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Remedial Action Plan

21D and 21F School Drive, Tomago

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EXECUTIVE SUMMARY

This report presents a Remedial Action Plan (RAP) for 21D and 21F School Drive, Tomago NSW (the site) undertaken by JM Environments (JME). Remondis Pty Ltd had indicated their intention to redevelop the site, and commissioned this RAP to support a Development Application.

The site had previously been used for sand mining and metal manufacture, and appeared to have been largely covered by sandy fill. It was considered possible that sandblasting had taken place on the site, and that Pasminco slag may have been deposited on the surface in some areas.

TRH and zinc contamination had been detected at one location in the western part of the site (Lot 11). Lot 11 was completely paved; it was considered that this was sufficient to prevent exposure to contaminants by site workers and the local ecology.

In the western part of the site (Lot 8), heavy metal contamination was detected at several locations in concentrations exceeding adopted ecological investigation levels. Contamination exceeding adopted human health investigation levels was limited to lead in one location near the eastern boundary of the site.

A groundwater assessment conducted by EHO Consulting in 2020 recorded that chromium, copper and zinc were detected in some wells at concentrations exceeding adopted ecological investigation levels, and exceeding background concentrations. The assessment considered that under the proposed remediation and redevelopment, the risk associated with exposure to contaminated groundwater to on-site ecological receptors would be negligible, and to off-site receptors would be low.

The objective of remediation is to remove a potential exposure pathway between heavy metal contamination in surface fill in Lot 8, and site workers, the local ecology and groundwater. As this part of the site is destined for vehicle parking purposes, it was considered that a cap and contain remedial approach would be appropriate for the site. This approach was favoured for the following reasons:

- The cap would isolate contaminated fill material from surface workers and the ecology, and remove the potential for dispersal off-site via wind or surface water;
- A low-permeability cap of compacted road base material would inhibit the infiltration of rainwater; combined with an underground stormwater drainage system this would reduce the potential for groundwater to be contaminated;
- As the capping layer would be achieved via the construction of a parking surface pad, there would be limited additional specific remediation measures required; and
- It would not involve the significant financial cost associated with removal of all contaminated material from the site.

Specifically, the remedial strategy will comprise the following:

- Removal of anthropogenic waste from the northern end of Lot 8;
- Placement of a marker layer;
- Importation of road base material; and
- Installation of a stormwater drainage system.

Imported soil material must be at least 0.5m thick, and must satisfy:

- The NSW EPA excavated natural material exemption/order; or
- The definition of virgin excavated natural material as per the NSW EPA Waste Classification Guidelines Part 1: Classifying Waste;
- A current appropriate specific or general NSW EPA exemption/order for other material; or
- Freshly quarried material.

Since the remedial plan does not remove contamination from the site, there is an ongoing commitment required to manage the contamination remaining on site. This commitment will be addressed via a Long Term Environmental Management Plan, including regular ongoing groundwater monitoring.

JME considers that the site may be considered suitable for its proposed redevelopment and ongoing industrial land use, pending successful implementation of remedial measures as detailed in this RAP, and the preparation and implementation of a Long Term Environmental Management Plan.

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ACRONYMS

AEC	Area of Environmental Concern
CEMP	Construction Environmental Management Plan
CLM Act	NSW Contaminated Land Management Act (1997)
COC	Contaminant of Concern
CSM	Conceptual Site Model
DCA	Detailed Contamination Assessment
DGV	default guideline value
DP	Deposited Plan
EIL	ecological investigation level
ENM	excavated natural material
EP&A Act	NSW Environmental Planning and Assessment Act 1979
EPA	Environment Protection Authority
ESL	ecological screening level
GSW	General Solid Waste
ha	hectares
HIL	health investigation level
HSSE	health, safety, security and environmental
JME	JM Environments
LOR	limit of reporting
LTEMP	Long Term Environmental Management Plan
mbgl	metres below ground level
NEPM	National Environment Protection (Assessment of Site Contamination) Measure
POEO Act	NSW Protection of the Environment Operations Act (1997)
PPE	personal protective equipment
RAP	Remedial Action Plan
SAC	Site Assessment Criterion
SEPP55	NSW State Environmental Planning Policy No 55 – Remediation of Land
TRH	total recoverable hydrocarbons
VENM	virgin excavated natural material
WHS	Workplace Health and Safety

1 INTRODUCTION

This report presents a Remedial Action Plan (RAP) for 21D and 21F School Drive, Tomago NSW (the site), commissioned by Remondis Pty Ltd and undertaken by JM Environments (JME). The site is identified as Lots 8 and 11 in Deposited Plan (DP) 270328, and part Lot 301 DP634536 (as defined in the website maps.six.nsw.gov.au), and is approximately 4.1 hectares (ha) in area. The site location is shown in Figure 1, and Lot boundaries are shown in Figure 2.

