected by a direction by the Minister, in force under section 75P(2)(c1) of the *Environmental Planning and Assessment Act 1979*.

15. Site compatibility certificates and conditions for seniors housing

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

(a) Whether or not Council is aware of a current site compatibility certificate (seniors housing), in respect of the proposed development on the land.

Council is not aware of a site compatibility certificate (seniors housing) issued in respect of the subject land.

(b) Whether or not any terms of a kind referred to in clause 18(2) of that Policy that have been imposed as a condition of consent to a development application granted after October 2007 in respect of the land.

No terms referred to in clause 18(2) of the policy have been imposed as a condition of development consent in respect of the land to which this certificate relates.

16. Site compatibility certificates for infrastructure, schools or TAFE establishments

Whether or not Council is aware of a valid site compatibility certificate (infrastructure) or site compatibility certificate (schools, or TAFE establishments) in respect of proposed development on the land.

Council is not aware of a valid site compatibility certificate (infrastructure) or site compatibility certificate (schools, or TAFE establishments) in respect of proposed development on the land.

17. Site compatibility certificates and conditions for affordable rental housing

(1) Whether or not Council is aware of a current site compatibility certificate (affordable rental housing) in respect of proposed development on the land.

Council is not aware of a current site compatibility certificate issued under *State Environmental Planning Policy (Affordable Rental Housing) 2009*.

(2) Whether or not any terms of a kind referred to in clause 17 (1) or 38 (1) of *State Environmental Planning Policy (Affordable Rental Housing) 2009* that have been imposed as a condition of consent to a development application in respect of the land.

The land is not affected by any terms of a kind (of which Council is aware) referred to in clause 17(1) or 38(1) of *State Environmental Planning Policy (Affordable Rental Housing) 2009* that have been imposed as conditions of consent to a development application granted after 11th October, 2007 in respect of the land.

18. Paper subdivison information

(1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.
(2) The date of any subdivision order that applies to the land.
(3) Words and expressions used in this clause have the same meaning as they have in Part 16C of *Environmental Planning and Assessment Regulation 2000*.

Not applicable.

19. Site verification certificates

Whether or not Council is aware of a current site verification certificate, in respect of the land.

Council is not aware of a current site verification certificate in respect of the land.

20. Loose-fill asbestos insulation

Whether or not the land includes any residential premises (as defined in Division 1A of Part 8 of the *Home Building Act 1989*) that are listed on a register of residential premises that contain or have contained loose-fill asbestos insulation.

The land DOES NOT include any residential dwelling identified on the Loose-Fill Asbestos Insulation Register as containing loose-fill asbestos ceiling insulation. For further information, please contact Department of Fair Trading by telephoning 13 77 88 or go to their website at www.fairtrading.nsw.gov.au.

21. Affected building notices and building product rectification orders

(a) Whether nor not there is any affected building notice of which the council is aware that is in force in respect of the land.
There is no affected building notice in force in respect of the land.

A statement of:

(b) Whether there is any building product rectification order of which the council is aware that is in force in respect of the land and has not been fully complied with.

No

(c) Whether any notice of intention to make a building product rectification order of which the council is aware has been given in respect of the land and is outstanding.

No

Additional matters

Note. The following matters are prescribed by section 59 (2) of the Contaminated Land Management Act 1997 as additional matters to be specified in a planning certificate:

(a) Whether or not the land to which the certificate relates is significantly contaminated land within the meaning of that Act.
(b) Whether or not the land to which the certificate relates is subject to a management order within the meaning of that Act.
(c) Whether or not the land to which the certificate relates is the subject of an approved voluntary management proposal within the meaning of the Act.
(d) Whether or not the land to which this certificate relates is subject to an ongoing maintenance order within the meaning of that Act.
(e) Whether or not the land to which the certificate relates is the subject of a site audit statement within the meaning of that Act – if a copy of such statement has been provided at any time to the local authority issuing the certificate.

There are no prescribed matters under section 59(2) of the Contaminated Land Management Act 1997 to be disclosed.

PART B: INFORMATION PROVIDED UNDER SECTION 10.7(5)

This information is provided in accordance with section 10.7(5) of the *Environmental Planning and Assessment Act 1979*. Section 10.7(6) states that Council shall not incur any liability in respect of advice provided in good faith pursuant to section 10.7(5) of the Act. If this information is to be relied upon, it should be independently checked.

Heritage
Port Stephens Council must take into consideration the likely effect of proposed development on the heritage significance of a heritage item, heritage conservation area, archaeological site or potential archaeological site, and on its setting, when determining an application for consent to carry out development on land in its vicinity. Please contact Council's Development Assessment and Compliance Section by telephoning 49880115.

Aboriginal Archaelogy

When determining a development application on known or potential archaeological sites of both Aboriginal and non-Aboriginal heritage significance, Port Stephens Council must consider an assessment of how the proposed development would affect the conservation of the site and any relic known or reasonably likely to be located at the site. Please contact Council's Development Assessment and Compliance Section on 49880115 for more information.

Tomago Aluminium Smelter Buffer Zone
This property is located within the Tomago Aluminium Smelter Buffer zone. Tomago Aluminium Company Pty Ltd are required to take all reasonable steps to acquire certain properties within this buffer zone. Please contact the Company Secretary, Tomago Aluminium Company Pty Limited, PO Box 405, Raymond Terrace NSW 2324 for further information.

Aircraft Noise
All areas of the Port Stephens Local Government Area are now, or are forecast to be, affected by aircraft noise from time to time. Further information concerning the degree of impact of noise from aircraft can be obtained by contacting Council's Strategy and Environment Section by telephoning 49880326.

Koala Habitat
Parts of the Port Stephens Local government Area are affected by Koala Habitat and subject to the Port Stephens Comprehensive Koala Plan of Management 2002 made under State Environmental Planning Proposal No. 44. Further information can be obtained from Council's Strategy & Environment Section on 49880326 or email plancert@portstephens.nsw.gov.au.

Invasive Species
Parts of the Port Stephens Local Government Area contain plants that pose a risk according to the *Biosecurity Act 2015* which may restrict the use of the land. For further information please contact Council's Strategy & Environment Section on 4988 0326 or email weeds@portstephens.nsw.gov.au

Development consents relating to the land
Please contact Customer Relations on (02) 4988 0255, for any enquiries regarding development consent over the land in the past 5 years.

Issued by Port Stephens Council Development Services Group,
on behalf of **Wayne Wallis,General Manager**

Appendix D

EPA Search Results

Contaminated land

+ Management of contaminated land
+ Consultants and site auditor scheme
+ Underground petroleum storage systems
Guidelines under the CLM Act
NEPM amendment
+ Further guidance
– Record of notices
About the record
Search the record
Search tips
Disclaimer
List of NSW contaminated sites notified to EPA
Frequently asked questions
Forms
+ Other contamination issues
+ Contaminated Land Management Program

Home Contaminated land Record of notices

Search results

Your search for: Suburb: TOMAGO

Matched 1 notice relating to 1 site.

Search Again Refine Search

Suburb	Address	Site Name	Notices related to this site
TOMAGO	25 School DRIVE	Former Hydromet Site	1 former

Page 1 of 1

6 March 2020

Number	Name	Location	Type	Status	Issued date
1588347		576-638 TOMAGO ROAD, TOMAGO, NSW 2322	s.58 Licence Variation	Pending	14-Nov-19
20130	AGL UPSTREAM INVESTMENTS PTY LIMITED	5 Old Punt Road, TOMAGO, NSW 2322	POEO licence	Issued	20-Jul-12
1531115	AGL UPSTREAM INVESTMENTS PTY LIMITED	5 Old Punt Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	8-Jul-15
1539133	AGL UPSTREAM INVESTMENTS PTY LIMITED	5 Old Punt Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	12-Jul-16
1564088	AGL UPSTREAM INVESTMENTS PTY LIMITED	5 Old Punt Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	30-May-18
11807	AMPCONTROL SERVICE (NSW) PTY LTD	8 MARTIN DRIVE, TOMAGO, NSW 2322	POEO licence	Surrendered	15-May-03
1085060	AMPCONTROL SERVICE (NSW) PTY LTD	8 MARTIN DRIVE, TOMAGO, NSW 2322	s.80 Surrender of a Licence	Issued	24-Apr-08
1015074	AUSTRALCHEM PTY LTD	606 TOMAGO ROAD, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	14-Feb-02
1032444	AUSTRALCHEM PTY LTD	606 TOMAGO ROAD, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	28-Feb-04
1512518	CBI Constructors Pty Ltd	5 Old Punt Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	21-Mar-13
1517956	CBI Constructors Pty Ltd	5 Old Punt Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	25-Nov-13
2491	CHEMPROD NOMINEES PROPRIETARY LIMITED	109 ENTERPRISE DRIVE, TOMAGO, NSW 2322	POEO licence	Issued	6-Jun-00
1009649	CHEMPROD NOMINEES PROPRIETARY LIMITED	109 ENTERPRISE DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	29-Jul-01
1012060	CHEMPROD NOMINEES PROPRIETARY LIMITED	109 ENTERPRISE DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	11-Oct-01
1019727	CHEMPROD NOMINEES PROPRIETARY LIMITED	109 ENTERPRISE DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	3-Sep-02
1022090	CHEMPROD NOMINEES PROPRIETARY LIMITED	109 ENTERPRISE DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	24-Dec-02
1025783	CHEMPROD NOMINEES PROPRIETARY LIMITED	109 ENTERPRISE DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	18-Mar-03
1071360	CHEMPROD NOMINEES PROPRIETARY LIMITED	109 ENTERPRISE DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	2-May-07
1119209	CHEMPROD NOMINEES PROPRIETARY LIMITED	109 ENTERPRISE DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	18-Oct-10

Number	Name	Location	Type	Status	Issued date
1513224	CHEMPROD NOMINEES PROPRIETARY LIMITED	109 ENTERPRISE DRIVE, TOMAGO, NSW 2322	Compliance Audit	Complete	2-Apr-13
1523056	CHEMPROD NOMINEES PROPRIETARY LIMITED	109 ENTERPRISE DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	29-Oct-14
1535809	CHEMPROD NOMINEES PROPRIETARY LIMITED	109 ENTERPRISE DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	7-Jan-16
1543021	CHEMPROD NOMINEES PROPRIETARY LIMITED	109 ENTERPRISE DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	17-Oct-16
1569392	CHEMPROD NOMINEES PROPRIETARY LIMITED	109 ENTERPRISE DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	6-Nov-18
20652	CLEAN VALLEY PTY LTD	7 Enterprise Drive, TOMAGO, NSW 2322	POEO licence	Surrendered	9-Nov-15
3085782022	CLEAN VALLEY PTY LTD	7 Enterprise Drive, TOMAGO, NSW 2322	Penalty Notice	Issued	24-Apr-17
3085782013	CLEAN VALLEY PTY LTD	7 Enterprise Drive, TOMAGO, NSW 2322	Penalty Notice	Issued	24-Apr-17
1581942	CLEAN VALLEY PTY LTD	7 Enterprise Drive, TOMAGO, NSW 2322	s.80 Surrender of a Licence	Issued	15-Jul-19
1531498	Custom Chemicals Pty Ltd	49 School Road, TOMAGO, NSW 2322	s.91 Clean Up Notice	Issued	19-Jun-15
12014	HUNTER GALVANIZING PTY LIMITED	13 OLD PUNT ROAD, TOMAGO, NSW 2322	POEO licence	Issued	9-Feb-04
1035674	HUNTER GALVANIZING PTY LIMITED	13 OLD PUNT ROAD, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	17-May-04
1096014	HUNTER GALVANIZING PTY LIMITED	13 OLD PUNT ROAD, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	11-May-09
1112471	HUNTER GALVANIZING PTY LIMITED	13 OLD PUNT ROAD, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	16-Jul-10
1502169	HUNTER GALVANIZING PTY LIMITED	13 OLD PUNT ROAD, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	14-Feb-12
5986	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	POEO licence	Issued	17-Jul-00
1513292	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	10-May-13
1518448	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	6-Jan-14
3085774744	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	Penalty Notice	Issued	4-Aug-14
3085774753	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	Penalty Notice	Issued	4-Aug-14
1523609	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.91 Clean Up Notice	Issued	4-Aug-14
1524608	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.110 Variation of Clean Up Notice	Issued	29-Aug-14
1525500	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.110 Variation of Clean Up Notice	Issued	9-Oct-14
1534574	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	26-Oct-15

Number	Name	Location	Type	Status	Issued date
1534988	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.91 Clean Up Notice	Issued	30-Oct-15
1535203	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.110 Revocation of Clean Up Notice	Issued	30-Oct-15
1535990	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.91 Clean Up Notice	Issued	3-Dec-15
1538138	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.110 Revocation of Clean Up Notice	Issued	17-Feb-16
1537716	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.91 Clean Up Notice	Issued	17-Feb-16
1538805	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.110 Variation of Clean Up Notice	Issued	10-Mar-16
3085779410	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	Penalty Notice	Issued	13-May-16
1544417	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.91 Clean Up Notice	Issued	28-Sep-16
1549288	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.91 Clean Up Notice	Issued	10-Feb-17
1549661	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.96 Prevention Notice	Issued	23-Feb-17
3173523266	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	Penalty Notice	Issued	7-Sep-17
3173523275	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	Penalty Notice	Issued	7-Sep-17
1572786	HYDROMET CORPORATION PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.80 Surrender of a Licence	Pending	22-Nov-18
12226	JEFFERY RAYMOND O'NEILL	Kooragang Island Industrial & Waste Emplacement Site & Tomago Site, TOMAGO, NSW 2322	POEO licence	Revoked	3-Dec-04
1068766	JEFFERY RAYMOND O'NEILL	Kooragang Island Industrial & Waste Emplacement Site & Tomago Site, TOMAGO, NSW 2322	s.79 Revocation of a Licence	Issued	18-Jan-07
20254	Midal Cables International Pty Ltd	21D School Drive, TOMAGO, NSW 2322	POEO licence	Surrendered	7-Jun-13
1515974	Midal Cables International Pty Ltd	21D School Drive, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	20-Aug-13
1520579	Midal Cables International Pty Ltd	21D School Drive, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	27-Mar-14
1531127	Midal Cables International Pty Ltd	21D School Drive, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	16-Jul-15
1557902	Midal Cables International Pty Ltd	21D School Drive, TOMAGO, NSW 2322	s.80 Surrender of a Licence	Issued	22-Nov-17
1004886	MINMET OPERATIONS PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	19-May-01
1011695	MINMET OPERATIONS PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	26-Oct-01
1026094	MINMET OPERATIONS PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	16-Jul-04
1106085	MINMET OPERATIONS PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	9-Nov-09
1127243	MINMET OPERATIONS PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	12-Jul-11
1502888	MINMET OPERATIONS PTY LIMITED	25 SCHOOL DRIVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	3-Feb-12
20585	NEWCASTLE RECYCLING (NSW) PTY LTD	29 Laverick Ave, TOMAGO, NSW 2322	POEO licence	Issued	26-Aug-15
3085781930	NEWCASTLE RECYCLING (NSW) PTY LTD	29 Laverick Ave, TOMAGO, NSW 2322	Penalty Notice	Issued	20-Apr-17
1525875	Newcastle Waste Recycling PTY LTD	509 Tomago Road, TOMAGO, NSW 2322	s.91 Clean Up Notice	Issued	27-Oct-14

Number	Name	Location	Type	Status	Issued date
1527079	Newcastle Waste Recycling PTY LTD	TOMAGO, NSW 2322	s.91 Clean Up Notice	Issued	22-Dec-14
1541393	NWR Staff Services Pty Ltd	509 Tomago Road, TOMAGO, NSW 2322	s.91 Clean Up Notice	Issued	8-Jun-16
1026822	PATRICK DISTRIBUTION PTY LIMITED	TOMAGO ROAD, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	23-Jun-03
20009	QUANTUM METALS PTY LTD	326 Tomago Road, TOMAGO, NSW 2322	POEO licence	Surrendered	18-Jan-12
1505284	QUANTUM METALS PTY LTD	326 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	10-Apr-12
1514122	QUANTUM METALS PTY LTD	326 Tomago Road, TOMAGO, NSW 2322	s.80 Surrender of a Licence	Issued	3-Jul-13
21296	RECYCLED CONCRETE PRODUCTS PTY. LIMITED	509 TOMAGO ROAD, TOMAGO, NSW 2322	POEO licence	Pending	
1573603	RECYCLED CONCRETE PRODUCTS PTY. LIMITED	509 Tomago Road, TOMAGO, NSW 2322	s.91 Clean Up Notice	Issued	31-Jan-19
1589431	RECYCLED CONCRETE PRODUCTS PTY. LIMITED	509 Tomago Road, TOMAGO, NSW 2322	s.110 Variation of Clean Up Notice	Issued	20-Dec-19
1550447	RECYCLING AND WASTE MANAGEMENT PTY LTD	509 Tomago Road, TOMAGO, NSW 2322	s.91 Clean Up Notice	Issued	24-Mar-17
3085782729	RECYCLING AND WASTE MANAGEMENT PTY LTD	509 Tomago Road, TOMAGO, NSW 2322	Penalty Notice	Issued	19-Jun-17
1576119	RECYCLING AND WASTE MANAGEMENT PTY LTD	509 Tomago Road, TOMAGO, NSW 2322	s.110 Revocation of Clean Up Notice	Issued	14-Feb-19
3085782774	REDICRETE PTY LIMITED	25B School Drive , TOMAGO, NSW 2322	Penalty Notice	Issued	21-Jul-17
13269	REGAIN SERVICES PTY LTD	576-638 TOMAGO ROAD, TOMAGO, NSW 2322	POEO licence	Issued	5-Nov-12
1518649	REGAIN SERVICES PTY LTD	576-638 TOMAGO ROAD, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	17-Jun-14
1551338	REGAIN SERVICES PTY LTD	576-638 TOMAGO ROAD, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	17-May-17
1562006	REGAIN SERVICES PTY LTD	576-638 TOMAGO ROAD, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	16-Mar-18
370	RZM PTY. LIMITED	11 PACIFIC HIGHWAY, TOMAGO, NSW 2322	POEO licence	Surrendered	15-Jan-01
1017336	RZM PTY. LIMITED	11 PACIFIC HIGHWAY, TOMAGO, NSW 2322	s.80 Surrender of a Licence	Issued	21-May-02
6545	SPECIALIST CRUSHING & SCREENING SERVICES PTY LTD	12 ENTERPRISE DRIVE , TOMAGO, NSW 2322	POEO licence	Surrendered	7-Aug-00

Number	Name	Location	Type	Status	Issued date
1010315	SPECIALIST CRUSHING & SCREENING SERVICES PTY LTD	12 ENTERPRISE DRIVE , TOMAGO, NSW 2322	s.58 Licence Variation	Issued	12-Aug-01
1046589	SPECIALIST CRUSHING & SCREENING SERVICES PTY LTD	12 ENTERPRISE DRIVE , TOMAGO, NSW 2322	s.80 Surrender of a Licence	Issued	30-May-05
4000	TOLL NORTH PTY LTD	TOMAGO ROAD, TOMAGO, NSW 2322	POEO licence	Surrendered	11-Sep-00
1124410	TOLL NORTH PTY LTD	TOMAGO ROAD, TOMAGO, NSW 2322	s.80 Surrender of a Licence	Issued	8-Feb-11
20125	TOLL NORTH PTY LTD	12 Old Punt Road, TOMAGO, NSW 2322	POEO licence	Issued	12-Jul-12
1531101	TOLL NORTH PTY LTD	12 Old Punt Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	11-Nov-16
1551885	TOLL NORTH PTY LTD	12 Old Punt Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	3-Jul-17
1567495	TOLL NORTH PTY LTD	12 Old Punt Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	3-Sep-18
6163	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	POEO licence	Issued	20-Apr-00
1014382	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	25-Jan-02
1016532	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	18-Apr-02
1018042	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	5-Nov-03
1041989	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	12-Nov-04
1044367	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	8-Mar-05
1056839	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	17-Mar-06
1061531	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	31-Aug-06
1097536	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	24-Apr-09
1102846	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	11-Aug-09
1107277	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	1-Jul-10
1119919	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	11-Feb-11

Number	Name	Location	Type	Status	Issued date
1501708	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	26-Oct-11
1504909	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	15-May-12
1509937	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	Compliance Audit	Complete	5-Nov-12
1509839	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	5-Nov-12
1517795	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	30-Oct-14
1558503	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	18-Dec-17
1562052	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	16-Mar-18
1571299	TOMAGO ALUMINIUM COMPANY PTY LTD	576-638 Tomago Road, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	24-Oct-18
2002	TRI GROUP INVESTMENTS PTY LIMITED	606 TOMAGO ROAD, TOMAGO, NSW 2322	POEO licence	Surrendered	7-Feb-00
1091850	TRI GROUP INVESTMENTS PTY LIMITED	606 TOMAGO ROAD, TOMAGO, NSW 2322	s.80 Surrender of a Licence	Issued	5-Sep-08
12806	TROPIC TOMAGO PTY LIMITED	25-27 Kennington Drive, TOMAGO, NSW 2322	POEO licence	No longer in force	18-Dec-07
5007	WHITELEY CORPORATION PTY LTD	19-23 LAVERICK AVE, TOMAGO, NSW 2322	POEO licence	Issued	6-Sep-00
1510413	WHITELEY CORPORATION PTY LTD	19-23 LAVERICK AVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	25-Feb-13
1548852	WHITELEY CORPORATION PTY LTD	19-23 LAVERICK AVE, TOMAGO, NSW 2322	s.58 Licence Variation	Issued	6-Feb-17

Appendix E

Historic Titles

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
17/2/2020 9:48AM

FOLIO: 5/270328

First Title(s): OLD SYSTEM
Prior Title(s): 71/634535 3022/1031095

Recorded	Number	Type of Instrument	C.T. Issue
20/11/2002	DP270328	DEPOSITED PLAN	FOLIO CREATED EDITION 1
2/4/2003	9501059	DISCHARGE OF MORTGAGE	
2/4/2003	9501060	TRANSFER	EDITION 2
6/5/2011	AG216557	TRANSFER INCLUDING COVENANT	
6/5/2011	AG216558	MORTGAGE	EDITION 3
13/3/2012	DP270328	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

JME20005 PRINTED ON 17/2/2020

triSearch 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.

Copyright © Office of the Registrar-General 2020

Received: 17/02/2020 09:48:32

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
12/2/2020 3:24PM

FOLIO: 7/270328

First Title(s): OLD SYSTEM
Prior Title(s): 71/634535 3022/1031095

Recorded	Number	Type of Instrument	C.T. Issue
20/11/2002	DP270328	DEPOSITED PLAN	FOLIO CREATED EDITION 1
2/4/2003	9501059	DISCHARGE OF MORTGAGE	
2/4/2003	9501060	TRANSFER	EDITION 2

*** END OF SEARCH ***

triSearch 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.

Copyright © Office of the Registrar-General 2020

Received: 12/02/2020 15:24:37

LAND REGISTRY SERVICES

Title Search

Information Provided Through
triSearch (Website)
Ph. 1300 064 452 Fax.

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 7/270328

SEARCH DATE	TIME	EDITION NO	DATE
12/2/2020	3:15 PM	2	2/4/2003

LAND

LOT 7 IN COMMUNITY PLAN DP270328
AT TOMAGO
LOCAL GOVERNMENT AREA PORT STEPHENS
PARISH OF STOCKTON COUNTY OF GLOUCESTER
TITLE DIAGRAM DP270328

FIRST SCHEDULE

TOMAGO ALUMINIUM COMPANY PTY LIMITED (T 9501060)

SECOND SCHEDULE (9 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 INTERESTS RECORDED ON REGISTER FOLIO 1/270328
3 ATTENTION IS DIRECTED TO THE MANAGEMENT STATEMENT OF THE COMMUNITY SCHEME FILED WITH THE COMMUNITY PLAN
4 DP634535 RESTRICTION(S) ON THE USE OF LAND AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
V956701 VARIATION
5 BK 1882 NO 182 LAND EXCLUDES MINERALS AND IS SUBJECT TO RIGHTS TO MINE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
6 DP270328 EASEMENT FOR ELECTRICITY LINE 4.5, 7 METRES WIDE AND VARIABLE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
7 DP270328 EASEMENT FOR ELECTRICITY LINE 4.5, 7 METRES WIDE AND VARIABLE APPURTENANT TO THE LAND ABOVE DESCRIBED
8 DP270328 EASEMENT FOR DRAINAGE OF WATER 4.5 METRE(S) WIDE AND VARIABLE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
9 DP270328 RESTRICTION(S) ON THE USE OF LAND REFERRED TO AND NUMBERED (6) IN THE S.88B INSTRUMENT

NOTATIONS

NOTE: THE CERTIFICATE OF TITLE FOR THIS FOLIO OF THE REGISTER DOES NOT INCLUDE SECURITY FEATURES INCLUDED ON COMPUTERISED CERTIFICATES OF TITLE ISSUED FROM 4TH JANUARY, 2004. IT IS RECOMMENDED THAT STRINGENT PROCESSES ARE ADOPTED IN VERIFYING THE IDENTITY OF THE PERSON(S) CLAIMING A RIGHT TO DEAL WITH THE LAND COMPRISED IN THIS FOLIO.

END OF PAGE 1 - CONTINUED OVER

FOLIO: 7/270328 PAGE 2

NOTATIONS (CONTINUED)

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register. triSearch 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.

Copyright © Office of the Registrar-General 2020 Received: 12/02/2020 15:15:16

LAND REGISTRY SERVICES

Historical Title

Information Provided Through
triSearch (Website)
Ph. 1300 064 452 Fax.

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
17/2/2020 9:42AM

FOLIO: 8/270328

First Title(s): OLD SYSTEM
Prior Title(s): 71/634535

Recorded	Number	Type of Instrument	C.T. Issue
20/11/2002	DP270328	DEPOSITED PLAN	FOLIO CREATED EDITION 1
2/4/2003	9501059	DISCHARGE OF MORTGAGE	
2/4/2003	9501060	TRANSFER	EDITION 2

*** END OF SEARCH ***

JME20005 PRINTED ON 17/2/2020

triSearch 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.

Copyright © Office of the Registrar-General 2020

Received: 17/02/2020 09:42:09

LAND REGISTRY SERVICES

Title Search

Information Provided Through
triSearch (Website)
Ph. 1300 064 452 Fax.

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 8/270328

SEARCH DATE	TIME	EDITION NO	DATE
12/2/2020	3:15 PM	2	2/4/2003

LAND

LOT 8 IN COMMUNITY PLAN DP270328
AT TOMAGO
LOCAL GOVERNMENT AREA PORT STEPHENS
PARISH OF STOCKTON COUNTY OF GLOUCESTER
TITLE DIAGRAM DP270328

FIRST SCHEDULE

TOMAGO ALUMINIUM COMPANY PTY LIMITED (T 9501060)

SECOND SCHEDULE (7 NOTIFICATIONS)

---

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 INTERESTS RECORDED ON REGISTER FOLIO 1/270328
3 ATTENTION IS DIRECTED TO THE MANAGEMENT STATEMENT OF THE COMMUNITY SCHEME FILED WITH THE COMMUNITY PLAN
4 DP634535 RESTRICTION(S) ON THE USE OF LAND
V956701 VARIATION
5 DP270328 EASEMENT FOR ELECTRICITY LINE 4.5, 7 METRES WIDE AND VARIABLE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
6 DP270328 EASEMENT FOR ELECTRICITY LINE 4.5, 7 METRES WIDE AND VARIABLE APPURTENANT TO THE LAND ABOVE DESCRIBED
7 DP270328 RESTRICTION(S) ON THE USE OF LAND REFERRED TO AND NUMBERED (6) IN THE S.88B INSTRUMENT

NOTATIONS

NOTE: THE CERTIFICATE OF TITLE FOR THIS FOLIO OF THE REGISTER DOES NOT INCLUDE SECURITY FEATURES INCLUDED ON COMPUTERISED CERTIFICATES OF TITLE ISSUED FROM 4TH JANUARY, 2004. IT IS RECOMMENDED THAT STRINGENT PROCESSES ARE ADOPTED IN VERIFYING THE IDENTITY OF THE PERSON(S) CLAIMING A RIGHT TO DEAL WITH THE LAND COMPRISED IN THIS FOLIO.

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

JME20005 PRINTED ON 12/2/2020

* 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. triSearch 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.

Copyright © Office of the Registrar-General 2020 Received: 12/02/2020 15:15:16

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
17/2/2020 9:43AM

FOLIO: 11/270328

First Title(s): OLD SYSTEM
Prior Title(s): 5-6/270328

Recorded	Number	Type of Instrument	C.T. Issue
13/3/2012	DP270328	DEPOSITED PLAN	FOLIO CREATED EDITION 1
21/1/2014	DP1192459	DEPOSITED PLAN	
23/1/2014	AI307905	MORTGAGE	
23/1/2014	AI307906	POSTPONEMENT OF MORTGAGE	EDITION 2
18/4/2018	AN271074	DISCHARGE OF MORTGAGE	
18/4/2018	AN271075	DISCHARGE OF MORTGAGE	
18/4/2018	AN271076	TRANSFER	EDITION 3

*** END OF SEARCH ***

JME20005 PRINTED ON 17/2/2020

triSearch 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.

Copyright © Office of the Registrar-General 2020

Received: 17/02/2020 09:43:25

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 11/270328

SEARCH DATE	TIME	EDITION NO	DATE
12/2/2020	3:15 PM	3	18/4/2018

LAND

LOT 11 IN COMMUNITY PLAN DP270328
AT TOMAGO
LOCAL GOVERNMENT AREA PORT STEPHENS
PARISH OF STOCKTON COUNTY OF GLOUCESTER
TITLE DIAGRAM DP270328

FIRST SCHEDULE

TOMAGO ALUMINIUM COMPANY PTY LIMITED (T AN271076)

SECOND SCHEDULE (14 NOTIFICATIONS)

---

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 INTERESTS RECORDED ON REGISTER FOLIO 1/270328
3 ATTENTION IS DIRECTED TO THE MANAGEMENT STATEMENT OF THE COMMUNITY SCHEME FILED WITH THE COMMUNITY PLAN
4 DP634535 RESTRICTION(S) ON THE USE OF LAND AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
V956701 VARIATION
5 BK 1882 NO 182 LAND EXCLUDES MINERALS AND IS SUBJECT TO RIGHTS TO MINE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
6 DP270328 EASEMENT FOR ELECTRICITY LINE 4.5, 7 METRES WIDE AND VARIABLE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
7 DP270328 EASEMENT FOR ELECTRICITY LINE 4.5, 7 METRES WIDE AND VARIABLE APPURTENANT TO THE LAND ABOVE DESCRIBED
8 DP270328 RESTRICTION(S) ON THE USE OF LAND REFERRED TO AND NUMBERED (6) IN THE S.88B INSTRUMENT
9 AG216557 COVENANT
10 DP1192459 RIGHT OF ACCESS VARIABLE WIDTH APPURTENANT TO THE LAND ABOVE DESCRIBED
11 DP1192459 RIGHT TO PARK VARIABLE WIDTH APPURTENANT TO THE LAND ABOVE DESCRIBED
12 DP1192459 EASEMENT FOR ELECTRICITY & OTHER PURPOSES 4 METRE(S) AFFECTING THE PART(S) SHOWN SO BURDENED IN DP1192459
13 DP1192459 EASEMENT FOR ELECTRICITY & OTHER PURPOSES 3.3 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN DP1192459
14 DP1192459 EASEMENT FOR ELECTRICITY & OTHER PURPOSES 2 METRE(S) WIDE REFERRED TO AND NUMBERED (6) IN THE S.88B

END OF PAGE 1 - CONTINUED OVER

FOLIO: 11/270328 PAGE 2

SECOND SCHEDULE (14 NOTIFICATIONS) (CONTINUED)

INSTRUMENT AFFECTING THE PART(S) SHOWN SO BURDENED IN DP1192459

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register. triSearch 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.

Copyright © Office of the Registrar-General 2020 Received: 12/02/2020 15:15:17

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
17/2/2020 8:54AM

FOLIO: 71/634535

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 15149 FOL 204

Recorded	Number	Type of Instrument	C.T. Issue
28/3/1988		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
23/9/1988		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
4/5/1989	Y291890	APPLICATION	
4/5/1989	Y291889	APPLICATION	
31/10/1989	Y677316	VARIATION OF MORTGAGE	EDITION 1
2/11/1989		AMENDMENT: CT DELIVEREE	
8/11/1989	Y680157	MORTGAGE	EDITION 2
8/8/1990	Z102535	DISCHARGE OF MORTGAGE	
8/8/1990	Z102537	DISCHARGE OF MORTGAGE	
8/8/1990	Z102539	DISCHARGE OF MORTGAGE	
8/8/1990	Z102540	TRANSFER	EDITION 3
7/12/1990	Z386949	DISCHARGE OF MORTGAGE	EDITION 4
7/1/1998	3594713	CHANGE OF NAME	
7/1/1998	3594714	LEASE	EDITION 5
10/2/1999	5586864	DEPARTMENTAL DEALING	EDITION 6
23/6/2000	6882809	TRANSFER	
23/6/2000	6882810	MORTGAGE	EDITION 7
5/11/2002	DP1040315	WITHDRAWN - PRE-EXAMINATION PLAN	
18/11/2002	9134556	REQUEST	
20/11/2002	DP270328	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

JME20005 PRINTED ON 17/2/2020

triSearch 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.

Copyright © Office of the Registrar-General 2020

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
17/2/2020 11:28AM

FOLIO: 302/634536

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 15207 FOL 94

Recorded	Number	Type of Instrument	C.T. Issue
28/3/1988		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
23/9/1988		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
4/5/1989	Y291890	APPLICATION	
4/5/1989	Y291889	APPLICATION	
31/10/1989	Y677316	VARIATION OF MORTGAGE	EDITION 1
2/11/1989		AMENDMENT: CT DELIVEREE	
8/11/1989	Y680157	MORTGAGE	EDITION 2
8/8/1990	Z102536	DISCHARGE OF MORTGAGE	
8/8/1990	Z102537	DISCHARGE OF MORTGAGE	
8/8/1990	Z102539	DISCHARGE OF MORTGAGE	
8/8/1990	Z102540	TRANSFER	EDITION 3
14/12/1990	Z386948	DISCHARGE OF MORTGAGE	EDITION 4
23/6/2000	6882808	CHANGE OF NAME	
23/6/2000	6882809	TRANSFER	
23/6/2000	6882810	MORTGAGE	EDITION 5
27/7/2001	DP1031095	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

JME20005 PRINTED ON 17/2/2020

triSearch 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.

Copyright © Office of the Registrar-General 2020

Received: 17/02/2020 11:28:18

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
17/2/2020 9:28AM

FOLIO: 3022/1031095

First Title(s): OLD SYSTEM
Prior Title(s): 302/634536

Recorded	Number	Type of Instrument	C.T. Issue
27/7/2001	DP1031095	DEPOSITED PLAN	FOLIO CREATED EDITION 1
5/11/2002	DP1040315	WITHDRAWN - PRE-EXAMINATION PLAN	
20/11/2002	DP270328	DEPOSITED PLAN	FOLIO CANCELLED
21/11/2002	9144956	DEPARTMENTAL DEALING	

*** END OF SEARCH ***

triSearch 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.

Copyright © Office of the Registrar-General 2020

Received: 17/02/2020 09:28:43

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
17/2/2020 9:28AM

FOLIO: 3022/1031095

First Title(s): OLD SYSTEM
Prior Title(s): 302/634536

Recorded	Number	Type of Instrument	C.T. Issue
27/7/2001	DP1031095	DEPOSITED PLAN	FOLIO CREATED EDITION 1
5/11/2002	DP1040315	WITHDRAWN - PRE-EXAMINATION PLAN	
20/11/2002	DP270328	DEPOSITED PLAN	FOLIO CANCELLED
21/11/2002	9144956	DEPARTMENTAL DEALING	

*** END OF SEARCH ***

triSearch 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.

Copyright © Office of the Registrar-General 2020

Received: 17/02/2020 09:28:43

Req:R642609 /Doc:BK 2131-415 NO /Rev:10-Mar-2016 /NSW LRS /Prt:17-Feb-2020 11:22 /Seq:1 of 6
© Office of the Registrar-General /Src:INFOTRACK /Ref:JME20005

SEE DEPOSITED DEEDS PACKET NO. 36045

SEE DEPOSITED DEEDS PACKET NO. 33447 (Abstract).

NO. 415 BOOK 2131 CONVEYANCE

Ad Valorem Duty N.S.W. Stamp Duties Office Paid. £152.

New South Wales One Pound Five Shillings Stamp Duty J 6 7 50 D.

THIS DEED made the first day of June One thousand nine hundred and fifty BETWEEN JOHN THOMAS McKEE of Sydney in the State of New South Wales Merchant (hereinafter called "the Vendor") of the one part AND COURTAULDS (AUSTRALIA) LIMITED a Company duly incorporated according to the laws of the said State and having its registered office at 7 Wynyard Street, Sydney, aforesaid (hereinafter called "the Purchaser") of the other part

WHEREAS the Vendor is seised for an estate in fee simple in the several pieces of land described in the Schedule hereto

AND WHEREAS the Vendor has agreed to sell and the Purchaser has agreed to purchase the said land

NOW THIS DEED WITNESSETH that in consideration of the sum of Ten shillings (10/-) paid by the Purchaser to the Vendor (the receipt whereof is hereby acknowledged) the Vendor DOTH HEREBY CONVEY unto the Purchaser in fee simple ALL the several pieces of land described in the Schedule hereto TOGETHER WITH all the mines veins seams and beds of coal and minerals of whatsoever nature lying in and under those pieces of land fifthly described in the said Schedule TOGETHER WITH all the rights and powers necessary to work win and carry away the same AND TOGETHER WITH the benefit of a drainage easement for the purpose of draining (inter alia) that portion of the land fifthly described in the Schedule hereto shown as "Tomago" in Registered Plan No.876 (O.S.) by the drains already existing and running to the Hunter River through Lots 3, 2 and 7 as shown on the said Registered Plan AND TOGETHER WITH the benefit as appuretnant to that portion of the land fifthly described in the Schedule hereto shown as "Tomago" in the said Registered Plan in common with the respective owners for the time being of an Estate in fee simple of and in Lots 1, 3, 4, 5, 6, 7 and 8 in the said Registered Plan a right of carriage way a right to lay and maintain water pipes and construct and maintain telephone lines and properly insulated wires for carrying electric power but only at a height of not less than twenty feet from the ground in and over the land marked "right of way" within Lot 2 as shown in the said Registered Plan SUBJECT HOWEVER to the right in the respective owners for the time being of an Estate in fee simple of and in Lots 3, 4 and 5 in the said Registered Plan and of and in that part of Portion 16 of the Parish of Stockton lying to the South East of the road from Hexham to Williamtown to an easement for drainage over and along the drains within that portion of the land fifthly described in the Schedule hereto shown as "Tomago" in the said Registered Plan AND the Vendor HEREBY COVENANTS with the Purchaser that he the Vendor has not executed or done or knowingly suffered or been party or privy to any Deed or thing whereby or by means whereof the lands described in the Schedule hereto or any of the several parcels or any part of any parcel is or

A. Hamilton & Co
Attorneys for John Thomas McKee

Req:R642609 /Doc:BK 2131-415 NO /Rev:10-Mar-2016 /NSW LRS /Prt:17-Feb-2020 11:22 /Seq:2 of 6
© Office of the Registrar-General /Src:INFOTRACK /Ref:JME20005

may be impeached charged affected or encumbered in title estate or otherwise PROVIDED HOWEVER that this Covenant shall be deemed to extend to the acts of the Vendor only.

IN WITNESS whereof the parties hereto have hereto set their hands and seals the day and year first hereinbefore written.

THE SCHEDULE HEREINBEFORE REFERRED TO

FIRSTLY ALL THAT piece or parcel of land in the State of New South Wales County of Gloucester Parish of Stockton and containing by admeasurement twelve acres and nine and a half perches be the same more or less being the Eastern half of allotment two of twenty four acres and nineteen perches of the subdivision of Robert Gordon's seventy three acres forming part of five hundred acres granted to Miss I.W.Snodgrass and Mrs.W.McLean COMMENCING at the North Western corner of allotment three being a point bearing North eighty eight degrees forty seven minutes East seven hundred and twenty links from the North West corner of Gordon's seventy three acres and bounded on the East by the West boundary of allotment three bearing South three minutes East sixty eight chains to the Hunter River thence on the South by the Hunter River westerly one chain eighty links thence on the West by a line bearing North three minutes West sixty eight chains thence on the North by a line bearing North Eighty eight degrees forty seven minutes East one chain eighty links to the point of commencement exclusive of the Road from Raymond Terrace to Stockton as shown on the plan thereon and colored red SAVE AND EXCEPT all mines and minerals in and under the said land subject to the rights and conditions of working the same as contained in Indenture of Lease registered Number 275 Book 67, and

SECONDLY ALL THAT parcel of land containing by admeasurement one acre being around the Well known as Tomago Well situate at Tomago Hunter River in the Colony of New South Wales commencing on the left bank of the Hunter River at a stake twenty chains Easterly along the River Bank from the South extreme of the East boundary line of Mrs. McLean's six hundred and forty acres grant of Kilcoy (an apple-tree marked thirty six links North of the stake) and bounded on the East by a North line of three chains and fifty links on the north by a West line of three chains and twenty five links and on the West by a South line of two chains and seventy links to the River Hunter and on the South by the River Hunter downwards to the stake twenty chains Easterly along the River Bank from the South extreme of the East boundary line of Mrs. McLean's said six hundred and forty acres grant of Kilcoy aforesaid TOGETHER with the right of road one rod in width from the last mentioned point of the Kilcoy property along the River Bank to the said one acre of land ~~AND except the land comprised in a strip 100 feet wide from Mean High Water on the Hunter River reserved by the Crown Grant to the Crown~~, and

Book APH

Req:R642609 /Doc:BK 2131-415 NO /Rev:10-Mar-2016 /NSW LRS /Prt:17-Feb-2020 11:22 /Seq:3 of 6
© Office of the Registrar-General /Src:INFOTRACK /Ref:JME20005

THIRDLY ALL THAT piece or parcel of land containing an area of 39 acres 25 perches or thereabouts situated in the Shire of Port Stephens Parish of Stockton County of Gloucester and State of New South Wales and being part of the land comprised in Certificate of Title Volume 4954 Folio 231 be the hereinafter stated several dimensions all a little more or less commencing at a point on the Northern boundary of Portion 17 of the said Parish bearing Westerly 900 links from the North Eastern corner of the said Portion 17 and bounded thence towards the East by a line bearing South 7420 links to the left bank of the Hunter River thence towards the South by part of that bank upwards about 517 links thence towards the West by a line bearing North 7692 links to the Northern boundary of the said Portion 17 thence towards the North by part of that Northern boundary bearing easterly 517 links to the point of commencement EXCEPTING THEREOUT all those parts of the main road from Hexham to Stockton which fall within the boundaries of the said land ALSO ALL THAT piece or parcel of land containing an area of 36 acres 9½ perches or thereabouts situated as aforesaid and being part of the land comprised in Certificate of Title Volume 4954 Folio 231 be the hereinafter stated several dimensions all a little more or less commencing at the North Western corner of the land in the said Certificate of Title and bounded thence towards the North by part of the Northern boundary of Portion 17 of the said Parish bearing Easterly 540 links thence towards the East by a line bearing Southerly 6800 links to the left bank of the Hunter River thence towards the South by part of that bank upwards about 540 links to the Easterly boundary of the land comprised in Certificate of Title Volume 5176 Folio 184 thence towards the West by the Easterly boundary of Portion 20 of the said Parish being a line bearing Northerly 6800 links to the point of commencement EXCEPTING THEREOUT all those parts of the main road from Hexham to Stockton which fall within the boundaries of the said land, and

FOURTHLY ALL THAT piece or parcel of land containing an area of 21 acres 2 roods or thereabouts situated in the Shire of Port Stephens Parish of Stockton County of Gloucester and State of New South Wales being part of the land comprised in Certificate of Title Volume 4954 Folio 231 be the hereinafter stated several dimensions all a little more or less commencing at a point on the Northern boundary of Portion 17 of the said Parish bearing Westerly 1417 links from the North Eastern corner of the said Portion 17 and bounded thence towards the East by a line bearing South 7692 links to the left Bank of the Hunter River thence towards the South by part of that bank upwards about 283 links thence towards the West by a line bearing North 7709 links to the Northern

Req:R642609 /Doc:BK 2131-415 NO /Rev:10-Mar-2016 /NSW LRS /Prt:17-Feb-2020 11:22 /Seq:4 of 6
© Office of the Registrar-General /Src:INFOTRACK /Ref:JME20005

E Boundary of Portion 17 aforesaid thence towards the North by part of that Northern boundary bearing easterly 283 links to the point of commencement EXCEPTING THEREOUT all those parts of the main road from Hexham to Stockton which fall within the boundaries of the said land ALSO ALL THAT piece or parcel of land containing an area of 24 acres 3 roods 21 perches or thereabouts situated as aforesaid and being part of the land comprised in the said Certificate of Title Volume 4954 Folio 231 be the hereinafter stated several dimensions all a little more or less commencing at a point on the Northern boundary of Portion 17 of the said Parish bearing Easterly 720 links from the North Western corner of the said Portion and bounded thence towards the North by part of the said Northern boundary of the said Portion 17 bearing Easterly 360 links thence towards the East by a line bearing South 6800 links to the left bank of the Hunter River thence towards the South by that Bank upwards about 360 links thence towards the West by a line bearing North 6800 links to the point of commencement EXCEPTING THEREOUT all those parts of the main road from Hexham to Stockton which fall within the boundaries of the said land, and

FIFTHLY ALL THAT piece or parcel of land containing by admeasurement 14 acres 3 roods 11 perches or thereabouts being part of Portion 7 of the Parish of Stockton County of Gloucester and State of New South Wales and being the lot shown as "Tomago" in Registered Plan No.876 (O.S.) be the hereinafter stated several dimensions all a little more or less commencing at a point on the South Easterly alignment of the road from Hexham to Williamtown being the Westmost corner of Lot 3 of the said Registered Plan and bounded thence towards the North East by South Westerly boundaries of the said Lot 3 being fenced lines bearing successively 131 degrees 40 minutes 288 links and three fifths of a link 105 degrees 20 minutes 660 links and 138 degrees 38 minutes 20 seconds 788 links and three fifths of a link thence towards the South East by a North Westerly boundary of the said Lot 3 being a fenced line bearing 236 degrees 45 minutes 40 seconds 618 links and three fifths of a link thence towards the South West by a North Easterly boundary of the said Lot 3 being a fenced line bearing 270 degrees 26 minutes 836 links and nine tenths of a link to a North Easterly boundary of Lot 2 of the said Registered Plan thence towards the South West by part of that boundary of Lot 2 being a fenced line bearing 344 degrees 33 minutes 184 links and three fifths of a link thence again towards the South West by a North Easterly boundary of Lot 2 being a fenced line bearing 315 degrees 26 minutes 30 seconds 704 links and nine tenths of a link to the South Easterly alignment of the said road thence towards the North West by the said alignments being lines bearing successively 29 degrees 11 minutes 20 seconds 256 links and one tenth of a link 32 degrees 10 minutes 20 seconds 201 links and one tenth of a link and

Req:R642609 /Doc:BK 2131-415 NO /Rev:10-Mar-2016 /NSW LRS /Prt:17-Feb-2020 11:22 /Seq:5 of 6
© Office of the Registrar-General /Src:INFOTRACK /Ref:JME20005

53 degrees 59 minutes 30 seconds 355 links and two fifths of a link to the point of commencement ALSO ALL THAT piece or parcel of land containing by admeasurement 121 acres 3 roods or thereabouts being part of Portion 7 at Tomago in the Parish of Stockton (in prior Conveyance erroneously described as Parish of Eldon) County of Gloucester State of New South Wales be the hereinafter mentioned several dimensions a little more or less COMMENCING at a point in the North Western side of the road from Williamtown to Hexham at the South Eastern corner of a Public School site and bounded thence towards the South West and South East by the North Eastern and North Western boundaries of that school site bearing 336 degrees 21 minutes 348.4 links and 246 degrees 21 minutes 400 links respectively thence towards the South West and South by North Eastern and Northern boundaries of Lot 13 on Registered Plan (O.S.) No.876 bearing 316 degrees 21 minutes 3630 links and 269 degrees 54 minutes 548.1 links respectively thence towards the West by part of the Eastern boundary of Portion 17 and an Eastern boundary of Portion 6 bearing 359 degrees 54 minutes 1400 links and 359 degrees 25 minutes 350 links respectively thence towards the North by part of a Southern boundary of Portion 6 aforesaid bearing 89 degrees 10 minutes 3170.5 links thence towards the North East by the South Western boundary of Lot 12 on Registered Plan (O.S.) No. 876 bearing 159 degrees 19½ minutes 3651 links to the road from Williamtown to Hexham aforesaid and thence towards the South East by North Western sides of that road bearing 233 degrees 59½ minutes 475.6 links 212 degrees 10½ minutes 232 links and 209 degrees 11½ minutes 787.8 links respectively to the point of commencement.

SIGNED SEALED AND DELIVERED by the said JOHN THOMAS McKEE by his Attorney Harold Hamilton Moore in the presence of

D.W.O'Reilly
Solicitor
Sydney.

JOHN THOMAS McKEE
by his Attorney
H. HAMILTON MOORE

THE COMMON SEAL of COURTAULDS (AUSTRALIA) LIMITED was hereunto affixed in the presence of two of the Directors who have hereunto signed their names in the presence of

Directors

Secretary

Req:R642609 /Doc:BK 2131-415 NO /Rev:10-Mar-2016 /NSW LRS /Prt:17-Feb-2020 11:22 /Seq:6 of 6
© Office of the Registrar-General /Src:INFOTRACK /Ref:JME20005

STATUTORY DECLARATION

I, HAROLD HAMILTON MOORE of 7 Wynyard Street, Sydney, in the State of New South Wales Solicitor do solemnly and sincerely declare as follows:-

1. I AM the Attorney named in Power of Attorney from John Thomas McKee of 235 Clarence Street Sydney aforesaid merchant dated the Fifteenth day of September One Thousand Nine Hundred and Forty Eight Registered Number 39211 Miscellaneous Register by virtue of which I have this day executed a Deed of Conveyance dated this day between the said John Thomas McKee and Courtaulds (Australia) Limited.

2. I HAVE NOT received any notice or information of the revocation of the said Power of Attorney by death lunacy unsoundness of mind bankruptcy act of the donor or otherwise.

AND I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Oaths Act 1900.

SUBSCRIBED AND DECLARED at Sydney this first day of June 1950 Before me } H. Hamilton Moore

A.H. Drury J.P.

New South Wales
To Wit

ADRIAN PETER HENCHMAN of Sydney in the State of New South Wales, Clerk to Allen Allen & Hemsley of 53/63 Martin Place, Sydney, Solicitors, being duly sworn makes oath and says as follows:-

THAT the writing contained on this and the five preceding pages is a true copy of the original Conveyance and the Statutory Declaration annexed thereto the same having been compared therewith by me.

SWORN at Sydney this second day of August year 1950 Before me - } A. P. Henchman

A.H. Drury

RECEIVED into the Office for the Registration of Deeds at Sydney this Fourth day of August One thousand nine hundred and fifty at forty two minutes past two o'clock in the afternoon of and from Allen Allen & Hemsley clerk to Allen Allen & Hemsley

Alston.

Deputy Registrar

Req:R640932 /Doc:BK 3450-490 NO /Rev:13-Feb-2015 /NSW LRS /Prt:17-Feb-2020 09:20 /Seq:1 of 6
© Office of the Registrar-General /Src:INFOTRACK /Ref:JME20005

New South Wales
Stamp Duty
$1.00

$24 24 FEB 98

DEED OF CONVEYANCE

No. 490 Book 3450

THIS DEED is made the 20th day of November One thousand nine hundred and eighty BETWEEN COURTAULDS (AUSTRALIA) LIMITED a Company duly incorporated in the State of New South Wales of 530 Little Collins Street Melbourne in the State of Victoria and formerly of 7 Wynyard Street Sydney in the State of New South Wales (hereinafter called "the Vendor") of the one part AND TOMAGO ALUMINIUM COMPANY PTY.LIMITED a Company duly incorporated in the State of New South Wales having a registered office at 3rd Floor, 4 O'Connell Street Sydney aforesaid (hereinafter called "the Purchaser") WHEREAS the Vendor is seised for an estate in fee simple in the land described in the First Schedule hereto AND WHEREAS the Vendor has agreed to sell and the Purchaser has agreed to purchase the land aforesaid NOW THIS DEED WITNESSETH that in consideration of the sum of Four million one hundred thousand dollars ($4,100,000.00) paid by the Purchaser to the Vendor (the receipt whereof is hereby acknowledged) the Vendor as beneficial owner DOTH HEREBY CONVEY unto the Purchaser in fee simple ALL the land described in the First Schedule hereto TOGETHER WITH all the mines veins seams and beds of coal and minerals of whatsoever nature lying in and under the land aforesaid AND the Vendor hereby covenants with the Purchaser that the Vendor and its successors and assigns will produce or cause to be produced the documents mentioned in the Second Schedule hereto upon request by the Purchaser or any person or persons having or claiming through him any estate or interest at law or in equity in the said land or any part thereof.

IN WITNESS WHEREOF the said parties have hereunto set their hands and seals the day and year first hereinbefore written.

THE FIRST SCHEDULE

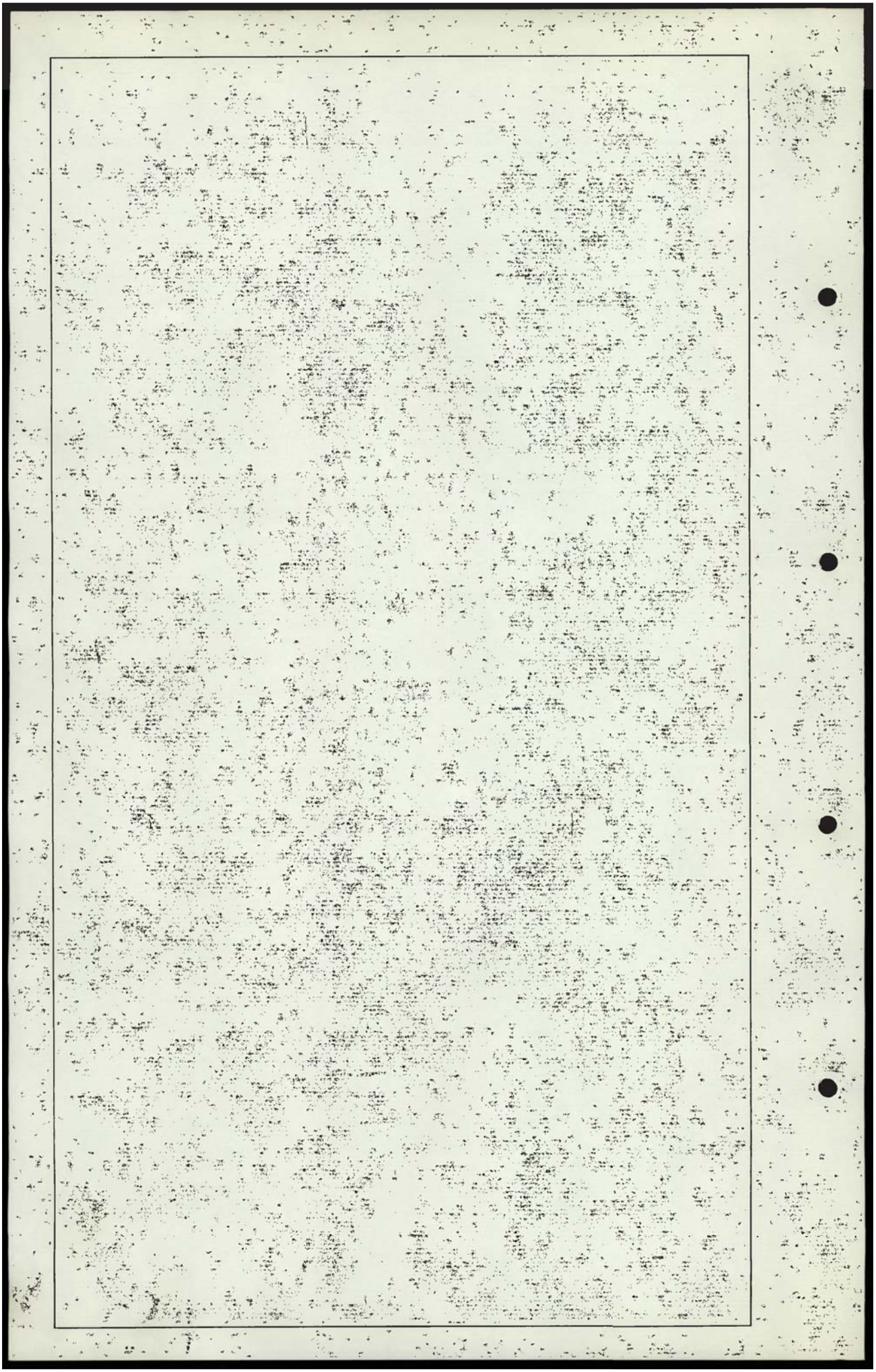
ALL THAT piece or parcel of land in the State of New South Wales County of Gloucester and Parish of Stockton being part of Portion 7 at Tomago and being the land Secondly described in Conveyance Registered Number 269 Book 2018 be the hereinafter mentioned several dimensions a little more or less COMMENCING at a point in the North Western

SHEET MUST NOT BE FOLDED OR CREASED

I 2.

C

Req:R640932 /Doc:BK 3450-490 NO /Rev:13-Feb-2015 /NSW LRS /Prt:17-Feb-2020 09:20 /Seq:2 of 6
© Office of the Registrar-General /Src:INFOTRACK /Ref:JME20005



Req:R640932 /Doc:BK 3450-490 NO /Rev:13-Feb-2015 /NSW LRS /Prt:17-Feb-2020 09:20 /Seq:3 of 6
© Office of the Registrar-General /Src:INFOTRACK /Ref:JME20005

SHEET MUST NOT BE FOLDED OR CREASED

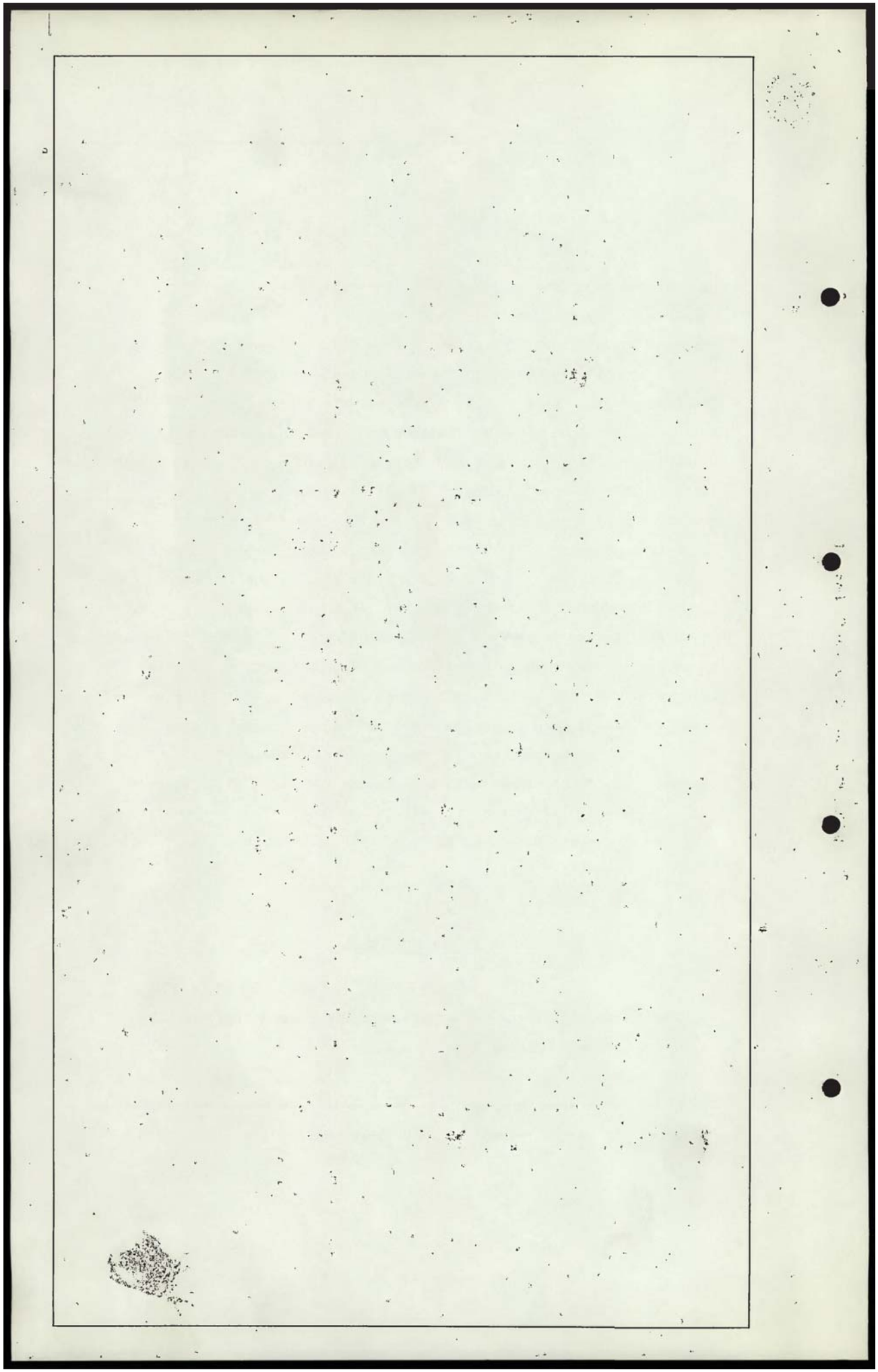
side of the road from Williamtown to Hexham at the South Eastern corner of a Public School site and bounded thence towards the South West and South East by the North Eastern and North Western boundaries of that school site bearing 336 degrees 21 minutes 348.4 links and 246 degrees 21 minutes 400 links respectively thence towards the South West and South by North Eastern and Northern boundaries of Lot 13 on Registered Plan (O.S.) No. 876 bearing 316 degrees 21 minutes 3630 links and 269 degrees 54 minutes 548.1 links respectively thence towards the West by part of the Eastern boundary of Portion 17 and an Eastern boundary of Portion 6 bearing 359 degrees 54 minutes 1400 links and 359 degrees 25 minutes 350 links respectively thence towards the North by part of a Southern boundary of Portion 6 aforesaid bearing 89 degrees 10 minutes 3170.5 links thence towards the North East by the South Western boundary of Lot 12 on Registered Plan (O.S.) No. 876 bearing 159 degrees 19½ minutes 3651 links to the road from Williamtown to Hexham aforesaid and thence towards the South East by North Western sides of that road bearing 233 degrees 59½ minutes 475.6 links 212 degrees 10½ minutes 232 links and 209 degrees 11½ minutes 787.8 links respectively to the point of commencement but excepting thereout Lots 1, 2, 3, 4, 5 and 6 in Deposited Plan 38904 (formerly known as Registered Plan 1904).

THE SECOND SCHEDULE

1. Conveyance Registered Number 269 Book 2018 dated 17th May, 1947 between Jessie Mildred Ruward of the one part and John Thomas McKee of the other part.

~~2. Power of Attorney by John Thomas McKee in favour of Harold Hamilton Moore Registered Miscellaneous Number 3921i.~~

Req:R640932 /Doc:BK 3450-490 NO /Rev:13-Feb-2015 /NSW LRS /Prt:17-Feb-2020 09:20 /Seq:4 of 6
© Office of the Registrar-General /Src:INFOTRACK /Ref:JME20005



Req:R640932 /Doc:BK 3450-490 NO /Rev:13-Feb-2015 /NSW LRS /Prt:17-Feb-2020 09:20 /Seq:5 of 6
© Office of the Registrar-General /Src:INFOTRACK /Ref:JME20005

2.
3. Conveyance Registered Number 415 Book 2131 dated 1st June 1950 between John Thomas McKee and Courtaulds (Australia) Limited.

THE COMMON SEAL of COURTAULDS (AUSTRALIA) LIMITED was hereunto affixed in the presence of two of the Directors who have hereunto signed their names in the presence of :

L.S.

(Sgd.) D.M. Charles
Director

(Sgd.) J.T. Fielder
Director

(Sgd.) B.E. Le Page
Secretary

SHEET MUST NOT BE FOLDED OR CREASED

On 20th February, 1981, I, Sandra Mallam of Sydney, Clerk to Clayton, Utz & Company of Level 23, Tower Building, Australia Square, Sydney, Solicitors, say on oath :- The writing contained above and on the two preceding pages has been compared by me with the original instrument, and is a true copy thereof.

Sworn at Sydney
before me:

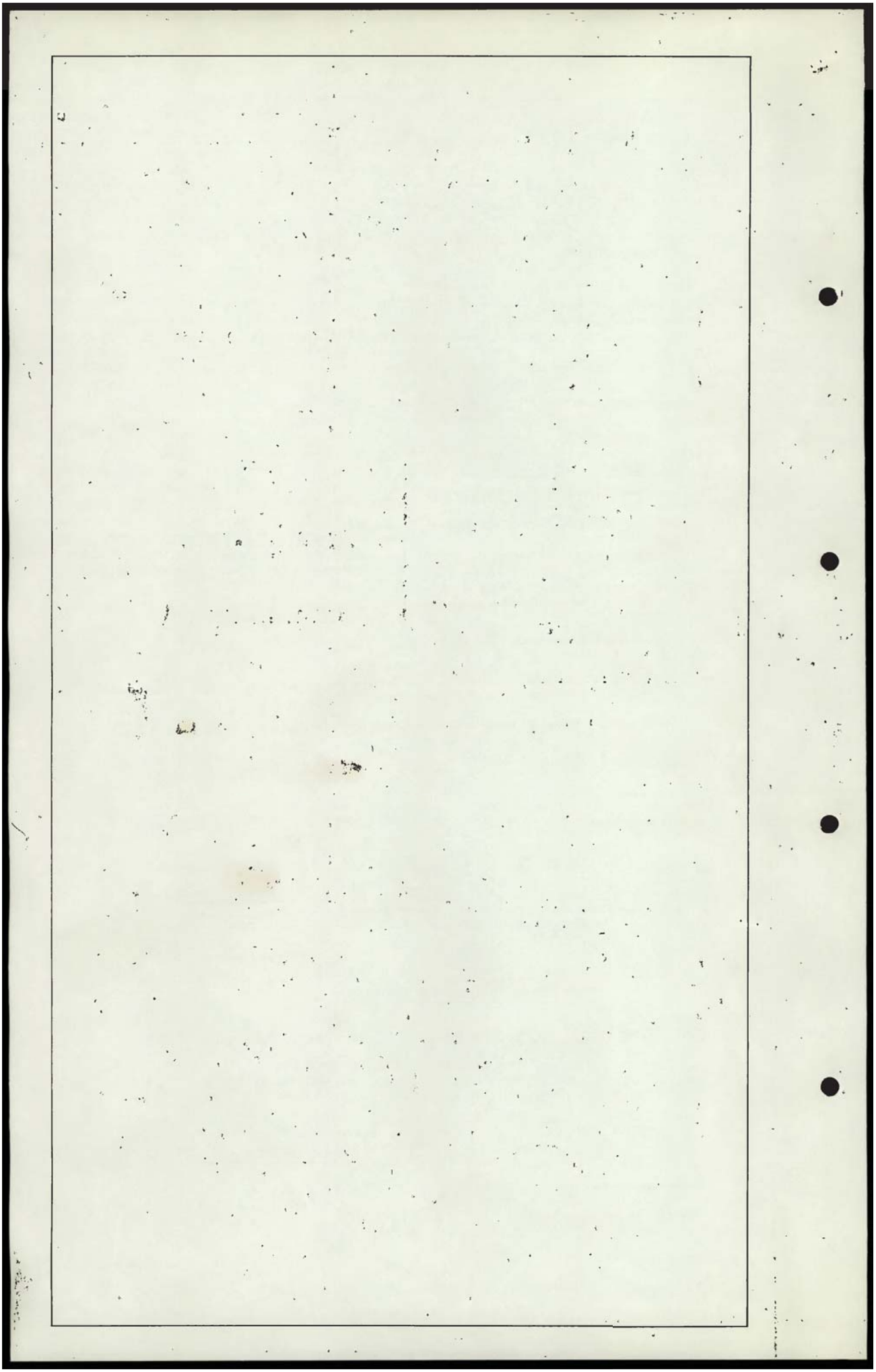
S. Mallam

Sandra V. Harrison JP
A Justice of the Peace

Registered in the office of the Registrar General at Sydney, this 24th day of February 1981, at 25 minutes past 10 o'clock and lodged by GILLIAN SHAW Sydney, Clerk to Clayton, Utz & Company of Level 23, Tower Building, Australia Square, Sydney, Solicitors and numbered 490 book 3450.

Registrar General

Req:R640932 /Doc:BK 3450-490 NO /Rev:13-Feb-2015 /NSW LRS /Prt:17-Feb-2020 09:20 /Seq:6 of 6
© Office of the Registrar-General /Src:INFOTRACK /Ref:JME20005



Skip to navigationSkip to contentSkip to footer

NEWCASTLE HERALD
newcastleherald.com.au

News

- Local News
- Court and Crime
- Property
- Health
- Politics
- Investigations
- Business
- Education
- National
  World
  History
- Water Pressure
- Save Our Stockton
- Supercars news
- The Senior

Sport

- Local Sport
- Newcastle Knights
- Newcastle Jets
- Scores and Draws
- National Sport
- Football
- Cricket
- Rugby Union
- Rugby League
- Racing
- Juniors
- Fishing and Boating

What's On

- Things to do
- Theatre and Arts
- Food and Drink
- Music and Gigs
- Family and Kids

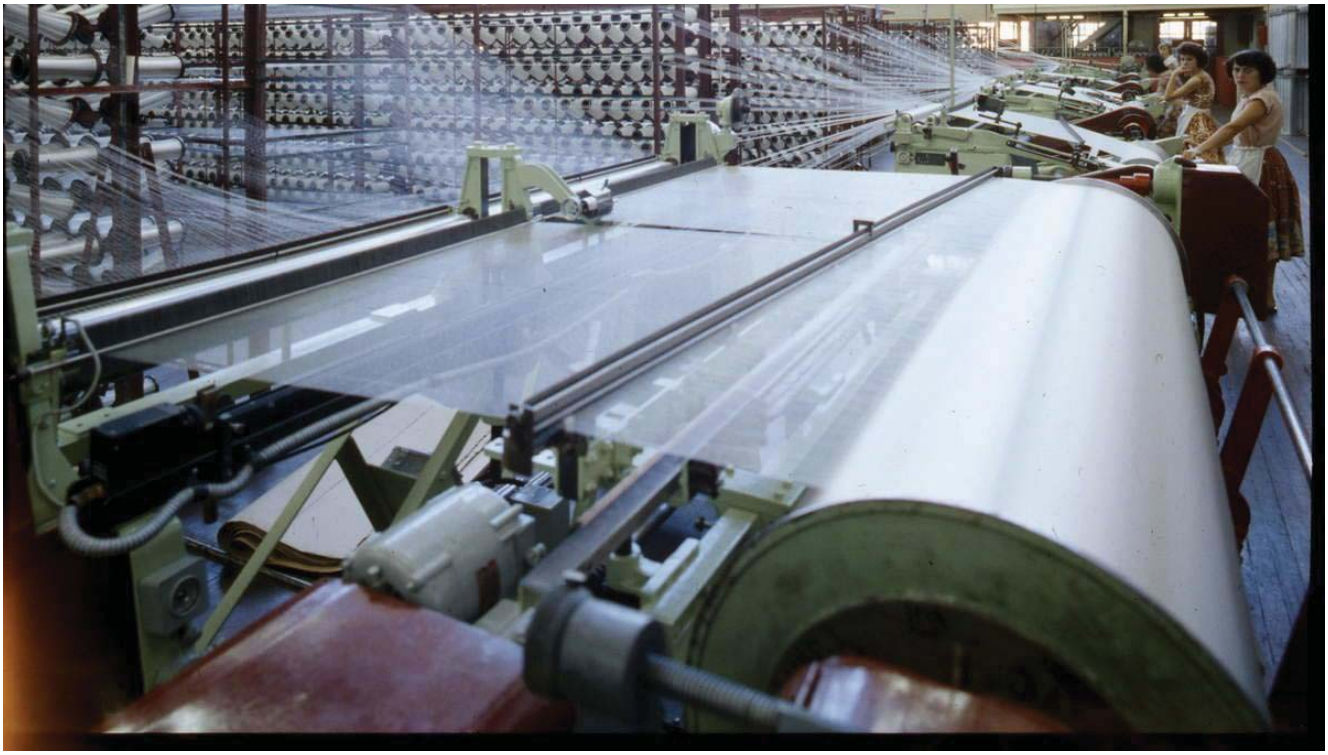
- SUBSCRI
- LOGIN

3 / 5 free articles remaining | F

February 26 2013 - 10:30PM

GREG RAY: A view from Pommy Hill

- **GREG RAY**



Courtaulds

REMEMBER Pommy Hill?

I don't, but maybe if you grew up around Raymond Terrace the name might mean something to you.

Photographs on the *Herald* website last week of the former Courtaulds rayon factory at Tomago prompted comments from readers who remembered the factory in its heyday. (See the pictures here)

Reader Peter Cox phoned to tell me that many of the first workers at the factory were brought from the parent company in the UK and many of them lived at Pommy Hill.

"Pommy Hill was that area on the left, between the bridge and the school as you go into Raymond Terrace," Peter said.

He wants to hear from anybody who knows anything about the area, or about Courtaulds itself, because he is writing a history of the Pommy families, like his own, who once lived and worked there.

"I want to talk to as many as I can, and get their photos too, before it's too late to put it all together," he said.

3 / 5 free articles remaining | F

Peter's family came out from Wales in 1952, when he was 13. He recalls having been sent to school in England, in order to avoid acquiring a Welsh accent.

"Both my parents spoke fluent Welsh, but it was hardly ever used in our home because they didn't want us to grow up with the accent," he said.

Peter's father worked at Courtaulds as a construction supervisor and his expertise related to the process and machinery, especially the chemical plant that formed the heart of the operation.

"Two chemical plant streams were involved," Peter said. "One handled sulphuric acid and the other handled acetone."

The factory made rayon for vehicle tyres, until the advent of steel-belted radials crippled its core business.

"There were 127 families came out, and each had an average of two or three children, so you can imagine it had a big impact on Raymond Terrace at the time," Peter said.

And as for the town itself, Peter said it seemed to him the perfect place to live and grow up.

"We rode horses, worked on the local farm milking cows and cutting chaff, we rode motorbikes and played in the river on rafts and made flying foxes that dropped us into the water. It was a wonderful place," he said.

It wasn't easy for everybody, however. Peter's brother died in a motorbike accident at the age of 18, and his opera singer mother never really found her feet in her new surroundings.

Peter was aware of widespread rumours that Courtaulds was an occasional bad polluter of the Hunter River, but when he worked there on vacation as a water sampler he never saw any problems.

"There used to be a wharf down near the hostel - I think it's a detention centre now - and we'd take a boat from there, dragging tins behind us to get water samples. There were spills sometimes, and floods caused trouble, but they tried hard to do the right thing," he said.

He said he did some work for the French company Pechiney, which built the Tomago Aluminium smelter on the old Courtaulds site.

"They erased almost every trace of the old factory," he said. "I think they might have left the gatehouse."

Peter remembers Newcastle as a thriving city in the 1950s and 1960s.

"I didn't bother even trying to drive my car to town in those days because it was so hard to get a park. I parked out at Mayfield and got a bus to town.

"Now, when I go into Newcastle, I find it almost unbelievable that this is the same place. It's sad, I think, to see how it's gone downhill in so many ways.

"Compared to how it was when I used to work in the city it seems so decrepit. Some of the same buildings are still there, but you can hardly recognise them from what they were."

If you want to help Peter write his history of Courtaulds and the Pommy Hill families, you can phone him on 4965 5649.

RECOMMENDED

3 / 5 free articles remaining | F

NEWCASTLE HERALD
newcastleherald.com.au

4 / 5 free articles remaining | For Unlimited Access SUBSCRIBE

- TWEET
-
-
- Comments

Picture: Douglass Baglin

Picture: Douglass Baglin

4 / 5 free articles remaining | For Unlimited Access SUBSCRIBE

Picture: Douglass Baglin

Several times a week Greg posts an image or gallery of images that relates to some aspect of the past, usually in the Hunter Region.

The Herald invites readers to post comments, observations and recollections of their own in response. Extra information about any of the images is especially welcome.

Please comment . . .

RAYON-making used to be a important Hunter industry in the 1960s, with the Courtaulds factory at Tomago employing many people.

These photos, by Douglass Baglin, give some inkling of what it was like to work there.

The following excerpt comes from the excellent Fighter World website: http://www.fighterworld.com.au/about-port-stephens/post-war-development

"The Courtauld factory at Tomago began in the post war years to manufacture synthetic fibres especially for motor vehicle tyres. Negotiations between the State Government and Courtaulds regarding their proposed factory led to the construction of the Hexham Bridge in 1952 to replace the punts that crossed the Hunter River. Masonite also expanded after the war and both factories benefited with easier access to markets and fewer delays in the delivery of materials. Courtaulds built their factory off Tomago Road in the early 1950s and brought key factory workers from Britain to commence operations in 1953 and to train others. A hundred and fifty of these families migrated on the Australian Government Migrant Assistance Scheme. This industry (1950 to the late1970s) led to the southern expansion of Raymond Terrace for new housing for the workforce. Courtaulds employed 1500 to 2300 workers and made a tremendous impact on the small town as more people came to live nearer the sources of work.When steel reinforced radial tyres replaced corded tyres about 1970 Courtaulds closed their factory."

Reader recollections about the factory are welcome.

- SHARE
- TWEET
-
-
- Comments

4 / 5 free articles remaining | For Unlimited Access SUBSCRIBE

Req:R640647 /Doc:DL 6882809 /Rev:30-Jun-2000 /NSW LRS /Pgs:ALL /Prt:17-Feb-2020 08:57 /Seq:1 of 1
© Office of the Registrar-General /Src:INFOTRACK /Ref:JINFOTRACKE20005

Licence: MID/0734/97

TRANSFER

6882809V

New South Wales

~~Real Property Act 1900~~

OFFICE OF STATE REVENUE (N.S.W. TREASURY)

Office of State Revenue use only

CLIENT No. 2393

STAMP DUTY $2.00

TRANSACTION No. 002204

ASSESSMENT DETAILS:

STAMP No. 227

SIGNATURE E. Leasmell

DATE 26/5/00

(A) **LAND TRANSFERRED**

If appropriate, specify the share or part transferred.

FOLIO IDENTIFIER 71/634535, 302/634536, 303/634536 and 304/634536

(B) **LODGED BY**

LTO Box	Name, Address or DX and Telephone
205	ANZ Reference (15 character max): VARLEY PROPERTY|SR6D

(C) **TRANSFEROR** **ALLCO CONSTRUCTION PTY. LIMITED ACN 003 918 750**

(D) acknowledges receipt of the consideration of $3,800,000.00 and as regards the land specified above transfers to the transferee an estate in fee simple.

(E) Encumbrances (if applicable):

(F) **TRANSFEREE**

T **TS** (s713 LGA) **TW** (Sheriff)	**VARLEY PROPERTY PTY. LIMITED ACN 090 568 728**

(G)

(H) We certify this dealing correct for the purposes of the Real Property ~~Act 1900~~. **DATE** 30/05/2000

THE COMMON SEAL of **ALLCO CONSTRUCTION PTY. LIMITED** (ACN 003 918 750) was hereunto affixed in accordance with the memorandum and articles of association:

ALLCO CONSTRUCTION PTY. LIMITED ACN 003 918 750 The Common Seal of

M. S. V.

Secretary

Michael Vladimiroff

Director

David Cockburn

C. Hojer

Signature of GILDA ELLENE HOJER
Solicitor for the Transferee

Checked by (LTO use) .....

Req:R623453 /Doc:DL 9501060 /Rev:04-Apr-2003 /NSW LRS /Pgs:ALL /Prt:12-Feb-2020 15:28 /Seq:1 of 1
© Office of the Registrar-General /Src:INFOTRACK /Ref:JINFOTRACKE20005

Form: 01T
Licence: 01-08-067
Licensee: Midware Systems
Clayton Utz

(5)

TRANSFER
New South Wales
Real Property Act 1900

9501060L

PRIVACY NOTE: this information is legally required and will bec...

STAMP DUTY Office of State Revenue use only

NEW SOUTH WALES DUTY
12-03-2003 0001317902-001
SECTION 18(2)
DUTY $ XXXXXXXXXXXXXX2.00

(A) **TORRENS TITLE** If appropriate, specify the part transferred
Folio Identifier 5/270328, 6/270328, 7/270328, 8/270328 and 9/270328

(B) **LODGED BY**

Delivery Box	Name, Address or DX and Telephone	CODE
185H	CLAYTON UTZ DX 370 SYDNEY Tel: 9353 4000 Reference (optional): ~~116/3394~~ Ian Richardson/21722914 (footer:3207126)	T TW (Sheriff)

(C) **TRANSFEROR** VARLEY PROPERTY PTY LIMITED (ABN 82 090 568 728)

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of $ 1,919,000.00 and as regards

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

(F) **SHARE TRANSFERRED**

(G) Encumbrances (if applicable):

(H) **TRANSFEREE** TOMAGO ALUMINIUM COMPANY PTY LIMITED (ACN 001 862 228)

(I) ~~TENANCY~~:

(J) **DATE** 30 / 03 / 03

Certified correct for the purposes of the Real Property Act 1900 and executed on behalf of the corporation named below by the authorised person(s) whose signature(s) appear(s) below pursuant to the authority specified.
Corporation: VARLEY PROPERTY PTY LTD
Authority: Section 127 of the Corporations Law

VARLEY PROPERTY PTY. LTD. A.C.N. 090 568 728 Common Seal

Signature of authorised person: J Graham
Name of authorised person: JAMES ALLAN JEFFREY GRAHAM
Office held: DIRECTOR

Signature of authorised person:
Name of authorised person: JEFFREY IAN PHILLIPS.
Office held: DIRECTOR

Certified correct for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature:

Signatory's name: George Livanes
Signatory's capacity: Solicitor for the transferee

All handwriting must be in block capitals.

Number additional pages sequentially

Req:R641602 /Doc:DL AG216557 /Rev:13-May-2011 /NSW LRS /Pgs:ALL /Prt:17-Feb-2020 10:10 /Seq:1 of 9
© Office of the Registrar-General /Src:INFOTRACK /Ref:JINFOTRACKE20005

AG216557R

Form: 01TCV
Release: 3.0
www.lpma.nsw.gov.au

TRANSFER INCLUDING COVENANT

New South Wales
Real Property Act 1900

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

(2)

Office of State Revenue
NSW Treasury
Client No: 2396 227
Duty: $10 — Trans No: 618274
Asat details: 5.18(3)

(A) **TORRENS TITLE** 5/270328 and 6/270328

(B) **LODGED BY**

Document Collection Box	Name, Address or DX, Telephone, and Customer Account Number if any	CODE
74S	ALLENS ARTHUR ROBINSON DX 105 SYDNEY TEL: (02) 9230 4000 Reference: VKHS:205943198:EYLS*7628	TV

123024 W

(C) **TRANSFEROR** TOMAGO ALUMINIUM COMPANY PTY LIMITED (ABN 68 001 862 228)

(D) The transferor acknowledges receipt of the consideration of $ ~~1.00~~ 1,447,600.00 and as regards the land specified above transfers to the transferee an estate in fee simple

(E) and the TRANSFEROR covenants with the TRANSFEREE as set out in schedule 1 hereto.

(F) Encumbrances (if applicable):

(G) **TRANSFEREE** MIDAL CABLES INTERNATIONAL PTY LIMITED (ABN 55 141 481 012)

(H) **TENANCY:** O/NW

DATE 23 March 2011

(I) Certified correct for the purposes of the Real Property Act 1900 and executed on behalf of the corporation named below by the authorised person(s) whose signature(s) appear(s) below pursuant to the authority specified.

Corporation: TOMAGO ALUMINIUM COMPANY PTY LIMITED
Authority: section 127 of the Corporations Act 2001

Signature of authorised person: J L Davies
Name of authorised person: John Davies
Office held: Director

Signature of authorised person:
Name of authorised person: Ray Gellweiler
Office held: Company Secretary

Certified correct for the purposes of the Real Property Act 1900 and executed on behalf of the corporation named below by the authorised person(s) whose signature(s) appear(s) below pursuant to the authority specified.

Corporation: MIDAL CABLES INTERNATIONAL PTY LIMITED
Authority: section 127 of the Corporations Act 2001

Signature of authorised person:
Name of authorised person: HAMID R ALZAYANI
Office held: DIRECTOR

Signature of authorised person:
Name of authorised person: SALMAN ALSHAIKH
Office held: DIRECTOR

(J) I, the transferee certify that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. [ ] Signature:

1003

ALL HANDWRITING MUST BE IN BLOCK CAPITALS.

LAND AND PROPERTY MANAGEMENT AUTHORITY

Blue NSS

Req:R641602 /Doc:DL AG216557 /Rev:13-May-2011 /NSW LRS /Pgs:ALL /Prt:17-Feb-2020 10:10 /Seq:2 of 9
© Office of the Registrar-General /Src:INFOTRACK /Ref:JINFOTRACKE20005

(K) **SCHEDULE 1 TO TRANSFER:**

(L) **Dated:** _____

From: TOMAGO ALUMINIUM COMPANY PTY LIMITED (ABN 68 001 862 228)

To: MIDAL CABLES INTERNATIONAL PTY LIMITED (ABN 55 141 481 012)

(M) **Land benefited by covenant:** 1/1043561 and 4/1043561

Land burdened by covenant: 5/270328 and 6/270328

(N) **Terms of the covenant:**

See Annexure

J L Davies
John Davies

Roy Gellweiler

(O) **Signature of witness:**

Signature of transferor:

Signature of witness:

HAMID R ALZAYANI
Signature of transferee:

SALMAN ALSHAIKH

ALL HANDWRITING MUST BE IN BLOCK CAPITALS.

Req:R641602 /Doc:DL AG216557 /Rev:13-May-2011 /NSW LRS /Pgs:ALL /Prt:17-Feb-2020 10:10 /Seq:3 of 9
© Office of the Registrar-General /Src:INFOTRACK /Ref:JINFOTRACKE20005

23/03/2011

ANNEXURE TO THE TRANSFER DATED FROM TOMAGO ALUMINIUM COMPANY PTY LIMITED (*TRANSFEROR*) TO MIDAL CABLES INTERNATIONAL PTY LIMITED (*TRANSFEREE*)

Restrictive Covenant

It is agreed as follows

1. Definitions and Interpretation

1.1 Definitions

The following definitions apply unless the context requires otherwise.

Authorised Officer means any person whose title or acting title includes the word manager or similar expression or any secretary or director.

Benefited Land means the land owned by the Transferor, comprising Lot 1 and Lot 4 in DP1043561 on which the Transferor operates the Smelter.

Benefited Owner means the Transferor, its successors and assigns, being the owner or occupier of, or any person with any interest in, the Benefited Land from time to time.

Burdened Land means the Property.

Burdened Owner means the Transferee, its successors and assigns, being the owner or occupier of, or any person with any interest in, the Burdened Land from time to time.

Burdened Owner's DA means any development consent obtained by the Burdened Owner for the construction and operation of the Rod Mill.

Business Day means a day other than Saturday, Sunday or a public holiday in Sydney.

Competitive Activity means any manufacturing activity that is substantially similar to, identical or in direct competition with the manufacturing activities carried on by the Benefited Owner as on the date of this Covenant, including commercial production of primary aluminium unalloyed or alloyed ingots, unalloyed or alloyed T bars, extrusion billets and rolling slabs. For the avoidance of doubt, a manufacturing facility for aluminium rod, wire, sector, conductor and related parts shall not be a Competitive Activity.

J L Davies
JOHN DAVIES

Environment Protection Authority means the NSW Environment Protection Authority and/or any other person or Authority having jurisdiction, rights, powers, duties or responsibilities over the Benefited Land or any part of it.

Roy Gellweiler

Property means Lot 5 and Lot 6 in DP270328.

Restrictive Covenant means each of the restrictions on the use of the Burdened Land as set out in paragraph 5.

Rod Mill means the mill, to be built by the Burdened Owner on the Property in accordance with the Supply Agreement between the Benefited Owner and the Burdened Owner dated on or about the date of this Covenant, for producing aluminium rod.

HAMID R AL ~~ZAYANI~~

SALMAN ALSHAIKH

Req:R641602 /Doc:DL AG216557 /Rev:13-May-2011 /NSW LRS /Pgs:ALL /Prt:17-Feb-2020 10:10 /Seq:4 of 9
© Office of the Registrar-General /Src:INFOTRACK /Ref:JINFOTRACKE20005

Rod Mill Development means the proposed development and commissioning of the Rod Mill.

Smelter means the aluminium smelter operated by the Benefited Owner at Tomago Road, Tomago, near Newcastle in the State of New South Wales, and any further development or expansion of that aluminium smelter from time to time.

1.2 Interpretation

Headings are for convenience only and do not affect interpretation. The following rules of interpretation apply unless the context requires otherwise.

(a) The ***singular*** includes the plural and conversely.

(b) A ***gender*** includes all genders.

(c) Where a ***word*** or ***phrase*** is defined, its other grammatical forms have a corresponding meaning.

(d) ***clause***, ***paragraph*** or ***sub-clause*** means a clause, paragraph or sub-clause, respectively, of this Covenant.

(e) Unless stated otherwise, one provision does not limit the effect of another.

(f) Mentioning anything after ***includes*** or ***including*** does not limit what else may be included.

2. Acknowledgments

The Burdened Owner acknowledges and agrees with the Benefited Owner that:

(a) it is of fundamental importance to the Benefited Owner that the environmental envelope in which the Smelter operates will not be exceeded in any way by any activity on the Property now or at any time in the future;

(b) the Benefited Owner is selling the Property to the Burdened Owner on the basis that the Burdened Owner will use the Property only for the purpose of constructing and operating the Rod Mill or such other manufacturing operation as the Burdened Owner may undertake from time to time on the Property, provided that such manufacturing operation is not a Competitive Activity; and

(c) if there is a dispute between the Benefited Owner and the Burdened Owner as to whether the activity or business is a Competitive Activity, then that dispute will be determined by expert determination as prescribed in paragraph 10.

2.2 Acknowledgments

The Benefited Owner and the Burdened Owner acknowledge and agree that:

(a) the land to which the benefit of the Restrictive Covenant is appurtenant is the whole and each part of the Benefited Land;

(b) the land which is subject to the burden of the Restrictive Covenant is the whole and each part of the Burdened Land;

Req:R641602 /Doc:DL AG216557 /Rev:13-May-2011 /NSW LRS /Pgs:ALL /Prt:17-Feb-2020 10:10 /Seq:5 of 9
© Office of the Registrar-General /Src:INFOTRACK /Ref:JINFOTRACKE20005

(c) the owners in fee simple for the time being of the Benefited Land have the right to release the Restrictive Covenant;

(d) there are no persons other than the Burdened Owner and Benefited Owner whose consent is required to a release, variation or modification of the Restrictive Covenant; and

(e) any remedy available to the Benefited Owner for breach of the Restrictive Covenant will exclude consequential loss and loss of profits and is limited to direct damages only or injunctive or such other equitable relief.

3. Burdened Owner covenants

The Burdened Owner covenants that it:

(a) has the power to create the Restrictive Covenant on the Burdened Land imposed in this Covenant;

(b) will observe and comply with the terms of the Restrictive Covenant at all times; and

(c) will, when required by the Benefited Owner and at the cost of the Benefited Owner, do all things necessary to maintain the Restrictive Covenant on the Burdened Land as the Benefited Owner reasonably requires, including signing any further document or consent.

4. Damages not adequate remedy

The parties agree that damages are not an adequate remedy for breach of the Restrictive Covenant and the Burdened Owner consents to the Benefited Owner obtaining orders for injunctive relieve if there is a breach of the Restrictive Covenant.

5. Restrictive Covenant

The Burdened Owner must:

(a) not use or permit or suffer to be used the Burdened Land in a manner which:

(i) exceeds Environment Protection Authority licence limits set on the Rod Mill or such other manufacturing operations that may be undertaken by the Burdened Owner that is not a Competitive Activity for all relevant atmospheric emissions as may be regulated by the Environmental Protection Authority from time to time; or

(ii) exceeds Environment Protection Authority licence limits set on the Rod Mill for noise emanating from the Burdened Land; or

(iii) is outside the parameters of the Burdened Owner's DA.

(b) not lodge or permit or suffer any application for any development consent in respect of the Burdened Land to be lodged with the relevant consent authority without the prior approval in writing of the Benefited Owner having been first obtained, such approval not to be unreasonably withheld if the proposed

Req:R641602 /Doc:DL AG216557 /Rev:13-May-2011 /NSW LRS /Pgs:ALL /Prt:17-Feb-2020 10:10 /Seq:6 of 9
© Office of the Registrar-General /Src:INFOTRACK /Ref:JINFOTRACKE20005

development would not (in the Benefited Owner's reasonable opinion) if implemented, cause or be likely to cause a breach of the covenants set out in paragraph (a);

(c) not lease, licence, sell or permit or suffer to be sold the Burdened Land to any person unless:

(i) on or prior to completion of any sale or the grant of any lease or licence of the Burdened Land, the purchaser, lessee or licensee enters into a deed with the Benefited Owner in a form and containing such terms and conditions as are reasonably satisfactory to the Benefited Owner in which that person covenants with the Benefited Owner on the same terms as are set out in this Restrictive Covenant; and

(ii) that person proposes to use the Property for the sole purpose of operating the Rod Mill or such other manufacturing operation that is not a Competitive Activity; and

(d) not use the Property for any purpose other than the construction and operation of the Rod Mill and such other manufacturing operation as the Burdened Owner may undertake from time to time on the Property, provided that such manufacturing operation is not a Competitive Activity. If there is a dispute between the Benefited Owner and the Burdened Owner as to whether the activity or business is or is not a Competitive Activity, then that dispute will be determined by expert determination as prescribed in paragraph 10.

6. Notices

Any notice given under this Covenant:

(a) must be in writing addressed to the intended recipient at the address shown below or the address last notified by the intended recipient to the sender:

Benefited Owner	Tomago Aluminium Company Pty Limited Tomago Road, Tomago, NSW 2324
Attention:	Secretary
Fax:	(02) 4966-9840

Burdened Owner	Midal Cables International Pty Limited PO Box 5939, MANAMA, KINGDOM OF BAHRAIN
Attention:	Chief Executive or General Manager
Fax:	+973 17 832 932 / 33

(b) must be signed by the sender or an Authorised Officer of the sender,

(c) will be taken to have been given:

(i) (in the case of delivery in person) when delivered, received or left at the above address;

Req:R641602 /Doc:DL AG216557 /Rev:13-May-2011 /NSW LRS /Pgs:ALL /Prt:17-Feb-2020 10:10 /Seq:7 of 9
© Office of the Registrar-General /Src:INFOTRACK /Ref:JINFOTRACKE20005

(ii) (in the case of facsimile transmission) when recorded on the transmission result report unless:

(A) within 24 hours of that time the recipient informs the sender that the transmission was received in an incomplete or garbled form; or

(B) the transmission result report indicates a faulty or incomplete transmission; or

(iii) (in the case of post) on the second day after the date on which the notice is accepted for posting by the relevant postal authority.

If delivery or receipt is on a day which is not a Business Day in the place of receipt or is later than 4pm (local time) on a Business Day in the place of receipt, the notice will be taken to have been given on the next Business Day in the place of receipt.

7. Governing Law

This Covenant is governed by the laws of New South Wales. The parties submit to the non-exclusive jurisdiction of courts exercising jurisdiction there.

8. Stamp Duty and Costs

Each party must pay its own costs arising out of the preparation of this Covenant but the Burdened Owner must pay any stamp duty and registration fees (including fines and penalties) chargeable on this Covenant, on any instruments entered into under this Covenant, and in respect of the transaction evidenced by this Covenant. The Burdened Owner must indemnify the Benefited Owner on demand against any liability for that stamp duty (including fines and penalties).

9. Variations and Waivers to be in Writing

No variation, modification or waiver of any provision in this Covenant, nor consent to any departure by a party from any such provision, shall be of any effect unless it is in writing, signed by the parties or (in the case of a waiver) by the party giving it. Any such variation, modification, waiver or consent shall be effective only to the extent to or for which it may be made or given.

10. Dispute resolution

10.1 General Disputes

(a) This paragraph 10 applies if a provision in this Covenant requires that a matter in dispute between the parties be referred to an independent expert for determination.

(b) A party may serve a Determination Notice (**"Determination Notice"**) on the other party:

Req:R641602 /Doc:DL AG216557 /Rev:13-May-2011 /NSW LRS /Pgs:ALL /Prt:17-Feb-2020 10:10 /Seq:8 of 9
© Office of the Registrar-General /Src:INFOTRACK /Ref:JINFOTRACKE20005

(i) advising the other party that the dispute is to be referred to an independent expert for determination; and

(ii) requesting the other party to agree to the appointment of a suitably qualified independent expert, as nominated in the Determination Notice, for the purposes of determining the dispute.

(c) If the parties cannot agree on an independent expert within 5 Business Days after a party serves a Determination Notice on the other party, a party may ask the chairperson of LEADR (or the vice chairperson if the chairperson declines) to:

(i) appoint an appropriate expert having regard to the nature of the dispute who will be the independent expert for the purposes of this Covenant in respect of the dispute which is the subject of the relevant Determination Notice; and

(ii) notify the parties of the identity and of contact details of the independent expert; and

(iii) determine the remuneration of the independent expert.

(d) The parties must instruct the independent expert to:

(i) act as an expert and not as an arbitrator;

(ii) subject to any express provision in this Covenant to the contrary, determine the rules for the conduct of the independent expert's determination; and

(iii) subject to any express provision in this Covenant to the contrary, consider the documents and other information the parties give the independent expert and which, in the opinion of the independent expert, are relevant.

(e) The independent expert:

(i) is not bound to observe the rules of natural justice or the rules of evidence;

(ii) subject to any express provision in this Covenant to the contrary, may obtain and refer to documents and information not provided by the parties; and

(iii) subject to any express provision in this Covenant to the contrary, must give a written decision including reasons; and

(iv) subject to any express provision in this Covenant to the contrary, must endeavour to give that decision as soon as practicable.

(f) Unless there is a material error, the independent expert's decision is final and binding on the parties.

(g) Subject to any express provision in this Covenant to the contrary, the parties to the dispute must:

(i) equally share the costs of the independent expert's determination of their dispute (unless the independent expert decides otherwise); and

Req:R641602 /Doc:DL AG216557 /Rev:13-May-2011 /NSW LRS /Pgs:ALL /Prt:17-Feb-2020 10:10 /Seq:9 of 9
© Office of the Registrar-General /Src:INFOTRACK /Ref:JINFOTRACKE20005

(ii) pay their own costs in connection with the dispute.

(h) Before referring any matter in dispute to an independent expert for determination under this paragraph 10 the parties will act in a bona fide manner with a view to resolving the dispute.

HAMID R AL ZAYANI

SALMAN AL SHAIKH

J L Davies
John Davies

Ray Gellwaler

Req:R641216 /Doc:DL AN271076 /Rev:27-Apr-2018 /NSW LRS /Pgs:ALL /Prt:17-Feb-2020 09:45 /Seq:1 of 1
© Office of the Registrar-General /Src:INFOTRACK /Ref:JINFOTRACKE20005

313

Form: 01T
Release: 6·2

(1)

TRANSFER

New South Wales
Real Property Act 1900

AN271076W

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the R... 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.

Office of State Revenue (NSW)
Client No: 88891 5709
Duty: $10 Trans No: 9332162-001
Asst details:

STAMP DUTY: Revenue NSW use only

This Document is bounded with Apostille No BHM110125 Dated 02/04/2018
396794

(A) TORRENS TITLE: Folio Identifier 11/270328

(B) LODGED BY

Document Collection Box	Name, Address or DX, Telephone, and Customer Account Number if any	CODES
35D	LLPN: 123005 B MORRIS, HAYES & EDGAR DX 420 SYDNEY PH: 9232-2411 AS AGENTS FOR Reference: ~~HVLS: 120644862~~ 45765273 ALONS	T TW

(C) TRANSFEROR: Midal Cables International Pty Limited (ABN 55 141 481 012)

(D) CONSIDERATION: The transferor acknowledges receipt of the consideration of $ 4,000,000.00 and as regards

(E) ESTATE: the abovementioned land transfers to the transferee an estate in fee simple

(F) SHARE TRANSFERRED:

(G) Encumbrances (if applicable):

(H) TRANSFEREE: Tomago Aluminium Company Pty Limited (ABN 68 001 862 228)

(I) TENANCY:

DATE 9 APRIL 2018

(J) Certified correct for the purposes of the Real Property Act 1900 and executed on behalf of the company named below by the authorised person(s) whose signature(s) appear(s) below pursuant to the authority specified.

Company: Midal Cables International Pty Limited (ABN 55 141 481 012)
Authority: section 127 of the Corporations Act 2001

Signature of authorised person:
Name of authorised person: Mohamed Mustafa Rafea
Office held: Director

Signature of authorised person:
Name of authorised person: Rashid Hamid Al Zayani
Office held: Director

I, Kellie Mitchell am authorised to make this alteration. K Mitchell dated: 5 April, 2018

Certified correct for the purposes of the Real Property Act 1900 on behalf of the transferee by the person whose signature appears below.

Signature:

Signatory's name: Andrew Mansour
Signatory's capacity: solicitor

(K) The transferee 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

1708

Req:R640721 /Doc:DL Z102540 /Rev:03-Aug-2010 /NSW LRS /Pgs:ALL /Prt:17-Feb-2020 09:01 /Seq:1 of 1
© Office of the Registrar-General /Src:INFOTRACK /Ref:JINFOTRACKE20005

OFFICE USE ONLY

Z 102540

OFFICE OF STATE REVENUE (N.S.W. TREASURY) 1989/91 S10 DULY STAMPED

TRANSFER

REAL PROPERTY ACT, 1900

T

3 | 6 of 6 | X

$ 44

R5/5

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
Folio Identifier 71/634535 302/634536 303/634536 304/634536	WHOLE	at Tomago

DESCRIPTION OF LAND Note (a)

TRANSFEROR Note (b)

ALLCO STEEL CORPORATION PTY LIMITED

S10 DUTY NOTATION NOTED

D

ESTATE Note (c)

(the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of ~~$4,469,280.00~~ 4,519,280.00 and transfers an estate in fee simple in the land above described to the TRANSFEREE

TRANSFEREE Note (d)

ALLCO STEEL CONSTRUCTIONS PTY LIMITED

OFFICE USE ONLY S

TENANCY Note (e)

as joint tenants/tenants in common

PRIOR ENCUMBRANCES Note (f)

subject to the following PRIOR ENCUMBRANCES 1. (R 432112 Surplus 34 o/f)

2. R 802827 3.

DATE 18TH JUNE 1990.

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

EXECUTION Note (g)

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

THE COMMON SEAL of ALLCO STEEL CORPORATION PTY LIMITED was hereunto affixed by resolution of the Directors in the presence of:

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

Secretary

ALLCO STEEL CORPORATION PTY. LTD. Common Seal

Director

Signature of Transferor

Note (g)

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

THE COMMON SEAL of ALLCO STEEL CONSTRUCTIONS PTY LIMITED was hereunto affixed by resolution of the Boards of Directors by in the presence of

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

Director

ALLCO STEEL CONSTRUCTIONS PTY. LTD. Common Seal

Director

Signature of Transferee

TO BE COMPLETED BY LODGING PARTY Notes (h) and (i)

LODGED BY P. M. KINSEY SOLICITOR 19 PEMBROKE PLACE BELROSE 2085

Delivery Box Number 19

LOCATION OF DOCUMENTS

CT	OTHER	
		Herewith.
		In L.T.O. with
		Produced by

OFFICE USE ONLY

Checked	Passed	REGISTERED - -19
ELZ		
Signed	Extra Fee	8 AUG 1990

Secondary Directions	OFF	L	R432112 (302/634536)
Delivery Directions	CT	4Q	P. M. KINSEY 19 PEMBROKE PL. BELROSE

Req:R640749 /Doc:CT 15149-204 CT /Rev:19-Jan-2011 /NSW LRS /Pgs:ALL /Prt:17-Feb-2020 09:03 /Seq:1 of 2
© Office of the Registrar-General /Src:INFOTRACK /Ref:JINFOTRACKE20005

CERTIFICATE OF TITLE

15149204

NEW SOUTH WALES — REAL PROPERTY ACT, 1900

Vol. 15149 Fol. 204

First Title Old System

Prior Title IVA 39908

EDITION ISSUED 17 11 1983

I certify that the person named in the First Schedule is the registered proprietor of an estate in fee simple (or such other estate or interest as is set out below) in the land described subject to the reservations and conditions in the Second Schedule and to the provisions of the Real Property Act, 1900.

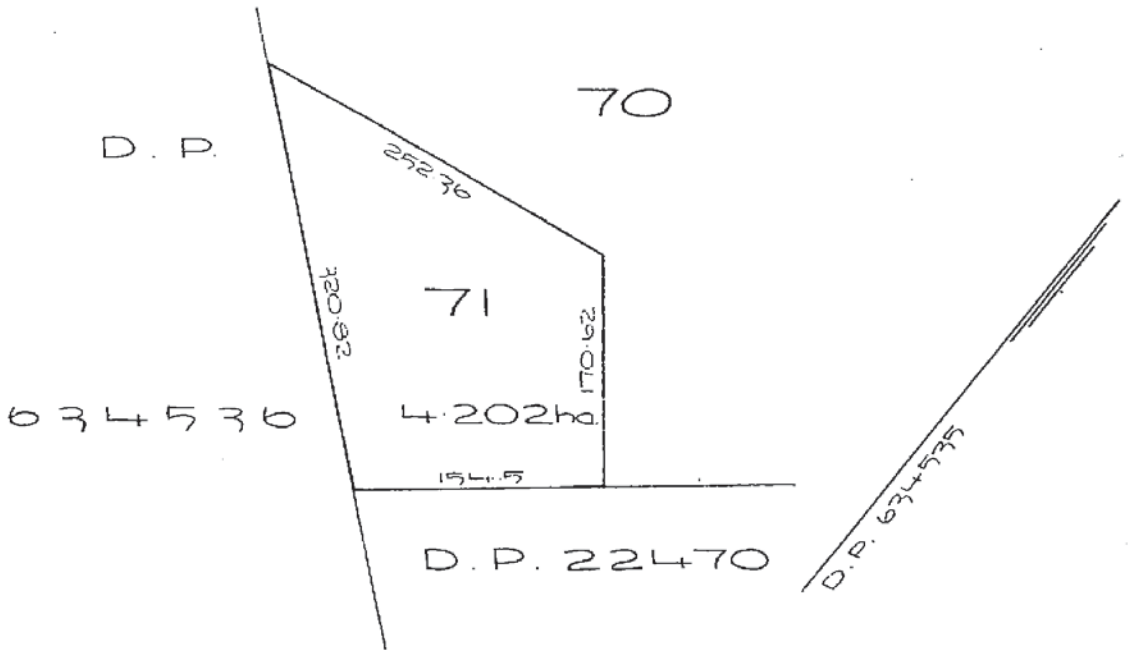
CANCELLED

Registrar General.

SEE AUTO FOLIO

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



IVA 39908

LAND REFERRED TO

Lot 71 in Deposited Plan 634535 in the Shire of Port Stephens Parish of Stockton County of Gloucester.

FIRST SCHEDULE

~~TOMAGO ALUMINIUM COMPANY PTY. LIMITED.~~ –

SECOND SCHEDULE

GR4 1. Reservations and conditions in the Crown Grant.
CG 2. CAUTION. The land within described is held subject to any subsisting interest (as defined in Section 28A Real Property Act, 1900). 17·11·1983
RU 3. DP634535 Restriction as to user.