1.1 Background

Remondis had indicated to JME their intention to redevelop the site. A Detailed Contamination Assessment (DCA) prepared by JME (herein referred to as JME20005-2, and attached in Appendix A) had identified areas of hydrocarbon and heavy metal contamination at concentrations exceeding default guideline values (DGVs) for commercial/industrial land use.

1.2 Objectives

The objectives of remediation, where contamination poses unacceptable risks to human health or the environment, are to render the site suitable for its proposed use, and to ensure that the environment is protected from contamination.

The objectives of the RAP are to:

- Identify Areas of Environmental Concern (AECs) within the site that require remediation for Contaminants of Concern (COCs) associated with former land uses;
- Select a technically appropriate methodology that addresses the financial, timing and logistical constraints of the client;
- Outline procedures for the preferred remediation method; and
- Outline procedures for validation, site control and workplace health and safety (WHS), as required.

1.3 Scope of Works

In order to achieve the objectives of the RAP, the following works were completed:

- Review and summary of JME20005-2;
- Summary of available suitable remediation technologies;
- Selection of a suitable remediation strategy for the site;
- Development of remediation validation methodology, criteria and outcomes;
- Establishment of WHS measures to be undertaken during remedial works to protect the health and safety of the general public and the environment; and
- Preparation of a RAP (this document) for the proposed redevelopment.

2 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 4.1ha
Site Identification:	Lots 8 and 11 DP270328, and Part Lot 301 DP634536, 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

3 PREVIOUS CONTAMINATION ASSESSMENTS

3.1 Soil Assessment

JME is aware of the following contamination assessments that have been undertaken on the site:

1. MB Engineering Solutions Pty Ltd (2013) Excavated Natural Material Assessment Lot 11 McIntyre Road, Tomago (herein referred to as MBE2017); and
2. JM Environments (2020) Detailed Contamination Assessment 21D and 21F School Drive, Tomago (herein referred to as JME20005-2).

The purpose of MBE2017 was to assess whether surface soils in the western part of the site (Lot 11) met the criteria for excavated natural material (ENM) exemption. It is noted that though MBE2017 was conducted in 2013, that part of the site has been covered by a concrete slab since that time, and it was considered that the potential for contamination of that part of the site since that time is limited to the excavation of a hydrocarbon storage trench (addressed in Section 5.1).

The purpose of JME20005-2 was to provide information to inform the pre-purchase due diligence process.

Combined, the assessment included 50 systematic sampling points (test pits and boreholes), situated to provide coverage across the site. This number of sampling points satisfies the NSW Environment Protection Authority (EPA) Sampling Design Guidelines (1995) recommendation for the characterisation of a site 4ha in area. Seven targeted sampling points were also located in the vicinity of a hydrocarbon trench in the eastern part of the site (see Figure 2).

Sampling locations are shown in Figure 3, and the results of previous assessments are summarised in Section 4.

3.2 Groundwater Assessment

Following initial publication of this RAP, the following assessment was conducted:

EHO Consulting (2020) Environmental Site Assessment 21F & 21G School Drive, Tomago NSW 2322 (herein referred to as EHO2020).

EHO2020 comprised the assessment of Lots 7 and 8 DP270328. It is noted that Lot 7 is not part of the subject site of this RAP, and that Lot 11, which is part of the subject site of this RAP, was not assessed in EHO2020 (see Figure 2).

The objective of EHO2020 was to assess potential risks to (on- and off-site) sensitive receptors from COCs in groundwater. Four groundwater wells (GW1 – GW4) were installed and sampled, and results were compared against Site Assessment Criteria (SACs) developed from the National Environment Protection (Assessment of Site Contamination) Measure (NEPM) Schedule B1 Guideline on Investigation Levels for Soil and Groundwater Table 1C Groundwater Investigation Levels. Results are discussed in Section 4.4. Groundwater well locations are shown in Figure 4.

4 SITE CONDITION

4.1 Site History Summary

JME20005-2 recorded that 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.

4.2 Site Description

JME20005-2 recorded that the site was mostly flat, and divided into two parts (see Figure 2). The western part of the site (Lot 11, and part of Lot 301) was paved, with the exception of some small gardens on the southern boundary (see Photograph 1). Lot 11 contained two large metal-clad sheds, and some smaller buildings and water tanks. Downpipes from the buildings, and gratings in the car parks and traffic areas in Lot 11, led to an underground stormwater infiltration system.

The eastern part of the site (Lot 8) was unpaved, and sparsely covered with grass and other low vegetation (see Photograph 2). The surface of Lot 8 comprised dark grey sand, with common road base gravel and rock.

Much of the site appeared to have been covered by fill, comprising dark grey to dark brown gravelly sand, to a depth of >1m in parts. White to grey brown sand intersected at the bottom of test pits and boreholes was interpreted as representing in-situ, natural material.

4.3 Site Soil Contamination Status

JME20005-2 recorded that concrete beams and concrete-filled tyres had been stockpiled in the northeast part of the site (see Photograph 3, and Figure 2).

Chemical contamination is summarised here, and reported in more detail in JME20005-2 (attached in Appendix A).

Total recoverable hydrocarbons (TRH) were not detected at concentrations exceeding the laboratory limit of reporting (LOR), with the exception of two samples collected from MBE2017 TP34 and one from JME20005 TP9. In a sample collected from 2 metres below ground level (mbgl) at TP34, TRH F2 was detected at a concentration of 490mg/kg, which exceeds the adopted ecological screening level (ESL), but does not exceed the adopted management limit.

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 human health investigation level (HIL) in a surface sample collected from TP8 (see Figure 5);
- Cadmium and arsenic exceeded adopted ecological investigation levels (EILs) in surface samples collected from TP5, TP7 and TP8 (see Figure 5);
- Zinc exceeded the adopted EIL in 17 samples from across Lot 8, as well as one sample from MBE2017 TP34, in Lot 11 (see Figure 6). With the exception of a minor exceedance at 1.6mbgl in TP1, zinc exceedances were confined to the upper 1m of soil; and
- Copper exceeded the adopted EIL in five samples from along the eastern boundary of the site (see Figure 7). Copper exceedances were mostly confined to the upper 0.4m of soil.

Heavy metal DGV exceedances are summarised in Table 2 (below).

4.4 Groundwater Contamination Status

EHO2020 considered that the disturbed nature of the site (including the emplacement of concrete footings) had affected groundwater flow, such that it did not follow the predicted north-south pathway to the Hunter River. Combined with the limited number of wells, this meant that EHO2020 was unable to clearly define groundwater flow direction, and the area in which it would leave the site

EHO2020 recorded that chromium, copper and zinc were detected in some wells at concentrations exceeding adopted site acceptance criteria (SACs), and exceeding background concentrations (considered to be represented in samples collected from up-gradient well GW4). EHO2020 noted that background concentrations of chromium and zinc exceeded adopted SACs.

EHO2020 groundwater well locations and contaminant exceedances are shown in Figure 4.

Given that the proposed redevelopment of the site will involve the site's surface being cleared of vegetation, and covered with a low-permeability cap (see Section 7), EHO2020 considered the risk associated with exposure to contaminated groundwater to on-site ecological receptors to be negligible, and to off-site receptors to be low.

EHO2020 is attached in Appendix B.

Photograph 1: Paved surface of Lot 11

Photograph 2: Sparsely grassed surface of Lot 8

Photograph 3: Concrete beams and concrete-filled tyres in Lot 8

TABLE 2: HEAVY METAL DGV EXCEEDANCES IN SOIL

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
Arsenic	3,000	160					900	940	1,000						
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
Analyte	HIL	EIL	TP13 0	TP13 0.3	TP13 0.5	TP14 0.3	TP16 0.5	TP17 0.3	TP18 0	TP19 0	TP19 0.4	TP20 0.4	TP21 1	TP23 0.4	MBE2017 TP34 1
Arsenic	3,000	160													
Cadmium	900	3													
Copper	240,000	170		520				620			250		440		
Lead	1,500	2,000													
Zinc	400,000	480	1,200	10,000	490	2,500	750	16,000	980	2,400	3,600	2,200	5,800	920	660

5 CONCEPTUAL SITE MODEL

A Conceptual Site Model (CSM) was prepared as part of JME20005-2, 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 has been adapted here, and is summarised in Table 3 (below).