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON (Page 1) Vol. 15149 Fol. 204

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

Vol. 15149 Fol. 204

L.O. 1066 D. West, Government Printer

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	Registrar General
Allco Steel Corporation Pty. Limited by Transfer V956698. Registered 22-10-1985	

CANCELLED

SEE AUTO FOLIO

SECOND SCHEDULE (continued)

PARTICULARS	Registrar General	CANCELLATION
U(RU) DP634535 P Restriction as to user. V956701 Variation. Registered 22-10-1985		
M V956699 P Mortgage to The Minister for Decentralisation. Registered 22-10-1985		
M V956700 P Mortgage to Port Stephens Shire Council. Registered 22-10-1985		
~~W20791 Mortgage to Westpac Banking Corporation. Registered 22-11-1985~~		X6409
M W185218 P Mortgage to Citicorp Australia Limited. Registered 28-4-1986		
U(M) W185218 P Mortgage X6410 Transfer of Mortgage to State Bank of New South Wales. Registered 5-8-1987		

NOTATIONS AND UNREGISTERED DEALINGS

V956698 T
699 M
700 M
1 Reg
W20791 M R
W185218 M R
X 6409 DM R
10 TM

NOTE: ENTRIES RULED THROUGH AND AUTHEN

Req:R640749 /Doc:CT 15149-204 CT /Rev:19-Jan-2011 /NSW LRS /Pgs:ALL /Prt:17-Feb-2020 09:03 /Seq:2 of 2
© Office of the Registrar-General /Src:INFOTRACK /Ref:JINFOTRACKE20005

Appendix F

Laboratory Documentation

source: [Untitled].pdf page: 1 SGS Ref: SE204895_COC

CHAIN OF CUSTODY & ANALYSIS REQUEST

SGS Environmental Services Sydney
Unit 16, 33 Maddox Street
Alexandria NSW 2015
Facsimile No: (02) 85940499
Telephone No: (02) 85940400
Email:
au.samplereceipt.sydney@sgs.com

Company Name:	JM Environments	Project Name/No:	JME2020
Address:	37 Tooke St	Purchase Order No:	JME2020
	COOKS HILL NSW 2300	Results Required By:	Standard
Contact Name:	James McMahon	Email:	james@jmenvironments.com
Telephone	0427 893 668	Email:	johnh@jmjenvironments.com

Sample Date: 6-7/04/2020

Relinquished by: J McMahon	Date /Time: 4pm 8/4/2020	Received by: TNT	Date /Time: 4pm 8/4/2020
Relinquished by:	Date /Time:	Received by:	Date /Time: 8/4/20 10:50
Samples intact: Yes/No	Temperature: 16°C	Sample Cooler Sealed: Yes/No	Laboratory Quotation: ENVI126319

Lab Sample ID	Sample ID	Water	Soil	Other	Preservative	No. of Containers		pH/CEC	CL10	CL15	CL18	CL2	BTEX						Comments
	BH1 0.2-0.3		x																sampled 6/4/2020
1	BH1 1-1.1		x					x	x										sampled 6/4/2020
	BH1 1.4-1.5		x																sampled 6/4/2020
	BH1 1.9-2		x																sampled 6/4/2020
2	BH1 2.4-2.5		x								X	X							sampled 6/4/2020
	BH2 0.2-0.3		x																sampled 6/4/2020
3	BH2 1-1.45		x								X	X							sampled 6/4/2020
4	BH2 2-2.45		x						x										sampled 6/4/2020
5	TP1 0		x						x										sampled 6/4/2020
6	TP1 1.6		x								x	x							sampled 6/4/2020
7	TP2 0		x						x										sampled 6/4/2020
8	TP2 0.7		x							X									sampled 6/4/2020
9	TP3 0		x						x										sampled 6/4/2020
10	TP3 0.55		x							X									sampled 6/4/2020
11	TP4 0		x						X										sampled 6/4/2020
12	TP4 0.7		x								X	X							sampled 6/4/2020
13	TP5 0		x						x										sampled 6/4/2020
14	TP5 0.5		x						x										sampled 6/4/2020
	TP6 0		x																sampled 6/4/2020
15	TP6 1		x								X	X							sampled 6/4/2020

SGS EHS Alexandria Laboratory

SE204895 COC
Received: 08 – Apr – 2020

CHAIN OF CUSTODY & ANALYSIS REQUEST

Sample Date: 6-7/04/2020

SGS Environmental Services Sydney
Unit 16, 33 Maddox Street
Alexandria NSW 2015
Facsimile No: (02) 85940499
Telephone No: (02) 85940400
Email:
au.samplereceipt.sydney@sgs.com

Company Name:	JM Environments	Project Name/No:	JME2020
Address:	37 Tooke St	Purchase Order No:	JME2020
	COOKS HILL NSW 2300	Results Required By:	Standard
Contact Name:	James McMahon	Email:	james@jmenvironments.com
Telephone	0427 893 668	Email:	johnh@jmjenvironments.com

Relinquished by: J McMahon	Date /Time: 4pm 8/4/2020	Received by: TNT	Date /Time: 4pm 8/4/2020
Relinquished by:	Date /Time:	Received by:	Date /Time: 8/4/20 @ 10.50
Samples intact: Yes/No	Temperature: 16°C	Sample Cooler Sealed: / Yes/No	Laboratory Quotation: ENVI126319

Lab Sample ID	Sample ID	Water	Soil	Other	Preservative	No. of Containers		pH/CEC	CL10	CL15	CL18	CL2	BTEX						Comments
16	TP7 0		x							X									sampled 6/4/2020
17	TP7 0.6		x							X									sampled 6/4/2020
18	TP8 0		x					x	x										sampled 6/4/2020
19	TP8 0.7		x						x										sampled 6/4/2020
	TP9 0		x																sampled 6/4/2020
20	TP9 0.3		x							X									sampled 6/4/2020
21	TP9 0.5		x								x	x							sampled 6/4/2020
22	TP10 0		x						x										sampled 6/4/2020
23	TP10 0.6		x							X									sampled 6/4/2020
24	TP11 0		x					x	x										sampled 6/4/2020
25	TP10 0.3		x							X									sampled 6/4/2020
26	TP11 0.2		x							X									sampled 6/4/2020
27	TP11 0.5		x						x										sampled 6/4/2020
28	TP12 0		x						x										sampled 6/4/2020
29	TP12 0.5		x								x	x							sampled 6/4/2020
30	TP12 0.7		x						x										sampled 6/4/2020
31	TP13 0		x						x										sampled 6/4/2020
32	TP13 0.3		x								x	x							sampled 6/4/2020
33	TP13 0.5		x						x										sampled 6/4/2020
	TP14 0		x																sampled 6/4/2020

CHAIN OF CUSTODY & ANALYSIS REQUEST

Sample Date: 6-7/04/2020

SGS Environmental Services Sydney
Unit 16, 33 Maddox Street
Alexandria NSW 2015
Facsimile No: (02) 85940499
Telephone No: (02) 85940400
Email:
au.samplereceipt.sydney@sgs.com

Company Name:	JM Environments	Project Name/No:	JME2020
Address:	37 Tooke St	Purchase Order No:	JME2020
	COOKS HILL NSW 2300	Results Required By:	Standard
Contact Name:	James McMahon	Email:	james@jmenvironments.com
Telephone	0427 893 668	Email:	johnh@jmjenvironments.com

Relinquished by: J McMahon	Date /Time: 4pm 8/4/2020	Received by: TNT	Date /Time: 4pm 8/4/2020
Relinquished by:	Date /Time:	Received by:	Date /Time: 8/4/20 @ 10.50
Samples intact: Yes/No	Temperature: 16°C	Sample Cooler Sealed: Yes/No	Laboratory Quotation: ENVI126319

Lab Sample ID	Sample ID	Water	Soil	Other	Preservative	No. of Containers		pH/CEC	CL10	CL15	CL18	CL2	BTEX						Comments
34	TP14 0.3		x					x		X									sampled 6/4/2020
35	TP14 0.5		x						x										sampled 6/4/2020
36	TP15 0		x								x	x							sampled 6/4/2020
37	TP15 0.5		x						x										sampled 6/4/2020
	TP16 0		x																sampled 6/4/2020
38	TP16 0.5		x								X	X							sampled 6/4/2020
39	TP17 0		x					x											sampled 6/4/2020
40	TP17 0.3		x						x										sampled 6/4/2020
41	TP18 0		x							X									sampled 6/4/2020
42	TP19 0		x					x	x										sampled 7/4/2020
43	TP19 0.4		x								X	X							sampled 7/4/2020
44	TP20 0		x						x										sampled 6/4/2020
45	TP20 0.4		x							X									sampled 6/4/2020
46	TP21 0		x						x										sampled 7/4/2020
47	TP21 1		x							X									sampled 7/4/2020
48	TP22 0		x					x	x										sampled 7/4/2020
49	TP22 1		x					x		X									sampled 7/4/2020
50	TP23 0		x						x										sampled 7/4/2020
51	TP23 0.4		x								X	X							sampled 7/4/2020
52	TP23 0.5		x						x										sampled 7/4/2020

CHAIN OF CUSTODY & ANALYSIS REQUEST

SGS Environmental Services Sydney
Unit 16, 33 Maddox Street
Alexandria NSW 2015
Facsimile No: (02) 85940499
Telephone No: (02) 85940400
Email:
au.samplereceipt.sydney@sgs.com

Sample Date: 6-7/04/2020

Company Name:	JM Environments	Project Name/No:	JME2020
Address:	37 Tooke St	Purchase Order No:	JME2020
	COOKS HILL NSW 2300	Results Required By:	Standard
Contact Name:	James McMahon	Email:	james@jmenvironments.com
Telephone	0427 893 668	Email:	johnh@jmjenvironments.com

Relinquished by: J McMahon	Date /Time: 4pm 8/4/2020	Received by: TNT	Date /Time: 4pm 8/4/2020
Relinquished by:	Date /Time:	Received by:	Date /Time: 8/4/2020 10.50
Samples intact: Yes/No	Temperature: 16°C	Sample Cooler Sealed: Yes/No	Laboratory Quotation: ENVI126319

Lab Sample ID	Sample ID	Water	Soil	Other	Preservative	No. of Containers		pH/CEC	CL10	CL15	CL18	CL2	BTEX						Comments
53	QC1		x						x										sampled 6/4/2020
	QC1A		x						x										Send to ALS sampled 6/4/2020
54	QC2		x						x										sampled 6/4/2020
	QC2A		x						x										Send to ALS sampled 6/4/2020
	QC3		x																Hold sampled 6/4/2020
	QC3A		x																Hold sampled 6/4/2020
55	Trip Blank		x										x						
56	Trip Spike		x										x						
57	QCA	x										x							

SAMPLE RECEIPT ADVICE

SE204895

CLIENT DETAILS

Contact	James McMahon
Client	JM ENVIRONMENTS
Address	37 TOOKE STREET COOKS HILL NSW 2300
Telephone	0427 893 668
Facsimile	(Not specified)
Email	james@jmenvironments.com
Project	**JME2020**
Order Number	**JME2020**
Samples	57

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 8/4/2020
Report Due	Fri 17/4/2020
SGS Reference	**SE204895**

SUBMISSION DETAILS

This is to confirm that 57 samples were received on Wednesday 8/4/2020. Results are expected to be ready by COB Friday 17/4/2020. Please quote SGS reference SE204895 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
Samples received in correct containers	Yes	Sample counts by matrix	56 Soil, 1 Water
Date documentation received	8/4/2020	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	16°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

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

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

SAMPLE RECEIPT ADVICE

SE204895

CLIENT DETAILS

Client JM ENVIRONMENTS

Project JME2020

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Speciated Phenols in Soil	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
001	BH1 1-1.1	-	-	26	-	-	10	11	7
002	BH1 2-4.2.5	-	-	26	-	-	10	81	7
003	BH2 1-1.45	-	-	26	-	-	10	81	7
004	BH2 2-2.45	-	-	26	-	-	10	11	7
005	TP1 0	-	-	26	-	-	10	11	7
006	TP1 1.6	-	-	26	-	-	10	81	7
007	TP2 0	-	-	26	-	-	10	11	7
008	TP2 0.7	29	14	26	11	18	10	11	7
009	TP3 0	-	-	26	-	-	10	11	7
010	TP3 0.55	29	14	26	11	18	10	11	7
011	TP4 0	-	-	26	-	-	10	11	7
012	TP4 0.7	-	-	26	-	-	10	81	7
013	TP5 0	-	-	26	-	-	10	11	7
014	TP5 0.5	-	-	26	-	-	10	11	7
015	TP6 1	-	-	26	-	-	10	81	7
016	TP7 0	29	14	26	11	18	10	11	7
017	TP7 0.6	29	14	26	11	18	10	11	7
018	TP8 0	-	-	26	-	-	10	11	7
019	TP8 0.7	-	-	26	-	-	10	11	7
020	TP9 0.3	29	14	26	11	18	10	11	7
021	TP9 0.5	-	-	26	-	-	10	81	7
022	TP10 0	-	-	26	-	-	10	11	7
023	TP10 0.6	29	14	26	11	18	10	11	7
024	TP11 0	-	-	26	-	-	10	11	7

CONTINUED OVERLEAF

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

SAMPLE RECEIPT ADVICE

SE204895

CLIENT DETAILS

Client JM ENVIRONMENTS

Project JME2020

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Speciated Phenols in Soil	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
025	TP10 0.3	29	14	26	11	18	10	11	7
026	TP11 0.2	29	14	26	11	18	10	11	7
027	TP11 0.5	-	-	26	-	-	10	11	7
028	TP12 0	-	-	26	-	-	10	11	7
029	TP12 0.5	-	-	26	-	-	10	81	7
030	TP12 0.7	-	-	26	-	-	10	11	7
031	TP13 0	-	-	26	-	-	10	11	7
032	TP13 0.3	-	-	26	-	-	10	81	7
033	TP13 0.5	-	-	26	-	-	10	11	7
034	TP14 0.3	29	14	26	11	18	10	11	7
035	TP14 0.5	-	-	26	-	-	10	11	7
036	TP15 0	-	-	26	-	-	10	81	7
037	TP15 0.5	-	-	26	-	-	10	11	7
038	TP16 0.5	-	-	26	-	-	10	81	7
040	TP17 0.3	-	-	26	-	-	10	11	7
041	TP18 0	29	14	26	11	18	10	11	7
042	TP19 0	-	-	26	-	-	10	11	7
043	TP19 0.4	-	-	26	-	-	10	81	7
044	TP20 0	-	-	26	-	-	10	11	7
045	TP20 0.4	29	14	26	11	18	10	11	7
046	TP21 0	-	-	26	-	-	10	11	7
047	TP21 1	29	14	26	11	18	10	11	7
048	TP22 0	-	-	26	-	-	10	11	7

CONTINUED OVERLEAF

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

SAMPLE RECEIPT ADVICE

SE204895

CLIENT DETAILS

Client JM ENVIRONMENTS

Project JME2020

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Speciated Phenols in Soil	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
049	TP22 1	29	14	26	11	18	10	11	7
050	TP23 0	-	-	26	-	-	10	11	7
051	TP23 0.4	-	-	26	-	-	10	81	7
052	TP23 0.5	-	-	26	-	-	10	11	7
053	QC1	-	-	26	-	-	10	11	7
054	QC2	-	-	26	-	-	10	11	7
055	Trip Blank	-	-	-	-	-	-	11	-
056	Trip Spike	-	-	-	-	-	-	11	-

CONTINUED OVERLEAF

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

SAMPLE RECEIPT ADVICE

SE204895

CLIENT DETAILS

Client JM ENVIRONMENTS

Project JME2020

SUMMARY OF ANALYSIS

No.	Sample ID	Exchangeable Cations and Cation Exchange Capacity	Mercury in Soil	Moisture Content	pH in soil (1:5)	Total Recoverable Elements in Soil/Waste
001	BH1 1-1.1	13	1	1	1	7
002	BH1 2-4.2.5	-	1	1	-	7
003	BH2 1-1.45	-	1	1	-	7
004	BH2 2-2.45	-	1	1	-	7
005	TP1 0	-	1	1	-	7
006	TP1 1.6	-	1	1	-	7
007	TP2 0	-	1	1	-	7
008	TP2 0.7	-	1	1	-	7
009	TP3 0	-	1	1	-	7
010	TP3 0.55	-	1	1	-	7
011	TP4 0	-	1	1	-	7
012	TP4 0.7	-	1	1	-	7
013	TP5 0	-	1	1	-	7
014	TP5 0.5	-	1	1	-	7
015	TP6 1	-	1	1	-	7
016	TP7 0	-	1	1	-	7
017	TP7 0.6	-	1	1	-	7
018	TP8 0	13	1	1	1	7
019	TP8 0.7	-	1	1	-	7
020	TP9 0.3	-	1	1	-	7
021	TP9 0.5	-	-	1	-	-
022	TP10 0	-	1	1	-	7
023	TP10 0.6	-	1	1	-	7
024	TP11 0	13	1	1	1	7

CONTINUED OVERLEAF

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

SAMPLE RECEIPT ADVICE

SE204895

CLIENT DETAILS

Client JM ENVIRONMENTS

Project JME2020

SUMMARY OF ANALYSIS

No.	Sample ID	Exchangeable Cations and Cation Exchange Capacity	Mercury in Soil	Moisture Content	pH in soil (1:5)	Total Recoverable Elements in Soil/Waste
025	TP10 0.3	-	1	1	-	7
026	TP11 0.2	-	1	1	-	7
027	TP11 0.5	-	1	1	-	7
028	TP12 0	-	1	1	-	7
029	TP12 0.5	-	1	1	-	7
030	TP12 0.7	-	1	1	-	7
031	TP13 0	-	1	1	-	7
032	TP13 0.3	-	1	1	-	7
033	TP13 0.5	-	1	1	-	7
034	TP14 0.3	13	1	1	1	7
035	TP14 0.5	-	1	1	-	7
036	TP15 0	-	1	1	-	7
037	TP15 0.5	-	1	1	-	7
038	TP16 0.5	-	1	1	-	7
039	TP17 0	13	-	1	1	-
040	TP17 0.3	-	1	1	-	7
041	TP18 0	-	1	1	-	7
042	TP19 0	13	1	1	1	7
043	TP19 0.4	-	1	1	-	7
044	TP20 0	-	1	1	-	7
045	TP20 0.4	-	1	1	-	7
046	TP21 0	-	1	1	-	7
047	TP21 1	-	1	1	-	7
048	TP22 0	13	1	1	1	7

CONTINUED OVERLEAF

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

SAMPLE RECEIPT ADVICE

SE204895

CLIENT DETAILS

Client JM ENVIRONMENTS

Project JME2020

SUMMARY OF ANALYSIS

No.	Sample ID	Exchangeable Cations and Cation Exchange Capacity	Mercury in Soil	Moisture Content	pH in soil (1:5)	Total Recoverable Elements in Soil/Waste
049	TP22 1	13	1	1	1	7
050	TP23 0	-	1	1	-	7
051	TP23 0.4	-	1	1	-	7
052	TP23 0.5	-	1	1	-	7
053	QC1	-	1	1	-	7
054	QC2	-	1	1	-	7
055	Trip Blank	-	-	1	-	-

CONTINUED OVERLEAF

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

SAMPLE RECEIPT ADVICE

SE204895

CLIENT DETAILS

Client JM ENVIRONMENTS

Project JME2020

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury (dissolved) in Water	Trace Metals (Dissolved) in Water by ICPMS
057	QCA	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 .

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	James McMahon
Client	JM ENVIRONMENTS
Address	37 TOOKE STREET COOKS HILL NSW 2300
Telephone	0427 893 668
Facsimile	(Not specified)
Email	james@jmenvironments.com
Project	**JME2020**
Order Number	**JME2020**
Samples	57

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	**SE204895 R1**
Date Received	8/4/2020
Date Reported	21/4/2020

COMMENTS

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

This report cancels and supersedes the report No.SE204895 R0 dated 17/04/20 issued by SGS Environment, Health and Safety due to the inclusion of previously missed 8 HM results for #21.

SIGNATORIES

Akheeqar BENIAMEEN
Chemist

Bennet LO
Senior Organic Chemist/Metals Chemist

Huong CRAWFORD
Production Manager

Kamrul AHSAN
Senior Chemist

Ly Kim HA
Organic Section Head

Shane MCDERMOTT
Inorganic/Metals Chemist

VOC's in Soil [AN433] Tested: 15/4/2020

PARAMETER	UOM	LOR	BH1 1-1.1 SOIL - 6/4/2020 SE204895.001	BH1 2-4.2.5 SOIL - 6/4/2020 SE204895.002	BH2 1-1.45 SOIL - 6/4/2020 SE204895.003	BH2 2-2.45 SOIL - 6/4/2020 SE204895.004	TP1 0 SOIL - 6/4/2020 SE204895.005
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-	<1	<1	-	-
Chloromethane	mg/kg	1	-	<1	<1	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	-	<0.1	<0.1	-	-
Bromomethane	mg/kg	1	-	<1	<1	-	-
Chloroethane	mg/kg	1	-	<1	<1	-	-
Trichlorofluoromethane	mg/kg	1	-	<1	<1	-	-
Acetone (2-propanone)	mg/kg	10	-	<10	<10	-	-
Iodomethane	mg/kg	5	-	<5	<5	-	-
1,1-dichloroethene	mg/kg	0.1	-	<0.1	<0.1	-	-
Acrylonitrile	mg/kg	0.1	-	<0.1	<0.1	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	-	<0.5	<0.5	-	-
Allyl chloride	mg/kg	0.1	-	<0.1	<0.1	-	-
Carbon disulfide	mg/kg	0.5	-	<0.5	<0.5	-	-
trans-1,2-dichloroethene	mg/kg	0.1	-	<0.1	<0.1	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-	<0.1	<0.1	-	-
1,1-dichloroethane	mg/kg	0.1	-	<0.1	<0.1	-	-
Vinyl acetate	mg/kg	10	-	<10	<10	-	-
MEK (2-butanone)	mg/kg	10	-	<10	<10	-	-
cis-1,2-dichloroethene	mg/kg	0.1	-	<0.1	<0.1	-	-
Bromochloromethane	mg/kg	0.1	-	<0.1	<0.1	-	-
Chloroform	mg/kg	0.1	-	<0.1	<0.1	-	-
2,2-dichloropropane	mg/kg	0.1	-	<0.1	<0.1	-	-
1,2-dichloroethane	mg/kg	0.1	-	<0.1	<0.1	-	-
1,1,1-trichloroethane	mg/kg	0.1	-	<0.1	<0.1	-	-
1,1-dichloropropene	mg/kg	0.1	-	<0.1	<0.1	-	-
Carbon tetrachloride	mg/kg	0.1	-	<0.1	<0.1	-	-
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	0.1	-	<0.1	<0.1	-	-
1,2-dichloropropane	mg/kg	0.1	-	<0.1	<0.1	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-	<0.1	<0.1	-	-
2-nitropropane	mg/kg	10	-	<10	<10	-	-
Bromodichloromethane	mg/kg	0.1	-	<0.1	<0.1	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	-	<1	<1	-	-
cis-1,3-dichloropropene	mg/kg	0.1	-	<0.1	<0.1	-	-
trans-1,3-dichloropropene	mg/kg	0.1	-	<0.1	<0.1	-	-
1,1,2-trichloroethane	mg/kg	0.1	-	<0.1	<0.1	-	-
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichloropropane	mg/kg	0.1	-	<0.1	<0.1	-	-
Chlorodibromomethane	mg/kg	0.1	-	<0.1	<0.1	-	-
2-hexanone (MBK)	mg/kg	5	-	<5	<5	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	-	<0.1	<0.1	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-	<0.1	<0.1	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	-	<0.1	<0.1	-	-
Chlorobenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	0.1	-	<0.1	<0.1	-	-
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
cis-1,4-dichloro-2-butene	mg/kg	1	-	<1	<1	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	-	<0.1	<0.1	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	-	<0.1	<0.1	-	-
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
1,2,3-trichloropropane	mg/kg	0.1	-	<0.1	<0.1	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	-	<1	<1	-	-
Isopropylbenzene (Cumene)	mg/kg	0.1	-	<0.1	<0.1	-	-
Bromobenzene	mg/kg	0.1	-	<0.1	<0.1	-	-

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	BH1 1-1.1 SOIL - 6/4/2020 SE204895.001	BH1 2-4.2.5 SOIL - 6/4/2020 SE204895.002	BH2 1-1.45 SOIL - 6/4/2020 SE204895.003	BH2 2-2.45 SOIL - 6/4/2020 SE204895.004	TP1 0 SOIL - 6/4/2020 SE204895.005
n-propylbenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
2-chlorotoluene	mg/kg	0.1	-	<0.1	<0.1	-	-
4-chlorotoluene	mg/kg	0.1	-	<0.1	<0.1	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
tert-butylbenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
sec-butylbenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
1,3-dichlorobenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
1,4-dichlorobenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
p-isopropyltoluene	mg/kg	0.1	-	<0.1	<0.1	-	-
1,2-dichlorobenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
n-butylbenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	-	<0.1	<0.1	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	0.1	-	<0.1	<0.1	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Total VOC*	mg/kg	24	-	<24	<24	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	<1.8	<1.8	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	<1.8	<1.8	-	-
Total MAH VIC EPA (BTEX+Styrene)*	mg/kg	0.4	-	<0.4	<0.4	-	-

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP1 1.6 SOIL - 6/4/2020 SE204895.006	TP2 0 SOIL - 6/4/2020 SE204895.007	TP2 0.7 SOIL - 6/4/2020 SE204895.008	TP3 0 SOIL - 6/4/2020 SE204895.009	TP3 0.55 SOIL - 6/4/2020 SE204895.010
Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	-	-	-	-
Chloromethane	mg/kg	1	<1	-	-	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	-	-	-	-
Bromomethane	mg/kg	1	<1	-	-	-	-
Chloroethane	mg/kg	1	<1	-	-	-	-
Trichlorofluoromethane	mg/kg	1	<1	-	-	-	-
Acetone (2-propanone)	mg/kg	10	<10	-	-	-	-
Iodomethane	mg/kg	5	<5	-	-	-	-
1,1-dichloroethene	mg/kg	0.1	<0.1	-	-	-	-
Acrylonitrile	mg/kg	0.1	<0.1	-	-	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	-	-	-	-
Allyl chloride	mg/kg	0.1	<0.1	-	-	-	-
Carbon disulfide	mg/kg	0.5	<0.5	-	-	-	-
trans-1,2-dichloroethene	mg/kg	0.1	<0.1	-	-	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	-	-	-	-
1,1-dichloroethane	mg/kg	0.1	<0.1	-	-	-	-
Vinyl acetate	mg/kg	10	<10	-	-	-	-
MEK (2-butanone)	mg/kg	10	<10	-	-	-	-
cis-1,2-dichloroethene	mg/kg	0.1	<0.1	-	-	-	-
Bromochloromethane	mg/kg	0.1	<0.1	-	-	-	-
Chloroform	mg/kg	0.1	<0.1	-	-	-	-
2,2-dichloropropane	mg/kg	0.1	<0.1	-	-	-	-
1,2-dichloroethane	mg/kg	0.1	<0.1	-	-	-	-
1,1,1-trichloroethane	mg/kg	0.1	<0.1	-	-	-	-
1,1-dichloropropene	mg/kg	0.1	<0.1	-	-	-	-
Carbon tetrachloride	mg/kg	0.1	<0.1	-	-	-	-
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	0.1	<0.1	-	-	-	-
1,2-dichloropropane	mg/kg	0.1	<0.1	-	-	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	-	-	-	-
2-nitropropane	mg/kg	10	<10	-	-	-	-
Bromodichloromethane	mg/kg	0.1	<0.1	-	-	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	-	-	-	-
cis-1,3-dichloropropene	mg/kg	0.1	<0.1	-	-	-	-
trans-1,3-dichloropropene	mg/kg	0.1	<0.1	-	-	-	-
1,1,2-trichloroethane	mg/kg	0.1	<0.1	-	-	-	-
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichloropropane	mg/kg	0.1	<0.1	-	-	-	-
Chlorodibromomethane	mg/kg	0.1	<0.1	-	-	-	-
2-hexanone (MBK)	mg/kg	5	<5	-	-	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	-	-	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	-	-	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	-	-	-	-
Chlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	0.1	<0.1	-	-	-	-
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
cis-1,4-dichloro-2-butene	mg/kg	1	<1	-	-	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	-	-	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	-	-	-	-
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
1,2,3-trichloropropane	mg/kg	0.1	<0.1	-	-	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	<1	-	-	-	-
Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	-	-	-	-
Bromobenzene	mg/kg	0.1	<0.1	-	-	-	-

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP1 1.6 SOIL - 6/4/2020 SE204895.006	TP2 0 SOIL - 6/4/2020 SE204895.007	TP2 0.7 SOIL - 6/4/2020 SE204895.008	TP3 0 SOIL - 6/4/2020 SE204895.009	TP3 0.55 SOIL - 6/4/2020 SE204895.010
n-propylbenzene	mg/kg	0.1	<0.1	-	-	-	-
2-chlorotoluene	mg/kg	0.1	<0.1	-	-	-	-
4-chlorotoluene	mg/kg	0.1	<0.1	-	-	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	-	-	-	-
tert-butylbenzene	mg/kg	0.1	<0.1	-	-	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	-	-	-	-
sec-butylbenzene	mg/kg	0.1	<0.1	-	-	-	-
1,3-dichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
1,4-dichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
p-isopropyltoluene	mg/kg	0.1	<0.1	-	-	-	-
1,2-dichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
n-butylbenzene	mg/kg	0.1	<0.1	-	-	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	-	-	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	0.1	<0.1	-	-	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Total VOC*	mg/kg	24	<24	-	-	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	-	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	-	-	-
Total MAH VIC EPA (BTEX+Styrene)*	mg/kg	0.4	<0.4	-	-	-	-

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP4 0 SOIL - 6/4/2020 SE204895.011	TP4 0.7 SOIL - 6/4/2020 SE204895.012	TP5 0 SOIL - 6/4/2020 SE204895.013	TP5 0.5 SOIL - 6/4/2020 SE204895.014	TP6 1 SOIL - 6/4/2020 SE204895.015
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-	<1	-	-	<1
Chloromethane	mg/kg	1	-	<1	-	-	<1
Vinyl chloride (Chloroethene)	mg/kg	0.1	-	<0.1	-	-	<0.1
Bromomethane	mg/kg	1	-	<1	-	-	<1
Chloroethane	mg/kg	1	-	<1	-	-	<1
Trichlorofluoromethane	mg/kg	1	-	<1	-	-	<1
Acetone (2-propanone)	mg/kg	10	-	<10	-	-	<10
Iodomethane	mg/kg	5	-	<5	-	-	<5
1,1-dichloroethene	mg/kg	0.1	-	<0.1	-	-	<0.1
Acrylonitrile	mg/kg	0.1	-	<0.1	-	-	<0.1
Dichloromethane (Methylene chloride)	mg/kg	0.5	-	<0.5	-	-	<0.5
Allyl chloride	mg/kg	0.1	-	<0.1	-	-	<0.1
Carbon disulfide	mg/kg	0.5	-	<0.5	-	-	<0.5
trans-1,2-dichloroethene	mg/kg	0.1	-	<0.1	-	-	<0.1
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-	<0.1	-	-	<0.1
1,1-dichloroethane	mg/kg	0.1	-	<0.1	-	-	<0.1
Vinyl acetate	mg/kg	10	-	<10	-	-	<10
MEK (2-butanone)	mg/kg	10	-	<10	-	-	<10
cis-1,2-dichloroethene	mg/kg	0.1	-	<0.1	-	-	<0.1
Bromochloromethane	mg/kg	0.1	-	<0.1	-	-	<0.1
Chloroform	mg/kg	0.1	-	<0.1	-	-	<0.1
2,2-dichloropropane	mg/kg	0.1	-	<0.1	-	-	<0.1
1,2-dichloroethane	mg/kg	0.1	-	<0.1	-	-	<0.1
1,1,1-trichloroethane	mg/kg	0.1	-	<0.1	-	-	<0.1
1,1-dichloropropene	mg/kg	0.1	-	<0.1	-	-	<0.1
Carbon tetrachloride	mg/kg	0.1	-	<0.1	-	-	<0.1
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	0.1	-	<0.1	-	-	<0.1
1,2-dichloropropane	mg/kg	0.1	-	<0.1	-	-	<0.1
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-	<0.1	-	-	<0.1
2-nitropropane	mg/kg	10	-	<10	-	-	<10
Bromodichloromethane	mg/kg	0.1	-	<0.1	-	-	<0.1
MIBK (4-methyl-2-pentanone)	mg/kg	1	-	<1	-	-	<1
cis-1,3-dichloropropene	mg/kg	0.1	-	<0.1	-	-	<0.1
trans-1,3-dichloropropene	mg/kg	0.1	-	<0.1	-	-	<0.1
1,1,2-trichloroethane	mg/kg	0.1	-	<0.1	-	-	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichloropropane	mg/kg	0.1	-	<0.1	-	-	<0.1
Chlorodibromomethane	mg/kg	0.1	-	<0.1	-	-	<0.1
2-hexanone (MBK)	mg/kg	5	-	<5	-	-	<5
1,2-dibromoethane (EDB)	mg/kg	0.1	-	<0.1	-	-	<0.1
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-	<0.1	-	-	<0.1
1,1,1,2-tetrachloroethane	mg/kg	0.1	-	<0.1	-	-	<0.1
Chlorobenzene	mg/kg	0.1	-	<0.1	-	-	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	0.1	-	<0.1	-	-	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
cis-1,4-dichloro-2-butene	mg/kg	1	-	<1	-	-	<1
Styrene (Vinyl benzene)	mg/kg	0.1	-	<0.1	-	-	<0.1
1,1,2,2-tetrachloroethane	mg/kg	0.1	-	<0.1	-	-	<0.1
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
1,2,3-trichloropropane	mg/kg	0.1	-	<0.1	-	-	<0.1
trans-1,4-dichloro-2-butene	mg/kg	1	-	<1	-	-	<1
Isopropylbenzene (Cumene)	mg/kg	0.1	-	<0.1	-	-	<0.1
Bromobenzene	mg/kg	0.1	-	<0.1	-	-	<0.1

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP4 0 SOIL - 6/4/2020 SE204895.011	TP4 0.7 SOIL - 6/4/2020 SE204895.012	TP5 0 SOIL - 6/4/2020 SE204895.013	TP5 0.5 SOIL - 6/4/2020 SE204895.014	TP6 1 SOIL - 6/4/2020 SE204895.015
n-propylbenzene	mg/kg	0.1	-	<0.1	-	-	<0.1
2-chlorotoluene	mg/kg	0.1	-	<0.1	-	-	<0.1
4-chlorotoluene	mg/kg	0.1	-	<0.1	-	-	<0.1
1,3,5-trimethylbenzene	mg/kg	0.1	-	<0.1	-	-	<0.1
tert-butylbenzene	mg/kg	0.1	-	<0.1	-	-	<0.1
1,2,4-trimethylbenzene	mg/kg	0.1	-	<0.1	-	-	<0.1
sec-butylbenzene	mg/kg	0.1	-	<0.1	-	-	<0.1
1,3-dichlorobenzene	mg/kg	0.1	-	<0.1	-	-	<0.1
1,4-dichlorobenzene	mg/kg	0.1	-	<0.1	-	-	<0.1
p-isopropyltoluene	mg/kg	0.1	-	<0.1	-	-	<0.1
1,2-dichlorobenzene	mg/kg	0.1	-	<0.1	-	-	<0.1
n-butylbenzene	mg/kg	0.1	-	<0.1	-	-	<0.1
1,2-dibromo-3-chloropropane	mg/kg	0.1	-	<0.1	-	-	<0.1
1,2,4-trichlorobenzene	mg/kg	0.1	-	<0.1	-	-	<0.1
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	0.1	-	<0.1	-	-	<0.1
1,2,3-trichlorobenzene	mg/kg	0.1	-	<0.1	-	-	<0.1
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Total VOC*	mg/kg	24	-	<24	-	-	<24
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	<1.8	-	-	<1.8
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	<1.8	-	-	<1.8
Total MAH VIC EPA (BTEX+Styrene)*	mg/kg	0.4	-	<0.4	-	-	<0.4

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP7 0 SOIL - 6/4/2020 SE204895.016	TP7 0.6 SOIL - 6/4/2020 SE204895.017	TP8 0 SOIL - 6/4/2020 SE204895.018	TP8 0.7 SOIL - 6/4/2020 SE204895.019	TP9 0.3 SOIL - 6/4/2020 SE204895.020
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-	-	-	-	-
Chloromethane	mg/kg	1	-	-	-	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	-	-	-	-	-
Bromomethane	mg/kg	1	-	-	-	-	-
Chloroethane	mg/kg	1	-	-	-	-	-
Trichlorofluoromethane	mg/kg	1	-	-	-	-	-
Acetone (2-propanone)	mg/kg	10	-	-	-	-	-
Iodomethane	mg/kg	5	-	-	-	-	-
1,1-dichloroethene	mg/kg	0.1	-	-	-	-	-
Acrylonitrile	mg/kg	0.1	-	-	-	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	-	-	-	-	-
Allyl chloride	mg/kg	0.1	-	-	-	-	-
Carbon disulfide	mg/kg	0.5	-	-	-	-	-
trans-1,2-dichloroethene	mg/kg	0.1	-	-	-	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-	-	-	-	-
1,1-dichloroethane	mg/kg	0.1	-	-	-	-	-
Vinyl acetate	mg/kg	10	-	-	-	-	-
MEK (2-butanone)	mg/kg	10	-	-	-	-	-
cis-1,2-dichloroethene	mg/kg	0.1	-	-	-	-	-
Bromochloromethane	mg/kg	0.1	-	-	-	-	-
Chloroform	mg/kg	0.1	-	-	-	-	-
2,2-dichloropropane	mg/kg	0.1	-	-	-	-	-
1,2-dichloroethane	mg/kg	0.1	-	-	-	-	-
1,1,1-trichloroethane	mg/kg	0.1	-	-	-	-	-
1,1-dichloropropene	mg/kg	0.1	-	-	-	-	-
Carbon tetrachloride	mg/kg	0.1	-	-	-	-	-
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	0.1	-	-	-	-	-
1,2-dichloropropane	mg/kg	0.1	-	-	-	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-	-	-	-	-
2-nitropropane	mg/kg	10	-	-	-	-	-
Bromodichloromethane	mg/kg	0.1	-	-	-	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	-	-	-	-	-
cis-1,3-dichloropropene	mg/kg	0.1	-	-	-	-	-
trans-1,3-dichloropropene	mg/kg	0.1	-	-	-	-	-
1,1,2-trichloroethane	mg/kg	0.1	-	-	-	-	-
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichloropropane	mg/kg	0.1	-	-	-	-	-
Chlorodibromomethane	mg/kg	0.1	-	-	-	-	-
2-hexanone (MBK)	mg/kg	5	-	-	-	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	-	-	-	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-	-	-	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	-	-	-	-	-
Chlorobenzene	mg/kg	0.1	-	-	-	-	-
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	0.1	-	-	-	-	-
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
cis-1,4-dichloro-2-butene	mg/kg	1	-	-	-	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	-	-	-	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	-	-	-	-	-
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
1,2,3-trichloropropane	mg/kg	0.1	-	-	-	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	-	-	-	-	-
Isopropylbenzene (Cumene)	mg/kg	0.1	-	-	-	-	-
Bromobenzene	mg/kg	0.1	-	-	-	-	-

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP7 0 SOIL - 6/4/2020 SE204895.016	TP7 0.6 SOIL - 6/4/2020 SE204895.017	TP8 0 SOIL - 6/4/2020 SE204895.018	TP8 0.7 SOIL - 6/4/2020 SE204895.019	TP9 0.3 SOIL - 6/4/2020 SE204895.020
n-propylbenzene	mg/kg	0.1	-	-	-	-	-
2-chlorotoluene	mg/kg	0.1	-	-	-	-	-
4-chlorotoluene	mg/kg	0.1	-	-	-	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	-	-	-	-	-
tert-butylbenzene	mg/kg	0.1	-	-	-	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	-	-	-	-	-
sec-butylbenzene	mg/kg	0.1	-	-	-	-	-
1,3-dichlorobenzene	mg/kg	0.1	-	-	-	-	-
1,4-dichlorobenzene	mg/kg	0.1	-	-	-	-	-
p-isopropyltoluene	mg/kg	0.1	-	-	-	-	-
1,2-dichlorobenzene	mg/kg	0.1	-	-	-	-	-
n-butylbenzene	mg/kg	0.1	-	-	-	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	-	-	-	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	-	-	-	-	-
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	0.1	-	-	-	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	-	-	-	-	-
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Total VOC*	mg/kg	24	-	-	-	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-	-	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-	-	-	-
Total MAH VIC EPA (BTEX+Styrene)*	mg/kg	0.4	-	-	-	-	-

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP9 0.5 SOIL - 6/4/2020 SE204895.021	TP10 0 SOIL - 6/4/2020 SE204895.022	TP10 0.6 SOIL - 6/4/2020 SE204895.023	TP11 0 SOIL - 6/4/2020 SE204895.024	TP10 0.3 SOIL - 6/4/2020 SE204895.025
Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	-	-	-	-
Chloromethane	mg/kg	1	<1	-	-	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	-	-	-	-
Bromomethane	mg/kg	1	<1	-	-	-	-
Chloroethane	mg/kg	1	<1	-	-	-	-
Trichlorofluoromethane	mg/kg	1	<1	-	-	-	-
Acetone (2-propanone)	mg/kg	10	<10	-	-	-	-
Iodomethane	mg/kg	5	<5	-	-	-	-
1,1-dichloroethene	mg/kg	0.1	<0.1	-	-	-	-
Acrylonitrile	mg/kg	0.1	<0.1	-	-	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	-	-	-	-
Allyl chloride	mg/kg	0.1	<0.1	-	-	-	-
Carbon disulfide	mg/kg	0.5	<0.5	-	-	-	-
trans-1,2-dichloroethene	mg/kg	0.1	<0.1	-	-	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	-	-	-	-
1,1-dichloroethane	mg/kg	0.1	<0.1	-	-	-	-
Vinyl acetate	mg/kg	10	<10	-	-	-	-
MEK (2-butanone)	mg/kg	10	<10	-	-	-	-
cis-1,2-dichloroethene	mg/kg	0.1	<0.1	-	-	-	-
Bromochloromethane	mg/kg	0.1	<0.1	-	-	-	-
Chloroform	mg/kg	0.1	<0.1	-	-	-	-
2,2-dichloropropane	mg/kg	0.1	<0.1	-	-	-	-
1,2-dichloroethane	mg/kg	0.1	<0.1	-	-	-	-
1,1,1-trichloroethane	mg/kg	0.1	<0.1	-	-	-	-
1,1-dichloropropene	mg/kg	0.1	<0.1	-	-	-	-
Carbon tetrachloride	mg/kg	0.1	<0.1	-	-	-	-
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	0.1	<0.1	-	-	-	-
1,2-dichloropropane	mg/kg	0.1	<0.1	-	-	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	-	-	-	-
2-nitropropane	mg/kg	10	<10	-	-	-	-
Bromodichloromethane	mg/kg	0.1	<0.1	-	-	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	-	-	-	-
cis-1,3-dichloropropene	mg/kg	0.1	<0.1	-	-	-	-
trans-1,3-dichloropropene	mg/kg	0.1	<0.1	-	-	-	-
1,1,2-trichloroethane	mg/kg	0.1	<0.1	-	-	-	-
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichloropropane	mg/kg	0.1	<0.1	-	-	-	-
Chlorodibromomethane	mg/kg	0.1	<0.1	-	-	-	-
2-hexanone (MBK)	mg/kg	5	<5	-	-	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	-	-	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	-	-	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	-	-	-	-
Chlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	0.1	<0.1	-	-	-	-
m/p-xylene	mg/kg	0.2	**0.3**	<0.2	<0.2	<0.2	<0.2
cis-1,4-dichloro-2-butene	mg/kg	1	<1	-	-	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	-	-	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	-	-	-	-
o-xylene	mg/kg	0.1	**0.1**	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	**0.4**	<0.3	<0.3	<0.3	<0.3
1,2,3-trichloropropane	mg/kg	0.1	<0.1	-	-	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	<1	-	-	-	-
Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	-	-	-	-
Bromobenzene	mg/kg	0.1	<0.1	-	-	-	-

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP9 0.5 SOIL - 6/4/2020 SE204895.021	TP10 0 SOIL - 6/4/2020 SE204895.022	TP10 0.6 SOIL - 6/4/2020 SE204895.023	TP11 0 SOIL - 6/4/2020 SE204895.024	TP10 0.3 SOIL - 6/4/2020 SE204895.025
n-propylbenzene	mg/kg	0.1	<0.1	-	-	-	-
2-chlorotoluene	mg/kg	0.1	<0.1	-	-	-	-
4-chlorotoluene	mg/kg	0.1	<0.1	-	-	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	-	-	-	-
tert-butylbenzene	mg/kg	0.1	<0.1	-	-	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	-	-	-	-
sec-butylbenzene	mg/kg	0.1	<0.1	-	-	-	-
1,3-dichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
1,4-dichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
p-isopropyltoluene	mg/kg	0.1	<0.1	-	-	-	-
1,2-dichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
n-butylbenzene	mg/kg	0.1	<0.1	-	-	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	-	-	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	0.1	<0.1	-	-	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	-	-	-	-
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Total VOC*	mg/kg	24	<24	-	-	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	-	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	-	-	-
Total MAH VIC EPA (BTEX+Styrene)*	mg/kg	0.4	**0.5**	-	-	-	-

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP11 0.2 SOIL - 6/4/2020 SE204895.026	TP11 0.5 SOIL - 6/4/2020 SE204895.027	TP12 0 SOIL - 6/4/2020 SE204895.028	TP12 0.5 SOIL - 6/4/2020 SE204895.029	TP12 0.7 SOIL - 6/4/2020 SE204895.030
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-	-	-	<1	-
Chloromethane	mg/kg	1	-	-	-	<1	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	-	-	-	<0.1	-
Bromomethane	mg/kg	1	-	-	-	<1	-
Chloroethane	mg/kg	1	-	-	-	<1	-
Trichlorofluoromethane	mg/kg	1	-	-	-	<1	-
Acetone (2-propanone)	mg/kg	10	-	-	-	<10	-
Iodomethane	mg/kg	5	-	-	-	<5	-
1,1-dichloroethene	mg/kg	0.1	-	-	-	<0.1	-
Acrylonitrile	mg/kg	0.1	-	-	-	<0.1	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	-	-	-	<0.5	-
Allyl chloride	mg/kg	0.1	-	-	-	<0.1	-
Carbon disulfide	mg/kg	0.5	-	-	-	<0.5	-
trans-1,2-dichloroethene	mg/kg	0.1	-	-	-	<0.1	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-	-	-	<0.1	-
1,1-dichloroethane	mg/kg	0.1	-	-	-	<0.1	-
Vinyl acetate	mg/kg	10	-	-	-	<10	-
MEK (2-butanone)	mg/kg	10	-	-	-	<10	-
cis-1,2-dichloroethene	mg/kg	0.1	-	-	-	<0.1	-
Bromochloromethane	mg/kg	0.1	-	-	-	<0.1	-
Chloroform	mg/kg	0.1	-	-	-	<0.1	-
2,2-dichloropropane	mg/kg	0.1	-	-	-	<0.1	-
1,2-dichloroethane	mg/kg	0.1	-	-	-	<0.1	-
1,1,1-trichloroethane	mg/kg	0.1	-	-	-	<0.1	-
1,1-dichloropropene	mg/kg	0.1	-	-	-	<0.1	-
Carbon tetrachloride	mg/kg	0.1	-	-	-	<0.1	-
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	0.1	-	-	-	<0.1	-
1,2-dichloropropane	mg/kg	0.1	-	-	-	<0.1	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-	-	-	<0.1	-
2-nitropropane	mg/kg	10	-	-	-	<10	-
Bromodichloromethane	mg/kg	0.1	-	-	-	<0.1	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	-	-	-	<1	-
cis-1,3-dichloropropene	mg/kg	0.1	-	-	-	<0.1	-
trans-1,3-dichloropropene	mg/kg	0.1	-	-	-	<0.1	-
1,1,2-trichloroethane	mg/kg	0.1	-	-	-	<0.1	-
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichloropropane	mg/kg	0.1	-	-	-	<0.1	-
Chlorodibromomethane	mg/kg	0.1	-	-	-	<0.1	-
2-hexanone (MBK)	mg/kg	5	-	-	-	<5	-
1,2-dibromoethane (EDB)	mg/kg	0.1	-	-	-	<0.1	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-	-	-	<0.1	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	-	-	-	<0.1	-
Chlorobenzene	mg/kg	0.1	-	-	-	<0.1	-
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	0.1	-	-	-	<0.1	-
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
cis-1,4-dichloro-2-butene	mg/kg	1	-	-	-	<1	-
Styrene (Vinyl benzene)	mg/kg	0.1	-	-	-	<0.1	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	-	-	-	<0.1	-
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
1,2,3-trichloropropane	mg/kg	0.1	-	-	-	<0.1	-
trans-1,4-dichloro-2-butene	mg/kg	1	-	-	-	<1	-
Isopropylbenzene (Cumene)	mg/kg	0.1	-	-	-	<0.1	-
Bromobenzene	mg/kg	0.1	-	-	-	<0.1	-

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP11 0.2 SOIL - 6/4/2020 SE204895.026	TP11 0.5 SOIL - 6/4/2020 SE204895.027	TP12 0 SOIL - 6/4/2020 SE204895.028	TP12 0.5 SOIL - 6/4/2020 SE204895.029	TP12 0.7 SOIL - 6/4/2020 SE204895.030
n-propylbenzene	mg/kg	0.1	-	-	-	<0.1	-
2-chlorotoluene	mg/kg	0.1	-	-	-	<0.1	-
4-chlorotoluene	mg/kg	0.1	-	-	-	<0.1	-
1,3,5-trimethylbenzene	mg/kg	0.1	-	-	-	<0.1	-
tert-butylbenzene	mg/kg	0.1	-	-	-	<0.1	-
1,2,4-trimethylbenzene	mg/kg	0.1	-	-	-	<0.1	-
sec-butylbenzene	mg/kg	0.1	-	-	-	<0.1	-
1,3-dichlorobenzene	mg/kg	0.1	-	-	-	<0.1	-
1,4-dichlorobenzene	mg/kg	0.1	-	-	-	<0.1	-
p-isopropyltoluene	mg/kg	0.1	-	-	-	<0.1	-
1,2-dichlorobenzene	mg/kg	0.1	-	-	-	<0.1	-
n-butylbenzene	mg/kg	0.1	-	-	-	<0.1	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	-	-	-	<0.1	-
1,2,4-trichlorobenzene	mg/kg	0.1	-	-	-	<0.1	-
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	0.1	-	-	-	<0.1	-
1,2,3-trichlorobenzene	mg/kg	0.1	-	-	-	<0.1	-
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Total VOC*	mg/kg	24	-	-	-	<24	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-	-	<1.8	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-	-	<1.8	-
Total MAH VIC EPA (BTEX+Styrene)*	mg/kg	0.4	-	-	-	<0.4	-

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP13 0 SOIL - 6/4/2020 SE204895.031	TP13 0.3 SOIL - 6/4/2020 SE204895.032	TP13 0.5 SOIL - 6/4/2020 SE204895.033	TP14 0.3 SOIL - 6/4/2020 SE204895.034	TP14 0.5 SOIL - 6/4/2020 SE204895.035
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-	<1	-	-	-
Chloromethane	mg/kg	1	-	<1	-	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	-	<0.1	-	-	-
Bromomethane	mg/kg	1	-	<1	-	-	-
Chloroethane	mg/kg	1	-	<1	-	-	-
Trichlorofluoromethane	mg/kg	1	-	<1	-	-	-
Acetone (2-propanone)	mg/kg	10	-	<10	-	-	-
Iodomethane	mg/kg	5	-	<5	-	-	-
1,1-dichloroethene	mg/kg	0.1	-	<0.1	-	-	-
Acrylonitrile	mg/kg	0.1	-	<0.1	-	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	-	<0.5	-	-	-
Allyl chloride	mg/kg	0.1	-	<0.1	-	-	-
Carbon disulfide	mg/kg	0.5	-	<0.5	-	-	-
trans-1,2-dichloroethene	mg/kg	0.1	-	<0.1	-	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-	<0.1	-	-	-
1,1-dichloroethane	mg/kg	0.1	-	<0.1	-	-	-
Vinyl acetate	mg/kg	10	-	<10	-	-	-
MEK (2-butanone)	mg/kg	10	-	<10	-	-	-
cis-1,2-dichloroethene	mg/kg	0.1	-	<0.1	-	-	-
Bromochloromethane	mg/kg	0.1	-	<0.1	-	-	-
Chloroform	mg/kg	0.1	-	<0.1	-	-	-
2,2-dichloropropane	mg/kg	0.1	-	<0.1	-	-	-
1,2-dichloroethane	mg/kg	0.1	-	<0.1	-	-	-
1,1,1-trichloroethane	mg/kg	0.1	-	<0.1	-	-	-
1,1-dichloropropene	mg/kg	0.1	-	<0.1	-	-	-
Carbon tetrachloride	mg/kg	0.1	-	<0.1	-	-	-
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	0.1	-	<0.1	-	-	-
1,2-dichloropropane	mg/kg	0.1	-	<0.1	-	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-	<0.1	-	-	-
2-nitropropane	mg/kg	10	-	<10	-	-	-
Bromodichloromethane	mg/kg	0.1	-	<0.1	-	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	-	<1	-	-	-
cis-1,3-dichloropropene	mg/kg	0.1	-	<0.1	-	-	-
trans-1,3-dichloropropene	mg/kg	0.1	-	<0.1	-	-	-
1,1,2-trichloroethane	mg/kg	0.1	-	<0.1	-	-	-
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichloropropane	mg/kg	0.1	-	<0.1	-	-	-
Chlorodibromomethane	mg/kg	0.1	-	<0.1	-	-	-
2-hexanone (MBK)	mg/kg	5	-	<5	-	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	-	<0.1	-	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-	<0.1	-	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	-	<0.1	-	-	-
Chlorobenzene	mg/kg	0.1	-	<0.1	-	-	-
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	0.1	-	<0.1	-	-	-
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
cis-1,4-dichloro-2-butene	mg/kg	1	-	<1	-	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	-	<0.1	-	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	-	<0.1	-	-	-
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
1,2,3-trichloropropane	mg/kg	0.1	-	<0.1	-	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	-	<1	-	-	-
Isopropylbenzene (Cumene)	mg/kg	0.1	-	<0.1	-	-	-
Bromobenzene	mg/kg	0.1	-	<0.1	-	-	-

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP13 0 SOIL - 6/4/2020 SE204895.031	TP13 0.3 SOIL - 6/4/2020 SE204895.032	TP13 0.5 SOIL - 6/4/2020 SE204895.033	TP14 0.3 SOIL - 6/4/2020 SE204895.034	TP14 0.5 SOIL - 6/4/2020 SE204895.035
n-propylbenzene	mg/kg	0.1	-	<0.1	-	-	-
2-chlorotoluene	mg/kg	0.1	-	<0.1	-	-	-
4-chlorotoluene	mg/kg	0.1	-	<0.1	-	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	-	<0.1	-	-	-
tert-butylbenzene	mg/kg	0.1	-	<0.1	-	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	-	<0.1	-	-	-
sec-butylbenzene	mg/kg	0.1	-	<0.1	-	-	-
1,3-dichlorobenzene	mg/kg	0.1	-	<0.1	-	-	-
1,4-dichlorobenzene	mg/kg	0.1	-	<0.1	-	-	-
p-isopropyltoluene	mg/kg	0.1	-	<0.1	-	-	-
1,2-dichlorobenzene	mg/kg	0.1	-	<0.1	-	-	-
n-butylbenzene	mg/kg	0.1	-	<0.1	-	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	-	<0.1	-	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	-	<0.1	-	-	-
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	0.1	-	<0.1	-	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	-	<0.1	-	-	-
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Total VOC*	mg/kg	24	-	<24	-	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	<1.8	-	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	<1.8	-	-	-
Total MAH VIC EPA (BTEX+Styrene)*	mg/kg	0.4	-	<0.4	-	-	-

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP15 0 SOIL - 6/4/2020 SE204895.036	TP15 0.5 SOIL - 6/4/2020 SE204895.037	TP16 0.5 SOIL - 6/4/2020 SE204895.038	TP17 0.3 SOIL - 6/4/2020 SE204895.040	TP18 0 SOIL - 6/4/2020 SE204895.041
Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	-	<1	-	-
Chloromethane	mg/kg	1	<1	-	<1	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	-	<0.1	-	-
Bromomethane	mg/kg	1	<1	-	<1	-	-
Chloroethane	mg/kg	1	<1	-	<1	-	-
Trichlorofluoromethane	mg/kg	1	<1	-	<1	-	-
Acetone (2-propanone)	mg/kg	10	<10	-	<10	-	-
Iodomethane	mg/kg	5	<5	-	<5	-	-
1,1-dichloroethene	mg/kg	0.1	<0.1	-	<0.1	-	-
Acrylonitrile	mg/kg	0.1	<0.1	-	<0.1	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	-	<0.5	-	-
Allyl chloride	mg/kg	0.1	<0.1	-	<0.1	-	-
Carbon disulfide	mg/kg	0.5	<0.5	-	<0.5	-	-
trans-1,2-dichloroethene	mg/kg	0.1	<0.1	-	<0.1	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	-	<0.1	-	-
1,1-dichloroethane	mg/kg	0.1	<0.1	-	<0.1	-	-
Vinyl acetate	mg/kg	10	<10	-	<10	-	-
MEK (2-butanone)	mg/kg	10	<10	-	<10	-	-
cis-1,2-dichloroethene	mg/kg	0.1	<0.1	-	<0.1	-	-
Bromochloromethane	mg/kg	0.1	<0.1	-	<0.1	-	-
Chloroform	mg/kg	0.1	<0.1	-	<0.1	-	-
2,2-dichloropropane	mg/kg	0.1	<0.1	-	<0.1	-	-
1,2-dichloroethane	mg/kg	0.1	<0.1	-	<0.1	-	-
1,1,1-trichloroethane	mg/kg	0.1	<0.1	-	<0.1	-	-
1,1-dichloropropene	mg/kg	0.1	<0.1	-	<0.1	-	-
Carbon tetrachloride	mg/kg	0.1	<0.1	-	<0.1	-	-
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	0.1	<0.1	-	<0.1	-	-
1,2-dichloropropane	mg/kg	0.1	<0.1	-	<0.1	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	-	<0.1	-	-
2-nitropropane	mg/kg	10	<10	-	<10	-	-
Bromodichloromethane	mg/kg	0.1	<0.1	-	<0.1	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	-	<1	-	-
cis-1,3-dichloropropene	mg/kg	0.1	<0.1	-	<0.1	-	-
trans-1,3-dichloropropene	mg/kg	0.1	<0.1	-	<0.1	-	-
1,1,2-trichloroethane	mg/kg	0.1	<0.1	-	<0.1	-	-
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichloropropane	mg/kg	0.1	<0.1	-	<0.1	-	-
Chlorodibromomethane	mg/kg	0.1	<0.1	-	<0.1	-	-
2-hexanone (MBK)	mg/kg	5	<5	-	<5	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	-	<0.1	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	-	<0.1	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	-	<0.1	-	-
Chlorobenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	0.1	<0.1	-	<0.1	-	-
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
cis-1,4-dichloro-2-butene	mg/kg	1	<1	-	<1	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	-	<0.1	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	-	<0.1	-	-
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
1,2,3-trichloropropane	mg/kg	0.1	<0.1	-	<0.1	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	<1	-	<1	-	-
Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	-	<0.1	-	-
Bromobenzene	mg/kg	0.1	<0.1	-	<0.1	-	-

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP15 0 SOIL - 6/4/2020 SE204895.036	TP15 0.5 SOIL - 6/4/2020 SE204895.037	TP16 0.5 SOIL - 6/4/2020 SE204895.038	TP17 0.3 SOIL - 6/4/2020 SE204895.040	TP18 0 SOIL - 6/4/2020 SE204895.041
n-propylbenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
2-chlorotoluene	mg/kg	0.1	<0.1	-	<0.1	-	-
4-chlorotoluene	mg/kg	0.1	<0.1	-	<0.1	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
tert-butylbenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
sec-butylbenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
1,3-dichlorobenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
1,4-dichlorobenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
p-isopropyltoluene	mg/kg	0.1	<0.1	-	<0.1	-	-
1,2-dichlorobenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
n-butylbenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	-	<0.1	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	0.1	<0.1	-	<0.1	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Total VOC*	mg/kg	24	<24	-	<24	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	<1.8	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	<1.8	-	-
Total MAH VIC EPA (BTEX+Styrene)*	mg/kg	0.4	<0.4	-	<0.4	-	-

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP19 0 SOIL - 7/4/2020 SE204895.042	TP19 0.4 SOIL - 7/4/2020 SE204895.043	TP20 0 SOIL - 6/4/2020 SE204895.044	TP20 0.4 SOIL - 6/4/2020 SE204895.045	TP21 0 SOIL - 7/4/2020 SE204895.046
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-	<1	-	-	-
Chloromethane	mg/kg	1	-	<1	-	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	-	<0.1	-	-	-
Bromomethane	mg/kg	1	-	<1	-	-	-
Chloroethane	mg/kg	1	-	<1	-	-	-
Trichlorofluoromethane	mg/kg	1	-	<1	-	-	-
Acetone (2-propanone)	mg/kg	10	-	<10	-	-	-
Iodomethane	mg/kg	5	-	<5	-	-	-
1,1-dichloroethene	mg/kg	0.1	-	<0.1	-	-	-
Acrylonitrile	mg/kg	0.1	-	<0.1	-	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	-	<0.5	-	-	-
Allyl chloride	mg/kg	0.1	-	<0.1	-	-	-
Carbon disulfide	mg/kg	0.5	-	<0.5	-	-	-
trans-1,2-dichloroethene	mg/kg	0.1	-	<0.1	-	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-	<0.1	-	-	-
1,1-dichloroethane	mg/kg	0.1	-	<0.1	-	-	-
Vinyl acetate	mg/kg	10	-	<10	-	-	-
MEK (2-butanone)	mg/kg	10	-	<10	-	-	-
cis-1,2-dichloroethene	mg/kg	0.1	-	<0.1	-	-	-
Bromochloromethane	mg/kg	0.1	-	<0.1	-	-	-
Chloroform	mg/kg	0.1	-	<0.1	-	-	-
2,2-dichloropropane	mg/kg	0.1	-	<0.1	-	-	-
1,2-dichloroethane	mg/kg	0.1	-	<0.1	-	-	-
1,1,1-trichloroethane	mg/kg	0.1	-	<0.1	-	-	-
1,1-dichloropropene	mg/kg	0.1	-	<0.1	-	-	-
Carbon tetrachloride	mg/kg	0.1	-	<0.1	-	-	-
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	0.1	-	<0.1	-	-	-
1,2-dichloropropane	mg/kg	0.1	-	<0.1	-	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-	<0.1	-	-	-
2-nitropropane	mg/kg	10	-	<10	-	-	-
Bromodichloromethane	mg/kg	0.1	-	<0.1	-	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	-	<1	-	-	-
cis-1,3-dichloropropene	mg/kg	0.1	-	<0.1	-	-	-
trans-1,3-dichloropropene	mg/kg	0.1	-	<0.1	-	-	-
1,1,2-trichloroethane	mg/kg	0.1	-	<0.1	-	-	-
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichloropropane	mg/kg	0.1	-	<0.1	-	-	-
Chlorodibromomethane	mg/kg	0.1	-	<0.1	-	-	-
2-hexanone (MBK)	mg/kg	5	-	<5	-	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	-	<0.1	-	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-	<0.1	-	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	-	<0.1	-	-	-
Chlorobenzene	mg/kg	0.1	-	<0.1	-	-	-
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	0.1	-	<0.1	-	-	-
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
cis-1,4-dichloro-2-butene	mg/kg	1	-	<1	-	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	-	<0.1	-	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	-	<0.1	-	-	-
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
1,2,3-trichloropropane	mg/kg	0.1	-	<0.1	-	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	-	<1	-	-	-
Isopropylbenzene (Cumene)	mg/kg	0.1	-	<0.1	-	-	-
Bromobenzene	mg/kg	0.1	-	<0.1	-	-	-

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP19 0 SOIL - 7/4/2020 SE204895.042	TP19 0.4 SOIL - 7/4/2020 SE204895.043	TP20 0 SOIL - 6/4/2020 SE204895.044	TP20 0.4 SOIL - 6/4/2020 SE204895.045	TP21 0 SOIL - 7/4/2020 SE204895.046
n-propylbenzene	mg/kg	0.1	-	<0.1	-	-	-
2-chlorotoluene	mg/kg	0.1	-	<0.1	-	-	-
4-chlorotoluene	mg/kg	0.1	-	<0.1	-	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	-	<0.1	-	-	-
tert-butylbenzene	mg/kg	0.1	-	<0.1	-	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	-	<0.1	-	-	-
sec-butylbenzene	mg/kg	0.1	-	<0.1	-	-	-
1,3-dichlorobenzene	mg/kg	0.1	-	<0.1	-	-	-
1,4-dichlorobenzene	mg/kg	0.1	-	<0.1	-	-	-
p-isopropyltoluene	mg/kg	0.1	-	<0.1	-	-	-
1,2-dichlorobenzene	mg/kg	0.1	-	<0.1	-	-	-
n-butylbenzene	mg/kg	0.1	-	<0.1	-	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	-	<0.1	-	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	-	<0.1	-	-	-
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	0.1	-	<0.1	-	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	-	<0.1	-	-	-
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Total VOC*	mg/kg	24	-	<24	-	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	<1.8	-	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	<1.8	-	-	-
Total MAH VIC EPA (BTEX+Styrene)*	mg/kg	0.4	-	<0.4	-	-	-

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP21 1 SOIL - 7/4/2020 SE204895.047	TP22 0 SOIL - 7/4/2020 SE204895.048	TP22 1 SOIL - 7/4/2020 SE204895.049	TP23 0 SOIL - 7/4/2020 SE204895.050	TP23 0.4 SOIL - 7/4/2020 SE204895.051
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-	-	-	-	<1
Chloromethane	mg/kg	1	-	-	-	-	<1
Vinyl chloride (Chloroethene)	mg/kg	0.1	-	-	-	-	<0.1
Bromomethane	mg/kg	1	-	-	-	-	<1
Chloroethane	mg/kg	1	-	-	-	-	<1
Trichlorofluoromethane	mg/kg	1	-	-	-	-	<1
Acetone (2-propanone)	mg/kg	10	-	-	-	-	<10
Iodomethane	mg/kg	5	-	-	-	-	<5
1,1-dichloroethene	mg/kg	0.1	-	-	-	-	<0.1
Acrylonitrile	mg/kg	0.1	-	-	-	-	<0.1
Dichloromethane (Methylene chloride)	mg/kg	0.5	-	-	-	-	<0.5
Allyl chloride	mg/kg	0.1	-	-	-	-	<0.1
Carbon disulfide	mg/kg	0.5	-	-	-	-	<0.5
trans-1,2-dichloroethene	mg/kg	0.1	-	-	-	-	<0.1
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-	-	-	-	<0.1
1,1-dichloroethane	mg/kg	0.1	-	-	-	-	<0.1
Vinyl acetate	mg/kg	10	-	-	-	-	<10
MEK (2-butanone)	mg/kg	10	-	-	-	-	<10
cis-1,2-dichloroethene	mg/kg	0.1	-	-	-	-	<0.1
Bromochloromethane	mg/kg	0.1	-	-	-	-	<0.1
Chloroform	mg/kg	0.1	-	-	-	-	<0.1
2,2-dichloropropane	mg/kg	0.1	-	-	-	-	<0.1
1,2-dichloroethane	mg/kg	0.1	-	-	-	-	<0.1
1,1,1-trichloroethane	mg/kg	0.1	-	-	-	-	<0.1
1,1-dichloropropene	mg/kg	0.1	-	-	-	-	<0.1
Carbon tetrachloride	mg/kg	0.1	-	-	-	-	<0.1
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	0.1	-	-	-	-	<0.1
1,2-dichloropropane	mg/kg	0.1	-	-	-	-	<0.1
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-	-	-	-	<0.1
2-nitropropane	mg/kg	10	-	-	-	-	<10
Bromodichloromethane	mg/kg	0.1	-	-	-	-	<0.1
MIBK (4-methyl-2-pentanone)	mg/kg	1	-	-	-	-	<1
cis-1,3-dichloropropene	mg/kg	0.1	-	-	-	-	<0.1
trans-1,3-dichloropropene	mg/kg	0.1	-	-	-	-	<0.1
1,1,2-trichloroethane	mg/kg	0.1	-	-	-	-	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichloropropane	mg/kg	0.1	-	-	-	-	<0.1
Chlorodibromomethane	mg/kg	0.1	-	-	-	-	<0.1
2-hexanone (MBK)	mg/kg	5	-	-	-	-	<5
1,2-dibromoethane (EDB)	mg/kg	0.1	-	-	-	-	<0.1
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-	-	-	-	<0.1
1,1,1,2-tetrachloroethane	mg/kg	0.1	-	-	-	-	<0.1
Chlorobenzene	mg/kg	0.1	-	-	-	-	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	0.1	-	-	-	-	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
cis-1,4-dichloro-2-butene	mg/kg	1	-	-	-	-	<1
Styrene (Vinyl benzene)	mg/kg	0.1	-	-	-	-	<0.1
1,1,2,2-tetrachloroethane	mg/kg	0.1	-	-	-	-	<0.1
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
1,2,3-trichloropropane	mg/kg	0.1	-	-	-	-	<0.1
trans-1,4-dichloro-2-butene	mg/kg	1	-	-	-	-	<1
Isopropylbenzene (Cumene)	mg/kg	0.1	-	-	-	-	<0.1
Bromobenzene	mg/kg	0.1	-	-	-	-	<0.1

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP21 1 SOIL - 7/4/2020 SE204895.047	TP22 0 SOIL - 7/4/2020 SE204895.048	TP22 1 SOIL - 7/4/2020 SE204895.049	TP23 0 SOIL - 7/4/2020 SE204895.050	TP23 0.4 SOIL - 7/4/2020 SE204895.051
n-propylbenzene	mg/kg	0.1	-	-	-	-	<0.1
2-chlorotoluene	mg/kg	0.1	-	-	-	-	<0.1
4-chlorotoluene	mg/kg	0.1	-	-	-	-	<0.1
1,3,5-trimethylbenzene	mg/kg	0.1	-	-	-	-	<0.1
tert-butylbenzene	mg/kg	0.1	-	-	-	-	<0.1
1,2,4-trimethylbenzene	mg/kg	0.1	-	-	-	-	<0.1
sec-butylbenzene	mg/kg	0.1	-	-	-	-	<0.1
1,3-dichlorobenzene	mg/kg	0.1	-	-	-	-	<0.1
1,4-dichlorobenzene	mg/kg	0.1	-	-	-	-	<0.1
p-isopropyltoluene	mg/kg	0.1	-	-	-	-	<0.1
1,2-dichlorobenzene	mg/kg	0.1	-	-	-	-	<0.1
n-butylbenzene	mg/kg	0.1	-	-	-	-	<0.1
1,2-dibromo-3-chloropropane	mg/kg	0.1	-	-	-	-	<0.1
1,2,4-trichlorobenzene	mg/kg	0.1	-	-	-	-	<0.1
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	0.1	-	-	-	-	<0.1
1,2,3-trichlorobenzene	mg/kg	0.1	-	-	-	-	<0.1
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Total VOC*	mg/kg	24	-	-	-	-	<24
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-	-	-	<1.8
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-	-	-	<1.8
Total MAH VIC EPA (BTEX+Styrene)*	mg/kg	0.4	-	-	-	-	<0.4

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP23 0.5 SOIL - 7/4/2020 SE204895.052	QC1 SOIL - 6/4/2020 SE204895.053	QC2 SOIL - 6/4/2020 SE204895.054	Trip Blank SOIL - 6/4/2020 SE204895.055	Trip Spike SOIL - 6/4/2020 SE204895.056
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-	-	-	-	-
Chloromethane	mg/kg	1	-	-	-	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	-	-	-	-	-
Bromomethane	mg/kg	1	-	-	-	-	-
Chloroethane	mg/kg	1	-	-	-	-	-
Trichlorofluoromethane	mg/kg	1	-	-	-	-	-
Acetone (2-propanone)	mg/kg	10	-	-	-	-	-
Iodomethane	mg/kg	5	-	-	-	-	-
1,1-dichloroethene	mg/kg	0.1	-	-	-	-	-
Acrylonitrile	mg/kg	0.1	-	-	-	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	-	-	-	-	-
Allyl chloride	mg/kg	0.1	-	-	-	-	-
Carbon disulfide	mg/kg	0.5	-	-	-	-	-
trans-1,2-dichloroethene	mg/kg	0.1	-	-	-	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-	-	-	-	-
1,1-dichloroethane	mg/kg	0.1	-	-	-	-	-
Vinyl acetate	mg/kg	10	-	-	-	-	-
MEK (2-butanone)	mg/kg	10	-	-	-	-	-
cis-1,2-dichloroethene	mg/kg	0.1	-	-	-	-	-
Bromochloromethane	mg/kg	0.1	-	-	-	-	-
Chloroform	mg/kg	0.1	-	-	-	-	-
2,2-dichloropropane	mg/kg	0.1	-	-	-	-	-
1,2-dichloroethane	mg/kg	0.1	-	-	-	-	-
1,1,1-trichloroethane	mg/kg	0.1	-	-	-	-	-
1,1-dichloropropene	mg/kg	0.1	-	-	-	-	-
Carbon tetrachloride	mg/kg	0.1	-	-	-	-	-
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	[101%]
Dibromomethane	mg/kg	0.1	-	-	-	-	-
1,2-dichloropropane	mg/kg	0.1	-	-	-	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-	-	-	-	-
2-nitropropane	mg/kg	10	-	-	-	-	-
Bromodichloromethane	mg/kg	0.1	-	-	-	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	-	-	-	-	-
cis-1,3-dichloropropene	mg/kg	0.1	-	-	-	-	-
trans-1,3-dichloropropene	mg/kg	0.1	-	-	-	-	-
1,1,2-trichloroethane	mg/kg	0.1	-	-	-	-	-
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	[97%]
1,3-dichloropropane	mg/kg	0.1	-	-	-	-	-
Chlorodibromomethane	mg/kg	0.1	-	-	-	-	-
2-hexanone (MBK)	mg/kg	5	-	-	-	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	-	-	-	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-	-	-	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	-	-	-	-	-
Chlorobenzene	mg/kg	0.1	-	-	-	-	-
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	[95%]
Bromoform	mg/kg	0.1	-	-	-	-	-
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	[95%]
cis-1,4-dichloro-2-butene	mg/kg	1	-	-	-	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	-	-	-	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	-	-	-	-	-
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	[94%]
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	-
1,2,3-trichloropropane	mg/kg	0.1	-	-	-	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	-	-	-	-	-
Isopropylbenzene (Cumene)	mg/kg	0.1	-	-	-	-	-
Bromobenzene	mg/kg	0.1	-	-	-	-	-

VOC's in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP23 0.5 SOIL - 7/4/2020 SE204895.052	QC1 SOIL - 6/4/2020 SE204895.053	QC2 SOIL - 6/4/2020 SE204895.054	Trip Blank SOIL - 6/4/2020 SE204895.055	Trip Spike SOIL - 6/4/2020 SE204895.056
n-propylbenzene	mg/kg	0.1	-	-	-	-	-
2-chlorotoluene	mg/kg	0.1	-	-	-	-	-
4-chlorotoluene	mg/kg	0.1	-	-	-	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	-	-	-	-	-
tert-butylbenzene	mg/kg	0.1	-	-	-	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	-	-	-	-	-
sec-butylbenzene	mg/kg	0.1	-	-	-	-	-
1,3-dichlorobenzene	mg/kg	0.1	-	-	-	-	-
1,4-dichlorobenzene	mg/kg	0.1	-	-	-	-	-
p-isopropyltoluene	mg/kg	0.1	-	-	-	-	-
1,2-dichlorobenzene	mg/kg	0.1	-	-	-	-	-
n-butylbenzene	mg/kg	0.1	-	-	-	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	-	-	-	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	-	-	-	-	-
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Hexachlorobutadiene	mg/kg	0.1	-	-	-	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	-	-	-	-	-
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	-
Total VOC*	mg/kg	24	-	-	-	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-	-	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-	-	-	-
Total MAH VIC EPA (BTEX+Styrene)*	mg/kg	0.4	-	-	-	-	-

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 15/4/2020

PARAMETER	UOM	LOR	BH1 1-1.1 SOIL - 6/4/2020 SE204895.001	BH1 2-4.2.5 SOIL - 6/4/2020 SE204895.002	BH2 1-1.45 SOIL - 6/4/2020 SE204895.003	BH2 2-2.45 SOIL - 6/4/2020 SE204895.004	TP1 0 SOIL - 6/4/2020 SE204895.005
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	TP1 1.6 SOIL - 6/4/2020 SE204895.006	TP2 0 SOIL - 6/4/2020 SE204895.007	TP2 0.7 SOIL - 6/4/2020 SE204895.008	TP3 0 SOIL - 6/4/2020 SE204895.009	TP3 0.55 SOIL - 6/4/2020 SE204895.010
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	TP4 0 SOIL - 6/4/2020 SE204895.011	TP4 0.7 SOIL - 6/4/2020 SE204895.012	TP5 0 SOIL - 6/4/2020 SE204895.013	TP5 0.5 SOIL - 6/4/2020 SE204895.014	TP6 1 SOIL - 6/4/2020 SE204895.015
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	TP7 0 SOIL - 6/4/2020 SE204895.016	TP7 0.6 SOIL - 6/4/2020 SE204895.017	TP8 0 SOIL - 6/4/2020 SE204895.018	TP8 0.7 SOIL - 6/4/2020 SE204895.019	TP9 0.3 SOIL - 6/4/2020 SE204895.020
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	TP9 0.5 SOIL - 6/4/2020 SE204895.021	TP10 0 SOIL - 6/4/2020 SE204895.022	TP10 0.6 SOIL - 6/4/2020 SE204895.023	TP11 0 SOIL - 6/4/2020 SE204895.024	TP10 0.3 SOIL - 6/4/2020 SE204895.025
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	TP11 0.2 SOIL - 6/4/2020 SE204895.026	TP11 0.5 SOIL - 6/4/2020 SE204895.027	TP12 0 SOIL - 6/4/2020 SE204895.028	TP12 0.5 SOIL - 6/4/2020 SE204895.029	TP12 0.7 SOIL - 6/4/2020 SE204895.030
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP13 0 SOIL - 6/4/2020 SE204895.031	TP13 0.3 SOIL - 6/4/2020 SE204895.032	TP13 0.5 SOIL - 6/4/2020 SE204895.033	TP14 0.3 SOIL - 6/4/2020 SE204895.034	TP14 0.5 SOIL - 6/4/2020 SE204895.035
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	TP15 0 SOIL - 6/4/2020 SE204895.036	TP15 0.5 SOIL - 6/4/2020 SE204895.037	TP16 0.5 SOIL - 6/4/2020 SE204895.038	TP17 0.3 SOIL - 6/4/2020 SE204895.040	TP18 0 SOIL - 6/4/2020 SE204895.041
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	TP19 0 SOIL - 7/4/2020 SE204895.042	TP19 0.4 SOIL - 7/4/2020 SE204895.043	TP20 0 SOIL - 6/4/2020 SE204895.044	TP20 0.4 SOIL - 6/4/2020 SE204895.045	TP21 0 SOIL - 7/4/2020 SE204895.046
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	TP21 1 SOIL - 7/4/2020 SE204895.047	TP22 0 SOIL - 7/4/2020 SE204895.048	TP22 1 SOIL - 7/4/2020 SE204895.049	TP23 0 SOIL - 7/4/2020 SE204895.050	TP23 0.4 SOIL - 7/4/2020 SE204895.051
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	TP23 0.5 SOIL - 7/4/2020 SE204895.052	QC1 SOIL - 6/4/2020 SE204895.053	QC2 SOIL - 6/4/2020 SE204895.054	Trip Blank SOIL - 6/4/2020 SE204895.055	Trip Spike SOIL - 6/4/2020 SE204895.056
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	-	-
TRH C6-C9	mg/kg	20	<20	<20	<20	-	-
TRH C6-C10	mg/kg	25	<25	<25	<25	-	-
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	-	-

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 15/4/2020

PARAMETER	UOM	LOR	BH1 1-1.1 SOIL - 6/4/2020 SE204895.001	BH1 2-4.2.5 SOIL - 6/4/2020 SE204895.002	BH2 1-1.45 SOIL - 6/4/2020 SE204895.003	BH2 2-2.45 SOIL - 6/4/2020 SE204895.004	TP1 0 SOIL - 6/4/2020 SE204895.005
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	TP1 1.6 SOIL - 6/4/2020 SE204895.006	TP2 0 SOIL - 6/4/2020 SE204895.007	TP2 0.7 SOIL - 6/4/2020 SE204895.008	TP3 0 SOIL - 6/4/2020 SE204895.009	TP3 0.55 SOIL - 6/4/2020 SE204895.010
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	TP4 0 SOIL - 6/4/2020 SE204895.011	TP4 0.7 SOIL - 6/4/2020 SE204895.012	TP5 0 SOIL - 6/4/2020 SE204895.013	TP5 0.5 SOIL - 6/4/2020 SE204895.014	TP6 1 SOIL - 6/4/2020 SE204895.015
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP7 0 SOIL - 6/4/2020 SE204895.016	TP7 0.6 SOIL - 6/4/2020 SE204895.017	TP8 0 SOIL - 6/4/2020 SE204895.018	TP8 0.7 SOIL - 6/4/2020 SE204895.019	TP9 0.3 SOIL - 6/4/2020 SE204895.020
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	**120**
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	**120**
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	**180**
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	**120**
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	TP9 0.5 SOIL - 6/4/2020 SE204895.021	TP10 0 SOIL - 6/4/2020 SE204895.022	TP10 0.6 SOIL - 6/4/2020 SE204895.023	TP11 0 SOIL - 6/4/2020 SE204895.024	TP10 0.3 SOIL - 6/4/2020 SE204895.025
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	TP11 0.2 SOIL - 6/4/2020 SE204895.026	TP11 0.5 SOIL - 6/4/2020 SE204895.027	TP12 0 SOIL - 6/4/2020 SE204895.028	TP12 0.5 SOIL - 6/4/2020 SE204895.029	TP12 0.7 SOIL - 6/4/2020 SE204895.030
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP13 0 SOIL - 6/4/2020 SE204895.031	TP13 0.3 SOIL - 6/4/2020 SE204895.032	TP13 0.5 SOIL - 6/4/2020 SE204895.033	TP14 0.3 SOIL - 6/4/2020 SE204895.034	TP14 0.5 SOIL - 6/4/2020 SE204895.035
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	TP15 0 SOIL - 6/4/2020 SE204895.036	TP15 0.5 SOIL - 6/4/2020 SE204895.037	TP16 0.5 SOIL - 6/4/2020 SE204895.038	TP17 0.3 SOIL - 6/4/2020 SE204895.040	TP18 0 SOIL - 6/4/2020 SE204895.041
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	TP19 0 SOIL - 7/4/2020 SE204895.042	TP19 0.4 SOIL - 7/4/2020 SE204895.043	TP20 0 SOIL - 6/4/2020 SE204895.044	TP20 0.4 SOIL - 6/4/2020 SE204895.045	TP21 0 SOIL - 7/4/2020 SE204895.046
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP21 1 SOIL - 7/4/2020 SE204895.047	TP22 0 SOIL - 7/4/2020 SE204895.048	TP22 1 SOIL - 7/4/2020 SE204895.049	TP23 0 SOIL - 7/4/2020 SE204895.050	TP23 0.4 SOIL - 7/4/2020 SE204895.051
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	TP23 0.5 SOIL - 7/4/2020 SE204895.052	QC1 SOIL - 6/4/2020 SE204895.053	QC2 SOIL - 6/4/2020 SE204895.054
TRH C10-C14	mg/kg	20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 15/4/2020

PARAMETER	UOM	LOR	BH1 1-1.1 SOIL - 6/4/2020 SE204895.001	BH1 2-4.2.5 SOIL - 6/4/2020 SE204895.002	BH2 1-1.45 SOIL - 6/4/2020 SE204895.003	BH2 2-2.45 SOIL - 6/4/2020 SE204895.004	TP1 0 SOIL - 6/4/2020 SE204895.005
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.1**
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	**0.1**	<0.1	**0.3**
Pyrene	mg/kg	0.1	<0.1	<0.1	**0.1**	<0.1	**0.2**
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	**0.2**
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.2**
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.1**
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.2**
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.1**
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	**0.1**
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	**0.2**
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	**0.3**
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	**1.7**
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	**1.7**

PARAMETER	UOM	LOR	TP1 1.6 SOIL - 6/4/2020 SE204895.006	TP2 0 SOIL - 6/4/2020 SE204895.007	TP2 0.7 SOIL - 6/4/2020 SE204895.008	TP3 0 SOIL - 6/4/2020 SE204895.009	TP3 0.55 SOIL - 6/4/2020 SE204895.010
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP4 0 SOIL - 6/4/2020 SE204895.011	TP4 0.7 SOIL - 6/4/2020 SE204895.012	TP5 0 SOIL - 6/4/2020 SE204895.013	TP5 0.5 SOIL - 6/4/2020 SE204895.014	TP6 1 SOIL - 6/4/2020 SE204895.015
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	**0.1**	<0.1	**0.1**	<0.1	<0.1
Pyrene	mg/kg	0.1	**0.1**	<0.1	**0.1**	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	**0.2**	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	**0.3**	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	**0.1**	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	**0.2**	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	**0.1**	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	**0.1**	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	**0.2**	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	**0.3**	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	**0.3**	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	**1.3**	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	**1.3**	<0.8	<0.8

PARAMETER	UOM	LOR	TP7 0 SOIL - 6/4/2020 SE204895.016	TP7 0.6 SOIL - 6/4/2020 SE204895.017	TP8 0 SOIL - 6/4/2020 SE204895.018	TP8 0.7 SOIL - 6/4/2020 SE204895.019	TP9 0.3 SOIL - 6/4/2020 SE204895.020
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	**0.2**	<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	**0.2**	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	**0.3**	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	**0.1**	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	**0.2**	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	**0.1**	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	**0.1**	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	**0.2**	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	**0.3**	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	**0.3**	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	**1.3**	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	**1.3**	<0.8	<0.8	<0.8	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP9 0.5 SOIL - 6/4/2020 SE204895.021	TP10 0 SOIL - 6/4/2020 SE204895.022	TP10 0.6 SOIL - 6/4/2020 SE204895.023	TP11 0 SOIL - 6/4/2020 SE204895.024	TP10 0.3 SOIL - 6/4/2020 SE204895.025
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	**0.7**	<0.1	**0.1**	<0.1
Pyrene	mg/kg	0.1	<0.1	**0.8**	<0.1	**0.1**	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	**0.3**	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	**0.4**	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	**0.5**	<0.1	**0.1**	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	**0.2**	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	**0.4**	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	**0.2**	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	**0.3**	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	**0.5**	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	**0.6**	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	**0.6**	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	**3.7**	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	**3.7**	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	TP11 0.2 SOIL - 6/4/2020 SE204895.026	TP11 0.5 SOIL - 6/4/2020 SE204895.027	TP12 0 SOIL - 6/4/2020 SE204895.028	TP12 0.5 SOIL - 6/4/2020 SE204895.029	TP12 0.7 SOIL - 6/4/2020 SE204895.030
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	**0.2**	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	**0.2**	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	**0.1**	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	**0.1**	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP13 0 SOIL - 6/4/2020 SE204895.031	TP13 0.3 SOIL - 6/4/2020 SE204895.032	TP13 0.5 SOIL - 6/4/2020 SE204895.033	TP14 0.3 SOIL - 6/4/2020 SE204895.034	TP14 0.5 SOIL - 6/4/2020 SE204895.035
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	TP15 0 SOIL - 6/4/2020 SE204895.036	TP15 0.5 SOIL - 6/4/2020 SE204895.037	TP16 0.5 SOIL - 6/4/2020 SE204895.038	TP17 0.3 SOIL - 6/4/2020 SE204895.040	TP18 0 SOIL - 6/4/2020 SE204895.041
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP19 0 SOIL - 7/4/2020 SE204895.042	TP19 0.4 SOIL - 7/4/2020 SE204895.043	TP20 0 SOIL - 6/4/2020 SE204895.044	TP20 0.4 SOIL - 6/4/2020 SE204895.045	TP21 0 SOIL - 7/4/2020 SE204895.046
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	**0.2**	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	**0.1**	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	**0.2**	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	TP21 1 SOIL - 7/4/2020 SE204895.047	TP22 0 SOIL - 7/4/2020 SE204895.048	TP22 1 SOIL - 7/4/2020 SE204895.049	TP23 0 SOIL - 7/4/2020 SE204895.050	TP23 0.4 SOIL - 7/4/2020 SE204895.051
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP23 0.5 SOIL - 7/4/2020 SE204895.052	QC1 SOIL - 6/4/2020 SE204895.053	QC2 SOIL - 6/4/2020 SE204895.054
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	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
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8

OC Pesticides in Soil [AN420] Tested: 15/4/2020

PARAMETER	UOM	LOR	BH1 1-1.1 SOIL - 6/4/2020 SE204895.001	BH1 2-4.2.5 SOIL - 6/4/2020 SE204895.002	BH2 1-1.45 SOIL - 6/4/2020 SE204895.003	BH2 2-2.45 SOIL - 6/4/2020 SE204895.004	TP1 0 SOIL - 6/4/2020 SE204895.005
Hexachlorobenzene (HCB)	mg/kg	0.1	-	-	-	-	-
Alpha BHC	mg/kg	0.1	-	-	-	-	-
Lindane	mg/kg	0.1	-	-	-	-	-
Heptachlor	mg/kg	0.1	-	-	-	-	-
Aldrin	mg/kg	0.1	-	-	-	-	-
Beta BHC	mg/kg	0.1	-	-	-	-	-
Delta BHC	mg/kg	0.1	-	-	-	-	-
Heptachlor epoxide	mg/kg	0.1	-	-	-	-	-
o,p'-DDE	mg/kg	0.1	-	-	-	-	-
Alpha Endosulfan	mg/kg	0.2	-	-	-	-	-
Gamma Chlordane	mg/kg	0.1	-	-	-	-	-
Alpha Chlordane	mg/kg	0.1	-	-	-	-	-
trans-Nonachlor	mg/kg	0.1	-	-	-	-	-
p,p'-DDE	mg/kg	0.1	-	-	-	-	-
Dieldrin	mg/kg	0.2	-	-	-	-	-
Endrin	mg/kg	0.2	-	-	-	-	-
o,p'-DDD	mg/kg	0.1	-	-	-	-	-
o,p'-DDT	mg/kg	0.1	-	-	-	-	-
Beta Endosulfan	mg/kg	0.2	-	-	-	-	-
p,p'-DDD	mg/kg	0.1	-	-	-	-	-
p,p'-DDT	mg/kg	0.1	-	-	-	-	-
Endosulfan sulphate	mg/kg	0.1	-	-	-	-	-
Endrin Aldehyde	mg/kg	0.1	-	-	-	-	-
Methoxychlor	mg/kg	0.1	-	-	-	-	-
Endrin Ketone	mg/kg	0.1	-	-	-	-	-
Isodrin	mg/kg	0.1	-	-	-	-	-
Mirex	mg/kg	0.1	-	-	-	-	-
Total CLP OC Pesticides	mg/kg	1	-	-	-	-	-

OC Pesticides in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP1 1.6 SOIL - 6/4/2020 SE204895.006	TP2 0 SOIL - 6/4/2020 SE204895.007	TP2 0.7 SOIL - 6/4/2020 SE204895.008	TP3 0 SOIL - 6/4/2020 SE204895.009	TP3 0.55 SOIL - 6/4/2020 SE204895.010
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	-	-	<0.1	-	<0.1
Aldrin	mg/kg	0.1	-	-	<0.1	-	<0.1
Beta BHC	mg/kg	0.1	-	-	<0.1	-	<0.1
Delta BHC	mg/kg	0.1	-	-	<0.1	-	<0.1
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
Endrin	mg/kg	0.2	-	-	<0.2	-	<0.2
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	-	-	<0.1	-	<0.1
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

OC Pesticides in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP4 0 SOIL - 6/4/2020 SE204895.011	TP4 0.7 SOIL - 6/4/2020 SE204895.012	TP5 0 SOIL - 6/4/2020 SE204895.013	TP5 0.5 SOIL - 6/4/2020 SE204895.014	TP6 1 SOIL - 6/4/2020 SE204895.015
Hexachlorobenzene (HCB)	mg/kg	0.1	-	-	-	-	-
Alpha BHC	mg/kg	0.1	-	-	-	-	-
Lindane	mg/kg	0.1	-	-	-	-	-
Heptachlor	mg/kg	0.1	-	-	-	-	-
Aldrin	mg/kg	0.1	-	-	-	-	-
Beta BHC	mg/kg	0.1	-	-	-	-	-
Delta BHC	mg/kg	0.1	-	-	-	-	-
Heptachlor epoxide	mg/kg	0.1	-	-	-	-	-
o,p'-DDE	mg/kg	0.1	-	-	-	-	-
Alpha Endosulfan	mg/kg	0.2	-	-	-	-	-
Gamma Chlordane	mg/kg	0.1	-	-	-	-	-
Alpha Chlordane	mg/kg	0.1	-	-	-	-	-
trans-Nonachlor	mg/kg	0.1	-	-	-	-	-
p,p'-DDE	mg/kg	0.1	-	-	-	-	-
Dieldrin	mg/kg	0.2	-	-	-	-	-
Endrin	mg/kg	0.2	-	-	-	-	-
o,p'-DDD	mg/kg	0.1	-	-	-	-	-
o,p'-DDT	mg/kg	0.1	-	-	-	-	-
Beta Endosulfan	mg/kg	0.2	-	-	-	-	-
p,p'-DDD	mg/kg	0.1	-	-	-	-	-
p,p'-DDT	mg/kg	0.1	-	-	-	-	-
Endosulfan sulphate	mg/kg	0.1	-	-	-	-	-
Endrin Aldehyde	mg/kg	0.1	-	-	-	-	-
Methoxychlor	mg/kg	0.1	-	-	-	-	-
Endrin Ketone	mg/kg	0.1	-	-	-	-	-
Isodrin	mg/kg	0.1	-	-	-	-	-
Mirex	mg/kg	0.1	-	-	-	-	-
Total CLP OC Pesticides	mg/kg	1	-	-	-	-	-

OC Pesticides in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP7 0 SOIL - 6/4/2020 SE204895.016	TP7 0.6 SOIL - 6/4/2020 SE204895.017	TP8 0 SOIL - 6/4/2020 SE204895.018	TP8 0.7 SOIL - 6/4/2020 SE204895.019	TP9 0.3 SOIL - 6/4/2020 SE204895.020
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

OC Pesticides in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP9 0.5 SOIL - 6/4/2020 SE204895.021	TP10 0 SOIL - 6/4/2020 SE204895.022	TP10 0.6 SOIL - 6/4/2020 SE204895.023	TP11 0 SOIL - 6/4/2020 SE204895.024	TP10 0.3 SOIL - 6/4/2020 SE204895.025
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	-	-	<0.1	-	<0.1
Aldrin	mg/kg	0.1	-	-	<0.1	-	<0.1
Beta BHC	mg/kg	0.1	-	-	<0.1	-	<0.1
Delta BHC	mg/kg	0.1	-	-	<0.1	-	<0.1
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
Endrin	mg/kg	0.2	-	-	<0.2	-	<0.2
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	-	-	<0.1	-	<0.1
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

OC Pesticides in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP11 0.2 SOIL - 6/4/2020 SE204895.026	TP11 0.5 SOIL - 6/4/2020 SE204895.027	TP12 0 SOIL - 6/4/2020 SE204895.028	TP12 0.5 SOIL - 6/4/2020 SE204895.029	TP12 0.7 SOIL - 6/4/2020 SE204895.030
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	-	-	-	-
o,p'-DDE	mg/kg	0.1	<0.1	-	-	-	-
Alpha Endosulfan	mg/kg	0.2	<0.2	-	-	-	-
Gamma Chlordane	mg/kg	0.1	<0.1	-	-	-	-
Alpha Chlordane	mg/kg	0.1	<0.1	-	-	-	-
trans-Nonachlor	mg/kg	0.1	<0.1	-	-	-	-
p,p'-DDE	mg/kg	0.1	<0.1	-	-	-	-
Dieldrin	mg/kg	0.2	<0.2	-	-	-	-
Endrin	mg/kg	0.2	<0.2	-	-	-	-
o,p'-DDD	mg/kg	0.1	<0.1	-	-	-	-
o,p'-DDT	mg/kg	0.1	<0.1	-	-	-	-
Beta Endosulfan	mg/kg	0.2	<0.2	-	-	-	-
p,p'-DDD	mg/kg	0.1	<0.1	-	-	-	-
p,p'-DDT	mg/kg	0.1	<0.1	-	-	-	-
Endosulfan sulphate	mg/kg	0.1	<0.1	-	-	-	-
Endrin Aldehyde	mg/kg	0.1	<0.1	-	-	-	-
Methoxychlor	mg/kg	0.1	<0.1	-	-	-	-
Endrin Ketone	mg/kg	0.1	<0.1	-	-	-	-
Isodrin	mg/kg	0.1	<0.1	-	-	-	-
Mirex	mg/kg	0.1	<0.1	-	-	-	-
Total CLP OC Pesticides	mg/kg	1	<1	-	-	-	-

OC Pesticides in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP13 0 SOIL - 6/4/2020 SE204895.031	TP13 0.3 SOIL - 6/4/2020 SE204895.032	TP13 0.5 SOIL - 6/4/2020 SE204895.033	TP14 0.3 SOIL - 6/4/2020 SE204895.034	TP14 0.5 SOIL - 6/4/2020 SE204895.035
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	-
o,p'-DDE	mg/kg	0.1	-	-	-	<0.1	-
Alpha Endosulfan	mg/kg	0.2	-	-	-	<0.2	-
Gamma Chlordane	mg/kg	0.1	-	-	-	<0.1	-
Alpha Chlordane	mg/kg	0.1	-	-	-	<0.1	-
trans-Nonachlor	mg/kg	0.1	-	-	-	<0.1	-
p,p'-DDE	mg/kg	0.1	-	-	-	<0.1	-
Dieldrin	mg/kg	0.2	-	-	-	<0.2	-
Endrin	mg/kg	0.2	-	-	-	<0.2	-
o,p'-DDD	mg/kg	0.1	-	-	-	<0.1	-
o,p'-DDT	mg/kg	0.1	-	-	-	<0.1	-
Beta Endosulfan	mg/kg	0.2	-	-	-	<0.2	-
p,p'-DDD	mg/kg	0.1	-	-	-	<0.1	-
p,p'-DDT	mg/kg	0.1	-	-	-	<0.1	-
Endosulfan sulphate	mg/kg	0.1	-	-	-	<0.1	-
Endrin Aldehyde	mg/kg	0.1	-	-	-	<0.1	-
Methoxychlor	mg/kg	0.1	-	-	-	<0.1	-
Endrin Ketone	mg/kg	0.1	-	-	-	<0.1	-
Isodrin	mg/kg	0.1	-	-	-	<0.1	-
Mirex	mg/kg	0.1	-	-	-	<0.1	-
Total CLP OC Pesticides	mg/kg	1	-	-	-	<1	-

OC Pesticides in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP15 0 SOIL - 6/4/2020 SE204895.036	TP15 0.5 SOIL - 6/4/2020 SE204895.037	TP16 0.5 SOIL - 6/4/2020 SE204895.038	TP17 0.3 SOIL - 6/4/2020 SE204895.040	TP18 0 SOIL - 6/4/2020 SE204895.041
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
o,p'-DDE	mg/kg	0.1	-	-	-	-	<0.1
Alpha Endosulfan	mg/kg	0.2	-	-	-	-	<0.2
Gamma Chlordane	mg/kg	0.1	-	-	-	-	<0.1
Alpha Chlordane	mg/kg	0.1	-	-	-	-	<0.1
trans-Nonachlor	mg/kg	0.1	-	-	-	-	<0.1
p,p'-DDE	mg/kg	0.1	-	-	-	-	<0.1
Dieldrin	mg/kg	0.2	-	-	-	-	<0.2
Endrin	mg/kg	0.2	-	-	-	-	<0.2
o,p'-DDD	mg/kg	0.1	-	-	-	-	<0.1
o,p'-DDT	mg/kg	0.1	-	-	-	-	<0.1
Beta Endosulfan	mg/kg	0.2	-	-	-	-	<0.2
p,p'-DDD	mg/kg	0.1	-	-	-	-	<0.1
p,p'-DDT	mg/kg	0.1	-	-	-	-	<0.1
Endosulfan sulphate	mg/kg	0.1	-	-	-	-	<0.1
Endrin Aldehyde	mg/kg	0.1	-	-	-	-	<0.1
Methoxychlor	mg/kg	0.1	-	-	-	-	<0.1
Endrin Ketone	mg/kg	0.1	-	-	-	-	<0.1
Isodrin	mg/kg	0.1	-	-	-	-	<0.1
Mirex	mg/kg	0.1	-	-	-	-	<0.1
Total CLP OC Pesticides	mg/kg	1	-	-	-	-	<1

OC Pesticides in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP19 0 SOIL - 7/4/2020 SE204895.042	TP19 0.4 SOIL - 7/4/2020 SE204895.043	TP20 0 SOIL - 6/4/2020 SE204895.044	TP20 0.4 SOIL - 6/4/2020 SE204895.045	TP21 0 SOIL - 7/4/2020 SE204895.046
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	-
o,p'-DDE	mg/kg	0.1	-	-	-	<0.1	-
Alpha Endosulfan	mg/kg	0.2	-	-	-	<0.2	-
Gamma Chlordane	mg/kg	0.1	-	-	-	<0.1	-
Alpha Chlordane	mg/kg	0.1	-	-	-	<0.1	-
trans-Nonachlor	mg/kg	0.1	-	-	-	<0.1	-
p,p'-DDE	mg/kg	0.1	-	-	-	<0.1	-
Dieldrin	mg/kg	0.2	-	-	-	<0.2	-
Endrin	mg/kg	0.2	-	-	-	<0.2	-
o,p'-DDD	mg/kg	0.1	-	-	-	<0.1	-
o,p'-DDT	mg/kg	0.1	-	-	-	<0.1	-
Beta Endosulfan	mg/kg	0.2	-	-	-	<0.2	-
p,p'-DDD	mg/kg	0.1	-	-	-	<0.1	-
p,p'-DDT	mg/kg	0.1	-	-	-	<0.1	-
Endosulfan sulphate	mg/kg	0.1	-	-	-	<0.1	-
Endrin Aldehyde	mg/kg	0.1	-	-	-	<0.1	-
Methoxychlor	mg/kg	0.1	-	-	-	<0.1	-
Endrin Ketone	mg/kg	0.1	-	-	-	<0.1	-
Isodrin	mg/kg	0.1	-	-	-	<0.1	-
Mirex	mg/kg	0.1	-	-	-	<0.1	-
Total CLP OC Pesticides	mg/kg	1	-	-	-	<1	-

OC Pesticides in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP21 1 SOIL - 7/4/2020 SE204895.047	TP22 0 SOIL - 7/4/2020 SE204895.048	TP22 1 SOIL - 7/4/2020 SE204895.049	TP23 0 SOIL - 7/4/2020 SE204895.050	TP23 0.4 SOIL - 7/4/2020 SE204895.051
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	<0.1	-	<0.1	-	-
Aldrin	mg/kg	0.1	<0.1	-	<0.1	-	-
Beta BHC	mg/kg	0.1	<0.1	-	<0.1	-	-
Delta BHC	mg/kg	0.1	<0.1	-	<0.1	-	-
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	-	-
Endrin	mg/kg	0.2	<0.2	-	<0.2	-	-
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	<0.1	-	<0.1	-	-
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	-	-

OC Pesticides in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP23 0.5 SOIL - 7/4/2020 SE204895.052	QC1 SOIL - 6/4/2020 SE204895.053	QC2 SOIL - 6/4/2020 SE204895.054
Hexachlorobenzene (HCB)	mg/kg	0.1	-	-	-
Alpha BHC	mg/kg	0.1	-	-	-
Lindane	mg/kg	0.1	-	-	-
Heptachlor	mg/kg	0.1	-	-	-
Aldrin	mg/kg	0.1	-	-	-
Beta BHC	mg/kg	0.1	-	-	-
Delta BHC	mg/kg	0.1	-	-	-
Heptachlor epoxide	mg/kg	0.1	-	-	-
o,p'-DDE	mg/kg	0.1	-	-	-
Alpha Endosulfan	mg/kg	0.2	-	-	-
Gamma Chlordane	mg/kg	0.1	-	-	-
Alpha Chlordane	mg/kg	0.1	-	-	-
trans-Nonachlor	mg/kg	0.1	-	-	-
p,p'-DDE	mg/kg	0.1	-	-	-
Dieldrin	mg/kg	0.2	-	-	-
Endrin	mg/kg	0.2	-	-	-
o,p'-DDD	mg/kg	0.1	-	-	-
o,p'-DDT	mg/kg	0.1	-	-	-
Beta Endosulfan	mg/kg	0.2	-	-	-
p,p'-DDD	mg/kg	0.1	-	-	-
p,p'-DDT	mg/kg	0.1	-	-	-
Endosulfan sulphate	mg/kg	0.1	-	-	-
Endrin Aldehyde	mg/kg	0.1	-	-	-
Methoxychlor	mg/kg	0.1	-	-	-
Endrin Ketone	mg/kg	0.1	-	-	-
Isodrin	mg/kg	0.1	-	-	-
Mirex	mg/kg	0.1	-	-	-
Total CLP OC Pesticides	mg/kg	1	-	-	-

OP Pesticides in Soil [AN420] Tested: 15/4/2020

PARAMETER	UOM	LOR	TP2 0.7 SOIL - 6/4/2020 SE204895.008	TP3 0.55 SOIL - 6/4/2020 SE204895.010	TP7 0 SOIL - 6/4/2020 SE204895.016	TP7 0.6 SOIL - 6/4/2020 SE204895.017	TP9 0.3 SOIL - 6/4/2020 SE204895.020
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	TP10 0.6 SOIL - 6/4/2020 SE204895.023	TP10 0.3 SOIL - 6/4/2020 SE204895.025	TP11 0.2 SOIL - 6/4/2020 SE204895.026	TP14 0.3 SOIL - 6/4/2020 SE204895.034	TP18 0 SOIL - 6/4/2020 SE204895.041
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	TP20 0.4 SOIL - 6/4/2020 SE204895.045	TP21 1 SOIL - 7/4/2020 SE204895.047	TP22 1 SOIL - 7/4/2020 SE204895.049
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7

PCBs in Soil [AN420] Tested: 15/4/2020

PARAMETER	UOM	LOR	BH1 1-1.1 SOIL - 6/4/2020 SE204895.001	BH1 2-4.2.5 SOIL - 6/4/2020 SE204895.002	BH2 1-1.45 SOIL - 6/4/2020 SE204895.003	BH2 2-2.45 SOIL - 6/4/2020 SE204895.004	TP1 0 SOIL - 6/4/2020 SE204895.005
Arochlor 1016	mg/kg	0.2	-	-	-	-	-
Arochlor 1221	mg/kg	0.2	-	-	-	-	-
Arochlor 1232	mg/kg	0.2	-	-	-	-	-
Arochlor 1242	mg/kg	0.2	-	-	-	-	-
Arochlor 1248	mg/kg	0.2	-	-	-	-	-
Arochlor 1254	mg/kg	0.2	-	-	-	-	-
Arochlor 1260	mg/kg	0.2	-	-	-	-	-
Arochlor 1262	mg/kg	0.2	-	-	-	-	-
Arochlor 1268	mg/kg	0.2	-	-	-	-	-
Total PCBs (Arochlors)	mg/kg	1	-	-	-	-	-

PARAMETER	UOM	LOR	TP1 1.6 SOIL - 6/4/2020 SE204895.006	TP2 0 SOIL - 6/4/2020 SE204895.007	TP2 0.7 SOIL - 6/4/2020 SE204895.008	TP3 0 SOIL - 6/4/2020 SE204895.009	TP3 0.55 SOIL - 6/4/2020 SE204895.010
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

PARAMETER	UOM	LOR	TP4 0 SOIL - 6/4/2020 SE204895.011	TP4 0.7 SOIL - 6/4/2020 SE204895.012	TP5 0 SOIL - 6/4/2020 SE204895.013	TP5 0.5 SOIL - 6/4/2020 SE204895.014	TP6 1 SOIL - 6/4/2020 SE204895.015
Arochlor 1016	mg/kg	0.2	-	-	-	-	-
Arochlor 1221	mg/kg	0.2	-	-	-	-	-
Arochlor 1232	mg/kg	0.2	-	-	-	-	-
Arochlor 1242	mg/kg	0.2	-	-	-	-	-
Arochlor 1248	mg/kg	0.2	-	-	-	-	-
Arochlor 1254	mg/kg	0.2	-	-	-	-	-
Arochlor 1260	mg/kg	0.2	-	-	-	-	-
Arochlor 1262	mg/kg	0.2	-	-	-	-	-
Arochlor 1268	mg/kg	0.2	-	-	-	-	-
Total PCBs (Arochlors)	mg/kg	1	-	-	-	-	-

PCBs in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP7 0 SOIL - 6/4/2020 SE204895.016	TP7 0.6 SOIL - 6/4/2020 SE204895.017	TP8 0 SOIL - 6/4/2020 SE204895.018	TP8 0.7 SOIL - 6/4/2020 SE204895.019	TP9 0.3 SOIL - 6/4/2020 SE204895.020
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	-	-	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	-	-	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	-	-	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	-	-	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	-	-	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	-	-	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	-	-	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	-	-	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	-	-	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	-	-	<1

PARAMETER	UOM	LOR	TP9 0.5 SOIL - 6/4/2020 SE204895.021	TP10 0 SOIL - 6/4/2020 SE204895.022	TP10 0.6 SOIL - 6/4/2020 SE204895.023	TP11 0 SOIL - 6/4/2020 SE204895.024	TP10 0.3 SOIL - 6/4/2020 SE204895.025
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

PARAMETER	UOM	LOR	TP11 0.2 SOIL - 6/4/2020 SE204895.026	TP11 0.5 SOIL - 6/4/2020 SE204895.027	TP12 0 SOIL - 6/4/2020 SE204895.028	TP12 0.5 SOIL - 6/4/2020 SE204895.029	TP12 0.7 SOIL - 6/4/2020 SE204895.030
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	-	-	-	-

PCBs in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP13 0 SOIL - 6/4/2020 SE204895.031	TP13 0.3 SOIL - 6/4/2020 SE204895.032	TP13 0.5 SOIL - 6/4/2020 SE204895.033	TP14 0.3 SOIL - 6/4/2020 SE204895.034	TP14 0.5 SOIL - 6/4/2020 SE204895.035
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	-

PARAMETER	UOM	LOR	TP15 0 SOIL - 6/4/2020 SE204895.036	TP15 0.5 SOIL - 6/4/2020 SE204895.037	TP16 0.5 SOIL - 6/4/2020 SE204895.038	TP17 0.3 SOIL - 6/4/2020 SE204895.040	TP18 0 SOIL - 6/4/2020 SE204895.041
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

PARAMETER	UOM	LOR	TP19 0 SOIL - 7/4/2020 SE204895.042	TP19 0.4 SOIL - 7/4/2020 SE204895.043	TP20 0 SOIL - 6/4/2020 SE204895.044	TP20 0.4 SOIL - 6/4/2020 SE204895.045	TP21 0 SOIL - 7/4/2020 SE204895.046
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	-

PCBs in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP21 1 SOIL - 7/4/2020 SE204895.047	TP22 0 SOIL - 7/4/2020 SE204895.048	TP22 1 SOIL - 7/4/2020 SE204895.049	TP23 0 SOIL - 7/4/2020 SE204895.050	TP23 0.4 SOIL - 7/4/2020 SE204895.051
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	-	-

PARAMETER	UOM	LOR	TP23 0.5 SOIL - 7/4/2020 SE204895.052	QC1 SOIL - 6/4/2020 SE204895.053	QC2 SOIL - 6/4/2020 SE204895.054
Arochlor 1016	mg/kg	0.2	-	-	-
Arochlor 1221	mg/kg	0.2	-	-	-
Arochlor 1232	mg/kg	0.2	-	-	-
Arochlor 1242	mg/kg	0.2	-	-	-
Arochlor 1248	mg/kg	0.2	-	-	-
Arochlor 1254	mg/kg	0.2	-	-	-
Arochlor 1260	mg/kg	0.2	-	-	-
Arochlor 1262	mg/kg	0.2	-	-	-
Arochlor 1268	mg/kg	0.2	-	-	-
Total PCBs (Arochlors)	mg/kg	1	-	-	-

Speciated Phenols in Soil [AN420] Tested: 15/4/2020

PARAMETER	UOM	LOR	TP2 0.7 SOIL - 6/4/2020 SE204895.008	TP3 0.55 SOIL - 6/4/2020 SE204895.010	TP7 0 SOIL - 6/4/2020 SE204895.016	TP7 0.6 SOIL - 6/4/2020 SE204895.017	TP9 0.3 SOIL - 6/4/2020 SE204895.020
Phenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1	<1	<1	<1	<1
Total Cresol	mg/kg	1.5	<1.5	<1.5	<1.5	<1.5	<1.5
2-chlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dimethylphenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-dichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-trichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-nitrophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-nitrophenol	mg/kg	1	<1	<1	<1	<1	<1
2,4,5-trichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1	<1	<1	<1	<1
Pentachlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dinitrophenol	mg/kg	2	<2	<2	<2	<2	<2
4-chloro-3-methylphenol	mg/kg	2	<2	<2	<2	<2	<2

PARAMETER	UOM	LOR	TP10 0.6 SOIL - 6/4/2020 SE204895.023	TP10 0.3 SOIL - 6/4/2020 SE204895.025	TP11 0.2 SOIL - 6/4/2020 SE204895.026	TP14 0.3 SOIL - 6/4/2020 SE204895.034	TP18 0 SOIL - 6/4/2020 SE204895.041
Phenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1	<1	<1	<1	<1
Total Cresol	mg/kg	1.5	<1.5	<1.5	<1.5	<1.5	<1.5
2-chlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dimethylphenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-dichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-trichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-nitrophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-nitrophenol	mg/kg	1	<1	<1	<1	<1	<1
2,4,5-trichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1	<1	<1	<1	<1
Pentachlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dinitrophenol	mg/kg	2	<2	<2	<2	<2	<2
4-chloro-3-methylphenol	mg/kg	2	<2	<2	<2	<2	<2

Speciated Phenols in Soil [AN420] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP20 0.4 SOIL - 6/4/2020 SE204895.045	TP21 1 SOIL - 7/4/2020 SE204895.047	TP22 1 SOIL - 7/4/2020 SE204895.049
Phenol	mg/kg	0.5	<0.5	<0.5	<0.5
2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5	<0.5	<0.5
3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1	<1	<1
Total Cresol	mg/kg	1.5	<1.5	<1.5	<1.5
2-chlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5
2,4-dimethylphenol	mg/kg	0.5	<0.5	<0.5	<0.5
2,6-dichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5
2,4-dichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5
2,4,6-trichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5
2-nitrophenol	mg/kg	0.5	<0.5	<0.5	<0.5
4-nitrophenol	mg/kg	1	<1	<1	<1
2,4,5-trichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5
2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1	<1	<1
Pentachlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5
2,4-dinitrophenol	mg/kg	2	<2	<2	<2
4-chloro-3-methylphenol	mg/kg	2	<2	<2	<2

pH in soil (1:5) [AN101] Tested: 16/4/2020

PARAMETER	UOM	LOR	BH1 1-1.1 SOIL - 6/4/2020 SE204895.001	TP8 0 SOIL - 6/4/2020 SE204895.018	TP11 0 SOIL - 6/4/2020 SE204895.024	TP14 0.3 SOIL - 6/4/2020 SE204895.034	TP17 0 SOIL - 6/4/2020 SE204895.039
pH	pH Units	0.1	**8.8**	**7.7**	**8.8**	**8.0**	**9.6**

PARAMETER	UOM	LOR	TP19 0 SOIL - 7/4/2020 SE204895.042	TP22 0 SOIL - 7/4/2020 SE204895.048	TP22 1 SOIL - 7/4/2020 SE204895.049
pH	pH Units	0.1	**8.4**	**7.0**	**7.3**

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR) [AN122] Tested: 15/4/2020

PARAMETER	UOM	LOR	BH1 1-1.1 SOIL - 6/4/2020 SE204895.001	TP8 0 SOIL - 6/4/2020 SE204895.018	TP11 0 SOIL - 6/4/2020 SE204895.024	TP14 0.3 SOIL - 6/4/2020 SE204895.034	TP17 0 SOIL - 6/4/2020 SE204895.039
Exchangeable Sodium, Na	mg/kg	2	36	8	38	4	83
Exchangeable Sodium, Na	meq/100g	0.01	0.15	0.03	0.16	0.02	0.36
Exchangeable Sodium Percentage*	%	0.1	4.2	4.3	1.3	1.2	1.3
Exchangeable Potassium, K	mg/kg	2	20	4	46	4	340
Exchangeable Potassium, K	meq/100g	0.01	0.05	0.01	0.12	0.01	0.88
Exchangeable Potassium Percentage*	%	0.1	1.4	1.3	0.9	0.7	3.0
Exchangeable Calcium, Ca	mg/kg	2	540	140	2400	280	5500
Exchangeable Calcium, Ca	meq/100g	0.01	2.7	0.71	12	1.4	27
Exchangeable Calcium Percentage*	%	0.1	74.6	89.9	93.0	94.4	95.2
Exchangeable Magnesium, Mg	mg/kg	2	88	4	76	7	19
Exchangeable Magnesium, Mg	meq/100g	0.02	0.72	0.04	0.62	0.05	0.16
Exchangeable Magnesium Percentage*	%	0.1	19.7	4.5	4.8	3.6	0.5
Cation Exchange Capacity	meq/100g	0.02	3.6	0.79	13	1.5	29

PARAMETER	UOM	LOR	TP19 0 SOIL - 7/4/2020 SE204895.042	TP22 0 SOIL - 7/4/2020 SE204895.048	TP22 1 SOIL - 7/4/2020 SE204895.049
Exchangeable Sodium, Na	mg/kg	2	19	14	23
Exchangeable Sodium, Na	meq/100g	0.01	0.08	0.06	0.10
Exchangeable Sodium Percentage*	%	0.1	1.1	2.7	3.4
Exchangeable Potassium, K	mg/kg	2	51	18	30
Exchangeable Potassium, K	meq/100g	0.01	0.13	0.05	0.08
Exchangeable Potassium Percentage*	%	0.1	1.8	2.1	2.6
Exchangeable Calcium, Ca	mg/kg	2	1300	340	420
Exchangeable Calcium, Ca	meq/100g	0.01	6.7	1.7	2.1
Exchangeable Calcium Percentage*	%	0.1	92.1	75.8	72.6
Exchangeable Magnesium, Mg	mg/kg	2	44	53	76
Exchangeable Magnesium, Mg	meq/100g	0.02	0.36	0.43	0.62
Exchangeable Magnesium Percentage*	%	0.1	5.0	19.4	21.4
Cation Exchange Capacity	meq/100g	0.02	7.2	2.2	2.9

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 15/4/2020

PARAMETER	UOM	LOR	BH1 1-1.1 SOIL - 6/4/2020 SE204895.001	BH1 2-4.2.5 SOIL - 6/4/2020 SE204895.002	BH2 1-1.45 SOIL - 6/4/2020 SE204895.003	BH2 2-2.45 SOIL - 6/4/2020 SE204895.004	TP1 0 SOIL - 6/4/2020 SE204895.005
Arsenic, As	mg/kg	1	2	2	<1	<1	6
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	4.0	1.0	5.7	2.2	42
Copper, Cu	mg/kg	0.5	6.8	1.2	4.2	0.9	56
Lead, Pb	mg/kg	1	6	<1	4	<1	70
Nickel, Ni	mg/kg	0.5	8.2	0.9	4.5	0.5	17
Zinc, Zn	mg/kg	2	57	<2.0	61	4.0	1300

PARAMETER	UOM	LOR	TP1 1.6 SOIL - 6/4/2020 SE204895.006	TP2 0 SOIL - 6/4/2020 SE204895.007	TP2 0.7 SOIL - 6/4/2020 SE204895.008	TP3 0 SOIL - 6/4/2020 SE204895.009	TP3 0.55 SOIL - 6/4/2020 SE204895.010
Arsenic, As	mg/kg	1	80	6	7	100	<1
Cadmium, Cd	mg/kg	0.3	0.3	<0.3	<0.3	1.2	<0.3
Chromium, Cr	mg/kg	0.5	11	3.6	8.2	31	1.7
Copper, Cu	mg/kg	0.5	53	11	67	680	1.3
Lead, Pb	mg/kg	1	33	9	120	840	2
Nickel, Ni	mg/kg	0.5	11	9.8	4.1	4.8	<0.5
Zinc, Zn	mg/kg	2	510	74	1500	13000	33

PARAMETER	UOM	LOR	TP4 0 SOIL - 6/4/2020 SE204895.011	TP4 0.7 SOIL - 6/4/2020 SE204895.012	TP5 0 SOIL - 6/4/2020 SE204895.013	TP5 0.5 SOIL - 6/4/2020 SE204895.014	TP6 1 SOIL - 6/4/2020 SE204895.015
Arsenic, As	mg/kg	1	3	<1	900	1	<1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	4.8	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	7.3	1.4	61	0.6	1.4
Copper, Cu	mg/kg	0.5	22	2.8	1700	3.7	0.9
Lead, Pb	mg/kg	1	34	4	940	5	2
Nickel, Ni	mg/kg	0.5	7.1	0.9	52	<0.5	<0.5
Zinc, Zn	mg/kg	2	400	59	18000	65	56

PARAMETER	UOM	LOR	TP7 0 SOIL - 6/4/2020 SE204895.016	TP7 0.6 SOIL - 6/4/2020 SE204895.017	TP8 0 SOIL - 6/4/2020 SE204895.018	TP8 0.7 SOIL - 6/4/2020 SE204895.019	TP9 0.3 SOIL - 6/4/2020 SE204895.020
Arsenic, As	mg/kg	1	940	2	1000	<1	24
Cadmium, Cd	mg/kg	0.3	3.4	<0.3	5.1	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	72	3.9	37	2.8	7.9
Copper, Cu	mg/kg	0.5	2100	18	2400	11	40
Lead, Pb	mg/kg	1	1100	33	4200	18	46
Nickel, Ni	mg/kg	0.5	38	0.8	26	<0.5	6.3
Zinc, Zn	mg/kg	2	25000	430	27000	170	1100

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 15/4/2020

(continued)

PARAMETER	UOM	LOR	TP9 0.5 SOIL - 6/4/2020 SE204895.021	TP10 0 SOIL - 6/4/2020 SE204895.022	TP10 0.6 SOIL - 6/4/2020 SE204895.023	TP11 0 SOIL - 6/4/2020 SE204895.024	TP10 0.3 SOIL - 6/4/2020 SE204895.025
Arsenic, As	mg/kg	1	6	27	1	12	<1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	6.0	6.7	4.7	13	1.8
Copper, Cu	mg/kg	0.5	41	71	21	66	11
Lead, Pb	mg/kg	1	60	83	36	83	12
Nickel, Ni	mg/kg	0.5	7.5	10	0.7	11	<0.5
Zinc, Zn	mg/kg	2	780	1200	430	1600	170

PARAMETER	UOM	LOR	TP11 0.2 SOIL - 6/4/2020 SE204895.026	TP11 0.5 SOIL - 6/4/2020 SE204895.027	TP12 0 SOIL - 6/4/2020 SE204895.028	TP12 0.5 SOIL - 6/4/2020 SE204895.029	TP12 0.7 SOIL - 6/4/2020 SE204895.030
Arsenic, As	mg/kg	1	<1	<1	3	29	<1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	3.9	1.9	8.2	7.8	1.9
Copper, Cu	mg/kg	0.5	4.0	1.0	13	55	3.5
Lead, Pb	mg/kg	1	6	<1	25	71	6
Nickel, Ni	mg/kg	0.5	<0.5	<0.5	3.7	8.4	0.8
Zinc, Zn	mg/kg	2	620	30	370	900	69

PARAMETER	UOM	LOR	TP13 0 SOIL - 6/4/2020 SE204895.031	TP13 0.3 SOIL - 6/4/2020 SE204895.032	TP13 0.5 SOIL - 6/4/2020 SE204895.033	TP14 0.3 SOIL - 6/4/2020 SE204895.034	TP14 0.5 SOIL - 6/4/2020 SE204895.035
Arsenic, As	mg/kg	1	17	100	4	11	<1
Cadmium, Cd	mg/kg	0.3	<0.3	0.9	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	11	27	3.1	18	2.9
Copper, Cu	mg/kg	0.5	66	520	25	65	0.8
Lead, Pb	mg/kg	1	75	1100	62	120	2
Nickel, Ni	mg/kg	0.5	16	5.1	<0.5	1.4	<0.5
Zinc, Zn	mg/kg	2	1200	10000	490	2500	170

PARAMETER	UOM	LOR	TP15 0 SOIL - 6/4/2020 SE204895.036	TP15 0.5 SOIL - 6/4/2020 SE204895.037	TP16 0.5 SOIL - 6/4/2020 SE204895.038	TP17 0.3 SOIL - 6/4/2020 SE204895.040	TP18 0 SOIL - 6/4/2020 SE204895.041
Arsenic, As	mg/kg	1	4	1	1	72	5
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	0.9	<0.3
Chromium, Cr	mg/kg	0.5	5.8	11	20	32	110
Copper, Cu	mg/kg	0.5	14	1.8	2.1	620	58
Lead, Pb	mg/kg	1	27	17	28	1000	100
Nickel, Ni	mg/kg	0.5	2.7	0.8	1.3	7.2	5.5
Zinc, Zn	mg/kg	2	400	480	750	16000	980

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 15/4/2020

(continued)

PARAMETER	UOM	LOR	TP19 0 SOIL - 7/4/2020 SE204895.042	TP19 0.4 SOIL - 7/4/2020 SE204895.043	TP20 0 SOIL - 6/4/2020 SE204895.044	TP20 0.4 SOIL - 6/4/2020 SE204895.045	TP21 0 SOIL - 7/4/2020 SE204895.046
Arsenic, As	mg/kg	1	4	5	<1	<1	4
Cadmium, Cd	mg/kg	0.3	0.5	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	42	15	1.7	17	4.9
Copper, Cu	mg/kg	0.5	100	250	1.6	21	21
Lead, Pb	mg/kg	1	190	410	3	55	43
Nickel, Ni	mg/kg	0.5	14	1.6	1.3	1.5	4.8
Zinc, Zn	mg/kg	2	2400	3600	29	2200	480

PARAMETER	UOM	LOR	TP21 1 SOIL - 7/4/2020 SE204895.047	TP22 0 SOIL - 7/4/2020 SE204895.048	TP22 1 SOIL - 7/4/2020 SE204895.049	TP23 0 SOIL - 7/4/2020 SE204895.050	TP23 0.4 SOIL - 7/4/2020 SE204895.051
Arsenic, As	mg/kg	1	110	2	1	3	1
Cadmium, Cd	mg/kg	0.3	0.6	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	15	2.7	2.9	5.2	16
Copper, Cu	mg/kg	0.5	440	4.4	4.3	8.6	34
Lead, Pb	mg/kg	1	660	6	7	16	62
Nickel, Ni	mg/kg	0.5	3.9	2.1	1.7	3.3	1.4
Zinc, Zn	mg/kg	2	5800	96	95	340	920

PARAMETER	UOM	LOR	TP23 0.5 SOIL - 7/4/2020 SE204895.052	QC1 SOIL - 6/4/2020 SE204895.053	QC2 SOIL - 6/4/2020 SE204895.054
Arsenic, As	mg/kg	1	<1	2	300
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	3.4
Chromium, Cr	mg/kg	0.5	3.1	4.8	51
Copper, Cu	mg/kg	0.5	5.5	14	3200
Lead, Pb	mg/kg	1	11	8	6000
Nickel, Ni	mg/kg	0.5	<0.5	5.1	12
Zinc, Zn	mg/kg	2	140	170	44000

Mercury in Soil [AN312] Tested: 15/4/2020

PARAMETER	UOM	LOR	BH1 1-1.1 SOIL - 6/4/2020 SE204895.001	BH1 2-4.2.5 SOIL - 6/4/2020 SE204895.002	BH2 1-1.45 SOIL - 6/4/2020 SE204895.003	BH2 2-2.45 SOIL - 6/4/2020 SE204895.004	TP1 0 SOIL - 6/4/2020 SE204895.005
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	TP1 1.6 SOIL - 6/4/2020 SE204895.006	TP2 0 SOIL - 6/4/2020 SE204895.007	TP2 0.7 SOIL - 6/4/2020 SE204895.008	TP3 0 SOIL - 6/4/2020 SE204895.009	TP3 0.55 SOIL - 6/4/2020 SE204895.010
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	TP4 0 SOIL - 6/4/2020 SE204895.011	TP4 0.7 SOIL - 6/4/2020 SE204895.012	TP5 0 SOIL - 6/4/2020 SE204895.013	TP5 0.5 SOIL - 6/4/2020 SE204895.014	TP6 1 SOIL - 6/4/2020 SE204895.015
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	TP7 0 SOIL - 6/4/2020 SE204895.016	TP7 0.6 SOIL - 6/4/2020 SE204895.017	TP8 0 SOIL - 6/4/2020 SE204895.018	TP8 0.7 SOIL - 6/4/2020 SE204895.019	TP9 0.3 SOIL - 6/4/2020 SE204895.020
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	TP9 0.5 SOIL - 6/4/2020 SE204895.021	TP10 0 SOIL - 6/4/2020 SE204895.022	TP10 0.6 SOIL - 6/4/2020 SE204895.023	TP11 0 SOIL - 6/4/2020 SE204895.024	TP10 0.3 SOIL - 6/4/2020 SE204895.025
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	TP11 0.2 SOIL - 6/4/2020 SE204895.026	TP11 0.5 SOIL - 6/4/2020 SE204895.027	TP12 0 SOIL - 6/4/2020 SE204895.028	TP12 0.5 SOIL - 6/4/2020 SE204895.029	TP12 0.7 SOIL - 6/4/2020 SE204895.030
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	TP13 0 SOIL - 6/4/2020 SE204895.031	TP13 0.3 SOIL - 6/4/2020 SE204895.032	TP13 0.5 SOIL - 6/4/2020 SE204895.033	TP14 0.3 SOIL - 6/4/2020 SE204895.034	TP14 0.5 SOIL - 6/4/2020 SE204895.035
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Mercury in Soil [AN312] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP15 0 SOIL - 6/4/2020 SE204895.036	TP15 0.5 SOIL - 6/4/2020 SE204895.037	TP16 0.5 SOIL - 6/4/2020 SE204895.038	TP17 0.3 SOIL - 6/4/2020 SE204895.040	TP18 0 SOIL - 6/4/2020 SE204895.041
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	TP19 0 SOIL - 7/4/2020 SE204895.042	TP19 0.4 SOIL - 7/4/2020 SE204895.043	TP20 0 SOIL - 6/4/2020 SE204895.044	TP20 0.4 SOIL - 6/4/2020 SE204895.045	TP21 0 SOIL - 7/4/2020 SE204895.046
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	TP21 1 SOIL - 7/4/2020 SE204895.047	TP22 0 SOIL - 7/4/2020 SE204895.048	TP22 1 SOIL - 7/4/2020 SE204895.049	TP23 0 SOIL - 7/4/2020 SE204895.050	TP23 0.4 SOIL - 7/4/2020 SE204895.051
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	TP23 0.5 SOIL - 7/4/2020 SE204895.052	QC1 SOIL - 6/4/2020 SE204895.053	QC2 SOIL - 6/4/2020 SE204895.054
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05

Moisture Content [AN002] Tested: 15/4/2020

PARAMETER	UOM	LOR	BH1 1-1.1 SOIL - 6/4/2020 SE204895.001	BH1 2-4.2.5 SOIL - 6/4/2020 SE204895.002	BH2 1-1.45 SOIL - 6/4/2020 SE204895.003	BH2 2-2.45 SOIL - 6/4/2020 SE204895.004	TP1 0 SOIL - 6/4/2020 SE204895.005
% Moisture	%w/w	1	13.6	21.3	4.9	13.8	11.7

PARAMETER	UOM	LOR	TP1 1.6 SOIL - 6/4/2020 SE204895.006	TP2 0 SOIL - 6/4/2020 SE204895.007	TP2 0.7 SOIL - 6/4/2020 SE204895.008	TP3 0 SOIL - 6/4/2020 SE204895.009	TP3 0.55 SOIL - 6/4/2020 SE204895.010
% Moisture	%w/w	1	7.2	3.3	7.3	9.5	19.2

PARAMETER	UOM	LOR	TP4 0 SOIL - 6/4/2020 SE204895.011	TP4 0.7 SOIL - 6/4/2020 SE204895.012	TP5 0 SOIL - 6/4/2020 SE204895.013	TP5 0.5 SOIL - 6/4/2020 SE204895.014	TP6 1 SOIL - 6/4/2020 SE204895.015
% Moisture	%w/w	1	6.4	9.1	8.7	7.7	5.5

PARAMETER	UOM	LOR	TP7 0 SOIL - 6/4/2020 SE204895.016	TP7 0.6 SOIL - 6/4/2020 SE204895.017	TP8 0 SOIL - 6/4/2020 SE204895.018	TP8 0.7 SOIL - 6/4/2020 SE204895.019	TP9 0.3 SOIL - 6/4/2020 SE204895.020
% Moisture	%w/w	1	10.2	6.1	8.3	10.5	3.6

PARAMETER	UOM	LOR	TP9 0.5 SOIL - 6/4/2020 SE204895.021	TP10 0 SOIL - 6/4/2020 SE204895.022	TP10 0.6 SOIL - 6/4/2020 SE204895.023	TP11 0 SOIL - 6/4/2020 SE204895.024	TP10 0.3 SOIL - 6/4/2020 SE204895.025
% Moisture	%w/w	1	6.2	7.2	8.3	3.4	8.0

PARAMETER	UOM	LOR	TP11 0.2 SOIL - 6/4/2020 SE204895.026	TP11 0.5 SOIL - 6/4/2020 SE204895.027	TP12 0 SOIL - 6/4/2020 SE204895.028	TP12 0.5 SOIL - 6/4/2020 SE204895.029	TP12 0.7 SOIL - 6/4/2020 SE204895.030
% Moisture	%w/w	1	4.8	3.3	5.1	6.0	3.9

PARAMETER	UOM	LOR	TP13 0 SOIL - 6/4/2020 SE204895.031	TP13 0.3 SOIL - 6/4/2020 SE204895.032	TP13 0.5 SOIL - 6/4/2020 SE204895.033	TP14 0.3 SOIL - 6/4/2020 SE204895.034	TP14 0.5 SOIL - 6/4/2020 SE204895.035
% Moisture	%w/w	1	7.5	6.3	6.8	8.8	6.2

Moisture Content [AN002] Tested: 15/4/2020 (continued)

PARAMETER	UOM	LOR	TP15 0 SOIL - 6/4/2020 SE204895.036	TP15 0.5 SOIL - 6/4/2020 SE204895.037	TP16 0.5 SOIL - 6/4/2020 SE204895.038	TP17 0 SOIL - 6/4/2020 SE204895.039	TP17 0.3 SOIL - 6/4/2020 SE204895.040
% Moisture	%w/w	1	9.7	9.3	45.5	8.4	10.5

PARAMETER	UOM	LOR	TP18 0 SOIL - 6/4/2020 SE204895.041	TP19 0 SOIL - 7/4/2020 SE204895.042	TP19 0.4 SOIL - 7/4/2020 SE204895.043	TP20 0 SOIL - 6/4/2020 SE204895.044	TP20 0.4 SOIL - 6/4/2020 SE204895.045
% Moisture	%w/w	1	15.3	9.2	9.2	18.4	15.2

PARAMETER	UOM	LOR	TP21 0 SOIL - 7/4/2020 SE204895.046	TP21 1 SOIL - 7/4/2020 SE204895.047	TP22 0 SOIL - 7/4/2020 SE204895.048	TP22 1 SOIL - 7/4/2020 SE204895.049	TP23 0 SOIL - 7/4/2020 SE204895.050
% Moisture	%w/w	1	4.7	7.8	6.3	4.6	15.7

PARAMETER	UOM	LOR	TP23 0.4 SOIL - 7/4/2020 SE204895.051	TP23 0.5 SOIL - 7/4/2020 SE204895.052	QC1 SOIL - 6/4/2020 SE204895.053	QC2 SOIL - 6/4/2020 SE204895.054	Trip Blank SOIL - 6/4/2020 SE204895.055
% Moisture	%w/w	1	8.3	6.1	19.8	8.7	<1.0

Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 15/4/2020

PARAMETER	UOM	LOR	QCA WATER - 6/4/2020 SE204895.057
Arsenic, As	µg/L	1	<1
Cadmium, Cd	µg/L	0.1	<0.1
Copper, Cu	µg/L	1	<1
Chromium, Cr	µg/L	1	<1
Nickel, Ni	µg/L	1	<1
Lead, Pb	µg/L	1	<1
Zinc, Zn	µg/L	5	**43**

Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 16/4/2020

PARAMETER	UOM	LOR	QCA WATER - 6/4/2020 SE204895.057
Mercury	mg/L	0.0001	<0.0001

METHOD	METHODOLOGY SUMMARY
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
AN020	Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.
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.
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 referenced to Rayment and Lyons, 2011, sections 15D3 and 15N1.-
AN311(Perth)/AN312	Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.
AN312	Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500
AN318	Determination of elements at trace level in waters by ICP-MS technique,, referenced to USEPA 6020B and USEPA 200.8 (5.4).
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is reported directly and also corrected by subtracting Naphthalene (from VOC method AN433) where available.
AN403	Additionally, the volatile C6-C9 fraction may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRH-Si) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents .
AN403	The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.
AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN420	SVOC Compounds: Semi-Volatile Organic Compounds (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).

AN433	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC`s are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.

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.		

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

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

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

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

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

a. 1 Bq is equivalent to 27 pCi
b. 37 MBq is equivalent to 1 mCi

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

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

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

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client only. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

This report must not be reproduced, except in full.

STATEMENT OF QA/QC PERFORMANCE

SE204895 R1

CLIENT DETAILS

Contact	James McMahon
Client	JM ENVIRONMENTS
Address	37 TOOKE STREET COOKS HILL NSW 2300
Telephone	0427 893 668
Facsimile	(Not specified)
Email	james@jmenvironments.com
Project	**JME2020**
Order Number	**JME2020**
Samples	57

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	**SE204895 R1**
Date Received	08 Apr 2020
Date Reported	21 Apr 2020

COMMENTS

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

The data relating to sampling was taken from the Chain of Custody document.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

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

Extraction Date	pH in soil (1:5)	8 items
Surrogate	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	1 item
Duplicate	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	5 items
	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	5 items
	Volatile Petroleum Hydrocarbons in Soil	4 items
Matrix Spike	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	3 items
	VOC's in Soil	1 item

SAMPLE SUMMARY

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice
Samples received in correct containers	Yes	Sample counts by matrix	56 Soil, 1 Water
Date documentation received	8/4/2020	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	16°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

HOLDING TIME SUMMARY

SE204895 R1

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
BH1 1-1.1	SE204895.001	LB197299	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP8 0	SE204895.018	LB197299	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP11 0	SE204895.024	LB197299	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP14 0.3	SE204895.034	LB197299	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP17 0	SE204895.039	LB197299	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP19 0	SE204895.042	LB197299	07 Apr 2020	08 Apr 2020	05 May 2020	15 Apr 2020	05 May 2020	17 Apr 2020
TP22 0	SE204895.048	LB197299	07 Apr 2020	08 Apr 2020	05 May 2020	15 Apr 2020	05 May 2020	17 Apr 2020
TP22 1	SE204895.049	LB197299	07 Apr 2020	08 Apr 2020	05 May 2020	15 Apr 2020	05 May 2020	17 Apr 2020

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
QCA	SE204895.057	LB197375	06 Apr 2020	08 Apr 2020	04 May 2020	16 Apr 2020	04 May 2020	16 Apr 2020

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1 1-1.1	SE204895.001	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
BH1 2-4.2.5	SE204895.002	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
BH2 1-1.45	SE204895.003	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
BH2 2-2.45	SE204895.004	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP1 0	SE204895.005	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP1 1.6	SE204895.006	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP2 0	SE204895.007	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP2 0.7	SE204895.008	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP3 0	SE204895.009	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP3 0.55	SE204895.010	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP4 0	SE204895.011	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP4 0.7	SE204895.012	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP5 0	SE204895.013	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP5 0.5	SE204895.014	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP6 1	SE204895.015	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP7 0	SE204895.016	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP7 0.6	SE204895.017	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP8 0	SE204895.018	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP8 0.7	SE204895.019	LB197290	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP9 0.3	SE204895.020	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP9 0.5	SE204895.021	LB197726	06 Apr 2020	08 Apr 2020	04 May 2020	21 Apr 2020	04 May 2020	21 Apr 2020
TP10 0	SE204895.022	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP10 0.6	SE204895.023	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP11 0	SE204895.024	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP10 0.3	SE204895.025	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP11 0.2	SE204895.026	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP11 0.5	SE204895.027	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP12 0	SE204895.028	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP12 0.5	SE204895.029	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP12 0.7	SE204895.030	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP13 0	SE204895.031	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP13 0.3	SE204895.032	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP13 0.5	SE204895.033	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP14 0.3	SE204895.034	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP14 0.5	SE204895.035	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP15 0	SE204895.036	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP15 0.5	SE204895.037	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP16 0.5	SE204895.038	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP17 0.3	SE204895.040	LB197291	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	17 Apr 2020
TP18 0	SE204895.041	LB197292	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	16 Apr 2020
TP19 0	SE204895.042	LB197292	07 Apr 2020	08 Apr 2020	05 May 2020	15 Apr 2020	05 May 2020	16 Apr 2020
TP19 0.4	SE204895.043	LB197292	07 Apr 2020	08 Apr 2020	05 May 2020	15 Apr 2020	05 May 2020	16 Apr 2020
TP20 0	SE204895.044	LB197292	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	16 Apr 2020
TP20 0.4	SE204895.045	LB197292	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	16 Apr 2020
TP21 0	SE204895.046	LB197292	07 Apr 2020	08 Apr 2020	05 May 2020	15 Apr 2020	05 May 2020	16 Apr 2020

HOLDING TIME SUMMARY

SE204895 R1

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
TP21 1	SE204895.047	LB197292	07 Apr 2020	08 Apr 2020	05 May 2020	15 Apr 2020	05 May 2020	16 Apr 2020
TP22 0	SE204895.048	LB197292	07 Apr 2020	08 Apr 2020	05 May 2020	15 Apr 2020	05 May 2020	16 Apr 2020
TP22 1	SE204895.049	LB197292	07 Apr 2020	08 Apr 2020	05 May 2020	15 Apr 2020	05 May 2020	16 Apr 2020
TP23 0	SE204895.050	LB197292	07 Apr 2020	08 Apr 2020	05 May 2020	15 Apr 2020	05 May 2020	16 Apr 2020
TP23 0.4	SE204895.051	LB197292	07 Apr 2020	08 Apr 2020	05 May 2020	15 Apr 2020	05 May 2020	16 Apr 2020
TP23 0.5	SE204895.052	LB197292	07 Apr 2020	08 Apr 2020	05 May 2020	15 Apr 2020	05 May 2020	16 Apr 2020
QC1	SE204895.053	LB197292	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	16 Apr 2020
QC2	SE204895.054	LB197292	06 Apr 2020	08 Apr 2020	04 May 2020	15 Apr 2020	04 May 2020	16 Apr 2020

Moisture Content

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1 1-1.1	SE204895.001	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
BH1 2-4.2.5	SE204895.002	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
BH2 1-1.45	SE204895.003	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
BH2 2-2.45	SE204895.004	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP1 0	SE204895.005	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP1 1.6	SE204895.006	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP2 0	SE204895.007	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP2 0.7	SE204895.008	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP3 0	SE204895.009	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP3 0.55	SE204895.010	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP4 0	SE204895.011	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP4 0.7	SE204895.012	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP5 0	SE204895.013	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP5 0.5	SE204895.014	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP6 1	SE204895.015	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP7 0	SE204895.016	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP7 0.6	SE204895.017	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP8 0	SE204895.018	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP8 0.7	SE204895.019	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP9 0.3	SE204895.020	LB197269	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP9 0.5	SE204895.021	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP10 0	SE204895.022	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP10 0.6	SE204895.023	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP11 0	SE204895.024	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP10 0.3	SE204895.025	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP11 0.2	SE204895.026	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP11 0.5	SE204895.027	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP12 0	SE204895.028	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP12 0.5	SE204895.029	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP12 0.7	SE204895.030	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP13 0	SE204895.031	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP13 0.3	SE204895.032	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP13 0.5	SE204895.033	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP14 0.3	SE204895.034	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP14 0.5	SE204895.035	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP15 0	SE204895.036	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP15 0.5	SE204895.037	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP16 0.5	SE204895.038	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP17 0	SE204895.039	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP17 0.3	SE204895.040	LB197270	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP18 0	SE204895.041	LB197271	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP19 0	SE204895.042	LB197271	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP19 0.4	SE204895.043	LB197271	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP20 0	SE204895.044	LB197271	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP20 0.4	SE204895.045	LB197271	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP21 0	SE204895.046	LB197271	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP21 1	SE204895.047	LB197271	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP22 0	SE204895.048	LB197271	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP22 1	SE204895.049	LB197271	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020

HOLDING TIME SUMMARY

SE204895 R1

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
TP23 0	SE204895.050	LB197271	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP23 0.4	SE204895.051	LB197271	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
TP23 0.5	SE204895.052	LB197271	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
QC1	SE204895.053	LB197271	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
QC2	SE204895.054	LB197271	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020
Trip Blank	SE204895.055	LB197271	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	20 Apr 2020	16 Apr 2020

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1 1-1.1	SE204895.001	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
BH1 2-4.2.5	SE204895.002	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
BH2 1-1.45	SE204895.003	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
BH2 2-2.45	SE204895.004	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP1 0	SE204895.005	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP1 1.6	SE204895.006	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP2 0	SE204895.007	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP2 0.7	SE204895.008	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP3 0	SE204895.009	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP3 0.55	SE204895.010	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP4 0	SE204895.011	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP4 0.7	SE204895.012	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP5 0	SE204895.013	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP5 0.5	SE204895.014	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP6 1	SE204895.015	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP7 0	SE204895.016	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP7 0.6	SE204895.017	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP8 0	SE204895.018	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP8 0.7	SE204895.019	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP9 0.3	SE204895.020	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP9 0.5	SE204895.021	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP10 0	SE204895.022	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP10 0.6	SE204895.023	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP11 0	SE204895.024	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP10 0.3	SE204895.025	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP11 0.2	SE204895.026	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP11 0.5	SE204895.027	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP12 0	SE204895.028	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP12 0.5	SE204895.029	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP12 0.7	SE204895.030	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP13 0	SE204895.031	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP13 0.3	SE204895.032	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP13 0.5	SE204895.033	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP14 0.3	SE204895.034	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP14 0.5	SE204895.035	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP15 0	SE204895.036	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP15 0.5	SE204895.037	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP16 0.5	SE204895.038	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP17 0.3	SE204895.040	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP18 0	SE204895.041	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP19 0	SE204895.042	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP19 0.4	SE204895.043	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP20 0	SE204895.044	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP20 0.4	SE204895.045	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP21 0	SE204895.046	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP21 1	SE204895.047	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP22 0	SE204895.048	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP22 1	SE204895.049	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP23 0	SE204895.050	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP23 0.4	SE204895.051	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP23 0.5	SE204895.052	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020

HOLDING TIME SUMMARY

SE204895 R1

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
QC1	SE204895.053	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
QC2	SE204895.054	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1 1-1.1	SE204895.001	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
BH1 2-4.2.5	SE204895.002	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
BH2 1-1.45	SE204895.003	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
BH2 2-2.45	SE204895.004	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP1 0	SE204895.005	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP1 1.6	SE204895.006	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP2 0	SE204895.007	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP2 0.7	SE204895.008	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP3 0	SE204895.009	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP3 0.55	SE204895.010	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP4 0	SE204895.011	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP4 0.7	SE204895.012	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP5 0	SE204895.013	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP5 0.5	SE204895.014	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP6 1	SE204895.015	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP7 0	SE204895.016	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP7 0.6	SE204895.017	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP8 0	SE204895.018	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP8 0.7	SE204895.019	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP9 0.3	SE204895.020	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP9 0.5	SE204895.021	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP10 0	SE204895.022	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP10 0.6	SE204895.023	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP11 0	SE204895.024	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP10 0.3	SE204895.025	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP11 0.2	SE204895.026	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP11 0.5	SE204895.027	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP12 0	SE204895.028	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP12 0.5	SE204895.029	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP12 0.7	SE204895.030	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP13 0	SE204895.031	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP13 0.3	SE204895.032	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP13 0.5	SE204895.033	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP14 0.3	SE204895.034	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP14 0.5	SE204895.035	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP15 0	SE204895.036	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP15 0.5	SE204895.037	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP16 0.5	SE204895.038	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP17 0.3	SE204895.040	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP18 0	SE204895.041	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP19 0	SE204895.042	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP19 0.4	SE204895.043	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP20 0	SE204895.044	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP20 0.4	SE204895.045	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP21 0	SE204895.046	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP21 1	SE204895.047	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP22 0	SE204895.048	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP22 1	SE204895.049	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP23 0	SE204895.050	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP23 0.4	SE204895.051	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP23 0.5	SE204895.052	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
QC1	SE204895.053	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
QC2	SE204895.054	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref

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
BH1 1-1.1	SE204895.001	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
BH1 2-4.2.5	SE204895.002	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
BH2 1-1.45	SE204895.003	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
BH2 2-2.45	SE204895.004	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP1 0	SE204895.005	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP1 1.6	SE204895.006	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP2 0	SE204895.007	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP2 0.7	SE204895.008	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP3 0	SE204895.009	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP3 0.55	SE204895.010	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP4 0	SE204895.011	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP4 0.7	SE204895.012	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP5 0	SE204895.013	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP5 0.5	SE204895.014	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP6 1	SE204895.015	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP7 0	SE204895.016	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP7 0.6	SE204895.017	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP8 0	SE204895.018	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP8 0.7	SE204895.019	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP9 0.3	SE204895.020	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP9 0.5	SE204895.021	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP10 0	SE204895.022	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP10 0.6	SE204895.023	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP11 0	SE204895.024	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP10 0.3	SE204895.025	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP11 0.2	SE204895.026	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP11 0.5	SE204895.027	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP12 0	SE204895.028	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP12 0.5	SE204895.029	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP12 0.7	SE204895.030	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP13 0	SE204895.031	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP13 0.3	SE204895.032	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP13 0.5	SE204895.033	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP14 0.3	SE204895.034	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP14 0.5	SE204895.035	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP15 0	SE204895.036	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP15 0.5	SE204895.037	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP16 0.5	SE204895.038	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP17 0.3	SE204895.040	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP18 0	SE204895.041	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP19 0	SE204895.042	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP19 0.4	SE204895.043	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP20 0	SE204895.044	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP20 0.4	SE204895.045	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP21 0	SE204895.046	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP21 1	SE204895.047	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP22 0	SE204895.048	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP22 1	SE204895.049	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP23 0	SE204895.050	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP23 0.4	SE204895.051	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP23 0.5	SE204895.052	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
QC1	SE204895.053	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
QC2	SE204895.054	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1 1-1.1	SE204895.001	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
BH1 2-4.2.5	SE204895.002	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
BH2 1-1.45	SE204895.003	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
BH2 2-2.45	SE204895.004	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020

HOLDING TIME SUMMARY

SE204895 R1

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
TP1 0	SE204895.005	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP1 1.6	SE204895.006	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP2 0	SE204895.007	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP2 0.7	SE204895.008	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP3 0	SE204895.009	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP3 0.55	SE204895.010	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP4 0	SE204895.011	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP4 0.7	SE204895.012	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP5 0	SE204895.013	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP5 0.5	SE204895.014	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP6 1	SE204895.015	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP7 0	SE204895.016	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP7 0.6	SE204895.017	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP8 0	SE204895.018	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP8 0.7	SE204895.019	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP9 0.3	SE204895.020	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP9 0.5	SE204895.021	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP10 0	SE204895.022	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP10 0.6	SE204895.023	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP11 0	SE204895.024	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP10 0.3	SE204895.025	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP11 0.2	SE204895.026	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP11 0.5	SE204895.027	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP12 0	SE204895.028	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP12 0.5	SE204895.029	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP12 0.7	SE204895.030	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP13 0	SE204895.031	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP13 0.3	SE204895.032	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP13 0.5	SE204895.033	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP14 0.3	SE204895.034	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP14 0.5	SE204895.035	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP15 0	SE204895.036	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP15 0.5	SE204895.037	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP16 0.5	SE204895.038	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP17 0.3	SE204895.040	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP18 0	SE204895.041	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP19 0	SE204895.042	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP19 0.4	SE204895.043	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP20 0	SE204895.044	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP20 0.4	SE204895.045	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP21 0	SE204895.046	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP21 1	SE204895.047	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP22 0	SE204895.048	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP22 1	SE204895.049	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP23 0	SE204895.050	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP23 0.4	SE204895.051	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP23 0.5	SE204895.052	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
QC1	SE204895.053	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
QC2	SE204895.054	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1 1-1.1	SE204895.001	LB197395	06 Apr 2020	08 Apr 2020	13 Apr 2020	16 Apr 2020†	17 Apr 2020	16 Apr 2020
TP8 0	SE204895.018	LB197395	06 Apr 2020	08 Apr 2020	13 Apr 2020	16 Apr 2020†	17 Apr 2020	16 Apr 2020
TP11 0	SE204895.024	LB197395	06 Apr 2020	08 Apr 2020	13 Apr 2020	16 Apr 2020†	17 Apr 2020	16 Apr 2020
TP14 0.3	SE204895.034	LB197395	06 Apr 2020	08 Apr 2020	13 Apr 2020	16 Apr 2020†	17 Apr 2020	16 Apr 2020
TP17 0	SE204895.039	LB197395	06 Apr 2020	08 Apr 2020	13 Apr 2020	16 Apr 2020†	17 Apr 2020	16 Apr 2020
TP19 0	SE204895.042	LB197395	07 Apr 2020	08 Apr 2020	14 Apr 2020	16 Apr 2020†	17 Apr 2020	16 Apr 2020
TP22 0	SE204895.048	LB197395	07 Apr 2020	08 Apr 2020	14 Apr 2020	16 Apr 2020†	17 Apr 2020	16 Apr 2020
TP22 1	SE204895.049	LB197395	07 Apr 2020	08 Apr 2020	14 Apr 2020	16 Apr 2020†	17 Apr 2020	16 Apr 2020

HOLDING TIME SUMMARY

SE204895 R1

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.

Speciated Phenols in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1 1-1.1	SE204895.001	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
BH1 2-4.2.5	SE204895.002	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
BH2 1-1.45	SE204895.003	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
BH2 2-2.45	SE204895.004	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP1 0	SE204895.005	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP1 1.6	SE204895.006	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP2 0	SE204895.007	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP2 0.7	SE204895.008	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP3 0	SE204895.009	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP3 0.55	SE204895.010	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP4 0	SE204895.011	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP4 0.7	SE204895.012	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP5 0	SE204895.013	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP5 0.5	SE204895.014	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP6 1	SE204895.015	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP7 0	SE204895.016	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP7 0.6	SE204895.017	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP8 0	SE204895.018	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP8 0.7	SE204895.019	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP9 0.3	SE204895.020	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP9 0.5	SE204895.021	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP10 0	SE204895.022	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP10 0.6	SE204895.023	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP11 0	SE204895.024	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP10 0.3	SE204895.025	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP11 0.2	SE204895.026	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP11 0.5	SE204895.027	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP12 0	SE204895.028	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP12 0.5	SE204895.029	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP12 0.7	SE204895.030	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP13 0	SE204895.031	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP13 0.3	SE204895.032	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP13 0.5	SE204895.033	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP14 0.3	SE204895.034	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP14 0.5	SE204895.035	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP15 0	SE204895.036	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP15 0.5	SE204895.037	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP16 0.5	SE204895.038	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP17 0.3	SE204895.040	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP18 0	SE204895.041	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP19 0	SE204895.042	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP19 0.4	SE204895.043	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP20 0	SE204895.044	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP20 0.4	SE204895.045	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP21 0	SE204895.046	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP21 1	SE204895.047	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP22 0	SE204895.048	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP22 1	SE204895.049	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP23 0	SE204895.050	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP23 0.4	SE204895.051	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP23 0.5	SE204895.052	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
QC1	SE204895.053	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
QC2	SE204895.054	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1 1-1.1	SE204895.001	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
BH1 2-4.2.5	SE204895.002	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
BH2 1-1.45	SE204895.003	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
BH2 2-2.45	SE204895.004	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020

HOLDING TIME SUMMARY

SE204895 R1

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 Elements in Soil/Waste Solids/Materials by ICPOES (continued)

Method: ME-(AU)-[ENV]AN040/AN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP1 0	SE204895.005	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP1 1.6	SE204895.006	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP2 0	SE204895.007	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP2 0.7	SE204895.008	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP3 0	SE204895.009	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP3 0.55	SE204895.010	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP4 0	SE204895.011	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP4 0.7	SE204895.012	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP5 0	SE204895.013	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP5 0.5	SE204895.014	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP6 1	SE204895.015	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP7 0	SE204895.016	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP7 0.6	SE204895.017	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP8 0	SE204895.018	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP8 0.7	SE204895.019	LB197287	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP9 0.3	SE204895.020	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP9 0.5	SE204895.021	LB197722	06 Apr 2020	08 Apr 2020	03 Oct 2020	21 Apr 2020	03 Oct 2020	21 Apr 2020
TP10 0	SE204895.022	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP10 0.6	SE204895.023	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP11 0	SE204895.024	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP10 0.3	SE204895.025	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP11 0.2	SE204895.026	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP11 0.5	SE204895.027	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP12 0	SE204895.028	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP12 0.5	SE204895.029	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP12 0.7	SE204895.030	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP13 0	SE204895.031	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP13 0.3	SE204895.032	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP13 0.5	SE204895.033	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP14 0.3	SE204895.034	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP14 0.5	SE204895.035	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP15 0	SE204895.036	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP15 0.5	SE204895.037	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP16 0.5	SE204895.038	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP17 0.3	SE204895.040	LB197288	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP18 0	SE204895.041	LB197289	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP19 0	SE204895.042	LB197289	07 Apr 2020	08 Apr 2020	04 Oct 2020	15 Apr 2020	04 Oct 2020	16 Apr 2020
TP19 0.4	SE204895.043	LB197289	07 Apr 2020	08 Apr 2020	04 Oct 2020	15 Apr 2020	04 Oct 2020	16 Apr 2020
TP20 0	SE204895.044	LB197289	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP20 0.4	SE204895.045	LB197289	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
TP21 0	SE204895.046	LB197289	07 Apr 2020	08 Apr 2020	04 Oct 2020	15 Apr 2020	04 Oct 2020	16 Apr 2020
TP21 1	SE204895.047	LB197289	07 Apr 2020	08 Apr 2020	04 Oct 2020	15 Apr 2020	04 Oct 2020	16 Apr 2020
TP22 0	SE204895.048	LB197289	07 Apr 2020	08 Apr 2020	04 Oct 2020	15 Apr 2020	04 Oct 2020	16 Apr 2020
TP22 1	SE204895.049	LB197289	07 Apr 2020	08 Apr 2020	04 Oct 2020	15 Apr 2020	04 Oct 2020	16 Apr 2020
TP23 0	SE204895.050	LB197289	07 Apr 2020	08 Apr 2020	04 Oct 2020	15 Apr 2020	04 Oct 2020	16 Apr 2020
TP23 0.4	SE204895.051	LB197289	07 Apr 2020	08 Apr 2020	04 Oct 2020	15 Apr 2020	04 Oct 2020	16 Apr 2020
TP23 0.5	SE204895.052	LB197289	07 Apr 2020	08 Apr 2020	04 Oct 2020	15 Apr 2020	04 Oct 2020	16 Apr 2020
QC1	SE204895.053	LB197289	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020
QC2	SE204895.054	LB197289	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020

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
QCA	SE204895.057	LB197279	06 Apr 2020	08 Apr 2020	03 Oct 2020	15 Apr 2020	03 Oct 2020	16 Apr 2020

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1 1-1.1	SE204895.001	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
BH1 2-4.2.5	SE204895.002	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
BH2 1-1.45	SE204895.003	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
BH2 2-2.45	SE204895.004	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020

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
TP1 0	SE204895.005	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP1 1.6	SE204895.006	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP2 0	SE204895.007	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP2 0.7	SE204895.008	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP3 0	SE204895.009	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP3 0.55	SE204895.010	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP4 0	SE204895.011	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP4 0.7	SE204895.012	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP5 0	SE204895.013	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP5 0.5	SE204895.014	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP6 1	SE204895.015	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP7 0	SE204895.016	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP7 0.6	SE204895.017	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP8 0	SE204895.018	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP8 0.7	SE204895.019	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP9 0.3	SE204895.020	LB197266	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP9 0.5	SE204895.021	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP10 0	SE204895.022	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP10 0.6	SE204895.023	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP11 0	SE204895.024	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP10 0.3	SE204895.025	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP11 0.2	SE204895.026	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP11 0.5	SE204895.027	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP12 0	SE204895.028	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP12 0.5	SE204895.029	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP12 0.7	SE204895.030	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP13 0	SE204895.031	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP13 0.3	SE204895.032	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP13 0.5	SE204895.033	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP14 0.3	SE204895.034	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP14 0.5	SE204895.035	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP15 0	SE204895.036	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP15 0.5	SE204895.037	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP16 0.5	SE204895.038	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP17 0.3	SE204895.040	LB197267	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP18 0	SE204895.041	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP19 0	SE204895.042	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP19 0.4	SE204895.043	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP20 0	SE204895.044	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP20 0.4	SE204895.045	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP21 0	SE204895.046	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP21 1	SE204895.047	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP22 0	SE204895.048	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP22 1	SE204895.049	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP23 0	SE204895.050	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP23 0.4	SE204895.051	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP23 0.5	SE204895.052	LB197268	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
QC1	SE204895.053	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
QC2	SE204895.054	LB197268	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1 1-1.1	SE204895.001	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
BH1 2-4.2.5	SE204895.002	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
BH2 1-1.45	SE204895.003	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
BH2 2-2.45	SE204895.004	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP1 0	SE204895.005	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP1 1.6	SE204895.006	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP2 0	SE204895.007	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP2 0.7	SE204895.008	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020

HOLDING TIME SUMMARY

SE204895 R1

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
TP3 0	SE204895.009	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP3 0.55	SE204895.010	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP4 0	SE204895.011	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP4 0.7	SE204895.012	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP5 0	SE204895.013	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP5 0.5	SE204895.014	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP6 1	SE204895.015	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP7 0	SE204895.016	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP7 0.6	SE204895.017	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP8 0	SE204895.018	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP8 0.7	SE204895.019	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP9 0.3	SE204895.020	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP9 0.5	SE204895.021	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP10 0	SE204895.022	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP10 0.6	SE204895.023	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP11 0	SE204895.024	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP10 0.3	SE204895.025	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP11 0.2	SE204895.026	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP11 0.5	SE204895.027	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP12 0	SE204895.028	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP12 0.5	SE204895.029	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP12 0.7	SE204895.030	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP13 0	SE204895.031	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP13 0.3	SE204895.032	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP13 0.5	SE204895.033	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP14 0.3	SE204895.034	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP14 0.5	SE204895.035	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP15 0	SE204895.036	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP15 0.5	SE204895.037	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP16 0.5	SE204895.038	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP17 0.3	SE204895.040	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP18 0	SE204895.041	LB197265	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP19 0	SE204895.042	LB197265	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP19 0.4	SE204895.043	LB197265	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP20 0	SE204895.044	LB197265	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP20 0.4	SE204895.045	LB197265	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP21 0	SE204895.046	LB197265	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP21 1	SE204895.047	LB197265	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP22 0	SE204895.048	LB197265	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP22 1	SE204895.049	LB197265	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP23 0	SE204895.050	LB197265	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP23 0.4	SE204895.051	LB197265	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP23 0.5	SE204895.052	LB197265	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
QC1	SE204895.053	LB197265	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
QC2	SE204895.054	LB197265	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
Trip Blank	SE204895.055	LB197265	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
Trip Spike	SE204895.056	LB197265	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1 1-1.1	SE204895.001	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
BH1 2-4.2.5	SE204895.002	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
BH2 1-1.45	SE204895.003	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
BH2 2-2.45	SE204895.004	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP1 0	SE204895.005	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP1 1.6	SE204895.006	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP2 0	SE204895.007	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP2 0.7	SE204895.008	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP3 0	SE204895.009	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP3 0.55	SE204895.010	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020

HOLDING TIME SUMMARY

SE204895 R1

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
TP4 0	SE204895.011	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP4 0.7	SE204895.012	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP5 0	SE204895.013	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP5 0.5	SE204895.014	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP6 1	SE204895.015	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP7 0	SE204895.016	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP7 0.6	SE204895.017	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP8 0	SE204895.018	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP8 0.7	SE204895.019	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP9 0.3	SE204895.020	LB197263	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP9 0.5	SE204895.021	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP10 0	SE204895.022	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP10 0.6	SE204895.023	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP11 0	SE204895.024	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP10 0.3	SE204895.025	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP11 0.2	SE204895.026	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP11 0.5	SE204895.027	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP12 0	SE204895.028	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP12 0.5	SE204895.029	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP12 0.7	SE204895.030	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP13 0	SE204895.031	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP13 0.3	SE204895.032	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP13 0.5	SE204895.033	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP14 0.3	SE204895.034	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP14 0.5	SE204895.035	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP15 0	SE204895.036	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP15 0.5	SE204895.037	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP16 0.5	SE204895.038	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP17 0.3	SE204895.040	LB197264	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	17 Apr 2020
TP18 0	SE204895.041	LB197265	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP19 0	SE204895.042	LB197265	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP19 0.4	SE204895.043	LB197265	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP20 0	SE204895.044	LB197265	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP20 0.4	SE204895.045	LB197265	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP21 0	SE204895.046	LB197265	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP21 1	SE204895.047	LB197265	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP22 0	SE204895.048	LB197265	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP22 1	SE204895.049	LB197265	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP23 0	SE204895.050	LB197265	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP23 0.4	SE204895.051	LB197265	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
TP23 0.5	SE204895.052	LB197265	07 Apr 2020	08 Apr 2020	21 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
QC1	SE204895.053	LB197265	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
QC2	SE204895.054	LB197265	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
Trip Blank	SE204895.055	LB197265	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020
Trip Spike	SE204895.056	LB197265	06 Apr 2020	08 Apr 2020	20 Apr 2020	15 Apr 2020	25 May 2020	16 Apr 2020

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)	TP2 0.7	SE204895.008	%	60 - 130%	106
	TP3 0.55	SE204895.010	%	60 - 130%	103
	TP7 0	SE204895.016	%	60 - 130%	123
	TP7 0.6	SE204895.017	%	60 - 130%	96
	TP9 0.3	SE204895.020	%	60 - 130%	115
	TP10 0.6	SE204895.023	%	60 - 130%	99
	TP10 0.3	SE204895.025	%	60 - 130%	112
	TP11 0.2	SE204895.026	%	60 - 130%	115
	TP14 0.3	SE204895.034	%	60 - 130%	123
	TP18 0	SE204895.041	%	60 - 130%	115
	TP20 0.4	SE204895.045	%	60 - 130%	111
	TP21 1	SE204895.047	%	60 - 130%	123
	TP22 1	SE204895.049	%	60 - 130%	113

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	TP2 0.7	SE204895.008	%	60 - 130%	77
	TP3 0.55	SE204895.010	%	60 - 130%	75
	TP7 0	SE204895.016	%	60 - 130%	72
	TP7 0.6	SE204895.017	%	60 - 130%	80
	TP9 0.3	SE204895.020	%	60 - 130%	85
	TP10 0.6	SE204895.023	%	60 - 130%	85
	TP10 0.3	SE204895.025	%	60 - 130%	78
	TP11 0.2	SE204895.026	%	60 - 130%	86
	TP14 0.3	SE204895.034	%	60 - 130%	86
	TP18 0	SE204895.041	%	60 - 130%	82
	TP20 0.4	SE204895.045	%	60 - 130%	80
	TP21 1	SE204895.047	%	60 - 130%	77
	TP22 1	SE204895.049	%	60 - 130%	79
d14-p-terphenyl (Surrogate)	TP2 0.7	SE204895.008	%	60 - 130%	87
	TP3 0.55	SE204895.010	%	60 - 130%	82
	TP7 0	SE204895.016	%	60 - 130%	76
	TP7 0.6	SE204895.017	%	60 - 130%	89
	TP9 0.3	SE204895.020	%	60 - 130%	90
	TP10 0.6	SE204895.023	%	60 - 130%	85
	TP10 0.3	SE204895.025	%	60 - 130%	77
	TP11 0.2	SE204895.026	%	60 - 130%	88
	TP14 0.3	SE204895.034	%	60 - 130%	75
	TP18 0	SE204895.041	%	60 - 130%	83
	TP20 0.4	SE204895.045	%	60 - 130%	84
	TP21 1	SE204895.047	%	60 - 130%	82
	TP22 1	SE204895.049	%	60 - 130%	83

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH1 1-1.1	SE204895.001	%	70 - 130%	77
	BH1 2-4.2.5	SE204895.002	%	70 - 130%	79
	BH2 1-1.45	SE204895.003	%	70 - 130%	77
	BH2 2-2.45	SE204895.004	%	70 - 130%	84
	TP1 0	SE204895.005	%	70 - 130%	76
	TP1 1.6	SE204895.006	%	70 - 130%	96
	TP2 0	SE204895.007	%	70 - 130%	77
	TP2 0.7	SE204895.008	%	70 - 130%	77
	TP3 0	SE204895.009	%	70 - 130%	79
	TP3 0.55	SE204895.010	%	70 - 130%	75
	TP4 0	SE204895.011	%	70 - 130%	74
	TP4 0.7	SE204895.012	%	70 - 130%	80
	TP5 0	SE204895.013	%	70 - 130%	79
	TP5 0.5	SE204895.014	%	70 - 130%	82
	TP6 1	SE204895.015	%	70 - 130%	84
	TP7 0	SE204895.016	%	70 - 130%	72
	TP7 0.6	SE204895.017	%	70 - 130%	80

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)	TP8 0	SE204895.018	%	70 - 130%	88
	TP8 0.7	SE204895.019	%	70 - 130%	77
	TP9 0.3	SE204895.020	%	70 - 130%	85
	TP9 0.5	SE204895.021	%	70 - 130%	85
	TP10 0	SE204895.022	%	70 - 130%	87
	TP10 0.6	SE204895.023	%	70 - 130%	85
	TP11 0	SE204895.024	%	70 - 130%	78
	TP10 0.3	SE204895.025	%	70 - 130%	78
	TP11 0.2	SE204895.026	%	70 - 130%	86
	TP11 0.5	SE204895.027	%	70 - 130%	89
	TP12 0	SE204895.028	%	70 - 130%	87
	TP12 0.5	SE204895.029	%	70 - 130%	87
	TP12 0.7	SE204895.030	%	70 - 130%	77
	TP13 0	SE204895.031	%	70 - 130%	87
	TP13 0.3	SE204895.032	%	70 - 130%	85
	TP13 0.5	SE204895.033	%	70 - 130%	85
	TP14 0.3	SE204895.034	%	70 - 130%	86
	TP14 0.5	SE204895.035	%	70 - 130%	87
	TP15 0	SE204895.036	%	70 - 130%	88
	TP15 0.5	SE204895.037	%	70 - 130%	86
	TP16 0.5	SE204895.038	%	70 - 130%	85
	TP17 0.3	SE204895.040	%	70 - 130%	83
	TP18 0	SE204895.041	%	70 - 130%	82
	TP19 0	SE204895.042	%	70 - 130%	78
	TP19 0.4	SE204895.043	%	70 - 130%	84
	TP20 0	SE204895.044	%	70 - 130%	78
	TP20 0.4	SE204895.045	%	70 - 130%	80
	TP21 0	SE204895.046	%	70 - 130%	81
	TP21 1	SE204895.047	%	70 - 130%	77
	TP22 0	SE204895.048	%	70 - 130%	78
	TP22 1	SE204895.049	%	70 - 130%	79
	TP23 0	SE204895.050	%	70 - 130%	82
	TP23 0.4	SE204895.051	%	70 - 130%	81
	TP23 0.5	SE204895.052	%	70 - 130%	82
	QC1	SE204895.053	%	70 - 130%	80
	QC2	SE204895.054	%	70 - 130%	78
d14-p-terphenyl (Surrogate)	BH1 1-1.1	SE204895.001	%	70 - 130%	84
	BH1 2-4.2.5	SE204895.002	%	70 - 130%	84
	BH2 1-1.45	SE204895.003	%	70 - 130%	82
	BH2 2-2.45	SE204895.004	%	70 - 130%	85
	TP1 0	SE204895.005	%	70 - 130%	82
	TP1 1.6	SE204895.006	%	70 - 130%	93
	TP2 0	SE204895.007	%	70 - 130%	84
	TP2 0.7	SE204895.008	%	70 - 130%	87
	TP3 0	SE204895.009	%	70 - 130%	81
	TP3 0.55	SE204895.010	%	70 - 130%	82
	TP4 0	SE204895.011	%	70 - 130%	80
	TP4 0.7	SE204895.012	%	70 - 130%	87
	TP5 0	SE204895.013	%	70 - 130%	77
	TP5 0.5	SE204895.014	%	70 - 130%	89
	TP6 1	SE204895.015	%	70 - 130%	92
	TP7 0	SE204895.016	%	70 - 130%	76
	TP7 0.6	SE204895.017	%	70 - 130%	89
	TP8 0	SE204895.018	%	70 - 130%	94
	TP8 0.7	SE204895.019	%	70 - 130%	82
	TP9 0.3	SE204895.020	%	70 - 130%	90
	TP9 0.5	SE204895.021	%	70 - 130%	87
	TP10 0	SE204895.022	%	70 - 130%	90
	TP10 0.6	SE204895.023	%	70 - 130%	85
	TP11 0	SE204895.024	%	70 - 130%	83
	TP10 0.3	SE204895.025	%	70 - 130%	77

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued) — **Method: ME-(AU)-[ENV]AN420**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d14-p-terphenyl (Surrogate)	TP11 0.2	SE204895.026	%	70 - 130%	88
	TP11 0.5	SE204895.027	%	70 - 130%	76
	TP12 0	SE204895.028	%	70 - 130%	75
	TP12 0.5	SE204895.029	%	70 - 130%	73
	TP12 0.7	SE204895.030	%	70 - 130%	73
	TP13 0	SE204895.031	%	70 - 130%	75
	TP13 0.3	SE204895.032	%	70 - 130%	74
	TP13 0.5	SE204895.033	%	70 - 130%	72
	TP14 0.3	SE204895.034	%	70 - 130%	75
	TP14 0.5	SE204895.035	%	70 - 130%	77
	TP15 0	SE204895.036	%	70 - 130%	77
	TP15 0.5	SE204895.037	%	70 - 130%	73
	TP16 0.5	SE204895.038	%	70 - 130%	71
	TP17 0.3	SE204895.040	%	70 - 130%	75
	TP18 0	SE204895.041	%	70 - 130%	83
	TP19 0	SE204895.042	%	70 - 130%	84
	TP19 0.4	SE204895.043	%	70 - 130%	81
	TP20 0	SE204895.044	%	70 - 130%	79
	TP20 0.4	SE204895.045	%	70 - 130%	84
	TP21 0	SE204895.046	%	70 - 130%	80
	TP21 1	SE204895.047	%	70 - 130%	82
	TP22 0	SE204895.048	%	70 - 130%	82
	TP22 1	SE204895.049	%	70 - 130%	83
	TP23 0	SE204895.050	%	70 - 130%	85
	TP23 0.4	SE204895.051	%	70 - 130%	80
	TP23 0.5	SE204895.052	%	70 - 130%	81
	QC1	SE204895.053	%	70 - 130%	81
	QC2	SE204895.054	%	70 - 130%	78
d5-nitrobenzene (Surrogate)	BH1 1-1.1	SE204895.001	%	70 - 130%	79
	BH1 2-4.2.5	SE204895.002	%	70 - 130%	79
	BH2 1-1.45	SE204895.003	%	70 - 130%	78
	BH2 2-2.45	SE204895.004	%	70 - 130%	84
	TP1 0	SE204895.005	%	70 - 130%	74
	TP1 1.6	SE204895.006	%	70 - 130%	86
	TP2 0	SE204895.007	%	70 - 130%	78
	TP2 0.7	SE204895.008	%	70 - 130%	76
	TP3 0	SE204895.009	%	70 - 130%	75
	TP3 0.55	SE204895.010	%	70 - 130%	75
	TP4 0	SE204895.011	%	70 - 130%	76
	TP4 0.7	SE204895.012	%	70 - 130%	79
	TP5 0	SE204895.013	%	70 - 130%	75
	TP5 0.5	SE204895.014	%	70 - 130%	88
	TP6 1	SE204895.015	%	70 - 130%	81
	TP7 0	SE204895.016	%	70 - 130%	69 ①
	TP7 0.6	SE204895.017	%	70 - 130%	78
	TP8 0	SE204895.018	%	70 - 130%	84
	TP8 0.7	SE204895.019	%	70 - 130%	76
	TP9 0.3	SE204895.020	%	70 - 130%	82
	TP9 0.5	SE204895.021	%	70 - 130%	83
	TP10 0	SE204895.022	%	70 - 130%	82
	TP10 0.6	SE204895.023	%	70 - 130%	81
	TP11 0	SE204895.024	%	70 - 130%	80
	TP10 0.3	SE204895.025	%	70 - 130%	75
	TP11 0.2	SE204895.026	%	70 - 130%	83
	TP11 0.5	SE204895.027	%	70 - 130%	93
	TP12 0	SE204895.028	%	70 - 130%	97
	TP12 0.5	SE204895.029	%	70 - 130%	98
	TP12 0.7	SE204895.030	%	70 - 130%	97
	TP13 0	SE204895.031	%	70 - 130%	95
	TP13 0.3	SE204895.032	%	70 - 130%	97
	TP13 0.5	SE204895.033	%	70 - 130%	97

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)	TP14 0.3	SE204895.034	%	70 - 130%	97
	TP14 0.5	SE204895.035	%	70 - 130%	97
	TP15 0	SE204895.036	%	70 - 130%	96
	TP15 0.5	SE204895.037	%	70 - 130%	96
	TP16 0.5	SE204895.038	%	70 - 130%	95
	TP17 0.3	SE204895.040	%	70 - 130%	95
	TP18 0	SE204895.041	%	70 - 130%	80
	TP19 0	SE204895.042	%	70 - 130%	81
	TP19 0.4	SE204895.043	%	70 - 130%	81
	TP20 0	SE204895.044	%	70 - 130%	80
	TP20 0.4	SE204895.045	%	70 - 130%	81
	TP21 0	SE204895.046	%	70 - 130%	78
	TP21 1	SE204895.047	%	70 - 130%	74
	TP22 0	SE204895.048	%	70 - 130%	80
	TP22 1	SE204895.049	%	70 - 130%	75
	TP23 0	SE204895.050	%	70 - 130%	79
	TP23 0.4	SE204895.051	%	70 - 130%	78
	TP23 0.5	SE204895.052	%	70 - 130%	81
	QC1	SE204895.053	%	70 - 130%	79
	QC2	SE204895.054	%	70 - 130%	76

PCBs in Soil — Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	TP2 0.7	SE204895.008	%	60 - 130%	106
	TP3 0.55	SE204895.010	%	60 - 130%	103
	TP7 0	SE204895.016	%	60 - 130%	123
	TP7 0.6	SE204895.017	%	60 - 130%	96
	TP9 0.3	SE204895.020	%	60 - 130%	115
	TP10 0.6	SE204895.023	%	60 - 130%	99
	TP10 0.3	SE204895.025	%	60 - 130%	112
	TP11 0.2	SE204895.026	%	60 - 130%	115
	TP14 0.3	SE204895.034	%	60 - 130%	123
	TP18 0	SE204895.041	%	60 - 130%	115
	TP20 0.4	SE204895.045	%	60 - 130%	111
	TP21 1	SE204895.047	%	60 - 130%	123
	TP22 1	SE204895.049	%	60 - 130%	113

Speciated Phenols in Soil — Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2,4,6-Tribromophenol (Surrogate)	TP2 0.7	SE204895.008	%	70 - 130%	93
	TP3 0.55	SE204895.010	%	70 - 130%	114
	TP7 0	SE204895.016	%	70 - 130%	115
	TP7 0.6	SE204895.017	%	70 - 130%	112
	TP9 0.3	SE204895.020	%	70 - 130%	73
	TP10 0.6	SE204895.023	%	70 - 130%	78
	TP10 0.3	SE204895.025	%	70 - 130%	95
	TP11 0.2	SE204895.026	%	70 - 130%	121
	TP14 0.3	SE204895.034	%	70 - 130%	75
	TP18 0	SE204895.041	%	70 - 130%	120
	TP20 0.4	SE204895.045	%	70 - 130%	108
	TP21 1	SE204895.047	%	70 - 130%	123
	TP22 1	SE204895.049	%	70 - 130%	107
d5-phenol (Surrogate)	TP2 0.7	SE204895.008	%	50 - 130%	79
	TP3 0.55	SE204895.010	%	50 - 130%	91
	TP7 0	SE204895.016	%	50 - 130%	71
	TP7 0.6	SE204895.017	%	50 - 130%	99
	TP9 0.3	SE204895.020	%	50 - 130%	116
	TP10 0.6	SE204895.023	%	50 - 130%	88
	TP10 0.3	SE204895.025	%	50 - 130%	70
	TP11 0.2	SE204895.026	%	50 - 130%	119
	TP14 0.3	SE204895.034	%	50 - 130%	80
	TP18 0	SE204895.041	%	50 - 130%	73

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.

Speciated Phenols in Soil (continued) — Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d5-phenol (Surrogate)	TP20 0.4	SE204895.045	%	50 - 130%	99
	TP21 1	SE204895.047	%	50 - 130%	72
	TP22 1	SE204895.049	%	50 - 130%	85

VOC's in Soil — Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1 1-1.1	SE204895.001	%	60 - 130%	78
	BH1 2-4.2.5	SE204895.002	%	60 - 130%	62
	BH2 1-1.45	SE204895.003	%	60 - 130%	78
	BH2 2-2.45	SE204895.004	%	60 - 130%	79
	TP1 0	SE204895.005	%	60 - 130%	72
	TP1 1.6	SE204895.006	%	60 - 130%	76
	TP2 0	SE204895.007	%	60 - 130%	83
	TP2 0.7	SE204895.008	%	60 - 130%	86
	TP3 0	SE204895.009	%	60 - 130%	82
	TP3 0.55	SE204895.010	%	60 - 130%	70
	TP4 0	SE204895.011	%	60 - 130%	84
	TP4 0.7	SE204895.012	%	60 - 130%	78
	TP5 0	SE204895.013	%	60 - 130%	82
	TP5 0.5	SE204895.014	%	60 - 130%	86
	TP6 1	SE204895.015	%	60 - 130%	76
	TP7 0	SE204895.016	%	60 - 130%	85
	TP7 0.6	SE204895.017	%	60 - 130%	81
	TP8 0	SE204895.018	%	60 - 130%	82
	TP8 0.7	SE204895.019	%	60 - 130%	80
	TP9 0.3	SE204895.020	%	60 - 130%	73
	TP9 0.5	SE204895.021	%	60 - 130%	82
	TP10 0	SE204895.022	%	60 - 130%	88
	TP10 0.6	SE204895.023	%	60 - 130%	82
	TP11 0	SE204895.024	%	60 - 130%	88
	TP10 0.3	SE204895.025	%	60 - 130%	81
	TP11 0.2	SE204895.026	%	60 - 130%	86
	TP11 0.5	SE204895.027	%	60 - 130%	86
	TP12 0	SE204895.028	%	60 - 130%	82
	TP12 0.5	SE204895.029	%	60 - 130%	77
	TP12 0.7	SE204895.030	%	60 - 130%	78
	TP13 0	SE204895.031	%	60 - 130%	81
	TP13 0.3	SE204895.032	%	60 - 130%	77
	TP13 0.5	SE204895.033	%	60 - 130%	80
	TP14 0.3	SE204895.034	%	60 - 130%	84
	TP14 0.5	SE204895.035	%	60 - 130%	86
	TP15 0	SE204895.036	%	60 - 130%	76
	TP15 0.5	SE204895.037	%	60 - 130%	83
	TP16 0.5	SE204895.038	%	60 - 130%	79
	TP17 0.3	SE204895.040	%	60 - 130%	73
	TP18 0	SE204895.041	%	60 - 130%	87
	TP19 0	SE204895.042	%	60 - 130%	75
	TP19 0.4	SE204895.043	%	60 - 130%	78
	TP20 0	SE204895.044	%	60 - 130%	78
	TP20 0.4	SE204895.045	%	60 - 130%	95
	TP21 0	SE204895.046	%	60 - 130%	99
	TP21 1	SE204895.047	%	60 - 130%	82
	TP22 0	SE204895.048	%	60 - 130%	78
	TP22 1	SE204895.049	%	60 - 130%	75
	TP23 0	SE204895.050	%	60 - 130%	80
	TP23 0.4	SE204895.051	%	60 - 130%	88
	TP23 0.5	SE204895.052	%	60 - 130%	79
	QC1	SE204895.053	%	60 - 130%	88
	QC2	SE204895.054	%	60 - 130%	90
	Trip Blank	SE204895.055	%	60 - 130%	94
	Trip Spike	SE204895.056	%	60 - 130%	95

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)	BH1 1-1.1	SE204895.001	%	60 - 130%	94
	BH1 2-4.2.5	SE204895.002	%	60 - 130%	78
	BH2 1-1.45	SE204895.003	%	60 - 130%	94
	BH2 2-2.45	SE204895.004	%	60 - 130%	82
	TP1 0	SE204895.005	%	60 - 130%	80
	TP1 1.6	SE204895.006	%	60 - 130%	96
	TP2 0	SE204895.007	%	60 - 130%	93
	TP2 0.7	SE204895.008	%	60 - 130%	99
	TP3 0	SE204895.009	%	60 - 130%	94
	TP3 0.55	SE204895.010	%	60 - 130%	86
	TP4 0	SE204895.011	%	60 - 130%	96
	TP4 0.7	SE204895.012	%	60 - 130%	96
	TP5 0	SE204895.013	%	60 - 130%	91
	TP5 0.5	SE204895.014	%	60 - 130%	100
	TP6 1	SE204895.015	%	60 - 130%	95
	TP7 0	SE204895.016	%	60 - 130%	102
	TP7 0.6	SE204895.017	%	60 - 130%	96
	TP8 0	SE204895.018	%	60 - 130%	101
	TP8 0.7	SE204895.019	%	60 - 130%	92
	TP9 0.3	SE204895.020	%	60 - 130%	89
	TP9 0.5	SE204895.021	%	60 - 130%	96
	TP10 0	SE204895.022	%	60 - 130%	105
	TP10 0.6	SE204895.023	%	60 - 130%	99
	TP11 0	SE204895.024	%	60 - 130%	106
	TP10 0.3	SE204895.025	%	60 - 130%	97
	TP11 0.2	SE204895.026	%	60 - 130%	102
	TP11 0.5	SE204895.027	%	60 - 130%	105
	TP12 0	SE204895.028	%	60 - 130%	99
	TP12 0.5	SE204895.029	%	60 - 130%	95
	TP12 0.7	SE204895.030	%	60 - 130%	93
	TP13 0	SE204895.031	%	60 - 130%	93
	TP13 0.3	SE204895.032	%	60 - 130%	96
	TP13 0.5	SE204895.033	%	60 - 130%	94
	TP14 0.3	SE204895.034	%	60 - 130%	101
	TP14 0.5	SE204895.035	%	60 - 130%	105
	TP15 0	SE204895.036	%	60 - 130%	92
	TP15 0.5	SE204895.037	%	60 - 130%	101
	TP16 0.5	SE204895.038	%	60 - 130%	98
	TP17 0.3	SE204895.040	%	60 - 130%	87
	TP18 0	SE204895.041	%	60 - 130%	103
	TP19 0	SE204895.042	%	60 - 130%	75
	TP19 0.4	SE204895.043	%	60 - 130%	74
	TP20 0	SE204895.044	%	60 - 130%	70
	TP20 0.4	SE204895.045	%	60 - 130%	108
	TP21 0	SE204895.046	%	60 - 130%	113
	TP21 1	SE204895.047	%	60 - 130%	75
	TP22 0	SE204895.048	%	60 - 130%	75
	TP22 1	SE204895.049	%	60 - 130%	75
	TP23 0	SE204895.050	%	60 - 130%	74
	TP23 0.4	SE204895.051	%	60 - 130%	102
	TP23 0.5	SE204895.052	%	60 - 130%	76
	QC1	SE204895.053	%	60 - 130%	104
	QC2	SE204895.054	%	60 - 130%	106
	Trip Blank	SE204895.055	%	60 - 130%	111
	Trip Spike	SE204895.056	%	60 - 130%	109
d8-toluene (Surrogate)	BH1 1-1.1	SE204895.001	%	60 - 130%	100
	BH1 2-4.2.5	SE204895.002	%	60 - 130%	80
	BH2 1-1.45	SE204895.003	%	60 - 130%	102
	BH2 2-2.45	SE204895.004	%	60 - 130%	89
	TP1 0	SE204895.005	%	60 - 130%	85
	TP1 1.6	SE204895.006	%	60 - 130%	102

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)	TP2 0	SE204895.007	%	60 - 130%	96
	TP2 0.7	SE204895.008	%	60 - 130%	103
	TP3 0	SE204895.009	%	60 - 130%	99
	TP3 0.55	SE204895.010	%	60 - 130%	91
	TP4 0	SE204895.011	%	60 - 130%	101
	TP4 0.7	SE204895.012	%	60 - 130%	101
	TP5 0	SE204895.013	%	60 - 130%	101
	TP5 0.5	SE204895.014	%	60 - 130%	107
	TP6 1	SE204895.015	%	60 - 130%	102
	TP7 0	SE204895.016	%	60 - 130%	107
	TP7 0.6	SE204895.017	%	60 - 130%	101
	TP8 0	SE204895.018	%	60 - 130%	105
	TP8 0.7	SE204895.019	%	60 - 130%	100
	TP9 0.3	SE204895.020	%	60 - 130%	95
	TP9 0.5	SE204895.021	%	60 - 130%	102
	TP10 0	SE204895.022	%	60 - 130%	108
	TP10 0.6	SE204895.023	%	60 - 130%	100
	TP11 0	SE204895.024	%	60 - 130%	110
	TP10 0.3	SE204895.025	%	60 - 130%	104
	TP11 0.2	SE204895.026	%	60 - 130%	110
	TP11 0.5	SE204895.027	%	60 - 130%	110
	TP12 0	SE204895.028	%	60 - 130%	105
	TP12 0.5	SE204895.029	%	60 - 130%	102
	TP12 0.7	SE204895.030	%	60 - 130%	103
	TP13 0	SE204895.031	%	60 - 130%	102
	TP13 0.3	SE204895.032	%	60 - 130%	103
	TP13 0.5	SE204895.033	%	60 - 130%	103
	TP14 0.3	SE204895.034	%	60 - 130%	108
	TP14 0.5	SE204895.035	%	60 - 130%	109
	TP15 0	SE204895.036	%	60 - 130%	100
	TP15 0.5	SE204895.037	%	60 - 130%	109
	TP16 0.5	SE204895.038	%	60 - 130%	105
	TP17 0.3	SE204895.040	%	60 - 130%	94
	TP18 0	SE204895.041	%	60 - 130%	92
	TP19 0	SE204895.042	%	60 - 130%	71
	TP19 0.4	SE204895.043	%	60 - 130%	70
	TP20 0	SE204895.044	%	60 - 130%	65
	TP20 0.4	SE204895.045	%	60 - 130%	108
	TP21 0	SE204895.046	%	60 - 130%	113
	TP21 1	SE204895.047	%	60 - 130%	73
	TP22 0	SE204895.048	%	60 - 130%	73
	TP22 1	SE204895.049	%	60 - 130%	70
	TP23 0	SE204895.050	%	60 - 130%	72
	TP23 0.4	SE204895.051	%	60 - 130%	100
	TP23 0.5	SE204895.052	%	60 - 130%	71
	QC1	SE204895.053	%	60 - 130%	104
	QC2	SE204895.054	%	60 - 130%	104
	Trip Blank	SE204895.055	%	60 - 130%	113
	Trip Spike	SE204895.056	%	60 - 130%	110

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1 1-1.1	SE204895.001	%	60 - 130%	78
	BH1 2-4.2.5	SE204895.002	%	60 - 130%	62
	BH2 1-1.45	SE204895.003	%	60 - 130%	78
	BH2 2-2.45	SE204895.004	%	60 - 130%	79
	TP1 0	SE204895.005	%	60 - 130%	72
	TP1 1.6	SE204895.006	%	60 - 130%	76
	TP2 0	SE204895.007	%	60 - 130%	83
	TP2 0.7	SE204895.008	%	60 - 130%	86
	TP3 0	SE204895.009	%	60 - 130%	82

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Volatile Petroleum Hydrocarbons in Soil (continued) — **Method: ME-(AU)-[ENV]AN433**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	TP3 0.55	SE204895.010	%	60 - 130%	70
	TP4 0	SE204895.011	%	60 - 130%	84
	TP4 0.7	SE204895.012	%	60 - 130%	78
	TP5 0	SE204895.013	%	60 - 130%	82
	TP5 0.5	SE204895.014	%	60 - 130%	86
	TP6 1	SE204895.015	%	60 - 130%	76
	TP7 0	SE204895.016	%	60 - 130%	85
	TP7 0.6	SE204895.017	%	60 - 130%	81
	TP8 0	SE204895.018	%	60 - 130%	82
	TP8 0.7	SE204895.019	%	60 - 130%	80
	TP9 0.3	SE204895.020	%	60 - 130%	73
	TP9 0.5	SE204895.021	%	60 - 130%	82
	TP10 0	SE204895.022	%	60 - 130%	88
	TP10 0.6	SE204895.023	%	60 - 130%	82
	TP11 0	SE204895.024	%	60 - 130%	88
	TP10 0.3	SE204895.025	%	60 - 130%	81
	TP11 0.2	SE204895.026	%	60 - 130%	86
	TP11 0.5	SE204895.027	%	60 - 130%	86
	TP12 0	SE204895.028	%	60 - 130%	82
	TP12 0.5	SE204895.029	%	60 - 130%	77
	TP12 0.7	SE204895.030	%	60 - 130%	78
	TP13 0	SE204895.031	%	60 - 130%	81
	TP13 0.3	SE204895.032	%	60 - 130%	77
	TP13 0.5	SE204895.033	%	60 - 130%	80
	TP14 0.3	SE204895.034	%	60 - 130%	84
	TP14 0.5	SE204895.035	%	60 - 130%	86
	TP15 0	SE204895.036	%	60 - 130%	76
	TP15 0.5	SE204895.037	%	60 - 130%	83
	TP16 0.5	SE204895.038	%	60 - 130%	79
	TP17 0.3	SE204895.040	%	60 - 130%	73
	TP18 0	SE204895.041	%	60 - 130%	87
	TP19 0	SE204895.042	%	60 - 130%	75
	TP19 0.4	SE204895.043	%	60 - 130%	78
	TP20 0	SE204895.044	%	60 - 130%	78
	TP20 0.4	SE204895.045	%	60 - 130%	95
	TP21 0	SE204895.046	%	60 - 130%	99
	TP21 1	SE204895.047	%	60 - 130%	82
	TP22 0	SE204895.048	%	60 - 130%	78
	TP22 1	SE204895.049	%	60 - 130%	75
	TP23 0	SE204895.050	%	60 - 130%	80
	TP23 0.4	SE204895.051	%	60 - 130%	88
	TP23 0.5	SE204895.052	%	60 - 130%	79
	QC1	SE204895.053	%	60 - 130%	88
	QC2	SE204895.054	%	60 - 130%	90
d4-1,2-dichloroethane (Surrogate)	BH1 1-1.1	SE204895.001	%	60 - 130%	94
	BH1 2-4.2.5	SE204895.002	%	60 - 130%	78
	BH2 1-1.45	SE204895.003	%	60 - 130%	94
	BH2 2-2.45	SE204895.004	%	60 - 130%	82
	TP1 0	SE204895.005	%	60 - 130%	80
	TP1 1.6	SE204895.006	%	60 - 130%	96
	TP2 0	SE204895.007	%	60 - 130%	93
	TP2 0.7	SE204895.008	%	60 - 130%	99
	TP3 0	SE204895.009	%	60 - 130%	94
	TP3 0.55	SE204895.010	%	60 - 130%	86
	TP4 0	SE204895.011	%	60 - 130%	96
	TP4 0.7	SE204895.012	%	60 - 130%	96
	TP5 0	SE204895.013	%	60 - 130%	91
	TP5 0.5	SE204895.014	%	60 - 130%	100
	TP6 1	SE204895.015	%	60 - 130%	95
	TP7 0	SE204895.016	%	60 - 130%	102
	TP7 0.6	SE204895.017	%	60 - 130%	96

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason 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)	TP8 0	SE204895.018	%	60 - 130%	101
	TP8 0.7	SE204895.019	%	60 - 130%	92
	TP9 0.3	SE204895.020	%	60 - 130%	89
	TP9 0.5	SE204895.021	%	60 - 130%	96
	TP10 0	SE204895.022	%	60 - 130%	105
	TP10 0.6	SE204895.023	%	60 - 130%	99
	TP11 0	SE204895.024	%	60 - 130%	106
	TP10 0.3	SE204895.025	%	60 - 130%	97
	TP11 0.2	SE204895.026	%	60 - 130%	102
	TP11 0.5	SE204895.027	%	60 - 130%	105
	TP12 0	SE204895.028	%	60 - 130%	99
	TP12 0.5	SE204895.029	%	60 - 130%	95
	TP12 0.7	SE204895.030	%	60 - 130%	93
	TP13 0	SE204895.031	%	60 - 130%	93
	TP13 0.3	SE204895.032	%	60 - 130%	96
	TP13 0.5	SE204895.033	%	60 - 130%	94
	TP14 0.3	SE204895.034	%	60 - 130%	101
	TP14 0.5	SE204895.035	%	60 - 130%	105
	TP15 0	SE204895.036	%	60 - 130%	92
	TP15 0.5	SE204895.037	%	60 - 130%	101
	TP16 0.5	SE204895.038	%	60 - 130%	98
	TP17 0.3	SE204895.040	%	60 - 130%	87
	TP18 0	SE204895.041	%	60 - 130%	103
	TP19 0	SE204895.042	%	60 - 130%	75
	TP19 0.4	SE204895.043	%	60 - 130%	74
	TP20 0	SE204895.044	%	60 - 130%	70
	TP20 0.4	SE204895.045	%	60 - 130%	108
	TP21 0	SE204895.046	%	60 - 130%	113
	TP21 1	SE204895.047	%	60 - 130%	75
	TP22 0	SE204895.048	%	60 - 130%	75
	TP22 1	SE204895.049	%	60 - 130%	75
	TP23 0	SE204895.050	%	60 - 130%	74
	TP23 0.4	SE204895.051	%	60 - 130%	102
	TP23 0.5	SE204895.052	%	60 - 130%	76
	QC1	SE204895.053	%	60 - 130%	104
	QC2	SE204895.054	%	60 - 130%	106
d8-toluene (Surrogate)	BH1 1-1.1	SE204895.001	%	60 - 130%	100
	BH1 2-4.2.5	SE204895.002	%	60 - 130%	80
	BH2 1-1.45	SE204895.003	%	60 - 130%	102
	BH2 2-2.45	SE204895.004	%	60 - 130%	89
	TP1 0	SE204895.005	%	60 - 130%	85
	TP1 1.6	SE204895.006	%	60 - 130%	102
	TP2 0	SE204895.007	%	60 - 130%	96
	TP2 0.7	SE204895.008	%	60 - 130%	103
	TP3 0	SE204895.009	%	60 - 130%	99
	TP3 0.55	SE204895.010	%	60 - 130%	91
	TP4 0	SE204895.011	%	60 - 130%	101
	TP4 0.7	SE204895.012	%	60 - 130%	101
	TP5 0	SE204895.013	%	60 - 130%	101
	TP5 0.5	SE204895.014	%	60 - 130%	107
	TP6 1	SE204895.015	%	60 - 130%	102
	TP7 0	SE204895.016	%	60 - 130%	107
	TP7 0.6	SE204895.017	%	60 - 130%	101
	TP8 0	SE204895.018	%	60 - 130%	105
	TP8 0.7	SE204895.019	%	60 - 130%	100
	TP9 0.3	SE204895.020	%	60 - 130%	95
	TP9 0.5	SE204895.021	%	60 - 130%	102
	TP10 0	SE204895.022	%	60 - 130%	108
	TP10 0.6	SE204895.023	%	60 - 130%	100
	TP11 0	SE204895.024	%	60 - 130%	110
	TP10 0.3	SE204895.025	%	60 - 130%	104

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Volatile Petroleum Hydrocarbons in Soil (continued) — **Method: ME-(AU)-[ENV]AN433**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d8-toluene (Surrogate)	TP11 0.2	SE204895.026	%	60 - 130%	110
	TP11 0.5	SE204895.027	%	60 - 130%	110
	TP12 0	SE204895.028	%	60 - 130%	105
	TP12 0.5	SE204895.029	%	60 - 130%	102
	TP12 0.7	SE204895.030	%	60 - 130%	103
	TP13 0	SE204895.031	%	60 - 130%	102
	TP13 0.3	SE204895.032	%	60 - 130%	103
	TP13 0.5	SE204895.033	%	60 - 130%	103
	TP14 0.3	SE204895.034	%	60 - 130%	108
	TP14 0.5	SE204895.035	%	60 - 130%	109
	TP15 0	SE204895.036	%	60 - 130%	100
	TP15 0.5	SE204895.037	%	60 - 130%	109
	TP16 0.5	SE204895.038	%	60 - 130%	105
	TP17 0.3	SE204895.040	%	60 - 130%	94
	TP18 0	SE204895.041	%	60 - 130%	92
	TP19 0	SE204895.042	%	60 - 130%	71
	TP19 0.4	SE204895.043	%	60 - 130%	70
	TP20 0	SE204895.044	%	60 - 130%	65
	TP20 0.4	SE204895.045	%	60 - 130%	108
	TP21 0	SE204895.046	%	60 - 130%	113
	TP21 1	SE204895.047	%	60 - 130%	73
	TP22 0	SE204895.048	%	60 - 130%	73
	TP22 1	SE204895.049	%	60 - 130%	70
	TP23 0	SE204895.050	%	60 - 130%	72
	TP23 0.4	SE204895.051	%	60 - 130%	100
	TP23 0.5	SE204895.052	%	60 - 130%	71
	QC1	SE204895.053	%	60 - 130%	104
	QC2	SE204895.054	%	60 - 130%	104

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
LB197299.001	Exchangeable Sodium, Na	mg/kg	2	0
	Exchangeable Potassium, K	mg/kg	2	0
	Exchangeable Calcium, Ca	mg/kg	2	0
	Exchangeable Magnesium, Mg	mg/kg	2	0

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Sample Number	Parameter	Units	LOR	Result
LB197375.001	Mercury	mg/L	0.0001	<0.0001

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result
LB197290.001	Mercury	mg/kg	0.05	<0.05
LB197291.001	Mercury	mg/kg	0.05	<0.05
LB197292.001	Mercury	mg/kg	0.05	<0.05
LB197726.001	Mercury	mg/kg	0.05	<0.05

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB197266.001		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)	%	-	104
LB197267.001		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

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
LB197267.001		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)	%	-	119
LB197268.001		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)	%	-	119

OP Pesticides in Soil — Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB197266.001		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)	%	-	92
		d14-p-terphenyl (Surrogate)	%	-	92
LB197267.001		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)	%	-	85
		d14-p-terphenyl (Surrogate)	%	-	89
LB197268.001		Dichlorvos	mg/kg	0.5	<0.5
		Dimethoate	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.

OP Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB197268.001		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)	%	-	94
		d14-p-terphenyl (Surrogate)	%	-	92

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB197266.001		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)	%	-	93
		2-fluorobiphenyl (Surrogate)	%	-	92
		d14-p-terphenyl (Surrogate)	%	-	92
LB197267.001		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)	%	-	85
		d14-p-terphenyl (Surrogate)	%	-	89
LB197268.001		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

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
LB197268.001		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)	%	-	93
		2-fluorobiphenyl (Surrogate)	%	-	94
		d14-p-terphenyl (Surrogate)	%	-	92

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB197266.001		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)	%	-	104
LB197267.001		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)	%	-	119
LB197268.001		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)	%	-	119

Speciated Phenols in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result
LB197266.001	Phenol	mg/kg	0.5	<0.5
	2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5
	3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1
	2-chlorophenol	mg/kg	0.5	<0.5
	2,4-dimethylphenol	mg/kg	0.5	<0.5
	2,6-dichlorophenol	mg/kg	0.5	<0.5
	2,4-dichlorophenol	mg/kg	0.5	<0.5
	2,4,6-trichlorophenol	mg/kg	0.5	<0.5
	2-nitrophenol	mg/kg	0.5	<0.5
	4-nitrophenol	mg/kg	1	<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.

Speciated Phenols in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB197266.001		2,4,5-trichlorophenol	mg/kg	0.5	<0.5
		2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1
		Pentachlorophenol	mg/kg	0.5	<0.5
		2,4-dinitrophenol	mg/kg	2	<2
		4-chloro-3-methylphenol	mg/kg	2	<2
	Surrogates	2,4,6-Tribromophenol (Surrogate)	%	-	96
		d5-phenol (Surrogate)	%	-	94
LB197267.001		Phenol	mg/kg	0.5	<0.5
		2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5
		3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1
		2-chlorophenol	mg/kg	0.5	<0.5
		2,4-dimethylphenol	mg/kg	0.5	<0.5
		2,6-dichlorophenol	mg/kg	0.5	<0.5
		2,4-dichlorophenol	mg/kg	0.5	<0.5
		2,4,6-trichlorophenol	mg/kg	0.5	<0.5
		2-nitrophenol	mg/kg	0.5	<0.5
		4-nitrophenol	mg/kg	1	<1
		2,4,5-trichlorophenol	mg/kg	0.5	<0.5
		2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1
		Pentachlorophenol	mg/kg	0.5	<0.5
		2,4-dinitrophenol	mg/kg	2	<2
		4-chloro-3-methylphenol	mg/kg	2	<2
	Surrogates	2,4,6-Tribromophenol (Surrogate)	%	-	107
		d5-phenol (Surrogate)	%	-	102
LB197268.001		Phenol	mg/kg	0.5	<0.5
		2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5
		3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1
		2-chlorophenol	mg/kg	0.5	<0.5
		2,4-dimethylphenol	mg/kg	0.5	<0.5
		2,6-dichlorophenol	mg/kg	0.5	<0.5
		2,4-dichlorophenol	mg/kg	0.5	<0.5
		2,4,6-trichlorophenol	mg/kg	0.5	<0.5
		2-nitrophenol	mg/kg	0.5	<0.5
		4-nitrophenol	mg/kg	1	<1
		2,4,5-trichlorophenol	mg/kg	0.5	<0.5
		2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1
		Pentachlorophenol	mg/kg	0.5	<0.5
		2,4-dinitrophenol	mg/kg	2	<2
		4-chloro-3-methylphenol	mg/kg	2	<2
	Surrogates	2,4,6-Tribromophenol (Surrogate)	%	-	77
		d5-phenol (Surrogate)	%	-	94

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result
LB197287.001	Arsenic, As	mg/kg	1	<1
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.5	<0.5
	Copper, Cu	mg/kg	0.5	<0.5
	Nickel, Ni	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Zinc, Zn	mg/kg	2	<2.0
LB197288.001	Arsenic, As	mg/kg	1	<1
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.5	<0.5
	Copper, Cu	mg/kg	0.5	<0.5
	Nickel, Ni	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Zinc, Zn	mg/kg	2	<2.0
LB197289.001	Arsenic, As	mg/kg	1	<1
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	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.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued)

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result
LB197289.001	Copper, Cu	mg/kg	0.5	<0.5
	Nickel, Ni	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Zinc, Zn	mg/kg	2	<2.0
LB197722.001	Arsenic, As	mg/kg	1	<1
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.5	<0.5
	Copper, Cu	mg/kg	0.5	<0.5
	Nickel, Ni	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Zinc, Zn	mg/kg	2	<2.0

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result
LB197279.001	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
LB197266.001	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
LB197267.001	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
LB197268.001	TRH C10-C14	mg/kg	20	<20
	TRH C15-C28	mg/kg	45	<45
	TRH C29-C36	mg/kg	45	<45
	TRH C37-C40	mg/kg	100	<100
	TRH C10-C36 Total	mg/kg	110	<110

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB197263.001	Fumigants	2,2-dichloropropane	mg/kg	0.1	<0.1
		1,2-dichloropropane	mg/kg	0.1	<0.1
		cis-1,3-dichloropropene	mg/kg	0.1	<0.1
		trans-1,3-dichloropropene	mg/kg	0.1	<0.1
		1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1
	Halogenated Aliphatics	Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1
		Chloromethane	mg/kg	1	<1
		Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1
		Bromomethane	mg/kg	1	<1
		Chloroethane	mg/kg	1	<1
		Trichlorofluoromethane	mg/kg	1	<1
		Iodomethane	mg/kg	5	<5
		1,1-dichloroethene	mg/kg	0.1	<0.1
		Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5
		Allyl chloride	mg/kg	0.1	<0.1
		trans-1,2-dichloroethene	mg/kg	0.1	<0.1
		1,1-dichloroethane	mg/kg	0.1	<0.1
		cis-1,2-dichloroethene	mg/kg	0.1	<0.1
		Bromochloromethane	mg/kg	0.1	<0.1
		1,2-dichloroethane	mg/kg	0.1	<0.1

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOC's in Soil (continued) — Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB197263.001	Halogenated Aliphatics	1,1,1-trichloroethane	mg/kg	0.1	<0.1
		1,1-dichloropropene	mg/kg	0.1	<0.1
		Carbon tetrachloride	mg/kg	0.1	<0.1
		Dibromomethane	mg/kg	0.1	<0.1
		Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1
		1,1,2-trichloroethane	mg/kg	0.1	<0.1
		1,3-dichloropropane	mg/kg	0.1	<0.1
		Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1
		1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1
		cis-1,4-dichloro-2-butene	mg/kg	1	<1
		1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1
		1,2,3-trichloropropane	mg/kg	0.1	<0.1
		trans-1,4-dichloro-2-butene	mg/kg	1	<1
		1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1
		Hexachlorobutadiene	mg/kg	0.1	<0.1
	Halogenated Aromatics	Chlorobenzene	mg/kg	0.1	<0.1
		Bromobenzene	mg/kg	0.1	<0.1
		2-chlorotoluene	mg/kg	0.1	<0.1
		4-chlorotoluene	mg/kg	0.1	<0.1
		1,3-dichlorobenzene	mg/kg	0.1	<0.1
		1,4-dichlorobenzene	mg/kg	0.1	<0.1
		1,2-dichlorobenzene	mg/kg	0.1	<0.1
		1,2,4-trichlorobenzene	mg/kg	0.1	<0.1
		1,2,3-trichlorobenzene	mg/kg	0.1	<0.1
	Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.1	<0.1
		Toluene	mg/kg	0.1	<0.1
		Ethylbenzene	mg/kg	0.1	<0.1
		m/p-xylene	mg/kg	0.2	<0.2
		Styrene (Vinyl benzene)	mg/kg	0.1	<0.1
		o-xylene	mg/kg	0.1	<0.1
		Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1
		n-propylbenzene	mg/kg	0.1	<0.1
		1,3,5-trimethylbenzene	mg/kg	0.1	<0.1
		tert-butylbenzene	mg/kg	0.1	<0.1
		1,2,4-trimethylbenzene	mg/kg	0.1	<0.1
		sec-butylbenzene	mg/kg	0.1	<0.1
		p-isopropyltoluene	mg/kg	0.1	<0.1
		n-butylbenzene	mg/kg	0.1	<0.1
	Nitrogenous Compounds	Acrylonitrile	mg/kg	0.1	<0.1
		2-nitropropane	mg/kg	10	<10
	Oxygenated Compounds	Acetone (2-propanone)	mg/kg	10	<10
		MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1
		Vinyl acetate	mg/kg	10	<10
		MEK (2-butanone)	mg/kg	10	<10
		MIBK (4-methyl-2-pentanone)	mg/kg	1	<1
		2-hexanone (MBK)	mg/kg	5	<5
	Polycyclic VOCs	Naphthalene	mg/kg	0.1	<0.1
	Sulphonated	Carbon disulfide	mg/kg	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	110
		d8-toluene (Surrogate)	%	-	110
		Bromofluorobenzene (Surrogate)	%	-	97
	Totals	Total BTEX	mg/kg	0.6	<0.6
		Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
		Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
	Trihalomethanes	Chloroform	mg/kg	0.1	<0.1
		Bromodichloromethane	mg/kg	0.1	<0.1
		Chlorodibromomethane	mg/kg	0.1	<0.1
		Bromoform	mg/kg	0.1	<0.1
LB197264.001	Fumigants	2,2-dichloropropane	mg/kg	0.1	<0.1
		1,2-dichloropropane	mg/kg	0.1	<0.1
		cis-1,3-dichloropropene	mg/kg	0.1	<0.1

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB197264.001	Fumigants	trans-1,3-dichloropropene	mg/kg	0.1	<0.1
		1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1
	Halogenated Aliphatics	Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1
		Chloromethane	mg/kg	1	<1
		Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1
		Bromomethane	mg/kg	1	<1
		Chloroethane	mg/kg	1	<1
		Trichlorofluoromethane	mg/kg	1	<1
		Iodomethane	mg/kg	5	<5
		1,1-dichloroethene	mg/kg	0.1	<0.1
		Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5
		Allyl chloride	mg/kg	0.1	<0.1
		trans-1,2-dichloroethene	mg/kg	0.1	<0.1
		1,1-dichloroethane	mg/kg	0.1	<0.1
		cis-1,2-dichloroethene	mg/kg	0.1	<0.1
		Bromochloromethane	mg/kg	0.1	<0.1
		1,2-dichloroethane	mg/kg	0.1	<0.1
		1,1,1-trichloroethane	mg/kg	0.1	<0.1
		1,1-dichloropropene	mg/kg	0.1	<0.1
		Carbon tetrachloride	mg/kg	0.1	<0.1
		Dibromomethane	mg/kg	0.1	<0.1
		Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1
		1,1,2-trichloroethane	mg/kg	0.1	<0.1
		1,3-dichloropropane	mg/kg	0.1	<0.1
		Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1
		1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1
		cis-1,4-dichloro-2-butene	mg/kg	1	<1
		1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1
		1,2,3-trichloropropane	mg/kg	0.1	<0.1
		trans-1,4-dichloro-2-butene	mg/kg	1	<1
		1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1
		Hexachlorobutadiene	mg/kg	0.1	<0.1
	Halogenated Aromatics	Chlorobenzene	mg/kg	0.1	<0.1
		Bromobenzene	mg/kg	0.1	<0.1
		2-chlorotoluene	mg/kg	0.1	<0.1
		4-chlorotoluene	mg/kg	0.1	<0.1
		1,3-dichlorobenzene	mg/kg	0.1	<0.1
		1,4-dichlorobenzene	mg/kg	0.1	<0.1
		1,2-dichlorobenzene	mg/kg	0.1	<0.1
		1,2,4-trichlorobenzene	mg/kg	0.1	<0.1
		1,2,3-trichlorobenzene	mg/kg	0.1	<0.1
	Monocyclic Aromatic	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
		Styrene (Vinyl benzene)	mg/kg	0.1	<0.1
		o-xylene	mg/kg	0.1	<0.1
		Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1
		n-propylbenzene	mg/kg	0.1	<0.1
		1,3,5-trimethylbenzene	mg/kg	0.1	<0.1
		tert-butylbenzene	mg/kg	0.1	<0.1
		1,2,4-trimethylbenzene	mg/kg	0.1	<0.1
		sec-butylbenzene	mg/kg	0.1	<0.1
		p-isopropyltoluene	mg/kg	0.1	<0.1
		n-butylbenzene	mg/kg	0.1	<0.1
	Nitrogenous Compounds	Acrylonitrile	mg/kg	0.1	<0.1
		2-nitropropane	mg/kg	10	<10
	Oxygenated Compounds	Acetone (2-propanone)	mg/kg	10	<10
		MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1
		Vinyl acetate	mg/kg	10	<10
		MEK (2-butanone)	mg/kg	10	<10

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB197264.001	Oxygenated Compounds	MIBK (4-methyl-2-pentanone)	mg/kg	1	<1
		2-hexanone (MBK)	mg/kg	5	<5
	Polycyclic VOCs	Naphthalene	mg/kg	0.1	<0.1
	Sulphonated	Carbon disulfide	mg/kg	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	111
		d8-toluene (Surrogate)	%	-	117
		Bromofluorobenzene (Surrogate)	%	-	93
	Totals	Total BTEX	mg/kg	0.6	<0.6
		Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
		Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
	Trihalomethanes	Chloroform	mg/kg	0.1	<0.1
		Bromodichloromethane	mg/kg	0.1	<0.1
		Chlorodibromomethane	mg/kg	0.1	<0.1
		Bromoform	mg/kg	0.1	<0.1
LB197265.001	Fumigants	2,2-dichloropropane	mg/kg	0.1	<0.1
		1,2-dichloropropane	mg/kg	0.1	<0.1
		cis-1,3-dichloropropene	mg/kg	0.1	<0.1
		trans-1,3-dichloropropene	mg/kg	0.1	<0.1
		1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1
	Halogenated Aliphatics	Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1
		Chloromethane	mg/kg	1	<1
		Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1
		Bromomethane	mg/kg	1	<1
		Chloroethane	mg/kg	1	<1
		Trichlorofluoromethane	mg/kg	1	<1
		Iodomethane	mg/kg	5	<5
		1,1-dichloroethene	mg/kg	0.1	<0.1
		Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5
		Allyl chloride	mg/kg	0.1	<0.1
		trans-1,2-dichloroethene	mg/kg	0.1	<0.1
		1,1-dichloroethane	mg/kg	0.1	<0.1
		cis-1,2-dichloroethene	mg/kg	0.1	<0.1
		Bromochloromethane	mg/kg	0.1	<0.1
		1,2-dichloroethane	mg/kg	0.1	<0.1
		1,1,1-trichloroethane	mg/kg	0.1	<0.1
		1,1-dichloropropene	mg/kg	0.1	<0.1
		Carbon tetrachloride	mg/kg	0.1	<0.1
		Dibromomethane	mg/kg	0.1	<0.1
		Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1
		1,1,2-trichloroethane	mg/kg	0.1	<0.1
		1,3-dichloropropane	mg/kg	0.1	<0.1
		Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1
		1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1
		cis-1,4-dichloro-2-butene	mg/kg	1	<1
		1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1
		1,2,3-trichloropropane	mg/kg	0.1	<0.1
		trans-1,4-dichloro-2-butene	mg/kg	1	<1
		1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1
		Hexachlorobutadiene	mg/kg	0.1	<0.1
	Halogenated Aromatics	Chlorobenzene	mg/kg	0.1	<0.1
		Bromobenzene	mg/kg	0.1	<0.1
		2-chlorotoluene	mg/kg	0.1	<0.1
		4-chlorotoluene	mg/kg	0.1	<0.1
		1,3-dichlorobenzene	mg/kg	0.1	<0.1
		1,4-dichlorobenzene	mg/kg	0.1	<0.1
		1,2-dichlorobenzene	mg/kg	0.1	<0.1
		1,2,4-trichlorobenzene	mg/kg	0.1	<0.1
		1,2,3-trichlorobenzene	mg/kg	0.1	<0.1
	Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.1	<0.1
		Toluene	mg/kg	0.1	<0.1
		Ethylbenzene	mg/kg	0.1	<0.1

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB197265.001	Monocyclic Aromatic Hydrocarbons	m/p-xylene	mg/kg	0.2	<0.2
		Styrene (Vinyl benzene)	mg/kg	0.1	<0.1
		o-xylene	mg/kg	0.1	<0.1
		Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1
		n-propylbenzene	mg/kg	0.1	<0.1
		1,3,5-trimethylbenzene	mg/kg	0.1	<0.1
		tert-butylbenzene	mg/kg	0.1	<0.1
		1,2,4-trimethylbenzene	mg/kg	0.1	<0.1
		sec-butylbenzene	mg/kg	0.1	<0.1
		p-isopropyltoluene	mg/kg	0.1	<0.1
		n-butylbenzene	mg/kg	0.1	<0.1
	Nitrogenous Compounds	Acrylonitrile	mg/kg	0.1	<0.1
		2-nitropropane	mg/kg	10	<10
	Oxygenated Compounds	Acetone (2-propanone)	mg/kg	10	<10
		MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1
		Vinyl acetate	mg/kg	10	<10
		MEK (2-butanone)	mg/kg	10	<10
		MIBK (4-methyl-2-pentanone)	mg/kg	1	<1
		2-hexanone (MBK)	mg/kg	5	<5
	Polycyclic VOCs	Naphthalene	mg/kg	0.1	<0.1
	Sulphonated	Carbon disulfide	mg/kg	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	70
		d8-toluene (Surrogate)	%	-	71
		Bromofluorobenzene (Surrogate)	%	-	80
	Totals	Total BTEX	mg/kg	0.6	<0.6
		Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
		Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
	Trihalomethanes	Chloroform	mg/kg	0.1	<0.1
		Bromodichloromethane	mg/kg	0.1	<0.1
		Chlorodibromomethane	mg/kg	0.1	<0.1
		Bromoform	mg/kg	0.1	<0.1

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB197263.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	110
LB197264.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	111
LB197265.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	70

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 %
SE205109.001	LB197375.019	Mercury	µg/L	0.0001	-0.0019	-0.00206	200	0

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE204712.022	LB197292.022	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE204895.010	LB197290.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE204895.019	LB197290.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE204895.030	LB197291.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE204895.040	LB197291.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE204895.050	LB197292.014	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 %
SE204895.010	LB197269.011	% Moisture	%w/w	1	19.2	19.5	35	1
SE204895.020	LB197269.022	% Moisture	%w/w	1	3.6	5.4	52	40
SE204895.030	LB197270.011	% Moisture	%w/w	1	3.9	4.2	55	8
SE204895.040	LB197270.022	% Moisture	%w/w	1	10.5	10.4	40	1
SE204895.050	LB197271.011	% Moisture	%w/w	1	15.7	14.2	37	10
SE204895.055	LB197271.017	% Moisture	%w/w	1	<1.0	<1.0	200	0

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE204895.047	LB197268.020		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
			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	-	0.19	0.175	30	6

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE204895.010	LB197266.014	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

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 %
SE204895.010	LB197266.014		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
			Methidathion	mg/kg	0.5	<0.5	<0.5	200	0
			Ethion	mg/kg	0.2	<0.2	<0.2	200	0
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
			Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	1
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	3

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE204895.010	LB197266.014		Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
			Phenanthrene	mg/kg	0.1	<0.1	<0.1	200	0
			Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	30	0
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	1
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	3
SE204895.018	LB197266.028		Naphthalene	mg/kg	0.1	<0.1	0.0005299636	200	0
			2-methylnaphthalene	mg/kg	0.1	<0.1	0.0004484725	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	0.0003011095	200	0
			Fluorene	mg/kg	0.1	<0.1	0.0001665583	200	0
			Phenanthrene	mg/kg	0.1	<0.1	0.0015879342	200	0
			Anthracene	mg/kg	0.1	<0.1	0.0016100603	200	0
			Fluoranthene	mg/kg	0.1	<0.1	0.0018708452	200	0
			Pyrene	mg/kg	0.1	<0.1	0.0022375675	200	0
			Benzo(a)anthracene	mg/kg	0.1	<0.1	0.0092731157	200	0
			Chrysene	mg/kg	0.1	<0.1	0.0094613709	200	0
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	0.0066895609	200	0
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	0.0047920463	200	0
			Benzo(a)pyrene	mg/kg	0.1	<0.1	0	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	0.0003329585	200	0
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	0.0016349303	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	0	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	0.242	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	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	0.4162835219	30	1
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4409667506	30	0
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.4206287602	30	11

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 %
SE204895.030	LB197267.014		Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
			Phenanthrene	mg/kg	0.1	<0.1	<0.1	200	0
			Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	3
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	9
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	2
SE204895.040	LB197267.024		Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
			Phenanthrene	mg/kg	0.1	<0.1	<0.1	200	0
			Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	0
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	8
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	2
SE204895.050	LB197268.014		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	198	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

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 %
SE204895.050	LB197268.014		Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	148	0
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	30	0
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	1
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	1
SE204895.054	LB197268.019		Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
			Phenanthrene	mg/kg	0.1	<0.1	<0.1	200	0
			Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	30	4
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	8
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	2

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE204895.047	LB197268.020		Arochlor 1016	mg/kg	0.2	<0.2	0	200	0
			Arochlor 1221	mg/kg	0.2	<0.2	0	200	0
			Arochlor 1232	mg/kg	0.2	<0.2	0	200	0
			Arochlor 1242	mg/kg	0.2	<0.2	0	200	0
			Arochlor 1248	mg/kg	0.2	<0.2	0	200	0
			Arochlor 1254	mg/kg	0.2	<0.2	0	200	0
			Arochlor 1260	mg/kg	0.2	<0.2	0	200	0
			Arochlor 1262	mg/kg	0.2	<0.2	0	200	0
			Arochlor 1268	mg/kg	0.2	<0.2	0	200	0
			Total PCBs (Arochlors)	mg/kg	1	<1	0	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0.175	30	6

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE204855.003	LB197395.016	pH	pH Units	0.1	8.1	8.1	31	0

Speciated Phenols in Soil

Method: ME-(AU)-[ENV]AN420

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.