5.1 Discussion

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.

Below the fill, grey brown sand interpreted as being in-situ, natural material appeared to be largely uncontaminated.

Elevated cadmium, arsenic and lead concentrations were observed in dark sandy material collected from three test pits in the northeast corner of the site. It is noted that these analytes are commonly found at high concentrations in slag from the Pasminco lead smelter which formerly operated in Boolaroo. It was considered possible that Pasminco slag had been deposited on the surface in limited areas of the site.

The western part of the site (Lot 11) was covered by concrete pavement 0.2m thick. JME considers this to be sufficient to prevent an exposure pathway between zinc and TRH contamination (detected in TP34 at concentrations exceeding ecological guideline values) and potential sensitive receptors.

A north-south concrete-lined trench, understood to have been used for hydrocarbon 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, indicating that significant contamination of soils in this area had not been caused by leaks from the trench.

Groundwater was intersected at approximately 2.4mbgl.

5.2 Source Zone Characteristics

5.2.1 Primary Contaminant Sources

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

- Use of the site for the manufacture of metal products (potentially including sandblasting operations);
- A hydrocarbon storage trench in the northwest corner of the site; and
- Potential importation of uncontrolled fill.

5.2.2 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). As reported in EHO2020, chromium was also considered to be a COC on the site.

5.3 Areas of Environmental Concern

AECs on the site were considered to include fill across the surface of Lot 8, as shown in Figure 8.

5.4 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.

5.5 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.

5.6 Identification of Receptors at Risk

Potential receptors were considered to include:

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

TABLE 3: 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	Arsenic Cadmium Chromium Copper Lead Zinc	Soil Air Ground and surface water	Surface water Groundwater Wind	Metabolisation Dermal contact Inhalation Ingestion	Ecology Site and neighbouring workers

6 REMEDIATION OPTIONS

6.1 Remedial Objective

The objectives of remediation, where contamination poses unacceptable risks to human health or the environment, are to render the site suitable for its proposed use, and to ensure that the environment is protected.

The objective of the RAP is to determine the most technically appropriate management or remediation strategy that addresses the financial, timing and logistical constraints of the client.

6.2 Extent of Remediation Required

JME considers that concrete and asphalt pavement over Lot 11 and part Lot 301 provides sufficient isolation of zinc and TRH contamination identified in MBE2017 TP34. It is therefore considered that the lateral extent of remediation required relates to surface fill, identified in JME2005-2 to depths between 0.2mbgl and 1.6mbgl, in Lot 8, an area of approximately 1.25ha. The depth of fill, and lateral extent of exposed fill, are shown in Figure 8.

6.3 Soil Remediation Hierarchy

Schedules A and B of the NEPM provide a preferred hierarchy of options for site clean-up and/or management. The hierarchy is outlined as follows:

1. On-site treatment of contamination so that it is destroyed or the associated risk is reduced to an acceptable level.
2. Off-site treatment of excavated soil, so that the contamination is destroyed or the associated risk is reduced to an acceptable level, after which soil is returned to the site.
3. Consolidation and isolation of the soil on site by containment with a properly designed barrier.
4. Removal of contaminated material to an approved site or facility followed, where necessary, by replacement with appropriate material.
5. Where assessment indicates remediation would have no net environmental benefit, or would have a net adverse environmental effect, implementation of an appropriate management strategy.

6.4 Review of Soil Remediation Options

JME has not considered a 'do nothing' strategy because of the proposal to redevelop the site.

6.4.1 Treatment of Contamination

(On-site or off site) treatment of contaminated material was not deemed to be a technically feasible option to destroy heavy metal contamination on the site.

6.4.2 Isolation and Containment

On-site capping is used to isolate areas in the subsurface from the surrounding uncontaminated environment. A physical barrier such as a layer of clean soil, synthetic material liner, asphalt and/or concrete may be installed to cap the contaminated material.

Where there is potential for contaminants within the soil to leach to groundwater as a result of surface water infiltration, the cap should be constructed of a low-permeability material such as concrete or compacted clay, which reduces the infiltration of surface water while providing a physical barrier between contaminated soils and the surface of the site.

This option is considered technically feasible on the site. The potential exposure pathway between surface environmental and human populations to the fill material would be removed.