Speciated Phenols in Soil (continued) — **Method: ME-(AU)-[ENV]AN420**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE204895.049	LB197268.020		Phenol	mg/kg	0.5	<0.5	0	200	0
			2-methyl phenol (o-cresol)	mg/kg	0.5	<0.5	0	200	0
			3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1	0	200	0
			Total Cresol	mg/kg	1.5	<1.5	0	200	0
			2-chlorophenol	mg/kg	0.5	<0.5	0	200	0
			2,4-dimethylphenol	mg/kg	0.5	<0.5	0	200	0
			2,6-dichlorophenol	mg/kg	0.5	<0.5	0	200	0
			2,4-dichlorophenol	mg/kg	0.5	<0.5	0	200	0
			2,4,6-trichlorophenol	mg/kg	0.5	<0.5	0	200	0
			2-nitrophenol	mg/kg	0.5	<0.5	0	200	0
			4-nitrophenol	mg/kg	1	<1	0	200	0
			2,4,5-trichlorophenol	mg/kg	0.5	<0.5	0	200	0
			2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	<1	0	200	0
			Pentachlorophenol	mg/kg	0.5	<0.5	0	200	0
			2,4-dinitrophenol	mg/kg	2	<2	0	200	0
			4-chloro-3-methylphenol	mg/kg	2	<2	0	200	0
		Surrogates	2,4,6-Tribromophenol (Surrogate)	mg/kg	-	5.4	5.59	30	4
			d5-phenol (Surrogate)	mg/kg	-	1.7	2.11	30	22
	LB197268.021		Phenol	mg/kg	0.5	NVL	NVL	NVL	NVL
			2-methyl phenol (o-cresol)	mg/kg	0.5	NVL	NVL	NVL	NVL
			3/4-methyl phenol (m/p-cresol)	mg/kg	1	NVL	NVL	NVL	NVL
			Total Cresol	mg/kg	1.5	NVL	NVL	NVL	NVL
			2-chlorophenol	mg/kg	0.5	NVL	NVL	NVL	NVL
			2,4-dimethylphenol	mg/kg	0.5	NVL	NVL	NVL	NVL
			2,6-dichlorophenol	mg/kg	0.5	NVL	NVL	NVL	NVL
			2,4-dichlorophenol	mg/kg	0.5	NVL	NVL	NVL	NVL
			2,4,6-trichlorophenol	mg/kg	0.5	NVL	NVL	NVL	NVL
			2-nitrophenol	mg/kg	0.5	NVL	NVL	NVL	NVL
			4-nitrophenol	mg/kg	1	NVL	NVL	NVL	NVL
			2,4,5-trichlorophenol	mg/kg	0.5	NVL	NVL	NVL	NVL
			2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	NVL	NVL	NVL	NVL
			Pentachlorophenol	mg/kg	0.5	NVL	NVL	NVL	NVL
			2,4-dinitrophenol	mg/kg	2	NVL	NVL	NVL	NVL
			4-chloro-3-methylphenol	mg/kg	2	NVL	NVL	NVL	NVL
		Surrogates	2,4,6-Tribromophenol (Surrogate)	mg/kg	-	NVL	NVL	NVL	NVL
			d5-phenol (Surrogate)	mg/kg	-	1.7	2.11	30	22

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 %
SE204712.022	LB197289.022	Arsenic, As	mg/kg	1	3	3	61	16
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	12	12	34	1
		Copper, Cu	mg/kg	0.5	2.5	1.9	53	24
		Nickel, Ni	mg/kg	0.5	0.9	0.8	88	13
		Lead, Pb	mg/kg	1	12	12	39	2
		Zinc, Zn	mg/kg	2	4.9	4.0	75	19
SE204895.010	LB197287.014	Arsenic, As	mg/kg	1	<1	<1	173	0
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	1.7	1.7	59	2
		Copper, Cu	mg/kg	0.5	1.3	1.8	63	34
		Nickel, Ni	mg/kg	0.5	<0.5	<0.5	200	0
		Lead, Pb	mg/kg	1	2	3	67	39
		Zinc, Zn	mg/kg	2	33	44	35	28
SE204895.019	LB197287.024	Arsenic, As	mg/kg	1	<1	1	123	18
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	2.8	1.8	52	43
		Copper, Cu	mg/kg	0.5	11	14	34	24
		Nickel, Ni	mg/kg	0.5	<0.5	<0.5	200	0
		Lead, Pb	mg/kg	1	18	21	35	16
		Zinc, Zn	mg/kg	2	170	170	31	1
SE204895.030	LB197288.014	Arsenic, As	mg/kg	1	<1	<1	143	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.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued)

Method: ME-(AU)-[ENV]AN040/AN320

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE204895.030	LB197288.014	Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	1.9	2.3	54	20
		Copper, Cu	mg/kg	0.5	3.5	11	37	106 ②
		Nickel, Ni	mg/kg	0.5	0.8	1.2	80	49
		Lead, Pb	mg/kg	1	6	11	42	48 ②
		Zinc, Zn	mg/kg	2	69	110	32	42 ②
SE204895.040	LB197288.024	Arsenic, As	mg/kg	1	72	60	32	17
		Cadmium, Cd	mg/kg	0.3	0.9	1.9	52	71 ②
		Chromium, Cr	mg/kg	0.5	32	36	31	9
		Copper, Cu	mg/kg	0.5	620	710	30	13
		Nickel, Ni	mg/kg	0.5	7.2	16	34	75 ②
		Lead, Pb	mg/kg	1	1000	1200	30	17
		Zinc, Zn	mg/kg	2	16000	13000	30	20
SE204895.050	LB197289.014	Arsenic, As	mg/kg	1	3	2	69	16
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	5.2	12	36	79 ②
		Copper, Cu	mg/kg	0.5	8.6	18	34	70 ②
		Nickel, Ni	mg/kg	0.5	3.3	5.4	42	49 ②
		Lead, Pb	mg/kg	1	16	39	34	83 ②
		Zinc, Zn	mg/kg	2	340	690	30	68 ②

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE204886.003	LB197279.014	Copper, Cu	µg/L	1	11	11	24	0
SE205052.003	LB197279.023	Arsenic, As	µg/L	1	<10	<10	83	0
		Cadmium, Cd	µg/L	0.1	<1.0	<1.0	200	0
		Chromium, Cr	µg/L	1	<10	<10	141	0
		Copper, Cu	µg/L	1	<10	<10	200	0
		Lead, Pb	µg/L	1	<10	<10	200	0
		Nickel, Ni	µg/L	1	<10	<10	26	0
		Zinc, Zn	µg/L	5	<50	<50	200	0

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE204895.010	LB197266.014		TRH C10-C14	mg/kg	20	<20	<20	200	0
			TRH C15-C28	mg/kg	45	<45	<45	200	0
			TRH C29-C36	mg/kg	45	<45	<45	200	0
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
SE204895.030	LB197267.014		TRH C10-C14	mg/kg	20	<20	<20	200	0
			TRH C15-C28	mg/kg	45	<45	<45	200	0
			TRH C29-C36	mg/kg	45	<45	<45	200	0
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
SE204895.040	LB197267.024		TRH C10-C14	mg/kg	20	<20	<20	200	0
			TRH C15-C28	mg/kg	45	<45	<45	200	0
			TRH C29-C36	mg/kg	45	<45	<45	200	0
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0

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 Soil (continued) — Method: ME-(AU)-[ENV]AN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE204895.040	LB197267.024	TRH F Bands	TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
SE204895.050	LB197268.014		TRH C10-C14	mg/kg	20	<20	<20	200	0
			TRH C15-C28	mg/kg	45	<45	<45	200	0
			TRH C29-C36	mg/kg	45	<45	<45	200	0
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
SE204895.054	LB197268.019		TRH C10-C14	mg/kg	20	<20	<20	200	0
			TRH C15-C28	mg/kg	45	<45	<45	200	0
			TRH C29-C36	mg/kg	45	<45	<45	200	0
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0

VOC's in Soil — Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE204895.010	LB197263.014	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.6	8.9	50	3
			d8-toluene (Surrogate)	mg/kg	-	9.1	9.3	50	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.0	7.2	50	3
		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
SE204895.020	LB197263.025	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	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.9	9.0	50	1
			d8-toluene (Surrogate)	mg/kg	-	9.5	9.6	50	1
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.3	7.3	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
SE204895.030	LB197264.014	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.3	9.9	50	6
			d8-toluene (Surrogate)	mg/kg	-	10.3	10.8	50	6
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.8	8.1	50	4
		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
SE204895.040	LB197264.024	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0

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.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE204895.040	LB197264.024	Monocyclic	o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.7	8.5	50	1
			d8-toluene (Surrogate)	mg/kg	-	9.4	9.2	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.3	6.9	50	5
		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
SE204895.049	LB197265.024	Monocyclic	Benzene	mg/kg	0.1	<0.1	0.0024195432	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	0.0456239071	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	0.0062490714	200	0
			m/p-xylene	mg/kg	0.2	<0.2	0.0108646902	200	0
			o-xylene	mg/kg	0.1	<0.1	0.0039112541	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	0.0040727559	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.5	11.1185133392	50	39
			d8-toluene (Surrogate)	mg/kg	-	7.0	11.1805813918	50	46
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.5	9.4258994085	50	23
		Totals	Total Xylenes	mg/kg	0.3	<0.3	0.0147759444	200	0
			Total BTEX	mg/kg	0.6	<0.6	0	200	0
SE204895.054	LB197265.022	Monocyclic	Benzene	mg/kg	0.1	<0.1	0	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	0.0124763241	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	0	200	0
			m/p-xylene	mg/kg	0.2	<0.2	0	200	0
			o-xylene	mg/kg	0.1	<0.1	0.0043138765	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	0	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.6	7.6926079554	50	32
			d8-toluene (Surrogate)	mg/kg	-	10.4	6.6342398878	50	44
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.0	7.5469580696	50	17
		Totals	Total Xylenes	mg/kg	0.3	<0.3	0.0043138765	200	0
			Total BTEX	mg/kg	0.6	<0.6	0	200	0

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE204895.010	LB197263.014		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.6	8.9	30	3
			d8-toluene (Surrogate)	mg/kg	-	9.1	9.3	30	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.0	7.2	30	3
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0
SE204895.020	LB197263.025		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.9	9.0	30	1
			d8-toluene (Surrogate)	mg/kg	-	9.5	9.6	30	1
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.3	7.3	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
SE204895.030	LB197264.014		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.3	9.9	30	6
			d8-toluene (Surrogate)	mg/kg	-	10.3	10.8	30	6
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.8	8.1	30	4
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0
SE204895.040	LB197264.024		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.7	8.5	30	1
			d8-toluene (Surrogate)	mg/kg	-	9.4	9.2	30	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.3	6.9	30	5
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0
SE204895.049	LB197265.024		TRH C6-C10	mg/kg	25	<25	1.0772861554	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.

Volatile Petroleum Hydrocarbons in Soil (continued) — **Method: ME-(AU)-[ENV]AN433**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE204895.049	LB197265.024		TRH C6-C9	mg/kg	20	<20	1.0163262062	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.5	11.1185133392	30	39 †
			d8-toluene (Surrogate)	mg/kg	-	7.0	11.1805813918	30	46 †
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.5	9.4258994085	30	23
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	0.0024195432	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	1.0772861554	200	0
SE204895.054	LB197265.022		TRH C6-C10	mg/kg	25	<25	1.0154704952	200	0
			TRH C6-C9	mg/kg	20	<20	1.0933151561	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.6	7.6926079554	30	32 †
			d8-toluene (Surrogate)	mg/kg	-	10.4	6.6342398878	30	44 ⓘ
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.0	7.5469580696	30	17
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	0	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	1.0154704952	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 %
LB197290.002	Mercury	mg/kg	0.05	0.18	0.2	70 - 130	89
LB197291.002	Mercury	mg/kg	0.05	0.17	0.2	70 - 130	84
LB197292.002	Mercury	mg/kg	0.05	0.17	0.2	70 - 130	83
LB197726.002	Mercury	mg/kg	0.05	0.17	0.2	70 - 130	86

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB197266.002		Heptachlor	mg/kg	0.1	0.3	0.2	60 - 140	128
		Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	122
		Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	119
		Dieldrin	mg/kg	0.2	0.2	0.2	60 - 140	124
		Endrin	mg/kg	0.2	0.2	0.2	60 - 140	124
		p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	122
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.15	0.15	40 - 130	101
LB197267.002		Heptachlor	mg/kg	0.1	0.3	0.2	60 - 140	139
		Aldrin	mg/kg	0.1	0.3	0.2	60 - 140	128
		Delta BHC	mg/kg	0.1	0.3	0.2	60 - 140	126
		Dieldrin	mg/kg	0.2	0.2	0.2	60 - 140	125
		Endrin	mg/kg	0.2	0.3	0.2	60 - 140	128
		p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	119
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.16	0.15	40 - 130	109
LB197268.002		Heptachlor	mg/kg	0.1	0.3	0.2	60 - 140	139
		Aldrin	mg/kg	0.1	0.3	0.2	60 - 140	128
		Delta BHC	mg/kg	0.1	0.3	0.2	60 - 140	126
		Dieldrin	mg/kg	0.2	0.2	0.2	60 - 140	125
		Endrin	mg/kg	0.2	0.3	0.2	60 - 140	128
		p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	119
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.16	0.15	40 - 130	109

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB197266.002		Dichlorvos	mg/kg	0.5	1.7	2	60 - 140	85
		Diazinon (Dimpylate)	mg/kg	0.5	2.2	2	60 - 140	110
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	2.0	2	60 - 140	102
		Ethion	mg/kg	0.2	1.9	2	60 - 140	96
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	82
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	75
LB197267.002		Dichlorvos	mg/kg	0.5	1.5	2	60 - 140	75
		Diazinon (Dimpylate)	mg/kg	0.5	1.6	2	60 - 140	78
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.6	2	60 - 140	79
		Ethion	mg/kg	0.2	1.4	2	60 - 140	71
	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	79
LB197268.002		Dichlorvos	mg/kg	0.5	1.7	2	60 - 140	86
		Diazinon (Dimpylate)	mg/kg	0.5	1.9	2	60 - 140	96
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.9	2	60 - 140	97
		Ethion	mg/kg	0.2	1.7	2	60 - 140	87
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	89
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	79

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB197266.002		Naphthalene	mg/kg	0.1	4.1	4	60 - 140	103
		Acenaphthylene	mg/kg	0.1	4.1	4	60 - 140	103
		Acenaphthene	mg/kg	0.1	4.3	4	60 - 140	106
		Phenanthrene	mg/kg	0.1	4.3	4	60 - 140	106
		Anthracene	mg/kg	0.1	4.1	4	60 - 140	103
		Fluoranthene	mg/kg	0.1	4.2	4	60 - 140	105
		Pyrene	mg/kg	0.1	4.3	4	60 - 140	108
		Benzo(a)pyrene	mg/kg	0.1	4.0	4	60 - 140	99
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	78
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	82

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 %
LB197266.002	Surrogates	d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	75
LB197267.002		Naphthalene	mg/kg	0.1	4.1	4	60 - 140	102
		Acenaphthylene	mg/kg	0.1	4.2	4	60 - 140	104
		Acenaphthene	mg/kg	0.1	4.5	4	60 - 140	112
		Phenanthrene	mg/kg	0.1	4.4	4	60 - 140	109
		Anthracene	mg/kg	0.1	4.2	4	60 - 140	105
		Fluoranthene	mg/kg	0.1	4.1	4	60 - 140	101
		Pyrene	mg/kg	0.1	4.2	4	60 - 140	105
		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	82
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	86
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	79
LB197268.002		Naphthalene	mg/kg	0.1	4.1	4	60 - 140	102
		Acenaphthylene	mg/kg	0.1	4.1	4	60 - 140	103
		Acenaphthene	mg/kg	0.1	4.2	4	60 - 140	106
		Phenanthrene	mg/kg	0.1	4.2	4	60 - 140	105
		Anthracene	mg/kg	0.1	4.2	4	60 - 140	104
		Fluoranthene	mg/kg	0.1	4.0	4	60 - 140	100
		Pyrene	mg/kg	0.1	4.2	4	60 - 140	105
		Benzo(a)pyrene	mg/kg	0.1	3.9	4	60 - 140	97
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	81
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	89
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	79

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB197266.002	Arochlor 1260	mg/kg	0.2	0.4	0.4	60 - 140	100
LB197267.002	Arochlor 1260	mg/kg	0.2	0.4	0.4	60 - 140	100
LB197268.002	Arochlor 1260	mg/kg	0.2	0.4	0.4	60 - 140	100

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB197395.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100

Speciated Phenols in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB197266.002		Phenol	mg/kg	0.5	0.9	1	70 - 130	89
		2,4-dichlorophenol	mg/kg	0.5	0.8	1	70 - 130	84
		2,4,6-trichlorophenol	mg/kg	0.5	0.9	1	70 - 130	86
		Pentachlorophenol	mg/kg	0.5	1.0	1	70 - 130	104
	Surrogates	2,4,6-Tribromophenol (Surrogate)	mg/kg	-	5.5	5	40 - 130	110
		d5-phenol (Surrogate)	mg/kg	-	2.0	2	40 - 130	98
LB197267.002		Phenol	mg/kg	0.5	1.3	1	70 - 130	127
		2,4-dichlorophenol	mg/kg	0.5	1.2	1	70 - 130	119
		2,4,6-trichlorophenol	mg/kg	0.5	1.3	1	70 - 130	127
		Pentachlorophenol	mg/kg	0.5	1.1	1	70 - 130	105
	Surrogates	2,4,6-Tribromophenol (Surrogate)	mg/kg	-	5.1	5	40 - 130	101
		d5-phenol (Surrogate)	mg/kg	-	2.0	2	40 - 130	98
LB197268.002		Phenol	mg/kg	0.5	1.0	1	70 - 130	98
		2,4-dichlorophenol	mg/kg	0.5	1.0	1	70 - 130	99
		2,4,6-trichlorophenol	mg/kg	0.5	0.8	1	70 - 130	78
		Pentachlorophenol	mg/kg	0.5	0.7	1	70 - 130	70
	Surrogates	2,4,6-Tribromophenol (Surrogate)	mg/kg	-	4.0	5	40 - 130	81
		d5-phenol (Surrogate)	mg/kg	-	2.0	2	40 - 130	98

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 %
LB197287.002	Arsenic, As	mg/kg	1	340	318.22	80 - 120	108
	Cadmium, Cd	mg/kg	0.3	5.2	5.41	80 - 120	96
	Chromium, Cr	mg/kg	0.5	33	38.31	80 - 120	86
	Copper, Cu	mg/kg	0.5	300	290	80 - 120	104

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued)

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB197287.002	Nickel, Ni	mg/kg	0.5	180	187	80 - 120	98
	Lead, Pb	mg/kg	1	100	89.9	80 - 120	112
	Zinc, Zn	mg/kg	2	270	273	80 - 120	101
LB197288.002	Arsenic, As	mg/kg	1	330	318.22	80 - 120	105
	Cadmium, Cd	mg/kg	0.3	5.2	5.41	80 - 120	96
	Chromium, Cr	mg/kg	0.5	32	38.31	80 - 120	82
	Copper, Cu	mg/kg	0.5	300	290	80 - 120	104
	Nickel, Ni	mg/kg	0.5	190	187	80 - 120	101
	Lead, Pb	mg/kg	1	97	89.9	80 - 120	108
	Zinc, Zn	mg/kg	2	270	273	80 - 120	99
LB197289.002	Arsenic, As	mg/kg	1	340	318.22	80 - 120	106
	Cadmium, Cd	mg/kg	0.3	5.2	5.41	80 - 120	96
	Chromium, Cr	mg/kg	0.5	35	38.31	80 - 120	90
	Copper, Cu	mg/kg	0.5	300	290	80 - 120	102
	Nickel, Ni	mg/kg	0.5	180	187	80 - 120	98
	Lead, Pb	mg/kg	1	99	89.9	80 - 120	110
	Zinc, Zn	mg/kg	2	270	273	80 - 120	98
LB197722.002	Arsenic, As	mg/kg	1	350	318.22	80 - 120	110
	Cadmium, Cd	mg/kg	0.3	5.5	5.41	80 - 120	102
	Chromium, Cr	mg/kg	0.5	33	38.31	80 - 120	86
	Copper, Cu	mg/kg	0.5	300	290	80 - 120	103
	Nickel, Ni	mg/kg	0.5	170	187	80 - 120	92
	Lead, Pb	mg/kg	1	100	89.9	80 - 120	112
	Zinc, Zn	mg/kg	2	280	273	80 - 120	103

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB197279.002	Arsenic, As	µg/L	1	19	20	80 - 120	95
	Cadmium, Cd	µg/L	0.1	19	20	80 - 120	94
	Chromium, Cr	µg/L	1	21	20	80 - 120	103
	Copper, Cu	µg/L	1	20	20	80 - 120	101
	Lead, Pb	µg/L	1	18	20	80 - 120	89
	Nickel, Ni	µg/L	1	20	20	80 - 120	102
	Zinc, Zn	µg/L	5	19	20	80 - 120	96

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB197266.002		TRH C10-C14	mg/kg	20	29	40	60 - 140	73
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	78
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	73
	TRH F Bands	TRH >C10-C16	mg/kg	25	33	40	60 - 140	83
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	78
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	65
LB197267.002		TRH C10-C14	mg/kg	20	35	40	60 - 140	88
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	75
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	70
	TRH F Bands	TRH >C10-C16	mg/kg	25	33	40	60 - 140	83
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	75
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	65
LB197268.002		TRH C10-C14	mg/kg	20	32	40	60 - 140	80
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	75
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	63
	TRH F Bands	TRH >C10-C16	mg/kg	25	31	40	60 - 140	78
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	73
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	60

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB197263.002	Halogenated	1,1-dichloroethene	mg/kg	0.1	4.1	5	60 - 140	83
	Aliphatics	1,2-dichloroethane	mg/kg	0.1	4.8	5	60 - 140	95
		Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	4.3	5	60 - 140	87
	Halogenated	Chlorobenzene	mg/kg	0.1	5.1	5	60 - 140	103

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB197263.002	Monocyclic	Benzene	mg/kg	0.1	4.0	5	60 - 140	81
	Aromatic	Toluene	mg/kg	0.1	4.3	5	60 - 140	86
		Ethylbenzene	mg/kg	0.1	4.1	5	60 - 140	83
		m/p-xylene	mg/kg	0.2	8.5	10	60 - 140	85
		o-xylene	mg/kg	0.1	4.3	5	60 - 140	86
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.9	10	70 - 130	99
		d8-toluene (Surrogate)	mg/kg	-	10.2	10	70 - 130	102
		Bromofluorobenzene (Surrogate)	mg/kg	-	8.7	10	70 - 130	87
	Trihalomethan	Chloroform	mg/kg	0.1	4.7	5	60 - 140	93
LB197264.002	Halogenated	1,1-dichloroethene	mg/kg	0.1	3.9	5	60 - 140	79
	Aliphatics	1,2-dichloroethane	mg/kg	0.1	4.4	5	60 - 140	88
		Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	4.1	5	60 - 140	82
	Halogenated	Chlorobenzene	mg/kg	0.1	4.8	5	60 - 140	96
	Monocyclic	Benzene	mg/kg	0.1	4.3	5	60 - 140	85
	Aromatic	Toluene	mg/kg	0.1	4.4	5	60 - 140	89
		Ethylbenzene	mg/kg	0.1	4.5	5	60 - 140	89
		m/p-xylene	mg/kg	0.2	9.1	10	60 - 140	91
		o-xylene	mg/kg	0.1	4.6	5	60 - 140	91
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11.1	10	70 - 130	111
		d8-toluene (Surrogate)	mg/kg	-	11.4	10	70 - 130	114
		Bromofluorobenzene (Surrogate)	mg/kg	-	8.1	10	70 - 130	81
	Trihalomethan	Chloroform	mg/kg	0.1	4.5	5	60 - 140	90
LB197265.002	Halogenated	1,1-dichloroethene	mg/kg	0.1	3.8	5	60 - 140	76
	Aliphatics	1,2-dichloroethane	mg/kg	0.1	4.6	5	60 - 140	93
		Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	4.3	5	60 - 140	87
	Halogenated	Chlorobenzene	mg/kg	0.1	5.0	5	60 - 140	99
	Monocyclic	Benzene	mg/kg	0.1	3.8	5	60 - 140	77
	Aromatic	Toluene	mg/kg	0.1	4.1	5	60 - 140	83
		Ethylbenzene	mg/kg	0.1	4.2	5	60 - 140	84
		m/p-xylene	mg/kg	0.2	8.4	10	60 - 140	84
		o-xylene	mg/kg	0.1	4.2	5	60 - 140	83
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.9	10	70 - 130	79
		d8-toluene (Surrogate)	mg/kg	-	7.2	10	70 - 130	72
		Bromofluorobenzene (Surrogate)	mg/kg	-	8.4	10	70 - 130	84
	Trihalomethan	Chloroform	mg/kg	0.1	4.3	5	60 - 140	85

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB197263.002		TRH C6-C10	mg/kg	25	77	92.5	60 - 140	83
		TRH C6-C9	mg/kg	20	64	80	60 - 140	80
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.9	10	70 - 130	99
		Bromofluorobenzene (Surrogate)	mg/kg	-	8.7	10	70 - 130	87
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	52	62.5	60 - 140	83
LB197264.002		TRH C6-C10	mg/kg	25	83	92.5	60 - 140	90
		TRH C6-C9	mg/kg	20	70	80	60 - 140	87
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11.1	10	70 - 130	111
		Bromofluorobenzene (Surrogate)	mg/kg	-	8.1	10	70 - 130	81
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	56	62.5	60 - 140	90
LB197265.002		TRH C6-C10	mg/kg	25	69	92.5	60 - 140	75
		TRH C6-C9	mg/kg	20	59	80	60 - 140	74
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.9	10	70 - 130	79
		Bromofluorobenzene (Surrogate)	mg/kg	-	8.4	10	70 - 130	84
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	44	62.5	60 - 140	71

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%
SE204892.023	LB197375.004	Mercury	mg/L	0.0001	0.0065	<0.0001	0.008	81

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE204895.001	LB197290.004	Mercury	mg/kg	0.05	0.19	<0.05	0.2	89
SE204895.020	LB197291.004	Mercury	mg/kg	0.05	0.18	<0.05	0.2	86
SE204895.041	LB197292.004	Mercury	mg/kg	0.05	0.18	<0.05	0.2	83

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE204895.001	LB197266.004		Naphthalene	mg/kg	0.1	3.9	<0.1	4	97
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
			Acenaphthylene	mg/kg	0.1	4.0	<0.1	4	100
			Acenaphthene	mg/kg	0.1	4.2	<0.1	4	104
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.2	<0.1	4	105
			Anthracene	mg/kg	0.1	3.9	<0.1	4	98
			Fluoranthene	mg/kg	0.1	4.0	<0.1	4	100
			Pyrene	mg/kg	0.1	4.2	<0.1	4	106
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
			Chrysene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(a)pyrene	mg/kg	0.1	3.7	<0.1	4	93
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	-	-
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	3.7	<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	3.8	<0.2	-	-
			Total PAH (18)	mg/kg	0.8	32	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	-	80
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	83
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	75
SE204895.021	LB197267.004		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	4.0	<0.1	4	100
			Acenaphthene	mg/kg	0.1	4.1	<0.1	4	104
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.2	<0.1	4	104
			Anthracene	mg/kg	0.1	4.0	<0.1	4	100
			Fluoranthene	mg/kg	0.1	3.9	<0.1	4	98
			Pyrene	mg/kg	0.1	4.3	<0.1	4	108
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
			Chrysene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(a)pyrene	mg/kg	0.1	3.9	<0.1	4	98
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	-	-
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	3.9	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	4.1	<0.3	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	4.0	<0.2	-	-
			Total PAH (18)	mg/kg	0.8	32	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	-	85
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	82

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%
SE204895.021	LB197267.004	Surrogates	d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	82
SE204895.041	LB197268.004		Naphthalene	mg/kg	0.1	3.9	<0.1	4	97
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
			Acenaphthylene	mg/kg	0.1	3.9	<0.1	4	96
			Acenaphthene	mg/kg	0.1	4.1	<0.1	4	102
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.2	<0.1	4	105
			Anthracene	mg/kg	0.1	3.9	<0.1	4	98
			Fluoranthene	mg/kg	0.1	4.0	<0.1	4	99
			Pyrene	mg/kg	0.1	4.2	<0.1	4	104
			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 (mg/kg)	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	32	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	-	82
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	80
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	77

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE204895.001	LB197287.004	Arsenic, As	mg/kg	1	50	2	50	96
		Cadmium, Cd	mg/kg	0.3	47	<0.3	50	93
		Chromium, Cr	mg/kg	0.5	51	4.0	50	94
		Copper, Cu	mg/kg	0.5	56	6.8	50	98
		Nickel, Ni	mg/kg	0.5	53	8.2	50	90
		Lead, Pb	mg/kg	1	54	6	50	96
		Zinc, Zn	mg/kg	2	110	57	50	97
SE204895.020	LB197288.004	Arsenic, As	mg/kg	1	62	24	50	77
		Cadmium, Cd	mg/kg	0.3	46	<0.3	50	92
		Chromium, Cr	mg/kg	0.5	54	7.9	50	91
		Copper, Cu	mg/kg	0.5	86	40	50	91
		Nickel, Ni	mg/kg	0.5	52	6.3	50	92
		Lead, Pb	mg/kg	1	94	46	50	95
		Zinc, Zn	mg/kg	2	980	1100	50	-216 ⑨
SE204895.041	LB197289.004	Arsenic, As	mg/kg	1	47	5	50	83
		Cadmium, Cd	mg/kg	0.3	44	<0.3	50	87
		Chromium, Cr	mg/kg	0.5	160	110	50	91
		Copper, Cu	mg/kg	0.5	92	58	50	68 ④
		Nickel, Ni	mg/kg	0.5	45	5.5	50	80
		Lead, Pb	mg/kg	1	130	100	50	65 ④
		Zinc, Zn	mg/kg	2	980	980	50	-5 ④

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE204867.001	LB197279.004	Arsenic, As	µg/L	1	23	1	20	107
		Cadmium, Cd	µg/L	0.1	19	<0.1	20	96
		Chromium, Cr	µg/L	1	21	<1	20	101
		Copper, Cu	µg/L	1	18	<1	20	91
		Lead, Pb	µg/L	1	18	<1	20	87
		Zinc, Zn	µg/L	5	91	71	20	102

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

QC Sample	Sample Number	Parameter	Units	LOR

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

TRH (Total Recoverable Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN403

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE204895.001	LB197266.004		TRH C10-C14	mg/kg	20	45	<20	40	113
			TRH C15-C28	mg/kg	45	<45	<45	40	110
			TRH C29-C36	mg/kg	45	<45	<45	40	98
			TRH C37-C40	mg/kg	100	<100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	<110	<110	-	-
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	-	-
		TRH F Bands	TRH >C10-C16	mg/kg	25	46	<25	40	115
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	46	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	108
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE204895.021	LB197267.004		TRH C10-C14	mg/kg	20	35	<20	40	88
			TRH C15-C28	mg/kg	45	<45	<45	40	85
			TRH C29-C36	mg/kg	45	<45	<45	40	78
			TRH C37-C40	mg/kg	100	<100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	<110	<110	-	-
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	-	-
		TRH F Bands	TRH >C10-C16	mg/kg	25	34	<25	40	85
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	34	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	88
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE204895.041	LB197268.004		TRH C10-C14	mg/kg	20	36	<20	40	90
			TRH C15-C28	mg/kg	45	<45	<45	40	78
			TRH C29-C36	mg/kg	45	<45	<45	40	70
			TRH C37-C40	mg/kg	100	<100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	<110	<110	-	-
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	-	-
		TRH F Bands	TRH >C10-C16	mg/kg	25	34	<25	40	85
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	34	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	78
			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%
SE204895.001	LB197263.004	Monocyclic Aromatic	Benzene	mg/kg	0.1	3.5	<0.1	5	70
			Toluene	mg/kg	0.1	3.6	<0.1	5	72
			Ethylbenzene	mg/kg	0.1	3.8	<0.1	5	75
			m/p-xylene	mg/kg	0.2	7.5	<0.2	10	75
			o-xylene	mg/kg	0.1	3.7	<0.1	5	75
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.3	9.4	10	93
			d8-toluene (Surrogate)	mg/kg	-	9.7	10.0	10	97
			Bromofluorobenzene (Surrogate)	mg/kg	-	6.7	7.8	10	67 ⓘ
		Totals	Total Xylenes	mg/kg	0.3	11	<0.3	-	-
			Total BTEX	mg/kg	0.6	22	<0.6	-	-
SE204895.021	LB197264.004	Monocyclic Aromatic	Benzene	mg/kg	0.1	3.8	<0.1	5	76
			Toluene	mg/kg	0.1	4.0	<0.1	5	77
			Ethylbenzene	mg/kg	0.1	4.1	<0.1	5	81
			m/p-xylene	mg/kg	0.2	8.2	0.3	10	80
			o-xylene	mg/kg	0.1	4.1	0.1	5	79
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.3	9.6	10	103
			d8-toluene (Surrogate)	mg/kg	-	10.7	10.2	10	107
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.4	8.2	10	74
		Totals	Total Xylenes	mg/kg	0.3	12	0.4	-	-
			Total BTEX	mg/kg	0.6	24	<0.6	-	-
SE204895.041	LB197265.004	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.3	<0.1	5	85
			Toluene	mg/kg	0.1	4.4	<0.1	5	88
			Ethylbenzene	mg/kg	0.1	4.4	<0.1	5	88
			m/p-xylene	mg/kg	0.2	8.9	<0.2	10	89
			o-xylene	mg/kg	0.1	4.6	<0.1	5	92
		Polycyclic	Naphthalene	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.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE204895.041	LB197265.004	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11.8	10.3	10	118
			d8-toluene (Surrogate)	mg/kg	-	11.2	9.2	10	112
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.1	8.7	10	91
		Totals	Total Xylenes	mg/kg	0.3	14	<0.3	-	-
			Total BTEX	mg/kg	0.6	27	<0.6	-	-

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE204895.001	LB197263.004		TRH C6-C10	mg/kg	25	63	<25	92.5	63
			TRH C6-C9	mg/kg	20	55	<20	80	63
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.3	9.4	10	93
			d8-toluene (Surrogate)	mg/kg	-	9.7	10.0	10	97
			Bromofluorobenzene (Surrogate)	mg/kg	-	6.7	7.8	-	67
		VPH F	Benzene (F0)	mg/kg	0.1	3.5	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	41	<25	62.5	58
SE204895.021	LB197264.004		TRH C6-C10	mg/kg	25	77	<25	92.5	67
			TRH C6-C9	mg/kg	20	66	<20	80	68
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.3	9.6	10	103
			d8-toluene (Surrogate)	mg/kg	-	10.7	10.2	10	107
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.4	8.2	-	74
		VPH F	Benzene (F0)	mg/kg	0.1	3.8	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	53	<25	62.5	61
SE204895.041	LB197265.004		TRH C6-C10	mg/kg	25	78	<25	92.5	84
			TRH C6-C9	mg/kg	20	66	<20	80	82
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11.8	10.3	10	118
			d8-toluene (Surrogate)	mg/kg	-	11.2	9.2	10	112
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.1	8.7	-	91
		VPH F	Benzene (F0)	mg/kg	0.1	4.3	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	52	<25	62.5	82

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: https://www.sgs.com.au/~/media/Local/Australia/Documents/ Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

*	NATA accreditation does not cover the performance of this service.
**	Indicative data, theoretical holding time exceeded.
-	Sample not analysed for this analyte.
IS	Insufficient sample for analysis.
LNR	Sample listed, but not received.
LOR	Limit of reporting.
QFH	QC result is above the upper tolerance.
QFL	QC result is below the lower tolerance.

①	At least 2 of 3 surrogates are within acceptance criteria.
②	RPD failed acceptance criteria due to sample heterogeneity.
③	Results less than 5 times LOR preclude acceptance criteria for RPD.
④	Recovery failed acceptance criteria due to matrix interference.
⑤	Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
⑥	LOR was raised due to sample matrix interference.
⑦	LOR was raised due to dilution of significantly high concentration of analyte in sample.
⑧	Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
⑨	Recovery failed acceptance criteria due to sample heterogeneity.
⑩	LOR was raised due to high conductivity of the sample (required dilution).
†	Refer to relevant report comments for further information.

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.

source: Sydney.pdf page: 1 SGS Ref: SE220482_COC

CHAIN OF CUSTODY & ANALYSIS REQUEST

SGS

SGS Environmental Services Sydney
Unit 16, 33 Maddox Street
Alexandria NSW 2015
Facsimile No: (02) 85940499
Telephone No: (02) 85940400
Email:
au.samplereceipt.sydney@sgs.com

Sample Date: 3/06/2021

Company Name:	JM Environments	Project Name/No:	JME20005-6
Address:	37 Tooke St	Purchase Order No:	JME20005-6
	COOKS HILL NSW 2300	Results Required By:	Standard
Contact Name:	James McMahon	Email:	james@jmenvironments.com
Telephone	0427 893 668	Email:	

Relinquished by: J McMahon	Date /Time: 4/6/2021 4pm	Received by: George Zhi	Date /Time: 8/6/21 @ 10:05 am
Relinquished by:	Date /Time:	Received by:	Date /Time:
Samples intact: (Yes)/No	Temperature: 15°C	Sample Cooler Sealed: Yes/No	Laboratory Quotation: ENVI126319

Lab Sample ID	Sample ID	Water	Soil	Other	Preservative	No. of Containers		pH/CEC	BTEX/TPH/ PAH/ 8HM	8HM	OCP/PCB	Asbestos	PFAS						Comments
1	HA1-1		x										X						
2	HA1-2		x								x		X						
3	HA2-1		x						x				X						
4	HA2-2		x						X			x	X						
5	HA3-1		x										X						
6	MW10-1		X						X				X						
7	MW10-2		X						X		X		X						
8	MW10-3		X						X				X						
9	FM1		X						X										
10	FM2		X						X		X								
11	FM3		X						X										
12	QC3		X						X										
13	QCA	X											X						
14	QCB	X											X						
	QC3A								X										Send to ALS.

SGS EHS Sydney COC
SE220482

SAMPLE RECEIPT ADVICE

SE220482

CLIENT DETAILS

Contact	James McMahon
Client	JM ENVIRONMENTS
Address	37 TOOKE STREET COOKS HILL NSW 2300
Telephone	0427 893 668
Facsimile	(Not specified)
Email	james@jmenvironments.com
Project	**JME20005-6**
Order Number	**JME20005-6**
Samples	14

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
Samples Received	Tue 8/6/2021
Report Due	Wed 16/6/2021
SGS Reference	**SE220482**

SUBMISSION DETAILS

This is to confirm that 14 samples were received on Tuesday 8/6/2021. Results are expected to be ready by COB Wednesday 16/6/2021.
Please quote SGS reference SE220482 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	12 Soil, 2 Water
Date documentation received	8/6/2021	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	15°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

PFAS subcontracted to SGS Melbourne, Unit 10/585 Blackburn Road Notting Hill VIC 3168, NATA Accreditation Number 2562, Site number 14420.
Where a separate portion was not supplied for Asbestos analysis. A sub-sample will be used from the jar provided.

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

SE220482

CLIENT DETAILS

Client JM ENVIRONMENTS

Project JME20005-6

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Total Recoverable Elements in Soil/Waste	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
002	HA1-2	29	-	11	-	-	-	-
003	HA2-1	-	26	-	7	10	11	7
004	HA2-2	-	26	-	7	10	11	7
006	MW10-1	-	26	-	7	10	11	7
007	MW10-2	29	26	11	7	10	11	7
008	MW10-3	-	26	-	7	10	11	7
009	FM1	-	26	-	7	10	11	7
010	FM2	29	26	11	7	10	11	7
011	FM3	-	26	-	7	10	11	7
012	QC3	-	26	-	7	10	11	7

CONTINUED OVERLEAF

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

SAMPLE RECEIPT ADVICE

SE220482

CLIENT DETAILS

Client JM ENVIRONMENTS

Project JME20005-6

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre Identification in soil	Mercury in Soil	Moisture Content	Per- and Polyfluoroalkyl Substances (PFAS) in	Per- and Polyfluoroalkyl Substances (PFAS) in
001	HA1-1	-	-	1	-	56
002	HA1-2	-	-	1	-	56
003	HA2-1	-	1	1	-	56
004	HA2-2	2	1	1	-	56
005	HA3-1	-	-	1	-	56
006	MW10-1	-	1	1	-	56
007	MW10-2	-	1	1	-	56
008	MW10-3	-	1	1	-	56
009	FM1	-	1	1	-	-
010	FM2	-	1	1	-	-
011	FM3	-	1	1	-	-
012	QC3	-	1	1	-	-
013	QCA	-	-	-	56	-
014	QCB	-	-	-	56	-

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 .

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	James McMahon
Client	JM ENVIRONMENTS
Address	37 TOOKE STREET COOKS HILL NSW 2300
Telephone	0427 893 668
Facsimile	(Not specified)
Email	james@jmenvironments.com
Project	**JME20005-6**
Order Number	**JME20005-6**
Samples	14

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	**SE220482 R0**
Date Received	8/6/2021
Date Reported	16/6/2021

COMMENTS

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

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

A portion of the soil 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. For identification of asbestos in soil samples, Industries & environment recommends supplying approximately 50-100g of sample in a separate container.

Asbestos analysed by Approved Identifier Yusuf Kuthpudin.

PFAS subcontracted to SGS Melbourne, Unit 10/585 Blackburn Road Notting Hill VIC 3168, NATA Accreditation Number 2562, Site number 14420. ME320921

MA1523: Surrogate recoveries of some PFAS compounds out of range due to matrix interference .

SIGNATORIES

Akheeqar BENIAMEEN
Chemist

Dong LIANG
Metals/Inorganics Team Leader

Huong CRAWFORD
Production Manager

Kamrul AHSAN
Senior Chemist

Ly Kim HA
Organic Section Head

Shane MCDERMOTT
Inorganic/Metals Chemist

VOC's in Soil [AN433] Tested: 9/6/2021

PARAMETER	UOM	LOR	HA2-1 SOIL - 3/6/2021 SE220482.003	HA2-2 SOIL - 3/6/2021 SE220482.004	MW10-1 SOIL - 3/6/2021 SE220482.006	MW10-2 SOIL - 3/6/2021 SE220482.007	MW10-3 SOIL - 3/6/2021 SE220482.008
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	FM1 SOIL - 3/6/2021 SE220482.009	FM2 SOIL - 3/6/2021 SE220482.010	FM3 SOIL - 3/6/2021 SE220482.011	QC3 SOIL - 3/6/2021 SE220482.012
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
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

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 9/6/2021

PARAMETER	UOM	LOR	HA2-1 SOIL - 3/6/2021 SE220482.003	HA2-2 SOIL - 3/6/2021 SE220482.004	MW10-1 SOIL - 3/6/2021 SE220482.006	MW10-2 SOIL - 3/6/2021 SE220482.007	MW10-3 SOIL - 3/6/2021 SE220482.008
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	FM1 SOIL - 3/6/2021 SE220482.009	FM2 SOIL - 3/6/2021 SE220482.010	FM3 SOIL - 3/6/2021 SE220482.011	QC3 SOIL - 3/6/2021 SE220482.012
TRH C6-C9	mg/kg	20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 8/6/2021

PARAMETER	UOM	LOR	HA2-1 SOIL - 3/6/2021 SE220482.003	HA2-2 SOIL - 3/6/2021 SE220482.004	MW10-1 SOIL - 3/6/2021 SE220482.006	MW10-2 SOIL - 3/6/2021 SE220482.007	MW10-3 SOIL - 3/6/2021 SE220482.008
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	FM1 SOIL - 3/6/2021 SE220482.009	FM2 SOIL - 3/6/2021 SE220482.010	FM3 SOIL - 3/6/2021 SE220482.011	QC3 SOIL - 3/6/2021 SE220482.012
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 8/6/2021

PARAMETER	UOM	LOR	HA2-1 SOIL - 3/6/2021 SE220482.003	HA2-2 SOIL - 3/6/2021 SE220482.004	MW10-1 SOIL - 3/6/2021 SE220482.006	MW10-2 SOIL - 3/6/2021 SE220482.007	MW10-3 SOIL - 3/6/2021 SE220482.008
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	**0.2**	**0.1**	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	**0.2**	**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	**0.2**	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	**0.1**	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	**0.1**	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	**0.2**	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	**0.9**	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	**0.9**	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	FM1 SOIL - 3/6/2021 SE220482.009	FM2 SOIL - 3/6/2021 SE220482.010	FM3 SOIL - 3/6/2021 SE220482.011	QC3 SOIL - 3/6/2021 SE220482.012
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.1**
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.4**
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.4**
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.3**
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.4**
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.5**
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.3**
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.5**
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.3**
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.3**
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	**0.6**
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	**0.7**
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	**0.7**
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	**3.5**
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	**3.5**

OC Pesticides in Soil [AN420] Tested: 8/6/2021

PARAMETER	UOM	LOR	HA1-2 SOIL - 3/6/2021 SE220482.002	MW10-2 SOIL - 3/6/2021 SE220482.007	FM2 SOIL - 3/6/2021 SE220482.010
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

PCBs in Soil [AN420] Tested: 8/6/2021

PARAMETER	UOM	LOR	HA1-2 SOIL - 3/6/2021 SE220482.002	MW10-2 SOIL - 3/6/2021 SE220482.007	FM2 SOIL - 3/6/2021 SE220482.010
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1

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

PARAMETER	UOM	LOR	HA2-1 SOIL - 3/6/2021 SE220482.003	HA2-2 SOIL - 3/6/2021 SE220482.004	MW10-1 SOIL - 3/6/2021 SE220482.006	MW10-2 SOIL - 3/6/2021 SE220482.007	MW10-3 SOIL - 3/6/2021 SE220482.008
Arsenic, As	mg/kg	1	16	290	3	3	<1
Cadmium, Cd	mg/kg	0.3	0.4	3.2	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	110	6.0	2.4	16	1.7
Copper, Cu	mg/kg	0.5	62	170	2.1	9.5	<0.5
Lead, Pb	mg/kg	1	66	33	6	11	<1
Nickel, Ni	mg/kg	0.5	15	6.4	2.5	3.9	0.7
Zinc, Zn	mg/kg	2	1800	6.4	2.5	3.9	<2.0

PARAMETER	UOM	LOR	FM1 SOIL - 3/6/2021 SE220482.009	FM2 SOIL - 3/6/2021 SE220482.010	FM3 SOIL - 3/6/2021 SE220482.011	QC3 SOIL - 3/6/2021 SE220482.012
Arsenic, As	mg/kg	1	2	3	2	9
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	10	29	11	22
Copper, Cu	mg/kg	0.5	21	31	25	45
Lead, Pb	mg/kg	1	36	52	68	62
Nickel, Ni	mg/kg	0.5	5.5	6.1	5.4	6.6
Zinc, Zn	mg/kg	2	5.5	1900	850	1600

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

PARAMETER	UOM	LOR	HA2-1 SOIL - 3/6/2021 SE220482.003	HA2-2 SOIL - 3/6/2021 SE220482.004	MW10-1 SOIL - 3/6/2021 SE220482.006	MW10-2 SOIL - 3/6/2021 SE220482.007	MW10-3 SOIL - 3/6/2021 SE220482.008
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	FM1 SOIL - 3/6/2021 SE220482.009	FM2 SOIL - 3/6/2021 SE220482.010	FM3 SOIL - 3/6/2021 SE220482.011	QC3 SOIL - 3/6/2021 SE220482.012
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05

Moisture Content [AN002] Tested: 9/6/2021

PARAMETER	UOM	LOR	HA1-2 SOIL - 3/6/2021 SE220482.002	HA2-1 SOIL - 3/6/2021 SE220482.003	HA2-2 SOIL - 3/6/2021 SE220482.004	MW10-1 SOIL - 3/6/2021 SE220482.006	MW10-2 SOIL - 3/6/2021 SE220482.007
% Moisture	%w/w	1	6.5	6.9	7.0	2.9	8.0

PARAMETER	UOM	LOR	MW10-3 SOIL - 3/6/2021 SE220482.008	FM1 SOIL - 3/6/2021 SE220482.009	FM2 SOIL - 3/6/2021 SE220482.010	FM3 SOIL - 3/6/2021 SE220482.011	QC3 SOIL - 3/6/2021 SE220482.012
% Moisture	%w/w	1	20.5	3.6	4.5	12.5	3.7

Fibre Identification in soil [AN602] Tested: 11/6/2021

PARAMETER	UOM	LOR	HA2-2 SOIL - 3/6/2021 SE220482.004
Asbestos Detected	No unit	-	No
Estimated Fibres*	%w/w	0.01	<0.01

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples [MA-1523] Tested: 16/6/2021

PARAMETER	UOM	LOR	HA1-1 SOIL - 3/6/2021 SE220482.001	HA1-2 SOIL - 3/6/2021 SE220482.002	HA2-1 SOIL - 3/6/2021 SE220482.003	HA2-2 SOIL - 3/6/2021 SE220482.004	HA3-1 SOIL - 3/6/2021 SE220482.005
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Sum PFOS and PFHXS	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	<0.016	<0.016	<0.016	<0.016
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	<0.016	<0.016	<0.016	<0.016
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008
Total of PFAS (n=30)	mg/kg	0.08	-	-	-	-	-

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples [MA-1523] Tested: 16/6/2021 (continued)

PARAMETER	UOM	LOR	MW10-1 SOIL - 3/6/2021 SE220482.006	MW10-2 SOIL - 3/6/2021 SE220482.007	MW10-3 SOIL - 3/6/2021 SE220482.008
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	<0.0008	<0.0008	<0.0008
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	<0.0032	<0.0032	<0.0032
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Sum PFOS and PFHXS	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	<0.016	<0.016
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	<0.016	<0.016
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	<0.008	<0.008	<0.008
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	<0.008	<0.008	<0.008
Total of PFAS (n=30)	mg/kg	0.08	-	-	-

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples [MA-1523] Tested: 16/6/2021

PARAMETER	UOM	LOR	QCA WATER - 3/6/2021 SE220482.013	QCB WATER - 3/6/2021 SE220482.014
Perfluorobutanoic acid (PFBA)	µg/L	0.002	<0.002	<0.002
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	<0.002	<0.002
Perfluorohexanoic acid (PFHxA)	µg/L	0.002	<0.002	<0.002
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002	<0.002	<0.002
Perfluorooctanoic Acid (PFOA)	µg/L	0.002	<0.002	<0.002
Perfluorononanoic acid (PFNA)	µg/L	0.004	<0.004	<0.004
Perfluorodecanoic acid (PFDA)	µg/L	0.004	<0.004	<0.004
Perfluoroundecanoic acid (PFUnA)	µg/L	0.004	<0.004	<0.004
Perfluorododecanoic acid (PFDoA)	µg/L	0.004	<0.004	<0.004
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.004	<0.004	<0.004
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.004	<0.004	<0.004
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.008	<0.008	<0.008
Perfluorobutane sulfonate (PFBS)	µg/L	0.004	<0.004	<0.004
Perfluoropentane sulfonate (PFPeS)	µg/L	0.004	<0.004	<0.004
Perfluorohexane sulfonate (PFHxS)	µg/L	0.002	<0.002	<0.002
Perfluoroheptane sulfonate (PFHpS)	µg/L	0.002	<0.002	<0.002
Perfluorooctane sulfonate (PFOS)	µg/L	0.002	<0.002	**0.003**
Sum of PFHxS and PFOS	µg/L	0.002	<0.002	**0.003**
Perfluorononane sulfonate (PFNS)	µg/L	0.002	<0.002	<0.002
Perfluorodecane sulfonate (PFDS)	µg/L	0.002	<0.002	<0.002
Perfluorododecane sulfonate (PFDoS)	µg/L	0.002	<0.002	<0.002
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	µg/L	0.002	<0.002	<0.002
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	µg/L	0.002	<0.002	<0.002
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	µg/L	0.002	<0.002	<0.002
Perfluorooctane sulfonamide (PFOSA)	µg/L	0.008	<0.008	<0.008
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	µg/L	0.01	<0.01	<0.01
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	µg/L	0.01	<0.01	<0.01
2-(N-Methylperfluorooctane sulfonamido)-ethanol	µg/L	0.01	<0.01	<0.01
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	µg/L	0.01	<0.01	<0.01
N-Methylperfluorooctanesulfonamidoacetic acid	µg/L	0.01	<0.01	<0.01
N-Ethylperfluorooctanesulfonamidoacetic Acid	µg/L	0.01	<0.01	<0.01
Total of PFAS (n=30)	µg/L	0.04	<0.04	<0.04

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.
AN312	Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid , mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser . Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is reported directly and also corrected by subtracting Naphthalene (from VOC method AN433) where available.
AN403	Additionally, the volatile C6-C9 fraction may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRH-Si) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents .
AN403	The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.
AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN420	SVOC Compounds: Semi-Volatile Organic Compounds (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN433	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC`s are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.
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/reporting limit (RL) of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."
AN602	The sample can be reported “no asbestos found at the reporting limit (RL) of 0.1 g/kg” (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (a) no trace asbestos fibres have been detected (i.e. no ‘respirable ’ fibres): (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

MA-1523	This method covers the analysis of per- and polyfluoroalkyl substances (PFAS) in aqueous, solid and biosolid samples and solvent extracts, determined as the total of linear and branched isomers. After spiking with isotopically labelled quantification surrogates and clean-up via SPE cartridges sample extracts are analysed by liquid chromatography/mass spectrometry (LC-MS/MS). PFAS concentrations are determined by isotope dilution quantification.

FOOTNOTES

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

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

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

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

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

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

a. 1 Bq is equivalent to 27 pCi
b. 37 MBq is equivalent to 1 mCi

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

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

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

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client only. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

This report must not be reproduced, except in full.

STATEMENT OF QA/QC PERFORMANCE

SE220482 R0

ChIENF DEFAIhS		hABORAFORY DEFAIhS	
Contact	James McMaTon	Manager	Huong Crawford
Client	JM ENVIRONMENFS	haLoratory	SGS Alexandria Environmental
Address	3) FOOKE SFREEF COOKS HIhh NSW 2300	Address	Unit 16, 33 Maddox St Alexandria NSW 2015
FelepTone	042) 893 668	FelepTone	+61 2 8594 0400
7acsimile	jNot specified(	7acsimile	+61 2 8594 0499
Email	bames@bmenvironments.com	Email	au.environmental.sydney@sgs.com
Protect	**JME20005-6**	SGS Reference	**SE220482 R0**
Order NumLer	**JME20005-6**	Date Received	08 Jun 2021
Samples	14	Date Reported	16 Jun 2021

COMMENFS

All tTe laLoratory data for eacT environmental matrix was compared to SGS' stated Data Quality OLbectives jDQO(. Comments arising from tTe comparison were made and are reported Lelow.

FTe data relating to sampling was taken from tTe CTain of Custody document.
FTis QA/QC Statement must Le read in conbunction witT tTe referenced Analytical Report.
FTe Statement and tTe Analytical Report must not Le reproduced except in full.

All Data Quality OLbectives were met witT tTe exception of tTe following:

Duplicate	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	4 items
Matrix Spike	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	3 items

SAMPhE SUMMARY

Samples clearly laLelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling metTod	Ice Bricks
Samples received in correct containers	Yes	Sample counts Ly matrix	12 Soil, 2 Water
Date documentation received	8/6/2021	Fype of documentation received	COC
Samples received in good order	Yes	Samples received witTout Teadspace	Yes
Sample temperature upon receipt	15°C	Sufficient sample for analysis	Yes
Furnaround time requested	Standard		

HOLDING TIME SUMMARY

SE220482 R0

SGS Tolding time criteria are drawn from current regulations and are TigTly dependent on sample container preservation as specified in tTe SGS "7ield Sampling Guide for Containers and Holding Fime" jref: GU-jAU(-ENV.001(. Soil samples guidelines are derived from NEPM "ScTedule Bj3(Guideline on haLoratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 566).1 : 1998 Water Quality - sampling part 1" and APHA "Standard MetTods for tTe Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis Tolding time due dates listed are calculated from tTe date sampled, altTougT Tolding times may Le extended after laLoratory extraction for some analytes. FTe due dates are tTe suggested dates tTat samples may Le Teld Lefore extraction or analysis and still Le considered valid.

Extraction and analysis dates are sTown in Green wTen witTin suggested criteria or Red witT an appended dagger symLol j†(wTen outside suggested criteria. If tTe

Fibre Identification in soil

Method: ME-(AU)-[ENV]AN602

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
HA2-2	SE220482.004	LB226652	03 Jun 2021	08 Jun 2021	03 Jun 2022	11 Jun 2021	03 Jun 2022	16 Jun 2021

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
HA2-1	SE220482.003	LB226745	03 Jun 2021	08 Jun 2021	01 Jul 2021	15 Jun 2021	01 Jul 2021	16 Jun 2021
HA2-2	SE220482.004	LB226745	03 Jun 2021	08 Jun 2021	01 Jul 2021	15 Jun 2021	01 Jul 2021	16 Jun 2021
MW10-1	SE220482.006	LB226745	03 Jun 2021	08 Jun 2021	01 Jul 2021	15 Jun 2021	01 Jul 2021	16 Jun 2021
MW10-2	SE220482.007	LB226745	03 Jun 2021	08 Jun 2021	01 Jul 2021	15 Jun 2021	01 Jul 2021	16 Jun 2021
MW10-3	SE220482.008	LB226745	03 Jun 2021	08 Jun 2021	01 Jul 2021	15 Jun 2021	01 Jul 2021	16 Jun 2021
FM1	SE220482.009	LB226745	03 Jun 2021	08 Jun 2021	01 Jul 2021	15 Jun 2021	01 Jul 2021	16 Jun 2021
FM2	SE220482.010	LB226745	03 Jun 2021	08 Jun 2021	01 Jul 2021	15 Jun 2021	01 Jul 2021	16 Jun 2021
FM3	SE220482.011	LB226745	03 Jun 2021	08 Jun 2021	01 Jul 2021	15 Jun 2021	01 Jul 2021	16 Jun 2021
QC3	SE220482.012	LB226745	03 Jun 2021	08 Jun 2021	01 Jul 2021	15 Jun 2021	01 Jul 2021	16 Jun 2021

Moisture Content

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
HA1-2	SE220482.002	LB226450	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	14 Jun 2021	09 Jun 2021
HA2-1	SE220482.003	LB226588	03 Jun 2021	08 Jun 2021	17 Jun 2021	10 Jun 2021	15 Jun 2021	15 Jun 2021
HA2-2	SE220482.004	LB226588	03 Jun 2021	08 Jun 2021	17 Jun 2021	10 Jun 2021	15 Jun 2021	15 Jun 2021
MW10-1	SE220482.006	LB226588	03 Jun 2021	08 Jun 2021	17 Jun 2021	10 Jun 2021	15 Jun 2021	15 Jun 2021
MW10-2	SE220482.007	LB226588	03 Jun 2021	08 Jun 2021	17 Jun 2021	10 Jun 2021	15 Jun 2021	15 Jun 2021
MW10-3	SE220482.008	LB226588	03 Jun 2021	08 Jun 2021	17 Jun 2021	10 Jun 2021	15 Jun 2021	15 Jun 2021
FM1	SE220482.009	LB226588	03 Jun 2021	08 Jun 2021	17 Jun 2021	10 Jun 2021	15 Jun 2021	15 Jun 2021
FM2	SE220482.010	LB226588	03 Jun 2021	08 Jun 2021	17 Jun 2021	10 Jun 2021	15 Jun 2021	15 Jun 2021
FM3	SE220482.011	LB226588	03 Jun 2021	08 Jun 2021	17 Jun 2021	10 Jun 2021	15 Jun 2021	15 Jun 2021
QC3	SE220482.012	LB226588	03 Jun 2021	08 Jun 2021	17 Jun 2021	10 Jun 2021	15 Jun 2021	15 Jun 2021

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
HA1-2	SE220482.002	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
HA2-1	SE220482.003	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
HA2-2	SE220482.004	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
MW10-1	SE220482.006	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
MW10-2	SE220482.007	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
MW10-3	SE220482.008	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
FM1	SE220482.009	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
FM2	SE220482.010	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
FM3	SE220482.011	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
QC3	SE220482.012	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021

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
HA1-2	SE220482.002	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	16 Jun 2021
HA2-1	SE220482.003	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
HA2-2	SE220482.004	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
MW10-1	SE220482.006	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
MW10-2	SE220482.007	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
MW10-3	SE220482.008	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
FM1	SE220482.009	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
FM2	SE220482.010	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
FM3	SE220482.011	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
QC3	SE220482.012	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
HA1-2	SE220482.002	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
HA2-1	SE220482.003	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
HA2-2	SE220482.004	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
MW10-1	SE220482.006	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
MW10-2	SE220482.007	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
MW10-3	SE220482.008	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021

HOLDING TIME SUMMARY

SE220482 R0

SGS Tolding time criteria are drawn from current regulations and are TigTly dependent on sample container preservation as specified in tTe SGS "7ield Sampling Guide for Containers and Holding Fime" jref: GU-jAU(-ENV.001(. Soil samples guidelines are derived from NEPM "ScTedule Bj3(Guideline on haLoratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 566).1 : 1998 Water Quality - sampling part 1" and APHA "Standard MetTods for tTe Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis Tolding time due dates listed are calculated from tTe date sampled, altTougT Tolding times may Le extended after laLoratory extraction for some analytes. FTe due dates are tTe suggested dates tTat samples may Le Teld Lefore extraction or analysis and still Le considered valid.

Extraction and analysis dates are sTown in **Green** wTen witTin suggested criteria or **Red** witT an appended dagger symLol j†(wTen outside suggested criteria. If tTe

PCBs in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
FM1	SE220482.009	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
FM2	SE220482.010	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
FM3	SE220482.011	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
QC3	SE220482.012	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021

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
HA2-1	SE220482.003	LB226735	03 Jun 2021	08 Jun 2021	30 Nov 2021	15 Jun 2021	30 Nov 2021	16 Jun 2021
HA2-2	SE220482.004	LB226735	03 Jun 2021	08 Jun 2021	30 Nov 2021	15 Jun 2021	30 Nov 2021	16 Jun 2021
MW10-1	SE220482.006	LB226735	03 Jun 2021	08 Jun 2021	30 Nov 2021	15 Jun 2021	30 Nov 2021	16 Jun 2021
MW10-2	SE220482.007	LB226735	03 Jun 2021	08 Jun 2021	30 Nov 2021	15 Jun 2021	30 Nov 2021	16 Jun 2021
MW10-3	SE220482.008	LB226735	03 Jun 2021	08 Jun 2021	30 Nov 2021	15 Jun 2021	30 Nov 2021	16 Jun 2021
FM1	SE220482.009	LB226735	03 Jun 2021	08 Jun 2021	30 Nov 2021	15 Jun 2021	30 Nov 2021	16 Jun 2021
FM2	SE220482.010	LB226735	03 Jun 2021	08 Jun 2021	30 Nov 2021	15 Jun 2021	30 Nov 2021	16 Jun 2021
FM3	SE220482.011	LB226735	03 Jun 2021	08 Jun 2021	30 Nov 2021	15 Jun 2021	30 Nov 2021	16 Jun 2021
QC3	SE220482.012	LB226735	03 Jun 2021	08 Jun 2021	30 Nov 2021	15 Jun 2021	30 Nov 2021	16 Jun 2021

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
HA1-2	SE220482.002	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
HA2-1	SE220482.003	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
HA2-2	SE220482.004	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
MW10-1	SE220482.006	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
MW10-2	SE220482.007	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
MW10-3	SE220482.008	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
FM1	SE220482.009	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
FM2	SE220482.010	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
FM3	SE220482.011	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021
QC3	SE220482.012	LB226424	03 Jun 2021	08 Jun 2021	17 Jun 2021	08 Jun 2021	18 Jul 2021	15 Jun 2021

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
HA2-1	SE220482.003	LB226488	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	19 Jul 2021	15 Jun 2021
HA2-2	SE220482.004	LB226488	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	19 Jul 2021	15 Jun 2021
MW10-1	SE220482.006	LB226488	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	19 Jul 2021	15 Jun 2021
MW10-2	SE220482.007	LB226488	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	19 Jul 2021	15 Jun 2021
MW10-3	SE220482.008	LB226488	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	19 Jul 2021	15 Jun 2021
FM1	SE220482.009	LB226488	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	19 Jul 2021	15 Jun 2021
FM2	SE220482.010	LB226488	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	19 Jul 2021	15 Jun 2021
FM3	SE220482.011	LB226488	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	19 Jul 2021	15 Jun 2021
QC3	SE220482.012	LB226488	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	19 Jul 2021	15 Jun 2021

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
HA2-1	SE220482.003	LB226488	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	19 Jul 2021	15 Jun 2021
HA2-2	SE220482.004	LB226488	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	19 Jul 2021	15 Jun 2021
MW10-1	SE220482.006	LB226488	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	19 Jul 2021	15 Jun 2021
MW10-2	SE220482.007	LB226488	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	19 Jul 2021	15 Jun 2021
MW10-3	SE220482.008	LB226488	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	19 Jul 2021	15 Jun 2021
FM1	SE220482.009	LB226488	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	19 Jul 2021	15 Jun 2021
FM2	SE220482.010	LB226488	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	19 Jul 2021	15 Jun 2021
FM3	SE220482.011	LB226488	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	19 Jul 2021	15 Jun 2021
QC3	SE220482.012	LB226488	03 Jun 2021	08 Jun 2021	17 Jun 2021	09 Jun 2021	19 Jul 2021	15 Jun 2021

Surrogate results are evaluated against upper and lower limit criteria estaLlisTed in tTe SGS QA/QC plan jRef: MP-jAU(-[ENV]QU-022(. At least two of tTree routine level soil sample surrogate spike recoveries for BFEX/VOC are to Le witTin)0-130% wTere control cTarts Tave not Leen developed and witTin tTe estaLlisTed control limits for cTarted surrogates. Matrix effects may void tTis as an acceptance criterion. Water sample surrogate spike recoveries are to Le witTin 40-130%. FTe presence of emulsions, surfactants and particulates may void tTis as an acceptance criterion.

Result is sTown in **Green** wTen witTin suggested criteria or **Red** witT an appended reason identifer wTen outside suggested criteria. Refer to tTe footnotes section at tTe end of tTis 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)	HA1-2	SE220482.002	%	60 - 130%	108
	MW10-2	SE220482.007	%	60 - 130%	107
	FM2	SE220482.010	%	60 - 130%	102

PAH (Polynuclear Aromatic Hydrocarbons) in Soil — Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	HA2-1	SE220482.003	%	70 - 130%	93
	HA2-2	SE220482.004	%	70 - 130%	90
	MW10-1	SE220482.006	%	70 - 130%	89
	MW10-2	SE220482.007	%	70 - 130%	90
	MW10-3	SE220482.008	%	70 - 130%	88
	FM1	SE220482.009	%	70 - 130%	91
	FM2	SE220482.010	%	70 - 130%	90
	FM3	SE220482.011	%	70 - 130%	92
	QC3	SE220482.012	%	70 - 130%	92
d14-p-terphenyl (Surrogate)	HA2-1	SE220482.003	%	70 - 130%	93
	HA2-2	SE220482.004	%	70 - 130%	93
	MW10-1	SE220482.006	%	70 - 130%	93
	MW10-2	SE220482.007	%	70 - 130%	97
	MW10-3	SE220482.008	%	70 - 130%	92
	FM1	SE220482.009	%	70 - 130%	94
	FM2	SE220482.010	%	70 - 130%	94
	FM3	SE220482.011	%	70 - 130%	96
	QC3	SE220482.012	%	70 - 130%	94
d5-nitrobenzene (Surrogate)	HA2-1	SE220482.003	%	70 - 130%	99
	HA2-2	SE220482.004	%	70 - 130%	103
	MW10-1	SE220482.006	%	70 - 130%	99
	MW10-2	SE220482.007	%	70 - 130%	100
	MW10-3	SE220482.008	%	70 - 130%	104
	FM1	SE220482.009	%	70 - 130%	97
	FM2	SE220482.010	%	70 - 130%	94
	FM3	SE220482.011	%	70 - 130%	114
	QC3	SE220482.012	%	70 - 130%	101

PCBs in Soil — Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	HA1-2	SE220482.002	%	60 - 130%	108
	MW10-2	SE220482.007	%	60 - 130%	107
	FM2	SE220482.010	%	60 - 130%	102

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples — Method: MA-1523

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(13C2_PFTeDA) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	102
	QCB	SE220482.014	%	10 - 150%	91
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	126
	QCB	SE220482.014	%	10 - 150%	115
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	141
	QCB	SE220482.014	%	10 - 150%	130
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	137
	QCB	SE220482.014	%	10 - 150%	128
(13C2-PFDoA) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	123
	QCB	SE220482.014	%	10 - 150%	101
(13C2-PFHxDA) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	111
	QCB	SE220482.014	%	10 - 150%	112
(13C3-PFBS) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	120
	QCB	SE220482.014	%	10 - 150%	111
(13C3-PFHxS) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	99
	QCB	SE220482.014	%	10 - 150%	110
(13C4_PFOA) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	101
	QCB	SE220482.014	%	10 - 150%	99
(13C4-PFBA) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	100
	QCB	SE220482.014	%	10 - 150%	101

Surrogate results are evaluated against upper and lower limit criteria estaLlisTed in tTe SGS QA/QC plan jRef: MP-jAU(-[ENV]QU-022(. At least two of tTree routine level soil sample surrogate spike recoveries for BFEX/VOC are to Le witTin)0-130% wTere control cTarts Tave not Leen developed and witTin tTe estaLlisTed control limits for cTarted surrogates. Matrix effects may void tTis as an acceptance criterion. Water sample surrogate spike recoveries are to Le witTin 40-130%. FTe presence of emulsions, surfactants and particulates may void tTis as an acceptance criterion.

Result is sTown in **Green** wTen witTin suggested criteria or **Red** witT an appended reason identifer wTen outside suggested criteria. Refer to tTe footnotes section at tTe end of tTis report for failure reasons.

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples (continued) — Method: MA-1523

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(13C4-PFHpA) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	100
	QCB	SE220482.014	%	10 - 150%	97
(13C5-PFHxA) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	93
	QCB	SE220482.014	%	10 - 150%	94
(13C5-PFPeA) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	119
	QCB	SE220482.014	%	10 - 150%	120
(13C6-PFDA) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	120
	QCB	SE220482.014	%	10 - 150%	116
(13C7-PFUdA) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	114
	QCB	SE220482.014	%	10 - 150%	92
(13C8-PFOS) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	110
	QCB	SE220482.014	%	10 - 150%	94
(13C8-PFOSA) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	71
	QCB	SE220482.014	%	10 - 150%	59
(13C9-PFNA) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	108
	QCB	SE220482.014	%	10 - 150%	114
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	59
	QCB	SE220482.014	%	10 - 150%	50
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	90
	QCB	SE220482.014	%	10 - 150%	86
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	54
	QCB	SE220482.014	%	10 - 150%	62
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	99
	QCB	SE220482.014	%	10 - 150%	98
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	56
	QCB	SE220482.014	%	10 - 150%	51
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery Standard	QCA	SE220482.013	%	10 - 150%	51
	QCB	SE220482.014	%	10 - 150%	47

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples — Method: MA-1523

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(13C2_PFTeDA) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 130%	28
	HA1-2	SE220482.002	%	0 - 130%	40
	HA2-1	SE220482.003	%	0 - 130%	33
	HA2-2	SE220482.004	%	0 - 130%	39
	HA3-1	SE220482.005	%	0 - 130%	39
	MW10-1	SE220482.006	%	0 - 130%	34
	MW10-2	SE220482.007	%	0 - 130%	34
	MW10-3	SE220482.008	%	0 - 130%	48
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	85
	HA1-2	SE220482.002	%	0 - 150%	82
	HA2-1	SE220482.003	%	0 - 150%	79
	HA2-2	SE220482.004	%	0 - 150%	74
	HA3-1	SE220482.005	%	0 - 150%	95
	MW10-1	SE220482.006	%	0 - 150%	91
	MW10-2	SE220482.007	%	0 - 150%	74
	MW10-3	SE220482.008	%	0 - 150%	79
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	89
	HA1-2	SE220482.002	%	0 - 150%	86
	HA2-1	SE220482.003	%	0 - 150%	82
	HA2-2	SE220482.004	%	0 - 150%	87
	HA3-1	SE220482.005	%	0 - 150%	120
	MW10-1	SE220482.006	%	0 - 150%	98
	MW10-2	SE220482.007	%	0 - 150%	85
	MW10-3	SE220482.008	%	0 - 150%	81
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	56
	HA1-2	SE220482.002	%	0 - 150%	81
	HA2-1	SE220482.003	%	0 - 150%	72
	HA2-2	SE220482.004	%	0 - 150%	83
	HA3-1	SE220482.005	%	0 - 150%	94
	MW10-1	SE220482.006	%	0 - 150%	81

Surrogate results are evaluated against upper and lower limit criteria estaLlisTed in tTe SGS QA/QC plan jRef: MP-jAU(-[ENV]QU-022(. At least two of tTree routine level soil sample surrogate spike recoveries for BFEX/VOC are to Le witTin)0-130% wTere control cTarts Tave not Leen developed and witTin tTe estaLlisTed control limits for cTarted surrogates. Matrix effects may void tTis as an acceptance criterion. Water sample surrogate spike recoveries are to Le witTin 40-130%. FTe presence of emulsions, surfactants and particulates may void tTis as an acceptance criterion.

Result is sTown in **Green** wTen witTin suggested criteria or **Red** witT an appended reason identifer wTen outside suggested criteria. Refer to tTe footnotes section at tTe end of tTis report for failure reasons.

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples (continued) **Method: MA-1523**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery Standard	MW10-2	SE220482.007	%	0 - 150%	87
	MW10-3	SE220482.008	%	0 - 150%	65
(13C2-PFDoA) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	99
	HA1-2	SE220482.002	%	0 - 150%	96
	HA2-1	SE220482.003	%	0 - 150%	97
	HA2-2	SE220482.004	%	0 - 150%	98
	HA3-1	SE220482.005	%	0 - 150%	111
	MW10-1	SE220482.006	%	0 - 150%	97
	MW10-2	SE220482.007	%	0 - 150%	92
	MW10-3	SE220482.008	%	0 - 150%	109
(13C2-PFHxDA) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	6
	HA1-2	SE220482.002	%	0 - 150%	14
	HA2-1	SE220482.003	%	0 - 150%	10
	HA2-2	SE220482.004	%	0 - 150%	16
	HA3-1	SE220482.005	%	0 - 150%	11
	MW10-1	SE220482.006	%	0 - 150%	11
	MW10-2	SE220482.007	%	0 - 150%	9
	MW10-3	SE220482.008	%	0 - 150%	20
(13C3-PFBS) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	120
	HA1-2	SE220482.002	%	0 - 150%	128
	HA2-1	SE220482.003	%	0 - 150%	122
	HA2-2	SE220482.004	%	0 - 150%	115
	HA3-1	SE220482.005	%	0 - 150%	128
	MW10-1	SE220482.006	%	0 - 150%	132
	MW10-2	SE220482.007	%	0 - 150%	129
	MW10-3	SE220482.008	%	0 - 150%	126
(13C3-PFHxS) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	108
	HA1-2	SE220482.002	%	0 - 150%	118
	HA2-1	SE220482.003	%	0 - 150%	124
	HA2-2	SE220482.004	%	0 - 150%	110
	HA3-1	SE220482.005	%	0 - 150%	124
	MW10-1	SE220482.006	%	0 - 150%	127
	MW10-2	SE220482.007	%	0 - 150%	119
	MW10-3	SE220482.008	%	0 - 150%	101
(13C4_PFOA) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	111
	HA1-2	SE220482.002	%	0 - 150%	102
	HA2-1	SE220482.003	%	0 - 150%	106
	HA2-2	SE220482.004	%	0 - 150%	115
	HA3-1	SE220482.005	%	0 - 150%	103
	MW10-1	SE220482.006	%	0 - 150%	111
	MW10-2	SE220482.007	%	0 - 150%	101
	MW10-3	SE220482.008	%	0 - 150%	106
(13C4-PFBA) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	111
	HA1-2	SE220482.002	%	0 - 150%	112
	HA2-1	SE220482.003	%	0 - 150%	110
	HA2-2	SE220482.004	%	0 - 150%	108
	HA3-1	SE220482.005	%	0 - 150%	111
	MW10-1	SE220482.006	%	0 - 150%	111
	MW10-2	SE220482.007	%	0 - 150%	109
	MW10-3	SE220482.008	%	0 - 150%	111
(13C4-PFHpA) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	137
	HA1-2	SE220482.002	%	0 - 150%	102
	HA2-1	SE220482.003	%	0 - 150%	117
	HA2-2	SE220482.004	%	0 - 150%	110
	HA3-1	SE220482.005	%	0 - 150%	114
	MW10-1	SE220482.006	%	0 - 150%	114
	MW10-2	SE220482.007	%	0 - 150%	107
	MW10-3	SE220482.008	%	0 - 150%	117
(13C5-PFHxA) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	125
	HA1-2	SE220482.002	%	0 - 150%	111
	HA2-1	SE220482.003	%	0 - 150%	112

Surrogate results are evaluated against upper and lower limit criteria estaLlisTed in tTe SGS QA/QC plan jRef: MP-jAU(-[ENV]QU-022(. At least two of tTree routine level soil sample surrogate spike recoveries for BFEX/VOC are to Le witTin)0-130% wTere control cTarts Tave not Leen developed and witTin tTe estaLlisTed control limits for cTarted surrogates. Matrix effects may void tTis as an acceptance criterion. Water sample surrogate spike recoveries are to Le witTin 40-130%. FTe presence of emulsions, surfactants and particulates may void tTis as an acceptance criterion.

Result is sTown in **Green** wTen witTin suggested criteria or **Red** witT an appended reason identifer wTen outside suggested criteria. Refer to tTe footnotes section at tTe end of tTis report for failure reasons.

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples (continued) — **Method: MA-1523**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(13C5-PFHxA) Isotopically Labelled Internal Recovery Standard	HA2-2	SE220482.004	%	0 - 150%	114
	HA3-1	SE220482.005	%	0 - 150%	116
	MW10-1	SE220482.006	%	0 - 150%	121
	MW10-2	SE220482.007	%	0 - 150%	108
	MW10-3	SE220482.008	%	0 - 150%	118
(13C5-PFPeA) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	131
	HA1-2	SE220482.002	%	0 - 150%	129
	HA2-1	SE220482.003	%	0 - 150%	132
	HA2-2	SE220482.004	%	0 - 150%	126
	HA3-1	SE220482.005	%	0 - 150%	133
	MW10-1	SE220482.006	%	0 - 150%	129
	MW10-2	SE220482.007	%	0 - 150%	139
	MW10-3	SE220482.008	%	0 - 150%	129
(13C6-PFDA) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	137
	HA1-2	SE220482.002	%	0 - 150%	133
	HA2-1	SE220482.003	%	0 - 150%	129
	HA2-2	SE220482.004	%	0 - 150%	118
	HA3-1	SE220482.005	%	0 - 150%	123
	MW10-1	SE220482.006	%	0 - 150%	121
	MW10-2	SE220482.007	%	0 - 150%	114
	MW10-3	SE220482.008	%	0 - 150%	128
(13C7-PFUdA) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	94
	HA1-2	SE220482.002	%	0 - 150%	95
	HA2-1	SE220482.003	%	0 - 150%	105
	HA2-2	SE220482.004	%	0 - 150%	103
	HA3-1	SE220482.005	%	0 - 150%	113
	MW10-1	SE220482.006	%	0 - 150%	103
	MW10-2	SE220482.007	%	0 - 150%	103
	MW10-3	SE220482.008	%	0 - 150%	118
(13C8-PFOS) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	126
	HA1-2	SE220482.002	%	0 - 150%	104
	HA2-1	SE220482.003	%	0 - 150%	102
	HA2-2	SE220482.004	%	0 - 150%	131
	HA3-1	SE220482.005	%	0 - 150%	125
	MW10-1	SE220482.006	%	0 - 150%	102
	MW10-2	SE220482.007	%	0 - 150%	96
	MW10-3	SE220482.008	%	0 - 150%	104
(13C8-PFOSA) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	99
	HA1-2	SE220482.002	%	0 - 150%	106
	HA2-1	SE220482.003	%	0 - 150%	82
	HA2-2	SE220482.004	%	0 - 150%	96
	HA3-1	SE220482.005	%	0 - 150%	91
	MW10-1	SE220482.006	%	0 - 150%	79
	MW10-2	SE220482.007	%	0 - 150%	72
	MW10-3	SE220482.008	%	0 - 150%	94
(13C9-PFNA) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	122
	HA1-2	SE220482.002	%	0 - 150%	104
	HA2-1	SE220482.003	%	0 - 150%	97
	HA2-2	SE220482.004	%	0 - 150%	114
	HA3-1	SE220482.005	%	0 - 150%	115
	MW10-1	SE220482.006	%	0 - 150%	108
	MW10-2	SE220482.007	%	0 - 150%	123
	MW10-3	SE220482.008	%	0 - 150%	107
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	56
	HA1-2	SE220482.002	%	0 - 150%	65
	HA2-1	SE220482.003	%	0 - 150%	55
	HA2-2	SE220482.004	%	0 - 150%	70
	HA3-1	SE220482.005	%	0 - 150%	48
	MW10-1	SE220482.006	%	0 - 150%	57
	MW10-2	SE220482.007	%	0 - 150%	44
	MW10-3	SE220482.008	%	0 - 150%	75

Surrogate results are evaluated against upper and lower limit criteria estaLlisTed in tTe SGS QA/QC plan jRef: MP-jAU(-[ENV]QU-022(. At least two of tTree routine level soil sample surrogate spike recoveries for BFEX/VOC are to Le witTin)0-130% wTere control cTarts Tave not Leen developed and witTin tTe estaLlisTed control limits for cTarted surrogates. Matrix effects may void tTis as an acceptance criterion. Water sample surrogate spike recoveries are to Le witTin 40-130%. FTe presence of emulsions, surfactants and particulates may void tTis as an acceptance criterion.

Result is sTown in **Green** wTen witTin suggested criteria or **Red** witT an appended reason identifer wTen outside suggested criteria. Refer to tTe footnotes section at tTe end of tTis report for failure reasons.

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples (continued) — **Method: MA-1523**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	70
	HA1-2	SE220482.002	%	0 - 150%	69
	HA2-1	SE220482.003	%	0 - 150%	81
	HA2-2	SE220482.004	%	0 - 150%	89
	HA3-1	SE220482.005	%	0 - 150%	76
	MW10-1	SE220482.006	%	0 - 150%	52
	MW10-2	SE220482.007	%	0 - 150%	57
	MW10-3	SE220482.008	%	0 - 150%	82
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	39
	HA1-2	SE220482.002	%	0 - 150%	48
	HA2-1	SE220482.003	%	0 - 150%	49
	HA2-2	SE220482.004	%	0 - 150%	53
	HA3-1	SE220482.005	%	0 - 150%	36
	MW10-1	SE220482.006	%	0 - 150%	51
	MW10-2	SE220482.007	%	0 - 150%	28
	MW10-3	SE220482.008	%	0 - 150%	50
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	84
	HA1-2	SE220482.002	%	0 - 150%	63
	HA2-1	SE220482.003	%	0 - 150%	56
	HA2-2	SE220482.004	%	0 - 150%	80
	HA3-1	SE220482.005	%	0 - 150%	73
	MW10-1	SE220482.006	%	0 - 150%	51
	MW10-2	SE220482.007	%	0 - 150%	68
	MW10-3	SE220482.008	%	0 - 150%	80
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	85
	HA1-2	SE220482.002	%	0 - 150%	68
	HA2-1	SE220482.003	%	0 - 150%	63
	HA2-2	SE220482.004	%	0 - 150%	78
	HA3-1	SE220482.005	%	0 - 150%	60
	MW10-1	SE220482.006	%	0 - 150%	58
	MW10-2	SE220482.007	%	0 - 150%	52
	MW10-3	SE220482.008	%	0 - 150%	76
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery Standard	HA1-1	SE220482.001	%	0 - 150%	56
	HA1-2	SE220482.002	%	0 - 150%	57
	HA2-1	SE220482.003	%	0 - 150%	55
	HA2-2	SE220482.004	%	0 - 150%	63
	HA3-1	SE220482.005	%	0 - 150%	58
	MW10-1	SE220482.006	%	0 - 150%	55
	MW10-2	SE220482.007	%	0 - 150%	45
	MW10-3	SE220482.008	%	0 - 150%	68

VOC's in Soil — **Method: ME-(AU)-[ENV]AN433**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	HA2-1	SE220482.003	%	60 - 130%	76
	HA2-2	SE220482.004	%	60 - 130%	76
	MW10-1	SE220482.006	%	60 - 130%	78
	MW10-2	SE220482.007	%	60 - 130%	71
	MW10-3	SE220482.008	%	60 - 130%	67
	FM1	SE220482.009	%	60 - 130%	78
	FM2	SE220482.010	%	60 - 130%	76
	FM3	SE220482.011	%	60 - 130%	77
	QC3	SE220482.012	%	60 - 130%	77
d4-1,2-dichloroethane (Surrogate)	HA2-1	SE220482.003	%	60 - 130%	88
	HA2-2	SE220482.004	%	60 - 130%	91
	MW10-1	SE220482.006	%	60 - 130%	92
	MW10-2	SE220482.007	%	60 - 130%	84
	MW10-3	SE220482.008	%	60 - 130%	81
	FM1	SE220482.009	%	60 - 130%	92
	FM2	SE220482.010	%	60 - 130%	91
	FM3	SE220482.011	%	60 - 130%	93
	QC3	SE220482.012	%	60 - 130%	91

Surrogate results are evaluated against upper and lower limit criteria estaLlisTed in tTe SGS QA/QC plan jRef: MP-jAU(-[ENV]QU-022(. At least two of tTree routine level soil sample surrogate spike recoveries for BFEX/VOC are to Le witTin)0-130% wTere control cTarts Tave not Leen developed and witTin tTe estaLlisTed control limits for cTarted surrogates. Matrix effects may void tTis as an acceptance criterion. Water sample surrogate spike recoveries are to Le witTin 40-130%. FTe presence of emulsions, surfactants and particulates may void tTis as an acceptance criterion.

Result is sTown in **Green** wTen witTin suggested criteria or **Red** witT an appended reason identifer wTen outside suggested criteria. Refer to tTe footnotes section at tTe end of tTis 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)	HA2-1	SE220482.003	%	60 - 130%	87
	HA2-2	SE220482.004	%	60 - 130%	89
	MW10-1	SE220482.006	%	60 - 130%	91
	MW10-2	SE220482.007	%	60 - 130%	83
	MW10-3	SE220482.008	%	60 - 130%	79
	FM1	SE220482.009	%	60 - 130%	92
	FM2	SE220482.010	%	60 - 130%	90
	FM3	SE220482.011	%	60 - 130%	92
	QC3	SE220482.012	%	60 - 130%	91

Volatile Petroleum Hydrocarbons in Soil — Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	HA2-1	SE220482.003	%	60 - 130%	76
	HA2-2	SE220482.004	%	60 - 130%	76
	MW10-1	SE220482.006	%	60 - 130%	78
	MW10-2	SE220482.007	%	60 - 130%	71
	MW10-3	SE220482.008	%	60 - 130%	67
	FM1	SE220482.009	%	60 - 130%	78
	FM2	SE220482.010	%	60 - 130%	76
	FM3	SE220482.011	%	60 - 130%	77
	QC3	SE220482.012	%	60 - 130%	77
d4-1,2-dichloroethane (Surrogate)	HA2-1	SE220482.003	%	60 - 130%	88
	HA2-2	SE220482.004	%	60 - 130%	91
	MW10-1	SE220482.006	%	60 - 130%	92
	MW10-2	SE220482.007	%	60 - 130%	84
	MW10-3	SE220482.008	%	60 - 130%	81
	FM1	SE220482.009	%	60 - 130%	92
	FM2	SE220482.010	%	60 - 130%	91
	FM3	SE220482.011	%	60 - 130%	93
	QC3	SE220482.012	%	60 - 130%	91
d8-toluene (Surrogate)	HA2-1	SE220482.003	%	60 - 130%	87
	HA2-2	SE220482.004	%	60 - 130%	89
	MW10-1	SE220482.006	%	60 - 130%	91
	MW10-2	SE220482.007	%	60 - 130%	83
	MW10-3	SE220482.008	%	60 - 130%	79
	FM1	SE220482.009	%	60 - 130%	92
	FM2	SE220482.010	%	60 - 130%	90
	FM3	SE220482.011	%	60 - 130%	92
	QC3	SE220482.012	%	60 - 130%	91

Blank results are evaluated against tTe limit of reporting jhOR(, for tTe cTosen metTod and its associated instrumentation, typically 2.5 times tTe statistically determined metTod detection limit jMDh(.

Result is sTown in **Green** wTen witTin suggested criteria or **Red** witT an appended dagger symLol j†(wTen outside suggested criteria.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result
LB226745.001	Mercury	mg/kg	0.05	<0.05

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB226424.001		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)	%	-	97

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB226424.001		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)	%	-	107
		2-fluorobiphenyl (Surrogate)	%	-	93
		d14-p-terphenyl (Surrogate)	%	-	97

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result
LB226424.001	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

Blank results are evaluated against tTe limit of reporting jhOR(, for tTe cTosen metTod and its associated instrumentation, typically 2.5 times tTe statistically determined metTod detection limit jMDh(.

Result is sTown in **Green** wTen witTin suggested criteria or **Red** witT an appended dagger symLol j†(wTen outside suggested criteria.

PCBs in Soil (continued) — Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB226424.001		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)	%	-	97

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES — Method: ME-(AU)-[ENV]AN040/AN320

Sample Number		Parameter	Units	LOR	Result
LB226735.001		Arsenic, As	mg/kg	1	<1
		Cadmium, Cd	mg/kg	0.3	<0.3
		Chromium, Cr	mg/kg	0.5	<0.5
		Copper, Cu	mg/kg	0.5	<0.5
		Nickel, Ni	mg/kg	0.5	<0.5
		Lead, Pb	mg/kg	1	<1
		Zinc, Zn	mg/kg	2	<2.0

TRH (Total Recoverable Hydrocarbons) in Soil — Method: ME-(AU)-[ENV]AN403

Sample Number		Parameter	Units	LOR	Result
LB226424.001		TRH C10-C14	mg/kg	20	<20
		TRH C15-C28	mg/kg	45	<45
		TRH C29-C36	mg/kg	45	<45
		TRH C37-C40	mg/kg	100	<100
		TRH C10-C36 Total	mg/kg	110	<110

VOC's in Soil — Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB226488.001	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	d4-1,2-dichloroethane (Surrogate)	%	-	97
		d8-toluene (Surrogate)	%	-	95
		Bromofluorobenzene (Surrogate)	%	-	87
	Totals	Total BTEX	mg/kg	0.6	<0.6

Volatile Petroleum Hydrocarbons in Soil — Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB226488.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	97

Duplicates are calculated as Relative Percentage Difference jRPD(using tTe formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

FTe RPD is evaluated against tTe Maximum AllowaLle Difference jMAD(criteria and can Le grapTically represented Ly a curve calculated from tTe Statistical Detection himit jSDh(and himiting RepeataLility jhR(using tTe formula: MAD = 100 x SDh / Mean + hR

WTere tTe Maximum AllowaLle Difference evaluates to a numLer larger tTan 200 it is displayed as 200.

RPD is sTown in **Green** wTen witTin suggested criteria or **Red** witT an appended reason identifer wTen outside suggested criteria. Refer to tTe footnotes section at tTe end of tTis report for failure reasons.

NOFE: FTe RPD reported is calculated from tTe unrounded data for tTe original and replicate result. Manual calculation of tTe RPD from tTe rounded data reported may

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220481.001	LB226745.014	Mercury	mg/kg	0.05	<0.05	<0.05	142	0
SE220641.001	LB226745.024	Mercury	mg/kg	0.05	<0.05	0.06	196	12

Moisture Content

Method: ME-(AU)-[ENV]AN002

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220477.009	LB226588.021	% Moisture	%w/w	1	9.0	9.8	41	8
SE220482.012	LB226588.011	% Moisture	%w/w	1	3.7	4.1	56	9

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220482.010	LB226424.028		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	-	0.15	0.16	30	5

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220482.010	LB226424.027	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	162	0
		Pyrene	mg/kg	0.1	<0.1	<0.1	170	0
		Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	173	0
		Chrysene	mg/kg	0.1	<0.1	<0.1	164	0
		Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	156	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	199	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

Duplicates are calculated as Relative Percentage Difference jRPD(using tTe formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

FTe RPD is evaluated against tTe Maximum AllowaLle Difference jMAD(criteria and can Le grapTically represented Ly a curve calculated from tTe Statistical Detection himit jSDh(and himiting RepeataLility jhR(using tTe formula: MAD = 100 x SDh / Mean + hR

WTere tTe Maximum AllowaLle Difference evaluates to a numLer larger tTan 200 it is displayed as 200.

RPD is sTown in **Green** wTen witTin suggested criteria or **Red** witT an appended reason identifer wTen outside suggested criteria. Refer to tTe footnotes section at tTe end of tTis report for failure reasons.

NOFE: FTe RPD reported is calculated from tTe unrounded data for tTe original and replicate result. Manual calculation of tTe RPD from tTe rounded data reported may

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220482.010	LB226424.027		Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	9
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	30	1
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220482.010	LB226424.028		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	5

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 %
SE220481.001	LB226735.014		Arsenic, As	mg/kg	1	2	3	71	8
			Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
			Chromium, Cr	mg/kg	0.5	2.1	2.4	52	12
			Copper, Cu	mg/kg	0.5	3.2	3.5	45	9
			Nickel, Ni	mg/kg	0.5	2.7	2.9	48	5
			Lead, Pb	mg/kg	1	7	11	42	49 ②
			Zinc, Zn	mg/kg	2	32	38	36	19
SE220641.001	LB226735.024		Arsenic, As	mg/kg	1	<1	<1	200	0
			Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
			Chromium, Cr	mg/kg	0.5	0.5	1.4	82	87 ③
			Copper, Cu	mg/kg	0.5	6.8	9.9	36	37 ②
			Nickel, Ni	mg/kg	0.5	0.9	3.8	51	121 ②
			Lead, Pb	mg/kg	1	4	6	50	22
			Zinc, Zn	mg/kg	2	34	32	36	5

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220477.009	LB226424.025		TRH C10-C14	mg/kg	20	<20	<20	200	0
			TRH C15-C28	mg/kg	45	<45	<45	200	0
			TRH C29-C36	mg/kg	45	<45	<45	200	0
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
SE220482.010	LB226424.027		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 (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0

Duplicates are calculated as Relative Percentage Difference jRPD(using tTe formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

FTe RPD is evaluated against tTe Maximum AllowaLle Difference jMAD(criteria and can Le grapTically represented Ly a curve calculated from tTe Statistical Detection himit jSDh(and himiting RepeataLility jhR(using tTe formula: MAD = 100 x SDh / Mean + hR

WTere tTe Maximum AllowaLle Difference evaluates to a numLer larger tTan 200 it is displayed as 200.

RPD is sTown in **Green** wTen witTin suggested criteria or **Red** witT an appended reason identifer wTen outside suggested criteria. Refer to tTe footnotes section at tTe end of tTis report for failure reasons.

NOFE: FTe RPD reported is calculated from tTe unrounded data for tTe original and replicate result. Manual calculation of tTe RPD from tTe rounded data reported may

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220477.009	LB226488.024	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.8	9.0	50	2
			d8-toluene (Surrogate)	mg/kg	-	8.8	9.0	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.4	7.5	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
SE220482.012	LB226488.014	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.1	9.3	50	2
			d8-toluene (Surrogate)	mg/kg	-	9.1	9.3	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.7	7.8	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

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220477.009	LB226488.024		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.8	9.0	30	2
			d8-toluene (Surrogate)	mg/kg	-	8.8	9.0	30	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.4	7.5	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
SE220482.012	LB226488.014		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.1	9.3	30	2
			d8-toluene (Surrogate)	mg/kg	-	9.1	9.3	30	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.7	7.8	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

haLoratory Control Standard jhCS(results are evaluated against an expected result, typically tTe concentration of analyte spiked into tTe control during tTe sample preparation stage, producing a percentage recovery. FTe criteria applied to tTe percentage recovery is estaLlisTed in tTe SGS QA /QC plan jRef: MP-jAU(-[ENV]QU-022(. 7or more information refer to tTe footnotes in tTe concluding page of tTis report.

Recovery is sTown in **Green** wTen witTin suggested criteria or **Red** witT an appended dagger symLol j†(wTen outside suggested criteria.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226745.002	Mercury	mg/kg	0.05	0.23	0.2	70 - 130	115

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter		Units	LOR	Result	Expected	Criteria %	Recovery %
LB226424.002		Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	99
		Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	88
		Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	96
		Dieldrin	mg/kg	0.2	<0.2	0.2	60 - 140	86
		Endrin	mg/kg	0.2	0.2	0.2	60 - 140	100
		p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	99
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.15	40 - 130	96

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter		Units	LOR	Result	Expected	Criteria %	Recovery %
LB226424.002		Naphthalene	mg/kg	0.1	3.7	4	60 - 140	92
		Acenaphthylene	mg/kg	0.1	3.8	4	60 - 140	94
		Acenaphthene	mg/kg	0.1	3.7	4	60 - 140	93
		Phenanthrene	mg/kg	0.1	3.8	4	60 - 140	94
		Anthracene	mg/kg	0.1	3.7	4	60 - 140	92
		Fluoranthene	mg/kg	0.1	3.7	4	60 - 140	92
		Pyrene	mg/kg	0.1	3.9	4	60 - 140	97
		Benzo(a)pyrene	mg/kg	0.1	3.9	4	60 - 140	99
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.5	40 - 130	111
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	91
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	87

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226424.002	Arochlor 1260	mg/kg	0.2	0.5	0.4	60 - 140	136

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 %
LB226735.002	Arsenic, As	mg/kg	1	340	318.22	80 - 120	105
	Cadmium, Cd	mg/kg	0.3	5.2	4.81	70 - 130	109
	Chromium, Cr	mg/kg	0.5	39	38.31	80 - 120	101
	Copper, Cu	mg/kg	0.5	320	290	80 - 120	109
	Nickel, Ni	mg/kg	0.5	190	187	80 - 120	102
	Lead, Pb	mg/kg	1	92	89.9	80 - 120	102
	Zinc, Zn	mg/kg	2	290	273	80 - 120	106

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter		Units	LOR	Result	Expected	Criteria %	Recovery %
LB226424.002		TRH C10-C14	mg/kg	20	37	40	60 - 140	93
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	93
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	83
	TRH F Bands	TRH >C10-C16	mg/kg	25	37	40	60 - 140	93
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	93
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	80

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number	Parameter		Units	LOR	Result	Expected	Criteria %	Recovery %
LB226488.002	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.1	5	60 - 140	82
		Toluene	mg/kg	0.1	4.1	5	60 - 140	83
		Ethylbenzene	mg/kg	0.1	4.3	5	60 - 140	86
		m/p-xylene	mg/kg	0.2	8.6	10	60 - 140	86
		o-xylene	mg/kg	0.1	4.3	5	60 - 140	86
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.8	10	70 - 130	98
		d8-toluene (Surrogate)	mg/kg	-	9.8	10	70 - 130	98
		Bromofluorobenzene (Surrogate)	mg/kg	-	8.8	10	70 - 130	88

haLoratory Control Standard jhCS(results are evaluated against an expected result, typically tTe concentration of analyte spiked into tTe control during tTe sample preparation stage, producing a percentage recovery. FTe criteria applied to tTe percentage recovery is estaLlisTed in tTe SGS QA /QC plan jRef: MP-jAU(-[ENV]QU-022(. 7or more information refer to tTe footnotes in tTe concluding page of tTis report.

Recovery is sTown in **Green** wTen witTin suggested criteria or **Red** witT an appended dagger symLol j†(wTen outside suggested criteria.

Volatile Petroleum Hydrocarbons in Soil — **Method: ME-(AU)-[ENV]AN433**

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226488.002		TRH C6-C10	mg/kg	25	86	92.5	60 - 140	93
		TRH C6-C9	mg/kg	20	76	80	60 - 140	95
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.8	10	70 - 130	98
		Bromofluorobenzene (Surrogate)	mg/kg	-	8.8	10	70 - 130	88
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	60	62.5	60 - 140	96

Matrix Spike jMS(results are evaluated as tTe percentage recovery of an expected result, typically tTe concentration of analyte spiked into a field suL -sample during tTe sample preparation stage. FTe original sample's result is suLtracted from tTe suL-sample result Lefore determining tTe percentage recovery. FTe criteria applied to tTe percentage recovery is estaLlisTed in tTe SGS QA/QC plan jref: MP-jAU(-[ENV]QU-022(. 7or more information refer to tTe footnotes in tTe concluding page of tTis report.

Recovery is sTown in **Green** wTen witTin suggested criteria or **Red** witT an appended reason identifer wTen outside suggested criteria. Refer to tTe footnotes section at tTe end of tTis report for failure reasons.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220482.003	LB226745.004	Mercury	mg/kg	0.05	0.24	<0.05	0.2	111

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220472.001	LB226424.004		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	-	-
			Lindane	mg/kg	0.1	<0.1	<0.1	-	-
			Heptachlor	mg/kg	0.1	0.2	<0.1	0.2	98
			Aldrin	mg/kg	0.1	0.2	<0.1	0.2	95
			Beta BHC	mg/kg	0.1	<0.1	<0.1	-	-
			Delta BHC	mg/kg	0.1	0.2	<0.1	0.2	92
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	-	-
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	-	-
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
			Dieldrin	mg/kg	0.2	<0.2	<0.2	0.2	95
			Endrin	mg/kg	0.2	0.2	<0.2	0.2	105
			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	104
			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	-	101

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220472.001	LB226424.004		Naphthalene	mg/kg	0.1	3.7	<0.1	4	92
			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	3.7	<0.1	4	93
			Acenaphthene	mg/kg	0.1	3.8	<0.1	4	94
			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	3.8	<0.1	4	93
			Fluoranthene	mg/kg	0.1	3.9	<0.1	4	97
			Pyrene	mg/kg	0.1	4.0	<0.1	4	99
			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	96
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	-	-
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	3.8	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	4.0	<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	31	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	-	100

Matrix Spike jMS(results are evaluated as tTe percentage recovery of an expected result, typically tTe concentration of analyte spiked into a field suL -sample during tTe sample preparation stage. FTe original sample's result is suLtracted from tTe suL-sample result Lefore determining tTe percentage recovery. FTe criteria applied to tTe percentage recovery is estaLlisTed in tTe SGS QA/QC plan jref: MP-jAU(-[ENV]QU-022(. 7or more information refer to tTe footnotes in tTe concluding page of tTis report.

Recovery is sTown in **Green** wTen witTin suggested criteria or **Red** witT an appended reason identifer wTen outside suggested criteria. Refer to tTe footnotes section at tTe end of tTis 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%
SE220472.001	LB226424.004	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	89
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	-	85

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220472.001	LB226424.004		Arochlor 1016	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1221	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1232	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1242	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1248	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1254	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1260	mg/kg	0.2	0.5	<0.2	0.4	131
			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 Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220482.003	LB226735.004		Arsenic, As	mg/kg	1	51	16	50	72
			Cadmium, Cd	mg/kg	0.3	45	0.4	50	89
			Chromium, Cr	mg/kg	0.5	170	110	50	104
			Copper, Cu	mg/kg	0.5	96	62	50	67 ⑨
			Nickel, Ni	mg/kg	0.5	57	15	50	84
			Lead, Pb	mg/kg	1	100	66	50	68 ⑨
			Zinc, Zn	mg/kg	2	1400	1800	50	-669 ⑤

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220472.001	LB226424.004		TRH C10-C14	mg/kg	20	37	<20	40	93
			TRH C15-C28	mg/kg	45	<45	<45	40	93
			TRH C29-C36	mg/kg	45	<45	<45	40	83
			TRH C37-C40	mg/kg	100	<100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	<110	<110	-	-
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	-	-
		TRH F	TRH >C10-C16	mg/kg	25	37	<25	40	93
		Bands	TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	33	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	93
			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%
SE220472.001	LB226488.004	Monocyclic	Benzene	mg/kg	0.1	3.6	<0.1	5	71
		Aromatic	Toluene	mg/kg	0.1	3.7	<0.1	5	73
			Ethylbenzene	mg/kg	0.1	3.9	<0.1	5	78
			m/p-xylene	mg/kg	0.2	8.0	<0.2	10	79
			o-xylene	mg/kg	0.1	4.0	<0.1	5	79
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.3	9.3	10	93
			d8-toluene (Surrogate)	mg/kg	-	9.2	9.3	10	92
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.1	8.1	10	81
		Totals	Total Xylenes	mg/kg	0.3	12	<0.3	-	-
			Total BTEX	mg/kg	0.6	23	<0.6	-	-

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220472.001	LB226488.004		TRH C6-C10	mg/kg	25	72	<25	92.5	77
			TRH C6-C9	mg/kg	20	64	<20	80	80
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.3	9.3	10	93
			d8-toluene (Surrogate)	mg/kg	-	9.2	9.3	10	92
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.1	8.1	-	81
		VPH F	Benzene (F0)	mg/kg	0.1	3.6	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	49	<25	62.5	77

MATRIX SPIKE DUPLICATES

SE220482 R0

Matrix spike duplicates are calculated as Relative Percent Difference jRPD(using tTe formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

FTe original result is tTe analyte concentration of tTe matrix spike. FTe Duplicate result is tTe analyte concentration of tTe matrix spike duplicate.

FTe RPD is evaluated against tTe Maximum AllowaLle Difference jMAD(criteria and can Le grapTically represented Ly a curve calculated from tTe Statistical Detection himit jSDh(and himiting RepeataLility jhR(using tTe formula: MAD = 100 x SDh / Mean + hR

WTere tTe Maximum AllowaLle Difference evaluates to a numLer larger tTan 200 it is displayed as 200.

RPD is sTown in **Green** wTen witTin suggested criteria or **Red** witT an appended reason identifer wTen outside suggested criteria. Refer to tTe footnotes section at tTe

No matrix spike duplicates were required for tTis toL.

Samples analysed as received.

Solid samples expressed on a dry weigTt Lasis.

QC criteria are suLject to internal review according to tTe SGS QA/QC plan and may Le provided on request or alternatively can Le found Tere: Ttps://www.sgs.com.au/~/media/hocal/Australia/Documents/FecTnical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

*	NAFA accreditation does not cover tTe performance of tTis service.
**	Indicative data, tTeoretical Tolding time exceeded.
***	Indicates tTat LotT * and ** apply.
-	Sample not analysed for tTis analyte.
IS	Insufficient sample for analysis.
hNR	Sample listed, Lut not received.
hOR	himit of reporting.
Q7H	QC result is aLove tTe upper tolerance.
Q7h	QC result is Lelow tTe lower tolerance.
①	At least 2 of 3 surrogates are witTin acceptance criteria.
②	RPD failed acceptance criteria due to sample Teterogeneity.
③	Results less tTan 5 times hOR preclude acceptance criteria for RPD.
④	Recovery failed acceptance criteria due to matrix interference.
⑤	Recovery failed acceptance criteria due to tTe presence of significant concentration of analyte ji.e. tTe concentration of analyte exceeds tTe spike level(.
⑥	hOR was raised due to sample matrix interference.
⑦	hOR was raised due to dilution of significantly TigT concentration of analyte in sample.
⑧	Reanalysis of sample in duplicate confirmed sample Teterogeneity and inconsistency of results.
⑨	Recovery failed acceptance criteria due to sample Teterogeneity.
⑩	hOR was raised due to TigT conductivity of tTe sample jrequired dilution(.
†	Refer to relevant report comments for furtTer information.

FTis document is issued Ly tTe Company under its General Conditions of Service accessiLle at www.sgs.com/en/Ferms-and-Conditions.aspx. Attention is drawn to tTe limitation of liaLility, indemnification and turisdiction issues defined tTerein.

Any Tolder of tTis document is advised tTat information contained Tereon reflects tTe Company's findings at tTe time of its intervention only and witTin tTe limits of Client's instructions, if any. FTe Company's sole responsiLility is to its Client only. Any unautTorized alteration, forgery or falsification of tTe content or appearance of tTis document is unlawful and offenders may Le prosecuted to tTe fullest extent of tTe law.

FTis test report sTall not Le reproduced, except in full.

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	James McMahon
Client	JM ENVIRONMENTS
Address	37 TOOKE STREET COOKS HILL NSW 2300
Telephone	0427 893 668
Facsimile	(Not specified)
Email	james@jmenvironments.com
Project	**JME20005-6**
Order Number	**JME20005-6**
Samples	1

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	**SE220482 R0**
Date Received	08 Jun 2021
Date Reported	16 Jun 2021

COMMENTS

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

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

A portion of the soil 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. For identification of asbestos in soil samples, Industries & environment recommends supplying approximately 50-100g of sample in a separate container.

Asbestos analysed by Approved Identifier Yusuf Kuthpudin.

PFAS subcontracted to SGS Melbourne, Unit 10/585 Blackburn Road Notting Hill VIC 3168, NATA Accreditation Number 2562, Site number 14420. ME320921

MA1523: Surrogate recoveries of some PFAS compounds out of range due to matrix interference .

SIGNATORIES

Akheeqar BENIAMEEN
Chemist

Huong CRAWFORD
Production Manager

Kamrul AHSAN
Senior Chemist

Ly Kim HA
Organic Section Head

Yusuf KUTHPUDIN
Asbestos Analyst

ANALYTICAL REPORT

RESULTS

Fibre Identification in soil — Method AN602

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Fibre Identification	Est.%w/w*
SE220482.004	HA2-2	Soil	36g Sand, Soil, Rocks	03 Jun 2021	No Asbestos Found at RL of 0.1g/kg	<0.01

METHOD SUMMARY

SE220482 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/reporting limit (RL) of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."
AN602	The sample can be reported “no asbestos found at the reporting limit (RL) of 0.1 g/kg” (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (a) no trace asbestos fibres have been detected (i.e. no ‘respirable ’ fibres): (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

FOOTNOTES

Amosite	-	Brown Asbestos	NA	-	Not Analysed
Chrysotile	-	White Asbestos	LNR	-	Listed, Not Required
Crocidolite	-	Blue Asbestos	*	-	NATA accreditation does not cover the performance of this service .
Amphiboles	-	Amosite and/or Crocidolite	**	-	Indicative data, theoretical holding time exceeded.
			***	-	Indicates that both * and ** apply.

(In reference to soil samples only) This report does not comply with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment and Remediation and Management of Asbestos Contaminated sites in Western Australia - May 2009.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.

Where reported: 'Asbestos Detected': Asbestos detected by polarised light microscopy, including dispersion staining.
Where reported: 'No Asbestos Found': No Asbestos Found by polarised light microscopy , including dispersion staining.
Where reported: 'UMF Detected': Mineral fibres of unknown type detected by polarised light microscopy, including dispersion staining. Confirmation by another independent analytical technique may be necessary.

Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos -containing bulk materials using polarised light microscopy. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials.

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

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.

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS		LABORATORY DETAILS	
Contact	Huong Crawford	Manager	Adam Atkinson
Client	SGS I&E SYDNEY	Laboratory	SGS Melbourne EH&S
Address	Unit 16, 33 Maddox Street Alexandria NSW 2015	Address	10/585 Blackburn Road Notting Hill Victoria 3168
Telephone	02 8594 0400	Telephone	+61395743200
Facsimile	02 8594 0499	Facsimile	+61395743399
Email	au.environmental.sydney@sgs.com	Email	Au.SampleReceipt.Melbourne@sgs.com
Project	**JME20005-6**	SGS Reference	**ME320921 R0**
Order Number	**SE220482**	Date Received	09 Jun 2021
Samples	14	Date Reported	16 Jun 2021

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(14420).

MA1523: Surrogate recoveries of some PFAS compounds out of range due to matrix interference .

SIGNATORIES

Adam ATKINSON
Australian Chemistry Manager

Vanessa PALAMARA
Senior Chemist

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME320921.001	ME320921.002 Soil 03 Jun 2021 SE220482.001 ME320921.002	ME320921.003 Soil 03 Jun 2021 SE220482.002 ME320921.003	ME320921.004 Soil 03 Jun 2021 SE220482.003 ME320921.004	Soil 03 Jun 2021 SE220482.004
Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples	**Method: MA-1523**	**Tested: 10/6/2021**					
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	<0.0008	<0.0008	<0.0008	<0.0008	
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	<0.0032	<0.0032	<0.0032	<0.0032	
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Sum PFOS and PFHXS	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	<0.016	<0.016	<0.016	
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	<0.016	<0.016	<0.016	
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	
Total of PFAS (n=30)	mg/kg	0.08	<0.08	<0.08	<0.08	<0.08	
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	**111**	**112**	**110**	**108**	
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	**131**	**129**	**132**	**126**	
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	**125**	**111**	**112**	**114**	
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	**137**	**102**	**117**	**110**	
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	**111**	**102**	**106**	**115**	
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	**122**	**104**	**97**	**114**	
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	**137**	**133**	**129**	**118**	
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	**94**	**95**	**105**	**103**	
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	**99**	**96**	**97**	**98**	
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	**28**	**40**	**33**	**39**	
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	**6**	**14**	**10**	**16**	
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	**120**	**128**	**122**	**115**	
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	**108**	**118**	**124**	**110**	
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	**126**	**104**	**102**	**131**	
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	**85**	**82**	**79**	**74**	
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	**89**	**86**	**82**	**87**	
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	**56**	**81**	**72**	**83**	
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	**99**	**106**	**82**	**96**	
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	**56**	**65**	**55**	**70**	
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	**39**	**48**	**49**	**53**	
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	**85**	**68**	**63**	**78**	
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	**56**	**57**	**55**	**63**	
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	**70**	**69**	**81**	**89**	
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	**84**	**63**	**56**	**80**	

Moisture Content **Method: AN002** **Tested: 10/6/2021**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME320921.001 Soil 03 Jun 2021 SE220482.001	ME320921.002 Soil 03 Jun 2021 SE220482.002	ME320921.003 Soil 03 Jun 2021 SE220482.003	ME320921.004 Soil 03 Jun 2021 SE220482.004
Moisture Content Method: AN002 Tested: 10/6/2021 (continued)						
% Moisture*	%w/w	1	**16.2**	**7.8**	**16.6**	**3.8**
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples Method: MA-1523 Tested: 11/6/2021						
Perfluorobutanoic acid (PFBA)	µg/L	0.002	-	-	-	-
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	-	-	-	-
Perfluorohexanoic acid (PFHxA)	µg/L	0.002	-	-	-	-
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002	-	-	-	-
Perfluorooctanoic Acid (PFOA)	µg/L	0.002	-	-	-	-
Perfluorononanoic acid (PFNA)	µg/L	0.004	-	-	-	-
Perfluorodecanoic acid (PFDA)	µg/L	0.004	-	-	-	-
Perfluoroundecanoic acid (PFUnA)	µg/L	0.004	-	-	-	-
Perfluorododecanoic acid (PFDoA)	µg/L	0.004	-	-	-	-
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.004	-	-	-	-
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.004	-	-	-	-
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.008	-	-	-	-
Perfluorobutane sulfonate (PFBS)	µg/L	0.004	-	-	-	-
Perfluoropentane sulfonate (PFPeS)	µg/L	0.004	-	-	-	-
Perfluorohexane sulfonate (PFHxS)	µg/L	0.002	-	-	-	-
Perfluoroheptane sulfonate (PFHpS)	µg/L	0.002	-	-	-	-
Perfluorooctane sulfonate (PFOS)	µg/L	0.002	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002	-	-	-	-
Perfluorononane sulfonate (PFNS)	µg/L	0.002	-	-	-	-
Perfluorodecane sulfonate (PFDS)	µg/L	0.002	-	-	-	-
Perfluorododecane sulfonate (PFDoS)	µg/L	0.002	-	-	-	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	µg/L	0.002	-	-	-	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	µg/L	0.002	-	-	-	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	µg/L	0.002	-	-	-	-
Perfluorooctane sulfonamide (PFOSA)	µg/L	0.008	-	-	-	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	µg/L	0.01	-	-	-	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	µg/L	0.01	-	-	-	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	µg/L	0.01	-	-	-	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	µg/L	0.01	-	-	-	-
N-Methylperfluorooctanesulfonamidoacetic acid	µg/L	0.01	-	-	-	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	µg/L	0.01	-	-	-	-
Total of PFAS (n=30)	µg/L	0.04	-	-	-	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME320921.001 Soil 03 Jun 2021 SE220482.001	ME320921.002 Soil 03 Jun 2021 SE220482.002	ME320921.003 Soil 03 Jun 2021 SE220482.003	ME320921.004 Soil 03 Jun 2021 SE220482.004
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples Method: MA-1523 Tested: 11/6/2021 (continued)						
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME320921.005 Soil 03 Jun 2021 SE220482.005	ME320921.006 Soil 03 Jun 2021 SE220482.006	ME320921.007 Soil 03 Jun 2021 SE220482.007	ME320921.008 Soil 03 Jun 2021 SE220482.008
Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples	**Method: MA-1523**	**Tested: 10/6/2021**				
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	<0.0032	<0.0032	<0.0032	<0.0032
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Sum PFOS and PFHXS	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	<0.016	<0.016	<0.016
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	<0.016	<0.016	<0.016
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008
Total of PFAS (n=30)	mg/kg	0.08	<0.08	<0.08	<0.08	<0.08
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	**111**	**111**	**109**	**111**
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	**133**	**129**	**139**	**129**
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	**116**	**121**	**108**	**118**
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	**114**	**114**	**107**	**117**
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	**103**	**111**	**101**	**106**
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	**115**	**108**	**123**	**107**
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	**123**	**121**	**114**	**128**
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	**113**	**103**	**103**	**118**
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	**111**	**97**	**92**	**109**
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	**39**	**34**	**34**	**48**
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	**11**	**11**	**9**	**20**
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	**128**	**132**	**129**	**126**
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	**124**	**127**	**119**	**101**
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	**125**	**102**	**96**	**104**
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	**95**	**91**	**74**	**79**
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	**120**	**98**	**85**	**81**
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	**94**	**81**	**87**	**65**
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	**91**	**79**	**72**	**94**
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	**48**	**57**	**44**	**75**
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	**36**	**51**	**28**	**50**
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	**60**	**58**	**52**	**76**
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	**58**	**55**	**45**	**68**
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	**76**	**52**	**57**	**82**
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	**73**	**51**	**68**	**80**

Moisture Content **Method: AN002** **Tested: 10/6/2021**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME320921.005 Soil 03 Jun 2021 SE220482.005	ME320921.006 Soil 03 Jun 2021 SE220482.006	ME320921.007 Soil 03 Jun 2021 SE220482.007	ME320921.008 Soil 03 Jun 2021 SE220482.008
Moisture Content Method: AN002 Tested: 10/6/2021 (continued)						
% Moisture*	%w/w	1	**8.5**	**7.6**	**7.7**	**18.5**
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples Method: MA-1523 Tested: 11/6/2021						
Perfluorobutanoic acid (PFBA)	µg/L	0.002	-	-	-	-
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	-	-	-	-
Perfluorohexanoic acid (PFHxA)	µg/L	0.002	-	-	-	-
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002	-	-	-	-
Perfluorooctanoic Acid (PFOA)	µg/L	0.002	-	-	-	-
Perfluorononanoic acid (PFNA)	µg/L	0.004	-	-	-	-
Perfluorodecanoic acid (PFDA)	µg/L	0.004	-	-	-	-
Perfluoroundecanoic acid (PFUnA)	µg/L	0.004	-	-	-	-
Perfluorododecanoic acid (PFDoA)	µg/L	0.004	-	-	-	-
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.004	-	-	-	-
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.004	-	-	-	-
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.008	-	-	-	-
Perfluorobutane sulfonate (PFBS)	µg/L	0.004	-	-	-	-
Perfluoropentane sulfonate (PFPeS)	µg/L	0.004	-	-	-	-
Perfluorohexane sulfonate (PFHxS)	µg/L	0.002	-	-	-	-
Perfluoroheptane sulfonate (PFHpS)	µg/L	0.002	-	-	-	-
Perfluorooctane sulfonate (PFOS)	µg/L	0.002	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002	-	-	-	-
Perfluorononane sulfonate (PFNS)	µg/L	0.002	-	-	-	-
Perfluorodecane sulfonate (PFDS)	µg/L	0.002	-	-	-	-
Perfluorododecane sulfonate (PFDoS)	µg/L	0.002	-	-	-	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	µg/L	0.002	-	-	-	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	µg/L	0.002	-	-	-	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	µg/L	0.002	-	-	-	-
Perfluorooctane sulfonamide (PFOSA)	µg/L	0.008	-	-	-	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	µg/L	0.01	-	-	-	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	µg/L	0.01	-	-	-	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	µg/L	0.01	-	-	-	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	µg/L	0.01	-	-	-	-
N-Methylperfluorooctanesulfonamidoacetic acid	µg/L	0.01	-	-	-	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	µg/L	0.01	-	-	-	-
Total of PFAS (n=30)	µg/L	0.04	-	-	-	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME320921.005 Soil 03 Jun 2021 SE220482.005	ME320921.006 Soil 03 Jun 2021 SE220482.006	ME320921.007 Soil 03 Jun 2021 SE220482.007	ME320921.008 Soil 03 Jun 2021 SE220482.008
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples Method: MA-1523 Tested: 11/6/2021 (continued)						
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME320921.009 Soil 03 Jun 2021 SE220482.009	ME320921.010 Soil 03 Jun 2021 SE220482.010	ME320921.011 Soil 03 Jun 2021 SE220482.011	ME320921.012 Soil 03 Jun 2021 SE220482.012
Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples Method: MA-1523 Tested: 15/6/2021						
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	-	-	-	-
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	-	-	-	-
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	-	-	-	-
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	-	-	-	-
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	-	-	-	-
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	-	-	-	-
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	-	-	-	-
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	-	-	-	-
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	-	-	-	-
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	-	-	-	-
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	-	-	-	-
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	-	-	-	-
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	-	-	-	-
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	-	-	-	-
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	-	-	-	-
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	-	-	-	-
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	-	-	-	-
Sum PFOS and PFHXS	mg/kg	0.0016	-	-	-	-
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	-	-	-	-
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	-	-	-	-
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	-	-	-	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	-	-	-	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	-	-	-	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	-	-	-	-
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	-	-	-	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	-	-	-	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	-	-	-	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-	-	-	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-	-	-	-
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	-	-	-	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	-	-	-	-
Total of PFAS (n=30)	mg/kg	0.08	-	-	-	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-

Moisture Content Method: AN002 Tested: 11/6/2021

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME320921.009 Soil 03 Jun 2021 SE220482.009	ME320921.010 Soil 03 Jun 2021 SE220482.010	ME320921.011 Soil 03 Jun 2021 SE220482.011	ME320921.012 Soil 03 Jun 2021 SE220482.012
Moisture Content Method: AN002 Tested: 11/6/2021 (continued)						
% Moisture*	%w/w	1	-	-	-	-
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples Method: MA-1523 Tested: 11/6/2021						
Perfluorobutanoic acid (PFBA)	µg/L	0.002	-	-	-	-
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	-	-	-	-
Perfluorohexanoic acid (PFHxA)	µg/L	0.002	-	-	-	-
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002	-	-	-	-
Perfluorooctanoic Acid (PFOA)	µg/L	0.002	-	-	-	-
Perfluorononanoic acid (PFNA)	µg/L	0.004	-	-	-	-
Perfluorodecanoic acid (PFDA)	µg/L	0.004	-	-	-	-
Perfluoroundecanoic acid (PFUnA)	µg/L	0.004	-	-	-	-
Perfluorododecanoic acid (PFDoA)	µg/L	0.004	-	-	-	-
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.004	-	-	-	-
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.004	-	-	-	-
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.008	-	-	-	-
Perfluorobutane sulfonate (PFBS)	µg/L	0.004	-	-	-	-
Perfluoropentane sulfonate (PFPeS)	µg/L	0.004	-	-	-	-
Perfluorohexane sulfonate (PFHxS)	µg/L	0.002	-	-	-	-
Perfluoroheptane sulfonate (PFHpS)	µg/L	0.002	-	-	-	-
Perfluorooctane sulfonate (PFOS)	µg/L	0.002	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002	-	-	-	-
Perfluorononane sulfonate (PFNS)	µg/L	0.002	-	-	-	-
Perfluorodecane sulfonate (PFDS)	µg/L	0.002	-	-	-	-
Perfluorododecane sulfonate (PFDoS)	µg/L	0.002	-	-	-	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	µg/L	0.002	-	-	-	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	µg/L	0.002	-	-	-	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	µg/L	0.002	-	-	-	-
Perfluorooctane sulfonamide (PFOSA)	µg/L	0.008	-	-	-	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	µg/L	0.01	-	-	-	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	µg/L	0.01	-	-	-	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	µg/L	0.01	-	-	-	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	µg/L	0.01	-	-	-	-
N-Methylperfluorooctanesulfonamidoacetic acid	µg/L	0.01	-	-	-	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	µg/L	0.01	-	-	-	-
Total of PFAS (n=30)	µg/L	0.04	-	-	-	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME320921.009 Soil 03 Jun 2021 SE220482.009	ME320921.010 Soil 03 Jun 2021 SE220482.010	ME320921.011 Soil 03 Jun 2021 SE220482.011	ME320921.012 Soil 03 Jun 2021 SE220482.012
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples Method: MA-1523 Tested: 11/6/2021 (continued)						
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME320921.013 Water 03 Jun 2021 SE220482.013	ME320921.014 Water 03 Jun 2021 SE220482.014
Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples Method: MA-1523 Tested: 15/6/2021				
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	-	-
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	-	-
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	-	-
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	-	-
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	-	-
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	-	-
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	-	-
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	-	-
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	-	-
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	-	-
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	-	-
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	-	-
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	-	-
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	-	-
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	-	-
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	-	-
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	-	-
Sum PFOS and PFHXS	mg/kg	0.0016	-	-
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	-	-
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	-	-
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	-	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	-	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	-	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	-	-
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	-	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	-	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	-	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-	-
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	-	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	-	-
Total of PFAS (n=30)	mg/kg	0.08	-	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	-	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	-	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	-	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	-	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	-	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	-	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	-	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	-	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-

Moisture Content Method: AN002 Tested: 11/6/2021

Parameter	Units	LOR	Sample Number ME320921.013 Sample Matrix Water Sample Date 03 Jun 2021 Sample Name SE220482.013	Sample Number ME320921.014 Sample Matrix Water Sample Date 03 Jun 2021 Sample Name SE220482.014
Moisture Content Method: AN002 Tested: 11/6/2021 (continued)				
% Moisture*	%w/w	1	-	-
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples Method: MA-1523 Tested: 10/6/2021				
Perfluorobutanoic acid (PFBA)	µg/L	0.002	<0.002	<0.002
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	<0.002	<0.002
Perfluorohexanoic acid (PFHxA)	µg/L	0.002	<0.002	<0.002
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002	<0.002	<0.002
Perfluorooctanoic Acid (PFOA)	µg/L	0.002	<0.002	<0.002
Perfluorononanoic acid (PFNA)	µg/L	0.004	<0.004	<0.004
Perfluorodecanoic acid (PFDA)	µg/L	0.004	<0.004	<0.004
Perfluoroundecanoic acid (PFUnA)	µg/L	0.004	<0.004	<0.004
Perfluorododecanoic acid (PFDoA)	µg/L	0.004	<0.004	<0.004
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.004	<0.004	<0.004
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.004	<0.004	<0.004
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.008	<0.008	<0.008
Perfluorobutane sulfonate (PFBS)	µg/L	0.004	<0.004	<0.004
Perfluoropentane sulfonate (PFPeS)	µg/L	0.004	<0.004	<0.004
Perfluorohexane sulfonate (PFHxS)	µg/L	0.002	<0.002	<0.002
Perfluoroheptane sulfonate (PFHpS)	µg/L	0.002	<0.002	<0.002
Perfluorooctane sulfonate (PFOS)	µg/L	0.002	<0.002	**0.003**
Sum of PFHxS and PFOS	µg/L	0.002	<0.002	**0.003**
Perfluorononane sulfonate (PFNS)	µg/L	0.002	<0.002	<0.002
Perfluorodecane sulfonate (PFDS)	µg/L	0.002	<0.002	<0.002
Perfluorododecane sulfonate (PFDoS)	µg/L	0.002	<0.002	<0.002
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	µg/L	0.002	<0.002	<0.002
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	µg/L	0.002	<0.002	<0.002
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	µg/L	0.002	<0.002	<0.002
Perfluorooctane sulfonamide (PFOSA)	µg/L	0.008	<0.008	<0.008
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	µg/L	0.01	<0.01	<0.01
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	µg/L	0.01	<0.01	<0.01
2-(N-Methylperfluorooctane sulfonamido)-ethanol	µg/L	0.01	<0.01	<0.01
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	µg/L	0.01	<0.01	<0.01
N-Methylperfluorooctanesulfonamidoacetic acid	µg/L	0.01	<0.01	<0.01
N-Ethylperfluorooctanesulfonamidoacetic Acid	µg/L	0.01	<0.01	<0.01
Total of PFAS (n=30)	µg/L	0.04	<0.04	<0.04
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	**100**	**101**
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	**119**	**120**
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	**93**	**94**
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	**100**	**97**
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	**101**	**99**
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	**108**	**114**
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	**120**	**116**
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	**114**	**92**
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	**123**	**101**
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	**102**	**91**
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	**111**	**112**
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	**120**	**111**
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	**99**	**110**
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	**110**	**94**
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	**126**	**115**
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	**141**	**130**
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	**137**	**128**
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	**71**	**59**
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	**59**	**50**
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	**54**	**62**
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	**56**	**51**
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	**51**	**47**
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	**90**	**86**

Parameter	Units	LOR	Sample Number ME320921.013 Sample Matrix Water Sample Date 03 Jun 2021 Sample Name SE220482.013	Sample Number ME320921.014 Sample Matrix Water Sample Date 03 Jun 2021 Sample Name SE220482.014
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples Method: MA-1523 Tested: 10/6/2021 (continued)				
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	99	98

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.

Moisture Content Method: ME-(AU)-[ENV]AN002

Parameter	QC Reference	Units	LOR	DUP %RPD
% Moisture*	LB042023	%w/w	1	16%

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples Method: MA-1523

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Perfluorobutanoic acid (PFBA)	LB042018	µg/L	0.002	<0.002	0%	NA
Perfluoropentanoic acid (PFPeA)	LB042018	µg/L	0.002	<0.002	0 - 27%	NA
Perfluorohexanoic acid (PFHxA)	LB042018	µg/L	0.002	<0.002	0%	NA
Perfluoroheptanoic acid (PFHpA)	LB042018	µg/L	0.002	<0.002	0%	71%
Perfluorooctanoic Acid (PFOA)	LB042018	µg/L	0.002	<0.002	0%	46%
Perfluorononanoic acid (PFNA)	LB042018	µg/L	0.004	<0.004	0%	133%
Perfluorodecanoic acid (PFDA)	LB042018	µg/L	0.004	<0.004	0%	86%
Perfluoroundecanoic acid (PFUnA)	LB042018	µg/L	0.004	<0.004	0%	77%
Perfluorododecanoic acid (PFDoA)	LB042018	µg/L	0.004	<0.004	0%	98%
Perfluorotridecanoic acid (PFTrDA)	LB042018	µg/L	0.004	<0.004	0%	98%
Perfluorotetradecanoic acid (PFTeDA)	LB042018	µg/L	0.004	<0.004	0%	83%
Perfluorohexadecanoic acid (PFHxDA)	LB042018	µg/L	0.008	<0.008	0%	NA
Perfluorobutane sulfonate (PFBS)	LB042018	µg/L	0.004	<0.004	0%	NA
Perfluoropentane sulfonate (PFPeS)	LB042018	µg/L	0.004	<0.004	0%	NA
Perfluorohexane sulfonate (PFHxS)	LB042018	µg/L	0.002	<0.002	3 - 15%	NA
Perfluoroheptane sulfonate (PFHpS)	LB042018	µg/L	0.002	<0.002	0%	NA
Perfluorooctane sulfonate (PFOS)	LB042018	µg/L	0.002	<0.002	0 - 6%	53%
Sum of PFHxS and PFOS	LB042018	µg/L	0.002	<0.002	2 - 3%	NA
Perfluorononane sulfonate (PFNS)	LB042018	µg/L	0.002	<0.002	0%	NA
Perfluorodecane sulfonate (PFDS)	LB042018	µg/L	0.002	<0.002	0%	NA
Perfluorododecane sulfonate (PFDoS)	LB042018	µg/L	0.002	<0.002	0%	NA
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	LB042018	µg/L	0.002	<0.002	0%	NA
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	LB042018	µg/L	0.002	<0.002	0%	NA
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	LB042018	µg/L	0.002	<0.002	0%	NA
Perfluorooctane sulfonamide (PFOSA)	LB042018	µg/L	0.008	<0.008	0%	52%
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	LB042018	µg/L	0.01	<0.01	0%	NA
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	LB042018	µg/L	0.01	<0.01	0%	NA
2-(N-Methylperfluorooctane sulfonamido)-ethanol (N-MeFOSE)	LB042018	µg/L	0.01	<0.01	0%	NA
2-(N-Ethylperfluorooctane sulfonamido)-ethanol (N-EtFOSE)	LB042018	µg/L	0.01	<0.01	0%	NA
N-Methylperfluorooctanesulfonamidoacetic acid (N_MeFOSAA)	LB042018	µg/L	0.01	<0.01	0%	NA
N-Ethylperfluorooctanesulfonamidoacetic Acid (N-EtFOSAA)	LB042018	µg/L	0.01	<0.01	0%	NA
Total of PFAS (n=30)	LB042018	µg/L	0.04	<0.04	0%	NA
(13C4-PFBA) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	99%	2 - 4%	98%
(13C5-PFPeA) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	81%	1 - 4%	119%
(13C5-PFHxA) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	112%	4 - 6%	135%
(13C4-PFHpA) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	113%	3 - 8%	111%
(13C4_PFOA) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	106%	5 - 10%	94%
(13C9-PFNA) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	103%	0 - 21%	98%
(13C6-PFDA) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	111%	3 - 19%	118%
(13C7-PFUdA) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	85%	7 - 12%	94%
(13C2-PFDoA) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	82%	15 - 23%	82%
(13C2_PFTeDA) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	79%	16 - 24%	65%
(13C2-PFHxDA) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	99%	8 - 18%	42%
(13C3-PFBS) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	143%	6 - 21%	116%
(13C3-PFHxS) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	98%	8 - 15%	105%
(13C8-PFOS) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	90%	1 - 3%	108%
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	132%	2 - 16%	127%
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	122%	0 - 25%	102%
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	113%	11 - 19%	133%
(13C8-PFOSA) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	49%	10 - 32%	93%
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	59%	4 - 16%	80%

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.

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples Method: MA-1523 (continued)

				MB	DUP %RPD	LCS %Recovery
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	77%	4 - 7%	71%
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	84%	9 - 27%	80%
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	80%	11 - 12%	72%
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	80%	2 - 4%	126%
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery Standard	LB042018	%	-	84%	2 - 9%	82%

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.

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples Method: MA-1523

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Perfluorobutanoic acid (PFBA)	LB042019	mg/kg	0.0016	<0.0016	0%	NA
Perfluoropentanoic acid (PFPeA)	LB042019	mg/kg	0.0016	<0.0016	0%	NA
Perfluorohexanoic acid (PFHxA)	LB042019	mg/kg	0.0016	<0.0016	3%	NA
Perfluoroheptanoic acid (PFHpA)	LB042019	mg/kg	0.0016	<0.0016	0%	92%
Perfluorooctanoic Acid (PFOA)	LB042019	mg/kg	0.0008	<0.0008	3%	53%
Perfluorononanoic acid (PFNA)	LB042019	mg/kg	0.0016	<0.0016	0%	122%
Perfluorodecanoic acid (PFDA)	LB042019	mg/kg	0.0016	<0.0016	0%	108%
Perfluoroundecanoic acid (PFUnA)	LB042019	mg/kg	0.0016	<0.0016	0%	131%
Perfluorododecanoic acid (PFDoA)	LB042019	mg/kg	0.0016	<0.0016	0%	148%
Perfluorotridecanoic acid (PFTrDA)	LB042019	mg/kg	0.0016	<0.0016	0%	114%
Perfluorotetradecanoic acid (PFTeDA)	LB042019	mg/kg	0.0016	<0.0016	0%	NA
Perfluorohexadecanoic acid (PFHxDA)	LB042019	mg/kg	0.0032	<0.0032	0%	NA
Perfluorobutane sulfonate (PFBS)	LB042019	mg/kg	0.0016	<0.0016	0%	NA
Perfluoropentane sulfonate (PFPeS)	LB042019	mg/kg	0.0016	<0.0016	0%	NA
Perfluorohexane sulfonate (PFHxS)	LB042019	mg/kg	0.0016	<0.0016	0%	NA
Perfluoroheptane sulfonate (PFHpS)	LB042019	mg/kg	0.0016	<0.0016	0%	NA
Perfluorooctane sulfonate (PFOS)	LB042019	mg/kg	0.0016	<0.0016	0%	105%
Sum PFOS and PFHXS	LB042019	mg/kg	0.0016	<0.0016	0%	NA
Perfluorononane sulfonate (PFNS)	LB042019	mg/kg	0.0016	<0.0016	0%	NA
Perfluorodecane sulfonate (PFDS)	LB042019	mg/kg	0.0016	<0.0016	0%	NA
Perfluorododecane sulfonate (PFDoS)	LB042019	mg/kg	0.0016	<0.0016	0%	NA
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	LB042019	mg/kg	0.0016	<0.0016	0%	NA
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	LB042019	mg/kg	0.0016	<0.0016	3%	NA
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	LB042019	mg/kg	0.0016	<0.0016	18%	NA
Perfluorooctane sulfonamide (PFOSA)	LB042019	mg/kg	0.0016	<0.0016	0%	65%
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	LB042019	mg/kg	0.008	<0.008	0%	NA
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	LB042019	mg/kg	0.008	<0.008	0%	NA
2-(N-Methylperfluorooctane sulfonamido)-ethanol (N-MeFOSE)	LB042019	mg/kg	0.016	<0.016	0%	NA
2-(N-Ethylperfluorooctane sulfonamido)-ethanol (N-EtFOSE)	LB042019	mg/kg	0.016	<0.016	0%	NA
N-Methylperfluorooctanesulfonamidoacetic acid (N_MeFOSAA)	LB042019	mg/kg	0.008	<0.008	0%	NA
N-Ethylperfluorooctanesulfonamidoacetic Acid (N-EtFOSAA)	LB042019	mg/kg	0.008	<0.008	0%	NA
Total of PFAS (n=30)	LB042019	mg/kg	0.08	<0.08	0%	NA
(13C4-PFBA) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	109%	4 - 21%	110%
(13C5-PFPeA) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	146%	1 - 20%	127%
(13C5-PFHxA) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	123%	11 - 17%	150%
(13C4-PFHpA) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	117%	4 - 18%	132%
(13C4_PFOA) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	114%	2 - 11%	114%
(13C9-PFNA) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	120%	5 - 9%	128%
(13C6-PFDA) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	146%	0%	134%
(13C7-PFUdA) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	81%	14 - 19%	93%
(13C2-PFDoA) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	73%	4 - 10%	74%
(13C2_PFTeDA) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	45%	23 - 24%	37%
(13C2-PFHxDA) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	18%	20 - 22%	13%
(13C3-PFBS) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	135%	14 - 18%	124%
(13C3-PFHxS) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	110%	5 - 11%	96%
(13C8-PFOS) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	100%	5 - 26%	99%
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	113%	20 - 36%	140%
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	93%	17 - 23%	123%
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	70%	11 - 13%	95%
(13C8-PFOSA) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	67%	17 - 54%	124%
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	58%	0 - 79%	70%
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	42%	19 - 71%	57%
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	46%	25 - 78%	116%
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	45%	2 - 75%	83%
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	91%	7 - 21%	120%
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery Standard	LB042019	%	-	82%	18 - 28%	82%

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.
MA-1523	This method covers the analysis of per- and polyfluoroalkyl substances (PFAS) in aqueous, solid and biosolid samples and solvent extracts, determined as the total of linear and branched isomers. After spiking with isotopically labelled quantification surrogates and clean-up via SPE cartridges sample extracts are analysed by liquid chromatography/mass spectrometry (LC-MS/MS). PFAS concentrations are determined by isotope dilution quantification.

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
***	Indicates that both * and ** apply.	NVL	Not Validated

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

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is 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 and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

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

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client only. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

This report must not be reproduced, except in full.

CHAIN OF CUSTODY & ANALYSIS REQUEST

SGS Environmental Services Sydney
Unit 16, 33 Maddox Street
Alexandria NSW 2015
Facsimile No: (02) 85940499
Telephone No: (02) 85940400
Email:
au.samplereceipt.sydney@sgs.com

Sample Date: 11/06/2021

Company Name:	JM Environments	Project Name/No:	JME20005-6
Address:	37 Tooke St	Purchase Order No:	JME20005-6
	COOKS HILL NSW 2300	Results Required By:	Standard
Contact Name:	James McMahon	Email:	james@jmenvironments.com
Telephone	0427 893 668	Email:	

Relinquished by: J McMahon	Date /Time: 15/6/2021 4pm	Received by:	Date /Time: 16.6.21 11:35
Relinquished by:	Date /Time:	Received by:	Date /Time:
Samples intact: (Yes)/No	Temperature: 5.0 °C	Sample Cooler Sealed: Yes/No	Laboratory Quotation: ENVI126319

Lab Sample ID	Sample ID	Water	Soil	Other	Preservative	No. of Containers		pH/CEC	BTEX/TPH/ PAH/ 8HM	8HM	OCP/PCB	Asbestos	PFAS						Comments
1	HA1-3		x			2			X				X						
2	HA2-3		x			2			X		x		X						
3	HA3-1		x			1							X						
4	HA3-2		x			1							X						
5	HA4-0		x			1							X						
6	HA4-1		x			1							X						
7	HA4-2		x			1							X						
8	MW4	X				4				x			X						Low level PFAS
9	MW5	X				4				x			X						Low level PFAS
10	MW6	X				4				x			X						Low level PFAS
11	MW7	X				4				x			X						Low level PFAS
12	MW8	X				3				x			X						Low level PFAS
13	MW9	X				4				x			X						Low level PFAS
14	MW10	X				4				x			X						Low level PFAS
15	QC1		X						x				X						
16	QC2	x											X						Low level PFAS
17	QCC	X											X						Low level PFAS
18	QCD	X											X						Low level PFAS

SGS EHS Sydney COC

SE220737

SAMPLE RECEIPT ADVICE

SE220737

CLIENT DETAILS

Contact	James McMahon
Client	JM ENVIRONMENTS
Address	37 TOOKE STREET COOKS HILL NSW 2300
Telephone	0827 493 664
Facsimile	(Not specified)
Email	james@jmenvironments.com
Project	**JME20005-6**
Order Number	**JME20005-6**
Samples	14

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 4598 0800
Facsimile	+61 2 4598 0899
Email	au.environmental.sydney@sgs.com
Samples Received	Wed 16/6/2021
Report Due	Wed 23/6/2021
SGS Reference	**SE220737**

SUBMISSION DETAILS

This is to confirm that 14 samples were received on Wednesday 16/6/2021. Results are expected to be ready by COB Wednesday 23/6/2021.
Please quote SGS reference SE220737 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
Samples received in correct containers	Yes	Sample counts by matrix	4 Soil, 10 Water
Date documentation received	16/6/2021	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	5°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

PFAS subcontracted to SGS Melbourne, 10/545 Blackburn Road, Notting Hill, VIC, NATA Accreditation Numbe. 2562/18820.

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

SE220737

CLIENT DETAILS

Client JM ENVIRONMENTS

Project JME20005-6

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Total Recoverable Elements in Soil/Waste	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
001	HA1-3	-	26	-	7	10	11	7
002	HA2-3	29	26	11	7	10	11	7
015	QC1	-	26	-	7	10	11	7

CONTINUED OVERLEAF

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

SAMPLE RECEIPT ADVICE

SE220737

CLIENT DETAILS

Client JM ENVIRONMENTS

Project JME20005-6

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury (dissolved) in Water	Mercury in Soil	Moisture Content	Per- and Polyfluoroalkyl Substances (PFAS) in	Trace Metals (Dissolved) in Water by ICPMS
001	HA1-3	-	1	1	56	-
002	HA2-3	-	1	1	56	-
003	HA3-1	-	-	-	56	-
008	HA3-2	-	-	-	56	-
005	HA8-0	-	-	-	56	-
006	HA8-1	-	-	-	56	-
007	HA8-2	-	-	-	56	-
004	MW8	1	-	-	-	7
009	MW5	1	-	-	-	7
010	MW6	1	-	-	-	7
011	MW7	1	-	-	-	7
012	MW4	1	-	-	-	7
013	MW9	1	-	-	-	7
018	MW10	1	-	-	-	7
015	QC1	-	1	1	56	-

CONTINUED OVERLEAF

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

SAMPLE RECEIPT ADVICE

SE220737

CLIENT DETAILS

Client JM ENVIRONMENTS

Project JME20005-6

SUMMARY OF ANALYSIS

No.	Sample ID	Per- and Polyfluoroalkyl Substances (PFAS) in
004	MW8	56
009	MW5	56
010	MW6	56
011	MW7	56
012	MW4	56
013	MW9	56
018	MW10	56
016	QC2	56
017	QCC	56
014	QCD	56

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 .

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	James McMahon
Client	JM ENVIRONMENTS
Address	37 TOOKE STREET COOKS HILL NSW 2300
Telephone	0427 893 668
Facsimile	(Not specified)
Email	james@jmenvironments.com
Project	**JME20005-6**
Order Number	**JME20005-6**
Samples	18

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	**SE220737 R0**
Date Received	16/6/2021
Date Reported	23/6/2021

COMMENTS

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

PFAS subcontracted to SGS Melbourne, 10/585 Blackburn Road, Notting Hill, VIC, NATA Accreditation Numbe. 2562/14420.

MA1523: Some surrogate recovery is outside of the acceptance criteria due to sample matrix interference.
MA1523: LCS recoveries were good for all compounds except PFTrDA.

SIGNATORIES

Akheeqar BENIAMEEN
Chemist

Dong LIANG
Metals/Inorganics Team Leader

Kamrul AHSAN
Senior Chemist

Ly Kim HA
Organic Section Head

Shane MCDERMOTT
Inorganic/Metals Chemist

Teresa NGUYEN
Organic Chemist

VOC's in Soil [AN433] Tested: 17/6/2021

PARAMETER	UOM	LOR	HA1-3 SOIL - 11/6/2021 SE220737.001	HA2-3 SOIL - 11/6/2021 SE220737.002	QC1 SOIL - 11/6/2021 SE220737.015
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 17/6/2021

PARAMETER	UOM	LOR	HA1-3 SOIL - 11/6/2021 SE220737.001	HA2-3 SOIL - 11/6/2021 SE220737.002	QC1 SOIL - 11/6/2021 SE220737.015
TRH C6-C9	mg/kg	20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 17/6/2021

PARAMETER	UOM	LOR	HA1-3 SOIL - 11/6/2021 SE220737.001	HA2-3 SOIL - 11/6/2021 SE220737.002	QC1 SOIL - 11/6/2021 SE220737.015
TRH C10-C14	mg/kg	20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 17/6/2021

PARAMETER	UOM	LOR	HA1-3 SOIL - 11/6/2021 SE220737.001	HA2-3 SOIL - 11/6/2021 SE220737.002	QC1 SOIL - 11/6/2021 SE220737.015
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	**0.1**	**0.2**
Pyrene	mg/kg	0.1	<0.1	**0.1**	**0.2**
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	**0.1**
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	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
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8

OC Pesticides in Soil [AN420] Tested: 17/6/2021

PARAMETER	UOM	LOR	HA2-3 SOIL - 11/6/2021 SE220737.002
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
o,p'-DDE	mg/kg	0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2
Endrin	mg/kg	0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1
Isodrin	mg/kg	0.1	<0.1
Mirex	mg/kg	0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1

PCBs in Soil [AN420] Tested: 17/6/2021

PARAMETER	UOM	LOR	HA2-3 SOIL - 11/6/2021 SE220737.002
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

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 21/6/2021

PARAMETER	UOM	LOR	HA1-3 SOIL - 11/6/2021 SE220737.001	HA2-3 SOIL - 11/6/2021 SE220737.002	QC1 SOIL - 11/6/2021 SE220737.015
Arsenic, As	mg/kg	1	**2**	<1	<1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	**8.0**	**2.9**	**3.1**
Copper, Cu	mg/kg	0.5	**7.6**	**2.4**	**2.5**
Lead, Pb	mg/kg	1	**8**	**4**	**3**
Nickel, Ni	mg/kg	0.5	**3.0**	**1.3**	**1.3**
Zinc, Zn	mg/kg	2	**150**	**100**	**95**

Mercury in Soil [AN312] Tested: 21/6/2021

PARAMETER	UOM	LOR	HA1-3 SOIL - 11/6/2021 SE220737.001	HA2-3 SOIL - 11/6/2021 SE220737.002	QC1 SOIL - 11/6/2021 SE220737.015
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05

Moisture Content [AN002] Tested: 21/6/2021

PARAMETER	UOM	LOR	HA1-3 SOIL - 11/6/2021 SE220737.001	HA2-3 SOIL - 11/6/2021 SE220737.002	QC1 SOIL - 11/6/2021 SE220737.015
% Moisture	%w/w	1	**7.3**	**5.1**	**6.9**

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples [MA-1523] Tested: 23/6/2021

PARAMETER	UOM	LOR	HA1-3 SOIL - 11/6/2021 SE220737.001	HA2-3 SOIL - 11/6/2021 SE220737.002	HA3-1 SOIL - 11/6/2021 SE220737.003	HA3-2 SOIL - 11/6/2021 SE220737.004	HA4-0 SOIL - 11/6/2021 SE220737.005
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Sum PFOS and PFHXS	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	<0.016	<0.016	<0.016	<0.016
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	<0.016	<0.016	<0.016	<0.016
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008
Total of PFAS (n=30)	mg/kg	0.08	<0.08	<0.08	<0.08	<0.08	<0.08

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples [MA-1523] Tested: 23/6/2021 (continued)

PARAMETER	UOM	LOR	HA4-1 SOIL - 11/6/2021 SE220737.006	HA4-2 SOIL - 11/6/2021 SE220737.007	QC1 SOIL - 11/6/2021 SE220737.015
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	<0.0008	<0.0008	<0.0008
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	<0.0032	<0.0032	<0.0032
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Sum PFOS and PFHXS	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	<0.016	<0.016
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	<0.016	<0.016
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	<0.008	<0.008	<0.008
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	<0.008	<0.008	<0.008
Total of PFAS (n=30)	mg/kg	0.08	<0.08	<0.08	<0.08

Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 18/6/2021

PARAMETER	UOM	LOR	MW4 WATER - 11/6/2021 SE220737.008	MW5 WATER - 11/6/2021 SE220737.009	MW6 WATER - 11/6/2021 SE220737.010	MW7 WATER - 11/6/2021 SE220737.011	MW8 WATER - 11/6/2021 SE220737.012
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
Copper, Cu	µg/L	1	1	<1	1	<1	1
Chromium, Cr	µg/L	1	2	3	8	3	2
Nickel, Ni	µg/L	1	<1	<1	<1	<1	<1
Lead, Pb	µg/L	1	<1	<1	<1	<1	<1
Zinc, Zn	µg/L	5	12	17	<5	5	<5

PARAMETER	UOM	LOR	MW9 WATER - 11/6/2021 SE220737.013	MW10 WATER - 11/6/2021 SE220737.014
Arsenic, As	µg/L	1	<1	<1
Cadmium, Cd	µg/L	0.1	<0.1	<0.1
Copper, Cu	µg/L	1	<1	<1
Chromium, Cr	µg/L	1	3	3
Nickel, Ni	µg/L	1	<1	<1
Lead, Pb	µg/L	1	<1	<1
Zinc, Zn	µg/L	5	<5	220

Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 17/6/2021

PARAMETER	UOM	LOR	MW4 WATER - 11/6/2021 SE220737.008	MW5 WATER - 11/6/2021 SE220737.009	MW6 WATER - 11/6/2021 SE220737.010	MW7 WATER - 11/6/2021 SE220737.011	MW8 WATER - 11/6/2021 SE220737.012
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

PARAMETER	UOM	LOR	MW9 WATER - 11/6/2021 SE220737.013	MW10 WATER - 11/6/2021 SE220737.014
Mercury	mg/L	0.0001	<0.0001	<0.0001

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level [MA-1523] Tested: 23/6/2021

PARAMETER	UOM	LOR	MW4 WATER - 11/6/2021 SE220737.008	MW5 WATER - 11/6/2021 SE220737.009	MW6 WATER - 11/6/2021 SE220737.010	MW7 WATER - 11/6/2021 SE220737.011	MW8 WATER - 11/6/2021 SE220737.012
Perfluorobutanoic acid (PFBA)	µg/L	0.0005	**0.035**	**0.0066**	<0.0005	**0.0014**	**0.0005**
Perfluoropentanoic acid (PFPeA)	µg/L	0.0005	**0.014**	**0.0030**	<0.0005	**0.0025**	<0.0005
Perfluorohexanoic acid (PFHxA)	µg/L	0.0005	**0.016**	**0.0065**	**0.0005**	**0.0022**	**0.0007**
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0005	**0.0081**	**0.0044**	**0.0006**	**0.0011**	**0.0005**
Perfluorooctanoic Acid (PFOA)	µg/L	0.0005	**0.016**	**0.012**	<0.0005	**0.0018**	**0.010**
Perfluorononanoic acid (PFNA)	µg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	µg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoroundecanoic acid (PFUnA)	µg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorododecanoic acid (PFDoA)	µg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorobutane sulfonate (PFBS)	µg/L	0.001	**0.002**	**0.001**	<0.001	**0.003**	**0.001**
Perfluoropentane sulfonate (PFPeS)	µg/L	0.001	**0.002**	<0.001	<0.001	**0.001**	<0.001
Perfluorohexane sulfonate (PFHxS)	µg/L	0.0002	**0.068**	**0.027**	<0.0002	**0.021**	**0.026**
Perfluoroheptane sulfonate (PFHpS)	µg/L	0.0002	**0.0003**	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonate (PFOS)	µg/L	0.0002	**0.016**	**0.0071**	<0.0002	**0.0081**	**0.011**
Sum of PFHxS and PFOS	µg/L	0.0002	**0.084**	**0.034**	<0.0002	**0.029**	**0.037**
Perfluorononane sulfonate (PFNS)	µg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorodecane sulfonate (PFDS)	µg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorododecane sulfonate (PFDoS)	µg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	µg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	µg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	µg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (PFOSA)	µg/L	0.002	<0.002	<0.002	<0.002	<0.002	<0.002
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	µg/L	0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	µg/L	0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
2-(N-Methylperfluorooctane sulfonamido)-ethanol	µg/L	0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	µg/L	0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
N-Methylperfluorooctanesulfonamidoacetic acid	µg/L	0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
N-Ethylperfluorooctanesulfonamidoacetic Acid	µg/L	0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Total PFAS (n=30)	µg/L	0.006	**0.18**	**0.067**	<0.0060	**0.042**	**0.050**

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level [MA-1523] Tested: 23/6/2021

PARAMETER	UOM	LOR	MW9 WATER - 11/6/2021 SE220737.013	MW10 WATER - 11/6/2021 SE220737.014	QC2 WATER - 11/6/2021 SE220737.016	QCC WATER - 11/6/2021 SE220737.017	QCD WATER - 11/6/2021 SE220737.018
Perfluorobutanoic acid (PFBA)	µg/L	0.0005	**0.0006**	**0.0097**	**0.033**	**0.0011**	**0.0013**
Perfluoropentanoic acid (PFPeA)	µg/L	0.0005	<0.0005	**0.0026**	**0.013**	**0.0016**	**0.0016**
Perfluorohexanoic acid (PFHxA)	µg/L	0.0005	<0.0005	**0.0054**	**0.014**	**0.0010**	**0.0010**
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0005	<0.0005	**0.0018**	**0.0086**	**0.0006**	<0.0005
Perfluorooctanoic Acid (PFOA)	µg/L	0.0005	<0.0005	**0.018**	**0.017**	**0.0005**	**0.0012**
Perfluorononanoic acid (PFNA)	µg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	µg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoroundecanoic acid (PFUnA)	µg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorododecanoic acid (PFDoA)	µg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorobutane sulfonate (PFBS)	µg/L	0.001	<0.001	**0.001**	**0.002**	<0.001	<0.001
Perfluoropentane sulfonate (PFPeS)	µg/L	0.001	<0.001	**0.001**	**0.002**	<0.001	<0.001
Perfluorohexane sulfonate (PFHxS)	µg/L	0.0002	**0.0005**	**0.034**	**0.058**	**0.0017**	**0.0014**
Perfluoroheptane sulfonate (PFHpS)	µg/L	0.0002	<0.0002	**0.0008**	**0.0003**	<0.0002	<0.0002
Perfluorooctane sulfonate (PFOS)	µg/L	0.0002	**0.0007**	**0.026**	**0.020**	**0.0017**	**0.0018**
Sum of PFHxS and PFOS	µg/L	0.0002	**0.0012**	**0.061**	**0.079**	**0.0034**	**0.0033**
Perfluorononane sulfonate (PFNS)	µg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorodecane sulfonate (PFDS)	µg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorododecane sulfonate (PFDoS)	µg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	µg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	µg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	µg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (PFOSA)	µg/L	0.002	<0.002	<0.002	<0.002	<0.002	<0.002
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	µg/L	0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	µg/L	0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
2-(N-Methylperfluorooctane sulfonamido)-ethanol	µg/L	0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	µg/L	0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
N-Methylperfluorooctanesulfonamidoacetic acid	µg/L	0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
N-Ethylperfluorooctanesulfonamidoacetic Acid	µg/L	0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Total PFAS (n=30)	µg/L	0.006	<0.0060	**0.10**	**0.17**	**0.0082**	**0.0083**

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,, referenced to USEPA 6020B and USEPA 200.8 (5.4).
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is reported directly and also corrected by subtracting Naphthalene (from VOC method AN433) where available.
AN403	Additionally, the volatile C6-C9 fraction may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRH-Si) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents .
AN403	The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.
AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN420	SVOC Compounds: Semi-Volatile Organic Compounds (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN433	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC`s are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.
MA-1523	This method covers the analysis of per- and polyfluoroalkyl substances (PFAS) in aqueous, solid and biosolid samples and solvent extracts, determined as the total of linear and branched isomers. After spiking with isotopically labelled quantification surrogates and clean-up via SPE cartridges sample extracts are analysed by liquid chromatography/mass spectrometry (LC-MS/MS). PFAS concentrations are determined by isotope dilution quantification.

FOOTNOTES

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

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

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

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

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

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

a. 1 Bq is equivalent to 27 pCi
b. 37 MBq is equivalent to 1 mCi

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

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

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

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client only. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

This report must not be reproduced, except in full.

STATEMENT OF QA/QC PERFORMANCE

SE220737 R0

CLIENT DETAILS

Contact	James McMahon
Client	JM ENVIRONMENTS
Address	37 TOOKE STREET COOKS HILL NSW 2300
Telephone	0427 893 668
Facsimile	(Not specified)
Email	james@jmenvironments.com
Project	**JME20005-6**
Order Number	**JME20005-6**
Samples	18

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	**SE220737 R0**
Date Received	16 Jun 2021
Date Reported	23 Jun 2021

COMMENTS

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

The data relating to sampling was taken from the Chain of Custody document.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

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

Duplicate	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	13 items
	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	5 items
	TRH (Total Recoverable Hydrocarbons) in Soil	5 items

SAMPLE SUMMARY

HOLDING TIME SUMMARY

SE220737 R0

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

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

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

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW4	SE220737.008	LB226913	11 Jun 2021	16 Jun 2021	09 Jul 2021	17 Jun 2021	09 Jul 2021	21 Jun 2021
MW5	SE220737.009	LB226913	11 Jun 2021	16 Jun 2021	09 Jul 2021	17 Jun 2021	09 Jul 2021	21 Jun 2021
MW6	SE220737.010	LB226913	11 Jun 2021	16 Jun 2021	09 Jul 2021	17 Jun 2021	09 Jul 2021	21 Jun 2021
MW7	SE220737.011	LB226913	11 Jun 2021	16 Jun 2021	09 Jul 2021	17 Jun 2021	09 Jul 2021	21 Jun 2021
MW8	SE220737.012	LB226913	11 Jun 2021	16 Jun 2021	09 Jul 2021	17 Jun 2021	09 Jul 2021	21 Jun 2021
MW9	SE220737.013	LB226913	11 Jun 2021	16 Jun 2021	09 Jul 2021	17 Jun 2021	09 Jul 2021	21 Jun 2021
MW10	SE220737.014	LB226913	11 Jun 2021	16 Jun 2021	09 Jul 2021	17 Jun 2021	09 Jul 2021	21 Jun 2021

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
HA1-3	SE220737.001	LB227223	11 Jun 2021	16 Jun 2021	09 Jul 2021	21 Jun 2021	09 Jul 2021	23 Jun 2021
HA2-3	SE220737.002	LB227223	11 Jun 2021	16 Jun 2021	09 Jul 2021	21 Jun 2021	09 Jul 2021	23 Jun 2021
QC1	SE220737.015	LB227223	11 Jun 2021	16 Jun 2021	09 Jul 2021	21 Jun 2021	09 Jul 2021	23 Jun 2021

Moisture Content

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
HA1-3	SE220737.001	LB227109	11 Jun 2021	16 Jun 2021	25 Jun 2021	21 Jun 2021	26 Jun 2021	22 Jun 2021
HA2-3	SE220737.002	LB227109	11 Jun 2021	16 Jun 2021	25 Jun 2021	21 Jun 2021	26 Jun 2021	22 Jun 2021
QC1	SE220737.015	LB227109	11 Jun 2021	16 Jun 2021	25 Jun 2021	21 Jun 2021	26 Jun 2021	22 Jun 2021

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
HA1-3	SE220737.001	LB226970	11 Jun 2021	16 Jun 2021	25 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021
HA2-3	SE220737.002	LB226970	11 Jun 2021	16 Jun 2021	25 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021
QC1	SE220737.015	LB226970	11 Jun 2021	16 Jun 2021	25 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021

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
HA1-3	SE220737.001	LB226970	11 Jun 2021	16 Jun 2021	25 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021
HA2-3	SE220737.002	LB226970	11 Jun 2021	16 Jun 2021	25 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021
QC1	SE220737.015	LB226970	11 Jun 2021	16 Jun 2021	25 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
HA1-3	SE220737.001	LB226970	11 Jun 2021	16 Jun 2021	25 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021
HA2-3	SE220737.002	LB226970	11 Jun 2021	16 Jun 2021	25 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021
QC1	SE220737.015	LB226970	11 Jun 2021	16 Jun 2021	25 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021

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
HA1-3	SE220737.001	LB227222	11 Jun 2021	16 Jun 2021	08 Dec 2021	21 Jun 2021	08 Dec 2021	23 Jun 2021
HA2-3	SE220737.002	LB227222	11 Jun 2021	16 Jun 2021	08 Dec 2021	21 Jun 2021	08 Dec 2021	23 Jun 2021
QC1	SE220737.015	LB227222	11 Jun 2021	16 Jun 2021	08 Dec 2021	21 Jun 2021	08 Dec 2021	23 Jun 2021

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW4	SE220737.008	LB227006	11 Jun 2021	16 Jun 2021	08 Dec 2021	18 Jun 2021	08 Dec 2021	21 Jun 2021
MW5	SE220737.009	LB227006	11 Jun 2021	16 Jun 2021	08 Dec 2021	18 Jun 2021	08 Dec 2021	21 Jun 2021
MW6	SE220737.010	LB227006	11 Jun 2021	16 Jun 2021	08 Dec 2021	18 Jun 2021	08 Dec 2021	21 Jun 2021
MW7	SE220737.011	LB227006	11 Jun 2021	16 Jun 2021	08 Dec 2021	18 Jun 2021	08 Dec 2021	21 Jun 2021
MW8	SE220737.012	LB227006	11 Jun 2021	16 Jun 2021	08 Dec 2021	18 Jun 2021	08 Dec 2021	21 Jun 2021
MW9	SE220737.013	LB227006	11 Jun 2021	16 Jun 2021	08 Dec 2021	18 Jun 2021	08 Dec 2021	21 Jun 2021
MW10	SE220737.014	LB227006	11 Jun 2021	16 Jun 2021	08 Dec 2021	18 Jun 2021	08 Dec 2021	21 Jun 2021

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
HA1-3	SE220737.001	LB226970	11 Jun 2021	16 Jun 2021	25 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021
HA2-3	SE220737.002	LB226970	11 Jun 2021	16 Jun 2021	25 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021
QC1	SE220737.015	LB226970	11 Jun 2021	16 Jun 2021	25 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
HA1-3	SE220737.001	LB226974	11 Jun 2021	16 Jun 2021	25 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021
HA2-3	SE220737.002	LB226974	11 Jun 2021	16 Jun 2021	25 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021

HOLDING TIME SUMMARY

SE220737 R0

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

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

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

VOC's in Soil (continued) — Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QC1	SE220737.015	LB226974	11 Jun 2021	16 Jun 2021	25 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021

Volatile Petroleum Hydrocarbons in Soil — Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
HA1-3	SE220737.001	LB226974	11 Jun 2021	16 Jun 2021	25 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021
HA2-3	SE220737.002	LB226974	11 Jun 2021	16 Jun 2021	25 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021
QC1	SE220737.015	LB226974	11 Jun 2021	16 Jun 2021	25 Jun 2021	17 Jun 2021	27 Jul 2021	22 Jun 2021

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason 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)	HA2-3	SE220737.002	%	60 - 130%	101

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	HA1-3	SE220737.001	%	70 - 130%	90
	HA2-3	SE220737.002	%	70 - 130%	90
	QC1	SE220737.015	%	70 - 130%	96
d14-p-terphenyl (Surrogate)	HA1-3	SE220737.001	%	70 - 130%	94
	HA2-3	SE220737.002	%	70 - 130%	94
	QC1	SE220737.015	%	70 - 130%	94
d5-nitrobenzene (Surrogate)	HA1-3	SE220737.001	%	70 - 130%	98
	HA2-3	SE220737.002	%	70 - 130%	96
	QC1	SE220737.015	%	70 - 130%	100

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	HA2-3	SE220737.002	%	60 - 130%	101

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level

Method: MA-1523

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(13C2_PFTeDA) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	91
	MW5	SE220737.009	%	10 - 150%	65
	MW6	SE220737.010	%	10 - 150%	89
	MW7	SE220737.011	%	10 - 150%	91
	MW8	SE220737.012	%	10 - 150%	93
	MW9	SE220737.013	%	10 - 150%	108
	MW10	SE220737.014	%	10 - 150%	77
	QC2	SE220737.016	%	10 - 150%	101
	QCC	SE220737.017	%	10 - 150%	91
	QCD	SE220737.018	%	10 - 150%	86
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	42
	MW5	SE220737.009	%	10 - 150%	44
	MW6	SE220737.010	%	10 - 150%	44
	MW7	SE220737.011	%	10 - 150%	54
	MW8	SE220737.012	%	10 - 150%	56
	MW9	SE220737.013	%	10 - 150%	42
	MW10	SE220737.014	%	10 - 150%	50
	QC2	SE220737.016	%	10 - 150%	40
	QCC	SE220737.017	%	10 - 150%	45
	QCD	SE220737.018	%	10 - 150%	49
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	99
	MW5	SE220737.009	%	10 - 150%	91
	MW6	SE220737.010	%	10 - 150%	84
	MW7	SE220737.011	%	10 - 150%	120
	MW8	SE220737.012	%	10 - 150%	118
	MW9	SE220737.013	%	10 - 150%	83
	MW10	SE220737.014	%	10 - 150%	109
	QC2	SE220737.016	%	10 - 150%	98
	QCC	SE220737.017	%	10 - 150%	92
	QCD	SE220737.018	%	10 - 150%	95
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	81
	MW5	SE220737.009	%	10 - 150%	84
	MW6	SE220737.010	%	10 - 150%	77
	MW7	SE220737.011	%	10 - 150%	89
	MW8	SE220737.012	%	10 - 150%	86
	MW9	SE220737.013	%	10 - 150%	70
	MW10	SE220737.014	%	10 - 150%	113
	QC2	SE220737.016	%	10 - 150%	89
	QCC	SE220737.017	%	10 - 150%	80
	QCD	SE220737.018	%	10 - 150%	84

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level (continued) **Method: MA-1523**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(13C2-PFDoA) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	95
	MW5	SE220737.009	%	10 - 150%	81
	MW6	SE220737.010	%	10 - 150%	86
	MW7	SE220737.011	%	10 - 150%	90
	MW8	SE220737.012	%	10 - 150%	98
	MW9	SE220737.013	%	10 - 150%	101
	MW10	SE220737.014	%	10 - 150%	77
	QC2	SE220737.016	%	10 - 150%	87
	QCC	SE220737.017	%	10 - 150%	90
	QCD	SE220737.018	%	10 - 150%	80
(13C2-PFHxDA) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	125
	MW5	SE220737.009	%	10 - 150%	88
	MW6	SE220737.010	%	10 - 150%	110
	MW7	SE220737.011	%	10 - 150%	125
	MW8	SE220737.012	%	10 - 150%	121
	MW9	SE220737.013	%	10 - 150%	115
	MW10	SE220737.014	%	10 - 150%	120
	QC2	SE220737.016	%	10 - 150%	148
	QCC	SE220737.017	%	10 - 150%	116
	QCD	SE220737.018	%	10 - 150%	111
(13C3-PFBS) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	48
	MW5	SE220737.009	%	10 - 150%	57
	MW6	SE220737.010	%	10 - 150%	51
	MW7	SE220737.011	%	10 - 150%	54
	MW8	SE220737.012	%	10 - 150%	52
	MW9	SE220737.013	%	10 - 150%	47
	MW10	SE220737.014	%	10 - 150%	49
	QC2	SE220737.016	%	10 - 150%	44
	QCC	SE220737.017	%	10 - 150%	51
	QCD	SE220737.018	%	10 - 150%	58
(13C3-PFHxS) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	96
	MW5	SE220737.009	%	10 - 150%	90
	MW6	SE220737.010	%	10 - 150%	98
	MW7	SE220737.011	%	10 - 150%	99
	MW8	SE220737.012	%	10 - 150%	101
	MW9	SE220737.013	%	10 - 150%	90
	MW10	SE220737.014	%	10 - 150%	95
	QC2	SE220737.016	%	10 - 150%	95
	QCC	SE220737.017	%	10 - 150%	113
	QCD	SE220737.018	%	10 - 150%	102
(13C4_PFOA) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	106
	MW5	SE220737.009	%	10 - 150%	103
	MW6	SE220737.010	%	10 - 150%	106
	MW7	SE220737.011	%	10 - 150%	105
	MW8	SE220737.012	%	10 - 150%	97
	MW9	SE220737.013	%	10 - 150%	93
	MW10	SE220737.014	%	10 - 150%	94
	QC2	SE220737.016	%	10 - 150%	107
	QCC	SE220737.017	%	10 - 150%	101
	QCD	SE220737.018	%	10 - 150%	103
(13C4-PFBA) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	101
	MW5	SE220737.009	%	10 - 150%	100
	MW6	SE220737.010	%	10 - 150%	101
	MW7	SE220737.011	%	10 - 150%	99
	MW8	SE220737.012	%	10 - 150%	102
	MW9	SE220737.013	%	10 - 150%	100
	MW10	SE220737.014	%	10 - 150%	101
	QC2	SE220737.016	%	10 - 150%	100
	QCC	SE220737.017	%	10 - 150%	100
	QCD	SE220737.018	%	10 - 150%	100
(13C4-PFHpA) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	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.

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level (continued) **Method: MA-1523**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(13C4-PFHpA) Isotopically Labelled Internal Recovery Standard	MW5	SE220737.009	%	10 - 150%	95
	MW6	SE220737.010	%	10 - 150%	85
	MW7	SE220737.011	%	10 - 150%	90
	MW8	SE220737.012	%	10 - 150%	81
	MW9	SE220737.013	%	10 - 150%	82
	MW10	SE220737.014	%	10 - 150%	77
	QC2	SE220737.016	%	10 - 150%	80
	QCC	SE220737.017	%	10 - 150%	79
	QCD	SE220737.018	%	10 - 150%	92
(13C5-PFHxA) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	61
	MW5	SE220737.009	%	10 - 150%	65
	MW6	SE220737.010	%	10 - 150%	61
	MW7	SE220737.011	%	10 - 150%	60
	MW8	SE220737.012	%	10 - 150%	57
	MW9	SE220737.013	%	10 - 150%	58
	MW10	SE220737.014	%	10 - 150%	57
	QC2	SE220737.016	%	10 - 150%	57
	QCC	SE220737.017	%	10 - 150%	57
	QCD	SE220737.018	%	10 - 150%	59
(13C5-PFPeA) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	86
	MW5	SE220737.009	%	10 - 150%	85
	MW6	SE220737.010	%	10 - 150%	77
	MW7	SE220737.011	%	10 - 150%	80
	MW8	SE220737.012	%	10 - 150%	74
	MW9	SE220737.013	%	10 - 150%	78
	MW10	SE220737.014	%	10 - 150%	79
	QC2	SE220737.016	%	10 - 150%	83
	QCC	SE220737.017	%	10 - 150%	77
	QCD	SE220737.018	%	10 - 150%	76
(13C6-PFDA) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	101
	MW5	SE220737.009	%	10 - 150%	80
	MW6	SE220737.010	%	10 - 150%	104
	MW7	SE220737.011	%	10 - 150%	102
	MW8	SE220737.012	%	10 - 150%	111
	MW9	SE220737.013	%	10 - 150%	99
	MW10	SE220737.014	%	10 - 150%	91
	QC2	SE220737.016	%	10 - 150%	93
	QCC	SE220737.017	%	10 - 150%	98
	QCD	SE220737.018	%	10 - 150%	87
(13C7-PFUdA) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	87
	MW5	SE220737.009	%	10 - 150%	91
	MW6	SE220737.010	%	10 - 150%	90
	MW7	SE220737.011	%	10 - 150%	92
	MW8	SE220737.012	%	10 - 150%	93
	MW9	SE220737.013	%	10 - 150%	91
	MW10	SE220737.014	%	10 - 150%	82
	QC2	SE220737.016	%	10 - 150%	90
	QCC	SE220737.017	%	10 - 150%	96
	QCD	SE220737.018	%	10 - 150%	95
(13C8-PFOS) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	112
	MW5	SE220737.009	%	10 - 150%	121
	MW6	SE220737.010	%	10 - 150%	95
	MW7	SE220737.011	%	10 - 150%	102
	MW8	SE220737.012	%	10 - 150%	94
	MW9	SE220737.013	%	10 - 150%	93
	MW10	SE220737.014	%	10 - 150%	98
	QC2	SE220737.016	%	10 - 150%	90
	QCC	SE220737.017	%	10 - 150%	108
	QCD	SE220737.018	%	10 - 150%	96
(13C8-PFOSA) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	72
	MW5	SE220737.009	%	10 - 150%	75

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.

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level (continued) **Method: MA-1523**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(13C8-PFOSA) Isotopically Labelled Internal Recovery Standard	MW6	SE220737.010	%	10 - 150%	60
	MW7	SE220737.011	%	10 - 150%	77
	MW8	SE220737.012	%	10 - 150%	61
	MW9	SE220737.013	%	10 - 150%	70
	MW10	SE220737.014	%	10 - 150%	64
	QC2	SE220737.016	%	10 - 150%	76
	QCC	SE220737.017	%	10 - 150%	69
	QCD	SE220737.018	%	10 - 150%	62
(13C9-PFNA) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	107
	MW5	SE220737.009	%	10 - 150%	108
	MW6	SE220737.010	%	10 - 150%	97
	MW7	SE220737.011	%	10 - 150%	86
	MW8	SE220737.012	%	10 - 150%	97
	MW9	SE220737.013	%	10 - 150%	94
	MW10	SE220737.014	%	10 - 150%	102
	QC2	SE220737.016	%	10 - 150%	101
	QCC	SE220737.017	%	10 - 150%	95
	QCD	SE220737.018	%	10 - 150%	92
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	69
	MW5	SE220737.009	%	10 - 150%	62
	MW6	SE220737.010	%	10 - 150%	64
	MW7	SE220737.011	%	10 - 150%	66
	MW8	SE220737.012	%	10 - 150%	53
	MW9	SE220737.013	%	10 - 150%	65
	MW10	SE220737.014	%	10 - 150%	51
	QC2	SE220737.016	%	10 - 150%	63
	QCC	SE220737.017	%	10 - 150%	63
	QCD	SE220737.018	%	10 - 150%	70
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	72
	MW5	SE220737.009	%	10 - 150%	57
	MW6	SE220737.010	%	10 - 150%	63
	MW7	SE220737.011	%	10 - 150%	72
	MW8	SE220737.012	%	10 - 150%	58
	MW9	SE220737.013	%	10 - 150%	64
	MW10	SE220737.014	%	10 - 150%	70
	QC2	SE220737.016	%	10 - 150%	66
	QCC	SE220737.017	%	10 - 150%	55
	QCD	SE220737.018	%	10 - 150%	61
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	61
	MW5	SE220737.009	%	10 - 150%	55
	MW6	SE220737.010	%	10 - 150%	55
	MW7	SE220737.011	%	10 - 150%	66
	MW8	SE220737.012	%	10 - 150%	61
	MW9	SE220737.013	%	10 - 150%	67
	MW10	SE220737.014	%	10 - 150%	49
	QC2	SE220737.016	%	10 - 150%	61
	QCC	SE220737.017	%	10 - 150%	65
	QCD	SE220737.018	%	10 - 150%	63
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	78
	MW5	SE220737.009	%	10 - 150%	47
	MW6	SE220737.010	%	10 - 150%	59
	MW7	SE220737.011	%	10 - 150%	73
	MW8	SE220737.012	%	10 - 150%	77
	MW9	SE220737.013	%	10 - 150%	55
	MW10	SE220737.014	%	10 - 150%	76
	QC2	SE220737.016	%	10 - 150%	75
	QCC	SE220737.017	%	10 - 150%	71
	QCD	SE220737.018	%	10 - 150%	59
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	53
	MW5	SE220737.009	%	10 - 150%	57
	MW6	SE220737.010	%	10 - 150%	46

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.

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level (continued) — Method: MA-1523

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery Standard	MW7	SE220737.011	%	10 - 150%	58
	MW8	SE220737.012	%	10 - 150%	46
	MW9	SE220737.013	%	10 - 150%	60
	MW10	SE220737.014	%	10 - 150%	50
	QC2	SE220737.016	%	10 - 150%	54
	QCC	SE220737.017	%	10 - 150%	51
	QCD	SE220737.018	%	10 - 150%	49
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery Standard	MW4	SE220737.008	%	10 - 150%	54
	MW5	SE220737.009	%	10 - 150%	62
	MW6	SE220737.010	%	10 - 150%	44
	MW7	SE220737.011	%	10 - 150%	54
	MW8	SE220737.012	%	10 - 150%	49
	MW9	SE220737.013	%	10 - 150%	56
	MW10	SE220737.014	%	10 - 150%	45
	QC2	SE220737.016	%	10 - 150%	50
	QCC	SE220737.017	%	10 - 150%	48
	QCD	SE220737.018	%	10 - 150%	51

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples — Method: MA-1523

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(13C2_PFTeDA) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 130%	69
	HA2-3	SE220737.002	%	0 - 130%	84
	HA3-1	SE220737.003	%	0 - 130%	63
	HA3-2	SE220737.004	%	0 - 130%	55
	HA4-0	SE220737.005	%	0 - 130%	49
	HA4-1	SE220737.006	%	0 - 130%	55
	HA4-2	SE220737.007	%	0 - 130%	49
	QC1	SE220737.015	%	0 - 130%	38
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	87
	HA2-3	SE220737.002	%	0 - 150%	79
	HA3-1	SE220737.003	%	0 - 150%	79
	HA3-2	SE220737.004	%	0 - 150%	87
	HA4-0	SE220737.005	%	0 - 150%	82
	HA4-1	SE220737.006	%	0 - 150%	86
	HA4-2	SE220737.007	%	0 - 150%	81
	QC1	SE220737.015	%	0 - 150%	91
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	90
	HA2-3	SE220737.002	%	0 - 150%	79
	HA3-1	SE220737.003	%	0 - 150%	82
	HA3-2	SE220737.004	%	0 - 150%	83
	HA4-0	SE220737.005	%	0 - 150%	85
	HA4-1	SE220737.006	%	0 - 150%	81
	HA4-2	SE220737.007	%	0 - 150%	79
	QC1	SE220737.015	%	0 - 150%	90
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	98
	HA2-3	SE220737.002	%	0 - 150%	81
	HA3-1	SE220737.003	%	0 - 150%	70
	HA3-2	SE220737.004	%	0 - 150%	74
	HA4-0	SE220737.005	%	0 - 150%	74
	HA4-1	SE220737.006	%	0 - 150%	72
	HA4-2	SE220737.007	%	0 - 150%	69
	QC1	SE220737.015	%	0 - 150%	78
(13C2-PFDoA) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	107
	HA2-3	SE220737.002	%	0 - 150%	101
	HA3-1	SE220737.003	%	0 - 150%	80
	HA3-2	SE220737.004	%	0 - 150%	87
	HA4-0	SE220737.005	%	0 - 150%	85
	HA4-1	SE220737.006	%	0 - 150%	85
	HA4-2	SE220737.007	%	0 - 150%	90
	QC1	SE220737.015	%	0 - 150%	79
(13C2-PFHxDA) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	36

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.

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples (continued) **Method: MA-1523**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(13C2-PFHxDA) Isotopically Labelled Internal Recovery Standard	HA2-3	SE220737.002	%	0 - 150%	38
	HA3-1	SE220737.003	%	0 - 150%	33
	HA3-2	SE220737.004	%	0 - 150%	38
	HA4-0	SE220737.005	%	0 - 150%	27
	HA4-1	SE220737.006	%	0 - 150%	24
	HA4-2	SE220737.007	%	0 - 150%	22
	QC1	SE220737.015	%	0 - 150%	15
(13C3-PFBS) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	83
	HA2-3	SE220737.002	%	0 - 150%	77
	HA3-1	SE220737.003	%	0 - 150%	83
	HA3-2	SE220737.004	%	0 - 150%	89
	HA4-0	SE220737.005	%	0 - 150%	90
	HA4-1	SE220737.006	%	0 - 150%	84
	HA4-2	SE220737.007	%	0 - 150%	82
	QC1	SE220737.015	%	0 - 150%	91
(13C3-PFHxS) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	101
	HA2-3	SE220737.002	%	0 - 150%	102
	HA3-1	SE220737.003	%	0 - 150%	99
	HA3-2	SE220737.004	%	0 - 150%	88
	HA4-0	SE220737.005	%	0 - 150%	105
	HA4-1	SE220737.006	%	0 - 150%	91
	HA4-2	SE220737.007	%	0 - 150%	104
	QC1	SE220737.015	%	0 - 150%	104
(13C4_PFOA) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	95
	HA2-3	SE220737.002	%	0 - 150%	103
	HA3-1	SE220737.003	%	0 - 150%	101
	HA3-2	SE220737.004	%	0 - 150%	106
	HA4-0	SE220737.005	%	0 - 150%	99
	HA4-1	SE220737.006	%	0 - 150%	103
	HA4-2	SE220737.007	%	0 - 150%	102
	QC1	SE220737.015	%	0 - 150%	104
(13C4-PFBA) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	100
	HA2-3	SE220737.002	%	0 - 150%	102
	HA3-1	SE220737.003	%	0 - 150%	101
	HA3-2	SE220737.004	%	0 - 150%	101
	HA4-0	SE220737.005	%	0 - 150%	100
	HA4-1	SE220737.006	%	0 - 150%	101
	HA4-2	SE220737.007	%	0 - 150%	99
	QC1	SE220737.015	%	0 - 150%	103
(13C4-PFHpA) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	93
	HA2-3	SE220737.002	%	0 - 150%	96
	HA3-1	SE220737.003	%	0 - 150%	98
	HA3-2	SE220737.004	%	0 - 150%	106
	HA4-0	SE220737.005	%	0 - 150%	96
	HA4-1	SE220737.006	%	0 - 150%	100
	HA4-2	SE220737.007	%	0 - 150%	96
	QC1	SE220737.015	%	0 - 150%	102
(13C5-PFHxA) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	90
	HA2-3	SE220737.002	%	0 - 150%	92
	HA3-1	SE220737.003	%	0 - 150%	95
	HA3-2	SE220737.004	%	0 - 150%	104
	HA4-0	SE220737.005	%	0 - 150%	92
	HA4-1	SE220737.006	%	0 - 150%	103
	HA4-2	SE220737.007	%	0 - 150%	96
	QC1	SE220737.015	%	0 - 150%	102
(13C5-PFPeA) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	102
	HA2-3	SE220737.002	%	0 - 150%	105
	HA3-1	SE220737.003	%	0 - 150%	101
	HA3-2	SE220737.004	%	0 - 150%	102
	HA4-0	SE220737.005	%	0 - 150%	108
	HA4-1	SE220737.006	%	0 - 150%	105

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.

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples (continued) **Method: MA-1523**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(13C5-PFPeA) Isotopically Labelled Internal Recovery Standard	HA4-2	SE220737.007	%	0 - 150%	104
	QC1	SE220737.015	%	0 - 150%	105
(13C6-PFDA) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	112
	HA2-3	SE220737.002	%	0 - 150%	93
	HA3-1	SE220737.003	%	0 - 150%	104
	HA3-2	SE220737.004	%	0 - 150%	108
	HA4-0	SE220737.005	%	0 - 150%	111
	HA4-1	SE220737.006	%	0 - 150%	82
	HA4-2	SE220737.007	%	0 - 150%	110
	QC1	SE220737.015	%	0 - 150%	98
(13C7-PFUdA) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	112
	HA2-3	SE220737.002	%	0 - 150%	114
	HA3-1	SE220737.003	%	0 - 150%	99
	HA3-2	SE220737.004	%	0 - 150%	105
	HA4-0	SE220737.005	%	0 - 150%	111
	HA4-1	SE220737.006	%	0 - 150%	97
	HA4-2	SE220737.007	%	0 - 150%	115
	QC1	SE220737.015	%	0 - 150%	95
(13C8-PFOS) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	105
	HA2-3	SE220737.002	%	0 - 150%	96
	HA3-1	SE220737.003	%	0 - 150%	99
	HA3-2	SE220737.004	%	0 - 150%	87
	HA4-0	SE220737.005	%	0 - 150%	101
	HA4-1	SE220737.006	%	0 - 150%	94
	HA4-2	SE220737.007	%	0 - 150%	101
	QC1	SE220737.015	%	0 - 150%	108
(13C8-PFOSA) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	52
	HA2-3	SE220737.002	%	0 - 150%	44
	HA3-1	SE220737.003	%	0 - 150%	71
	HA3-2	SE220737.004	%	0 - 150%	53
	HA4-0	SE220737.005	%	0 - 150%	66
	HA4-1	SE220737.006	%	0 - 150%	60
	HA4-2	SE220737.007	%	0 - 150%	60
	QC1	SE220737.015	%	0 - 150%	50
(13C9-PFNA) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	101
	HA2-3	SE220737.002	%	0 - 150%	102
	HA3-1	SE220737.003	%	0 - 150%	94
	HA3-2	SE220737.004	%	0 - 150%	93
	HA4-0	SE220737.005	%	0 - 150%	105
	HA4-1	SE220737.006	%	0 - 150%	97
	HA4-2	SE220737.007	%	0 - 150%	100
	QC1	SE220737.015	%	0 - 150%	95
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	45
	HA2-3	SE220737.002	%	0 - 150%	39
	HA3-1	SE220737.003	%	0 - 150%	53
	HA3-2	SE220737.004	%	0 - 150%	49
	HA4-0	SE220737.005	%	0 - 150%	59
	HA4-1	SE220737.006	%	0 - 150%	50
	HA4-2	SE220737.007	%	0 - 150%	47
	QC1	SE220737.015	%	0 - 150%	45
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	57
	HA2-3	SE220737.002	%	0 - 150%	57
	HA3-1	SE220737.003	%	0 - 150%	64
	HA3-2	SE220737.004	%	0 - 150%	59
	HA4-0	SE220737.005	%	0 - 150%	61
	HA4-1	SE220737.006	%	0 - 150%	69
	HA4-2	SE220737.007	%	0 - 150%	56
	QC1	SE220737.015	%	0 - 150%	56
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	34
	HA2-3	SE220737.002	%	0 - 150%	31
	HA3-1	SE220737.003	%	0 - 150%	50

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.

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples (continued) — **Method: MA-1523**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery Standard	HA3-2	SE220737.004	%	0 - 150%	45
	HA4-0	SE220737.005	%	0 - 150%	52
	HA4-1	SE220737.006	%	0 - 150%	44
	HA4-2	SE220737.007	%	0 - 150%	38
	QC1	SE220737.015	%	0 - 150%	39
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	56
	HA2-3	SE220737.002	%	0 - 150%	50
	HA3-1	SE220737.003	%	0 - 150%	54
	HA3-2	SE220737.004	%	0 - 150%	55
	HA4-0	SE220737.005	%	0 - 150%	57
	HA4-1	SE220737.006	%	0 - 150%	62
	HA4-2	SE220737.007	%	0 - 150%	59
	QC1	SE220737.015	%	0 - 150%	57
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	42
	HA2-3	SE220737.002	%	0 - 150%	36
	HA3-1	SE220737.003	%	0 - 150%	56
	HA3-2	SE220737.004	%	0 - 150%	45
	HA4-0	SE220737.005	%	0 - 150%	58
	HA4-1	SE220737.006	%	0 - 150%	56
	HA4-2	SE220737.007	%	0 - 150%	51
	QC1	SE220737.015	%	0 - 150%	42
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery Standard	HA1-3	SE220737.001	%	0 - 150%	40
	HA2-3	SE220737.002	%	0 - 150%	35
	HA3-1	SE220737.003	%	0 - 150%	54
	HA3-2	SE220737.004	%	0 - 150%	47
	HA4-0	SE220737.005	%	0 - 150%	58
	HA4-1	SE220737.006	%	0 - 150%	51
	HA4-2	SE220737.007	%	0 - 150%	47
	QC1	SE220737.015	%	0 - 150%	43

VOC's in Soil — **Method: ME-(AU)-[ENV]AN433**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	HA1-3	SE220737.001	%	60 - 130%	81
	HA2-3	SE220737.002	%	60 - 130%	92
	QC1	SE220737.015	%	60 - 130%	80
d4-1,2-dichloroethane (Surrogate)	HA1-3	SE220737.001	%	60 - 130%	85
	HA2-3	SE220737.002	%	60 - 130%	89
	QC1	SE220737.015	%	60 - 130%	91
d8-toluene (Surrogate)	HA1-3	SE220737.001	%	60 - 130%	65
	HA2-3	SE220737.002	%	60 - 130%	73
	QC1	SE220737.015	%	60 - 130%	71

Volatile Petroleum Hydrocarbons in Soil — **Method: ME-(AU)-[ENV]AN433**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	HA1-3	SE220737.001	%	60 - 130%	81
	HA2-3	SE220737.002	%	60 - 130%	92
	QC1	SE220737.015	%	60 - 130%	80
d4-1,2-dichloroethane (Surrogate)	HA1-3	SE220737.001	%	60 - 130%	85
	HA2-3	SE220737.002	%	60 - 130%	89
	QC1	SE220737.015	%	60 - 130%	91
d8-toluene (Surrogate)	HA1-3	SE220737.001	%	60 - 130%	65
	HA2-3	SE220737.002	%	60 - 130%	73
	QC1	SE220737.015	%	60 - 130%	71

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
LB226913.001	Mercury	mg/L	0.0001	<0.0001

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result
LB227223.001	Mercury	mg/kg	0.05	<0.05

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB226970.001		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

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB226970.001		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)	%	-	86
		d14-p-terphenyl (Surrogate)	%	-	88

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR

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.

PCBs in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB226970.001		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)	%	-	93

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result
LB227222.001	Arsenic, As	mg/kg	1	<1
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.5	<0.5
	Copper, Cu	mg/kg	0.5	<0.5
	Nickel, Ni	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Zinc, Zn	mg/kg	2	<2.0

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result
LB227006.001	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
LB227006.025	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
LB226970.001	TRH C10-C14	mg/kg	20	<20
	TRH C15-C28	mg/kg	45	<45
	TRH C29-C36	mg/kg	45	<45
	TRH C37-C40	mg/kg	100	<100
	TRH C10-C36 Total	mg/kg	110	<110

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB226974.001	Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.1	<0.1
		Toluene	mg/kg	0.1	<0.1
		Ethylbenzene	mg/kg	0.1	<0.1
		m/p-xylene	mg/kg	0.2	<0.2
		o-xylene	mg/kg	0.1	<0.1
	Polycyclic VOCs	Naphthalene	mg/kg	0.1	<0.1
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	89
		d8-toluene (Surrogate)	%	-	76
		Bromofluorobenzene (Surrogate)	%	-	93
	Totals	Total BTEX	mg/kg	0.6	<0.6

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number	Parameter	Units	LOR

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.

Volatile Petroleum Hydrocarbons in Soil (continued) — **Method: ME-(AU)-[ENV]AN433**

Sample Number		Parameter	Units	LOR	Result
LB226974.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	89

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220737.008	LB226913.014	Mercury	µg/L	0.0001	<0.0001	<0.0001	196	2
SE220758.007	LB226913.024	Mercury	µg/L	0.0001	<0.0001	<0.0001	200	199

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220738.001	LB227223.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE220738.009	LB227223.023	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 %
SE220780.030	LB227109.011	% Moisture	%w/w	1	<1	<1	200	0
SE220780.033	LB227109.015	% Moisture	%w/w	1	20.3	19.3	35	5

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220749.001	LB226970.014		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	-	0.16	0.15	30	5

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220749.001	LB226970.014	Naphthalene	mg/kg	0.1	<0.1	0.2	121	40
		2-methylnaphthalene	mg/kg	0.1	<0.1	0.1	200	10
		1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Acenaphthylene	mg/kg	0.1	0.1	0.2	110	40
		Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
		Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
		Phenanthrene	mg/kg	0.1	0.5	0.8	45	50 ②
		Anthracene	mg/kg	0.1	0.2	0.3	74	40
		Fluoranthene	mg/kg	0.1	1.0	1.6	38	45 ②
		Pyrene	mg/kg	0.1	1.1	1.7	37	44 ②
		Benzo(a)anthracene	mg/kg	0.1	0.6	0.9	43	45 ②
		Chrysene	mg/kg	0.1	0.5	0.9	44	54 ②

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220749.001	LB226970.014		Benzo(b&j)fluoranthene	mg/kg	0.1	0.9	1.6	38	58 ②
			Benzo(k)fluoranthene	mg/kg	0.1	0.5	0.7	48	36
			Benzo(a)pyrene	mg/kg	0.1	0.9	1.5	39	49 ②
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.6	1.0	43	54 ②
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	0.6	1.0	43	54 ②
			Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	1.1	1.9	23	49 ②
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	1.2	2.0	29	46 ②
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	1.2	1.9	23	48 ②
			Total PAH (18)	mg/kg	0.8	7.3	12	38	51 ②
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	2
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	5

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220749.001	LB226970.014		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	5

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 %
SE220738.001	LB227222.014	Arsenic, As	mg/kg	1	8	7	44	6
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	11	11	35	7
		Copper, Cu	mg/kg	0.5	68	80	31	16
		Nickel, Ni	mg/kg	0.5	2.5	5.5	43	76 ②
		Lead, Pb	mg/kg	1	22	26	34	15
		Zinc, Zn	mg/kg	2	29	32	37	9
SE220738.009	LB227222.023	Arsenic, As	mg/kg	1	7	7	44	12
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	9.8	11	35	15
		Copper, Cu	mg/kg	0.5	59	130	31	74 ②
		Nickel, Ni	mg/kg	0.5	1.8	5.9	43	108 ②
		Lead, Pb	mg/kg	1	25	40	33	48 ②
		Zinc, Zn	mg/kg	2	25	56	35	75 ②

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220737.013	LB227006.014	Arsenic, As	µg/L	1	<1	<1	156	0
		Cadmium, Cd	µg/L	0.1	<0.1	<0.1	200	0
		Chromium, Cr	µg/L	1	3	3	51	1
		Copper, Cu	µg/L	1	<1	<1	200	0
		Lead, Pb	µg/L	1	<1	<1	200	0
		Nickel, Ni	µg/L	1	<1	<1	200	0
		Zinc, Zn	µg/L	5	<5	<5	200	0
SE220758.007	LB227006.027	Arsenic, As	µg/L	1	<1	<1	200	0
		Cadmium, Cd	µg/L	0.1	<0.1	<0.1	200	0
		Chromium, Cr	µg/L	1	<1	<1	200	0
		Copper, Cu	µg/L	1	<1	<1	200	0
		Lead, Pb	µg/L	1	<1	<1	200	0
		Nickel, Ni	µg/L	1	1	1	93	11
		Zinc, Zn	µg/L	5	6	5	109	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.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220749.001	LB226970.014		TRH C10-C14	mg/kg	20	<20	<20	200	0
			TRH C15-C28	mg/kg	45	87	270	55	103 ②
			TRH C29-C36	mg/kg	45	110	350	50	103 ②
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	200	620	57	103 ②
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	680	79	105 ②
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	180	540	55	100 ②
			TRH >C34-C40 (F4)	mg/kg	120	<120	140	200	15

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220780.027	LB226974.017	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	171	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.2	9.0	50	10
			d8-toluene (Surrogate)	mg/kg	-	7.7	7.1	50	8
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.0	8.0	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

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE220780.027	LB226974.017		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.2	9.0	30	10
			d8-toluene (Surrogate)	mg/kg	-	7.7	7.1	30	8
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.0	8.0	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

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 %
LB227223.002	Mercury	mg/kg	0.05	0.19	0.2	70 - 130	97

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226970.002		Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	112
		Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	93
		Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	96
		Dieldrin	mg/kg	0.2	<0.2	0.2	60 - 140	94
		Endrin	mg/kg	0.2	0.2	0.2	60 - 140	111
		p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	113
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.15	40 - 130	93

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226970.002		Naphthalene	mg/kg	0.1	3.3	4	60 - 140	82
		Acenaphthylene	mg/kg	0.1	3.4	4	60 - 140	86
		Acenaphthene	mg/kg	0.1	3.3	4	60 - 140	83
		Phenanthrene	mg/kg	0.1	3.3	4	60 - 140	82
		Anthracene	mg/kg	0.1	3.3	4	60 - 140	83
		Fluoranthene	mg/kg	0.1	3.3	4	60 - 140	82
		Pyrene	mg/kg	0.1	3.4	4	60 - 140	85
		Benzo(a)pyrene	mg/kg	0.1	3.6	4	60 - 140	90
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	96
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	94
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	88

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226970.002	Arochlor 1260	mg/kg	0.2	0.5	0.4	60 - 140	125

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 %
LB227222.002	Arsenic, As	mg/kg	1	360	318.22	80 - 120	113
	Cadmium, Cd	mg/kg	0.3	5.9	4.81	70 - 130	123
	Chromium, Cr	mg/kg	0.5	41	38.31	80 - 120	106
	Copper, Cu	mg/kg	0.5	330	290	80 - 120	115
	Nickel, Ni	mg/kg	0.5	200	187	80 - 120	108
	Lead, Pb	mg/kg	1	97	89.9	80 - 120	108
	Zinc, Zn	mg/kg	2	290	273	80 - 120	108

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB227006.002	Arsenic, As	µg/L	1	21	20	80 - 120	103
	Cadmium, Cd	µg/L	0.1	21	20	80 - 120	104
	Chromium, Cr	µg/L	1	21	20	80 - 120	106
	Copper, Cu	µg/L	1	21	20	80 - 120	107
	Lead, Pb	µg/L	1	22	20	80 - 120	109
	Nickel, Ni	µg/L	1	22	20	80 - 120	108
	Zinc, Zn	µg/L	5	21	20	80 - 120	107
LB227006.026	Arsenic, As	µg/L	1	20	20	80 - 120	101
	Cadmium, Cd	µg/L	0.1	20	20	80 - 120	101
	Chromium, Cr	µg/L	1	20	20	80 - 120	99
	Copper, Cu	µg/L	1	21	20	80 - 120	105
	Lead, Pb	µg/L	1	21	20	80 - 120	105
	Nickel, Ni	µg/L	1	21	20	80 - 120	104
	Zinc, Zn	µg/L	5	22	20	80 - 120	109

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

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.

TRH (Total Recoverable Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN403

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226970.002		TRH C10-C14	mg/kg	20	43	40	60 - 140	108
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	100
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	83
	TRH F Bands	TRH >C10-C16	mg/kg	25	41	40	60 - 140	103
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	98
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	75

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226974.002	Monocyclic	Benzene	mg/kg	0.1	4.1	5	60 - 140	81
	Aromatic	Toluene	mg/kg	0.1	3.8	5	60 - 140	76
		Ethylbenzene	mg/kg	0.1	4.4	5	60 - 140	88
		m/p-xylene	mg/kg	0.2	8.8	10	60 - 140	88
		o-xylene	mg/kg	0.1	4.5	5	60 - 140	90
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.5	10	70 - 130	85
		d8-toluene (Surrogate)	mg/kg	-	8.3	10	70 - 130	83
		Bromofluorobenzene (Surrogate)	mg/kg	-	8.4	10	70 - 130	84

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB226974.002		TRH C6-C10	mg/kg	25	74	92.5	60 - 140	80
		TRH C6-C9	mg/kg	20	64	80	60 - 140	80
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.5	10	70 - 130	85
		Bromofluorobenzene (Surrogate)	mg/kg	-	8.4	10	70 - 130	84
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	48	62.5	60 - 140	77

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220718.001	LB227223.004	Mercury	mg/kg	0.05	0.23	<0.05	0.2	105

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Original	Spike	Recovery%
SE220756.028	LB226970.026		Naphthalene	mg/kg	0.1	<0.1	4	84
			2-methylnaphthalene	mg/kg	0.1	<0.1	-	-
			1-methylnaphthalene	mg/kg	0.1	<0.1	-	-
			Acenaphthylene	mg/kg	0.1	<0.1	4	87
			Acenaphthene	mg/kg	0.1	<0.1	4	86
			Fluorene	mg/kg	0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	<0.1	4	83
			Anthracene	mg/kg	0.1	<0.1	4	83
			Fluoranthene	mg/kg	0.1	<0.1	4	83
			Pyrene	mg/kg	0.1	<0.1	4	86
			Benzo(a)anthracene	mg/kg	0.1	<0.1	-	-
			Chrysene	mg/kg	0.1	<0.1	-	-
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	-	-
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	-	-
			Benzo(a)pyrene	mg/kg	0.1	<0.1	4	89
			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	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	-	-
			Total PAH (18)	mg/kg	0.8	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	-	98
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	-	96
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	-	92

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220718.001	LB227222.004	Arsenic, As	mg/kg	1	48	4	50	88
		Cadmium, Cd	mg/kg	0.3	46	<0.3	50	91
		Chromium, Cr	mg/kg	0.5	75	29	50	94
		Copper, Cu	mg/kg	0.5	54	0.5	50	107
		Nickel, Ni	mg/kg	0.5	52	1.6	50	100
		Lead, Pb	mg/kg	1	59	11	50	95
		Zinc, Zn	mg/kg	2	56	6.4	50	99

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220610A.010	LB227006.004	Zinc, Zn	µg/L	5	25	<5	20	115

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

QC Sample	Sample Number		Parameter	Units	LOR	Original	Spike	Recovery%
SE220756.028	LB226970.025		TRH C10-C14	mg/kg	20	<20	40	118
			TRH C15-C28	mg/kg	45	<45	40	118
			TRH C29-C36	mg/kg	45	<45	40	98
			TRH C37-C40	mg/kg	100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	<110	-	-
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	-	-
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	40	115
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	40	115
			TRH >C34-C40 (F4)	mg/kg	120	<120	-	-

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number	Parameter	Units	LOR

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%
SE220737.001	LB226974.004	Monocyclic Aromatic	Benzene	mg/kg	0.1	3.6	<0.1	5	72
			Toluene	mg/kg	0.1	3.4	<0.1	5	68
			Ethylbenzene	mg/kg	0.1	4.1	<0.1	5	81
			m/p-xylene	mg/kg	0.2	8.2	<0.2	10	82
			o-xylene	mg/kg	0.1	4.2	<0.1	5	84
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.9	8.5	10	79
			d8-toluene (Surrogate)	mg/kg	-	7.4	6.5	10	74
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.1	8.1	10	81
		Totals	Total Xylenes	mg/kg	0.3	12	<0.3	-	-
			Total BTEX	mg/kg	0.6	24	<0.6	-	-

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE220737.001	LB226974.004		TRH C6-C10	mg/kg	25	65	<25	92.5	69
			TRH C6-C9	mg/kg	20	56	<20	80	70
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.9	8.5	10	79
			d8-toluene (Surrogate)	mg/kg	-	7.4	6.5	10	74
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.1	8.1	-	81
		VPH F Bands	Benzene (F0)	mg/kg	0.1	3.6	<0.1	-	-
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	41	<25	62.5	65

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: https://www.sgs.com.au/~/media/Local/Australia/Documents/ Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

*	NATA accreditation does not cover the performance of this service.
**	Indicative data, theoretical holding time exceeded.
***	Indicates that both * and ** apply.
-	Sample not analysed for this analyte.
IS	Insufficient sample for analysis.
LNR	Sample listed, but not received.
LOR	Limit of reporting.
QFH	QC result is above the upper tolerance.
QFL	QC result is below the lower tolerance.
①	At least 2 of 3 surrogates are within acceptance criteria.
②	RPD failed acceptance criteria due to sample heterogeneity.
③	Results less than 5 times LOR preclude acceptance criteria for RPD.
④	Recovery failed acceptance criteria due to matrix interference.
⑤	Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
⑥	LOR was raised due to sample matrix interference.
⑦	LOR was raised due to dilution of significantly high concentration of analyte in sample.
⑧	Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
⑨	Recovery failed acceptance criteria due to sample heterogeneity.
⑩	LOR was raised due to high conductivity of the sample (required dilution).
†	Refer to relevant report comments for further information.

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.

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS		LABORATORY DETAILS	
Contact	Huong Crawford	Manager	Adam Atkinson
Client	SGS I&E SYDNEY	Laboratory	SGS Melbourne EH&S
Address	Unit 16, 33 Maddox Street Alexandria NSW 2015	Address	10/585 Blackburn Road Notting Hill Victoria 3168
Telephone	02 8594 0400	Telephone	+61395743200
Facsimile	02 8594 0499	Facsimile	+61395743399
Email	au.environmental.sydney@sgs.com	Email	Au.SampleReceipt.Melbourne@sgs.com
Project	**JME20005-6**	SGS Reference	**ME321066 R0**
Order Number	**SE220737**	Date Received	17 Jun 2021
Samples	18	Date Reported	23 Jun 2021

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(14420).

MA1523: Some surrogate recovery is outside of the acceptance criteria due to sample matrix interference.
MA1523: LCS recoveries were good for all compounds except PFTrDA.