A site management plan is required with any capping strategy. The site management plan identifies the party responsible for adhering to the plan, and includes commitments for ongoing monitoring and maintenance of the cap as well as control of future excavations, which must be minimised or if required, be subject to appropriate environmental controls and/or procedures. Thus, there is an ongoing commitment required to manage the contamination.

6.4.3 Excavation and Off-Site Disposal

This method involves the excavation of the areas of contaminated material identified as requiring remediation, and disposal of the material off-site to an appropriately licensed landfill.

To restore site levels following the off-site disposal of contaminated soil, appropriately assessed and validated material may need to be imported to the site.

This option is considered technically feasible for the site. Assuming a volume of fill requiring excavation and disposal of 7,500m^3 (see Section 6.2), and a disposal cost for General Solid Waste (GSW) in the order of $280/tonne, disposal costs could be over $3,000,000. This option is not considered financially feasible for the site.

7 RECOMMENDED REMEDIAL ACTION PLAN

Remondis has indicated to JME that they plan to use Lot 8 for vehicle parking. This would necessitate the importation of road base material to form a suitable surface for these activities.

Accordingly, JME recommends capping of the site to manage risks posed by remaining contaminants, by preventing a direct exposure pathway between contaminated fill and users of the proposed redevelopment.

Specifically, the remedial strategy will comprise the following:

- Removal of anthropogenic waste from the northern end of Lot 8;
- Placement of a marker layer;
- Importation of road base material; and
- Installation of a stormwater drainage system.

Since the remedial plan does not remove contamination from the site, there is an ongoing commitment required to manage the contamination remaining on site. This commitment will be addressed via a Long Term Environmental Management Plan (LTEMP), as discussed in Section 11.

7.1 Rationale

(On-site or off-site) treatment of contaminated material was not deemed to be a technically feasible option to destroy heavy metal contamination on the site.

The estimated cost of disposal of all contaminated fill from the site was considered prohibitive.

A low-permeability cap is considered to be an appropriate remediation method for heavy metal, contamination of the site. A cap would be intended to isolate future users of the site from contaminated material, and to prevent its migration off site via stormwater infiltration and groundwater flow. A low-permeability cap of compacted road base material would inhibit the infiltration of rainwater; combined with an underground stormwater drainage system this would limit the amount of water percolating through contaminated soils, and reduce the potential for groundwater to be contaminated (groundwater was observed beneath the site at depths greater than the extent of contaminated fill).

As the capping layer would be achieved via the construction of a parking surface pad, there would be limited additional specific remediation measures required.

7.1 Removal of Anthropogenic Waste

Stockpiled concrete beams, concrete-filled tyres and other anthropogenic material will be removed from the surface of the site, addressing the current aesthetic impact on the site.

7.2 Marker Layer

Prior to capping, the site's surface will be graded, and any sharp/rough objects protruding from the surface removed. A geofabric marker layer will be installed to provide geotechnical support for the road base as well as to act as a visual marker for potential future excavations.

7.3 Importation of Soil

Imported soil material must satisfy:

- The NSW EPA ENM exemption/order; or
- The definition of virgin excavated natural material (VENM) as per the NSW EPA Waste Classification Guidelines Part 1: Classifying Waste;
- A current appropriate specific or general NSW EPA exemption/order for other material; or
- Be a product generated from freshly quarried material.

The capping layer must be at least 0.5m thick, and be designed by a geotechnical or civil engineer to ensure that appropriate stormwater runoff is achieved. Stormwater runoff should be directed to the existing stormwater infiltration system, if it has enough capacity. If not, a new stormwater infiltration system will be required to be designed and constructed.

8 VALIDATION OF REMEDIATION

8.1 Validation of Placement of Marker Layer

Prior to emplacing imported road base material, JME will collect a photographic record of the geofabric marker layer. The photographic record and a survey record of the location of the marker layer will be included in the Validation Report.

8.2 Validation of Imported Soils

Classification documents and trucking receipts for imported material will be included in the Validation Report.

A survey record of placed imported soils, to demonstrate a minimum thickness of 0.5m, will be included in the Validation Report.

9 SITE MANAGEMENT PLAN DURING REMEDIATION

Remediation works have the potential to cause environmental or human health issues during the importation and emplacement of soils, and associated earthworks. The works will be conducted under a Construction Environmental Management Plan (CEMP), which will include consideration of the following measures in order to reduce these risks.