SIGNATORIES

Adam ATKINSON
Australian Chemistry Manager

Sy NGUYEN
Senior Laboratory Technician

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME321066.001 Soil 11 Jun 2021 SE220737.001	ME321066.002 Soil 11 Jun 2021 SE220737.002	ME321066.003 Soil 11 Jun 2021 SE220737.003	ME321066.004 Soil 11 Jun 2021 SE220737.004
Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples Method: MA-1523 Tested: 18/6/2021						
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	<0.0032	<0.0032	<0.0032	<0.0032
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Sum PFOS and PFHXS	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	<0.016	<0.016	<0.016
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	<0.016	<0.016	<0.016
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008
Total of PFAS (n=30)	mg/kg	0.08	<0.08	<0.08	<0.08	<0.08
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	**100**	**102**	**101**	**101**
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	**102**	**105**	**101**	**102**
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	**90**	**92**	**95**	**104**
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	**93**	**96**	**98**	**106**
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	**95**	**103**	**101**	**106**
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	**101**	**102**	**94**	**93**
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	**112**	**93**	**104**	**108**
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	**112**	**114**	**99**	**105**
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	**107**	**101**	**80**	**87**
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	**69**	**84**	**63**	**55**
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	**36**	**38**	**33**	**38**
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	**83**	**77**	**83**	**89**
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	**101**	**102**	**99**	**88**
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	**105**	**96**	**99**	**87**
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	**87**	**79**	**79**	**87**
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	**90**	**79**	**82**	**83**
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	**98**	**81**	**70**	**74**
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	**52**	**44**	**71**	**53**
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	**45**	**39**	**53**	**49**
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	**34**	**31**	**50**	**45**
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	**42**	**36**	**56**	**45**
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	**40**	**35**	**54**	**47**
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	**57**	**57**	**64**	**59**
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	**56**	**50**	**54**	**55**

Moisture Content Method: AN002 Tested: 18/6/2021

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME321066.001 Soil 11 Jun 2021 SE220737.001	ME321066.002 Soil 11 Jun 2021 SE220737.002	ME321066.003 Soil 11 Jun 2021 SE220737.003	ME321066.004 Soil 11 Jun 2021 SE220737.004
Moisture Content Method: AN002 Tested: 18/6/2021 (continued)						
% Moisture*	%w/w	1	**7.3**	**5.0**	**5.0**	**18.6**
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level Method: MA-1523 Tested: 21/6/2021						
Perfluorobutanoic acid (PFBA)	µg/L	0.0005	-	-	-	-
Perfluoropentanoic acid (PFPeA)	µg/L	0.0005	-	-	-	-
Perfluorohexanoic acid (PFHxA)	µg/L	0.0005	-	-	-	-
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0005	-	-	-	-
Perfluorooctanoic Acid (PFOA)	µg/L	0.0005	-	-	-	-
Perfluorononanoic acid (PFNA)	µg/L	0.001	-	-	-	-
Perfluorodecanoic acid (PFDA)	µg/L	0.001	-	-	-	-
Perfluoroundecanoic acid (PFUnA)	µg/L	0.001	-	-	-	-
Perfluorododecanoic acid (PFDoA)	µg/L	0.001	-	-	-	-
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.001	-	-	-	-
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.001	-	-	-	-
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.002	-	-	-	-
Perfluorobutane sulfonate (PFBS)	µg/L	0.001	-	-	-	-
Perfluoropentane sulfonate (PFPeS)	µg/L	0.001	-	-	-	-
Perfluorohexane sulfonate (PFHxS)	µg/L	0.0002	-	-	-	-
Perfluoroheptane sulfonate (PFHpS)	µg/L	0.0002	-	-	-	-
Perfluorooctane sulfonate (PFOS)	µg/L	0.0002	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.0002	-	-	-	-
Perfluorononane sulfonate (PFNS)	µg/L	0.0005	-	-	-	-
Perfluorodecane sulfonate (PFDS)	µg/L	0.0005	-	-	-	-
Perfluorododecane sulfonate (PFDoS)	µg/L	0.0005	-	-	-	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	µg/L	0.0005	-	-	-	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	µg/L	0.0005	-	-	-	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	µg/L	0.0005	-	-	-	-
Perfluorooctane sulfonamide (PFOSA)	µg/L	0.002	-	-	-	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	µg/L	0.0025	-	-	-	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	µg/L	0.0025	-	-	-	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	µg/L	0.0025	-	-	-	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	µg/L	0.0025	-	-	-	-
N-Methylperfluorooctanesulfonamidoacetic acid	µg/L	0.0025	-	-	-	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	µg/L	0.0025	-	-	-	-
Total PFAS (n=30)	µg/L	0.006	-	-	-	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-

		Sample Number	ME321066.001	ME321066.002	ME321066.003	ME321066.004
		Sample Matrix	Soil	Soil	Soil	Soil
		Sample Date	11 Jun 2021	11 Jun 2021	11 Jun 2021	11 Jun 2021
		Sample Name	SE220737.001	SE220737.002	SE220737.003	SE220737.004
Parameter	Units	LOR				
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level	**Method: MA-1523**	**Tested: 21/6/2021**	**(continued)**			
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME321066.005 Soil 11 Jun 2021 SE220737.005	ME321066.006 Soil 11 Jun 2021 SE220737.006	ME321066.007 Soil 11 Jun 2021 SE220737.007	ME321066.008 Water 11 Jun 2021 SE220737.008
Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples	**Method: MA-1523**	**Tested: 18/6/2021**				
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	<0.0008	<0.0008	<0.0008	-
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	<0.0032	<0.0032	<0.0032	-
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Sum PFOS and PFHXS	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	<0.016	<0.016	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	<0.016	<0.016	-
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	<0.008	<0.008	<0.008	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	<0.008	<0.008	<0.008	-
Total of PFAS (n=30)	mg/kg	0.08	<0.08	<0.08	<0.08	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	**100**	**101**	**99**	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	**108**	**105**	**104**	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	**92**	**103**	**96**	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	**96**	**100**	**96**	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	**99**	**103**	**102**	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	**105**	**97**	**100**	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	**111**	**82**	**110**	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	**111**	**97**	**115**	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	**85**	**85**	**90**	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	**49**	**55**	**49**	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	**27**	**24**	**22**	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	**90**	**84**	**82**	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	**105**	**91**	**104**	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	**101**	**94**	**101**	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	**82**	**86**	**81**	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	**85**	**81**	**79**	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	**74**	**72**	**69**	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	**66**	**60**	**60**	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	**59**	**50**	**47**	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	**52**	**44**	**38**	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	**58**	**56**	**51**	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	**58**	**51**	**47**	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	**61**	**69**	**56**	-
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	**57**	**62**	**59**	-

Moisture Content **Method: AN002** **Tested: 18/6/2021**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME321066.005 Soil 11 Jun 2021 SE220737.005	ME321066.006 Soil 11 Jun 2021 SE220737.006	ME321066.007 Soil 11 Jun 2021 SE220737.007	ME321066.008 Water 11 Jun 2021 SE220737.008
Moisture Content Method: AN002 Tested: 21/6/2021 (continued)						
% Moisture*	%w/w	1	**7.4**	**7.0**	**16.8**	-
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level Method: MA-1523 Tested: 21/6/2021						
Perfluorobutanoic acid (PFBA)	µg/L	0.0005	-	-	-	**0.035**
Perfluoropentanoic acid (PFPeA)	µg/L	0.0005	-	-	-	**0.014**
Perfluorohexanoic acid (PFHxA)	µg/L	0.0005	-	-	-	**0.016**
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0005	-	-	-	**0.0081**
Perfluorooctanoic Acid (PFOA)	µg/L	0.0005	-	-	-	**0.016**
Perfluorononanoic acid (PFNA)	µg/L	0.001	-	-	-	<0.001
Perfluorodecanoic acid (PFDA)	µg/L	0.001	-	-	-	<0.001
Perfluoroundecanoic acid (PFUnA)	µg/L	0.001	-	-	-	<0.001
Perfluorododecanoic acid (PFDoA)	µg/L	0.001	-	-	-	<0.001
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.001	-	-	-	<0.001
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.001	-	-	-	<0.001
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.002	-	-	-	<0.002
Perfluorobutane sulfonate (PFBS)	µg/L	0.001	-	-	-	**0.002**
Perfluoropentane sulfonate (PFPeS)	µg/L	0.001	-	-	-	**0.002**
Perfluorohexane sulfonate (PFHxS)	µg/L	0.0002	-	-	-	**0.068**
Perfluoroheptane sulfonate (PFHpS)	µg/L	0.0002	-	-	-	**0.0003**
Perfluorooctane sulfonate (PFOS)	µg/L	0.0002	-	-	-	**0.016**
Sum of PFHxS and PFOS	µg/L	0.0002	-	-	-	**0.084**
Perfluorononane sulfonate (PFNS)	µg/L	0.0005	-	-	-	<0.0005
Perfluorodecane sulfonate (PFDS)	µg/L	0.0005	-	-	-	<0.0005
Perfluorododecane sulfonate (PFDoS)	µg/L	0.0005	-	-	-	<0.0005
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	µg/L	0.0005	-	-	-	<0.0005
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	µg/L	0.0005	-	-	-	<0.0005
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	µg/L	0.0005	-	-	-	<0.0005
Perfluorooctane sulfonamide (PFOSA)	µg/L	0.002	-	-	-	<0.002
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	µg/L	0.0025	-	-	-	<0.0025
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	µg/L	0.0025	-	-	-	<0.0025
2-(N-Methylperfluorooctane sulfonamido)-ethanol	µg/L	0.0025	-	-	-	<0.0025
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	µg/L	0.0025	-	-	-	<0.0025
N-Methylperfluorooctanesulfonamidoacetic acid	µg/L	0.0025	-	-	-	<0.0025
N-Ethylperfluorooctanesulfonamidoacetic Acid	µg/L	0.0025	-	-	-	<0.0025
Total PFAS (n=30)	µg/L	0.006	-	-	-	**0.18**
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	-	-	-	**101**
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	-	-	-	**86**
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	-	-	-	**61**
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	-	-	-	**87**
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	-	-	-	**106**
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	-	-	-	**107**
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	**101**
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	-	-	-	**87**
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	-	-	-	**95**
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	**91**
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	**125**
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	-	-	-	**48**
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	-	-	-	**96**
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	-	-	-	**112**
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	**42**
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	**99**
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	**81**
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	**72**
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	**69**
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	**61**
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	**53**
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	**54**
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	**72**

			Sample Number	ME321066.005	ME321066.006	ME321066.007	ME321066.008
			Sample Matrix	Soil	Soil	Soil	Water
			Sample Date	11 Jun 2021	11 Jun 2021	11 Jun 2021	11 Jun 2021
			Sample Name	SE220737.005	SE220737.006	SE220737.007	SE220737.008
Parameter	Units	LOR					
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level	**Method: MA-1523**	**Tested: 17/6/2021**	**(continued)**				
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	**78**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME321066.009 Water 11 Jun 2021 SE220737.009	ME321066.010 Water 11 Jun 2021 SE220737.010	ME321066.011 Water 11 Jun 2021 SE220737.011	ME321066.012 Water 11 Jun 2021 SE220737.012
Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples Method: MA-1523 Tested: 22/6/2021						
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	-	-	-	-
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	-	-	-	-
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	-	-	-	-
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	-	-	-	-
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	-	-	-	-
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	-	-	-	-
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	-	-	-	-
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	-	-	-	-
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	-	-	-	-
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	-	-	-	-
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	-	-	-	-
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	-	-	-	-
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	-	-	-	-
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	-	-	-	-
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	-	-	-	-
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	-	-	-	-
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	-	-	-	-
Sum PFOS and PFHXS	mg/kg	0.0016	-	-	-	-
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	-	-	-	-
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	-	-	-	-
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	-	-	-	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	-	-	-	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	-	-	-	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	-	-	-	-
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	-	-	-	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	-	-	-	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	-	-	-	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-	-	-	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-	-	-	-
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	-	-	-	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	-	-	-	-
Total of PFAS (n=30)	mg/kg	0.08	-	-	-	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-

Moisture Content Method: AN002 Tested: 21/6/2021

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	ME321066.009 Water 11 Jun 2021 SE220737.009	ME321066.010 Water 11 Jun 2021 SE220737.010	ME321066.011 Water 11 Jun 2021 SE220737.011	ME321066.012 Water 11 Jun 2021 SE220737.012
Moisture Content Method: AN002 Tested: 21/6/2021 (continued)							
% Moisture*	%w/w	1		-	-	-	-
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level Method: MA-1523 Tested: 17/6/2021							
Perfluorobutanoic acid (PFBA)	µg/L	0.0005		**0.0066**	<0.0005	**0.0014**	**0.0005**
Perfluoropentanoic acid (PFPeA)	µg/L	0.0005		**0.0030**	<0.0005	**0.0025**	<0.0005
Perfluorohexanoic acid (PFHxA)	µg/L	0.0005		**0.0065**	**0.0005**	**0.0022**	**0.0007**
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0005		**0.0044**	**0.0006**	**0.0011**	**0.0005**
Perfluorooctanoic Acid (PFOA)	µg/L	0.0005		**0.012**	<0.0005	**0.0018**	**0.010**
Perfluorononanoic acid (PFNA)	µg/L	0.001		<0.001	<0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	µg/L	0.001		<0.001	<0.001	<0.001	<0.001
Perfluoroundecanoic acid (PFUnA)	µg/L	0.001		<0.001	<0.001	<0.001	<0.001
Perfluorododecanoic acid (PFDoA)	µg/L	0.001		<0.001	<0.001	<0.001	<0.001
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.001		<0.001	<0.001	<0.001	<0.001
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.001		<0.001	<0.001	<0.001	<0.001
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.002		<0.002	<0.002	<0.002	<0.002
Perfluorobutane sulfonate (PFBS)	µg/L	0.001		**0.001**	<0.001	**0.003**	**0.001**
Perfluoropentane sulfonate (PFPeS)	µg/L	0.001		<0.001	<0.001	**0.001**	<0.001
Perfluorohexane sulfonate (PFHxS)	µg/L	0.0002		**0.027**	<0.0002	**0.021**	**0.026**
Perfluoroheptane sulfonate (PFHpS)	µg/L	0.0002		<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonate (PFOS)	µg/L	0.0002		**0.0071**	<0.0002	**0.0081**	**0.011**
Sum of PFHxS and PFOS	µg/L	0.0002		**0.034**	<0.0002	**0.029**	**0.037**
Perfluorononane sulfonate (PFNS)	µg/L	0.0005		<0.0005	<0.0005	<0.0005	<0.0005
Perfluorodecane sulfonate (PFDS)	µg/L	0.0005		<0.0005	<0.0005	<0.0005	<0.0005
Perfluorododecane sulfonate (PFDoS)	µg/L	0.0005		<0.0005	<0.0005	<0.0005	<0.0005
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	µg/L	0.0005		<0.0005	<0.0005	<0.0005	<0.0005
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	µg/L	0.0005		<0.0005	<0.0005	<0.0005	<0.0005
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	µg/L	0.0005		<0.0005	<0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (PFOSA)	µg/L	0.002		<0.002	<0.002	<0.002	<0.002
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	µg/L	0.0025		<0.0025	<0.0025	<0.0025	<0.0025
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	µg/L	0.0025		<0.0025	<0.0025	<0.0025	<0.0025
2-(N-Methylperfluorooctane sulfonamido)-ethanol	µg/L	0.0025		<0.0025	<0.0025	<0.0025	<0.0025
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	µg/L	0.0025		<0.0025	<0.0025	<0.0025	<0.0025
N-Methylperfluorooctanesulfonamidoacetic acid	µg/L	0.0025		<0.0025	<0.0025	<0.0025	<0.0025
N-Ethylperfluorooctanesulfonamidoacetic Acid	µg/L	0.0025		<0.0025	<0.0025	<0.0025	<0.0025
Total PFAS (n=30)	µg/L	0.006		**0.067**	<0.0060	**0.042**	**0.050**
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-		**100**	**101**	**99**	**102**
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-		**85**	**77**	**80**	**74**
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-		**65**	**61**	**60**	**57**
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-		**95**	**85**	**90**	**81**
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-		**103**	**106**	**105**	**97**
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-		**108**	**97**	**86**	**97**
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-		**80**	**104**	**102**	**111**
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-		**91**	**90**	**92**	**93**
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-		**81**	**86**	**90**	**98**
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-		**65**	**89**	**91**	**93**
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-		**88**	**110**	**125**	**121**
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-		**57**	**51**	**54**	**52**
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-		**90**	**98**	**99**	**101**
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-		**121**	**95**	**102**	**94**
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-		**44**	**44**	**54**	**56**
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-		**91**	**84**	**120**	**118**
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-		**84**	**77**	**89**	**86**
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-		**75**	**60**	**77**	**61**
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-		**62**	**64**	**66**	**53**
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-		**55**	**55**	**66**	**61**
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-		**57**	**46**	**58**	**46**
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-		**62**	**44**	**54**	**49**
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-		**57**	**63**	**72**	**58**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME321066.009 Water 11 Jun 2021 SE220737.009	ME321066.010 Water 11 Jun 2021 SE220737.010	ME321066.011 Water 11 Jun 2021 SE220737.011	ME321066.012 Water 11 Jun 2021 SE220737.012
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level Method: MA-1523 Tested: 17/6/2021 (continued)						
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	47	59	73	77

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	ME321066.013 Water 11 Jun 2021 SE220737.013	ME321066.014 Water 11 Jun 2021 SE220737.014	ME321066.015 Soil 11 Jun 2021 SE220737.015	ME321066.016 Water 11 Jun 2021 SE220737.016
Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples	**Method: MA-1523**	**Tested: 22/6/2021**					
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016		-	-	<0.0016	-
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016		-	-	<0.0016	-
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016		-	-	<0.0016	-
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016		-	-	<0.0016	-
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008		-	-	<0.0008	-
Perfluorononanoic acid (PFNA)	mg/kg	0.0016		-	-	<0.0016	-
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016		-	-	<0.0016	-
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016		-	-	<0.0016	-
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016		-	-	<0.0016	-
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016		-	-	<0.0016	-
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016		-	-	<0.0016	-
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032		-	-	<0.0032	-
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016		-	-	<0.0016	-
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016		-	-	<0.0016	-
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016		-	-	<0.0016	-
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016		-	-	<0.0016	-
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016		-	-	<0.0016	-
Sum PFOS and PFHXS	mg/kg	0.0016		-	-	<0.0016	-
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016		-	-	<0.0016	-
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016		-	-	<0.0016	-
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016		-	-	<0.0016	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016		-	-	<0.0016	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016		-	-	<0.0016	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016		-	-	<0.0016	-
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016		-	-	<0.0016	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008		-	-	<0.008	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008		-	-	<0.008	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016		-	-	<0.016	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016		-	-	<0.016	-
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008		-	-	<0.008	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008		-	-	<0.008	-
Total of PFAS (n=30)	mg/kg	0.08		-	-	<0.08	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-		-	-	**103**	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-		-	-	**105**	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-		-	-	**102**	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-		-	-	**102**	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-		-	-	**104**	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-		-	-	**95**	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-		-	-	**98**	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-		-	-	**95**	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-		-	-	**79**	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-		-	-	**38**	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-		-	-	**15**	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-		-	-	**91**	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-		-	-	**104**	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-		-	-	**108**	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-		-	-	**91**	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-		-	-	**90**	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-		-	-	**78**	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-		-	-	**50**	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-		-	-	**45**	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-		-	-	**39**	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-		-	-	**42**	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-		-	-	**43**	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-		-	-	**56**	-
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-		-	-	**57**	-

Moisture Content **Method: AN002** **Tested: 21/6/2021**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	ME321066.013 Water 11 Jun 2021 SE220737.013	ME321066.014 Water 11 Jun 2021 SE220737.014	ME321066.015 Soil 11 Jun 2021 SE220737.015	ME321066.016 Water 11 Jun 2021 SE220737.016
Moisture Content Method: AN002 Tested: 21/6/2021 (continued)							
% Moisture*	%w/w	1		-	-	**7.8**	-
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level Method: MA-1523 Tested: 17/6/2021							
Perfluorobutanoic acid (PFBA)	µg/L	0.0005		**0.0006**	**0.0097**	-	**0.033**
Perfluoropentanoic acid (PFPeA)	µg/L	0.0005		<0.0005	**0.0026**	-	**0.013**
Perfluorohexanoic acid (PFHxA)	µg/L	0.0005		<0.0005	**0.0054**	-	**0.014**
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0005		<0.0005	**0.0018**	-	**0.0086**
Perfluorooctanoic Acid (PFOA)	µg/L	0.0005		<0.0005	**0.018**	-	**0.017**
Perfluorononanoic acid (PFNA)	µg/L	0.001		<0.001	<0.001	-	<0.001
Perfluorodecanoic acid (PFDA)	µg/L	0.001		<0.001	<0.001	-	<0.001
Perfluoroundecanoic acid (PFUnA)	µg/L	0.001		<0.001	<0.001	-	<0.001
Perfluorododecanoic acid (PFDoA)	µg/L	0.001		<0.001	<0.001	-	<0.001
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.001		<0.001	<0.001	-	<0.001
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.001		<0.001	<0.001	-	<0.001
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.002		<0.002	<0.002	-	<0.002
Perfluorobutane sulfonate (PFBS)	µg/L	0.001		<0.001	**0.001**	-	**0.002**
Perfluoropentane sulfonate (PFPeS)	µg/L	0.001		<0.001	**0.001**	-	**0.002**
Perfluorohexane sulfonate (PFHxS)	µg/L	0.0002		**0.0005**	**0.034**	-	**0.058**
Perfluoroheptane sulfonate (PFHpS)	µg/L	0.0002		<0.0002	**0.0008**	-	**0.0003**
Perfluorooctane sulfonate (PFOS)	µg/L	0.0002		**0.0007**	**0.026**	-	**0.020**
Sum of PFHxS and PFOS	µg/L	0.0002		**0.0012**	**0.061**	-	**0.079**
Perfluorononane sulfonate (PFNS)	µg/L	0.0005		<0.0005	<0.0005	-	<0.0005
Perfluorodecane sulfonate (PFDS)	µg/L	0.0005		<0.0005	<0.0005	-	<0.0005
Perfluorododecane sulfonate (PFDoS)	µg/L	0.0005		<0.0005	<0.0005	-	<0.0005
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	µg/L	0.0005		<0.0005	<0.0005	-	<0.0005
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	µg/L	0.0005		<0.0005	<0.0005	-	<0.0005
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	µg/L	0.0005		<0.0005	<0.0005	-	<0.0005
Perfluorooctane sulfonamide (PFOSA)	µg/L	0.002		<0.002	<0.002	-	<0.002
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	µg/L	0.0025		<0.0025	<0.0025	-	<0.0025
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	µg/L	0.0025		<0.0025	<0.0025	-	<0.0025
2-(N-Methylperfluorooctane sulfonamido)-ethanol	µg/L	0.0025		<0.0025	<0.0025	-	<0.0025
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	µg/L	0.0025		<0.0025	<0.0025	-	<0.0025
N-Methylperfluorooctanesulfonamidoacetic acid	µg/L	0.0025		<0.0025	<0.0025	-	<0.0025
N-Ethylperfluorooctanesulfonamidoacetic Acid	µg/L	0.0025		<0.0025	<0.0025	-	<0.0025
Total PFAS (n=30)	µg/L	0.006		<0.0060	**0.10**	-	**0.17**
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-		**100**	**101**	-	**100**
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-		**78**	**79**	-	**83**
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-		**58**	**57**	-	**57**
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-		**82**	**77**	-	**80**
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-		**93**	**94**	-	**107**
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-		**94**	**102**	-	**101**
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-		**99**	**91**	-	**93**
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-		**91**	**82**	-	**90**
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-		**101**	**77**	-	**87**
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-		**108**	**77**	-	**101**
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-		**115**	**120**	-	**148**
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-		**47**	**49**	-	**44**
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-		**90**	**95**	-	**95**
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-		**93**	**98**	-	**90**
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-		**42**	**50**	-	**40**
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-		**83**	**109**	-	**98**
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-		**70**	**113**	-	**89**
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-		**70**	**64**	-	**76**
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-		**65**	**51**	-	**63**
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-		**67**	**49**	-	**61**
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-		**60**	**50**	-	**54**
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-		**56**	**45**	-	**50**
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-		**64**	**70**	-	**66**

			Sample Number	ME321066.013	ME321066.014	ME321066.015	ME321066.016
			Sample Matrix	Water	Water	Soil	Water
			Sample Date	11 Jun 2021	11 Jun 2021	11 Jun 2021	11 Jun 2021
			Sample Name	SE220737.013	SE220737.014	SE220737.015	SE220737.016
Parameter	Units	LOR					
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level	**Method: MA-1523**	**Tested: 17/6/2021**	**(continued)**				
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	**55**	**76**	-	**75**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME321066.017 Water 11 Jun 2021 SE220737.017	ME321066.018 Water 11 Jun 2021 SE220737.018
Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples Method: MA-1523 Tested: 22/6/2021				
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	-	-
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	-	-
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	-	-
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	-	-
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	-	-
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	-	-
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	-	-
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	-	-
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	-	-
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	-	-
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	-	-
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	-	-
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	-	-
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	-	-
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	-	-
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	-	-
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	-	-
Sum PFOS and PFHXS	mg/kg	0.0016	-	-
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	-	-
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	-	-
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	-	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	-	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	-	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	-	-
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	-	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	-	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	-	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-	-
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	-	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	-	-
Total of PFAS (n=30)	mg/kg	0.08	-	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	-	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	-	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	-	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	-	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	-	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	-	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	-	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	-	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	-	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-

Moisture Content Method: AN002 Tested: 21/6/2021

Parameter	Units	LOR	Sample Number: ME321066.017 Sample Matrix: Water Sample Date: 11 Jun 2021 Sample Name: SE220737.017	Sample Number: ME321066.018 Sample Matrix: Water Sample Date: 11 Jun 2021 Sample Name: SE220737.018
Moisture Content Method: AN002 Tested: 21/6/2021 (continued)				
% Moisture*	%w/w	1	-	-
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level Method: MA-1523 Tested: 17/6/2021				
Perfluorobutanoic acid (PFBA)	µg/L	0.0005	**0.0011**	**0.0013**
Perfluoropentanoic acid (PFPeA)	µg/L	0.0005	**0.0016**	**0.0016**
Perfluorohexanoic acid (PFHxA)	µg/L	0.0005	**0.0010**	**0.0010**
Perfluoroheptanoic acid (PFHpA)	µg/L	0.0005	**0.0006**	<0.0005
Perfluorooctanoic Acid (PFOA)	µg/L	0.0005	**0.0005**	**0.0012**
Perfluorononanoic acid (PFNA)	µg/L	0.001	<0.001	<0.001
Perfluorodecanoic acid (PFDA)	µg/L	0.001	<0.001	<0.001
Perfluoroundecanoic acid (PFUnA)	µg/L	0.001	<0.001	<0.001
Perfluorododecanoic acid (PFDoA)	µg/L	0.001	<0.001	<0.001
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.001	<0.001	<0.001
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.001	<0.001	<0.001
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.002	<0.002	<0.002
Perfluorobutane sulfonate (PFBS)	µg/L	0.001	<0.001	<0.001
Perfluoropentane sulfonate (PFPeS)	µg/L	0.001	<0.001	<0.001
Perfluorohexane sulfonate (PFHxS)	µg/L	0.0002	**0.0017**	**0.0014**
Perfluoroheptane sulfonate (PFHpS)	µg/L	0.0002	<0.0002	<0.0002
Perfluorooctane sulfonate (PFOS)	µg/L	0.0002	**0.0017**	**0.0018**
Sum of PFHxS and PFOS	µg/L	0.0002	**0.0034**	**0.0033**
Perfluorononane sulfonate (PFNS)	µg/L	0.0005	<0.0005	<0.0005
Perfluorodecane sulfonate (PFDS)	µg/L	0.0005	<0.0005	<0.0005
Perfluorododecane sulfonate (PFDoS)	µg/L	0.0005	<0.0005	<0.0005
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	µg/L	0.0005	<0.0005	<0.0005
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	µg/L	0.0005	<0.0005	<0.0005
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	µg/L	0.0005	<0.0005	<0.0005
Perfluorooctane sulfonamide (PFOSA)	µg/L	0.002	<0.002	<0.002
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	µg/L	0.0025	<0.0025	<0.0025
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	µg/L	0.0025	<0.0025	<0.0025
2-(N-Methylperfluorooctane sulfonamido)-ethanol	µg/L	0.0025	<0.0025	<0.0025
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	µg/L	0.0025	<0.0025	<0.0025
N-Methylperfluorooctanesulfonamidoacetic acid	µg/L	0.0025	<0.0025	<0.0025
N-Ethylperfluorooctanesulfonamidoacetic Acid	µg/L	0.0025	<0.0025	<0.0025
Total PFAS (n=30)	µg/L	0.006	**0.0082**	**0.0083**
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	**100**	**100**
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	**77**	**76**
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	**57**	**59**
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	**79**	**92**
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	**101**	**103**
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	**95**	**92**
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	**98**	**87**
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	**96**	**95**
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	**90**	**80**
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	**91**	**86**
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	**116**	**111**
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	**51**	**58**
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	**113**	**102**
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	**108**	**96**
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	**45**	**49**
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	**92**	**95**
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	**80**	**84**
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	**69**	**62**
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	**63**	**70**
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	**65**	**63**
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	**51**	**49**
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	**48**	**51**
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	**55**	**61**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	ME321066.017 Water 11 Jun 2021 SE220737.017	ME321066.018 Water 11 Jun 2021 SE220737.018
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level Method: MA-1523 Tested: 17/6/2021 (continued)					
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-		71	59

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.

Moisture Content Method: ME-(AU)-[ENV]AN002

Parameter	QC Reference	Units	LOR	DUP %RPD
% Moisture*	LB042204	%w/w	1	3%

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level Method: MA-1523

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Perfluorobutanoic acid (PFBA)	LB042185	µg/L	0.0005	<0.0005	0%	NA
Perfluoropentanoic acid (PFPeA)	LB042185	µg/L	0.0005	<0.0005	1%	NA
Perfluorohexanoic acid (PFHxA)	LB042185	µg/L	0.0005	<0.0005	4%	NA
Perfluoroheptanoic acid (PFHpA)	LB042185	µg/L	0.0005	<0.0005	1%	97%
Perfluorooctanoic Acid (PFOA)	LB042185	µg/L	0.0005	<0.0005	7%	111%
Perfluorononanoic acid (PFNA)	LB042185	µg/L	0.001	<0.001	0%	150%
Perfluorodecanoic acid (PFDA)	LB042185	µg/L	0.001	<0.001	0%	98%
Perfluoroundecanoic acid (PFUnA)	LB042185	µg/L	0.001	<0.001	0%	148%
Perfluorododecanoic acid (PFDoA)	LB042185	µg/L	0.001	<0.001	0%	128%
Perfluorotridecanoic acid (PFTrDA)	LB042185	µg/L	0.001	<0.001	0%	112%
Perfluorotetradecanoic acid (PFTeDA)	LB042185	µg/L	0.001	<0.001	0%	150%
Perfluorohexadecanoic acid (PFHxDA)	LB042185	µg/L	0.002	<0.002	0%	NA
Perfluorobutane sulfonate (PFBS)	LB042185	µg/L	0.001	<0.001	11%	NA
Perfluoropentane sulfonate (PFPeS)	LB042185	µg/L	0.001	<0.001	1%	NA
Perfluorohexane sulfonate (PFHxS)	LB042185	µg/L	0.0002	<0.0002	4%	NA
Perfluoroheptane sulfonate (PFHpS)	LB042185	µg/L	0.0002	<0.0002	14%	NA
Perfluorooctane sulfonate (PFOS)	LB042185	µg/L	0.0002	<0.0002	1%	121%
Sum of PFHxS and PFOS	LB042185	µg/L	0.0002	<0.0002	4%	NA
Perfluorononane sulfonate (PFNS)	LB042185	µg/L	0.0005	<0.0005	0%	NA
Perfluorodecane sulfonate (PFDS)	LB042185	µg/L	0.0005	<0.0005	0%	NA
Perfluorododecane sulfonate (PFDoS)	LB042185	µg/L	0.0005	<0.0005	0%	NA
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	LB042185	µg/L	0.0005	<0.0005	0%	NA
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	LB042185	µg/L	0.0005	<0.0005	0%	NA
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	LB042185	µg/L	0.0005	<0.0005	0%	NA
Perfluorooctane sulfonamide (PFOSA)	LB042185	µg/L	0.002	<0.002	0%	70%
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	LB042185	µg/L	0.0025	<0.0025	0%	NA
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	LB042185	µg/L	0.0025	<0.0025	0%	NA
2-(N-Methylperfluorooctane sulfonamido)-ethanol (N-MeFOSE)	LB042185	µg/L	0.0025	<0.0025	0%	NA
2-(N-Ethylperfluorooctane sulfonamido)-ethanol (N-EtFOSE)	LB042185	µg/L	0.0025	<0.0025	0%	NA
N-Methylperfluorooctanesulfonamidoacetic acid (N_MeFOSAA)	LB042185	µg/L	0.0025	<0.0025	0%	NA
N-Ethylperfluorooctanesulfonamidoacetic Acid (N-EtFOSAA)	LB042185	µg/L	0.0025	<0.0025	0%	NA
Total PFAS (n=30)	LB042185	µg/L	0.006	<0.0060		
(13C4-PFBA) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	98%	3%	100%
(13C5-PFPeA) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	74%	1%	79%
(13C5-PFHxA) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	66%	4%	77%
(13C4-PFHpA) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	81%	1%	97%
(13C4_PFOA) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	97%	2%	99%
(13C9-PFNA) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	106%	7%	114%
(13C6-PFDA) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	113%	4%	117%
(13C7-PFUdA) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	89%	7%	89%
(13C2-PFDoA) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	96%	13%	100%
(13C2_PFTeDA) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	97%	13%	94%
(13C2-PFHxDA) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	100%	1%	76%
(13C3-PFBS) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	70%	2%	74%
(13C3-PFHxS) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	125%	0%	109%
(13C8-PFOS) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	87%	1%	126%
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	95%	2%	96%
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	143%	1%	127%
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	98%	21%	100%
(13C8-PFOSA) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	65%	14%	93%
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	67%	26%	83%

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.

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples - Low Level Method: MA-1523 (continued)

				MB	DUP %RPD	LCS %Recovery
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	69%	14%	71%
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	60%	14%	91%
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	54%	23%	84%
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	83%	6%	87%
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery Standard	LB042185	%	-	82%	3%	111%

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.

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples Method: MA-1523

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Perfluorobutanoic acid (PFBA)	LB042203	mg/kg	0.0016	<0.0016	0%	NA
Perfluoropentanoic acid (PFPeA)	LB042203	mg/kg	0.0016	<0.0016	0%	NA
Perfluorohexanoic acid (PFHxA)	LB042203	mg/kg	0.0016	<0.0016	0%	NA
Perfluoroheptanoic acid (PFHpA)	LB042203	mg/kg	0.0016	<0.0016	0%	135%
Perfluorooctanoic Acid (PFOA)	LB042203	mg/kg	0.0008	<0.0008	0%	148%
Perfluorononanoic acid (PFNA)	LB042203	mg/kg	0.0016	<0.0016	0%	141%
Perfluorodecanoic acid (PFDA)	LB042203	mg/kg	0.0016	<0.0016	0%	148%
Perfluoroundecanoic acid (PFUnA)	LB042203	mg/kg	0.0016	<0.0016	0%	134%
Perfluorododecanoic acid (PFDoA)	LB042203	mg/kg	0.0016	<0.0016	0%	148%
Perfluorotridecanoic acid (PFTrDA)	LB042203	mg/kg	0.0016	<0.0016	0%	147%
Perfluorotetradecanoic acid (PFTeDA)	LB042203	mg/kg	0.0016	<0.0016	0%	NA
Perfluorohexadecanoic acid (PFHxDA)	LB042203	mg/kg	0.0032	<0.0032	0%	NA
Perfluorobutane sulfonate (PFBS)	LB042203	mg/kg	0.0016	<0.0016	0%	NA
Perfluoropentane sulfonate (PFPeS)	LB042203	mg/kg	0.0016	<0.0016	0%	NA
Perfluorohexane sulfonate (PFHxS)	LB042203	mg/kg	0.0016	<0.0016	0%	NA
Perfluoroheptane sulfonate (PFHpS)	LB042203	mg/kg	0.0016	<0.0016	0%	NA
Perfluorooctane sulfonate (PFOS)	LB042203	mg/kg	0.0016	<0.0016	0%	110%
Sum PFOS and PFHXS	LB042203	mg/kg	0.0016	<0.0016	0%	NA
Perfluorononane sulfonate (PFNS)	LB042203	mg/kg	0.0016	<0.0016	0%	NA
Perfluorodecane sulfonate (PFDS)	LB042203	mg/kg	0.0016	<0.0016	0%	NA
Perfluorododecane sulfonate (PFDoS)	LB042203	mg/kg	0.0016	<0.0016	0%	NA
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	LB042203	mg/kg	0.0016	<0.0016	0%	NA
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	LB042203	mg/kg	0.0016	<0.0016	0%	NA
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	LB042203	mg/kg	0.0016	<0.0016	0%	NA
Perfluorooctane sulfonamide (PFOSA)	LB042203	mg/kg	0.0016	<0.0016	0%	81%
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	LB042203	mg/kg	0.008	<0.008	0%	NA
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	LB042203	mg/kg	0.008	<0.008	0%	NA
2-(N-Methylperfluorooctane sulfonamido)-ethanol (N-MeFOSE)	LB042203	mg/kg	0.016	<0.016	0%	NA
2-(N-Ethylperfluorooctane sulfonamido)-ethanol (N-EtFOSE)	LB042203	mg/kg	0.016	<0.016	0%	NA
N-Methylperfluorooctanesulfonamidoacetic acid (N_MeFOSAA)	LB042203	mg/kg	0.008	<0.008	0%	NA
N-Ethylperfluorooctanesulfonamidoacetic Acid (N-EtFOSAA)	LB042203	mg/kg	0.008	<0.008	0%	NA
Total of PFAS (n=30)	LB042203	mg/kg	0.08	<0.08	0%	NA
(13C4-PFBA) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	97%	4%	101%
(13C5-PFPeA) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	94%	2%	104%
(13C5-PFHxA) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	107%	1%	92%
(13C4-PFHpA) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	109%	0%	94%
(13C4_PFOA) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	112%	11%	103%
(13C9-PFNA) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	100%	0%	103%
(13C6-PFDA) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	87%	18%	97%
(13C7-PFUdA) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	102%	18%	109%
(13C2-PFDoA) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	98%	7%	103%
(13C2_PFTeDA) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	57%	20%	82%
(13C2-PFHxDA) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	21%	57%	63%
(13C3-PFBS) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	87%	3%	81%
(13C3-PFHxS) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	89%	6%	98%
(13C8-PFOS) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	99%	2%	101%
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	85%	6%	80%
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	80%	9%	73%
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	88%	1%	75%
(13C8-PFOSA) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	59%	10%	61%
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	42%	0%	45%
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	35%	5%	41%
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	53%	4%	52%
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	43%	2%	47%
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	62%	11%	62%
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery Standard	LB042203	%	-	67%	11%	65%

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.
MA-1523	This method covers the analysis of per- and polyfluoroalkyl substances (PFAS) in aqueous, solid and biosolid samples and solvent extracts, determined as the total of linear and branched isomers. After spiking with isotopically labelled quantification surrogates and clean-up via SPE cartridges sample extracts are analysed by liquid chromatography/mass spectrometry (LC-MS/MS). PFAS concentrations are determined by isotope dilution quantification.

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
***	Indicates that both * and ** apply.	NVL	Not Validated

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

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is 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 and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

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

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client only. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

This report must not be reproduced, except in full.

SGS

CHAIN OF CUSTODY & ANALYSIS REQUEST

SGS Environmental Services Sydney
Unit 16, 33 Maddox Street
Alexandria NSW 2015
Facsimile No: (02) 85940499
Telephone No: (02) 85940400
Email:
au.samplereceipt.sydney@sgs.com

Company Name:	JM Environments	Project Name/No:	JME2020
Address:	37 Tooke St	Purchase Order No:	JME2020
	COOKS HILL NSW 2300	Results Required By:	Standard
Contact Name:	James McMahon	Email:	james@jmenvironments.com
Telephone	0427 893 668	Email:	johnh@jmjenvironments.com

Sample Date: 6-7/04/2020

Relinquished by: J McMahon	Date /Time: 4pm 8/4/2020	Received by: TNT	Date /Time: 4pm 8/4/2020
Relinquished by:	Date /Time:	Received by:	Date /Time:
Samples intact: Yes/No	Temperature:	Sample Cooler Sealed: Yes/No	Laboratory Quotation: ENVI126319

Lab Sample ID	Sample ID	Water	Soil	Other	Preservative	No. of Containers		pH/CEC	CL10	CL15	CL18	CL2	BTEX						Comments
	QC1		x						x										**sampled 6/4/2020**
1	QC1A		x						x										**Send to ALS sampled 6/4/2020**
	QC2		x						x										**sampled 6/4/2020**
2	QC2A		x						x										**Send to ALS sampled 6/4/2020**
	QC3		x																**Hold sampled 6/4/2020**
3	QC3A		x																**Hold sampled 6/4/2020**
	Trip Blank		x										x						
	Trip Spike		x										x						
	QCA	x										x							

Received - ME ALS 14/4/2020 1:50pm

Environmental Division
Sydney
Work Order Reference
ES2012625

Telephone : +61-2-8784 8555

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2012625**

Client	: **JM ENVIRONMENTS**	Laboratory	: Environmental Division Sydney
Contact	: MR JAMES MCMAHON	Contact	: Customer Services ES
Address	: 37 TOOKE STREET COOKS HILL NSW 2300	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: james@jmenvironments.com	E-mail	: ALSEnviro.Sydney@ALSGlobal.com
Telephone	: ----	Telephone	: +61-2-8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: JME2020	Page	: 1 of 2
Order number	: JME2020	Quote number	: ES2017JMENVIRO0001 (SYBQ/292/17)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: ----		
Sampler	:		

Dates

Date Samples Received	: 14-Apr-2020 13:50	Issue Date	: 15-Apr-2020
Client Requested Due Date	: 20-Apr-2020	Scheduled Reporting Date	: **20-Apr-2020**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 12.3 - Ice Bricks present
Receipt Detail	:	No. of samples received / analysed	: 2 / 2

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Client sampling date / time	Client sample ID	SOIL - EA055-103 Moisture Content	SOIL - S-26 8 metals/TRH/BTEXN/PAH
ES2012625-001	06-Apr-2020 00:00	QC1A	✓	✓
ES2012625-002	06-Apr-2020 00:00	QC2A	✓	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE		
- A4 - AU Tax Invoice (INV)	Email	admin@jmenvironments.com
JAMES MCMAHON		
- *AU Certificate of Analysis - NATA (COA)	Email	james@jmenvironments.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	james@jmenvironments.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	james@jmenvironments.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	james@jmenvironments.com
- Chain of Custody (CoC) (COC)	Email	james@jmenvironments.com
- EDI Format - ENMRG (ENMRG)	Email	james@jmenvironments.com
- EDI Format - ESDAT (ESDAT)	Email	james@jmenvironments.com
JOHN HOWARD		
- *AU Certificate of Analysis - NATA (COA)	Email	johnh@jmenvironments.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	johnh@jmenvironments.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	johnh@jmenvironments.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	johnh@jmenvironments.com
- Chain of Custody (CoC) (COC)	Email	johnh@jmenvironments.com
- EDI Format - ENMRG (ENMRG)	Email	johnh@jmenvironments.com
- EDI Format - ESDAT (ESDAT)	Email	johnh@jmenvironments.com

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2012625**	Page	: 1 of 6
Client	: **JM ENVIRONMENTS**	Laboratory	: Environmental Division Sydney
Contact	: MR JAMES MCMAHON	Contact	: Customer Services ES
Address	: 37 TOOKE STREET COOKS HILL NSW 2300	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: JME2020	Date Samples Received	: 14-Apr-2020 13:50
Order number	: JME2020	Date Analysis Commenced	: 16-Apr-2020
C-O-C number	: ----	Issue Date	: 20-Apr-2020 14:26
Sampler	: ----		
Site	: ----		
Quote number	: SYBQ/292/17		
No. of samples received	: 2		
No. of samples analysed	: 2		

ilac-MRA NATA
Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	QC1A	QC2A	----	----	----
			Client sampling date / time	06-Apr-2020 00:00	06-Apr-2020 00:00	----	----	----
Compound	CAS Number	LOR	Unit	ES2012625-001	ES2012625-002	-------	-------	-------
				Result	Result	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**13.0**	**8.4**	----	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	**166**	----	----	----
Cadmium	7440-43-9	1	mg/kg	<1	**3**	----	----	----
Chromium	7440-47-3	2	mg/kg	**4**	**56**	----	----	----
Copper	7440-50-8	5	mg/kg	**12**	**2720**	----	----	----
Lead	7439-92-1	5	mg/kg	**8**	**4560**	----	----	----
Nickel	7440-02-0	2	mg/kg	**4**	**6**	----	----	----
Zinc	7440-66-6	5	mg/kg	**252**	**42600**	----	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	----	----	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	----	----	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	----	----	----
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	----	----	----
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	----	----	----
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	----	----	----
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	----	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	----	----	----
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	----	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	----	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	----	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	----	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	**0.6**	**0.6**	----	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	**1.2**	**1.2**	----	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	QC1A	QC2A	----	----	----
				Client sampling date / time	06-Apr-2020 00:00	06-Apr-2020 00:00	----	----	----
Compound	CAS Number	LOR	Unit		ES2012625-001	ES2012625-002	-------	-------	-------
					Result	Result	----	----	----
EP080/071: Total Petroleum Hydrocarbons - Continued									
C10 - C14 Fraction	----	50	mg/kg		<50	<50	----	----	----
C15 - C28 Fraction	----	100	mg/kg		<100	<100	----	----	----
C29 - C36 Fraction	----	100	mg/kg		<100	<100	----	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	----	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	----	----	----
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	----	----	----
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	----	----	----
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	----	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	----	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	----	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	----	----	----
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	----	----	----
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	----	----	----
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	----	----	----
Naphthalene	91-20-3	1	mg/kg		<1	<1	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**82.8**	**79.9**	----	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		**87.3**	**86.9**	----	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%		**83.6**	**80.8**	----	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**107**	**107**	----	----	----
Anthracene-d10	1719-06-8	0.5	%		**114**	**113**	----	----	----
4-Terphenyl-d14	1718-51-0	0.5	%		**97.0**	**96.6**	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**94.8**	**89.9**	----	----	----
Toluene-D8	2037-26-5	0.2	%		**99.6**	**94.9**	----	----	----

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)				Client sample ID	QC1A	QC2A	----	----	----
				Client sampling date / time	06-Apr-2020 00:00	06-Apr-2020 00:00	----	----	----
Compound	*CAS Number*	*LOR*	*Unit*		**ES2012625-001**	**ES2012625-002**	--------	--------	--------
					Result	Result	----	----	----
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**108**	**102**	----	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	63	123
2-Chlorophenol-D4	93951-73-6	66	122
2.4.6-Tribromophenol	118-79-6	40	138
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	70	122
Anthracene-d10	1719-06-8	66	128
4-Terphenyl-d14	1718-51-0	65	129
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	73	133
Toluene-D8	2037-26-5	74	132
4-Bromofluorobenzene	460-00-4	72	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2012625**	Page	: 1 of 4
Client	: **JM ENVIRONMENTS**	Laboratory	: Environmental Division Sydney
Contact	: MR JAMES MCMAHON	Telephone	: +61-2-8784 8555
Project	: JME2020	Date Samples Received	: 14-Apr-2020
Site	: ----	Issue Date	: 20-Apr-2020
Sampler	: ----	No. of samples received	: 2
Order number	: JME2020	No. of samples analysed	: 2

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / *Container* / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055)								
QC1A,	QC2A	**06-Apr-2020**	**----**	----	----	**16-Apr-2020**	20-Apr-2020	✓
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T)								
QC1A,	QC2A	**06-Apr-2020**	**16-Apr-2020**	03-Oct-2020	✓	**16-Apr-2020**	03-Oct-2020	✓
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T)								
QC1A,	QC2A	**06-Apr-2020**	**16-Apr-2020**	04-May-2020	✓	**16-Apr-2020**	04-May-2020	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075(SIM))								
QC1A,	QC2A	**06-Apr-2020**	**16-Apr-2020**	20-Apr-2020	✓	**16-Apr-2020**	26-May-2020	✓
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP080)								
QC1A,	QC2A	**06-Apr-2020**	**16-Apr-2020**	20-Apr-2020	✓	**16-Apr-2020**	20-Apr-2020	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP080)								
QC1A,	QC2A	**06-Apr-2020**	**16-Apr-2020**	20-Apr-2020	✓	**16-Apr-2020**	20-Apr-2020	✓
EP080: BTEXN								
Soil Glass Jar - Unpreserved (EP080)								
QC1A,	QC2A	**06-Apr-2020**	**16-Apr-2020**	20-Apr-2020	✓	**16-Apr-2020**	20-Apr-2020	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	16	**12.50**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	1	6	**16.67**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	13	**15.38**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	16	**12.50**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	8	**12.50**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM (2013) Schedule B(3) Section 6.1 and Table 1 (14 day holding time).
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM (2013) Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl2) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
TRH - Semivolatile Fraction	EP071	SOIL	In house: Referenced to USEPA SW 846 - 8015A Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. Compliant with NEPM amended 2013.
PAH/Phenols (SIM)	EP075(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270E. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3) (Method 502 and 507)
TRH Volatiles/BTEX	EP080	SOIL	In house: Referenced to USEPA SW 846 - 8260D. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM amended 2013.

Preparation Methods	Method	Matrix	Method Descriptions
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM (2013) Schedule B(3) (Method 202)
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.

QUALITY CONTROL REPORT

Work Order	: **ES2012625**	Page	: 1 of 7
Client	: **JM ENVIRONMENTS**	Laboratory	: Environmental Division Sydney
Contact	: MR JAMES MCMAHON	Contact	: Customer Services ES
Address	: 37 TOOKE STREET COOKS HILL NSW 2300	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: JME2020	Date Samples Received	: 14-Apr-2020
Order number	: JME2020	Date Analysis Commenced	: 16-Apr-2020
C-O-C number	: ----	Issue Date	: 20-Apr-2020
Sampler	: ----		
Site	: ----		
Quote number	: SYBQ/292/17		
No. of samples received	: 2		
No. of samples analysed	: 2		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 2970228)									
ES2012521-002	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	59	57	3.27	0% - 20%
		EG005T: Nickel	7440-02-0	2	mg/kg	11	5	75.3	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	10	7	43.4	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	17	11	46.6	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	7	6	17.6	No Limit
EB2010021-014	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	6	5	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	3	3	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	12	12	0.00	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	19	17	10.6	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	193	233	18.9	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 2970230)									
ES2012472-002	Anonymous	EA055: Moisture Content	----	0.1	%	14.7	15.1	2.94	0% - 50%
ES2012625-001	QC1A	EA055: Moisture Content	----	0.1	%	13.0	13.9	6.40	0% - 50%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2970229)									
ES2012625-001	QC1A	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EB2010021-014	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2969441)									
ES2012474-002	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2969441) - continued									
ES2012474-002	Anonymous	EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2969439)									
ES2012474-002	Anonymous	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2970078)									
ES2012353-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
ES2012472-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2969439)									
ES2012474-002	Anonymous	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2970078)									
ES2012353-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
ES2012472-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
EP080: BTEXN (QC Lot: 2970078)									
ES2012353-001	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP080: BTEXN (QC Lot: 2970078) - continued									
ES2012472-001	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Spike (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 2970228)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	98.3	86.0	126
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	91.7	83.0	113
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	77.3	76.0	128
EG005T: Copper	7440-50-8	5	mg/kg	<5	32 mg/kg	91.6	86.0	120
EG005T: Lead	7439-92-1	5	mg/kg	<5	40 mg/kg	90.3	80.0	114
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55 mg/kg	90.2	87.0	123
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	92.9	80.0	122
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2970229)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	76.7	70.0	105
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2969441)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	103	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	106	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	105	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	107	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	105	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	107	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	112	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	109	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	93.9	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	96.0	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	90.4	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	101	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	98.1	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	83.8	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	80.8	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	74.2	63.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2969439)								
EP071: C10 - C14 Fraction	---	50	mg/kg	<50	300 mg/kg	109	75.0	129
EP071: C15 - C28 Fraction	---	100	mg/kg	<100	450 mg/kg	94.4	77.0	131
EP071: C29 - C36 Fraction	---	100	mg/kg	<100	300 mg/kg	92.1	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2970078)								
EP080: C6 - C9 Fraction	---	10	mg/kg	<10	26 mg/kg	93.4	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2969439)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2969439) - continued								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	97.8	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	94.3	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	79.5	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2970078)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	95.4	68.4	128
EP080: BTEXN (QCLot: 2970078)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	84.7	62.0	116
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	92.5	67.0	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	95.0	65.0	117
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	98.6	66.0	118
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	98.1	68.0	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	84.9	63.0	119

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Recovery Limits (%): Low	Recovery Limits (%): High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 2970228)							
EB2010021-014	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	94.8	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	93.8	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	94.3	70.0	130
		EG005T: Copper	7440-50-8	250 mg/kg	95.2	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	93.8	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	95.0	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	80.9	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2970229)							
EB2010021-014	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	89.0	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2969441)							
ES2012474-002	Anonymous	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	101	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	104	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2969439)							
ES2012474-002	Anonymous	EP071: C10 - C14 Fraction	----	523 mg/kg	120	73.0	137
		EP071: C15 - C28 Fraction	----	2319 mg/kg	113	53.0	131

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2969439) - continued							
ES2012474-002	Anonymous	EP071: C29 - C36 Fraction	----	1714 mg/kg	118	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2970078)							
ES2012353-001	Anonymous	EP080: C6 - C9 Fraction	----	32.5 mg/kg	106	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2969439)							
ES2012474-002	Anonymous	EP071: >C10 - C16 Fraction	----	860 mg/kg	126	73.0	137
		EP071: >C16 - C34 Fraction	----	3223 mg/kg	118	53.0	131
		EP071: >C34 - C40 Fraction	----	1058 mg/kg	117	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2970078)							
ES2012353-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	107	70.0	130
EP080: BTEXN (QCLot: 2970078)							
ES2012353-001	Anonymous	EP080: Benzene	71-43-2	2.5 mg/kg	86.5	70.0	130
		EP080: Toluene	108-88-3	2.5 mg/kg	91.8	70.0	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	95.3	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	97.2	70.0	130
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	98.1	70.0	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	80.9	70.0	130

Appendix G

MBE2016 Waste Classification Report
MBE2017 ENM Assessment Reports

7 December 2012
Jason Bonney
Kingston Building
PO Box 1906
HRMC NSW 2310

Dear Jason

RE: WASTE CLASSIFICATION
MIDAL CABLES INTERNATIONAL - TOMAGO

1 INTRODUCTION

MB Engineering Solutions Pty Ltd (MBES) was commissioned by Kingston Building Pty Ltd (Kingston) to undertake a waste classification of insitu material at the Midal Cables development site located at McIntyre Rd Tomago (the site) as shown in Figure 1. The site is identified as Lot 5 and 6 DP 270328, part of Lot 301 DP 634536 and part of Lot 3232 DP 618103. It is understood approximately 2000m^3 of topsoil and 7,000m^3 of subsoil may potentially be excavated and require disposal from site. It is further understood the majority of site has previously been sand mined.

The objective of the work was to provide a waste classification for insitu material at the site that may be excavated during the site development. The following scope of work was undertaken:

- Review of a previous contamination assessments;
- Fieldwork including the collection of test pit samples;
- Laboratory analysis of the collected samples;
- Tabulating of the results of the analysis; and
- Preparation of a waste classification letter report.

2 REVIEW OF PREVIOUS ASSESSMENT

2.1 GHD Contamination Assessment

The report “Midal Cables International Pty Limited – Phase 2 Contamination Site Assessment – Aluminium Rod and Conductor Manufacturing Facility, Tomago NSW – May 2011” (GHD ref 22/15280/93866 R0) was reviewed and the following information was obtained:

- Acid sulfate soils have a low probability of occurring from 2 m below ground surface;
- The adjacent Tomago aluminium smelter began development in 1974;

MB Engineering Solutions Pty Ltd
PO Box 775
The Junction NSW 2291
ABN 82 131 293 822

- Site was developed for metal fabrication in the 1980s;
- 23 samples analysed for a suite of 13 heavy metals;
- 9 samples and composites were analysed for Total Petroleum Hydrocarbons/benzene, toluene, ethylbenzene and xylenes (TPH/BTEX) and Polynuclear Aromatic Hydrocarbons (PAH);
- 6 samples were analysed for Organochlorine Pesticides (OCP) and Polychlorinated Biphenyls (PCB); and
- There no exceedances of the commercial/industrial health investigation levels in the samples analysed.

GHD Sampling locations are shown on Figure 2 and the heavy metals data relevant to waste classification is summarised in Summary Table 1. The samples analysed had chemical concentrations or an upper concentration limit (95% confidence) below the general solid waste (CT1) criteria in Table 1 of the NSW Waste Classification Guidelines Part 1 Classifying Waste (Dec 2009).

2.2 MBES Acid Sulfate Soil and Groundwater Assessment

MBES conducted a preliminary acid sulfate and groundwater assessment on site at three locations where deeper excavations are planned to occur during the development. Three monitoring wells, MW1-MW3, were installed along the western boundary of site. The boreholes were advanced to 1 m below the proposed depth of excavation in order to assess the acid sulfate soil conditions near each proposed deeper excavation (MW1 3.5m below ground surface (mbgs), MW2 4mbgs, and MW3 6mbgs). Soil samples were collected at 0.5m intervals and analysed for SPOCAS. The boreholes were subsequently converted into monitoring wells. The monitoring wells were sampled for pH and fluoride. The locations of the monitoring wells MW1-MW3 are shown are Figure 2.

Actual acid sulfate was detected at MW3 4-4.5mbgs. No potential or actual acid sulfate soils were detected in the other samples analysed.

Fluoride was detected in MW1 (0.73mg/L), MW2 (0.74mg/L) and MW3 (4.8 mg/L).

3 FIELDWORK

Ten test pits were excavated by a MBES environmental scientist with the aid of an excavator supplied by Kingston on 3 December 2012. The test pits were extended through the topsoil/fill to approximately 300mm into the natural underlying sand. The test pits were placed in a grid pattern to give general site coverage and to compliment the sampling locations selected by GHD. Soil sample were collected from each change in lithology. Soil samples were collected from the centre of the excavator bucket using disposable gloves. The gloves were change between each sample collected. The samples were kept on ice awaiting transport to the laboratory. The test locations are shown in Figure 2.

Two QA/QC, QC1 and QC2, samples were collected along with twenty two primary samples.

In addition, two potential asbestos containing materials, WP12 and WP13, were collected.

It was also observed that major earthworks were being conducted at the time of sampling. Numerous large concrete slabs were being excavated from near the centre of site.

4 ANALYTICAL SUITE

The selected test pit samples were analysed by SGS for:

- Eight Metals (arsenic, cadmium, chromium, copper, lead, nickel, zinc, and mercury);

- (PAH);
- TPH/BTEX; and
- Fluoride.

WP12 and WP13 were analysed for the presence of asbestos.

5 RESULTS AND DISCUSSION

5.1 Field Results

Based on a review of the GHD report and test pitting by MBES the site soils are considered to comprise:

- Fill: gravelly, clayed SAND, orange-brown/brown with traces if brick, wood and metal in test pits TP1-TP9 and sandy GRAVEL test pit TP10 from the surface to a depth approximately 0.2-0.3mbgs overlying:
- Topsoil(?)/Fill (not in TP1-3): SAND, fine medium grained dark grey/dark brown from approximately 0.1mbgs (TP9) to approximately 0.7mbgs (TP6 and TP10) overlying;
- SAND: Fine-medium grained, loose, pale brown/yellowy brown/brown.

At test pit TP6 an asphalt/slag/ash pavement was encountered at approximately 0.3.mbgs.

5.2 Quality Assurance / Quality Control

Two duplicate samples (QC1 duplicate of TP40.1-0.2 and QC2 duplicate of TP6 0.4-0.5) were analysed. The relative percentage difference of the concentrations of the analytes tested were below the acceptance criterion (<50%).

SGS conducted internal quality control using spikes, laboratory duplicates and method blanks. The laboratory internal quality control testing showed method blank results below the laboratory limit of reporting and spike recoveries within control limits. With the exception of arsenic and zinc which reported spike recoveries of 69% and 705%. The failed arsenic spike recovery was attributed to matrix interference. The failed zinc spike recovery was due to high concentrations of zinc (compared to the spike concentration. These laboratory QA/QC fails are considered not likely to impact on the results. SGS is NATA certified for the analysis undertaken.

Based on review of the QA/QC data, it is considered that the results are likely to be representative of conditions at the sampling locations at the time of sampling and are suitable for a waste classification.

5.3 Laboratory Results

The samples analysed had chemical concentrations below the general solid waste (CT1) criteria. Relevant laboratory results are in Summary Table1. No asbestos was identified in the samples analysed.

5.4 Waste Classification

5.4.1 Topsoil/Fill

According to NOEH Waste Classification Guidelines the Topsoil/Fill was assessed to be:

- Not a special waste (Step 1);
- Not a liquid waste (Step 2);

- Not a ‘pre-classified, waste (Step 3); and
- Does not possess hazardous characteristics (Step 4).
- **General Solid Waste** (Step 5)

5.4.2 Underlying Sand

Based on the laboratory results the underlying sand on site has been slightly impacted by heavy metals and fluoride (TP6 only) to a depth of approximately 0.8mbgs. It is considered likely that sand below the water table is impacted with fluoride and sand at depths of approximately 4-4.5mbgs is likely to be acid sulfate soil.

The NSW NOEH (2009) Waste Classification Guidelines define VENM as “*Virgin excavated natural material means natural material (eg clay, gravel, sand, soil or rock fines) :*

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

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

Therefore the underlying sand does not meet the definition of VENM and by the same process in Section 5.4.1 the underlying sand to a depth of approximately 4m is classified as **General Solid Waste**.

Acid sulfate soils to be disposed of offsite are required to be handled and treated as per the Acid Sulfate Soil Management Plan developed for the site.

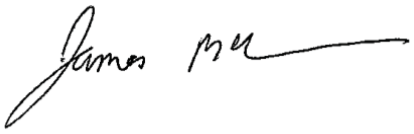
6 CONCLUSION

Based on a review of previous results, the field observations and laboratory results the site soils have been impacted as a result of industrial activities hence potential excavated material has been assessed as **General Solid Waste**. The material is required to be disposed to a facility licensed to accept general solid waste.

The findings contained in this report are the result of discrete / specific methodologies used in accordance with normal practices and standards. To the best of our knowledge, they represent a reasonable interpretation of the general condition of the stockpile sampled. This report has been provided by MBES for the benefit of Kingston Building only.

We trust this meets your requirements at this time. Should you have any questions, please do not hesitate to contact the undersigned.

For and on behalf of MB Engineering Solutions Pty Ltd



James McMahon

Principal Environmental Scientist

Attachments

Figure 1

Figure 2

Summary Table 1

Laboratory Results.

Notes:

1) Basemap Source -Google Earth

2) Subject Site

CLIENT: **Kingston Building**

PROJECT TITLE: **Midal Cables Tomago**

PROJECT:	MBE2016	DESIGNED:			FIGURE TITLE: **Site Location Plan**
DWG #:	1	DRAWN:			
REVISION:	1	STATUS:			
SCALE:	NTS				
DATE:	3/12/12				FIGURE NUMBER: **1.0**

MB ENGINEERING SOLUTIONS

Notes:

1) Basemap Source - Google Maps
2) MBES sampling locations
3) GHD sampling locations

CLIENT: **Kingston Building**

PROJECT TITLE: **Midal Cables Tomago**

PROJECT:	Landscape'!A	DESIGNED:		
DWG #:	Landscape'!A	DRAWN:		
REVISION:	Landscape'!A			
SCALE:		STATUS:		
DATE:	0			

FIGURE TITLE: **Sampling Locations**

FIGURE NUMBER: **2.0**

MB ENGINEERING SOLUTIONS

Summary Table
Heavy Metals
Soil Results

Midal Cables Internaltional
Kingston Building

		Maximum values of specific contaminant concentration (SCC) for classification without TCLP		Description	TP5 0.0-0.1	BH3 0.0-0.1	BH3 0.2-0.03	TP7 0.0-0.1	TP7 0.2-0.3	BH4 0.0-0.1	BH4 0.5-0.6	BH6 0.0-0.1	TP11 0.0-0.1	TP8 0.0-0.1	BH5 0.0-0.1
		GSW	RSW	Sampled By	GHD	GHD	GHD	GHD	GHD	GHD	GHD	GHD	GHD	GHD	GHD
Analyte Name	Units	CT1	CT2	Reporting Limit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Arsenic	mg/kg	100	400	5	<5	11	<5	37	<5	6	<5	9	17	72	<5
Berylium	mg/kg	20	80	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium	mg/kg	20	80	1	<1	<1	<1	<1	<1	<1	<1	2	<1	<1	<1
Chromium	mg/kg	100	400	2	2	26	<2	47	<2	16	<2	70	25	104	17
Lead	mg/kg	100	400	5	<5	88	<5	154	<5	99	<5	85	27	237	29
Nickel	mg/kg	40	160	2	<2	19	<2	34	<2	10	<2	53	24	20	16
Mercury	mg/kg	4	16	0.10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

		Maximum values of specific contaminant concentration (SCC) for classification without TCLP		Description	TP12 0.0-0.1	TP12 0.2-0.3	TP9 0.0-0.1	TP2 0.0-0.1	TP2 0.2-0.3	TP4 0.2-0.3	TP6 0.0-0.1	BH1 0.0-0.1	BH2 0.0-0.1	BH2 0.2-0.3	TP10 0.0-0.1
		GSW	RSW	Sampled By	GHD	GHD	GHD	GHD	GHD	GHD	GHD	GHD	GHD	GHD	GHD
Analyte Name	Units	CT1	CT2	Reporting Limit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Arsenic, As	mg/kg	100	400	5	<5	<5	<5	<5	<5	<5	5	8	12	12	8
Berylium, Be	mg/kg	20	80	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, Cd	mg/kg	20	80	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium, Cr	mg/kg	100	400	2	8	2	17	<2	<2	<2	13	48	33	9	131
Lead, Pb	mg/kg	100	400	5	<5	<5	22	7	<5	<5	36	108	20	9	113
Nickel, Ni	mg/kg	40	160	2	8	<2	8	<2	<2	<2	30	36	32	19	47
Mercury	mg/kg	4	16	0.10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

		Maximum values of specific contaminant concentration (SCC) for classification without TCLP		Description	TP10 0.2-0.3	TP1 0.0-0.1	TP1 0.3-0.4	TP2 0.1-0.2	TP2 0.3-0.4	TP3 0.0-0.2	TP3 0.3-0.4	TP4 0.0-0.1	TP4 0.1-0.2	TP4 0.2-0.3	TP5 0.0-0.25
		GSW	RSW	Sampled By	GHD	MBE	MBE	MBE	MBE	MBE	MBE	MBE	MBE	MBE	MBE
Analyte Name	Units	CT1	CT2	Reporting Limit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Arsenic, As	mg/kg	100	400	5	<5	<3	<3	<3	<3	<3	<3	11	<3	<3	<3
Berylium, Be	mg/kg	20	80	1	<1										
Cadmium, Cd	mg/kg	20	80	1	<1	<0.3	<0.3	<0.3	<0.3	0	<0.3	0	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	100	400	2	2	9	2	4	2	23	2	13	12	2	4
Lead, Pb	mg/kg	100	400	5	<5	13	<1	9	<1	43	<1	74	14	<1	9
Nickel, Ni	mg/kg	40	160	2	<2	9.3	<0.5	3.4	<0.5	8.8	<0.5	8.5	0.8	<0.5	1.1
Mercury	mg/kg	4	16	0.10	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

ENGINEERING SOLUTIONS

Summary Table
Heavy Metals
Soil Results

Midal Cables Internaltional
Kingston Building

		Maximum values of specific contaminant concentration (SCC) for classification without TCLP		Description	TP5 0.3-0.4	TP6 0.3-0.35	TP6 0.4-0.5	TP6 0.7-0.8	TP7 0.1-0.2	TP7 0.3-0.4	TP8 0.1-0.2	TP8 0.5-0.6	TP9 0.4-0.5	TP10 0.1-0.2	TP10 0.4-0.5
		GSW	RSW	Sampled By	MBE	MBE	MBE	MBE	MBE	MBE	MBE	MBE	MBE	MBE	MBE
Analyte Name	Units	CT1	CT2	Reporting Limit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Arsenic, As	mg/kg	100	400	5	<3	<3	<3	<3	4	<3	3	<3	<3	6	<3
Berylium, Be	mg/kg	20	80	1	NT										
Cadmium, Cd	mg/kg	20	80	1	<0.3	1	<0.3	<0.3	1	<0.3	<0.3	<0.3	<0.3	1	<0.3
Chromium, Cr	mg/kg	100	400	2	2	160	3	2	76	1	11	3	2	61	1
Lead, Pb	mg/kg	100	400	5	1	41	4	<1	31	<1	19	2	<1	72	3
Nickel, Ni	mg/kg	40	160	2	0.8	6.9	0.6	0.6	11.0	<0.5	3.3	1.3	<0.5	16.0	<0.5
Mercury	mg/kg	4	16	0.10	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

		Maximum values of specific contaminant concentration (SCC) for classification without TCLP		Description	TP10 0.7-0.8	UCL 95
		GSW	RSW	Sampled By	MBE	
Analyte Name	Units	CT1	CT2	Reporting Limit	Result	
Arsenic, As	mg/kg	100	400	5	<3	
Berylium, Be	mg/kg	20	80	1		
Cadmium, Cd	mg/kg	20	80	1	<0.3	
Chromium, Cr	mg/kg	100	400	2	2	
Lead, Pb	mg/kg	100	400	5	<1	85
Nickel, Ni	mg/kg	40	160	2	<0.5	25
Mercury	mg/kg	4	16	0.10	<0.05	

ANALYTICAL REPORT

WORLD RECOGNISED ACCREDITATION

CLIENT DETAILS

Contact	James McMahon
Client	MB Engineering Solutions
Address	6/56 Industrial Drive Mayfield NSW 2304
Telephone	0427 893 668
Facsimile	+61 2 4913 5372
Email	james@mbengineering.com.au
Project	**MBE2016**
Order Number	**MBE2016**
Samples	26

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	**SE114050 R0**
Report Number	0000046748
Date Reported	06 Dec 2012
Date Received	04 Dec 2012

COMMENTS

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

Asbestos analysed by Approved Identifier Ravee Sivasubramaniam.

SIGNATORIES

Andy Sutton
Organics Chemist

Huong Crawford
Laboratory Manager

Ravee Sivasubramaniam
Hygienist

Snezana Kostoska
Inorganics Chemist

Parameter	Units	LOR	Sample Number SE114050.001 Sample Matrix Soil Sample Date 03 Dec 2012 Sample Name TP1 0.0-0.1	SE114050.002 Soil 03 Dec 2012 TP1 0.3-0.4	SE114050.003 Soil 03 Dec 2012 TP2 0.1-0.2	SE114050.004 Soil 03 Dec 2012 TP2 0.3-0.4
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**75**	**78**	**71**	**85**
d4-1,2-dichloroethane (Surrogate)	%	-	**79**	**83**	**74**	**91**
d8-toluene (Surrogate)	%	-	**72**	**76**	**77**	**82**
Bromofluorobenzene (Surrogate)	%	-	**82**	**87**	**75**	**89**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
Volatile Petroleum Hydrocarbons in Soil Method: AN433/AN434/AN410						
TRH C6-C9	mg/kg	20	<20	<20	<20	<20
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**75**	**78**	**71**	**85**
d4-1,2-dichloroethane (Surrogate)	%	-	**79**	**83**	**74**	**91**
d8-toluene (Surrogate)	%	-	**72**	**76**	**77**	**82**
Bromofluorobenzene (Surrogate)	%	-	**82**	**87**	**75**	**89**
VPH F Bands						
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25

Parameter	Units	LOR	Sample Number SE114050.001 Soil 03 Dec 2012 TP1 0.0-0.1	SE114050.002 Soil 03 Dec 2012 TP1 0.3-0.4	SE114050.003 Soil 03 Dec 2012 TP2 0.1-0.2	SE114050.004 Soil 03 Dec 2012 TP2 0.3-0.4
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**116**	**110**	**110**	**108**
2-fluorobiphenyl (Surrogate)	%	-	**102**	**100**	**102**	**100**
d14-p-terphenyl (Surrogate)	%	-	**110**	**106**	**106**	**106**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114050.001 Soil 03 Dec 2012 TP1 0.0-0.1	SE114050.002 Soil 03 Dec 2012 TP1 0.3-0.4	SE114050.003 Soil 03 Dec 2012 TP2 0.1-0.2	SE114050.004 Soil 03 Dec 2012 TP2 0.3-0.4
Total Fluoride in Soil Method: AN142							
Total Fluoride	mg/kg	40		-	-	-	-
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**8.7**	**1.7**	**4.2**	**1.6**
Copper, Cu	mg/kg	0.5		**11**	<0.5	**11**	<0.5
Lead, Pb	mg/kg	1		**13**	<1	**9**	<1
Nickel, Ni	mg/kg	0.5		**9.3**	<0.5	**3.4**	<0.5
Zinc, Zn	mg/kg	0.5		**210**	**1.8**	**130**	**1.6**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Fibre ID in bulk materials Method: AN602							
FibreID							
Asbestos Detected	No unit	-		-	-	-	-
Moisture Content Method: AN002							
% Moisture	%	0.5		**5.3**	**6.7**	**5.6**	**8.7**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114050.005 Soil 03 Dec 2012 TP3 0.0-0.2	SE114050.006 Soil 03 Dec 2012 TP3 0.3-0.4	SE114050.007 Soil 03 Dec 2012 TP4 0.0-0.1	SE114050.008 Soil 03 Dec 2012 TP4 0.1-0.2
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**81**	**77**	**79**	**72**
d4-1,2-dichloroethane (Surrogate)	%	-	**85**	**81**	**84**	**77**
d8-toluene (Surrogate)	%	-	**80**	**74**	**77**	**76**
Bromofluorobenzene (Surrogate)	%	-	**85**	**84**	**86**	**75**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
Volatile Petroleum Hydrocarbons in Soil Method: AN433/AN434/AN410						
TRH C6-C9	mg/kg	20	<20	<20	<20	<20
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**81**	**77**	**79**	**72**
d4-1,2-dichloroethane (Surrogate)	%	-	**85**	**81**	**84**	**77**
d8-toluene (Surrogate)	%	-	**80**	**74**	**77**	**76**
Bromofluorobenzene (Surrogate)	%	-	**85**	**84**	**86**	**75**
VPH F Bands						
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25

Parameter	Units	LOR	Sample Number SE114050.005 Sample Matrix Soil Sample Date 03 Dec 2012 Sample Name TP3 0.0-0.2	SE114050.006 Soil 03 Dec 2012 TP3 0.3-0.4	SE114050.007 Soil 03 Dec 2012 TP4 0.0-0.1	SE114050.008 Soil 03 Dec 2012 TP4 0.1-0.2
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**106**	**106**	**112**	**110**
2-fluorobiphenyl (Surrogate)	%	-	**100**	**100**	**100**	**102**
d14-p-terphenyl (Surrogate)	%	-	**106**	**102**	**106**	**104**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114050.005 Soil 03 Dec 2012 TP3 0.0-0.2	SE114050.006 Soil 03 Dec 2012 TP3 0.3-0.4	SE114050.007 Soil 03 Dec 2012 TP4 0.0-0.1	SE114050.008 Soil 03 Dec 2012 TP4 0.1-0.2
Total Fluoride in Soil Method: AN142						
Total Fluoride	mg/kg	40	-	-	-	-
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320						
Arsenic, As	mg/kg	3	<3	<3	**11**	<3
Cadmium, Cd	mg/kg	0.3	**0.4**	<0.3	**0.4**	<0.3
Chromium, Cr	mg/kg	0.3	**23**	**2.2**	**13**	**12**
Copper, Cu	mg/kg	0.5	**20**	<0.5	**56**	**2.6**
Lead, Pb	mg/kg	1	**43**	<1	**74**	**14**
Nickel, Ni	mg/kg	0.5	**8.8**	<0.5	**8.5**	**0.8**
Zinc, Zn	mg/kg	0.5	**3400**	**160**	**1600**	**3300**
Mercury in Soil Method: AN312						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Fibre ID in bulk materials Method: AN602						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
Moisture Content Method: AN002						
% Moisture	%	0.5	**5.7**	**4.7**	**8.0**	**4.6**

Parameter	Units	LOR	Sample Number SE114050.009 Sample Matrix Soil Sample Date 03 Dec 2012 Sample Name TP4 0.2-0.3	SE114050.010 Soil 03 Dec 2012 TP5 0.0-0.25	SE114050.011 Soil 03 Dec 2012 TP5 0.3-0.4	SE114050.012 Soil 03 Dec 2012 TP6 0.3-0.35
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**79**	**85**	**83**	**73**
d4-1,2-dichloroethane (Surrogate)	%	-	**84**	**89**	**86**	**86**
d8-toluene (Surrogate)	%	-	**79**	**81**	**80**	**77**
Bromofluorobenzene (Surrogate)	%	-	**82**	**92**	**88**	**86**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
Volatile Petroleum Hydrocarbons in Soil Method: AN433/AN434/AN410						
TRH C6-C9	mg/kg	20	<20	<20	<20	<20
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**79**	**85**	**83**	**73**
d4-1,2-dichloroethane (Surrogate)	%	-	**84**	**89**	**86**	**86**
d8-toluene (Surrogate)	%	-	**79**	**81**	**80**	**77**
Bromofluorobenzene (Surrogate)	%	-	**82**	**92**	**88**	**86**
VPH F Bands						
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114050.009 Soil 03 Dec 2012 TP4 0.2-0.3	SE114050.010 Soil 03 Dec 2012 TP5 0.0-0.25	SE114050.011 Soil 03 Dec 2012 TP5 0.3-0.4	SE114050.012 Soil 03 Dec 2012 TP6 0.3-0.35
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.2**
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.1**
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.4**
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.2**
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**114**	**112**	**114**	**94**
2-fluorobiphenyl (Surrogate)	%	-	**100**	**100**	**102**	**102**
d14-p-terphenyl (Surrogate)	%	-	**108**	**106**	**106**	**113**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114050.009 Soil 03 Dec 2012 TP4 0.2-0.3	SE114050.010 Soil 03 Dec 2012 TP5 0.0-0.25	SE114050.011 Soil 03 Dec 2012 TP5 0.3-0.4	SE114050.012 Soil 03 Dec 2012 TP6 0.3-0.35
Total Fluoride in Soil Method: AN142						
Total Fluoride	mg/kg	40	-	-	-	-
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320						
Arsenic, As	mg/kg	3	<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	**0.5**
Chromium, Cr	mg/kg	0.3	**1.9**	**3.7**	**2.0**	**160**
Copper, Cu	mg/kg	0.5	<0.5	**4.8**	<0.5	**15**
Lead, Pb	mg/kg	1	<1	**9**	**1**	**41**
Nickel, Ni	mg/kg	0.5	<0.5	**1.1**	**0.8**	**6.9**
Zinc, Zn	mg/kg	0.5	**43**	**240**	**19**	**900**
Mercury in Soil Method: AN312						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Fibre ID in bulk materials Method: AN602						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
Moisture Content Method: AN002						
% Moisture	%	0.5	**3.0**	**5.3**	**3.6**	**8.5**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114050.013 Soil 03 Dec 2012 TP6 0.4-0.5	SE114050.014 Soil 03 Dec 2012 TP6 0.7-0.8	SE114050.015 Soil 03 Dec 2012 TP7 0.1-0.2	SE114050.016 Soil 03 Dec 2012 TP7 0.3-0.4
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**75**	**83**	**71**	**73**
d4-1,2-dichloroethane (Surrogate)	%	-	**84**	**75**	**80**	**71**
d8-toluene (Surrogate)	%	-	**77**	**78**	**70**	**72**
Bromofluorobenzene (Surrogate)	%	-	**85**	**74**	**81**	**76**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
Volatile Petroleum Hydrocarbons in Soil Method: AN433/AN434/AN410						
TRH C6-C9	mg/kg	20	<20	<20	<20	<20
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**75**	**83**	**71**	**73**
d4-1,2-dichloroethane (Surrogate)	%	-	**84**	**75**	**80**	**71**
d8-toluene (Surrogate)	%	-	**77**	**78**	**70**	**72**
Bromofluorobenzene (Surrogate)	%	-	**85**	**74**	**81**	**76**
VPH F Bands						
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25

Parameter	Units	LOR	Sample Number SE114050.013 Soil 03 Dec 2012 TP6 0.4-0.5	SE114050.014 Soil 03 Dec 2012 TP6 0.7-0.8	SE114050.015 Soil 03 Dec 2012 TP7 0.1-0.2	SE114050.016 Soil 03 Dec 2012 TP7 0.3-0.4
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**112**	**82**	**76**	**87**
2-fluorobiphenyl (Surrogate)	%	-	**111**	**100**	**78**	**100**
d14-p-terphenyl (Surrogate)	%	-	**118**	**118**	**89**	**122**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114050.013 Soil 03 Dec 2012 TP6 0.4-0.5	SE114050.014 Soil 03 Dec 2012 TP6 0.7-0.8	SE114050.015 Soil 03 Dec 2012 TP7 0.1-0.2	SE114050.016 Soil 03 Dec 2012 TP7 0.3-0.4
Total Fluoride in Soil Method: AN142							
Total Fluoride	mg/kg	40		-	**61**	-	<40
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	**4**	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	**0.5**	<0.3
Chromium, Cr	mg/kg	0.3		**3.2**	**2.0**	**76**	**1.3**
Copper, Cu	mg/kg	0.5		**1.8**	<0.5	**36**	<0.5
Lead, Pb	mg/kg	1		**4**	<1	**31**	<1
Nickel, Ni	mg/kg	0.5		**0.6**	**0.6**	**11**	<0.5
Zinc, Zn	mg/kg	0.5		**140**	**24**	**690**	**24**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Fibre ID in bulk materials Method: AN602							
FibreID							
Asbestos Detected	No unit	-		-	-	-	-
Moisture Content Method: AN002							
% Moisture	%	0.5		**6.2**	**6.2**	**8.2**	**21**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114050.017 Soil 03 Dec 2012 TP8 0.1-0.2	SE114050.018 Soil 03 Dec 2012 TP8 0.5-0.6	SE114050.019 Soil 03 Dec 2012 TP9 0.4-0.5	SE114050.020 Soil 03 Dec 2012 TP10 0.1-0.2
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**75**	**75**	**79**	**77**
d4-1,2-dichloroethane (Surrogate)	%	-	**83**	**74**	**71**	**85**
d8-toluene (Surrogate)	%	-	**76**	**72**	**71**	**75**
Bromofluorobenzene (Surrogate)	%	-	**83**	**70**	**77**	**81**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
Volatile Petroleum Hydrocarbons in Soil Method: AN433/AN434/AN410						
TRH C6-C9	mg/kg	20	<20	<20	<20	<20
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**75**	**75**	**79**	**77**
d4-1,2-dichloroethane (Surrogate)	%	-	**83**	**74**	**71**	**85**
d8-toluene (Surrogate)	%	-	**76**	**72**	**71**	**75**
Bromofluorobenzene (Surrogate)	%	-	**83**	**70**	**77**	**81**
VPH F Bands						
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25

Parameter	Units	LOR	Sample Number SE114050.017 Sample Matrix Soil Sample Date 03 Dec 2012 Sample Name TP8 0.1-0.2	SE114050.018 Soil 03 Dec 2012 TP8 0.5-0.6	SE114050.019 Soil 03 Dec 2012 TP9 0.4-0.5	SE114050.020 Soil 03 Dec 2012 TP10 0.1-0.2
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	**82**
TRH C29-C36	mg/kg	45	<45	<45	<45	**120**
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	**200**
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	**200**
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.1**
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.3**
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.3**
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.6**
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.3**
Benzo(b)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	**1.0**
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.3**
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.6**
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.4**
Dibenzo(a&h)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	**0.5**
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	**3.1**
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**92**	**92**	**97**	**81**
2-fluorobiphenyl (Surrogate)	%	-	**103**	**104**	**109**	**108**
d14-p-terphenyl (Surrogate)	%	-	**120**	**112**	**117**	**117**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114050.017 Soil 03 Dec 2012 TP8 0.1-0.2	SE114050.018 Soil 03 Dec 2012 TP8 0.5-0.6	SE114050.019 Soil 03 Dec 2012 TP9 0.4-0.5	SE114050.020 Soil 03 Dec 2012 TP10 0.1-0.2
Total Fluoride in Soil Method: AN142							
Total Fluoride	mg/kg	40		-	<40	<40	-
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		**3**	<3	<3	**6**
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	**0.7**
Chromium, Cr	mg/kg	0.3		**11**	**3.1**	**1.9**	**61**
Copper, Cu	mg/kg	0.5		**14**	**0.6**	<0.5	**61**
Lead, Pb	mg/kg	1		**19**	**2**	<1	**72**
Nickel, Ni	mg/kg	0.5		**3.3**	**1.3**	<0.5	**16**
Zinc, Zn	mg/kg	0.5		**490**	**19**	**22**	**5200**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Fibre ID in bulk materials Method: AN602							
FibreID							
Asbestos Detected	No unit	-		-	-	-	-
Moisture Content Method: AN002							
% Moisture	%	0.5		**6.9**	**19**	**6.7**	**7.4**

Parameter	Units	LOR	Sample Number SE114050.021 Sample Matrix Soil Sample Date 03 Dec 2012 Sample Name TP10 0.4-0.5	SE114050.022 Soil 03 Dec 2012 TP10 0.7-0.8	SE114050.023 Soil 03 Dec 2012 QC1	SE114050.024 Soil 03 Dec 2012 QC2
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**76**	**81**	**77**	**72**
d4-1,2-dichloroethane (Surrogate)	%	-	**82**	**72**	**81**	**77**
d8-toluene (Surrogate)	%	-	**77**	**73**	**73**	**75**
Bromofluorobenzene (Surrogate)	%	-	**75**	**71**	**77**	**73**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
Volatile Petroleum Hydrocarbons in Soil Method: AN433/AN434/AN410						
TRH C6-C9	mg/kg	20	<20	<20	<20	<20
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**76**	**81**	**77**	**72**
d4-1,2-dichloroethane (Surrogate)	%	-	**82**	**72**	**81**	**77**
d8-toluene (Surrogate)	%	-	**77**	**73**	**73**	**75**
Bromofluorobenzene (Surrogate)	%	-	**75**	**71**	**77**	**73**
VPH F Bands						
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25

Parameter	Units	LOR	Sample Number SE114050.021 Sample Matrix Soil Sample Date 03 Dec 2012 Sample Name TP10 0.4-0.5	SE114050.022 Soil 03 Dec 2012 TP10 0.7-0.8	SE114050.023 Soil 03 Dec 2012 QC1	SE114050.024 Soil 03 Dec 2012 QC2
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**102**	**102**	**101**	**95**
2-fluorobiphenyl (Surrogate)	%	-	**108**	**103**	**106**	**105**
d14-p-terphenyl (Surrogate)	%	-	**110**	**116**	**108**	**112**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114050.021 Soil 03 Dec 2012 TP10 0.4-0.5	SE114050.022 Soil 03 Dec 2012 TP10 0.7-0.8	SE114050.023 Soil 03 Dec 2012 QC1	SE114050.024 Soil 03 Dec 2012 QC2
Total Fluoride in Soil Method: AN142							
Total Fluoride	mg/kg	40		-	<40	-	-
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**0.9**	**1.5**	**17**	**5.2**
Copper, Cu	mg/kg	0.5		**1.8**	<0.5	**3.7**	**2.2**
Lead, Pb	mg/kg	1		**3**	<1	**23**	**4**
Nickel, Ni	mg/kg	0.5		<0.5	<0.5	**0.9**	**0.6**
Zinc, Zn	mg/kg	0.5		**4.7**	**1.3**	**4400**	**120**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Fibre ID in bulk materials Method: AN602							
FibreID							
Asbestos Detected	No unit	-		-	-	-	-
Moisture Content Method: AN002							
% Moisture	%	0.5		**5.6**	**2.7**	**6.4**	**18**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114050.025 Material 03 Dec 2012 WP12	SE114050.026 Material 03 Dec 2012 WP13
VOC's in Soil Method: AN433/AN434				
Monocyclic Aromatic Hydrocarbons				
Benzene	mg/kg	0.1	-	-
Toluene	mg/kg	0.1	-	-
Ethylbenzene	mg/kg	0.1	-	-
m/p-xylene	mg/kg	0.2	-	-
o-xylene	mg/kg	0.1	-	-
Polycyclic VOCs				
Naphthalene	mg/kg	0.1	-	-
Surrogates				
Dibromofluoromethane (Surrogate)	%	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-
d8-toluene (Surrogate)	%	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-
Totals				
Total Xylenes*	mg/kg	0.3	-	-
Total BTEX*	mg/kg	-	-	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433/AN434/AN410				
TRH C6-C9	mg/kg	20	-	-
Surrogates				
Dibromofluoromethane (Surrogate)	%	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-
d8-toluene (Surrogate)	%	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-
VPH F Bands				
Benzene (F0)	mg/kg	0.1	-	-
TRH C6-C10 minus BTEX (F1)	mg/kg	25	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114050.025 Material 03 Dec 2012 WP12	SE114050.026 Material 03 Dec 2012 WP13
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403				
TRH C10-C14	mg/kg	20	-	-
TRH C15-C28	mg/kg	45	-	-
TRH C29-C36	mg/kg	45	-	-
TRH C37-C40	mg/kg	100	-	-
TRH C10-C36 Total	mg/kg	110	-	-
TRH C10-C40 Total	mg/kg	210	-	-
TRH F Bands				
TRH >C10-C16 (F2)	mg/kg	25	-	-
TRH >C16-C34 (F3)	mg/kg	90	-	-
TRH >C34-C40 (F4)	mg/kg	120	-	-
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420				
Naphthalene	mg/kg	0.1	-	-
2-methylnaphthalene	mg/kg	0.1	-	-
1-methylnaphthalene	mg/kg	0.1	-	-
Acenaphthylene	mg/kg	0.1	-	-
Acenaphthene	mg/kg	0.1	-	-
Fluorene	mg/kg	0.1	-	-
Phenanthrene	mg/kg	0.1	-	-
Anthracene	mg/kg	0.1	-	-
Fluoranthene	mg/kg	0.1	-	-
Pyrene	mg/kg	0.1	-	-
Benzo(a)anthracene	mg/kg	0.1	-	-
Chrysene	mg/kg	0.1	-	-
Benzo(b)fluoranthene	mg/kg	0.1	-	-
Benzo(k)fluoranthene	mg/kg	0.1	-	-
Benzo(a)pyrene	mg/kg	0.1	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	-	-
Dibenzo(a&h)anthracene	mg/kg	0.1	-	-
Benzo(ghi)perylene	mg/kg	0.1	-	-
Total PAH	mg/kg	0.8	-	-
Surrogates				
d5-nitrobenzene (Surrogate)	%	-	-	-
2-fluorobiphenyl (Surrogate)	%	-	-	-
d14-p-terphenyl (Surrogate)	%	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114050.025 Material 03 Dec 2012 WP12	SE114050.026 Material 03 Dec 2012 WP13
Total Fluoride in Soil Method: AN142				
Total Fluoride	mg/kg	40	-	-
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320				
Arsenic, As	mg/kg	3	-	-
Cadmium, Cd	mg/kg	0.3	-	-
Chromium, Cr	mg/kg	0.3	-	-
Copper, Cu	mg/kg	0.5	-	-
Lead, Pb	mg/kg	1	-	-
Nickel, Ni	mg/kg	0.5	-	-
Zinc, Zn	mg/kg	0.5	-	-
Mercury in Soil Method: AN312				
Mercury	mg/kg	0.05	-	-
Fibre ID in bulk materials Method: AN602				
FibreID				
Asbestos Detected	No unit	-	No	No
Moisture Content Method: AN002				
% Moisture	%	0.5	-	-

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.

Mercury in Soil Method: ME-(AU)-[ENV]AN312

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Mercury	LB030813	mg/kg	0.05	<0.05	0%	96%	90%
	LB030817	mg/kg	0.05	<0.05	0%	95%	93%

PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: ME-(AU)-[ENV]AN420

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Naphthalene	LB030800	mg/kg	0.1	<0.1	0%	98%	93%
	LB030801	mg/kg	0.1	<0.1	0%	99%	
2-methylnaphthalene	LB030800	mg/kg	0.1	<0.1	0%	NA	NA
	LB030801	mg/kg	0.1	<0.1	0%	NA	
1-methylnaphthalene	LB030800	mg/kg	0.1	<0.1	0%	NA	NA
	LB030801	mg/kg	0.1	<0.1	0%	NA	
Acenaphthylene	LB030800	mg/kg	0.1	<0.1	0%	96%	90%
	LB030801	mg/kg	0.1	<0.1	0%	102%	
Acenaphthene	LB030800	mg/kg	0.1	<0.1	0%	103%	94%
	LB030801	mg/kg	0.1	<0.1	0%	101%	
Fluorene	LB030800	mg/kg	0.1	<0.1	0%	NA	NA
	LB030801	mg/kg	0.1	<0.1	0%	NA	
Phenanthrene	LB030800	mg/kg	0.1	<0.1	0%	101%	94%
	LB030801	mg/kg	0.1	<0.1	0%	106%	
Anthracene	LB030800	mg/kg	0.1	<0.1	0%	100%	92%
	LB030801	mg/kg	0.1	<0.1	0%	104%	
Fluoranthene	LB030800	mg/kg	0.1	<0.1	0%	104%	97%
	LB030801	mg/kg	0.1	<0.1	0%	104%	
Pyrene	LB030800	mg/kg	0.1	<0.1	0%	100%	95%
	LB030801	mg/kg	0.1	<0.1	0%	103%	
Benzo(a)anthracene	LB030800	mg/kg	0.1	<0.1	0%	NA	NA
	LB030801	mg/kg	0.1	<0.1	0%	NA	
Chrysene	LB030800	mg/kg	0.1	<0.1	0%	NA	NA
	LB030801	mg/kg	0.1	<0.1	0%	NA	
Benzo(b)fluoranthene	LB030800	mg/kg	0.1	<0.1	0%	NA	NA
	LB030801	mg/kg	0.1	<0.1	0%	NA	
Benzo(k)fluoranthene	LB030800	mg/kg	0.1	<0.1	0%	NA	NA
	LB030801	mg/kg	0.1	<0.1	0%	NA	
Benzo(a)pyrene	LB030800	mg/kg	0.1	<0.1	0%	102%	95%
	LB030801	mg/kg	0.1	<0.1	0%	118%	
Indeno(1,2,3-cd)pyrene	LB030800	mg/kg	0.1	<0.1	0%	NA	NA
	LB030801	mg/kg	0.1	<0.1	0%	NA	
Dibenzo(a&h)anthracene	LB030800	mg/kg	0.1	<0.1	0%	NA	NA
	LB030801	mg/kg	0.1	<0.1	0%	NA	
Benzo(ghi)perylene	LB030800	mg/kg	0.1	<0.1	0%	NA	NA
	LB030801	mg/kg	0.1	<0.1	0%	NA	
Total PAH	LB030800	mg/kg	0.8	<0.8	0%	NA	NA
	LB030801	mg/kg	0.8	<0.8	0%	NA	

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
d5-nitrobenzene (Surrogate)	LB030800	%	-	104%	2 - 4%	100%	108%
	LB030801	%	-	102%	6%	101%	
2-fluorobiphenyl (Surrogate)	LB030800	%	-	102%	0 - 6%	96%	102%
	LB030801	%	-	108%	0%	106%	
d14-p-terphenyl (Surrogate)	LB030800	%	-	100%	4%	102%	106%
	LB030801	%	-	116%	3%	104%	

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.

Total Fluoride in Soil **Method: ME-(AU)-[ENV]AN142**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MSD %RPD
Total Fluoride	LB030827	mg/kg	40	<40	13%	105%	NA

Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest **Method: ME-(AU)-[ENV]AN040/AN320**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Arsenic, As	LB030807	mg/kg	3	<3	0%	96%	69%
	LB030808	mg/kg	3	<3	0%	93%	70%
Cadmium, Cd	LB030807	mg/kg	0.3	<0.3	0%	98%	81%
	LB030808	mg/kg	0.3	<0.3	0%	96%	85%
Chromium, Cr	LB030807	mg/kg	0.3	<0.3	2 - 3%	97%	76%
	LB030808	mg/kg	0.3	<0.3	6%	96%	82%
Copper, Cu	LB030807	mg/kg	0.5	<0.5	0 - 26%	97%	85%
	LB030808	mg/kg	0.5	<0.5	2%	95%	105%
Lead, Pb	LB030807	mg/kg	1	<1	0 - 7%	97%	80%
	LB030808	mg/kg	1	<1	8%	95%	105%
Nickel, Ni	LB030807	mg/kg	0.5	<0.5	0 - 1%	97%	83%
	LB030808	mg/kg	0.5	<0.5	1%	95%	84%
Zinc, Zn	LB030807	mg/kg	0.5	<0.5	3 - 5%	97%	81%
	LB030808	mg/kg	0.5	<0.5	6%	96%	705%

TRH (Total Recoverable Hydrocarbons) in Soil **Method: ME-(AU)-[ENV]AN403**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
TRH C10-C14	LB030800	mg/kg	20	<20	0%	98%	95%
	LB030801	mg/kg	20	<20	0%	100%	
TRH C15-C28	LB030800	mg/kg	45	<45	0%	90%	88%
	LB030801	mg/kg	45	<45	0%	95%	
TRH C29-C36	LB030800	mg/kg	45	<45	0%	85%	88%
	LB030801	mg/kg	45	<45	0%	85%	
TRH C37-C40	LB030800	mg/kg	100	<100	0%	NA	NA
	LB030801	mg/kg	100	<100	0%	NA	
TRH C10-C36 Total	LB030800	mg/kg	110	<110	0%	NA	NA
	LB030801	mg/kg	110	<110	0%	NA	
TRH C10-C40 Total	LB030800	mg/kg	210	<210	0%	NA	NA
	LB030801	mg/kg	210	<210	0%	NA	

TRH F Bands

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
TRH >C10-C16 (F2)	LB030800	mg/kg	25	<25	0%	98%	95%
	LB030801	mg/kg	25	<25	0%	100%	
TRH >C16-C34 (F3)	LB030800	mg/kg	90	<90	0%	88%	85%
	LB030801	mg/kg	90	<90	0%	95%	
TRH >C34-C40 (F4)	LB030800	mg/kg	120	<120	0%	85%	NA
	LB030801	mg/kg	120	<120	0%	90%	

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.

VOC's in Soil Method: ME-(AU)-[ENV]AN433/AN434

Monocyclic Aromatic Hydrocarbons

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Benzene	LB030822	mg/kg	0.1	<0.1	0%	78 - 81%	71 - 75%
Toluene	LB030822	mg/kg	0.1	<0.1	0%	76 - 82%	76 - 77%
Ethylbenzene	LB030822	mg/kg	0.1	<0.1	0%	82 - 89%	82 - 83%
m/p-xylene	LB030822	mg/kg	0.2	<0.2	0%	82 - 91%	76 - 83%
o-xylene	LB030822	mg/kg	0.1	<0.1	0%	84 - 93%	76 - 83%

Polycyclic VOCs

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Naphthalene	LB030822	mg/kg	0.1	<0.1	0%	NA	NA

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Dibromofluoromethane (Surrogate)	LB030822	%	-	71 - 93%	1 - 9%	71 - 87%	73 - 81%
d4-1,2-dichloroethane (Surrogate)	LB030822	%	-	78 - 97%	3 - 9%	76 - 91%	76 - 84%
d8-toluene (Surrogate)	LB030822	%	-	71 - 95%	1 - 9%	71 - 87%	72 - 79%
Bromofluorobenzene (Surrogate)	LB030822	%	-	74 - 99%	1 - 8%	96 - 100%	88 - 91%

Totals

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Total Xylenes*	LB030822	mg/kg	0.3	<0.3	0%	NA	NA
Total BTEX*	LB030822	mg/kg	-	0	0%	NA	NA

Volatile Petroleum Hydrocarbons in Soil Method: ME-(AU)-[ENV]AN433/AN434/AN410

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
TRH C6-C9	LB030822	mg/kg	20	<20	0%	99 - 101%	95%

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Dibromofluoromethane (Surrogate)	LB030822	%	-	71 - 93%	1 - 9%	71 - 87%	73 - 81%
d4-1,2-dichloroethane (Surrogate)	LB030822	%	-	78 - 97%	3 - 9%	76 - 91%	76 - 84%
d8-toluene (Surrogate)	LB030822	%	-	71 - 95%	1 - 9%	71 - 87%	72 - 79%
Bromofluorobenzene (Surrogate)	LB030822	%	-	74 - 99%	1 - 8%	96 - 100%	88 - 91%

VPH F Bands

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Benzene (F0)	LB030822	mg/kg	0.1	<0.1	0%	NA	NA
TRH C6-C10 minus BTEX (F1)	LB030822	mg/kg	25	<25	0%	123 - 131%	124 - 133%

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	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 analsysis by ASS or ICP as per USEPA Method 200.8.
AN088	Orbital rolling for Organic pollutants are extracted from soil/sediment by transferring an appropriate mass of sample to a clear soil jar and extracting with 1:1 Dichloromethane/Acetone. Orbital Rolling method is intended for the extraction of semi-volatile organic compounds from soil/sediment samples, and is based somewhat on USEPA method 3570 (Micro Organic extraction and sample preparation). Method 3700.
AN142	Fluoride can be measured in soil as water extractable or 'total' by Ion Selective electrode. In this method the solid sample is weighed and then fused with sodium hydroxide at 600°C. The sample is carefully neutralise with hydrochloric acid and the solution of the melt is cooled and made up to volume. The final solution is then compared to synthetic Digestion Matrix standards with analysis by ISE electrode for a total fluoride result after being calculated back to original mass.
AN312	Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the Draft NEPM 2011, >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is not corrected for Naphthalene.
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, dependant on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.
AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN433/AN434	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.
AN433/AN434/AN410	VOCs and C6-C9/C6-C10 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.

METHOD SUMMARY

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.

FOOTNOTES

IS	Insufficient sample for analysis.
LNR	Sample listed, but not received.
*	This analysis is not covered by the scope of accreditation.
^	Performed by outside laboratory.
LOR	Limit of Reporting
↑↓	Raised or Lowered Limit of Reporting
QFH	QC result is above the upper tolerance
QFL	QC result is below the lower tolerance
-	The sample was not analysed for this analyte
NVL	Not Validated

Samples analysed as received.
Solid samples expressed on a dry weight basis.

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

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.pv.sgsv3/~/media/Local/Australia/Documents/Technical%20Documents/MP-AU-ENV-QU-022%20QA%20QC%20Plan.pdf

This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.au.sgs.com/terms_and_conditions_au. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any other 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 and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

This report must not be reproduced, except in full.

ANALYTICAL REPORT

CLIENT DETAILS

Contact	James McMahon
Client	MB Engineering Solutions
Address	6/56 Industrial Drive Mayfield NSW 2304
Telephone	0427 893 668
Facsimile	+61 2 4913 5372
Email	james@mbengineering.com.au
Project	**MBE2016**
Order Number	**MBE2016**
Samples	26

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	SE114050 R0
Report Number	0000046750
Date Reported	06/12/2012 15:44:16
Date Received	04 Dec 2012

COMMENTS

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

Asbestos analysed by Approved Identifier Ravee Sivasubramaniam.

SIGNATORIES

Andy Sutton
Organics Chemist

Huong Crawford
Laboratory Manager

Ravee Sivasubramaniam
Hygienist

Snezana Kostoska
Inorganics Chemist

ANALYTICAL REPORT

RESULTS

Fibre ID in bulk materials — Method AN602

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Fibre Identification	Est.%w/w
SE114050.025	WP12	Other	40x40x3mm Cement sheet	03 Dec 2012	No Asbestos Detected	
SE114050.026	WP13	Other	100x60x20mm Cement board	03 Dec 2012	No Asbestos Detected	

METHOD SUMMARY

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.

FOOTNOTES

Amosite	-	Brown Asbestos	NA	-	Not Analysed
Chrysotile	-	White Asbestos	LNR	-	Listed, Not Required
Crocidolite	-	Blue Asbestos	*	-	Not Accredited
Amphiboles	-	Amosite and/or Crocidolite			

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 polarized light microscopy, including dispersion staining.
Where reported: 'No Asbestos Found': No Asbestos Found by polarized light microscopy, including dispersion staining.
Where reported: 'UMF Detected': Mineral fibres of unknown type detected by polarized 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.pv.sgsv3/~/media/Local/Australia/Documents/Technical%20Documents/MP-AU-ENV-QU-022%20QA%20QC%20Plan.pdf

This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.au.sgs.com/terms_and_conditions_au. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any other 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 and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

This test report shall not be reproduced, except in full.

8 April 2013
Brad Hughes
Midal Cables International Pty Ltd
PO Box 322
RAYMOND TERRACE NSW 2324

Dear Brad

RE: EXCAVATED NATURAL MATERIAL ASSESSMENT
LOT 11 MCINTYRE RD, TOMAGO

1 INTRODUCTION

MB Engineering Solutions Pty Ltd (MBES) was commissioned by Midal Cables International Pty Ltd (Midal) to undertake an Excavated Natural Material (ENM) Exemption Assessment for Lot 11 DP 270328 McIntyre Rd, Tomago NSW (the site). It assumed the site is approximately 2.5 hectares.

The Midal Cables Project at the site may potentially generate approximately 9,000m^3 of excess spoil that will require offsite disposal. A virgin excavated natural material (VENM) and waste classification assessment was conducted on the potential spoil by MBES (MBES ref MBE2016-Report, Dec 2012). It was assessed that the surface soils of site has been impacted by a combination of past industrial activities, sand mining, contaminated groundwater and acid sulfate soils hence the subsoils on site could not be classified as VENM

Analytical results for the underlying sands on site indicated that the underlying sands are likely to meet the requirements of the NSW Office of the Environment and Heritage (NOEH) *Protection of the Environment Operations (Waste) Regulation 2005 – General Exemption Under Part 6, Clause 51 and 51A The Excavated Natural Material Exemption 2012* (ENM Exemption). To save time during construction excess spoil is preferred to be excavated and loaded directly onto trucks for offsite disposal.

The following scope of work was undertaken:

- Preparation of Site Safe Work Method Statements and associated documentation;
- Field investigations;
- Laboratory Testing; and
- Data assessment and reporting

2 FIELDWORK

The subsurface sands were sampled on 8 and 9 January 2013 by a MBES Environmental Scientist. 35 bore holes were drilled using a 150mm augur mounted on a mini excavator to a target depth of 2m below ground surface (MBGS). Samples were collected from the auger with care taken to remove the

MB Engineering Solutions Pty Ltd
PO Box 775
The Junction NSW 2291
ABN 82 131 293 822

outer layer of sand before sampling to avoid cross contamination. Samples were collected from 1m and 2m below ground surface. The location of the bore holes are shown in Figure 1. It should be noted the ground surface level has been altered due to preliminary groundwork for the project that was on going at the time of sampling.

One sample was collected from 3mbgs in the vicinity of the location of borehole TP23 on 12 March 2013. The sample was field screened for the presence of potential acid sulfate soils ASS.

No staining or odours were apparent during sampling activities. The auger was decontaminated between sampling. Disposable nitrile gloves were changed between the collections of each sample.

The samples were stored in 250ml glass jars and 6kg bags. The 250mL jars were transported in an ice-filled cooler box for transport to SGS Australia Pty Ltd (SGS) for analysis under chain of custody conditions. Seven field duplicates were also collected in 250ml jars. The 6 kg bags were delivered to Qualtest Pty Ltd by MBES.

3 ANALYTICAL SUITE

Seventy one (+eight field duplicates, including the additional sample collected 12 March 2013) jar samples were analysed by SGS for:

- Eight Metals (arsenic, cadmium, chromium, copper, lead, nickel, zinc, and mercury);
- Benzene, toluene, ethylbenzene, xylenes;
- Total Polycyclic Aromatic Hydrocarbons
- Benzo[a]pyrene
- Electrical Conductivity (EC); and
- pH

Seventy one bag samples, including the additional sample collected 12 March 2013, were analysed by Qualtest for:

- Foreign materials by mass, including;
    - Rubber, plastic, paper, cloth, paint, wood and other vegetable matter.

Both laboratories are NATA accredited for the analysis undertaken.

4 RESULTS AND DISCUSSION

4.1 Field Results

Thirty five boreholes were drilled and samples were collected from 1m and 2m below ground surface. This was sufficient sampling to characterise the subsoil a 2.5 hectare site to a maximum depth of 2m. The diameter of a hot spot can be detected with 95% confidence is 31.5m in accordance with ENM Exemption. Near sampling location TP23 an additional sample (labelled TP31 3m) was collected at 3mbgs and field screened for ASS which indicated that the sample was unlikely to contain ASS.

Sand was encountered at surface in the northern section of site where preliminary groundwork had commenced. In undisturbed areas the surface was covered with fill 0.1-0.2m (gravelly/sandy clay) or asphalt. Large concrete footings were present near the centre of site.

In general, the sand on site was:

- Fine–medium grained;
- Yellow, light brown, brown, dark brown, or white; and

MB Engineering Solutions Pty Ltd
PO Box 775
The Junction NSW 2291
ABN 82 131 293 822

- Some traces of gravel.

Sand collected from TP7 at 2m was black and fine to medium grained.

4.2 Quality Assurance / Quality Control

SGS conducted internal quality control using spikes, laboratory duplicates and method blanks. The laboratory internal quality control testing showed method blank results below the laboratory limit of reporting and duplicate results, laboratory control spike and matrix spike recoveries within control limits. The exception was zinc which reported a matrix spike recovery of 52%. The failed spike recovery for zinc failed due to the significant concentration of zinc in the sample compared to the concentration of the spike solution. SGS is NATA certified for the analysis undertaken for this exemption.

Seven field duplicates were analysed by SGS. The relative percentage difference (RPD) between the primary and duplicate Zinc (QC5, 6, 8, 9 and 10) and electrical conductivity were outside the acceptance criteria of 50%. The remaining RPDs were within the acceptance criteria.

Based on review of the QA/QC data (>95% of the QC data was within acceptance criteria), it is considered that the results are likely to be representative of conditions at the sampling locations at the time of sampling and are suitable for use in the resource recovery exemption.

4.3 Laboratory Results

The test results show no exceedances for the Absolute Maximum and Maximum Average Concentrations for the analytes tested with the exception of TPH C_{10}-C_{36} in samples TP34 1m and TP34 2m and zinc in sample TP34 1m. Table 1, below, summarises the average and maximum concentrations. Table 2, attached, summarises the data and presents the individual results and average values of the data, and compares the results to the ENM exemption criteria.

Table 1: Average and Maximum Analyte Concentration Summary

		Maximum average concentration for characterisation	Absolute maximum concentration	Laboratory* Average Concentration	Laboratory* Maximum Concentration
Analyte Name	**Units**				
Benzene	mg/kg	NA	0.5	<0.1	<0.1
Toluene	mg/kg	NA	65	<0.1	<0.1
Ethylbenzene	mg/kg	NA	25	<0.1	<0.1
Total Xylenes	mg/kg	NA	15	<0.3	<0.3
TRH C10-C36 Total	mg/kg	250	500	<110	<110
Benzo(a)pyrene	mg/kg	0.5	1	<0.1	<0.1
Total PAH	mg/kg	20	40	<0.8	<0.8
pH	No unit	5 to 9	4.5 to 10	6.2	8.2
Conductivity	dS/m	1.5	3	0.02	0.2
Arsenic	mg/kg	20	40	<3	<3
Cadmium	mg/kg	0.5	1	<0.3.	<0.3

MB Engineering Solutions Pty Ltd
PO Box 775
The Junction NSW 2291
ABN 82 131 293 822

		Maximum average concentration for characterisation	Absolute maximum concentration	Laboratory* Average Concentration	Laboratory* Maximum Concentration
Chromium	mg/kg	75	150	2.1	17
Copper	mg/kg	100	200	2.2	9.1
Lead	mg/kg	50	100	2.6	12
Nickel	mg/kg	30	60	1	4.3
Zinc	mg/kg	150	300	26	190
Mercury	mg/kg	0.5	1	<0.05	<0.05
Rubber, plastic, bitumen, paper, cloth, paint and wood	%	0.05	0.1	0.0	0.1
* Samples TP34 1m and TP34 2m excluded from the data set.					

5 CONCLUSION

Based on the data presented, the sand as described in Section 4.1 meets the criteria for the ENM Exemption to a depth of 2mbgs and locations TP1-33 and TP 35. Sand excavated from 3mbgs in the vicinity of location TP23 can also be considered ENM. Soil excavated within a 31.5 diameter of TP34 is excluded and can be kept on site.

The findings contained in this report are the result of discrete / specific methodologies used in accordance with normal practices and standards. To the best of our knowledge, they represent a reasonable interpretation of the general condition of the stockpile sampled. This report has been provided by MBES for the benefit of MIDAL only.

We trust this meets your requirements at this time. Should you have any questions, please do not hesitate to contact the undersigned.

For and on behalf of MB Engineering Solutions Pty Ltd

James McMahon

Principal Environmental Scientist

Attachments
Figure 1
Table 2
Laboratory Certificates

Note: MBE2017-Report was revised to allow for the additional sample collected on 12 March 2013.

MB Engineering Solutions Pty Ltd
PO Box 775
The Junction NSW 2291
ABN 82 131 293 822

Drawing Number	Figure 1	**Scale**	Not to Scale	**MIDAL CABLES PROJECT TOMAGO**		
Title	ENM Sampling Locations	**Page Size**	A3			
Client	Midal Cable International Pty Ltd	**Revision**	0	**North →**	**Legend**	⊙ Approximate bore hole location
Site	Lot 11 DP 270328 McIntyre Rd, Tomago NSW					Approximate site boundary

MB ENGINEERING SOLUTIONS

TABLE 2
Midal Cables International P/L
Excavated Natural Material Assessment

8 April 2013

		Maximum average concentration for characterisation	Absolute maximum concentration	**Description**	TP1 1m	QC9	%RPD	TP1 2m	TP2 1m	TP2 2m	TP3 1m	QC10	%RPD	TP3 2m	TP4 1m	TP4 2m	TP5 1m	TP5 2m
				Sample Date	9/1/2013	9/1/2013		9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013		9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013
				Matrix	Soil	Soil		Soil	Soil	Soil	Soil	Soil		Soil	Soil	Soil	Soil	Soil
Analyte Name	**Units**			**Reporting Limit**	**Result**	**Result**		**Result**	**Result**	**Result**	**Result**	**Result**		**Result**	**Result**	**Result**	**Result**	**Result**
Benzene	mg/kg	NA	0.5	0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	NA	65	0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	NA	25	0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	NA	15	0.3	<0.3	<0.3		<0.3	<0.3	<0.3	<0.3	<0.3		<0.3	<0.3	<0.3	<0.3	<0.3
TRH C10-C36 To	mg/kg	250	500	110	<110	<110		<110	<110	<110	<110	<110		<110	<110	<110	<110	<110
Benzo(a)pyrene	mg/kg	0.5	1	0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1
Total PAH	mg/kg	20	40	0.8	<0.8	<0.8		<0.8	<0.8	<0.8	<0.8	<0.8		<0.8	<0.8	<0.8	<0.8	<0.8
pH	No unit	5 to 9	4.5 to 10	0	**6.8**	**6.3**	**8%**	**6.2**	**5.2**	**6.5**	**6.3**	**6.5**	**3%**	**6.4**	**6.1**	**5.9**	**5.9**	**6.0**
Conductivity	dS/m	1.5	3	1	**0.02**	**0.02**	**15%**	**0.02**	**0.21**	**0.02**	**0.02**	**0.03**	**4%**	**0.01**	**0.01**	**0.01**	**0.01**	**0.02**
Arsenic	mg/kg	20	40	3	<3	<3		<3	<3	<3	<3	<3		<3	<3	<3	<3	<3
Cadmium	mg/kg	0.5	1	0.3	<0.3	<0.3		<0.3	<0.3	<0.3	<0.3	<0.3		<0.3	<0.3	<0.3	<0.3	<0.3
Chromium	mg/kg	75	150	0.3	**2.1**	**2.3**	**9%**	**1.9**	**1.1**	**1.8**	**1.5**	**1.8**	**18%**	**1.1**	**1.1**	**1.1**	**1.6**	**0.7**
Copper	mg/kg	100	200	0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Lead	mg/kg	50	100	1	<1	<1		<1	<1	<1	<1	<1		<1	<1	<1	**1**	<1
Nickel	mg/kg	30	60	0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Zinc	mg/kg	150	300	0.5	**0.8**	**1.8**	**77%**	**0.6**	**1.3**	**7.6**	**3.5**	**9.3**	**91%**	**1.8**	**1.4**	**1.3**	**6.1**	**4.8**
Mercury	mg/kg	0.5	1	0.05	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05
Rubber, plastic, bitumen, paper, cloth, paint and wood	%	0.05	0%	0	0.0			0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0

TABLE 2
Midal Cables International P/L
Excavated Natural Material Assessment

8 April 2013

		Maximum average concentration for characterisation	Absolute maximum concentration	TP6 1m	TP6 2m	TP7 1m	TP7 2m	TP8 1m	TP8 2m	TP9 1m	TP9 2m	QC11	%RPD	TP10 1m	TP10 2m	TP11 1m	TP11 2m	TP12 1m	TP12 2m	TP13 1m
				9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013		9/1/2013	9/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013
				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		Soil	Soil	Soil	Soil	Soil	Soil	Soil
Analyte Name	**Units**			**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**		**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
Benzene	mg/kg	NA	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	NA	65	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	NA	25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	NA	15	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3		<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
TRH C10-C36 To	mg/kg	250	500	<110	<110	<110	<110	<110	<110	<110	<110	<110		<110	<110	<110	<110	<110	<110	<110
Benzo(a)pyrene	mg/kg	0.5	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total PAH	mg/kg	20	40	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8		<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
pH	No unit	5 to 9	4.5 to 10	**6.6**	**6.3**	**6.8**	**6.2**	**6.7**	**6.3**	**7.1**	**5.8**	**6.1**	**5%**	**4.7**	**5.6**	**7.6**	**8.2**	**6.4**	**6.6**	**5.9**
Conductivity	dS/m	1.5	3	**0.01**	**0.01**	**0.03**	**0.02**	**0.01**	**0.01**	**0.02**	**0.01**	**0.01**	**55%**	**0.02**	**0.03**	**0.04**	**0.04**	**0.01**	**0.02**	**0.01**
Arsenic	mg/kg	20	40	<3	<3	<3	<3	<3	<3	<3	<3	<3		<3	<3	<3	<3	<3	<3	<3
Cadmium	mg/kg	0.5	1	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3		<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium	mg/kg	75	150	**1.5**	**1.0**	**17**	**9.1**	**1.8**	**2.0**	**1.4**	**1.8**	**1.7**	**6%**	**2.3**	**2.2**	**2.3**	**2.7**	**1.6**	**1.1**	**1.2**
Copper	mg/kg	100	200	<0.5	<0.5	**9.7**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	**1.5**	**2.6**	**0.5**	<0.5	<0.5
Lead	mg/kg	50	100	<1	<1	**12**	**3**	<1	<1	<1	<1	<1		<1	**1**	**2**	**3**	**1**	<1	<1
Nickel	mg/kg	30	60	<0.5	<0.5	**4.3**	**0.6**	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	**0.6**	**0.9**	**1.5**	<0.5	<0.5	<0.5
Zinc	mg/kg	150	300	**1.1**	**23**	**170**	**3.9**	**2.7**	**0.7**	**1.4**	**3.1**	**4.6**	**39%**	**12**	**25**	**46**	**67**	**6.0**	**1.5**	**2.0**
Mercury	mg/kg	0.5	1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Rubber, plastic, bitumen, paper, cloth, paint and wood	%	0.05	0%	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 2
Midal Cables International P/L
Excavated Natural Material Assessment

8 April 2013

		Maximum average concentration for characterisation	Absolute maximum concentration	TP13 2m	TP14 1m	TP14 2m	TP15 1m	TP15 2m	TP16 1m	TP16 2m	TP17 1m	TP17 2m	TP18 1m	TP18 2m	TP19 1m	TP19 2m	TP20 1m	TP20 2m	TP21 1m	TP21 2m
				8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013
				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Analyte Name	**Units**			**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
Benzene	mg/kg	NA	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	NA	65	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	NA	25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	NA	15	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
TRH C10-C36 To	mg/kg	250	500	<110	<110	<110	<110	<110	<110	<110	<110	<110	<110	<110	<110	<110	<110	<110	<110	<110
Benzo(a)pyrene	mg/kg	0.5	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total PAH	mg/kg	20	40	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
pH	No unit	5 to 9	4.5 to 10	**5.9**	**6.0**	**5.8**	**5.8**	**5.6**	**5.1**	**6.1**	**6.5**	**6.6**	**6.8**	**6.7**	**6.9**	**6.6**	**4.9**	**4.5**	**5.8**	**5.9**
Conductivity	dS/m	1.5	3	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.04**	**0.01**	**0.02**	**0.02**	**0.02**	**0.04**	**0.04**	**0.02**	**0.01**	**0.02**	**0.01**	**0.01**
Arsenic	mg/kg	20	40	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Cadmium	mg/kg	0.5	1	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium	mg/kg	75	150	**1.2**	**1.1**	**1.1**	**1.3**	**1.2**	**1.1**	**1.6**	**1.4**	**0.8**	**2.5**	**6.1**	**4.6**	**1.9**	**1.0**	**1.8**	**1.3**	**1.4**
Copper	mg/kg	100	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.5**	**1.3**	**5.9**	**1.3**	<0.5	<0.5	<0.5	<0.5
Lead	mg/kg	50	100	<1	<1	<1	<1	<1	<1	<1	**1**	<1	**1**	**4**	**7**	**2**	<1	<1	<1	<1
Nickel	mg/kg	30	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	**3.3**	**0.9**	<0.5	<0.5	<0.5	<0.5
Zinc	mg/kg	150	300	**1.7**	**1.4**	**1.2**	**1.5**	**1.2**	**1.3**	**0.7**	**50**	**12**	**24**	**50**	**140**	**29**	**1.0**	**1.8**	**2.4**	**1.1**
Mercury	mg/kg	0.5	1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Rubber, plastic, bitumen, paper, cloth, paint and wood	%	0.05	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 2
Midal Cables International P/L
Excavated Natural Material Assessment

8 April 2013

		Maximum average concentration for characterisation	Absolute maximum concentration	TP22 1m	TP22 2m	TP23 1m	TP23 2m	TP24 1m	TP24 2m	QC5	%RPD	TP25 1m	TP25 2m	TP26 1m	QC7	%RPD	TP26 2m	TP27 1m	TP27 2m	TP31 3m
				8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	9/1/2013		8/1/2013	8/1/2013	8/1/2013	9/1/2013		8/1/2013	8/1/2013	8/1/2013	12/3/2301
				Soil	Soil	Soil	Soil	Soil	Soil	Soil		Soil	Soil	Soil	Soil		Soil	Soil	Soil	Soil
Analyte Name	**Units**			**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**		**Result**	**Result**	**Result**	**Result**		**Result**	**Result**	**Result**	**Result**
Benzene	mg/kg	NA	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	NA	65	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	NA	25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	NA	15	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3		<0.3	<0.3	<0.3	<0.3		<0.3	<0.3	<0.3	<0.3
TRH C10-C36 To	mg/kg	250	500	<110	<110	<110	<110	<110	<110	<110		<110	<110	<110	<110		<110	<110	<110	<110
Benzo(a)pyrene	mg/kg	0.5	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1
Total PAH	mg/kg	20	40	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8		<0.8	<0.8	<0.8	<0.8		<0.8	<0.8	<0.8	<0.8
pH	No unit	5 to 9	4.5 to 10	**5.8**	**6.1**	**6.3**	**6.0**	**6.3**	**6.4**	**7.4**	**14%**	**6.7**	**6.7**	**5.7**	**6.3**	**10%**	**5.7**	**6.4**	**5.3**	**7.2**
Conductivity	dS/m	1.5	3	**0.01**	**0.02**	**0.03**	**0.02**	**0.12**	**0.01**	**0.01**	**0%**	**0.03**	**0.02**	**0.01**	**0.01**	**0%**	**0.01**	**0.02**	**0.01**	**0.03**
Arsenic	mg/kg	20	40	<3	<3	<3	<3	<3	<3	<3		<3	<3	<3	<3		<3	<3	<3	<3
Cadmium	mg/kg	0.5	1	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3		<0.3	<0.3	<0.3	<0.3		<0.3	<0.3	<0.3	<0.3
Chromium	mg/kg	75	150	**0.7**	**2.0**	**2.4**	**2.0**	**1.6**	**1.9**	**1.5**	**24%**	**1.7**	**1.7**	**1.6**	**1.7**	**6%**	**1.1**	**1.7**	**1.4**	**3.0**
Copper	mg/kg	100	200	<0.5	**1.1**	**1.4**	<0.5	**1.0**	<0.5	<0.5		<0.5	**1.1**	<0.5	<0.5		<0.5	<0.5	<0.5	1
Lead	mg/kg	50	100	<1	**2**	**3**	**1**	**2**	**1**	<1		<1	**2**	<1	<1		<1	<1	<1	2
Nickel	mg/kg	30	60	<0.5	**0.5**	**1.0**	**0.6**	<0.5	**0.6**	**0.6**	**0%**	**0.7**	<0.5	**0.6**	**0.6**	**0%**	<0.5	**0.8**	<0.5	**0.8**
Zinc	mg/kg	150	300	**1.8**	**42**	**120**	**12**	**21**	**13**	**1.7**	**154%**	**7.4**	**30**	**3.3**	**2.4**	**32%**	**7.9**	**8.0**	**6.6**	**66.0**
Mercury	mg/kg	0.5	1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05
Rubber, plastic, bitumen, paper, cloth, paint and wood	%	0.05	0%	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0	0.0	0.0

TABLE 2
Midal Cables International P/L
Excavated Natural Material Assessment

8 April 2013

		Maximum average concentration for characterisation	Absolute maximum concentration	TP28 1m	TP28 2m	TP29 1m	TP29 2m	TP30 1m	TP30 2m	TP31 1m	QC6	%RPD	TP31 2m	TP32 1m	TP32 2m	TP33 1m	QC8	%RPD	TP33 2m	TP34 1m
				8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	8/1/2013	9/1/2013	9/1/2013		9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013		9/1/2013	9/1/2013
				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		Soil	Soil	Soil	Soil	Soil		Soil	Soil
Analyte Name	**Units**			**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**		**Result**	**Result**	**Result**	**Result**	**Result**		**Result**	**Result**
Benzene	mg/kg	NA	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1
Toluene	mg/kg	NA	65	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1
Ethylbenzene	mg/kg	NA	25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1
Total Xylenes	mg/kg	NA	15	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3		<0.3	<0.3	<0.3	<0.3	<0.3		<0.3	<0.3
TRH C10-C36 To	mg/kg	250	500	<110	<110	<110	<110	<110	<110	<110	<110		<110	<110	<110	<110	<110		<110	**740**
Benzo(a)pyrene	mg/kg	0.5	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1
Total PAH	mg/kg	20	40	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8		<0.8	<0.8	<0.8	<0.8	<0.8		<0.8	<0.8
pH	No unit	5 to 9	4.5 to 10	**6.0**	**6.2**	**6.0**	**5.9**	**6.2**	**6.5**	**6.7**	**7.0**	**4%**	**6.8**	**6.0**	**5.8**	**6.4**	**6.7**	**5%**	**6.5**	**6.4**
Conductivity	dS/m	1.5	3	**0.01**	**0.01**	**0.02**	**0.02**	**0.02**	**0.02**	**0.03**	**0.02**	**20%**	**0.02**	**0.02**	**0.02**	**0.03**	**0.02**	**13%**	**0.01**	**0.03**
Arsenic	mg/kg	20	40	<3	<3	<3	<3	<3	<3	<3	<3		<3	<3	<3	<3	<3		<3	<3
Cadmium	mg/kg	0.5	1	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3		<0.3	<0.3	<0.3	<0.3	<0.3		<0.3	<0.3
Chromium	mg/kg	75	150	**1.9**	**1.7**	**2.5**	**2.7**	**2.4**	**1.5**	**2.2**	**2.2**	**0%**	**2.3**	**2.0**	**1.3**	**2.1**	**2.8**	**29%**	**2.7**	**4.1**
Copper	mg/kg	100	200	<0.5	<0.5	<0.5	**1.8**	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5		**0.6**	**1.2**
Lead	mg/kg	50	100	**1**	**1**	<1	**3**	**1**	<1	<1	<1		<1	<1	<1	<1	**1**	**0%**	**2**	**5**
Nickel	mg/kg	30	60	**0.6**	<0.5	**0.8**	**0.6**	**0.6**	<0.5	<0.5	<0.5		**0.5**	<0.5	<0.5	<0.5	<0.5		**0.6**	**0.6**
Zinc	mg/kg	150	300	**56**	**34**	**35**	**140**	**24**	**24**	**34**	**17**	**67%**	**3.5**	**1.6**	**4.8**	**92**	**19**	**132%**	**190**	**660**
Mercury	mg/kg	0.5	1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05
Rubber, plastic, bitumen, paper, cloth, paint and wood	%	0.05	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0			0.0	0.0

TABLE 2
Midal Cables International P/L
Excavated Natural Material Assessment

8 April 2013

		Maximum average concentration for	Absolute maximum concentration	TP34 2m	TP35 1m	TP35 2m
				9/1/2013	9/1/2013	9/1/2013
				Soil	Soil	Soil
Analyte Name	**Units**			**Result**	**Result**	**Result**
Benzene	mg/kg	NA	0.5	<0.1	<0.1	<0.1
Toluene	mg/kg	NA	65	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	NA	25	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	NA	15	<0.3	<0.3	<0.3
TRH C10-C36 To	mg/kg	250	500	**1900**	<110	<110
Benzo(a)pyrene	mg/kg	0.5	1	<0.1	<0.1	<0.1
Total PAH	mg/kg	20	40	<0.8	<0.8	<0.8
pH	No unit	5 to 9	4.5 to 10	**6.3**	**6.2**	**7.5**
Conductivity	dS/m	1.5	3	**0.01**	**0.01**	**0.06**
Arsenic	mg/kg	20	40	<3	<3	<3
Cadmium	mg/kg	0.5	1	<0.3	<0.3	<0.3
Chromium	mg/kg	75	150	**1.3**	**1.4**	**2.4**
Copper	mg/kg	100	200	<0.5	<0.5	**3.4**
Lead	mg/kg	50	100	<1	<1	**6**
Nickel	mg/kg	30	60	<0.5	<0.5	**0.7**
Zinc	mg/kg	150	300	**13**	**2.1**	**110**
Mercury	mg/kg	0.5	1	<0.05	<0.05	<0.05
Rubber, plastic, bitumen, paper, cloth, paint and wood	%	0.05	0%	0.0	0.0	0.0

ANALYTICAL REPORT

WORLD RECOGNISED ACCREDITATION

CLIENT DETAILS

Contact	James McMahon
Client	MB Engineering Solutions
Address	6/56 Industrial Drive Mayfield NSW 2304
Telephone	0427 893 668
Facsimile	+61 2 4913 5372
Email	james@mbengineering.com.au
Project	**MBE2017**
Order Number	**MBE2017**
Samples	77

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	**SE114571 R0**
Report Number	0000048699
Date Reported	17 Jan 2013
Date Received	10 Jan 2013

COMMENTS

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

SIGNATORIES

Andy Sutton
Organics Chemist

Dong Liang
Inorganics Metals Team Leader

Kamrul Ahsan
Metals Chemist

Ly Kim Ha
Organics Supervisor

Snezana Kostoska
Inorganics Chemist

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.001 Soil 09 Jan 2013 TP1 1m	SE114571.002 Soil 09 Jan 2013 TP1 2m	SE114571.003 Soil 09 Jan 2013 TP2 1m	SE114571.004 Soil 09 Jan 2013 TP2 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**83**	**93**	**92**	**96**
d4-1,2-dichloroethane (Surrogate)	%	-	**94**	**99**	**101**	**103**
d8-toluene (Surrogate)	%	-	**87**	**93**	**91**	**97**
Bromofluorobenzene (Surrogate)	%	-	**101**	**99**	**92**	**104**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number: SE114571.001 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: TP1 1m	SE114571.002 Soil 09 Jan 2013 TP1 2m	SE114571.003 Soil 09 Jan 2013 TP2 1m	SE114571.004 Soil 09 Jan 2013 TP2 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**120**	**106**	**112**	**110**
2-fluorobiphenyl (Surrogate)	%	-	**112**	**98**	**106**	**102**
d14-p-terphenyl (Surrogate)	%	-	**120**	**108**	**112**	**114**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**6.8**	**6.2**	**5.2**	**6.5**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.001 Soil 09 Jan 2013 TP1 1m	SE114571.002 Soil 09 Jan 2013 TP1 2m	SE114571.003 Soil 09 Jan 2013 TP2 1m	SE114571.004 Soil 09 Jan 2013 TP2 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**19**	**18**	**21**	**22**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**2.1**	**1.9**	**1.1**	**1.8**
Copper, Cu	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1		<1	<1	<1	<1
Nickel, Ni	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Zinc, Zn	mg/kg	0.5		**0.8**	**0.6**	**1.3**	**7.6**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**3.3**	**2.4**	**3.0**	**3.0**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.005 Soil 09 Jan 2013 TP3 1m	SE114571.006 Soil 09 Jan 2013 TP3 2m	SE114571.007 Soil 09 Jan 2013 TP4 1m	SE114571.008 Soil 09 Jan 2013 TP4 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**93**	**80**	**88**	**99**
d4-1,2-dichloroethane (Surrogate)	%	-	**95**	**83**	**102**	**107**
d8-toluene (Surrogate)	%	-	**87**	**72**	**86**	**97**
Bromofluorobenzene (Surrogate)	%	-	**94**	**83**	**95**	**101**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number: SE114571.005 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: TP3 1m	SE114571.006 Soil 09 Jan 2013 TP3 2m	SE114571.007 Soil 09 Jan 2013 TP4 1m	SE114571.008 Soil 09 Jan 2013 TP4 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**108**	**110**	**104**	**108**
2-fluorobiphenyl (Surrogate)	%	-	**100**	**100**	**98**	**102**
d14-p-terphenyl (Surrogate)	%	-	**112**	**114**	**112**	**114**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**6.3**	**6.4**	**6.1**	**5.9**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.005 Soil 09 Jan 2013 TP3 1m	SE114571.006 Soil 09 Jan 2013 TP3 2m	SE114571.007 Soil 09 Jan 2013 TP4 1m	SE114571.008 Soil 09 Jan 2013 TP4 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**24**	**14**	**10**	**6**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**1.5**	**1.1**	**1.1**	**1.1**
Copper, Cu	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1		<1	<1	<1	<1
Nickel, Ni	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Zinc, Zn	mg/kg	0.5		**3.5**	**1.8**	**1.4**	**1.3**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**3.8**	**4.9**	**3.5**	**4.3**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.009 Soil 09 Jan 2013 TP5 1m	SE114571.010 Soil 09 Jan 2013 TP5 2m	SE114571.011 Soil 09 Jan 2013 TP6 1m	SE114571.012 Soil 09 Jan 2013 TP6 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**88**	**106**	**96**	**96**
d4-1,2-dichloroethane (Surrogate)	%	-	**94**	**109**	**99**	**102**
d8-toluene (Surrogate)	%	-	**86**	**99**	**92**	**89**
Bromofluorobenzene (Surrogate)	%	-	**97**	**101**	**99**	**96**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.009 Soil 09 Jan 2013 TP5 1m	SE114571.010 Soil 09 Jan 2013 TP5 2m	SE114571.011 Soil 09 Jan 2013 TP6 1m	SE114571.012 Soil 09 Jan 2013 TP6 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**112**	**104**	**104**	**104**
2-fluorobiphenyl (Surrogate)	%	-	**106**	**100**	**100**	**98**
d14-p-terphenyl (Surrogate)	%	-	**118**	**116**	**116**	**112**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**5.9**	**6.0**	**6.6**	**6.3**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.009 Soil 09 Jan 2013 TP5 1m	SE114571.010 Soil 09 Jan 2013 TP5 2m	SE114571.011 Soil 09 Jan 2013 TP6 1m	SE114571.012 Soil 09 Jan 2013 TP6 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**14**	**16**	**14**	**13**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**1.6**	**0.7**	**1.5**	**1.0**
Copper, Cu	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1		**1**	<1	<1	<1
Nickel, Ni	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Zinc, Zn	mg/kg	0.5		**6.1**	**4.8**	**1.1**	**23**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**4.3**	**3.2**	**4.1**	**4.3**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.013 Soil 09 Jan 2013 TP7 1m	SE114571.014 Soil 09 Jan 2013 TP7 2m	SE114571.015 Soil 09 Jan 2013 TP8 1m	SE114571.016 Soil 09 Jan 2013 TP8 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**92**	**82**	**94**	**103**
d4-1,2-dichloroethane (Surrogate)	%	-	**99**	**92**	**111**	**109**
d8-toluene (Surrogate)	%	-	**84**	**73**	**78**	**91**
Bromofluorobenzene (Surrogate)	%	-	**93**	**82**	**104**	**106**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number: SE114571.013 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: TP7 1m	SE114571.014 Soil 09 Jan 2013 TP7 2m	SE114571.015 Soil 09 Jan 2013 TP8 1m	SE114571.016 Soil 09 Jan 2013 TP8 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**108**	**104**	**108**	**106**
2-fluorobiphenyl (Surrogate)	%	-	**102**	**100**	**100**	**102**
d14-p-terphenyl (Surrogate)	%	-	**114**	**112**	**114**	**112**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**6.8**	**6.2**	**6.7**	**6.3**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.013 Soil 09 Jan 2013 TP7 1m	SE114571.014 Soil 09 Jan 2013 TP7 2m	SE114571.015 Soil 09 Jan 2013 TP8 1m	SE114571.016 Soil 09 Jan 2013 TP8 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**34**	**24**	**8**	**5**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**17**	**9.1**	**1.8**	**2.0**
Copper, Cu	mg/kg	0.5		**9.7**	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1		**12**	**3**	<1	<1
Nickel, Ni	mg/kg	0.5		**4.3**	**0.6**	<0.5	<0.5
Zinc, Zn	mg/kg	0.5		**170**	**3.9**	**2.7**	**0.7**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**7.8**	**23**	**5.5**	**4.5**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.017 Soil 09 Jan 2013 TP9 1m	SE114571.018 Soil 09 Jan 2013 TP9 2m	SE114571.019 Soil 09 Jan 2013 TP10 1m	SE114571.020 Soil 09 Jan 2013 TP10 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**99**	**96**	**85**	**89**
d4-1,2-dichloroethane (Surrogate)	%	-	**111**	**104**	**95**	**106**
d8-toluene (Surrogate)	%	-	**88**	**85**	**74**	**81**
Bromofluorobenzene (Surrogate)	%	-	**97**	**95**	**76**	**96**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.017 Soil 09 Jan 2013 TP9 1m	SE114571.018 Soil 09 Jan 2013 TP9 2m	SE114571.019 Soil 09 Jan 2013 TP10 1m	SE114571.020 Soil 09 Jan 2013 TP10 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420							
Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8		<0.8	<0.8	<0.8	<0.8
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		**96**	**84**	**102**	**100**
2-fluorobiphenyl (Surrogate)	%	-		**92**	**86**	**96**	**94**
d14-p-terphenyl (Surrogate)	%	-		**112**	**104**	**104**	**108**
pH in soil (1:5) Method: AN101							
pH	No unit	-		**7.1**	**5.8**	**4.7**	**5.6**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.017 Soil 09 Jan 2013 TP9 1m	SE114571.018 Soil 09 Jan 2013 TP9 2m	SE114571.019 Soil 09 Jan 2013 TP10 1m	SE114571.020 Soil 09 Jan 2013 TP10 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**16**	**8**	**24**	**26**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**1.4**	**1.8**	**2.3**	**2.2**
Copper, Cu	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1		<1	<1	<1	**1**
Nickel, Ni	mg/kg	0.5		<0.5	<0.5	<0.5	**0.6**
Zinc, Zn	mg/kg	0.5		**1.4**	**3.1**	**12**	**25**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**21**	**22**	**4.0**	**4.7**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.021 Soil 09 Jan 2013 TP11 1m	SE114571.022 Soil 09 Jan 2013 TP11 2m	SE114571.023 Soil 09 Jan 2013 TP12 1m	SE114571.024 Soil 09 Jan 2013 TP12 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**99**	**91**	**85**	**79**
d4-1,2-dichloroethane (Surrogate)	%	-	**108**	**97**	**97**	**87**
d8-toluene (Surrogate)	%	-	**97**	**79**	**74**	**73**
Bromofluorobenzene (Surrogate)	%	-	**105**	**88**	**84**	**98**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.021 Soil 09 Jan 2013 TP11 1m	SE114571.022 Soil 09 Jan 2013 TP11 2m	SE114571.023 Soil 09 Jan 2013 TP12 1m	SE114571.024 Soil 09 Jan 2013 TP12 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420							
Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8		<0.8	<0.8	<0.8	<0.8
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		**100**	**102**	**106**	**100**
2-fluorobiphenyl (Surrogate)	%	-		**98**	**94**	**98**	**94**
d14-p-terphenyl (Surrogate)	%	-		**110**	**108**	**110**	**106**
pH in soil (1:5) Method: AN101							
pH	No unit	-		**7.6**	**8.2**	**6.4**	**6.6**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.021 Soil 09 Jan 2013 TP11 1m	SE114571.022 Soil 09 Jan 2013 TP11 2m	SE114571.023 Soil 09 Jan 2013 TP12 1m	SE114571.024 Soil 09 Jan 2013 TP12 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**35**	**43**	**13**	**17**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**2.3**	**2.7**	**1.6**	**1.1**
Copper, Cu	mg/kg	0.5		**1.5**	**2.6**	**0.5**	<0.5
Lead, Pb	mg/kg	1		**2**	**3**	**1**	<1
Nickel, Ni	mg/kg	0.5		**0.9**	**1.5**	<0.5	<0.5
Zinc, Zn	mg/kg	0.5		**46**	**67**	**6.0**	**1.5**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**5.1**	**4.3**	**5.4**	**14**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.025 Soil 09 Jan 2013 TP13 1m	SE114571.026 Soil 09 Jan 2013 TP13 2m	SE114571.027 Soil 09 Jan 2013 TP14 1m	SE114571.028 Soil 09 Jan 2013 TP14 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**84**	**87**	**102**	**87**
d4-1,2-dichloroethane (Surrogate)	%	-	**85**	**97**	**109**	**93**
d8-toluene (Surrogate)	%	-	**71**	**79**	**88**	**105**
Bromofluorobenzene (Surrogate)	%	-	**78**	**80**	**84**	**87**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.025 Soil 09 Jan 2013 TP13 1m	SE114571.026 Soil 09 Jan 2013 TP13 2m	SE114571.027 Soil 09 Jan 2013 TP14 1m	SE114571.028 Soil 09 Jan 2013 TP14 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**104**	**102**	**102**	**102**
2-fluorobiphenyl (Surrogate)	%	-	**98**	**98**	**96**	**94**
d14-p-terphenyl (Surrogate)	%	-	**112**	**110**	**110**	**108**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**5.9**	**5.9**	**6.0**	**5.8**

Parameter	Units	LOR	Sample Number SE114571.025 Soil 09 Jan 2013 TP13 1m	SE114571.026 Soil 09 Jan 2013 TP13 2m	SE114571.027 Soil 09 Jan 2013 TP14 1m	SE114571.028 Soil 09 Jan 2013 TP14 2m
Conductivity and TDS by Calculation - Soil Method: AN106						
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	**12**	**11**	**12**	**11**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320						
Arsenic, As	mg/kg	3	<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3	**1.2**	**1.2**	**1.1**	**1.1**
Copper, Cu	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1	<1	<1	<1	<1
Nickel, Ni	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Zinc, Zn	mg/kg	0.5	**2.0**	**1.7**	**1.4**	**1.2**
Mercury in Soil Method: AN312						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002						
% Moisture	%	0.5	**3.9**	**5.9**	**3.3**	**4.6**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.029 Soil 09 Jan 2013 TP15 1m	SE114571.030 Soil 09 Jan 2013 TP15 2m	SE114571.031 Soil 09 Jan 2013 TP16 1m	SE114571.032 Soil 09 Jan 2013 TP16 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**90**	**87**	**89**	**108**
d4-1,2-dichloroethane (Surrogate)	%	-	**98**	**99**	**106**	**114**
d8-toluene (Surrogate)	%	-	**73**	**73**	**90**	**100**
Bromofluorobenzene (Surrogate)	%	-	**72**	**77**	**88**	**106**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.029 Soil 09 Jan 2013 TP15 1m	SE114571.030 Soil 09 Jan 2013 TP15 2m	SE114571.031 Soil 09 Jan 2013 TP16 1m	SE114571.032 Soil 09 Jan 2013 TP16 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420							
Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8		<0.8	<0.8	<0.8	<0.8
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		**100**	**100**	**96**	**104**
2-fluorobiphenyl (Surrogate)	%	-		**96**	**96**	**94**	**96**
d14-p-terphenyl (Surrogate)	%	-		**110**	**110**	**112**	**108**
pH in soil (1:5) Method: AN101							
pH	No unit	-		**5.8**	**5.6**	**5.1**	**6.1**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.029 Soil 09 Jan 2013 TP15 1m	SE114571.030 Soil 09 Jan 2013 TP15 2m	SE114571.031 Soil 09 Jan 2013 TP16 1m	SE114571.032 Soil 09 Jan 2013 TP16 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**9**	**6**	**37**	**6**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**1.3**	**1.2**	**1.1**	**1.6**
Copper, Cu	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1		<1	<1	<1	<1
Nickel, Ni	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Zinc, Zn	mg/kg	0.5		**1.5**	**1.2**	**1.3**	**0.7**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**6.1**	**6.3**	**3.2**	**6.6**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.033 Soil 09 Jan 2013 TP17 1m	SE114571.034 Soil 09 Jan 2013 TP17 2m	SE114571.035 Soil 09 Jan 2013 TP18 1m	SE114571.036 Soil 09 Jan 2013 TP18 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**89**	**85**	**92**	**85**
d4-1,2-dichloroethane (Surrogate)	%	-	**97**	**94**	**102**	**94**
d8-toluene (Surrogate)	%	-	**84**	**77**	**81**	**76**
Bromofluorobenzene (Surrogate)	%	-	**89**	**82**	**93**	**77**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.033 Soil 09 Jan 2013 TP17 1m	SE114571.034 Soil 09 Jan 2013 TP17 2m	SE114571.035 Soil 09 Jan 2013 TP18 1m	SE114571.036 Soil 09 Jan 2013 TP18 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420							
Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8		<0.8	<0.8	<0.8	<0.8
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		**106**	**104**	**102**	**100**
2-fluorobiphenyl (Surrogate)	%	-		**98**	**98**	**94**	**96**
d14-p-terphenyl (Surrogate)	%	-		**114**	**116**	**110**	**114**
pH in soil (1:5) Method: AN101							
pH	No unit	-		**6.5**	**6.6**	**6.8**	**6.7**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.033 Soil 09 Jan 2013 TP17 1m	SE114571.034 Soil 09 Jan 2013 TP17 2m	SE114571.035 Soil 09 Jan 2013 TP18 1m	SE114571.036 Soil 09 Jan 2013 TP18 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**15**	**18**	**24**	**35**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**1.4**	**0.8**	**2.5**	**6.1**
Copper, Cu	mg/kg	0.5		<0.5	<0.5	**0.5**	**1.3**
Lead, Pb	mg/kg	1		**1**	<1	**1**	**4**
Nickel, Ni	mg/kg	0.5		<0.5	<0.5	<0.5	**0.6**
Zinc, Zn	mg/kg	0.5		**50**	**12**	**24**	**50**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**5.5**	**8.5**	**5.3**	**16**

Parameter	Units	LOR	Sample Number: SE114571.037 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: TP19 1m	SE114571.038 Soil 09 Jan 2013 TP19 2m	SE114571.039 Soil 09 Jan 2013 TP20 1m	SE114571.040 Soil 09 Jan 2013 TP20 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**88**	**103**	**90**	**91**
d4-1,2-dichloroethane (Surrogate)	%	-	**95**	**109**	**98**	**91**
d8-toluene (Surrogate)	%	-	**82**	**90**	**83**	**71**
Bromofluorobenzene (Surrogate)	%	-	**92**	**96**	**99**	**78**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number SE114571.037 Sample Matrix Soil Sample Date 09 Jan 2013 Sample Name TP19 1m	SE114571.038 Soil 09 Jan 2013 TP19 2m	SE114571.039 Soil 09 Jan 2013 TP20 1m	SE114571.040 Soil 09 Jan 2013 TP20 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**108**	**106**	**83**	**92**
2-fluorobiphenyl (Surrogate)	%	-	**100**	**98**	**78**	**88**
d14-p-terphenyl (Surrogate)	%	-	**108**	**112**	**91**	**102**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**6.9**	**6.6**	**4.9**	**4.5**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.037 Soil 09 Jan 2013 TP19 1m	SE114571.038 Soil 09 Jan 2013 TP19 2m	SE114571.039 Soil 09 Jan 2013 TP20 1m	SE114571.040 Soil 09 Jan 2013 TP20 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**38**	**23**	**7**	**20**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**4.6**	**1.9**	**1.0**	**1.8**
Copper, Cu	mg/kg	0.5		**5.9**	**1.3**	<0.5	<0.5
Lead, Pb	mg/kg	1		**7**	**2**	<1	<1
Nickel, Ni	mg/kg	0.5		**3.3**	**0.9**	<0.5	<0.5
Zinc, Zn	mg/kg	0.5		**140**	**29**	**1.0**	**1.8**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**5.5**	**10**	**2.1**	**2.6**

Parameter	Units	LOR	Sample Number: SE114571.041 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: TP21 1m	SE114571.042 Soil 09 Jan 2013 TP21 2m	SE114571.043 Soil 09 Jan 2013 TP22 1m	SE114571.044 Soil 09 Jan 2013 TP22 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**89**	**78**	**79**	**81**
d4-1,2-dichloroethane (Surrogate)	%	-	**92**	**80**	**78**	**83**
d8-toluene (Surrogate)	%	-	**93**	**84**	**84**	**85**
Bromofluorobenzene (Surrogate)	%	-	**97**	**83**	**81**	**80**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.041 Soil 09 Jan 2013 TP21 1m	SE114571.042 Soil 09 Jan 2013 TP21 2m	SE114571.043 Soil 09 Jan 2013 TP22 1m	SE114571.044 Soil 09 Jan 2013 TP22 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**96**	**100**	**98**	**98**
2-fluorobiphenyl (Surrogate)	%	-	**86**	**90**	**90**	**92**
d14-p-terphenyl (Surrogate)	%	-	**98**	**102**	**104**	**106**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**5.8**	**5.9**	**5.8**	**6.1**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.041 Soil 09 Jan 2013 TP21 1m	SE114571.042 Soil 09 Jan 2013 TP21 2m	SE114571.043 Soil 09 Jan 2013 TP22 1m	SE114571.044 Soil 09 Jan 2013 TP22 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**10**	**8**	**13**	**19**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**1.3**	**1.4**	**0.7**	**2.0**
Copper, Cu	mg/kg	0.5		<0.5	<0.5	<0.5	**1.1**
Lead, Pb	mg/kg	1		<1	<1	<1	**2**
Nickel, Ni	mg/kg	0.5		<0.5	<0.5	<0.5	**0.5**
Zinc, Zn	mg/kg	0.5		**2.4**	**1.1**	**1.8**	**42**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**6.6**	**4.8**	**3.6**	**4.6**

Parameter	Units	LOR	Sample Number: SE114571.045 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: TP23 1m	SE114571.046 Soil 09 Jan 2013 TP23 2m	SE114571.047 Soil 09 Jan 2013 TP24 1m	SE114571.048 Soil 09 Jan 2013 TP24 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**103**	**82**	**93**	**88**
d4-1,2-dichloroethane (Surrogate)	%	-	**103**	**84**	**93**	**87**
d8-toluene (Surrogate)	%	-	**111**	**85**	**101**	**93**
Bromofluorobenzene (Surrogate)	%	-	**106**	**86**	**95**	**88**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.045 Soil 09 Jan 2013 TP23 1m	SE114571.046 Soil 09 Jan 2013 TP23 2m	SE114571.047 Soil 09 Jan 2013 TP24 1m	SE114571.048 Soil 09 Jan 2013 TP24 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420							
Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8		<0.8	<0.8	<0.8	<0.8
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		**98**	**94**	**98**	**94**
2-fluorobiphenyl (Surrogate)	%	-		**90**	**88**	**90**	**88**
d14-p-terphenyl (Surrogate)	%	-		**102**	**100**	**104**	**100**
pH in soil (1:5) Method: AN101							
pH	No unit	-		**6.3**	**6.0**	**6.3**	**6.4**

Parameter	Units	LOR	Sample Number: SE114571.045 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: TP23 1m	SE114571.046 Soil 09 Jan 2013 TP23 2m	SE114571.047 Soil 09 Jan 2013 TP24 1m	SE114571.048 Soil 09 Jan 2013 TP24 2m
Conductivity and TDS by Calculation - Soil Method: AN106						
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	**26**	**21**	**12**	**11**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320						
Arsenic, As	mg/kg	3	<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3	**2.4**	**2.0**	**1.6**	**1.9**
Copper, Cu	mg/kg	0.5	**1.4**	<0.5	**1.0**	<0.5
Lead, Pb	mg/kg	1	**3**	**1**	**2**	**1**
Nickel, Ni	mg/kg	0.5	**1.0**	**0.6**	<0.5	**0.6**
Zinc, Zn	mg/kg	0.5	**120**	**12**	**21**	**13**
Mercury in Soil Method: AN312						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002						
% Moisture	%	0.5	**3.3**	**21**	**3.2**	**16**

Parameter	Units	LOR	Sample Number: SE114571.049 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: TP25 1m	SE114571.050 Soil 09 Jan 2013 TP25 2m	SE114571.051 Soil 09 Jan 2013 TP26 1m	SE114571.052 Soil 09 Jan 2013 TP26 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**89**	**90**	**92**	**86**
d4-1,2-dichloroethane (Surrogate)	%	-	**89**	**92**	**93**	**88**
d8-toluene (Surrogate)	%	-	**94**	**96**	**97**	**86**
Bromofluorobenzene (Surrogate)	%	-	**89**	**88**	**93**	**84**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.049 Soil 09 Jan 2013 TP25 1m	SE114571.050 Soil 09 Jan 2013 TP25 2m	SE114571.051 Soil 09 Jan 2013 TP26 1m	SE114571.052 Soil 09 Jan 2013 TP26 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**96**	**98**	**96**	**96**
2-fluorobiphenyl (Surrogate)	%	-	**90**	**92**	**90**	**88**
d14-p-terphenyl (Surrogate)	%	-	**104**	**108**	**102**	**104**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**6.7**	**6.7**	**5.7**	**5.7**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.049 Soil 09 Jan 2013 TP25 1m	SE114571.050 Soil 09 Jan 2013 TP25 2m	SE114571.051 Soil 09 Jan 2013 TP26 1m	SE114571.052 Soil 09 Jan 2013 TP26 2m
Conductivity and TDS by Calculation - Soil Method: AN106						
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	**25**	**22**	**12**	**10**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320						
Arsenic, As	mg/kg	3	<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3	**1.7**	**1.7**	**1.6**	**1.1**
Copper, Cu	mg/kg	0.5	<0.5	**1.1**	<0.5	<0.5
Lead, Pb	mg/kg	1	<1	**2**	<1	<1
Nickel, Ni	mg/kg	0.5	**0.7**	<0.5	**0.6**	<0.5
Zinc, Zn	mg/kg	0.5	**7.4**	**30**	**3.3**	**7.9**
Mercury in Soil Method: AN312						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002						
% Moisture	%	0.5	**4.0**	**19**	**4.4**	**9.3**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.053 Soil 09 Jan 2013 TP27 1m	SE114571.054 Soil 09 Jan 2013 TP27 2m	SE114571.055 Soil 09 Jan 2013 TP28 1m	SE114571.056 Soil 09 Jan 2013 TP28 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**93**	**91**	**86**	**82**
d4-1,2-dichloroethane (Surrogate)	%	-	**94**	**90**	**88**	**89**
d8-toluene (Surrogate)	%	-	**98**	**92**	**88**	**78**
Bromofluorobenzene (Surrogate)	%	-	**92**	**84**	**75**	**71**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.053 Soil 09 Jan 2013 TP27 1m	SE114571.054 Soil 09 Jan 2013 TP27 2m	SE114571.055 Soil 09 Jan 2013 TP28 1m	SE114571.056 Soil 09 Jan 2013 TP28 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420							
Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8		<0.8	<0.8	<0.8	<0.8
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		**96**	**96**	**112**	**94**
2-fluorobiphenyl (Surrogate)	%	-		**88**	**90**	**102**	**88**
d14-p-terphenyl (Surrogate)	%	-		**106**	**106**	**118**	**102**
pH in soil (1:5) Method: AN101							
pH	No unit	-		**6.4**	**5.3**	**6.0**	**6.2**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.053 Soil 09 Jan 2013 TP27 1m	SE114571.054 Soil 09 Jan 2013 TP27 2m	SE114571.055 Soil 09 Jan 2013 TP28 1m	SE114571.056 Soil 09 Jan 2013 TP28 2m
Conductivity and TDS by Calculation - Soil Method: AN106						
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	**23**	**11**	**11**	**14**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320						
Arsenic, As	mg/kg	3	<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3	**1.7**	**1.4**	**1.9**	**1.7**
Copper, Cu	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1	<1	<1	**1**	**1**
Nickel, Ni	mg/kg	0.5	**0.8**	<0.5	**0.6**	<0.5
Zinc, Zn	mg/kg	0.5	**8.0**	**6.6**	**56**	**34**
Mercury in Soil Method: AN312						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002						
% Moisture	%	0.5	**4.1**	**22**	**5.3**	**22**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.057 Soil 09 Jan 2013 TP29 1m	SE114571.058 Soil 09 Jan 2013 TP29 2m	SE114571.059 Soil 09 Jan 2013 TP30 1m	SE114571.060 Soil 09 Jan 2013 TP30 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**72**	**88**	**74**	**74**
d4-1,2-dichloroethane (Surrogate)	%	-	**76**	**93**	**85**	**81**
d8-toluene (Surrogate)	%	-	**75**	**86**	**72**	**71**
Bromofluorobenzene (Surrogate)	%	-	**70**	**78**	**72**	**73**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.057 Soil 09 Jan 2013 TP29 1m	SE114571.058 Soil 09 Jan 2013 TP29 2m	SE114571.059 Soil 09 Jan 2013 TP30 1m	SE114571.060 Soil 09 Jan 2013 TP30 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**102**	**90**	**94**	**102**
2-fluorobiphenyl (Surrogate)	%	-	**94**	**84**	**86**	**94**
d14-p-terphenyl (Surrogate)	%	-	**110**	**98**	**100**	**112**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**6.0**	**5.9**	**6.2**	**6.5**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.057 Soil 09 Jan 2013 TP29 1m	SE114571.058 Soil 09 Jan 2013 TP29 2m	SE114571.059 Soil 09 Jan 2013 TP30 1m	SE114571.060 Soil 09 Jan 2013 TP30 2m
Conductivity and TDS by Calculation - Soil Method: AN106						
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	**19**	**15**	**22**	**21**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320						
Arsenic, As	mg/kg	3	<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3	**2.5**	**2.7**	**2.4**	**1.5**
Copper, Cu	mg/kg	0.5	<0.5	**1.8**	<0.5	<0.5
Lead, Pb	mg/kg	1	<1	**3**	**1**	<1
Nickel, Ni	mg/kg	0.5	**0.8**	**0.6**	**0.6**	<0.5
Zinc, Zn	mg/kg	0.5	**35**	**140**	**24**	**24**
Mercury in Soil Method: AN312						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002						
% Moisture	%	0.5	**22**	**22**	**22**	**22**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.061 Soil 09 Jan 2013 TP31 1m	SE114571.062 Soil 09 Jan 2013 TP31 2m	SE114571.063 Soil 09 Jan 2013 TP32 1m	SE114571.064 Soil 09 Jan 2013 TP32 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**88**	**103**	**98**	**95**
d4-1,2-dichloroethane (Surrogate)	%	-	**92**	**102**	**104**	**100**
d8-toluene (Surrogate)	%	-	**94**	**98**	**89**	**88**
Bromofluorobenzene (Surrogate)	%	-	**80**	**97**	**95**	**90**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.061 Soil 09 Jan 2013 TP31 1m	SE114571.062 Soil 09 Jan 2013 TP31 2m	SE114571.063 Soil 09 Jan 2013 TP32 1m	SE114571.064 Soil 09 Jan 2013 TP32 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**84**	**98**	**98**	**92**
2-fluorobiphenyl (Surrogate)	%	-	**78**	**88**	**90**	**86**
d14-p-terphenyl (Surrogate)	%	-	**82**	**106**	**104**	**100**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**6.7**	**6.8**	**6.0**	**5.8**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.061 Soil 09 Jan 2013 TP31 1m	SE114571.062 Soil 09 Jan 2013 TP31 2m	SE114571.063 Soil 09 Jan 2013 TP32 1m	SE114571.064 Soil 09 Jan 2013 TP32 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**28**	**17**	**18**	**18**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**2.2**	**2.3**	**2.0**	**1.3**
Copper, Cu	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1		<1	<1	<1	<1
Nickel, Ni	mg/kg	0.5		<0.5	**0.5**	<0.5	<0.5
Zinc, Zn	mg/kg	0.5		**34**	**3.5**	**1.6**	**4.8**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**3.8**	**5.8**	**2.0**	**2.2**

Parameter	Units	LOR	Sample Number SE114571.065 Sample Matrix Soil Sample Date 09 Jan 2013 Sample Name TP33 1m	SE114571.066 Soil 09 Jan 2013 TP33 2m	SE114571.067 Soil 09 Jan 2013 TP34 1m	SE114571.068 Soil 09 Jan 2013 TP34 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**90**	**89**	**97**	**94**
d4-1,2-dichloroethane (Surrogate)	%	-	**96**	**104**	**103**	**101**
d8-toluene (Surrogate)	%	-	**89**	**90**	**98**	**92**
Bromofluorobenzene (Surrogate)	%	-	**81**	**83**	**78**	**91**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	**21**	**240**
TRH C15-C28	mg/kg	45	<45	<45	**400**	**1600**
TRH C29-C36	mg/kg	45	<45	<45	**330**	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	**740**	**1900**
TRH C10-C40 Total	mg/kg	210	<210	<210	**750**	**1900**
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	**52**	**490**
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	**580**	**1400**
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.065 Soil 09 Jan 2013 TP33 1m	SE114571.066 Soil 09 Jan 2013 TP33 2m	SE114571.067 Soil 09 Jan 2013 TP34 1m	SE114571.068 Soil 09 Jan 2013 TP34 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**98**	**102**	**100**	**106**
2-fluorobiphenyl (Surrogate)	%	-	**100**	**94**	**96**	**90**
d14-p-terphenyl (Surrogate)	%	-	**106**	**104**	**104**	**104**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**6.4**	**6.5**	**6.4**	**6.3**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.065 Soil 09 Jan 2013 TP33 1m	SE114571.066 Soil 09 Jan 2013 TP33 2m	SE114571.067 Soil 09 Jan 2013 TP34 1m	SE114571.068 Soil 09 Jan 2013 TP34 2m
Conductivity and TDS by Calculation - Soil Method: AN106						
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	**25**	**13**	**25**	**7**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320						
Arsenic, As	mg/kg	3	<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3	**2.1**	**2.7**	**4.1**	**1.3**
Copper, Cu	mg/kg	0.5	<0.5	**0.6**	**1.2**	<0.5
Lead, Pb	mg/kg	1	<1	**2**	**5**	<1
Nickel, Ni	mg/kg	0.5	<0.5	**0.6**	**0.6**	<0.5
Zinc, Zn	mg/kg	0.5	**92**	**190**	**660**	**13**
Mercury in Soil Method: AN312						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002						
% Moisture	%	0.5	**4.5**	**2.9**	**6.1**	**4.9**

Parameter	Units	LOR	Sample Number SE114571.069 Sample Matrix Soil Sample Date 09 Jan 2013 Sample Name TP35 1m	SE114571.070 Soil 09 Jan 2013 TP35 2m	SE114571.071 Soil 09 Jan 2013 QC5	SE114571.072 Soil 09 Jan 2013 QC6
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**90**	**94**	**87**	**97**
d4-1,2-dichloroethane (Surrogate)	%	-	**97**	**99**	**101**	**102**
d8-toluene (Surrogate)	%	-	**87**	**92**	**94**	**95**
Bromofluorobenzene (Surrogate)	%	-	**85**	**89**	**79**	**108**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.069 Soil 09 Jan 2013 TP35 1m	SE114571.070 Soil 09 Jan 2013 TP35 2m	SE114571.071 Soil 09 Jan 2013 QC5	SE114571.072 Soil 09 Jan 2013 QC6
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420							
Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8		<0.8	<0.8	<0.8	<0.8
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		**104**	**104**	**104**	**106**
2-fluorobiphenyl (Surrogate)	%	-		**94**	**92**	**92**	**92**
d14-p-terphenyl (Surrogate)	%	-		**102**	**104**	**104**	**106**
pH in soil (1:5) Method: AN101							
pH	No unit	-		**6.2**	**7.5**	**7.4**	**7.0**

Parameter	Units	LOR	Sample Number: SE114571.069 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: TP35 1m	SE114571.070 Soil 09 Jan 2013 TP35 2m	SE114571.071 Soil 09 Jan 2013 QC5	SE114571.072 Soil 09 Jan 2013 QC6
Conductivity and TDS by Calculation - Soil Method: AN106						
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	**8**	**57**	**11**	**23**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320						
Arsenic, As	mg/kg	3	<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3	**1.4**	**2.4**	**1.5**	**2.2**
Copper, Cu	mg/kg	0.5	<0.5	**3.4**	<0.5	<0.5
Lead, Pb	mg/kg	1	<1	**6**	<1	<1
Nickel, Ni	mg/kg	0.5	<0.5	**0.7**	**0.6**	<0.5
Zinc, Zn	mg/kg	0.5	**2.1**	**110**	**1.7**	**17**
Mercury in Soil Method: AN312						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002						
% Moisture	%	0.5	**2.8**	**3.8**	**17**	**4.2**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.073 Soil 09 Jan 2013 QC7	SE114571.074 Soil 09 Jan 2013 QC8	SE114571.075 Soil 09 Jan 2013 QC9	SE114571.076 Soil 09 Jan 2013 QC10
VOC's in Soil Method: AN433/AN434							
Monocyclic Aromatic Hydrocarbons							
Benzene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2		<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs							
Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Surrogates							
Dibromofluoromethane (Surrogate)	%	-		**92**	**95**	**83**	**83**
d4-1,2-dichloroethane (Surrogate)	%	-		**99**	**102**	**90**	**90**
d8-toluene (Surrogate)	%	-		**90**	**97**	**83**	**86**
Bromofluorobenzene (Surrogate)	%	-		**95**	**92**	**87**	**77**
Totals							
Total Xylenes*	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-		**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403							
TRH C10-C14	mg/kg	20		<20	<20	<20	<20
TRH C15-C28	mg/kg	45		<45	<45	<45	<45
TRH C29-C36	mg/kg	45		<45	<45	<45	<45
TRH C37-C40	mg/kg	100		<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110		<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210		<210	<210	<210	<210
TRH F Bands							
TRH >C10-C16 (F2)	mg/kg	25		<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90		<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120		<120	<120	<120	<120

Parameter	Units	LOR	Sample Number SE114571.073 Sample Matrix Soil Sample Date 09 Jan 2013 Sample Name QC7	SE114571.074 Soil 09 Jan 2013 QC8	SE114571.075 Soil 09 Jan 2013 QC9	SE114571.076 Soil 09 Jan 2013 QC10
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**100**	**100**	**102**	**100**
2-fluorobiphenyl (Surrogate)	%	-	**90**	**90**	**90**	**88**
d14-p-terphenyl (Surrogate)	%	-	**104**	**104**	**102**	**102**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**6.3**	**6.7**	**6.3**	**6.5**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.073 Soil 09 Jan 2013 QC7	SE114571.074 Soil 09 Jan 2013 QC8	SE114571.075 Soil 09 Jan 2013 QC9	SE114571.076 Soil 09 Jan 2013 QC10
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**12**	**22**	**22**	**25**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**1.7**	**2.8**	**2.3**	**1.8**
Copper, Cu	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1		<1	**1**	<1	<1
Nickel, Ni	mg/kg	0.5		**0.6**	<0.5	<0.5	<0.5
Zinc, Zn	mg/kg	0.5		**2.4**	**19**	**1.8**	**9.3**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**2.4**	**4.8**	**2.5**	**5.0**

Parameter	Units	LOR	Sample Number SE114571.077 Sample Matrix Soil Sample Date 09 Jan 2013 Sample Name QC11
VOC's in Soil Method: AN433/AN434			
Monocyclic Aromatic Hydrocarbons			
Benzene	mg/kg	0.1	<0.1
Toluene	mg/kg	0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2
o-xylene	mg/kg	0.1	<0.1
Polycyclic VOCs			
Naphthalene	mg/kg	0.1	<0.1
Surrogates			
Dibromofluoromethane (Surrogate)	%	-	**97**
d4-1,2-dichloroethane (Surrogate)	%	-	**108**
d8-toluene (Surrogate)	%	-	**98**
Bromofluorobenzene (Surrogate)	%	-	**98**
Totals			
Total Xylenes*	mg/kg	0.3	<0.3
Total BTEX*	mg/kg	-	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403			
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 C10-C40 Total	mg/kg	210	<210
TRH F Bands			
TRH >C10-C16 (F2)	mg/kg	25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120

Parameter	Units	LOR	Sample Number SE114571.077 Sample Matrix Soil Sample Date 09 Jan 2013 Sample Name QC11
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420			
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(b)fluoranthene	mg/kg	0.1	<0.1
Benzo(k)fluoranthene	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(a&h)anthracene	mg/kg	0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1
Total PAH	mg/kg	0.8	<0.8
Surrogates			
d5-nitrobenzene (Surrogate)	%	-	**100**
2-fluorobiphenyl (Surrogate)	%	-	**88**
d14-p-terphenyl (Surrogate)	%	-	**102**
pH in soil (1:5) Method: AN101			
pH	No unit	-	**6.1**

Parameter	Units	LOR	Sample Number SE114571.077 Sample Matrix Soil Sample Date 09 Jan 2013 Sample Name QC11
Conductivity and TDS by Calculation - Soil Method: AN106			
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	**14**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320			
Arsenic, As	mg/kg	3	<3
Cadmium, Cd	mg/kg	0.3	<0.3
Chromium, Cr	mg/kg	0.3	**1.7**
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	**4.6**
Mercury in Soil Method: AN312			
Mercury	mg/kg	0.05	<0.05
Moisture Content Method: AN002			
% Moisture	%	0.5	**4.7**

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.

Conductivity and TDS by Calculation - Soil **Method: ME-(AU)-[ENV]AN106**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Conductivity of Extract (1:5 dry sample basis)	LB032116	µS/cm	1	<1	10 - 15%	104%
	LB032184	µS/cm	1	<1	4 - 6%	104%
	LB032187	µS/cm	1	<1	1 - 9%	104%
	LB032189	µS/cm	1	<1	4%	105%

Mercury in Soil **Method: ME-(AU)-[ENV]AN312**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery	MSD %RPD
Mercury	LB032162	mg/kg	0.05	<0.05	0%	98%	95%	
	LB032196	mg/kg	0.05	<0.05	0%	95%	90%	
	LB032222	mg/kg	0.05	<0.05	0%	90%	89%	NA
	LB032223	mg/kg	0.05	<0.05	0%	97%	89%	
	LB032224	mg/kg	0.05	<0.05	9%	103%	93%	

PAH (Polynuclear Aromatic Hydrocarbons) in Soil **Method: ME-(AU)-[ENV]AN420**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Naphthalene	LB032075	mg/kg	0.1	<0.1	0%	101%	109%
	LB032078	mg/kg	0.1	<0.1	0%	103%	103%
	LB032079	mg/kg	0.1	<0.1	0%	111%	108%
	LB032080	mg/kg	0.1	<0.1	0%	116%	114%
2-methylnaphthalene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA
	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
1-methylnaphthalene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA
	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
Acenaphthylene	LB032075	mg/kg	0.1	<0.1	0%	103%	115%
	LB032078	mg/kg	0.1	<0.1	0%	104%	102%
	LB032079	mg/kg	0.1	<0.1	0%	108%	109%
	LB032080	mg/kg	0.1	<0.1	0%	114%	111%
Acenaphthene	LB032075	mg/kg	0.1	<0.1	0%	105%	116%
	LB032078	mg/kg	0.1	<0.1	0%	107%	105%
	LB032079	mg/kg	0.1	<0.1	0%	115%	113%
	LB032080	mg/kg	0.1	<0.1	0%	120%	117%
Fluorene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA
	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
Phenanthrene	LB032075	mg/kg	0.1	<0.1	0%	108%	116%
	LB032078	mg/kg	0.1	<0.1	0%	112%	109%
	LB032079	mg/kg	0.1	<0.1	0%	118%	114%
	LB032080	mg/kg	0.1	<0.1	0%	124%	122%
Anthracene	LB032075	mg/kg	0.1	<0.1	0%	108%	115%
	LB032078	mg/kg	0.1	<0.1	0%	106%	106%
	LB032079	mg/kg	0.1	<0.1	0%	117%	114%
	LB032080	mg/kg	0.1	<0.1	0%	119%	123%
Fluoranthene	LB032075	mg/kg	0.1	<0.1	0%	108%	118%
	LB032078	mg/kg	0.1	<0.1	0%	111%	108%
	LB032079	mg/kg	0.1	<0.1	0%	119%	114%
	LB032080	mg/kg	0.1	<0.1	0%	120%	120%
Pyrene	LB032075	mg/kg	0.1	<0.1	0%	107%	116%
	LB032078	mg/kg	0.1	<0.1	0%	107%	107%
	LB032079	mg/kg	0.1	<0.1	0%	114%	110%
	LB032080	mg/kg	0.1	<0.1	0%	119%	118%
Benzo(a)anthracene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA

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.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: ME-(AU)-[ENV]AN420 (continued)

				MB	DUP %RPD	LCS %Recovery	MS %Recovery
Benzo(a)anthracene	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
Chrysene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA
	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
Benzo(b)fluoranthene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA
	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
Benzo(k)fluoranthene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA
	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
Benzo(a)pyrene	LB032075	mg/kg	0.1	<0.1	0%	108%	118%
	LB032078	mg/kg	0.1	<0.1	0%	109%	109%
	LB032079	mg/kg	0.1	<0.1	0%	118%	114%
	LB032080	mg/kg	0.1	<0.1	0%	121%	119%
Indeno(1,2,3-cd)pyrene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA
	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
Dibenzo(a&h)anthracene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA
	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
Benzo(ghi)perylene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA
	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
Total PAH	LB032075	mg/kg	0.8	<0.8	0%	NA	NA
	LB032078	mg/kg	0.8	<0.8	0%	NA	NA
	LB032079	mg/kg	0.8	<0.8	0%	NA	NA
	LB032080	mg/kg	0.8	<0.8	0%	NA	NA

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
d5-nitrobenzene (Surrogate)	LB032075	%	-	104%	2 - 9%	104%	110%
	LB032078	%	-	104%	0 - 6%	102%	102%
	LB032079	%	-	100%	0 - 6%	96%	98%
	LB032080	%	-	104%	2 - 9%	100%	102%
2-fluorobiphenyl (Surrogate)	LB032075	%	-	102%	2 - 7%	104%	104%
	LB032078	%	-	100%	0 - 2%	98%	96%
	LB032079	%	-	94%	2 - 5%	94%	90%
	LB032080	%	-	98%	2 - 10%	96%	96%
d14-p-terphenyl (Surrogate)	LB032075	%	-	108%	4 - 5%	112%	112%
	LB032078	%	-	108%	0 - 2%	110%	112%
	LB032079	%	-	102%	2 - 6%	106%	104%
	LB032080	%	-	112%	0 - 22%	112%	116%

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.

pH in soil (1:5) **Method: ME-(AU)-[ENV]AN101**

Parameter	QC Reference	Units	LOR	DUP %RPD	LCS %Recovery
pH	LB032115	No unit	-	2 - 3%	101%
	LB032183	No unit	-	0 - 1%	100%
	LB032186	No unit	-	0 - 1%	100%
	LB032188	No unit	-	1 - 4%	101%

Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest **Method: ME-(AU)-[ENV]AN040/AN320**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Arsenic, As	LB032161	mg/kg	3	<3	0%	99%	94%
	LB032195	mg/kg	3	<3	0%	97%	86%
	LB032219	mg/kg	3	<3	0%	101%	93%
	LB032220	mg/kg	3	<3	0%	101%	94%
	LB032221	mg/kg	3	<3		100%	101%
Cadmium, Cd	LB032161	mg/kg	0.3	<0.3	0%	100%	95%
	LB032195	mg/kg	0.3	<0.3	0%	100%	90%
	LB032219	mg/kg	0.3	<0.3	0%	101%	95%
	LB032220	mg/kg	0.3	<0.3	0%	101%	97%
	LB032221	mg/kg	0.3	<0.3	3 - 10%	100%	104%
Chromium, Cr	LB032161	mg/kg	0.3	<0.3	8 - 10%	98%	93%
	LB032195	mg/kg	0.3	<0.3	4 - 10%	97%	87%
	LB032219	mg/kg	0.3	<0.3	1 - 6%	101%	93%
	LB032220	mg/kg	0.3	<0.3	0 - 4%	102%	95%
	LB032221	mg/kg	0.3	<0.3		100%	103%
Copper, Cu	LB032161	mg/kg	0.5	<0.5	0%	102%	97%
	LB032195	mg/kg	0.5	<0.5	0 - 44%	100%	91%
	LB032219	mg/kg	0.5	<0.5	0 - 65%	100%	94%
	LB032220	mg/kg	0.5	<0.5	0 - 17%	101%	95%
	LB032221	mg/kg	0.5	<0.5	2 - 8%	99%	103%
Lead, Pb	LB032161	mg/kg	1	<1	0%	99%	94%
	LB032195	mg/kg	1	<1	0 - 50%	98%	88%
	LB032219	mg/kg	1	<1	21 - 34%	101%	95%
	LB032220	mg/kg	1	<1	0 - 5%	102%	96%
	LB032221	mg/kg	1	<1	2 - 5%	101%	103%
Nickel, Ni	LB032161	mg/kg	0.5	<0.5	0 - 5%	99%	95%
	LB032195	mg/kg	0.5	<0.5	0 - 17%	98%	89%
	LB032219	mg/kg	0.5	<0.5	5 - 6%	102%	96%
	LB032220	mg/kg	0.5	<0.5	0 - 83%	103%	97%
	LB032221	mg/kg	0.5	<0.5		102%	105%
Zinc, Zn	LB032161	mg/kg	0.5	<0.5	12 - 32%	101%	96%
	LB032195	mg/kg	0.5	<0.5	0 - 7%	100%	97%
	LB032219	mg/kg	0.5	<0.5	6 - 10%	102%	96%
	LB032220	mg/kg	0.5	<0.5	1 - 21%	103%	52%
	LB032221	mg/kg	0.5	<0.5	3 - 7%	102%	105%

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.

TRH (Total Recoverable Hydrocarbons) in Soil Method: ME-(AU)-[ENV]AN403

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
TRH C10-C14	LB032075	mg/kg	20	<20	0%	103%	108%
	LB032078	mg/kg	20	<20	0%	100%	100%
	LB032079	mg/kg	20	<20	0%	103%	100%
	LB032080	mg/kg	20	<20	0%	103%	100%
TRH C15-C28	LB032075	mg/kg	45	<45	0%	100%	103%
	LB032078	mg/kg	45	<45	0%	98%	90%
	LB032079	mg/kg	45	<45	0%	103%	100%
	LB032080	mg/kg	45	<45	0%	100%	103%
TRH C29-C36	LB032075	mg/kg	45	<45	0%	85%	85%
	LB032078	mg/kg	45	<45	0%	90%	88%
	LB032079	mg/kg	45	<45	0%	88%	83%
	LB032080	mg/kg	45	<45	0%	95%	88%
TRH C37-C40	LB032075	mg/kg	100	<100	0%	NA	NA
	LB032078	mg/kg	100	<100	0%	NA	NA
	LB032079	mg/kg	100	<100	0%	NA	NA
	LB032080	mg/kg	100	<100	0%	NA	NA
TRH C10-C36 Total	LB032075	mg/kg	110	<110	0%	NA	NA
	LB032078	mg/kg	110	<110	0%	NA	NA
	LB032079	mg/kg	110	<110	0%	NA	NA
	LB032080	mg/kg	110	<110	0%	NA	NA
TRH C10-C40 Total	LB032075	mg/kg	210	<210	0%	NA	NA
	LB032078	mg/kg	210	<210	0%	NA	NA
	LB032079	mg/kg	210	<210	0%	NA	NA
	LB032080	mg/kg	210	<210	0%	NA	NA

TRH F Bands

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
TRH >C10-C16 (F2)	LB032075	mg/kg	25	<25	0%	103%	108%
	LB032078	mg/kg	25	<25	0%	100%	100%
	LB032079	mg/kg	25	<25	0%	100%	100%
	LB032080	mg/kg	25	<25	0%	103%	103%
TRH >C16-C34 (F3)	LB032075	mg/kg	90	<90	0%	100%	100%
	LB032078	mg/kg	90	<90	0%	95%	88%
	LB032079	mg/kg	90	<90	0%	103%	98%
	LB032080	mg/kg	90	<90	0%	100%	100%
TRH >C34-C40 (F4)	LB032075	mg/kg	120	<120	0%	85%	NA
	LB032078	mg/kg	120	<120	0%	95%	NA
	LB032079	mg/kg	120	<120	0%	85%	NA
	LB032080	mg/kg	120	<120	0%	95%	NA

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.

VOC's in Soil Method: ME-(AU)-[ENV]AN433/AN434

Monocyclic Aromatic Hydrocarbons

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Benzene	LB032071	mg/kg	0.1	<0.1	0%	109%	94%
	LB032072	mg/kg	0.1	<0.1	0%	88%	90%
	LB032073	mg/kg	0.1	<0.1	0%	107%	115%
	LB032074	mg/kg	0.1	<0.1	0%	83%	92%
Toluene	LB032071	mg/kg	0.1	<0.1	0%	101%	89%
	LB032072	mg/kg	0.1	<0.1	0%	85%	85%
	LB032073	mg/kg	0.1	<0.1	0%	98%	108%
	LB032074	mg/kg	0.1	<0.1	0%	82%	88%
Ethylbenzene	LB032071	mg/kg	0.1	<0.1	0%	97%	89%
	LB032072	mg/kg	0.1	<0.1	0%	86%	83%
	LB032073	mg/kg	0.1	<0.1	0%	91%	111%
	LB032074	mg/kg	0.1	<0.1	0%	82%	86%
m/p-xylene	LB032071	mg/kg	0.2	<0.2	0%	93%	85%
	LB032072	mg/kg	0.2	<0.2	0%	89%	86%
	LB032073	mg/kg	0.2	<0.2	0%	92%	111%
	LB032074	mg/kg	0.2	<0.2	0%	80%	83%
o-xylene	LB032071	mg/kg	0.1	<0.1	0%	100%	93%
	LB032072	mg/kg	0.1	<0.1	0%	86%	87%
	LB032073	mg/kg	0.1	<0.1	0%	94%	114%
	LB032074	mg/kg	0.1	<0.1	0%	82%	88%

Polycyclic VOCs

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Naphthalene	LB032071	mg/kg	0.1	<0.1	0%	NA	NA
	LB032072	mg/kg	0.1	<0.1	0%	NA	NA
	LB032073	mg/kg	0.1	<0.1	0%	NA	NA
	LB032074	mg/kg	0.1	<0.1	0%	NA	NA

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Dibromofluoromethane (Surrogate)	LB032071	%	-	99%	11 - 20%	104%	82%
	LB032072	%	-	90%	2 - 6%	93%	93%
	LB032073	%	-	106%	19 - 27%	76%	77%
	LB032074	%	-	109%	5 - 9%	92%	94%
d4-1,2-dichloroethane (Surrogate)	LB032071	%	-	101%	4 - 15%	110%	85%
	LB032072	%	-	97%	4 - 14%	99%	100%
	LB032073	%	-	102%	23%	74%	74%
	LB032074	%	-	107%	1 - 7%	96%	102%
d8-toluene (Surrogate)	LB032071	%	-	103%	15 - 16%	105%	78%
	LB032072	%	-	81%	1 - 43%	92%	80%
	LB032073	%	-	111%	22 - 30%	79%	71%
	LB032074	%	-	104%	1 - 9%	92%	91%
Bromofluorobenzene (Surrogate)	LB032071	%	-	105%	5%	127%	100%
	LB032072	%	-	93%	8 - 17%	94%	116%
	LB032073	%	-	105%	10 - 16%	92%	98%
	LB032074	%	-	100%	5%	101%	92%

Totals

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Total Xylenes*	LB032071	mg/kg	0.3	<0.3	0%	NA	NA
	LB032072	mg/kg	0.3	<0.3	0%	NA	NA
	LB032073	mg/kg	0.3	<0.3	0%	NA	NA
	LB032074	mg/kg	0.3	<0.3	0%	NA	NA
Total BTEX*	LB032071	mg/kg	-	0	0%	NA	NA
	LB032072	mg/kg	-	0	0%	NA	NA

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.

VOC's in Soil Method: ME-(AU)-[ENV]AN433/AN434 (continued)

				MB	DUP %RPD	LCS %Recovery	MS %Recovery
Total BTEX*	LB032073	mg/kg	-	0	0%	NA	NA
	LB032074	mg/kg	-	0	0%	NA	NA

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	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 analsysis by ASS or ICP as per USEPA Method 200.8.
AN088	Orbital rolling for Organic pollutants are extracted from soil/sediment by transferring an appropriate mass of sample to a clear soil jar and extracting with 1:1 Dichloromethane/Acetone. Orbital Rolling method is intended for the extraction of semi-volatile organic compounds from soil/sediment samples, and is based somewhat on USEPA method 3570 (Micro Organic extraction and sample preparation). Method 3700.
AN101	pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode (glass plus reference electrode) and is calibrated against 3 buffers purchased commercially. For soils, an extract with water (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 2520 B.
AN312	Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the Draft NEPM 2011, >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is not corrected for Naphthalene.
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, dependant on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.
AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN433/AN434	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.

METHOD SUMMARY

METHOD	METHODOLOGY SUMMARY
AN433/AN434/AN410	VOCs and C6-C9/C6-C10 Hydrocarbons by GC-MS P&T: VOC`s are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.

FOOTNOTES

IS	Insufficient sample for analysis.
LNR	Sample listed, but not received.
*	This analysis is not covered by the scope of accreditation.
^	Performed by outside laboratory.
LOR	Limit of Reporting
↑↓	Raised or Lowered Limit of Reporting
QFH	QC result is above the upper tolerance
QFL	QC result is below the lower tolerance
-	The sample was not analysed for this analyte
NVL	Not Validated

Samples analysed as received.
Solid samples expressed on a dry weight basis.

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

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.pv.sgsv3/~/media/Local/Australia/Documents/Technical%20Documents/MP-AU-ENV-QU-022%20QA%20QC%20Plan.pdf

This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.au.sgs.com/terms_and_conditions_au. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any other 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 and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

This report must not be reproduced, except in full.

ANALYTICAL REPORT

WORLD RECOGNISED ACCREDITATION

bhli 9F Di FGlhc

boOctant	PG, i c , b , GWO9
bAeCt	, J i 9SI9i i RI9S cOhv FIO9c
Gddress	U/U4 ICdNstrxaADrxEe , GB7li hD , GB7li hD 9c3 M80+
FeAepToCe	0+Mj wf 8 UUw
7ansxu xAe	gU6 M+f 68 48j M
i u axA	lau es@u meC2xCeerxC2.nou .aN
Yrolent	**MBE2017**
Order 9Nu mer	**MBE2017**
cau pAes	M

hGJORGFORB Di FGlhc

, aCa2er	WNoC2 b ra5 Hord
hamoratory	cSc GAel aCdrxa i CExroCu eCtaA
Gddress	v Cxt 6U188 , addol ct GAel aCdrxa 9c3 M064
FeAepToCe	gU6 Mw4f + 0+00
7ansxu xAe	gU6 Mw4f + 0+f f
i u axA	aNeCExroCu eCtaAsydCey@s2s.nou
cSc ReHereCne	**SE116019 R0**
Report 9Nu mer	0000048688
Date Reported	M0 , ar M068
Date RenexEed	68 , ar M068

bO, , i 9Fc

Gnnredxted Hdr nou pAaCne 5xT IcO/li b 6j 0M4. 9GFG annredxted Aamoratory M4UM(+84+).

cIS9GFORIi c

GCdy c NttoC
Or2aCxns b Teu xst

WNoC2 b ra5 Hord
hamoratory , aCa2er

Kau rNAGTsaC
, etaAs b Teu xst

hy Kxu Wa
Or2aCxns c NperExsor

c CezaCa Kostoska
ICor2aCxns b Teu xst

Parameter	Units	LOR	Sample Number SE116019.001 Sample Matrix Soil Sample Date 12 Mar 2013 Sample Name TP31 3m	SE116019.002 Soil 12 Mar 2013 Dup 1
VOC's in Soil Method: AN433/AN434				
, oConynAn Grou atɔn WydronarmɒCs				
Benzene	mg/kg	0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1
YoAynynAn VObs				
Naphthalene	mg/kg	0.1	<0.1	<0.1
cNrro2ates				
Dibromofluoromethane (Surrogate)	%	-	**71**	**72**
d4-1,2-dichloroethane (Surrogate)	%	-	**90**	**96**
d8-toluene (Surrogate)	%	-	**77**	**77**
Bromofluorobenzene (Surrogate)	%	-	**76**	**83**
FotaAs				
Total Xylenes*	mg/kg	0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403				
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-C36 Total	mg/kg	110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210
FRW7 JaCds				
TRH >C10-C16 (F2)	mg/kg	25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420				
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&k)fluoranthene	mg/kg	0.2	<0.2	<0.2
Benzo(b)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(a&h)anthracene	mg/kg	0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1
Total PAH	mg/kg	0.8	<0.8	<0.8

Parameter	Units	LOR	Sample Number: SE116019.001 Sample Matrix: Soil Sample Date: 12 Mar 2013 Sample Name: TP31 3m	Sample Number: SE116019.002 Sample Matrix: Soil Sample Date: 12 Mar 2013 Sample Name: Dup 1
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 (continued)				
c Nrro2ates				
d5-nitrobenzene (Surrogate)	%	-	**110**	**96**
2-fluorobiphenyl (Surrogate)	%	-	**103**	**90**
d14-p-terphenyl (Surrogate)	%	-	**122**	**108**
pH in soil (1:5) Method: AN101				
pH	pH Units	-	**7.2**	**6.5**
Conductivity and TDS by Calculation - Soil Method: AN106				
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	**27**	**9**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320				
Arsenic, As	mg/kg	3	<3	<3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3	**3.0**	**2.0**
Copper, Cu	mg/kg	0.5	**1.0**	**2.7**
Lead, Pb	mg/kg	1	**2**	**4**
Nickel, Ni	mg/kg	0.5	**0.8**	**0.7**
Zinc, Zn	mg/kg	0.5	**66**	**57**
Mercury in Soil Method: AN312				
Mercury	mg/kg	0.05	<0.05	<0.05
Moisture Content Method: AN002				
% Moisture	%	0.5	**6.3**	**6.9**

QC SUMMARY

, J maCk resNAs are nou pared to tTe hxu xt oHReportxC2
hb c aCd , c spxke renoEerxes are u easNred as tTe perneCta2e oHaCaAyte renoEered Hhou tTe sau pAe nou pared tTe tTe au oNCt oHaCaAyte spxked xCto tTe sau pAe.
Dv Y aCd , c D reAtxEe perneCt dxHereCnes are u easNred a2axCst tTex on2xCaAnoNCterpart sau pAes annordxC2 to tTe Hdru NAa: *the absolute difference of the two results divided by the average of the two results as a percentage*. 3 Tere tTe Dv Y RYD xs '9 G' 1tTe resNAs are Aess tTaC tTe hOR aCd tTNs tTe RYD xs Cot appAnamAe.

Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Conductivity of Extract (1:5 dry sample basis)	LB035409	µS/cm	1	<1	6%	99%

Mercury in Soil Method: ME-(AU)-[ENV]AN312

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Mercury	LB035337	mg/kg	0.05	<0.05	0 - 18%	99%	88%

PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: ME-(AU)-[ENV]AN420

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Naphthalene	LB035399	mg/kg	0.1	<0.1	0%	117%
2-methylnaphthalene	LB035399	mg/kg	0.1	<0.1	0%	NA
1-methylnaphthalene	LB035399	mg/kg	0.1	<0.1	0%	NA
Acenaphthylene	LB035399	mg/kg	0.1	<0.1	0%	110%
Acenaphthene	LB035399	mg/kg	0.1	<0.1	0%	108%
Fluorene	LB035399	mg/kg	0.1	<0.1	0%	NA
Phenanthrene	LB035399	mg/kg	0.1	<0.1	0%	122%
Anthracene	LB035399	mg/kg	0.1	<0.1	0%	114%
Fluoranthene	LB035399	mg/kg	0.1	<0.1	0%	122%
Pyrene	LB035399	mg/kg	0.1	<0.1	0%	124%
Benzo(a)anthracene	LB035399	mg/kg	0.1	<0.1	0%	NA
Chrysene	LB035399	mg/kg	0.1	<0.1	0%	NA
Benzo(b&k)fluoranthene	LB035399	mg/kg	0.2	<0.2	0%	NA
Benzo(b)fluoranthene	LB035399	mg/kg	0.1	<0.1	0%	NA
Benzo(k)fluoranthene	LB035399	mg/kg	0.1	<0.1	0%	NA
Benzo(a)pyrene	LB035399	mg/kg	0.1	<0.1	0%	114%
Indeno(1,2,3-cd)pyrene	LB035399	mg/kg	0.1	<0.1	0%	NA
Dibenzo(a&h)anthracene	LB035399	mg/kg	0.1	<0.1	0%	NA
Benzo(ghi)perylene	LB035399	mg/kg	0.1	<0.1	0%	NA
Total PAH	LB035399	mg/kg	0.8	<0.8	0%	NA

c Nrro2ates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
d5-nitrobenzene (Surrogate)	LB035399	%	-	111%	7%	92%
2-fluorobiphenyl (Surrogate)	LB035399	%	-	99%	4%	90%
d14-p-terphenyl (Surrogate)	LB035399	%	-	114%	4%	83%

QC SUMMARY

, J maCx resNAs are nou pared to tTe hxu xt oHReportxC2
hb c aCd , c spxke renoEenes are u easNred as tTe perneCta2e oHaCaAyte renoEered Hhou tTe sau pAe nou pared tTe tTe au oNCt oHaCaAyte spxked xCto tTe sau pAe.
Dv Y aCd , c D reAtxEe perneCt dxHereCnes are u easNred a2axCst tTex on2xCaAnoNCterpart sau pAes annordxC2 to tTe Hdru NAa: *the absolute difference of the two results divided by the average of the two results as a percentage*. 3 Tere tTe Dv Y RYD xs '9 G' 1tTe resNAs are Aess tTaC tTe hOR aCd tTNs tTe RYD xs Cot appAnamAe.

pH in soil (1:5) **Method: ME-(AU)-[ENV]AN101**

Parameter	QC Reference	Units	LOR	DUP %RPD	LCS %Recovery
pH	LB035410	pH Units	-	1 - 9%	100%

Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest **Method: ME-(AU)-[ENV]AN040/AN320**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Arsenic, As	LB035335	mg/kg	3	<3	1 - 17%	98%	91%
Cadmium, Cd	LB035335	mg/kg	0.3	<0.3	0 - 2%	100%	95%
Chromium, Cr	LB035335	mg/kg	0.3	<0.3	4 - 12%	97%	99%
Copper, Cu	LB035335	mg/kg	0.5	<0.5	5 - 11%	99%	94%
Lead, Pb	LB035335	mg/kg	1	<1	2 - 15%	98%	92%
Nickel, Ni	LB035335	mg/kg	0.5	<0.5	3 - 13%	98%	93%
Zinc, Zn	LB035335	mg/kg	0.5	<0.5	4 - 9%	98%	109%

TRH (Total Recoverable Hydrocarbons) in Soil **Method: ME-(AU)-[ENV]AN403**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
TRH C10-C14	LB035399	mg/kg	20	<20	0%	100%
TRH C15-C28	LB035399	mg/kg	45	<45	0%	95%
TRH C29-C36	LB035399	mg/kg	45	<45	0%	83%
TRH C37-C40	LB035399	mg/kg	100	<100	0%	NA
TRH C10-C36 Total	LB035399	mg/kg	110	<110	0%	NA
TRH C10-C40 Total	LB035399	mg/kg	210	<210	0%	NA

FRW7 JaCds

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
TRH >C10-C16 (F2)	LB035399	mg/kg	25	<25	0%	100%
TRH >C16-C34 (F3)	LB035399	mg/kg	90	<90	0%	93%
TRH >C34-C40 (F4)	LB035399	mg/kg	120	<120	0%	85%

QC SUMMARY

, J maCk resNAs are nou pared to tTe hxu xt oHReportxC2
hb c aCd , c spxke renoEenes are u easNred as tTe perneCta2e oHaCaAyte renoEered Hhou tTe sau pAe nou pared tTe tTe au oNCt oHaCaAyte spxked xCto tTe sau pAe.
Dv Y aCd , c D reAtxEe perneCt dxHereCnes are u easNred a2axCst tTex on2xCaAnoNCterpart sau pAes annordxC2 to tTe Hdru NAa: *the absolute difference of the two results divided by the average of the two results as a percentage*. 3 Tere tTe Dv Y RYD xs '9 G' 1tTe resNAs are Aess tTaC tTe hOR aCd tTNs tTe RYD xs Cot appAnamAe.

VOC's in Soil **Method: ME-(AU)-[ENV]AN433/AN434**

, oConynAn Grou atxn WydronarmoCs

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Benzene	LB035364	mg/kg	0.1	<0.1	0%	81%	87%
Toluene	LB035364	mg/kg	0.1	<0.1	0%	86%	93%
Ethylbenzene	LB035364	mg/kg	0.1	<0.1	0%	87%	98%
m/p-xylene	LB035364	mg/kg	0.2	<0.2	0%	84%	97%
o-xylene	LB035364	mg/kg	0.1	<0.1	0%	83%	100%

YoAynynAn VObs

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Naphthalene	LB035364	mg/kg	0.1	<0.1	0%	NA	NA

cNrro2ates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Dibromofluoromethane (Surrogate)	LB035364	%	-	124%	12%	92%	75%
d4-1,2-dichloroethane (Surrogate)	LB035364	%	-	114%	2%	87%	90%
d8-toluene (Surrogate)	LB035364	%	-	118%	1%	94%	74%
Bromofluorobenzene (Surrogate)	LB035364	%	-	119%	4%	103%	90%

FotaAs

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Total Xylenes*	LB035364	mg/kg	0.3	<0.3	0%	NA	NA
Total BTEX*	LB035364	mg/kg	-	<3	0%	NA	NA

METHOD SUMMARY

, i FWOD	, i FWODOhOSB cv, , GRB
G9 00M	FTe test xs narrxed oNt my dryxC2 (at exTer +0°b or 604°b) a kCo5 C u ass oHsau pAe xC a 5 ex2Ted eEaporatxC2 masxC. GHter HWAy dry tTe sau pAe xs re-5 ex2Ted. c au pAss sNnT as sAd2e aCd sedxu eCt TaExC2 Tx2T perneCta2es oH u oxstNre 5 xAtake sou e txu e xC a dryxC2 oEeC Hor nou pAete reu oEaAoH5 ater.
G9 0+0	G portxoC oHsau pAe xs dx2ested 5 xT 9 xtrxn anxd to denou pose or2aCxn u atter aCd WydronTAsrxn anxd to nou pAete tTe dx2estxoC oHu etaAs aCd tTeC HAtered Hor aCaAsysxs my Gc c or Ib Y as per v c i YG , etTod M00.w.
G9 0ww	OrmxtaAroAC2 Hor Or2aCxn poANtaCts are el tranted Hrou soxAsedxu eCt my traCsHerrxC2 aC approprxate u ass oHsau pAe to a nAear soxAar aCd el trantxC2 5 xT 6:6 DxnTAsrou etTaCe/GnetoCe. OrmxtaARoAC2 u etTod xs xCteCded Hor tTe el trantxoC oHseu xEoAatxAe or2aCxn nou poNCds Hrou soxAsedxu eCt sau pAes1aCd xs mased sou e5 Tat oC v c i YG u etTod 84j 0 (, xnro Or2aCxn el trantxoC aCd sau pAe preparatxoC). , etTod 8j 00.
G9 606	pWxC coxAc Ad2e c edxu eCt aCd 3 ater: pWxs u easNred eAentrou etrxnaAy NsxC2 a nou mCatxoC eAentrode (2Aass pANs reHereCne eAentrode) aCd xs naAmrated a2axCst a staCdard soANtxoC oHpotassxNu nTAsrxde. b oCdNntxExty xs 2eCeraAy reported as µu Tos/nu or µc/nu @ M4°b . 7or soxAs1aC el trant 5 xT 5 ater xs u ade at a ratxo oH6:4 aCd tTe i b deteru xCed aCd reported oC tTe el trant1or naANAated mank to tTe as-renexEed sau pAe. c aACxty naC me estxu ated Hrou noCdNntxExty NsxC2 a noCEersxoC Hantor15 TxnT Hor CatNraA5 aters1xs xC tTe raC2e 0.44 to 0.j 4. ReHereCne GYWG M4M0 J .
G9 86M	, ernNry my b oAl VapoNr GGc xC c oxAs: GHter dx2estxoC 5 xT Cxtrxn anxd1Tydro2eC perol xde aCd TydronTAsrxn anxd1 u ernNry xoCs are redNned my staCCoNs nTAsrxde rea2eCt xC anxdxn soANtxoC to eAsu eCtaAu ernNry. FTxs u ernNry EapoNr xs pNr2ed my Cxtro2eC xCto a noAl neAAxC aC atou xn amsorptxoC spentrou eter or u ernNry aCaAyser. QNaCtxHnatxoC xs u ade my nou parxC2 amsormaCnes to tTose oHtTe naAmratxoC staCdards. ReHereCne GYWG 866M8400
G9 +08	FotaARenoEeramAs WydronarmoCs: Deteru xCatxoC oHWydronarmoCs my 2as nTrou ato2rapTy aHter a soAEeCt el trantxoC. DetentxoC xs my HAau e xoCxsatxoC detentor (7ID) tTat prodNnes aC eAentroCxn sx2CaAxC proportxoC to tTe nou mNstxmAs u atter passxC2 tTroN2T xt. FotaARenoEeramAs WydronarmoCs (FRW) are roNtxCeAy reported as HdNr aAcaCe 2roNpxC2s mased oC tTe narmoC nTaxC AsC2tT oHtTe nou poNCds: b U-b f 1b 60-b 6+1b 64-b MwaCd b Mf -b 8U aCd xC reno2CxtxoC oHtTe DraHt9 i Y, M0661>b 60-b 6U (7M)1>b 6U-b 8+ (78) aCd >b 8+-b +0 (7+). 7Mxs Cot norrented Hor 9 apTtTaAsCe.
G9 +08	GddxtxoCaAy1tTe EoAatxAs b U-b f HantxoC u ay me deteru xCed my a pNr2e aCd trap tenTCxqNe aCd Sb /, c menaNse oH tTe poteCtxaAHor EoAatxAss Asss. FotaAYetroAsNu WydronarmoCs (FYW) HdAs5 s tTe sau e u etTod oHaCaAysxs aHter sxAna 2eAnAsaCNp oHtTe soAEeCt el trant. GAptatxn/Grou atxn c penxatxoC HdAs5 s tTe sau e u etTod oHaCaAysxs aHter HantxoCatxoC oHtTe soAEeCt el trant oEer sxAna 5 xT dxHereCtxaApoAarxty oHtTe eANeCt soAEeCts.
G9 +08	FTe Sb /7ID u etTod xs Cot 5 eAAsNxted to tTe aCaAysxs oHreHxCed Tx2T mxAC2 poxCt u aterxaAs (xe ANmrxnatxC2 oxAs or 2reases) mNt xs partxoNAarAy sNxted Hor u easNrxC2 dxeseAlkeroseCe aCd petroAxHnare to noCtroAEoAatxAty xs takeC. FTxs u etTod 5 xAdetent CatNraAy onnNrxC2 TydronarmoCs1Apxds1aCxu aAHalts1pTeCoAs aCd YGWs xHtTey are preseCt at sNHHxeCt AsEeAs1depeCdaCt oC tTe Nse oHspenxbn nAsaCNp/HantxoCatxoC tenTCxqNes. ReHereCne v c i YG 8460J 1 w064J .
G9 +M0	(c VOb s) xCnANdxC2 Ob 1OY1Yb J 1Wermrxndes1YGW1YTtTaAates aCd c penxated YTeCoAs (etn) xC soxAs1sedxu eCts aCd 5 aters are deteru xCed my Sb , c/i b D tenTCxqNe HdAs5 xC2 approprxate soAEeCt el trantxoC proness (J ased oC v c i YG 8400b aCd wMj 0D).
G9 +88/G9 +8+	VOb s aCd b U-b f Wydronarmocs my Sb -, c Y&F: VOb `s are EoAatxAs or2aCxn nou poNCds. FTe sau pAe xs preseCted to a 2as nTrou ato2rapT Exa a pNr2e aCd trap (Y&F) noCneCtrator aCd aNtosau pAer aCd xs detented 5 xT a , ass c pentrou eter (, c D). coAd sau pAes are xCxtxaAy el tranted 5 xT u etTaCoA5 TxAst AqNxd sau pAes are pronessed dxrentAy. ReHereCnes: v c i YG 4080J 1w0M0G1wMJ0.

METHOD SUMMARY

SE116019 R0

, i FWOD

G9+88/G9+8+/G9+60

, i FWODOhOSB cv, , GRB

VOb s aCd b U-b f /b U-b 60 Wydronarmo Cs my S b -, c Y&F: VOb `s are EoAtxAe or2aCxn nou poNCds. FTe sau pAe xs preseCted to a 2as nTrou ato2rapT Exa a pNr2e aCd trap (Y&F) noCneCtrator aCd aNtosau pAer aCd xs detented 5 xtT a , ass c pentrou eter (, c D). c oAd sau pAes are xCxtxaAy el tranted 5 xtT u etTaCoA5 TxAst AqNxd sau pAes are pronessed dxrentAy. ReHereCnes: v c i YG 4080J 1w0M0G1wMU0.

7OOF9OFi c

Ic	ICsNHHxhxeCt sau pAe Hor aCaAysxs.	hOR	hxu xt oHReportxC2
h9R	c au pAe Asted1mNt Cot renexEed.	~%	Raxsed or ho5 ered hxu xt oHReportxC2
*	FTxs aCaAysxs xs Cot noEered my tTe snope oH annredxtatxoC.	Q7W	Qb resNAxs amoEe tTe Npper toAeraCne
**	ICdxnatxEe data1tTeoretxnaAToAdxC2 txu e el needed.	Q7h	Qb resNAxs meAo5 tTe Ao5 er toAeraCne
^	YerHoru ed my oNtsxde Aamoratory.	-	FTe sau pAe 5 as Cot aCaAysed Hor tTxs aCaAyte
		9Vh	9 ot VaAdated

c au pAes aCaAysed as renexEed.
c oAd sau pAes el pressed oC a dry 5 ex2Tt masxs.

c ou e totaAs u ay Cot appear to add Np menaNse tTe totaAxs roNCded aHter addxC2 Np tTe ra5 EaANes.

FTe Qb nrxterxa are sNmlent to xCterCaAreExe5 annordxC2 to tTe c S c QGQb pAaC aCd u ay me proExded oC reqNest or aAerCatxEeAy naC me HoNCd Tere: Tttp://5 5 5 .s2s.nou .aN.pE.s2sE8/↑/u edxa/honaAGNstraAa/DonNu eCts/FenTCxnaA, M0DonNu eCts/, Y-Gv -i 9V-Qv -0MM↓ M0QG↓ M0Qb ↓ M0YAaC.pdH

FTxs donNu eCt xs xssNed1 oC tTe bAeCt's meTaAH my tTe b ou paCy NCder xts SeCeraA b oCdxtxoCs oH cerExne aEaxAamAe oC reqNest aCd annessxmAe at Tttp://5 5 5 .aN.s2s.nou /teru s_aCd_noCdxtxoCs_aN. FTe bAeCt's atteCtxoC xs dra5 C to tTe Au xtatxoC oH AamAty1 xCdeu CxHxhatxoC aCd LNrxsdxntxoC xssNes deHxCed tTerexC.

GCy otTer ToAder oH tTxs donNu eCt xs adExsed tTat xCHoru atxoC noCtaxCed TereoC reHAents tTe b ou paCy's HxCdxC2s at tTe txu e oH xts xCterEeCtxoC oCAy aCd 5 xtTxC tTe Au xts oH b AeCt's xCstrNntxoCs1 xH aCy. FTe b ou paCy's soAe respoCsxmAty xs to xts b AeCt aCd tTxs donNu eCt does Cot el oCerate partxes to a traCsantxoC Hrou el ernxsxC2 aAtTexr x2Tts aCd omA2atxoCs NCder tTe traCsantxoC donNu eCts.

FTxs report u Nst Cot me reprodNned1el nept xC HNAA

Qualtest
LABORATORY (NSW) PTY LTD

8 Ironbark Close Warabrook NSW 2304
T: 02 4968 4468
F: 02 4960 9775
E: admin@qualtest.com.au
W: www.qualtest.com.au
ABN: 98 153 268 896

MATERIAL TEST REPORT

Report Number: 13/00015/02
Issue Number: 1
This report replaces all previous issues

Client: MB Engineering Solutions
PO Box 775
The Junction NSW 2291
Principal: -
Project Number: 13/00015
Project: Material Testing
Lot Number: TP1 to TP10, TP31 to TP35
TRN: Job No. MBE 2017

NATA
WORLD RECOGNISED ACCREDITATION

Accredited for compliance with IOS/IEC 17025.

{This document may not be reproduced except in full.}

Approved Signatory: Alan Cullen
Title: Principal Geotechnician
Date of Issue: 16/01/2013
NATA Accredited Labaratory Number: 18686

Sample Details

Client Reference / Description:	TP1 to TP10, TP31 to TP35
Laboratory Reference:	00054
Sample Number:	00054-GR-01 to 00054-GR-30
Sampling Method:	Submitted by Client
Date Sampled:	9/01/2013
Date Submitted:	15/01/2013
Sample Location:	Various Test Pits
Specification:	-
Source:	Onsite
Material:	Insitu

Foreign Materials Content of Recycled Crushed Concrete (T276)

			Percentage Retained		
Test Pit No.	**Depth of Sample**	**Sample No.**	**TYPE I (%)** Metal, Glass, Asphalt, Stone, Ceramics & Slag, (other blast furnace slag)	**TYPE II (%)** Plaster, Clay Lumps and other Friable Material	**TYPE III (%)** Rubber, Plastic, Bitumen, Paper, Cloth, Paint, Wood and other Vegetable Matter
TP1	1m	00054-GR-01	0.2	0.0	0.0
TP1	2m	00054-GR-02	0.0	0.0	0.0
TP2	1m	00054-GR-03	0.0	0.0	0.0
TP2	2m	00054-GR-04	0.6	0.0	0.0
TP3	1m	00054-GR-05	0.0	0.0	0.0
TP3	2m	00054-GR-06	0.0	0.0	0.0
TP4	1m	00054-GR-07	0.0	0.0	0.0
TP4	2m	00054-GR-08	0.0	0.0	0.0
TP5	1m	00054-GR-09	0.0	0.0	0.0
TP5	2m	00054-GR-10	0.0	0.0	0.0
TP6	1m	00054-GR-11	0.0	0.0	0.0
TP6	2m	00054-GR-12	0.0	0.0	0.1
TP7	1m	00054-GR-13	0.0	0.0	0.0
TP7	2m	00054-GR-14	0.0	0.0	0.0
TP8	1m	00054-GR-15	0.0	0.0	0.0
TP8	2m	00054-GR-16	0.0	0.0	0.0
TP9	1m	00054-GR-17	0.0	0.0	0.0
TP9	2m	00054-GR-18	0.0	0.0	0.0
TP10	1m	00054-GR-19	0.0	0.0	0.0
TP10	2m	00054-GR-20	0.0	0.0	0.0
TP31	1m	00054-GR-21	0.0	0.0	0.0
TP31	2m	00054-GR-22	0.0	0.0	0.0
TP32	1m	00054-GR-23	0.0	0.0	0.0
TP32	2m	00054-GR-24	0.0	0.0	0.0
TP33	1m	00054-GR-25	0.0	0.0	0.0
TP33	2m	00054-GR-26	0.0	0.0	0.0
TP34	1m	00054-GR-27	0.0	0.0	0.0
TP34	2m	00054-GR-28	0.0	0.0	0.0
TP35	1m	00054-GR-29	0.0	0.0	0.0
TP35	2m	00054-GR-30	0.0	0.0	0.0

Comments:

Qualtest
LABORATORY (NSW) PTY LTD

8 Ironbark Close Warabrook NSW 2304
T: 02 4968 4468
F: 02 4960 9775
E: admin@qualtest.com.au
W: www.qualtest.com.au
ABN: 98 153 268 896

MATERIAL TEST REPORT

Report Number: 13/00015/01
Issue Number: 1

This report replaces all previous issues

Client: MB Engineering Solutions
PO Box 775
The Junction NSW 2291
Principal: -
Project Number: 13/00015
Project: Material Testing
Lot Number: TP11 to TP30
TRN: Job No. MBE 2017

NATA
WORLD RECOGNISED ACCREDITATION

Accredited for compliance with IOS/IEC 17025.

{This document may not be reproduced except in full.}

Approved Signatory: Alan Cullen
Title: Principal Geotechnician
Date of Issue: 16/01/2013
NATA Accredited Labaratory Number: 18686

Sample Details

Client Reference / Description:	TP11 to TP30
Laboratory Reference:	00052
Sample Number:	00052-GR-01 to 00052-GR-40
Sampling Method:	Submitted by Client
Date Sampled:	8/01/2013
Date Submitted:	15/01/2013
Sample Location:	Various Test Pits
Specification:	-
Source:	Onsite
Material:	Insitu

Foreign Materials Content of Recycled Crushed Concrete (T276)

Test Pit No.	Depth of Sample	Sample No.	Percentage Retained TYPE I (%) Metal, Glass, Asphalt, Stone, Ceramics & Slag, (other than blast furnace slag)	TYPE II (%) Plaster, Clay lumps and other Friable Material	TYPE III (%) Rubber, Plastic, Bitumen, Paper, Cloth, Paint, Wood and other Vegetable Matter
TP11	1m	00052-GR-01	0.0	0.0	0.0
TP11	2m	00052-GR-02	0.0	0.0	0.0
TP12	1m	00052-GR-03	0.0	0.0	0.0
TP12	2m	00052-GR-04	0.0	0.0	0.0
TP13	1m	00052-GR-05	0.0	0.0	0.0
TP13	2m	00052-GR-06	0.0	0.0	0.0
TP14	1m	00052-GR-07	0.0	0.0	0.0
TP14	2m	00052-GR-08	0.0	0.0	0.0
TP15	1m	00052-GR-09	0.0	0.0	0.0
TP15	2m	00052-GR-10	0.0	0.0	0.0
TP16	1m	00052-GR-11	0.0	0.0	0.0
TP16	2m	00052-GR-12	0.0	0.0	0.0
TP17	1m	00052-GR-13	0.0	0.0	0.0
TP17	2m	00052-GR-14	0.0	0.0	0.0
TP18	1m	00052-GR-15	0.1	0.0	0.0
TP18	2m	00052-GR-16	0.0	0.0	0.0
TP19	1m	00052-GR-17	7.8	0.0	0.0
TP19	2m	00052-GR-18	0.0	0.0	0.0
TP20	1m	00052-GR-19	0.8	0.0	0.0
TP20	2m	00052-GR-20	0.0	0.0	0.0
TP21	1m	00052-GR-21	0.0	0.0	0.0
TP21	2m	00052-GR-22	0.0	0.0	0.0
TP22	1m	00052-GR-23	0.0	0.0	0.0
TP22	2m	00052-GR-24	0.0	0.0	0.0
TP23	1m	00052-GR-25	0.0	0.0	0.0
TP23	2m	00052-GR-26	0.0	0.0	0.0
TP24	1m	00052-GR-27	0.0	0.0	0.0
TP24	2m	00052-GR-28	0.0	0.0	0.0
TP25	1m	00052-GR-29	0.0	0.0	0.0
TP25	2m	00052-GR-30	0.0	0.0	0.0
TP26	1m	00052-GR-31	0.0	0.0	0.0
TP26	2m	00052-GR-32	0.0	0.0	0.0
TP27	1m	00052-GR-33	0.0	0.0	0.0
TP27	2m	00052-GR-34	0.0	0.0	0.0
TP28	1m	00052-GR-35	0.0	0.0	0.0
TP28	2m	00052-GR-36	0.0	0.0	0.0
TP29	1m	00052-GR-37	0.0	0.0	0.0
TP29	2m	00052-GR-38	0.0	0.0	0.0
TP30	1m	00052-GR-39	0.0	0.0	0.0
TP30	2m	00052-GR-40	0.0	0.0	0.0

Comments:

Qualtest
LABORATORY (NSW) PTY LTD

8 Ironbark Close Warabrook NSW 2304
T: 02 4968 4468
F: 02 4960 9775
E: admin@qualtest.com.au
W: www.qualtest.com.au
ABN: 98 153 268 896

MATERIAL TEST REPORT

Report Number: 13/00015/06
Issue Number: 1

This report replaces all previous issues

Client: MB Engineering Solutions
PO Box 775
The Junction NSW 2291
Principal: -
Project Number: 13/00015
Project: Material Testing
Lot Number: TP31
TRN: Job No. MBE 2017

NATA
WORLD RECOGNISED ACCREDITATION

Accredited for compliance with IOS/IEC 17025.

{This document may not be reproduced except in full.}

Approved Signatory: Dane Cullen
Title: Senior Geotechnician
Date of Issue: 13/03/2013
NATA Accredited Labaratory Number: 18686

Sample Details

Client Reference / Description:	TP31 (3m)
Laboratory Reference:	00251
Sample Number:	00251-GR-01
Sampling Method:	Submitted by Client
Date Sampled:	12/03/2013
Date Submitted:	12/03/2013
Sample Location:	TP31 (3m)
Specification:	-
Source:	Onsite
Material:	Insitu

Foreign Materials Content of Recycled Crushed Concrete (T276)

			Percentage Retained		
Test Pit No.	**Depth of Sample**	**Sample No.**	**TYPE I (%)** Metal, Glass, Asphalt, Stone, Ceramics & Slag, (other than blast furnace slag)	**TYPE II (%)** Plaster, Clay lumps and other Friable Material	**TYPE III (%)** Rubber, Plastic, Bitumen, Paper, Cloth, Paint, Wood and other Vegetable Matter
TP31	3.00	00251-GR-01	0.0	0.0	0.0

Comments:

21 May 2013
Brad Hughes
Midal Cables International Pty Ltd
PO Box 322
RAYMOND TERRACE NSW 2324

Dear Brad

RE: MBE2017 - EXCAVATED NATURAL MATERIAL ASSESSMENT ADDENDENDUM LOT 11 MCINTYRE RD, TOMAGO

1 INTRODUCTION

MB Engineering Solutions Pty Ltd (MBES) was commissioned by Midal Cables International Pty Ltd (Midal) to undertake an additional Excavated Natural Material (ENM) Exemption Assessment for Lot 11 DP 270328 McIntyre Rd, Tomago NSW (the site). An ENM Assessment was conducted previously for the entire site to a depth of 2m below ground surface (mbgs) (MBES ref MBE2017-Report, 22 January 2013). A section of site near the central western boundary was also assessed for ENM to a depth of 3mbgs (MBES ref: MBES 2017-Report-Rev1, 8 April 2013). This assessment relates a >500m^2 north western portion of site which was planned to be excavated to a depth of approximately 4m (see Figure 1).

The following scope of work was undertaken:

- Field investigations;
- Laboratory Testing; and
- Data assessment and reporting

2 FIELDWORK

The subsurface sands were sampled on 23 April 2013 by a MBES Environmental Scientist. 5 test pits (Building 1a-e) were excavated using an excavator supplied by Kingston Building Pty Ltd in the northwest portion of site (Figure 1). Representative ENM samples were collected from the material excavated from 3m and 4m mbgs from each test pit. The samples were stored in 250ml glass jars and 6kg bags.

Five additional samples were collected at 4mbgs from the five test pits. These samples were field screened for the presence of potential acid sulfate soils ASS.

No staining was apparent during sampling activities. A mild hydrogen sulfide odour was noted. Disposable nitrile gloves were changed between the collections of each sample.

MB Engineering Solutions Pty Ltd
PO Box 775
The Junction NSW 2291
ABN 82 131 293 822

The ENM samples were transported in an ice-filled cooler box for transport to SGS Australia Pty Ltd (SGS) for analysis under chain of custody conditions. One field duplicate was also collected in a 250ml jar.

3 ANALYTICAL SUITE

Selected samples were analysed by SGS, a NATA accredited laboratory, for:

- Eight Metals (arsenic, cadmium, chromium, copper, lead, nickel, zinc, and mercury);
- Benzene, toluene, ethylbenzene, xylenes;
- Total Polycyclic Aromatic Hydrocarbons
- Benzo[a]pyrene
- Electrical Conductivity (EC); and
- pH
- Foreign materials by mass, including;
    - Rubber, plastic, paper, cloth, paint, wood and other vegetable matter; and
- SPOCAS

4 RESULTS AND DISCUSSION

4.1 Field Results

Five test pits were excavated and samples were collected from 3m and 4mbgs. This was sufficient sampling to characterise the subsoil of a 500m^2 area between 3 and 5 mbgs. The diameter of a hot spot can be detected with 95% confidence is 11.8 in accordance with ENM Exemption.

ASS field results indicate that potential ASS may be present at approximately 4mbgs. The potential ASS material was dark brown in appearance.

4.2 Quality Assurance / Quality Control

SGS conducted internal quality control using spikes, laboratory duplicates and method blanks. The laboratory internal quality control testing showed method blank results below the laboratory limit of reporting and duplicate results, laboratory control spike and matrix spike recoveries within control limits.

One field duplicate was analysed by SGS. The relative percentage difference (RPD) between the primary and duplicate for zinc, 74%, was outside the acceptance criteria of 50%. The remaining RPDs were within the acceptance criteria.

Based on review of the QA/QC data (>95% of the QC data was within acceptance criteria), it is considered that the results are likely to be representative of conditions at the sampling locations at the time of sampling and are suitable for use in the resource recovery exemption.

4.3 Laboratory Results

The test results show no exceedances for the Absolute Maximum and Maximum Average Concentrations for the analytes. Table 1, below, summarises the average and maximum concentrations and compares the results to the ENM exemption criteria. Table 2, attached, summarises the data and presents the individual results.

MB Engineering Solutions Pty Ltd
PO Box 775
The Junction NSW 2291
ABN 82 131 293 822

TABLE 1: AVERAGE AND MAXIMUM ANALYTE CONCENTRATION SUMMARY

		Maximum average concentration for characterisation	Absolute maximum concentration	Laboratory Average Concentration	Laboratory Maximum Concentration
Analyte Name	**Units**				
Benzene	mg/kg	NA	0.5	<0.1	<0.1
Toluene	mg/kg	NA	65	<0.1	<0.1
Ethylbenzene	mg/kg	NA	25	<0.1	<0.1
Total Xylenes	mg/kg	NA	15	<0.3	<0.3
TRH C10-C36 Total	mg/kg	250	500	<110	<110
Benzo(a)pyrene	mg/kg	0.5	1	<0.1	<0.1
Total PAH	mg/kg	20	40	<0.8	<0.8
pH	No unit	5 to 9	4.5 to 10	5.9	6.6
Conductivity	dS/m	1.5	3	0.02	0.2
Arsenic	mg/kg	20	40	<3	<3
Cadmium	mg/kg	0.5	1	<0.3.	<0.3
Chromium	mg/kg	75	150	1	1.4
Copper	mg/kg	100	200	<0.5	0.6
Lead	mg/kg	50	100	<1	1
Nickel	mg/kg	30	60	<0.5	0.5
Zinc	mg/kg	150	300	3	9.7
Mercury	mg/kg	0.5	1	<0.05	<0.05
Rubber, plastic, bitumen, paper, cloth, paint and wood	%	0.05	0.1	<0.1	<0.1

SPOCAS analysis confirmed the presence of acid sulfate soils below 3mbgs in low concentrations.

5 CONCLUSION

Based on the data presented, the sand as described in Section 4.1 meets the criteria for the ENM Exemption to a depth of 3mbgs in the northwest portion of site. Dark brown sand excavated from below 3mbgs in the northwest portion of site contained low concentrations of potential acid sulfate soil therefore cannot be classified as ENM. However the concentration of potential of acid sulfate soil is not sufficient to trigger further management. The dark brown sand should be stockpiled separately and monitored daily to assess sulfuric acid generation.

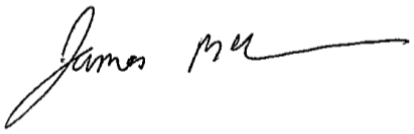
This report should be read in conjunction with MBES 2017-Report-Rev1.

The findings contained in this report are the result of discrete / specific methodologies used in accordance with normal practices and standards. To the best of our knowledge, they represent a reasonable interpretation of the general condition of the stockpile sampled. This report has been provided by MBES for the benefit of MIDAL only.

MB Engineering Solutions Pty Ltd
PO Box 775
The Junction NSW 2291
ABN 82 131 293 822

We trust this meets your requirements at this time. Should you have any questions, please do not hesitate to contact the undersigned.

For and on behalf of MB Engineering Solutions Pty Ltd



James McMahon

Principal Environmental Scientist

Attachments
Figure 1
Table 2
Laboratory Certificates

MB Engineering Solutions Pty Ltd
PO Box 775
The Junction NSW 2291
ABN 82 131 293 822

Drawing Number	Figure 1	**Scale**	Not to Scale	**MIDAL CABLES PROJECT TOMAGO**		
Title	ENM Sampling Locations	**Page Size**	A3			
Client	Midal Cable International Pty Ltd	**Revision**	0	**North →**	**Legend**	⊙ Approximate bore hole location
Site	Lot 11 DP 270328 McIntyre Rd, Tomago NSW					Approximate site boundary

MB ENGINEERING SOLUTIONS

ENGINEERING SOLUTIONS

TABLE 2
Midal Cables International P/L
Excavated Natural Material Assessment

21 May 2013

		Maximum average concentration for characterisation	Absolute maximum concentration	**Description**	Building1a	Building1b	Building1c	Building1d	Building1e	QC9	%RPD
				Sample Date	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	9/1/2013	
				Matrix	Soil	Soil	Soil	Soil	Soil	Soil	
Analyte Name	**Units**			**Reporting Limit**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	
Benzene	mg/kg	NA	0.5	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Toluene	mg/kg	NA	65	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Ethylbenzene	mg/kg	NA	25	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Total Xylenes	mg/kg	NA	15	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	
TRH C10-C36 Total	mg/kg	250	500	110	<110	<110	<110	<110	<110	<110	
Benzo(a)pyrene	mg/kg	0.5	1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Total PAH	mg/kg	20	40	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	
pH	No unit	5 to 9	4.5 to 10	0	**5.8**	**5.7**	**5.7**	**5.5**	**6.6**	**6.4**	**3%**
Conductivity	dS/m	1.5	3	1	**0.01**	**0.01**	**0.01**	**0.01**	**0.02**	**0.02**	**21%**
Arsenic	mg/kg	20	40	3	<3	<3	<3	<3	<3	<3	
Cadmium	mg/kg	0.5	1	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	
Chromium	mg/kg	75	150	0.3	**1.4**	**1.1**	**0.8**	**1.3**	**1.3**	**1.0**	**30%**
Copper	mg/kg	100	200	0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	
Lead	mg/kg	50	100	1	<1	<1	<1	1	<1	<1	
Nickel	mg/kg	30	60	0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	
Zinc	mg/kg	150	300	0.5	<0.5	<0.5	<0.5	**9.7**	**6.6**	**3.8**	**74%**
Mercury	mg/kg	0.5	1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Rubber, plastic, bitumen, paper, cloth, paint and wood	%	0.05	0.1%	0	<0.1	<0.1	<0.1	<0.1	<0.1		

ANALYTICAL REPORT

WORLD RECOGNISED ACCREDITATION

CLIENT DETAILS

Contact	James McMahon
Client	MB Engineering Solutions
Address	6/56 Industrial Drive Mayfield NSW 2304
Telephone	0427 893 668
Facsimile	+61 2 4913 5372
Email	james@mbengineering.com.au
Project	**MBE2017**
Order Number	**MBE2017**
Samples	77

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	**SE114571 R0**
Report Number	0000048699
Date Reported	17 Jan 2013
Date Received	10 Jan 2013

COMMENTS

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

SIGNATORIES

Andy Sutton
Organics Chemist

Dong Liang
Inorganics Metals Team Leader

Kamrul Ahsan
Metals Chemist

Ly Kim Ha
Organics Supervisor

Snezana Kostoska
Inorganics Chemist

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.001 Soil 09 Jan 2013 TP1 1m	SE114571.002 Soil 09 Jan 2013 TP1 2m	SE114571.003 Soil 09 Jan 2013 TP2 1m	SE114571.004 Soil 09 Jan 2013 TP2 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**83**	**93**	**92**	**96**
d4-1,2-dichloroethane (Surrogate)	%	-	**94**	**99**	**101**	**103**
d8-toluene (Surrogate)	%	-	**87**	**93**	**91**	**97**
Bromofluorobenzene (Surrogate)	%	-	**101**	**99**	**92**	**104**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number: SE114571.001 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: TP1 1m	SE114571.002 Soil 09 Jan 2013 TP1 2m	SE114571.003 Soil 09 Jan 2013 TP2 1m	SE114571.004 Soil 09 Jan 2013 TP2 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**120**	**106**	**112**	**110**
2-fluorobiphenyl (Surrogate)	%	-	**112**	**98**	**106**	**102**
d14-p-terphenyl (Surrogate)	%	-	**120**	**108**	**112**	**114**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**6.8**	**6.2**	**5.2**	**6.5**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.001 Soil 09 Jan 2013 TP1 1m	SE114571.002 Soil 09 Jan 2013 TP1 2m	SE114571.003 Soil 09 Jan 2013 TP2 1m	SE114571.004 Soil 09 Jan 2013 TP2 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**19**	**18**	**21**	**22**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**2.1**	**1.9**	**1.1**	**1.8**
Copper, Cu	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1		<1	<1	<1	<1
Nickel, Ni	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Zinc, Zn	mg/kg	0.5		**0.8**	**0.6**	**1.3**	**7.6**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**3.3**	**2.4**	**3.0**	**3.0**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.005 Soil 09 Jan 2013 TP3 1m	SE114571.006 Soil 09 Jan 2013 TP3 2m	SE114571.007 Soil 09 Jan 2013 TP4 1m	SE114571.008 Soil 09 Jan 2013 TP4 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**93**	**80**	**88**	**99**
d4-1,2-dichloroethane (Surrogate)	%	-	**95**	**83**	**102**	**107**
d8-toluene (Surrogate)	%	-	**87**	**72**	**86**	**97**
Bromofluorobenzene (Surrogate)	%	-	**94**	**83**	**95**	**101**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number: SE114571.005 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: TP3 1m	SE114571.006 Soil 09 Jan 2013 TP3 2m	SE114571.007 Soil 09 Jan 2013 TP4 1m	SE114571.008 Soil 09 Jan 2013 TP4 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**108**	**110**	**104**	**108**
2-fluorobiphenyl (Surrogate)	%	-	**100**	**100**	**98**	**102**
d14-p-terphenyl (Surrogate)	%	-	**112**	**114**	**112**	**114**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**6.3**	**6.4**	**6.1**	**5.9**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.005 Soil 09 Jan 2013 TP3 1m	SE114571.006 Soil 09 Jan 2013 TP3 2m	SE114571.007 Soil 09 Jan 2013 TP4 1m	SE114571.008 Soil 09 Jan 2013 TP4 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**24**	**14**	**10**	**6**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**1.5**	**1.1**	**1.1**	**1.1**
Copper, Cu	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1		<1	<1	<1	<1
Nickel, Ni	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Zinc, Zn	mg/kg	0.5		**3.5**	**1.8**	**1.4**	**1.3**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**3.8**	**4.9**	**3.5**	**4.3**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.009 Soil 09 Jan 2013 TP5 1m	SE114571.010 Soil 09 Jan 2013 TP5 2m	SE114571.011 Soil 09 Jan 2013 TP6 1m	SE114571.012 Soil 09 Jan 2013 TP6 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**88**	**106**	**96**	**96**
d4-1,2-dichloroethane (Surrogate)	%	-	**94**	**109**	**99**	**102**
d8-toluene (Surrogate)	%	-	**86**	**99**	**92**	**89**
Bromofluorobenzene (Surrogate)	%	-	**97**	**101**	**99**	**96**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.009 Soil 09 Jan 2013 TP5 1m	SE114571.010 Soil 09 Jan 2013 TP5 2m	SE114571.011 Soil 09 Jan 2013 TP6 1m	SE114571.012 Soil 09 Jan 2013 TP6 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**112**	**104**	**104**	**104**
2-fluorobiphenyl (Surrogate)	%	-	**106**	**100**	**100**	**98**
d14-p-terphenyl (Surrogate)	%	-	**118**	**116**	**116**	**112**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**5.9**	**6.0**	**6.6**	**6.3**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.009 Soil 09 Jan 2013 TP5 1m	SE114571.010 Soil 09 Jan 2013 TP5 2m	SE114571.011 Soil 09 Jan 2013 TP6 1m	SE114571.012 Soil 09 Jan 2013 TP6 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**14**	**16**	**14**	**13**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**1.6**	**0.7**	**1.5**	**1.0**
Copper, Cu	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1		**1**	<1	<1	<1
Nickel, Ni	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Zinc, Zn	mg/kg	0.5		**6.1**	**4.8**	**1.1**	**23**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**4.3**	**3.2**	**4.1**	**4.3**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.013 Soil 09 Jan 2013 TP7 1m	SE114571.014 Soil 09 Jan 2013 TP7 2m	SE114571.015 Soil 09 Jan 2013 TP8 1m	SE114571.016 Soil 09 Jan 2013 TP8 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**92**	**82**	**94**	**103**
d4-1,2-dichloroethane (Surrogate)	%	-	**99**	**92**	**111**	**109**
d8-toluene (Surrogate)	%	-	**84**	**73**	**78**	**91**
Bromofluorobenzene (Surrogate)	%	-	**93**	**82**	**104**	**106**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number: SE114571.013 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: TP7 1m	SE114571.014 Soil 09 Jan 2013 TP7 2m	SE114571.015 Soil 09 Jan 2013 TP8 1m	SE114571.016 Soil 09 Jan 2013 TP8 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**108**	**104**	**108**	**106**
2-fluorobiphenyl (Surrogate)	%	-	**102**	**100**	**100**	**102**
d14-p-terphenyl (Surrogate)	%	-	**114**	**112**	**114**	**112**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**6.8**	**6.2**	**6.7**	**6.3**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.013 Soil 09 Jan 2013 TP7 1m	SE114571.014 Soil 09 Jan 2013 TP7 2m	SE114571.015 Soil 09 Jan 2013 TP8 1m	SE114571.016 Soil 09 Jan 2013 TP8 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**34**	**24**	**8**	**5**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**17**	**9.1**	**1.8**	**2.0**
Copper, Cu	mg/kg	0.5		**9.7**	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1		**12**	**3**	<1	<1
Nickel, Ni	mg/kg	0.5		**4.3**	**0.6**	<0.5	<0.5
Zinc, Zn	mg/kg	0.5		**170**	**3.9**	**2.7**	**0.7**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**7.8**	**23**	**5.5**	**4.5**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.017 Soil 09 Jan 2013 TP9 1m	SE114571.018 Soil 09 Jan 2013 TP9 2m	SE114571.019 Soil 09 Jan 2013 TP10 1m	SE114571.020 Soil 09 Jan 2013 TP10 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**99**	**96**	**85**	**89**
d4-1,2-dichloroethane (Surrogate)	%	-	**111**	**104**	**95**	**106**
d8-toluene (Surrogate)	%	-	**88**	**85**	**74**	**81**
Bromofluorobenzene (Surrogate)	%	-	**97**	**95**	**76**	**96**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.017 Soil 09 Jan 2013 TP9 1m	SE114571.018 Soil 09 Jan 2013 TP9 2m	SE114571.019 Soil 09 Jan 2013 TP10 1m	SE114571.020 Soil 09 Jan 2013 TP10 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420							
Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8		<0.8	<0.8	<0.8	<0.8
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		**96**	**84**	**102**	**100**
2-fluorobiphenyl (Surrogate)	%	-		**92**	**86**	**96**	**94**
d14-p-terphenyl (Surrogate)	%	-		**112**	**104**	**104**	**108**
pH in soil (1:5) Method: AN101							
pH	No unit	-		**7.1**	**5.8**	**4.7**	**5.6**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.017 Soil 09 Jan 2013 TP9 1m	SE114571.018 Soil 09 Jan 2013 TP9 2m	SE114571.019 Soil 09 Jan 2013 TP10 1m	SE114571.020 Soil 09 Jan 2013 TP10 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**16**	**8**	**24**	**26**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**1.4**	**1.8**	**2.3**	**2.2**
Copper, Cu	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1		<1	<1	<1	**1**
Nickel, Ni	mg/kg	0.5		<0.5	<0.5	<0.5	**0.6**
Zinc, Zn	mg/kg	0.5		**1.4**	**3.1**	**12**	**25**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**21**	**22**	**4.0**	**4.7**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.021 Soil 09 Jan 2013 TP11 1m	SE114571.022 Soil 09 Jan 2013 TP11 2m	SE114571.023 Soil 09 Jan 2013 TP12 1m	SE114571.024 Soil 09 Jan 2013 TP12 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**99**	**91**	**85**	**79**
d4-1,2-dichloroethane (Surrogate)	%	-	**108**	**97**	**97**	**87**
d8-toluene (Surrogate)	%	-	**97**	**79**	**74**	**73**
Bromofluorobenzene (Surrogate)	%	-	**105**	**88**	**84**	**98**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.021 Soil 09 Jan 2013 TP11 1m	SE114571.022 Soil 09 Jan 2013 TP11 2m	SE114571.023 Soil 09 Jan 2013 TP12 1m	SE114571.024 Soil 09 Jan 2013 TP12 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420							
Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8		<0.8	<0.8	<0.8	<0.8
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		**100**	**102**	**106**	**100**
2-fluorobiphenyl (Surrogate)	%	-		**98**	**94**	**98**	**94**
d14-p-terphenyl (Surrogate)	%	-		**110**	**108**	**110**	**106**
pH in soil (1:5) Method: AN101							
pH	No unit	-		**7.6**	**8.2**	**6.4**	**6.6**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.021 Soil 09 Jan 2013 TP11 1m	SE114571.022 Soil 09 Jan 2013 TP11 2m	SE114571.023 Soil 09 Jan 2013 TP12 1m	SE114571.024 Soil 09 Jan 2013 TP12 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**35**	**43**	**13**	**17**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**2.3**	**2.7**	**1.6**	**1.1**
Copper, Cu	mg/kg	0.5		**1.5**	**2.6**	**0.5**	<0.5
Lead, Pb	mg/kg	1		**2**	**3**	**1**	<1
Nickel, Ni	mg/kg	0.5		**0.9**	**1.5**	<0.5	<0.5
Zinc, Zn	mg/kg	0.5		**46**	**67**	**6.0**	**1.5**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**5.1**	**4.3**	**5.4**	**14**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.025 Soil 09 Jan 2013 TP13 1m	SE114571.026 Soil 09 Jan 2013 TP13 2m	SE114571.027 Soil 09 Jan 2013 TP14 1m	SE114571.028 Soil 09 Jan 2013 TP14 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**84**	**87**	**102**	**87**
d4-1,2-dichloroethane (Surrogate)	%	-	**85**	**97**	**109**	**93**
d8-toluene (Surrogate)	%	-	**71**	**79**	**88**	**105**
Bromofluorobenzene (Surrogate)	%	-	**78**	**80**	**84**	**87**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.025 Soil 09 Jan 2013 TP13 1m	SE114571.026 Soil 09 Jan 2013 TP13 2m	SE114571.027 Soil 09 Jan 2013 TP14 1m	SE114571.028 Soil 09 Jan 2013 TP14 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**104**	**102**	**102**	**102**
2-fluorobiphenyl (Surrogate)	%	-	**98**	**98**	**96**	**94**
d14-p-terphenyl (Surrogate)	%	-	**112**	**110**	**110**	**108**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**5.9**	**5.9**	**6.0**	**5.8**

Parameter	Units	LOR	Sample Number SE114571.025 Soil 09 Jan 2013 TP13 1m	SE114571.026 Soil 09 Jan 2013 TP13 2m	SE114571.027 Soil 09 Jan 2013 TP14 1m	SE114571.028 Soil 09 Jan 2013 TP14 2m
Conductivity and TDS by Calculation - Soil Method: AN106						
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	**12**	**11**	**12**	**11**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320						
Arsenic, As	mg/kg	3	<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3	**1.2**	**1.2**	**1.1**	**1.1**
Copper, Cu	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1	<1	<1	<1	<1
Nickel, Ni	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Zinc, Zn	mg/kg	0.5	**2.0**	**1.7**	**1.4**	**1.2**
Mercury in Soil Method: AN312						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002						
% Moisture	%	0.5	**3.9**	**5.9**	**3.3**	**4.6**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.029 Soil 09 Jan 2013 TP15 1m	SE114571.030 Soil 09 Jan 2013 TP15 2m	SE114571.031 Soil 09 Jan 2013 TP16 1m	SE114571.032 Soil 09 Jan 2013 TP16 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**90**	**87**	**89**	**108**
d4-1,2-dichloroethane (Surrogate)	%	-	**98**	**99**	**106**	**114**
d8-toluene (Surrogate)	%	-	**73**	**73**	**90**	**100**
Bromofluorobenzene (Surrogate)	%	-	**72**	**77**	**88**	**106**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.029 Soil 09 Jan 2013 TP15 1m	SE114571.030 Soil 09 Jan 2013 TP15 2m	SE114571.031 Soil 09 Jan 2013 TP16 1m	SE114571.032 Soil 09 Jan 2013 TP16 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420							
Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8		<0.8	<0.8	<0.8	<0.8
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		**100**	**100**	**96**	**104**
2-fluorobiphenyl (Surrogate)	%	-		**96**	**96**	**94**	**96**
d14-p-terphenyl (Surrogate)	%	-		**110**	**110**	**112**	**108**
pH in soil (1:5) Method: AN101							
pH	No unit	-		**5.8**	**5.6**	**5.1**	**6.1**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.029 Soil 09 Jan 2013 TP15 1m	SE114571.030 Soil 09 Jan 2013 TP15 2m	SE114571.031 Soil 09 Jan 2013 TP16 1m	SE114571.032 Soil 09 Jan 2013 TP16 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**9**	**6**	**37**	**6**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**1.3**	**1.2**	**1.1**	**1.6**
Copper, Cu	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1		<1	<1	<1	<1
Nickel, Ni	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Zinc, Zn	mg/kg	0.5		**1.5**	**1.2**	**1.3**	**0.7**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**6.1**	**6.3**	**3.2**	**6.6**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.033 Soil 09 Jan 2013 TP17 1m	SE114571.034 Soil 09 Jan 2013 TP17 2m	SE114571.035 Soil 09 Jan 2013 TP18 1m	SE114571.036 Soil 09 Jan 2013 TP18 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**89**	**85**	**92**	**85**
d4-1,2-dichloroethane (Surrogate)	%	-	**97**	**94**	**102**	**94**
d8-toluene (Surrogate)	%	-	**84**	**77**	**81**	**76**
Bromofluorobenzene (Surrogate)	%	-	**89**	**82**	**93**	**77**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.033 Soil 09 Jan 2013 TP17 1m	SE114571.034 Soil 09 Jan 2013 TP17 2m	SE114571.035 Soil 09 Jan 2013 TP18 1m	SE114571.036 Soil 09 Jan 2013 TP18 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420							
Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8		<0.8	<0.8	<0.8	<0.8
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		**106**	**104**	**102**	**100**
2-fluorobiphenyl (Surrogate)	%	-		**98**	**98**	**94**	**96**
d14-p-terphenyl (Surrogate)	%	-		**114**	**116**	**110**	**114**
pH in soil (1:5) Method: AN101							
pH	No unit	-		**6.5**	**6.6**	**6.8**	**6.7**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.033 Soil 09 Jan 2013 TP17 1m	SE114571.034 Soil 09 Jan 2013 TP17 2m	SE114571.035 Soil 09 Jan 2013 TP18 1m	SE114571.036 Soil 09 Jan 2013 TP18 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**15**	**18**	**24**	**35**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**1.4**	**0.8**	**2.5**	**6.1**
Copper, Cu	mg/kg	0.5		<0.5	<0.5	**0.5**	**1.3**
Lead, Pb	mg/kg	1		**1**	<1	**1**	**4**
Nickel, Ni	mg/kg	0.5		<0.5	<0.5	<0.5	**0.6**
Zinc, Zn	mg/kg	0.5		**50**	**12**	**24**	**50**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**5.5**	**8.5**	**5.3**	**16**

Parameter	Units	LOR	Sample Number: SE114571.037 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: TP19 1m	SE114571.038 Soil 09 Jan 2013 TP19 2m	SE114571.039 Soil 09 Jan 2013 TP20 1m	SE114571.040 Soil 09 Jan 2013 TP20 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**88**	**103**	**90**	**91**
d4-1,2-dichloroethane (Surrogate)	%	-	**95**	**109**	**98**	**91**
d8-toluene (Surrogate)	%	-	**82**	**90**	**83**	**71**
Bromofluorobenzene (Surrogate)	%	-	**92**	**96**	**99**	**78**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number SE114571.037 Sample Matrix Soil Sample Date 09 Jan 2013 Sample Name TP19 1m	SE114571.038 Soil 09 Jan 2013 TP19 2m	SE114571.039 Soil 09 Jan 2013 TP20 1m	SE114571.040 Soil 09 Jan 2013 TP20 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**108**	**106**	**83**	**92**
2-fluorobiphenyl (Surrogate)	%	-	**100**	**98**	**78**	**88**
d14-p-terphenyl (Surrogate)	%	-	**108**	**112**	**91**	**102**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**6.9**	**6.6**	**4.9**	**4.5**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.037 Soil 09 Jan 2013 TP19 1m	SE114571.038 Soil 09 Jan 2013 TP19 2m	SE114571.039 Soil 09 Jan 2013 TP20 1m	SE114571.040 Soil 09 Jan 2013 TP20 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**38**	**23**	**7**	**20**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**4.6**	**1.9**	**1.0**	**1.8**
Copper, Cu	mg/kg	0.5		**5.9**	**1.3**	<0.5	<0.5
Lead, Pb	mg/kg	1		**7**	**2**	<1	<1
Nickel, Ni	mg/kg	0.5		**3.3**	**0.9**	<0.5	<0.5
Zinc, Zn	mg/kg	0.5		**140**	**29**	**1.0**	**1.8**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**5.5**	**10**	**2.1**	**2.6**

Parameter	Units	LOR	Sample Number: SE114571.041 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: TP21 1m	SE114571.042 Soil 09 Jan 2013 TP21 2m	SE114571.043 Soil 09 Jan 2013 TP22 1m	SE114571.044 Soil 09 Jan 2013 TP22 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**89**	**78**	**79**	**81**
d4-1,2-dichloroethane (Surrogate)	%	-	**92**	**80**	**78**	**83**
d8-toluene (Surrogate)	%	-	**93**	**84**	**84**	**85**
Bromofluorobenzene (Surrogate)	%	-	**97**	**83**	**81**	**80**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.041 Soil 09 Jan 2013 TP21 1m	SE114571.042 Soil 09 Jan 2013 TP21 2m	SE114571.043 Soil 09 Jan 2013 TP22 1m	SE114571.044 Soil 09 Jan 2013 TP22 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**96**	**100**	**98**	**98**
2-fluorobiphenyl (Surrogate)	%	-	**86**	**90**	**90**	**92**
d14-p-terphenyl (Surrogate)	%	-	**98**	**102**	**104**	**106**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**5.8**	**5.9**	**5.8**	**6.1**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.041 Soil 09 Jan 2013 TP21 1m	SE114571.042 Soil 09 Jan 2013 TP21 2m	SE114571.043 Soil 09 Jan 2013 TP22 1m	SE114571.044 Soil 09 Jan 2013 TP22 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**10**	**8**	**13**	**19**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**1.3**	**1.4**	**0.7**	**2.0**
Copper, Cu	mg/kg	0.5		<0.5	<0.5	<0.5	**1.1**
Lead, Pb	mg/kg	1		<1	<1	<1	**2**
Nickel, Ni	mg/kg	0.5		<0.5	<0.5	<0.5	**0.5**
Zinc, Zn	mg/kg	0.5		**2.4**	**1.1**	**1.8**	**42**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**6.6**	**4.8**	**3.6**	**4.6**

Parameter	Units	LOR	Sample Number: SE114571.045 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: TP23 1m	SE114571.046 Soil 09 Jan 2013 TP23 2m	SE114571.047 Soil 09 Jan 2013 TP24 1m	SE114571.048 Soil 09 Jan 2013 TP24 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**103**	**82**	**93**	**88**
d4-1,2-dichloroethane (Surrogate)	%	-	**103**	**84**	**93**	**87**
d8-toluene (Surrogate)	%	-	**111**	**85**	**101**	**93**
Bromofluorobenzene (Surrogate)	%	-	**106**	**86**	**95**	**88**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.045 Soil 09 Jan 2013 TP23 1m	SE114571.046 Soil 09 Jan 2013 TP23 2m	SE114571.047 Soil 09 Jan 2013 TP24 1m	SE114571.048 Soil 09 Jan 2013 TP24 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420							
Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8		<0.8	<0.8	<0.8	<0.8
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		**98**	**94**	**98**	**94**
2-fluorobiphenyl (Surrogate)	%	-		**90**	**88**	**90**	**88**
d14-p-terphenyl (Surrogate)	%	-		**102**	**100**	**104**	**100**
pH in soil (1:5) Method: AN101							
pH	No unit	-		**6.3**	**6.0**	**6.3**	**6.4**

Parameter	Units	LOR	Sample Number: SE114571.045 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: TP23 1m	SE114571.046 Soil 09 Jan 2013 TP23 2m	SE114571.047 Soil 09 Jan 2013 TP24 1m	SE114571.048 Soil 09 Jan 2013 TP24 2m
Conductivity and TDS by Calculation - Soil Method: AN106						
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	**26**	**21**	**12**	**11**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320						
Arsenic, As	mg/kg	3	<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3	**2.4**	**2.0**	**1.6**	**1.9**
Copper, Cu	mg/kg	0.5	**1.4**	<0.5	**1.0**	<0.5
Lead, Pb	mg/kg	1	**3**	**1**	**2**	**1**
Nickel, Ni	mg/kg	0.5	**1.0**	**0.6**	<0.5	**0.6**
Zinc, Zn	mg/kg	0.5	**120**	**12**	**21**	**13**
Mercury in Soil Method: AN312						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002						
% Moisture	%	0.5	**3.3**	**21**	**3.2**	**16**

Parameter	Units	LOR	Sample Number: SE114571.049 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: TP25 1m	SE114571.050 Soil 09 Jan 2013 TP25 2m	SE114571.051 Soil 09 Jan 2013 TP26 1m	SE114571.052 Soil 09 Jan 2013 TP26 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**89**	**90**	**92**	**86**
d4-1,2-dichloroethane (Surrogate)	%	-	**89**	**92**	**93**	**88**
d8-toluene (Surrogate)	%	-	**94**	**96**	**97**	**86**
Bromofluorobenzene (Surrogate)	%	-	**89**	**88**	**93**	**84**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.049 Soil 09 Jan 2013 TP25 1m	SE114571.050 Soil 09 Jan 2013 TP25 2m	SE114571.051 Soil 09 Jan 2013 TP26 1m	SE114571.052 Soil 09 Jan 2013 TP26 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**96**	**98**	**96**	**96**
2-fluorobiphenyl (Surrogate)	%	-	**90**	**92**	**90**	**88**
d14-p-terphenyl (Surrogate)	%	-	**104**	**108**	**102**	**104**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**6.7**	**6.7**	**5.7**	**5.7**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.049 Soil 09 Jan 2013 TP25 1m	SE114571.050 Soil 09 Jan 2013 TP25 2m	SE114571.051 Soil 09 Jan 2013 TP26 1m	SE114571.052 Soil 09 Jan 2013 TP26 2m
Conductivity and TDS by Calculation - Soil Method: AN106						
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	**25**	**22**	**12**	**10**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320						
Arsenic, As	mg/kg	3	<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3	**1.7**	**1.7**	**1.6**	**1.1**
Copper, Cu	mg/kg	0.5	<0.5	**1.1**	<0.5	<0.5
Lead, Pb	mg/kg	1	<1	**2**	<1	<1
Nickel, Ni	mg/kg	0.5	**0.7**	<0.5	**0.6**	<0.5
Zinc, Zn	mg/kg	0.5	**7.4**	**30**	**3.3**	**7.9**
Mercury in Soil Method: AN312						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002						
% Moisture	%	0.5	**4.0**	**19**	**4.4**	**9.3**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.053 Soil 09 Jan 2013 TP27 1m	SE114571.054 Soil 09 Jan 2013 TP27 2m	SE114571.055 Soil 09 Jan 2013 TP28 1m	SE114571.056 Soil 09 Jan 2013 TP28 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**93**	**91**	**86**	**82**
d4-1,2-dichloroethane (Surrogate)	%	-	**94**	**90**	**88**	**89**
d8-toluene (Surrogate)	%	-	**98**	**92**	**88**	**78**
Bromofluorobenzene (Surrogate)	%	-	**92**	**84**	**75**	**71**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.053 Soil 09 Jan 2013 TP27 1m	SE114571.054 Soil 09 Jan 2013 TP27 2m	SE114571.055 Soil 09 Jan 2013 TP28 1m	SE114571.056 Soil 09 Jan 2013 TP28 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420							
Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8		<0.8	<0.8	<0.8	<0.8
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		**96**	**96**	**112**	**94**
2-fluorobiphenyl (Surrogate)	%	-		**88**	**90**	**102**	**88**
d14-p-terphenyl (Surrogate)	%	-		**106**	**106**	**118**	**102**
pH in soil (1:5) Method: AN101							
pH	No unit	-		**6.4**	**5.3**	**6.0**	**6.2**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.053 Soil 09 Jan 2013 TP27 1m	SE114571.054 Soil 09 Jan 2013 TP27 2m	SE114571.055 Soil 09 Jan 2013 TP28 1m	SE114571.056 Soil 09 Jan 2013 TP28 2m
Conductivity and TDS by Calculation - Soil Method: AN106						
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	**23**	**11**	**11**	**14**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320						
Arsenic, As	mg/kg	3	<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3	**1.7**	**1.4**	**1.9**	**1.7**
Copper, Cu	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1	<1	<1	**1**	**1**
Nickel, Ni	mg/kg	0.5	**0.8**	<0.5	**0.6**	<0.5
Zinc, Zn	mg/kg	0.5	**8.0**	**6.6**	**56**	**34**
Mercury in Soil Method: AN312						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002						
% Moisture	%	0.5	**4.1**	**22**	**5.3**	**22**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.057 Soil 09 Jan 2013 TP29 1m	SE114571.058 Soil 09 Jan 2013 TP29 2m	SE114571.059 Soil 09 Jan 2013 TP30 1m	SE114571.060 Soil 09 Jan 2013 TP30 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**72**	**88**	**74**	**74**
d4-1,2-dichloroethane (Surrogate)	%	-	**76**	**93**	**85**	**81**
d8-toluene (Surrogate)	%	-	**75**	**86**	**72**	**71**
Bromofluorobenzene (Surrogate)	%	-	**70**	**78**	**72**	**73**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.057 Soil 09 Jan 2013 TP29 1m	SE114571.058 Soil 09 Jan 2013 TP29 2m	SE114571.059 Soil 09 Jan 2013 TP30 1m	SE114571.060 Soil 09 Jan 2013 TP30 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**102**	**90**	**94**	**102**
2-fluorobiphenyl (Surrogate)	%	-	**94**	**84**	**86**	**94**
d14-p-terphenyl (Surrogate)	%	-	**110**	**98**	**100**	**112**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**6.0**	**5.9**	**6.2**	**6.5**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.057 Soil 09 Jan 2013 TP29 1m	SE114571.058 Soil 09 Jan 2013 TP29 2m	SE114571.059 Soil 09 Jan 2013 TP30 1m	SE114571.060 Soil 09 Jan 2013 TP30 2m
Conductivity and TDS by Calculation - Soil Method: AN106						
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	**19**	**15**	**22**	**21**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320						
Arsenic, As	mg/kg	3	<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3	**2.5**	**2.7**	**2.4**	**1.5**
Copper, Cu	mg/kg	0.5	<0.5	**1.8**	<0.5	<0.5
Lead, Pb	mg/kg	1	<1	**3**	**1**	<1
Nickel, Ni	mg/kg	0.5	**0.8**	**0.6**	**0.6**	<0.5
Zinc, Zn	mg/kg	0.5	**35**	**140**	**24**	**24**
Mercury in Soil Method: AN312						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002						
% Moisture	%	0.5	**22**	**22**	**22**	**22**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.061 Soil 09 Jan 2013 TP31 1m	SE114571.062 Soil 09 Jan 2013 TP31 2m	SE114571.063 Soil 09 Jan 2013 TP32 1m	SE114571.064 Soil 09 Jan 2013 TP32 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**88**	**103**	**98**	**95**
d4-1,2-dichloroethane (Surrogate)	%	-	**92**	**102**	**104**	**100**
d8-toluene (Surrogate)	%	-	**94**	**98**	**89**	**88**
Bromofluorobenzene (Surrogate)	%	-	**80**	**97**	**95**	**90**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.061 Soil 09 Jan 2013 TP31 1m	SE114571.062 Soil 09 Jan 2013 TP31 2m	SE114571.063 Soil 09 Jan 2013 TP32 1m	SE114571.064 Soil 09 Jan 2013 TP32 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**84**	**98**	**98**	**92**
2-fluorobiphenyl (Surrogate)	%	-	**78**	**88**	**90**	**86**
d14-p-terphenyl (Surrogate)	%	-	**82**	**106**	**104**	**100**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**6.7**	**6.8**	**6.0**	**5.8**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.061 Soil 09 Jan 2013 TP31 1m	SE114571.062 Soil 09 Jan 2013 TP31 2m	SE114571.063 Soil 09 Jan 2013 TP32 1m	SE114571.064 Soil 09 Jan 2013 TP32 2m
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**28**	**17**	**18**	**18**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**2.2**	**2.3**	**2.0**	**1.3**
Copper, Cu	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1		<1	<1	<1	<1
Nickel, Ni	mg/kg	0.5		<0.5	**0.5**	<0.5	<0.5
Zinc, Zn	mg/kg	0.5		**34**	**3.5**	**1.6**	**4.8**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**3.8**	**5.8**	**2.0**	**2.2**

Parameter	Units	LOR	Sample Number SE114571.065 Sample Matrix Soil Sample Date 09 Jan 2013 Sample Name TP33 1m	SE114571.066 Soil 09 Jan 2013 TP33 2m	SE114571.067 Soil 09 Jan 2013 TP34 1m	SE114571.068 Soil 09 Jan 2013 TP34 2m
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**90**	**89**	**97**	**94**
d4-1,2-dichloroethane (Surrogate)	%	-	**96**	**104**	**103**	**101**
d8-toluene (Surrogate)	%	-	**89**	**90**	**98**	**92**
Bromofluorobenzene (Surrogate)	%	-	**81**	**83**	**78**	**91**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	**21**	**240**
TRH C15-C28	mg/kg	45	<45	<45	**400**	**1600**
TRH C29-C36	mg/kg	45	<45	<45	**330**	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	**740**	**1900**
TRH C10-C40 Total	mg/kg	210	<210	<210	**750**	**1900**
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	**52**	**490**
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	**580**	**1400**
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.065 Soil 09 Jan 2013 TP33 1m	SE114571.066 Soil 09 Jan 2013 TP33 2m	SE114571.067 Soil 09 Jan 2013 TP34 1m	SE114571.068 Soil 09 Jan 2013 TP34 2m
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**98**	**102**	**100**	**106**
2-fluorobiphenyl (Surrogate)	%	-	**100**	**94**	**96**	**90**
d14-p-terphenyl (Surrogate)	%	-	**106**	**104**	**104**	**104**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**6.4**	**6.5**	**6.4**	**6.3**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE114571.065 Soil 09 Jan 2013 TP33 1m	SE114571.066 Soil 09 Jan 2013 TP33 2m	SE114571.067 Soil 09 Jan 2013 TP34 1m	SE114571.068 Soil 09 Jan 2013 TP34 2m
Conductivity and TDS by Calculation - Soil Method: AN106						
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	**25**	**13**	**25**	**7**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320						
Arsenic, As	mg/kg	3	<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3	**2.1**	**2.7**	**4.1**	**1.3**
Copper, Cu	mg/kg	0.5	<0.5	**0.6**	**1.2**	<0.5
Lead, Pb	mg/kg	1	<1	**2**	**5**	<1
Nickel, Ni	mg/kg	0.5	<0.5	**0.6**	**0.6**	<0.5
Zinc, Zn	mg/kg	0.5	**92**	**190**	**660**	**13**
Mercury in Soil Method: AN312						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002						
% Moisture	%	0.5	**4.5**	**2.9**	**6.1**	**4.9**

Parameter	Units	LOR	Sample Number SE114571.069 Sample Matrix Soil Sample Date 09 Jan 2013 Sample Name TP35 1m	SE114571.070 Soil 09 Jan 2013 TP35 2m	SE114571.071 Soil 09 Jan 2013 QC5	SE114571.072 Soil 09 Jan 2013 QC6
VOC's in Soil Method: AN433/AN434						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**90**	**94**	**87**	**97**
d4-1,2-dichloroethane (Surrogate)	%	-	**97**	**99**	**101**	**102**
d8-toluene (Surrogate)	%	-	**87**	**92**	**94**	**95**
Bromofluorobenzene (Surrogate)	%	-	**85**	**89**	**79**	**108**
Totals						
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-	**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.069 Soil 09 Jan 2013 TP35 1m	SE114571.070 Soil 09 Jan 2013 TP35 2m	SE114571.071 Soil 09 Jan 2013 QC5	SE114571.072 Soil 09 Jan 2013 QC6
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420							
Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8		<0.8	<0.8	<0.8	<0.8
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		**104**	**104**	**104**	**106**
2-fluorobiphenyl (Surrogate)	%	-		**94**	**92**	**92**	**92**
d14-p-terphenyl (Surrogate)	%	-		**102**	**104**	**104**	**106**
pH in soil (1:5) Method: AN101							
pH	No unit	-		**6.2**	**7.5**	**7.4**	**7.0**

Parameter	Units	LOR	Sample Number: SE114571.069 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: TP35 1m	SE114571.070 Soil 09 Jan 2013 TP35 2m	SE114571.071 Soil 09 Jan 2013 QC5	SE114571.072 Soil 09 Jan 2013 QC6
Conductivity and TDS by Calculation - Soil Method: AN106						
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	**8**	**57**	**11**	**23**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320						
Arsenic, As	mg/kg	3	<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3	**1.4**	**2.4**	**1.5**	**2.2**
Copper, Cu	mg/kg	0.5	<0.5	**3.4**	<0.5	<0.5
Lead, Pb	mg/kg	1	<1	**6**	<1	<1
Nickel, Ni	mg/kg	0.5	<0.5	**0.7**	**0.6**	<0.5
Zinc, Zn	mg/kg	0.5	**2.1**	**110**	**1.7**	**17**
Mercury in Soil Method: AN312						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002						
% Moisture	%	0.5	**2.8**	**3.8**	**17**	**4.2**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.073 Soil 09 Jan 2013 QC7	SE114571.074 Soil 09 Jan 2013 QC8	SE114571.075 Soil 09 Jan 2013 QC9	SE114571.076 Soil 09 Jan 2013 QC10
VOC's in Soil Method: AN433/AN434							
Monocyclic Aromatic Hydrocarbons							
Benzene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2		<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Polycyclic VOCs							
Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1
Surrogates							
Dibromofluoromethane (Surrogate)	%	-		**92**	**95**	**83**	**83**
d4-1,2-dichloroethane (Surrogate)	%	-		**99**	**102**	**90**	**90**
d8-toluene (Surrogate)	%	-		**90**	**97**	**83**	**86**
Bromofluorobenzene (Surrogate)	%	-		**95**	**92**	**87**	**77**
Totals							
Total Xylenes*	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Total BTEX*	mg/kg	-		**0**	**0**	**0**	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403							
TRH C10-C14	mg/kg	20		<20	<20	<20	<20
TRH C15-C28	mg/kg	45		<45	<45	<45	<45
TRH C29-C36	mg/kg	45		<45	<45	<45	<45
TRH C37-C40	mg/kg	100		<100	<100	<100	<100
TRH C10-C36 Total	mg/kg	110		<110	<110	<110	<110
TRH C10-C40 Total	mg/kg	210		<210	<210	<210	<210
TRH F Bands							
TRH >C10-C16 (F2)	mg/kg	25		<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90		<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120		<120	<120	<120	<120

Parameter	Units	LOR	Sample Number SE114571.073 Sample Matrix Soil Sample Date 09 Jan 2013 Sample Name QC7	SE114571.074 Soil 09 Jan 2013 QC8	SE114571.075 Soil 09 Jan 2013 QC9	SE114571.076 Soil 09 Jan 2013 QC10
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	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
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	mg/kg	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
Benzo(a)pyrene	mg/kg	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
Dibenzo(a&h)anthracene	mg/kg	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
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**100**	**100**	**102**	**100**
2-fluorobiphenyl (Surrogate)	%	-	**90**	**90**	**90**	**88**
d14-p-terphenyl (Surrogate)	%	-	**104**	**104**	**102**	**102**
pH in soil (1:5) Method: AN101						
pH	No unit	-	**6.3**	**6.7**	**6.3**	**6.5**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE114571.073 Soil 09 Jan 2013 QC7	SE114571.074 Soil 09 Jan 2013 QC8	SE114571.075 Soil 09 Jan 2013 QC9	SE114571.076 Soil 09 Jan 2013 QC10
Conductivity and TDS by Calculation - Soil Method: AN106							
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1		**12**	**22**	**22**	**25**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320							
Arsenic, As	mg/kg	3		<3	<3	<3	<3
Cadmium, Cd	mg/kg	0.3		<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**1.7**	**2.8**	**2.3**	**1.8**
Copper, Cu	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Lead, Pb	mg/kg	1		<1	**1**	<1	<1
Nickel, Ni	mg/kg	0.5		**0.6**	<0.5	<0.5	<0.5
Zinc, Zn	mg/kg	0.5		**2.4**	**19**	**1.8**	**9.3**
Mercury in Soil Method: AN312							
Mercury	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002							
% Moisture	%	0.5		**2.4**	**4.8**	**2.5**	**5.0**

Parameter	Units	LOR	Sample Number SE114571.077 Sample Matrix Soil Sample Date 09 Jan 2013 Sample Name QC11
VOC's in Soil Method: AN433/AN434			
Monocyclic Aromatic Hydrocarbons			
Benzene	mg/kg	0.1	<0.1
Toluene	mg/kg	0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2
o-xylene	mg/kg	0.1	<0.1
Polycyclic VOCs			
Naphthalene	mg/kg	0.1	<0.1
Surrogates			
Dibromofluoromethane (Surrogate)	%	-	**97**
d4-1,2-dichloroethane (Surrogate)	%	-	**108**
d8-toluene (Surrogate)	%	-	**98**
Bromofluorobenzene (Surrogate)	%	-	**98**
Totals			
Total Xylenes*	mg/kg	0.3	<0.3
Total BTEX*	mg/kg	-	**0**
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403			
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 C10-C40 Total	mg/kg	210	<210
TRH F Bands			
TRH >C10-C16 (F2)	mg/kg	25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120

Parameter	Units	LOR	Sample Number SE114571.077 Sample Matrix Soil Sample Date 09 Jan 2013 Sample Name QC11
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420			
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(b)fluoranthene	mg/kg	0.1	<0.1
Benzo(k)fluoranthene	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(a&h)anthracene	mg/kg	0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1
Total PAH	mg/kg	0.8	<0.8
Surrogates			
d5-nitrobenzene (Surrogate)	%	-	**100**
2-fluorobiphenyl (Surrogate)	%	-	**88**
d14-p-terphenyl (Surrogate)	%	-	**102**
pH in soil (1:5) Method: AN101			
pH	No unit	-	**6.1**

Parameter	Units	LOR	Sample Number SE114571.077 Sample Matrix Soil Sample Date 09 Jan 2013 Sample Name QC11
Conductivity and TDS by Calculation - Soil Method: AN106			
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	**14**
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320			
Arsenic, As	mg/kg	3	<3
Cadmium, Cd	mg/kg	0.3	<0.3
Chromium, Cr	mg/kg	0.3	**1.7**
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	**4.6**
Mercury in Soil Method: AN312			
Mercury	mg/kg	0.05	<0.05
Moisture Content Method: AN002			
% Moisture	%	0.5	**4.7**

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.

Conductivity and TDS by Calculation - Soil **Method: ME-(AU)-[ENV]AN106**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Conductivity of Extract (1:5 dry sample basis)	LB032116	µS/cm	1	<1	10 - 15%	104%
	LB032184	µS/cm	1	<1	4 - 6%	104%
	LB032187	µS/cm	1	<1	1 - 9%	104%
	LB032189	µS/cm	1	<1	4%	105%

Mercury in Soil **Method: ME-(AU)-[ENV]AN312**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery	MSD %RPD
Mercury	LB032162	mg/kg	0.05	<0.05	0%	98%	95%	
	LB032196	mg/kg	0.05	<0.05	0%	95%	90%	
	LB032222	mg/kg	0.05	<0.05	0%	90%	89%	NA
	LB032223	mg/kg	0.05	<0.05	0%	97%	89%	
	LB032224	mg/kg	0.05	<0.05	9%	103%	93%	

PAH (Polynuclear Aromatic Hydrocarbons) in Soil **Method: ME-(AU)-[ENV]AN420**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Naphthalene	LB032075	mg/kg	0.1	<0.1	0%	101%	109%
	LB032078	mg/kg	0.1	<0.1	0%	103%	103%
	LB032079	mg/kg	0.1	<0.1	0%	111%	108%
	LB032080	mg/kg	0.1	<0.1	0%	116%	114%
2-methylnaphthalene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA
	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
1-methylnaphthalene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA
	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
Acenaphthylene	LB032075	mg/kg	0.1	<0.1	0%	103%	115%
	LB032078	mg/kg	0.1	<0.1	0%	104%	102%
	LB032079	mg/kg	0.1	<0.1	0%	108%	109%
	LB032080	mg/kg	0.1	<0.1	0%	114%	111%
Acenaphthene	LB032075	mg/kg	0.1	<0.1	0%	105%	116%
	LB032078	mg/kg	0.1	<0.1	0%	107%	105%
	LB032079	mg/kg	0.1	<0.1	0%	115%	113%
	LB032080	mg/kg	0.1	<0.1	0%	120%	117%
Fluorene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA
	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
Phenanthrene	LB032075	mg/kg	0.1	<0.1	0%	108%	116%
	LB032078	mg/kg	0.1	<0.1	0%	112%	109%
	LB032079	mg/kg	0.1	<0.1	0%	118%	114%
	LB032080	mg/kg	0.1	<0.1	0%	124%	122%
Anthracene	LB032075	mg/kg	0.1	<0.1	0%	108%	115%
	LB032078	mg/kg	0.1	<0.1	0%	106%	106%
	LB032079	mg/kg	0.1	<0.1	0%	117%	114%
	LB032080	mg/kg	0.1	<0.1	0%	119%	123%
Fluoranthene	LB032075	mg/kg	0.1	<0.1	0%	108%	118%
	LB032078	mg/kg	0.1	<0.1	0%	111%	108%
	LB032079	mg/kg	0.1	<0.1	0%	119%	114%
	LB032080	mg/kg	0.1	<0.1	0%	120%	120%
Pyrene	LB032075	mg/kg	0.1	<0.1	0%	107%	116%
	LB032078	mg/kg	0.1	<0.1	0%	107%	107%
	LB032079	mg/kg	0.1	<0.1	0%	114%	110%
	LB032080	mg/kg	0.1	<0.1	0%	119%	118%
Benzo(a)anthracene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA

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.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: ME-(AU)-[ENV]AN420 (continued)

				MB	DUP %RPD	LCS %Recovery	MS %Recovery
Benzo(a)anthracene	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
Chrysene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA
	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
Benzo(b)fluoranthene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA
	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
Benzo(k)fluoranthene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA
	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
Benzo(a)pyrene	LB032075	mg/kg	0.1	<0.1	0%	108%	118%
	LB032078	mg/kg	0.1	<0.1	0%	109%	109%
	LB032079	mg/kg	0.1	<0.1	0%	118%	114%
	LB032080	mg/kg	0.1	<0.1	0%	121%	119%
Indeno(1,2,3-cd)pyrene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA
	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
Dibenzo(a&h)anthracene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA
	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
Benzo(ghi)perylene	LB032075	mg/kg	0.1	<0.1	0%	NA	NA
	LB032078	mg/kg	0.1	<0.1	0%	NA	NA
	LB032079	mg/kg	0.1	<0.1	0%	NA	NA
	LB032080	mg/kg	0.1	<0.1	0%	NA	NA
Total PAH	LB032075	mg/kg	0.8	<0.8	0%	NA	NA
	LB032078	mg/kg	0.8	<0.8	0%	NA	NA
	LB032079	mg/kg	0.8	<0.8	0%	NA	NA
	LB032080	mg/kg	0.8	<0.8	0%	NA	NA

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
d5-nitrobenzene (Surrogate)	LB032075	%	-	104%	2 - 9%	104%	110%
	LB032078	%	-	104%	0 - 6%	102%	102%
	LB032079	%	-	100%	0 - 6%	96%	98%
	LB032080	%	-	104%	2 - 9%	100%	102%
2-fluorobiphenyl (Surrogate)	LB032075	%	-	102%	2 - 7%	104%	104%
	LB032078	%	-	100%	0 - 2%	98%	96%
	LB032079	%	-	94%	2 - 5%	94%	90%
	LB032080	%	-	98%	2 - 10%	96%	96%
d14-p-terphenyl (Surrogate)	LB032075	%	-	108%	4 - 5%	112%	112%
	LB032078	%	-	108%	0 - 2%	110%	112%
	LB032079	%	-	102%	2 - 6%	106%	104%
	LB032080	%	-	112%	0 - 22%	112%	116%

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.

pH in soil (1:5) **Method: ME-(AU)-[ENV]AN101**

Parameter	QC Reference	Units	LOR	DUP %RPD	LCS %Recovery
pH	LB032115	No unit	-	2 - 3%	101%
	LB032183	No unit	-	0 - 1%	100%
	LB032186	No unit	-	0 - 1%	100%
	LB032188	No unit	-	1 - 4%	101%

Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest **Method: ME-(AU)-[ENV]AN040/AN320**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Arsenic, As	LB032161	mg/kg	3	<3	0%	99%	94%
	LB032195	mg/kg	3	<3	0%	97%	86%
	LB032219	mg/kg	3	<3	0%	101%	93%
	LB032220	mg/kg	3	<3	0%	101%	94%
	LB032221	mg/kg	3	<3		100%	101%
Cadmium, Cd	LB032161	mg/kg	0.3	<0.3	0%	100%	95%
	LB032195	mg/kg	0.3	<0.3	0%	100%	90%
	LB032219	mg/kg	0.3	<0.3	0%	101%	95%
	LB032220	mg/kg	0.3	<0.3	0%	101%	97%
	LB032221	mg/kg	0.3	<0.3	3 - 10%	100%	104%
Chromium, Cr	LB032161	mg/kg	0.3	<0.3	8 - 10%	98%	93%
	LB032195	mg/kg	0.3	<0.3	4 - 10%	97%	87%
	LB032219	mg/kg	0.3	<0.3	1 - 6%	101%	93%
	LB032220	mg/kg	0.3	<0.3	0 - 4%	102%	95%
	LB032221	mg/kg	0.3	<0.3		100%	103%
Copper, Cu	LB032161	mg/kg	0.5	<0.5	0%	102%	97%
	LB032195	mg/kg	0.5	<0.5	0 - 44%	100%	91%
	LB032219	mg/kg	0.5	<0.5	0 - 65%	100%	94%
	LB032220	mg/kg	0.5	<0.5	0 - 17%	101%	95%
	LB032221	mg/kg	0.5	<0.5	2 - 8%	99%	103%
Lead, Pb	LB032161	mg/kg	1	<1	0%	99%	94%
	LB032195	mg/kg	1	<1	0 - 50%	98%	88%
	LB032219	mg/kg	1	<1	21 - 34%	101%	95%
	LB032220	mg/kg	1	<1	0 - 5%	102%	96%
	LB032221	mg/kg	1	<1	2 - 5%	101%	103%
Nickel, Ni	LB032161	mg/kg	0.5	<0.5	0 - 5%	99%	95%
	LB032195	mg/kg	0.5	<0.5	0 - 17%	98%	89%
	LB032219	mg/kg	0.5	<0.5	5 - 6%	102%	96%
	LB032220	mg/kg	0.5	<0.5	0 - 83%	103%	97%
	LB032221	mg/kg	0.5	<0.5		102%	105%
Zinc, Zn	LB032161	mg/kg	0.5	<0.5	12 - 32%	101%	96%
	LB032195	mg/kg	0.5	<0.5	0 - 7%	100%	97%
	LB032219	mg/kg	0.5	<0.5	6 - 10%	102%	96%
	LB032220	mg/kg	0.5	<0.5	1 - 21%	103%	52%
	LB032221	mg/kg	0.5	<0.5	3 - 7%	102%	105%

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.

TRH (Total Recoverable Hydrocarbons) in Soil Method: ME-(AU)-[ENV]AN403

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
TRH C10-C14	LB032075	mg/kg	20	<20	0%	103%	108%
	LB032078	mg/kg	20	<20	0%	100%	100%
	LB032079	mg/kg	20	<20	0%	103%	100%
	LB032080	mg/kg	20	<20	0%	103%	100%
TRH C15-C28	LB032075	mg/kg	45	<45	0%	100%	103%
	LB032078	mg/kg	45	<45	0%	98%	90%
	LB032079	mg/kg	45	<45	0%	103%	100%
	LB032080	mg/kg	45	<45	0%	100%	103%
TRH C29-C36	LB032075	mg/kg	45	<45	0%	85%	85%
	LB032078	mg/kg	45	<45	0%	90%	88%
	LB032079	mg/kg	45	<45	0%	88%	83%
	LB032080	mg/kg	45	<45	0%	95%	88%
TRH C37-C40	LB032075	mg/kg	100	<100	0%	NA	NA
	LB032078	mg/kg	100	<100	0%	NA	NA
	LB032079	mg/kg	100	<100	0%	NA	NA
	LB032080	mg/kg	100	<100	0%	NA	NA
TRH C10-C36 Total	LB032075	mg/kg	110	<110	0%	NA	NA
	LB032078	mg/kg	110	<110	0%	NA	NA
	LB032079	mg/kg	110	<110	0%	NA	NA
	LB032080	mg/kg	110	<110	0%	NA	NA
TRH C10-C40 Total	LB032075	mg/kg	210	<210	0%	NA	NA
	LB032078	mg/kg	210	<210	0%	NA	NA
	LB032079	mg/kg	210	<210	0%	NA	NA
	LB032080	mg/kg	210	<210	0%	NA	NA

TRH F Bands

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
TRH >C10-C16 (F2)	LB032075	mg/kg	25	<25	0%	103%	108%
	LB032078	mg/kg	25	<25	0%	100%	100%
	LB032079	mg/kg	25	<25	0%	100%	100%
	LB032080	mg/kg	25	<25	0%	103%	103%
TRH >C16-C34 (F3)	LB032075	mg/kg	90	<90	0%	100%	100%
	LB032078	mg/kg	90	<90	0%	95%	88%
	LB032079	mg/kg	90	<90	0%	103%	98%
	LB032080	mg/kg	90	<90	0%	100%	100%
TRH >C34-C40 (F4)	LB032075	mg/kg	120	<120	0%	85%	NA
	LB032078	mg/kg	120	<120	0%	95%	NA
	LB032079	mg/kg	120	<120	0%	85%	NA
	LB032080	mg/kg	120	<120	0%	95%	NA

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.

VOC's in Soil Method: ME-(AU)-[ENV]AN433/AN434

Monocyclic Aromatic Hydrocarbons

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Benzene	LB032071	mg/kg	0.1	<0.1	0%	109%	94%
	LB032072	mg/kg	0.1	<0.1	0%	88%	90%
	LB032073	mg/kg	0.1	<0.1	0%	107%	115%
	LB032074	mg/kg	0.1	<0.1	0%	83%	92%
Toluene	LB032071	mg/kg	0.1	<0.1	0%	101%	89%
	LB032072	mg/kg	0.1	<0.1	0%	85%	85%
	LB032073	mg/kg	0.1	<0.1	0%	98%	108%
	LB032074	mg/kg	0.1	<0.1	0%	82%	88%
Ethylbenzene	LB032071	mg/kg	0.1	<0.1	0%	97%	89%
	LB032072	mg/kg	0.1	<0.1	0%	86%	83%
	LB032073	mg/kg	0.1	<0.1	0%	91%	111%
	LB032074	mg/kg	0.1	<0.1	0%	82%	86%
m/p-xylene	LB032071	mg/kg	0.2	<0.2	0%	93%	85%
	LB032072	mg/kg	0.2	<0.2	0%	89%	86%
	LB032073	mg/kg	0.2	<0.2	0%	92%	111%
	LB032074	mg/kg	0.2	<0.2	0%	80%	83%
o-xylene	LB032071	mg/kg	0.1	<0.1	0%	100%	93%
	LB032072	mg/kg	0.1	<0.1	0%	86%	87%
	LB032073	mg/kg	0.1	<0.1	0%	94%	114%
	LB032074	mg/kg	0.1	<0.1	0%	82%	88%

Polycyclic VOCs

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Naphthalene	LB032071	mg/kg	0.1	<0.1	0%	NA	NA
	LB032072	mg/kg	0.1	<0.1	0%	NA	NA
	LB032073	mg/kg	0.1	<0.1	0%	NA	NA
	LB032074	mg/kg	0.1	<0.1	0%	NA	NA

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Dibromofluoromethane (Surrogate)	LB032071	%	-	99%	11 - 20%	104%	82%
	LB032072	%	-	90%	2 - 6%	93%	93%
	LB032073	%	-	106%	19 - 27%	76%	77%
	LB032074	%	-	109%	5 - 9%	92%	94%
d4-1,2-dichloroethane (Surrogate)	LB032071	%	-	101%	4 - 15%	110%	85%
	LB032072	%	-	97%	4 - 14%	99%	100%
	LB032073	%	-	102%	23%	74%	74%
	LB032074	%	-	107%	1 - 7%	96%	102%
d8-toluene (Surrogate)	LB032071	%	-	103%	15 - 16%	105%	78%
	LB032072	%	-	81%	1 - 43%	92%	80%
	LB032073	%	-	111%	22 - 30%	79%	71%
	LB032074	%	-	104%	1 - 9%	92%	91%
Bromofluorobenzene (Surrogate)	LB032071	%	-	105%	5%	127%	100%
	LB032072	%	-	93%	8 - 17%	94%	116%
	LB032073	%	-	105%	10 - 16%	92%	98%
	LB032074	%	-	100%	5%	101%	92%

Totals

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Total Xylenes*	LB032071	mg/kg	0.3	<0.3	0%	NA	NA
	LB032072	mg/kg	0.3	<0.3	0%	NA	NA
	LB032073	mg/kg	0.3	<0.3	0%	NA	NA
	LB032074	mg/kg	0.3	<0.3	0%	NA	NA
Total BTEX*	LB032071	mg/kg	-	0	0%	NA	NA
	LB032072	mg/kg	-	0	0%	NA	NA

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.

VOC's in Soil Method: ME-(AU)-[ENV]AN433/AN434 (continued)

				MB	DUP %RPD	LCS %Recovery	MS %Recovery
Total BTEX*	LB032073	mg/kg	-	0	0%	NA	NA
	LB032074	mg/kg	-	0	0%	NA	NA

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	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 analsysis by ASS or ICP as per USEPA Method 200.8.
AN088	Orbital rolling for Organic pollutants are extracted from soil/sediment by transferring an appropriate mass of sample to a clear soil jar and extracting with 1:1 Dichloromethane/Acetone. Orbital Rolling method is intended for the extraction of semi-volatile organic compounds from soil/sediment samples, and is based somewhat on USEPA method 3570 (Micro Organic extraction and sample preparation). Method 3700.
AN101	pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode (glass plus reference electrode) and is calibrated against 3 buffers purchased commercially. For soils, an extract with water (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 2520 B.
AN312	Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the Draft NEPM 2011, >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is not corrected for Naphthalene.
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, dependant on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.
AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN433/AN434	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.

METHOD SUMMARY

METHOD	METHODOLOGY SUMMARY
AN433/AN434/AN410	VOCs and C6-C9/C6-C10 Hydrocarbons by GC-MS P&T: VOC`s are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.

FOOTNOTES

IS	Insufficient sample for analysis.
LNR	Sample listed, but not received.
*	This analysis is not covered by the scope of accreditation.
^	Performed by outside laboratory.
LOR	Limit of Reporting
↑↓	Raised or Lowered Limit of Reporting
QFH	QC result is above the upper tolerance
QFL	QC result is below the lower tolerance
-	The sample was not analysed for this analyte
NVL	Not Validated

Samples analysed as received.
Solid samples expressed on a dry weight basis.

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

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.pv.sgsv3/~/media/Local/Australia/Documents/Technical%20Documents/MP-AU-ENV-QU-022%20QA%20QC%20Plan.pdf

This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.au.sgs.com/terms_and_conditions_au. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any other 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 and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

This report must not be reproduced, except in full.

Appendix H

ProUCL Output

	0	1
	As	D_As
1	1	1
2	1	1
3	1	1
4	2	1
5	2	1
6	2	1
7	2	1
8	2	1
9	3	1
10	3	1
11	3	1
12	3	1
13	3	1
14	4	1
15	4	1
16	6	1
17	6	1
18	6	1
19	7	1
20	11	1
21	12	1
22	16	1
23	17	1
24	24	1
25	27	1
26	29	1
27	80	1
28	100	1
29	100	1
30	290	1
31	1	0
32	1	0
33	1	0
34	1	0
35	1	0
36	1	0
37	1	0
38	1	0
39	1	0
40	1	0
41	1	0
42	1	0
43	1	0
44	3	0
45	3	0
46	3	0
47	3	0
48	3	0
49	3	0
50	3	0
51	3	0
52	3	0

	0	1
	As	D_As
53	3	0
54	3	0
55	3	0
56	3	0
57	3	0
58	3	0
59	3	0
60	3	0
61	3	0
62	3	0
63	3	0
64	3	0
65	3	0
66	3	0
67	3	0
68	3	0
69	3	0
70	3	0
71	3	0
72	3	0
73	3	0
74	3	0
75	3	0
76	3	0
77	3	0
78	3	0
79	3	0
80	3	0
81	3	0
82	3	0
83	3	0
84	3	0
85	3	0
86	3	0
87	3	0
88	3	0
89	3	0
90	3	0
91	3	0
92	3	0
93	3	0
94	3	0
95	3	0
96	3	0
97	3	0
98	3	0
99	3	0
100	3	0
101	3	0
102	3	0
103	3	0
104	3	0

	0	1
	As	D_As
105	3	0
106	3	0
107	3	0
108	3	0
109	3	0
110	3	0
111	3	0
112	3	0
113	3	0
114	3	0
115	5	0

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation	ProUCL 5.113/07/2021 1:06:47 PM										
5	From File	WorkSheet.xls										
6	Full Precision	OFF										
7	Confidence Coefficient	95%										
8	Number of Bootstrap Operations	2000										
9												
10	As											
11												
12	General Statistics											
13	Total Number of Observations	115					Number of Distinct Observations	17				
14	Number of Detects	30					Number of Non-Detects	85				
15	Number of Distinct Detects	16					Number of Distinct Non-Detects	3				
16	Minimum Detect	1					Minimum Non-Detect	1				
17	Maximum Detect	290					Maximum Non-Detect	5				
18	Variance Detects	3245					Percent Non-Detects	73.91%				
19	Mean Detects	25.57					SD Detects	56.96				
20	Median Detects	5					CV Detects	2.228				
21	Skewness Detects	3.848					Kurtosis Detects	16.66				
22	Mean of Logged Detects	1.955					SD of Logged Detects	1.494				
23												
24	Normal GOF Test on Detects Only											
25	Shapiro Wilk Test Statistic	0.471					Shapiro Wilk GOF Test					
26	5% Shapiro Wilk Critical Value	0.927					Detected Data Not Normal at 5% Significance Level					
27	Lilliefors Test Statistic	0.343					Lilliefors GOF Test					
28	5% Lilliefors Critical Value	0.159					Detected Data Not Normal at 5% Significance Level					
29	Detected Data Not Normal at 5% Significance Level											
30												
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
32	KM Mean	7.559					KM Standard Error of Mean	2.898				
33	KM SD	30.54					95% KM (BCA) UCL	12.58				
34	95% KM (t) UCL	12.36					95% KM (Percentile Bootstrap) UCL	12.79				
35	95% KM (z) UCL	12.33					95% KM Bootstrap t UCL	19.98				
36	90% KM Chebyshev UCL	16.25					95% KM Chebyshev UCL	20.19				
37	97.5% KM Chebyshev UCL	25.65					99% KM Chebyshev UCL	36.39				
38												
39	Gamma GOF Tests on Detected Observations Only											
40	A-D Test Statistic	2.332					Anderson-Darling GOF Test					
41	5% A-D Critical Value	0.81					Detected Data Not Gamma Distributed at 5% Significance Level					
42	K-S Test Statistic	0.232					Kolmogorov-Smirnov GOF					
43	5% K-S Critical Value	0.169					Detected Data Not Gamma Distributed at 5% Significance Level					
44	Detected Data Not Gamma Distributed at 5% Significance Level											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)	0.495					k star (bias corrected MLE)	0.467				
48	Theta hat (MLE)	51.69					Theta star (bias corrected MLE)	54.71				
49	nu hat (MLE)	29.67					nu star (bias corrected)	28.04				
50	Mean (detects)	25.57										
51												
52	Gamma ROS Statistics using Imputed Non-Detects											
53	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											

54	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
55	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
56	This is especially true when the sample size is small.										
57	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
58					Minimum	0.01			Mean	6.677	
59					Maximum	290			Median	0.01	
60					SD	30.86			CV	4.622	
61					k hat (MLE)	0.159			k star (bias corrected MLE)	0.161	
62					Theta hat (MLE)	41.99			Theta star (bias corrected MLE)	41.56	
63					nu hat (MLE)	36.57			nu star (bias corrected)	36.95	
64					Adjusted Level of Significance (β)	0.0479					
65					Approximate Chi Square Value (36.95, α)	24.04			Adjusted Chi Square Value (36.95, β)	23.9	
66					95% Gamma Approximate UCL (use when n>=50)	10.26			95% Gamma Adjusted UCL (use when n<50)	10.32	
67											
68	Estimates of Gamma Parameters using KM Estimates										
69					Mean (KM)	7.559			SD (KM)	30.54	
70					Variance (KM)	932.9			SE of Mean (KM)	2.898	
71					k hat (KM)	0.0613			k star (KM)	0.0655	
72					nu hat (KM)	14.09			nu star (KM)	15.05	
73					theta hat (KM)	123.4			theta star (KM)	115.5	
74					80% gamma percentile (KM)	2.301			90% gamma percentile (KM)	15.43	
75					95% gamma percentile (KM)	43.07			99% gamma percentile (KM)	146.8	
76											
77	Gamma Kaplan-Meier (KM) Statistics										
78					Approximate Chi Square Value (15.05, α)	7.299			Adjusted Chi Square Value (15.05, β)	7.23	
79					95% Gamma Approximate KM-UCL (use when n>=50)	15.59			95% Gamma Adjusted KM-UCL (use when n<50)	15.74	
80											
81	Lognormal GOF Test on Detected Observations Only										
82					Shapiro Wilk Test Statistic	0.918			Shapiro Wilk GOF Test		
83					5% Shapiro Wilk Critical Value	0.927			Detected Data Not Lognormal at 5% Significance Level		
84					Lilliefors Test Statistic	0.15			Lilliefors GOF Test		
85					5% Lilliefors Critical Value	0.159			Detected Data appear Lognormal at 5% Significance Level		
86	Detected Data appear Approximate Lognormal at 5% Significance Level										
87											
88	Lognormal ROS Statistics Using Imputed Non-Detects										
89					Mean in Original Scale	7.05			Mean in Log Scale	-0.845	
90					SD in Original Scale	30.79			SD in Log Scale	2.392	
91					95% t UCL (assumes normality of ROS data)	11.81			95% Percentile Bootstrap UCL	12.56	
92					95% BCA Bootstrap UCL	15.37			95% Bootstrap t UCL	19.34	
93					95% H-UCL (Log ROS)	17.64					
94											
95	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution										
96					KM Mean (logged)	0.614			KM Geo Mean	1.848	
97					KM SD (logged)	1.121			95% Critical H Value (KM-Log)	2.333	
98					KM Standard Error of Mean (logged)	0.116			95% H-UCL (KM -Log)	4.422	
99					KM SD (logged)	1.121			95% Critical H Value (KM-Log)	2.333	
100					KM Standard Error of Mean (logged)	0.116					
101											
102	DL/2 Statistics										
103	DL/2 Normal								DL/2 Log-Transformed		
104					Mean in Original Scale	7.674			Mean in Log Scale	0.69	
105					SD in Original Scale	30.65			SD in Log Scale	1.122	
106					95% t UCL (Assumes normality)	12.41			95% H-Stat UCL	4.779	

	A	B	C	D	E	F	G	H	I	J	K	L
107	DL/2 is not a recommended method, provided for comparisons and historical reasons											
108												
109	Nonparametric Distribution Free UCL Statistics											
110	Detected Data appear Approximate Lognormal Distributed at 5% Significance Level											
111												
112	Suggested UCL to Use											
113					KM H-UCL	4.422						
114												
115	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
116	Recommendations are based upon data size, data distribution, and skewness.											
117	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
118	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
119												

	0	1
	Cd	D_Cd
1	0.3	1
2	0.4	1
3	0.9	1
4	1.2	1
5	3.2	1
6	3.4	1
7	0.3	0
8	0.3	0
9	0.3	0
10	0.3	0
11	0.3	0
12	0.3	0
13	0.3	0
14	0.3	0
15	0.3	0
16	0.3	0
17	0.3	0
18	0.3	0
19	0.3	0
20	0.3	0
21	0.3	0
22	0.3	0
23	0.3	0
24	0.3	0
25	0.3	0
26	0.3	0
27	0.3	0
28	0.3	0
29	0.3	0
30	0.3	0
31	0.3	0
32	0.3	0
33	0.3	0
34	0.3	0
35	0.3	0
36	0.3	0
37	0.3	0
38	0.3	0
39	0.3	0
40	0.3	0
41	0.3	0
42	0.3	0
43	0.3	0
44	0.3	0
45	0.3	0
46	0.3	0
47	0.3	0
48	0.3	0
49	0.3	0
50	0.3	0
51	0.3	0
52	0.3	0

	0	1
	Cd	D_Cd
53	0.3	0
54	0.3	0
55	0.3	0
56	0.3	0
57	0.3	0
58	0.3	0
59	0.3	0
60	0.3	0
61	0.3	0
62	0.3	0
63	0.3	0
64	0.3	0
65	0.3	0
66	0.3	0
67	0.3	0
68	0.3	0
69	0.3	0
70	0.3	0
71	0.3	0
72	0.3	0
73	0.3	0
74	0.3	0
75	0.3	0
76	0.3	0
77	0.3	0
78	0.3	0
79	0.3	0
80	0.3	0
81	0.3	0
82	0.3	0
83	0.3	0
84	0.3	0
85	0.3	0
86	0.3	0
87	0.3	0
88	0.3	0
89	0.3	0
90	0.3	0
91	0.3	0
92	0.3	0
93	0.3	0
94	0.3	0
95	0.3	0
96	0.3	0
97	0.3	0
98	0.3	0
99	0.3	0
100	0.3	0
101	0.3	0
102	0.3	0
103	0.3	0
104	0.3	0

	0	1
	Cd	D_Cd
105	0.3	0
106	0.3	0
107	0.3	0
108	0.3	0
109	0.3	0
110	0.3	0
111	0.3	0
112	0.3	0
113	0.3	0
114	0.3	0
115	0.3	0
116	1.0	0

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation	ProUCL 5.113/07/2021 1:13:11 PM										
5	From File	WorkSheet.xls										
6	Full Precision	OFF										
7	Confidence Coefficient	95%										
8	Number of Bootstrap Operations	2000										
9												
10	Cd											
11												
12	General Statistics											
13	Total Number of Observations	116					Number of Distinct Observations	7				
14	Number of Detects	6					Number of Non-Detects	110				
15	Number of Distinct Detects	6					Number of Distinct Non-Detects	2				
16	Minimum Detect	0.3					Minimum Non-Detect	0.3				
17	Maximum Detect	3.4					Maximum Non-Detect	1				
18	Variance Detects	1.915					Percent Non-Detects	94.83%				
19	Mean Detects	1.567					SD Detects	1.384				
20	Median Detects	1.05					CV Detects	0.883				
21	Skewness Detects	0.742					Kurtosis Detects	-1.847				
22	Mean of Logged Detects	0.0573					SD of Logged Detects	1.016				
23												
24	Normal GOF Test on Detects Only											
25	Shapiro Wilk Test Statistic	0.822					Shapiro Wilk GOF Test					
26	5% Shapiro Wilk Critical Value	0.788					Detected Data appear Normal at 5% Significance Level					
27	Lilliefors Test Statistic	0.271					Lilliefors GOF Test					
28	5% Lilliefors Critical Value	0.325					Detected Data appear Normal at 5% Significance Level					
29	Detected Data appear Normal at 5% Significance Level											
30												
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
32	KM Mean	0.366					KM Standard Error of Mean	0.0408				
33	KM SD	0.402					95% KM (BCA) UCL	0.431				
34	95% KM (t) UCL	0.433					95% KM (Percentile Bootstrap) UCL	0.43				
35	95% KM (z) UCL	0.433					95% KM Bootstrap t UCL	0.525				
36	90% KM Chebyshev UCL	0.488					95% KM Chebyshev UCL	0.544				
37	97.5% KM Chebyshev UCL	0.621					99% KM Chebyshev UCL	0.772				
38												
39	Gamma GOF Tests on Detected Observations Only											
40	A-D Test Statistic	0.379					Anderson-Darling GOF Test					
41	5% A-D Critical Value	0.709					Detected data appear Gamma Distributed at 5% Significance Level					
42	K-S Test Statistic	0.224					Kolmogorov-Smirnov GOF					
43	5% K-S Critical Value	0.338					Detected data appear Gamma Distributed at 5% Significance Level					
44	Detected data appear Gamma Distributed at 5% Significance Level											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)	1.42					k star (bias corrected MLE)	0.821				
48	Theta hat (MLE)	1.103					Theta star (bias corrected MLE)	1.908				
49	nu hat (MLE)	17.04					nu star (bias corrected)	9.854				
50	Mean (detects)	1.567										
51												
52	Gamma ROS Statistics using Imputed Non-Detects											
53	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											

54	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
55	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
56	This is especially true when the sample size is small.										
57	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
58					Minimum	0.01			Mean	0.0905	
59					Maximum	3.4			Median	0.01	
60					SD	0.451			CV	4.979	
61					k hat (MLE)	0.344			k star (bias corrected MLE)	0.341	
62					Theta hat (MLE)	0.263			Theta star (bias corrected MLE)	0.266	
63					nu hat (MLE)	79.75			nu star (bias corrected)	79.03	
64					Adjusted Level of Significance (β)	0.0479					
65					Approximate Chi Square Value (79.03, α)	59.54			Adjusted Chi Square Value (79.03, β)	59.33	
66					95% Gamma Approximate UCL (use when n>=50)	0.12			95% Gamma Adjusted UCL (use when n<50)	0.121	
67											
68	Estimates of Gamma Parameters using KM Estimates										
69					Mean (KM)	0.366			SD (KM)	0.402	
70					Variance (KM)	0.161			SE of Mean (KM)	0.0408	
71					k hat (KM)	0.829			k star (KM)	0.813	
72					nu hat (KM)	192.3			nu star (KM)	188.6	
73					theta hat (KM)	0.441			theta star (KM)	0.45	
74					80% gamma percentile (KM)	0.597			90% gamma percentile (KM)	0.885	
75					95% gamma percentile (KM)	1.179			99% gamma percentile (KM)	1.871	
76											
77	Gamma Kaplan-Meier (KM) Statistics										
78					Approximate Chi Square Value (188.64, α)	157.9			Adjusted Chi Square Value (188.64, β)	157.5	
79					95% Gamma Approximate KM-UCL (use when n>=50)	0.437			95% Gamma Adjusted KM-UCL (use when n<50)	0.438	
80											
81	Lognormal GOF Test on Detected Observations Only										
82					Shapiro Wilk Test Statistic	0.912			Shapiro Wilk GOF Test		
83					5% Shapiro Wilk Critical Value	0.788			Detected Data appear Lognormal at 5% Significance Level		
84					Lilliefors Test Statistic	0.195			Lilliefors GOF Test		
85					5% Lilliefors Critical Value	0.325			Detected Data appear Lognormal at 5% Significance Level		
86	Detected Data appear Lognormal at 5% Significance Level										
87											
88	Lognormal ROS Statistics Using Imputed Non-Detects										
89					Mean in Original Scale	0.0966			Mean in Log Scale	-6.291	
90					SD in Original Scale	0.451			SD in Log Scale	3.074	
91					95% t UCL (assumes normality of ROS data)	0.166			95% Percentile Bootstrap UCL	0.17	
92					95% BCA Bootstrap UCL	0.202			95% Bootstrap t UCL	0.317	
93					95% H-UCL (Log ROS)	0.81					
94											
95	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution										
96					KM Mean (logged)	-1.139			KM Geo Mean	0.32	
97					KM SD (logged)	0.35			95% Critical H Value (KM-Log)	1.759	
98					KM Standard Error of Mean (logged)	0.0356			95% H-UCL (KM -Log)	0.361	
99					KM SD (logged)	0.35			95% Critical H Value (KM-Log)	1.759	
100					KM Standard Error of Mean (logged)	0.0356					
101											
102	DL/2 Statistics										
103	DL/2 Normal								DL/2 Log-Transformed		
104					Mean in Original Scale	0.226			Mean in Log Scale	-1.786	
105					SD in Original Scale	0.428			SD in Log Scale	0.494	
106					95% t UCL (Assumes normality)	0.292			95% H-Stat UCL	0.206	

	A	B	C	D	E	F	G	H	I	J	K	L
107	DL/2 is not a recommended method, provided for comparisons and historical reasons											
108												
109	Nonparametric Distribution Free UCL Statistics											
110	Detected Data appear Normal Distributed at 5% Significance Level											
111												
112	Suggested UCL to Use											
113					95% KM (t) UCL	0.433						
114												
115	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
116	Recommendations are based upon data size, data distribution, and skewness.											
117	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
118	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
119												

	0	1
	Cu	D_Cu
1	0.5	1
2	0.5	1
3	0.6	1
4	0.8	1
5	0.9	1
6	0.9	1
7	1	1
8	1	1
9	1	1
10	1.1	1
11	1.1	1
12	1.2	1
13	1.2	1
14	1.3	1
15	1.3	1
16	1.3	1
17	1.4	1
18	1.5	1
19	1.8	1
20	2	1
21	2.1	1
22	2.4	1
23	2.6	1
24	2.8	1
25	3.4	1
26	3.5	1
27	3.7	1
28	4	1
29	4.2	1
30	5.9	1
31	6.8	1
32	8	1
33	9.5	1
34	9.7	1
35	11	1
36	11	1
37	11	1
38	13	1
39	14	1
40	18	1
41	21	1
42	22	1
43	25	1
44	25	1
45	31	1
46	37	1
47	40	1
48	41	1
49	53	1
50	55	1
51	56	1
52	62	1

	0	1
	Cu	D_Cu
53	65	1
54	66	1
55	66	1
56	67	1
57	71	1
58	170	1
59	1	0
60	1	0
61	1	0
62	1	0
63	1	0
64	0.5	0
65	0.5	0
66	0.5	0
67	0.5	0
68	0.5	0
69	0.5	0
70	0.5	0
71	0.5	0
72	0.5	0
73	0.5	0
74	0.5	0
75	0.5	0
76	0.5	0
77	0.5	0
78	0.5	0
79	0.5	0
80	0.5	0
81	0.5	0
82	0.5	0
83	0.5	0
84	0.5	0
85	0.5	0
86	0.5	0
87	0.5	0
88	0.5	0
89	0.5	0
90	0.5	0
91	0.5	0
92	0.5	0
93	0.5	0
94	0.5	0
95	0.5	0
96	0.5	0
97	0.5	0
98	0.5	0
99	0.5	0
100	0.5	0
101	0.5	0
102	0.5	0
103	0.5	0
104	0.5	0

	0	1
	Cu	D_Cu
105	0.5	0
106	0.5	0
107	0.5	0
108	0.5	0
109	0.5	0
110	0.5	0
111	0.5	0
112	0.5	0
113	0.5	0
114	0.5	0
115	0.5	0
116	0.5	0
117	0.5	0
118	0.5	0

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.113/07/2021 1:22:48 PM
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Cu

General Statistics

Total Number of Observations	118	Number of Distinct Observations	46
Number of Detects	58	Number of Non-Detects	60
Number of Distinct Detects	46	Number of Distinct Non-Detects	1
Minimum Detect	0.5	Minimum Non-Detect	0.5
Maximum Detect	170	Maximum Non-Detect	0.5
Variance Detects	894.5	Percent Non-Detects	50.85%
Mean Detects	19.69	SD Detects	29.91
Median Detects	5.05	CV Detects	1.519
Skewness Detects	2.702	Kurtosis Detects	10.17
Mean of Logged Detects	1.83	SD of Logged Detects	1.636

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.673	Normal GOF Test on Detected Observations Only
5% Shapiro Wilk P Value	2.220E-16	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.261	Lilliefors GOF Test
5% Lilliefors Critical Value	0.116	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	9.932	KM Standard Error of Mean	2.126
KM SD	22.89	95% KM (BCA) UCL	13.84
95% KM (t) UCL	13.46	95% KM (Percentile Bootstrap) UCL	13.4
95% KM (z) UCL	13.43	95% KM Bootstrap t UCL	14.76
90% KM Chebyshev UCL	16.31	95% KM Chebyshev UCL	19.2
97.5% KM Chebyshev UCL	23.21	99% KM Chebyshev UCL	31.09

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	2.096	Anderson-Darling GOF Test
5% A-D Critical Value	0.811	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.165	Kolmogorov-Smirnov GOF
5% K-S Critical Value	0.123	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.545	k star (bias corrected MLE)	0.528
Theta hat (MLE)	36.13	Theta star (bias corrected MLE)	37.27
nu hat (MLE)	63.22	nu star (bias corrected)	61.28
Mean (detects)	19.69		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

54	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
55	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
56	This is especially true when the sample size is small.										
57	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
58					Minimum	0.01			Mean	9.683	
59					Maximum	170			Median	0.01	
60					SD	23.1			CV	2.385	
61					k hat (MLE)	0.198			k star (bias corrected MLE)	0.199	
62					Theta hat (MLE)	48.79			Theta star (bias corrected MLE)	48.64	
63					nu hat (MLE)	46.84			nu star (bias corrected)	46.98	
64					Adjusted Level of Significance (β)	0.048					
65					Approximate Chi Square Value (46.98, α)	32.25			Adjusted Chi Square Value (46.98, β)	32.1	
66					95% Gamma Approximate UCL (use when n>=50)	14.11			95% Gamma Adjusted UCL (use when n<50)	14.17	
67											
68	Estimates of Gamma Parameters using KM Estimates										
69					Mean (KM)	9.932			SD (KM)	22.89	
70					Variance (KM)	524.1			SE of Mean (KM)	2.126	
71					k hat (KM)	0.188			k star (KM)	0.189	
72					nu hat (KM)	44.42			nu star (KM)	44.62	
73					theta hat (KM)	52.77			theta star (KM)	52.53	
74					80% gamma percentile (KM)	12.69			90% gamma percentile (KM)	30.01	
75					95% gamma percentile (KM)	51.91			99% gamma percentile (KM)	112.8	
76											
77	Gamma Kaplan-Meier (KM) Statistics										
78					Approximate Chi Square Value (44.62, α)	30.3			Adjusted Chi Square Value (44.62, β)	30.16	
79					95% Gamma Approximate KM-UCL (use when n>=50)	14.63			95% Gamma Adjusted KM-UCL (use when n<50)	14.7	
80											
81	Lognormal GOF Test on Detected Observations Only										
82					Shapiro Wilk Approximate Test Statistic	0.918			Shapiro Wilk GOF Test		
83					5% Shapiro Wilk P Value	6.2190E-4			Detected Data Not Lognormal at 5% Significance Level		
84					Lilliefors Test Statistic	0.118			Lilliefors GOF Test		
85					5% Lilliefors Critical Value	0.116			Detected Data Not Lognormal at 5% Significance Level		
86	Detected Data Not Lognormal at 5% Significance Level										
87											
88	Lognormal ROS Statistics Using Imputed Non-Detects										
89					Mean in Original Scale	9.769			Mean in Log Scale	-0.398	
90					SD in Original Scale	23.06			SD in Log Scale	2.729	
91					95% t UCL (assumes normality of ROS data)	13.29			95% Percentile Bootstrap UCL	13.43	
92					95% BCA Bootstrap UCL	14.7			95% Bootstrap t UCL	14.27	
93					95% H-UCL (Log ROS)	81.72					
94											
95	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution										
96					KM Mean (logged)	0.547			KM Geo Mean	1.728	
97					KM SD (logged)	1.698			95% Critical H Value (KM-Log)	2.969	
98					KM Standard Error of Mean (logged)	0.158			95% H-UCL (KM -Log)	11.65	
99					KM SD (logged)	1.698			95% Critical H Value (KM-Log)	2.969	
100					KM Standard Error of Mean (logged)	0.158					
101											
102	DL/2 Statistics										
103					DL/2 Normal				DL/2 Log-Transformed		
104					Mean in Original Scale	9.805			Mean in Log Scale	0.195	
105					SD in Original Scale	23.04			SD in Log Scale	1.978	
106					95% t UCL (Assumes normality)	13.32			95% H-Stat UCL	15.72	

	A	B	C	D	E	F	G	H	I	J	K	L
107	DL/2 is not a recommended method, provided for comparisons and historical reasons											
108												
109	Nonparametric Distribution Free UCL Statistics											
110	Data do not follow a Discernible Distribution at 5% Significance Level											
111												
112	Suggested UCL to Use											
113	95% KM (Chebyshev) UCL					19.2						
114												
115	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
116	Recommendations are based upon data size, data distribution, and skewness.											
117	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
118	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
119												

	0	1
	Pb	D_Pb
1	1	1
2	1	1
3	1	1
4	1	1
5	1	1
6	1	1
7	1	1
8	1	1
9	1	1
10	1	1
11	2	1
12	2	1
13	2	1
14	2	1
15	2	1
16	2	1
17	2	1
18	2	1
19	2	1
20	2	1
21	3	1
22	3	1
23	3	1
24	3	1
25	4	1
26	4	1
27	4	1
28	4	1
29	5	1
30	5	1
31	6	1
32	6	1
33	6	1
34	6	1
35	6	1
36	7	1
37	8	1
38	9	1
39	11	1
40	12	1
41	12	1
42	17	1
43	18	1
44	25	1
45	27	1
46	33	1
47	33	1
48	33	1
49	34	1
50	36	1
51	46	1
52	52	1

	0	1
	Pb	D_Pb
53	60	1
54	62	1
55	66	1
56	68	1
57	70	1
58	71	1
59	75	1
60	76	1
61	83	1
62	83	1
63	120	1
64	120	1
65	840	1
66	940	1
67	1100	1
68	1100	1
69	1	0
70	1	0
71	1	0
72	1	0
73	1	0
74	1	0
75	1	0
76	1	0
77	1	0
78	1	0
79	1	0
80	1	0
81	1	0
82	1	0
83	1	0
84	1	0
85	1	0
86	1	0
87	1	0
88	1	0
89	1	0
90	1	0
91	1	0
92	1	0
93	1	0
94	1	0
95	1	0
96	1	0
97	1	0
98	1	0
99	1	0
100	1	0
101	1	0
102	1	0
103	1	0
104	1	0

	0	1
	Pb	D_Pb
105	1	0
106	1	0
107	1	0
108	1	0
109	1	0
110	1	0
111	1	0
112	1	0
113	1	0
114	1	0
115	1	0
116	1	0
117	1	0
118	1	0

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.113/07/2021 1:26:14 PM
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Pb

General Statistics

Total Number of Observations	118	Number of Distinct Observations	33
Number of Detects	68	Number of Non-Detects	50
Number of Distinct Detects	33	Number of Distinct Non-Detects	1
Minimum Detect	1	Minimum Non-Detect	1
Maximum Detect	1100	Maximum Non-Detect	1
Variance Detects	54732	Percent Non-Detects	42.37%
Mean Detects	80.07	SD Detects	233.9
Median Detects	6	CV Detects	2.922
Skewness Detects	3.816	Kurtosis Detects	13.46
Mean of Logged Detects	2.354	SD of Logged Detects	1.895

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.357	Normal GOF Test on Detected Observations Only
5% Shapiro Wilk P Value	0	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.407	Lilliefors GOF Test
5% Lilliefors Critical Value	0.107	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	46.57	KM Standard Error of Mean	16.75
KM SD	180.6	95% KM (BCA) UCL	75.83
95% KM (t) UCL	74.33	95% KM (Percentile Bootstrap) UCL	75.9
95% KM (z) UCL	74.11	95% KM Bootstrap t UCL	97.5
90% KM Chebyshev UCL	96.81	95% KM Chebyshev UCL	119.6
97.5% KM Chebyshev UCL	151.1	99% KM Chebyshev UCL	213.2

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	5.763	Anderson-Darling GOF Test
5% A-D Critical Value	0.857	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.196	Kolmogorov-Smirnov GOF
5% K-S Critical Value	0.117	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.334	k star (bias corrected MLE)	0.329
Theta hat (MLE)	239.8	Theta star (bias corrected MLE)	243.4
nu hat (MLE)	45.41	nu star (bias corrected)	44.74
Mean (detects)	80.07		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

54	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)										
55	For such situations, GROS method may yield incorrect values of UCLs and BTVs										
56	This is especially true when the sample size is small.										
57	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates										
58					Minimum	0.01			Mean	46.15	
59					Maximum	1100			Median	1	
60					SD	181.4			CV	3.932	
61					k hat (MLE)	0.17			k star (bias corrected MLE)	0.172	
62					Theta hat (MLE)	270.9			Theta star (bias corrected MLE)	268.8	
63					nu hat (MLE)	40.21			nu star (bias corrected)	40.52	
64					Adjusted Level of Significance (β)	0.048					
65					Approximate Chi Square Value (40.52, α)	26.93			Adjusted Chi Square Value (40.52, β)	26.8	
66					95% Gamma Approximate UCL (use when n>=50)	69.43			95% Gamma Adjusted UCL (use when n<50)	69.78	
67											
68	Estimates of Gamma Parameters using KM Estimates										
69					Mean (KM)	46.57			SD (KM)	180.6	
70					Variance (KM)	32603			SE of Mean (KM)	16.75	
71					k hat (KM)	0.0665			k star (KM)	0.0705	
72					nu hat (KM)	15.7			nu star (KM)	16.63	
73					theta hat (KM)	700.1			theta star (KM)	660.8	
74					80% gamma percentile (KM)	16.94			90% gamma percentile (KM)	101	
75					95% gamma percentile (KM)	268.1			99% gamma percentile (KM)	874.8	
76											
77	Gamma Kaplan-Meier (KM) Statistics										
78					Approximate Chi Square Value (16.63, α)	8.409			Adjusted Chi Square Value (16.63, β)	8.337	
79					95% Gamma Approximate KM-UCL (use when n>=50)	92.1			95% Gamma Adjusted KM-UCL (use when n<50)	92.9	
80											
81	Lognormal GOF Test on Detected Observations Only										
82					Shapiro Wilk Approximate Test Statistic	0.904			Shapiro Wilk GOF Test		
83					5% Shapiro Wilk P Value	1.5273E-5			Detected Data Not Lognormal at 5% Significance Level		
84					Lilliefors Test Statistic	0.131			Lilliefors GOF Test		
85					5% Lilliefors Critical Value	0.107			Detected Data Not Lognormal at 5% Significance Level		
86	Detected Data Not Lognormal at 5% Significance Level										
87											
88	Lognormal ROS Statistics Using Imputed Non-Detects										
89					Mean in Original Scale	46.23			Mean in Log Scale	0.303	
90					SD in Original Scale	181.4			SD in Log Scale	2.991	
91					95% t UCL (assumes normality of ROS data)	73.92			95% Percentile Bootstrap UCL	75.89	
92					95% BCA Bootstrap UCL	85.44			95% Bootstrap t UCL	94.47	
93					95% H-UCL (Log ROS)	426.5					
94											
95	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution										
96					KM Mean (logged)	1.356			KM Geo Mean	3.882	
97					KM SD (logged)	1.842			95% Critical H Value (KM-Log)	3.14	
98					KM Standard Error of Mean (logged)	0.171			95% H-UCL (KM -Log)	36.13	
99					KM SD (logged)	1.842			95% Critical H Value (KM-Log)	3.14	
100					KM Standard Error of Mean (logged)	0.171					
101											
102	DL/2 Statistics										
103					DL/2 Normal				DL/2 Log-Transformed		
104					Mean in Original Scale	46.36			Mean in Log Scale	1.063	
105					SD in Original Scale	181.4			SD in Log Scale	2.084	
106					95% t UCL (Assumes normality)	74.04			95% H-Stat UCL	49.23	

	A	B	C	D	E	F	G	H	I	J	K	L
107	DL/2 is not a recommended method, provided for comparisons and historical reasons											
108												
109	Nonparametric Distribution Free UCL Statistics											
110	Data do not follow a Discernible Distribution at 5% Significance Level											
111												
112	Suggested UCL to Use											
113	95% KM (Chebyshev) UCL					119.6						
114												
115	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
116	Recommendations are based upon data size, data distribution, and skewness.											
117	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
118	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
119												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation	ProUCL 5.114/07/2021 10:01:19 AM										
5	From File	WorkSheet.xls										
6	Full Precision	OFF										
7	Confidence Coefficient	95%										
8	Number of Bootstrap Operations	2000										
9												
10												
11	Zn											
12												
13	General Statistics											
14	Total Number of Observations					107		Number of Distinct Observations				58
15								Number of Missing Observations				2
16	Minimum					1		Mean				173.1
17	Maximum					1800		Median				24
18	SD					348.9		Std. Error of Mean				33.73
19	Coefficient of Variation					2.016		Skewness				2.722
20												
21	Normal GOF Test											
22	Shapiro Wilk Test Statistic					0.56		Shapiro Wilk GOF Test				
23	5% Shapiro Wilk P Value					0		Data Not Normal at 5% Significance Level				
24	Lilliefors Test Statistic					0.322		Lilliefors GOF Test				
25	5% Lilliefors Critical Value					0.0859		Data Not Normal at 5% Significance Level				
26	Data Not Normal at 5% Significance Level											
27												
28	Assuming Normal Distribution											
29	95% Normal UCL							95% UCLs (Adjusted for Skewness)				
30	95% Student's-t UCL					229.1		95% Adjusted-CLT UCL (Chen-1995)				238.1
31								95% Modified-t UCL (Johnson-1978)				230.5
32												
33	Gamma GOF Test											
34	A-D Test Statistic					4.272		Anderson-Darling Gamma GOF Test				
35	5% A-D Critical Value					0.86		Data Not Gamma Distributed at 5% Significance Level				
36	K-S Test Statistic					0.148		Kolmogorov-Smirnov Gamma GOF Test				
37	5% K-S Critical Value					0.0947		Data Not Gamma Distributed at 5% Significance Level				
38	Data Not Gamma Distributed at 5% Significance Level											
39												
40	Gamma Statistics											
41	k hat (MLE)					0.333		k star (bias corrected MLE)				0.33
42	Theta hat (MLE)					519.8		Theta star (bias corrected MLE)				524.7
43	nu hat (MLE)					71.26		nu star (bias corrected)				70.6
44	MLE Mean (bias corrected)					173.1		MLE Sd (bias corrected)				301.4
45								Approximate Chi Square Value (0.05)				52.25
46	Adjusted Level of Significance					0.0478		Adjusted Chi Square Value				52.04
47												
48	Assuming Gamma Distribution											
49	95% Approximate Gamma UCL (use when n>=50))					233.9		95% Adjusted Gamma UCL (use when n<50)				234.8
50												
51	Lognormal GOF Test											
52	Shapiro Wilk Test Statistic					0.917		Shapiro Wilk Lognormal GOF Test				
53	5% Shapiro Wilk P Value					1.9455E-7		Data Not Lognormal at 5% Significance Level				

54					Lilliefors Test Statistic	0.0963	Lilliefors Lognormal GOF Test					
55					5% Lilliefors Critical Value	0.0859	Data Not Lognormal at 5% Significance Level					
56	Data Not Lognormal at 5% Significance Level											
57												
58	Lognormal Statistics											
59					Minimum of Logged Data	0				Mean of logged Data	3.118	
60					Maximum of Logged Data	7.496				SD of logged Data	2.257	
61												
62	Assuming Lognormal Distribution											
63					95% H-UCL	639.3				90% Chebyshev (MVUE) UCL	559.2	
64					95% Chebyshev (MVUE) UCL	691.7				97.5% Chebyshev (MVUE) UCL	875.6	
65					99% Chebyshev (MVUE) UCL	1237						
66												
67	Nonparametric Distribution Free UCL Statistics											
68	Data do not follow a Discernible Distribution (0.05)											
69												
70	Nonparametric Distribution Free UCLs											
71					95% CLT UCL	228.6				95% Jackknife UCL	229.1	
72					95% Standard Bootstrap UCL	228.3				95% Bootstrap-t UCL	241.6	
73					95% Hall's Bootstrap UCL	238				95% Percentile Bootstrap UCL	231.2	
74					95% BCA Bootstrap UCL	242.4						
75					90% Chebyshev(Mean, Sd) UCL	274.3				95% Chebyshev(Mean, Sd) UCL	320.1	
76					97.5% Chebyshev(Mean, Sd) UCL	383.7				99% Chebyshev(Mean, Sd) UCL	508.7	
77												
78	Suggested UCL to Use											
79					95% Chebyshev (Mean, Sd) UCL	320.1						
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	Recommendations are based upon data size, data distribution, and skewness.											
83	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
84	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
85												

1	UCL Statistics for Data Sets with Non-Detects										
2											
3	User Selected Options										
4	Date/Time of Computation	ProUCL 5.114/07/2021 10:01:19 AM									
5	From File	WorkSheet.xls									
6	Full Precision	OFF									
7	Confidence Coefficient	95%									
8	Number of Bootstrap Operations	2000									
9											
10											
11	Zn										
12											
13	General Statistics										
14	Total Number of Observations		107			Number of Distinct Observations		58			
15						Number of Missing Observations		2			
16	Minimum		1			Mean		173.1			
17	Maximum		1800			Median		24			
18	SD		348.9			Std. Error of Mean		33.73			
19	Coefficient of Variation		2.016			Skewness		2.722			
20											
21	Normal GOF Test										
22	Shapiro Wilk Test Statistic		0.56			Shapiro Wilk GOF Test					
23	5% Shapiro Wilk P Value		0			Data Not Normal at 5% Significance Level					
24	Lilliefors Test Statistic		0.322			Lilliefors GOF Test					
25	5% Lilliefors Critical Value		0.0859			Data Not Normal at 5% Significance Level					
26	Data Not Normal at 5% Significance Level										
27											
28	Assuming Normal Distribution										
29	95% Normal UCL					95% UCLs (Adjusted for Skewness)					
30	95% Student's-t UCL		229.1			95% Adjusted-CLT UCL (Chen-1995)		238.1			
31						95% Modified-t UCL (Johnson-1978)		230.5			
32											
33	Gamma GOF Test										
34	A-D Test Statistic		4.272			Anderson-Darling Gamma GOF Test					
35	5% A-D Critical Value		0.86			Data Not Gamma Distributed at 5% Significance Level					
36	K-S Test Statistic		0.148			Kolmogorov-Smirnov Gamma GOF Test					
37	5% K-S Critical Value		0.0947			Data Not Gamma Distributed at 5% Significance Level					
38	Data Not Gamma Distributed at 5% Significance Level										
39											
40	Gamma Statistics										
41	k hat (MLE)		0.333			k star (bias corrected MLE)		0.33			
42	Theta hat (MLE)		519.8			Theta star (bias corrected MLE)		524.7			
43	nu hat (MLE)		71.26			nu star (bias corrected)		70.6			
44	MLE Mean (bias corrected)		173.1			MLE Sd (bias corrected)		301.4			
45						Approximate Chi Square Value (0.05)		52.25			
46	Adjusted Level of Significance		0.0478			Adjusted Chi Square Value		52.04			
47											
48	Assuming Gamma Distribution										
49	95% Approximate Gamma UCL (use when n>=50))		233.9			95% Adjusted Gamma UCL (use when n<50)		234.8			
50											
51	Lognormal GOF Test										
52	Shapiro Wilk Test Statistic		0.917			Shapiro Wilk Lognormal GOF Test					
53	5% Shapiro Wilk P Value		1.9455E-7			Data Not Lognormal at 5% Significance Level					

54					Lilliefors Test Statistic	0.0963	Lilliefors Lognormal GOF Test					
55					5% Lilliefors Critical Value	0.0859	Data Not Lognormal at 5% Significance Level					
56	Data Not Lognormal at 5% Significance Level											
57												
58	Lognormal Statistics											
59					Minimum of Logged Data	0				Mean of logged Data	3.118	
60					Maximum of Logged Data	7.496				SD of logged Data	2.257	
61												
62	Assuming Lognormal Distribution											
63					95% H-UCL	639.3				90% Chebyshev (MVUE) UCL	559.2	
64					95% Chebyshev (MVUE) UCL	691.7				97.5% Chebyshev (MVUE) UCL	875.6	
65					99% Chebyshev (MVUE) UCL	1237						
66												
67	Nonparametric Distribution Free UCL Statistics											
68	Data do not follow a Discernible Distribution (0.05)											
69												
70	Nonparametric Distribution Free UCLs											
71					95% CLT UCL	228.6				95% Jackknife UCL	229.1	
72					95% Standard Bootstrap UCL	228.3				95% Bootstrap-t UCL	241.6	
73					95% Hall's Bootstrap UCL	238				95% Percentile Bootstrap UCL	231.2	
74					95% BCA Bootstrap UCL	242.4						
75					90% Chebyshev(Mean, Sd) UCL	274.3				95% Chebyshev(Mean, Sd) UCL	320.1	
76					97.5% Chebyshev(Mean, Sd) UCL	383.7				99% Chebyshev(Mean, Sd) UCL	508.7	
77												
78	Suggested UCL to Use											
79					95% Chebyshev (Mean, Sd) UCL	320.1						
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	Recommendations are based upon data size, data distribution, and skewness.											
83	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
84	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
85												