- Site access;
- Hours of operation;
- Stormwater and soil management;
- Trafficking of soil off-site;
- Noise control;
- Dust control and monitoring;
- Odour control;
- WHS;
- Remediation schedule; and
- Other issues to be addressed.

9.1 Site Access

The site will be fenced, and adequate fences or barriers will be placed around excavations and stockpiles to prevent access of unauthorised personnel. Adequate warning signs will also be placed around the area.

9.2 Hours of Operations

Remediation hours of operations will be limited to the hours of general site works as stipulated in the Development Application consent.

9.3 Stormwater and Soil Management

Adequate stormwater runoff, run-on and sediment control measures will be put in place for the remedial works.

The following recommendations provide guidance on managing stockpiled material:

- Stockpiles should be managed in such a way as to prevent harm to the environment and general public from potentially contaminated soils within the stockpiles;
- Stockpiles should be placed on level ground. If this is not possible, stockpiles should not be placed on slopes greater than 5°;
- Material should not be stockpiled more than 2m high;
- Once soils have been stockpiled, the stockpiles should be covered by weighted polythene sheets or tarpaulins to prevent erosion of stockpiled materials. Heavy objects

not containing sharp edges should be placed on the sheets to prevent them from being blown by wind;
- Adequate straw bales and/or silt fences should be placed around the perimeter of the stockpile areas to filter runoff from the stockpiles and prevent overland stormwater flow from affecting the base of the stockpile; and
- Tightly packed sand bags should be placed up-gradient of the stockpile to prevent stormwater from running into the stockpile.

9.4 Trafficking of Soil

In order to reduce the risk of soil being transported off site by vehicle movement, the following protocols should be observed:

- Vehicles should be parked on hard stand areas, rather than exposed soil;
- Visual inspection of vehicles for loose soil should be undertaken prior to leaving site;
- If necessary, vehicles should be cleaned to remove loose soil before leaving site; and
- Grids should be placed at exit points to help remove soil from vehicles.

9.5 Noise

To mitigate noise impacts which may arise as a result of remedial works, the civil contractor will undertake the works in accordance with state and local noise regulations applicable to the site.

9.6 Dust Control

Dust control is required to prevent airborne dust being inhaled by human receptors. Airborne dust may be generated by wind action from loose earth left on the ground. This could cause migration of contaminated dust, as well as causing a nuisance for the surrounding area, and must be controlled.

Therefore, the following dust control measures are proposed:

- Dust levels will be monitored visually during site work; and
- Soil will be kept adequately moist to reduce the generation of dust.

9.7 Odour

The remediation works are not expected to generate any significant odours.

9.8 Workplace Health and Safety

A health, safety, security and environmental (HSSE) plan should be prepared by the remediation contractor, in accordance with relevant NSW legislation.

The HSSE plan should include, but not be limited to, the following.

- Hazard identification and control;
- Dust and odour monitoring during excavation and stockpiling works;
- Handling procedures;
- Personal protective equipment (PPE);
- Work zones;
- Contingency plans; and
- Incident reporting.

The HSSE plan should be periodically reviewed and updated prior to the various project tasks being conducted.

The contractor, supporting sub-contractors, and third party observers to the site will be required to work strictly to the plan. During site activities, only approved personnel should be allowed access to the remediation work area.

The HSSE plan will identify hazards, assess the risks posed by the hazards, and recommend measures to control the hazards.

9.8.1 Summary of Contamination and Exposure Pathways

Exposure of site users to contaminants could occur through:

- Dermal contact with contaminated soil;
- Ingestion of contaminated soil; and
- Inhalation of contaminated dust.

9.8.2 Health and Safety Control Measures for Contamination Hazards

The following section presents some control measures that should be adopted to manage health and safety hazards posed by contamination during the remediation. These control measures include:

- Site access restrictions;
- PPE; and
- Safe work practices.

It is important to note that these procedures will need to be evaluated for effectiveness, and where necessary revised and/or improved during site work.

9.9 Personal Protective Equipment

To minimise short and long term health risks associated with working on a construction site, and with potential exposure to contaminants, the minimum level of PPE required for persons undertaking the excavations includes:

- Hard hat;
- High visibility clothing;
- Long sleeved shirt and trousers;
- Steel capped work boots;
- Safety glasses; and
- Chemical resistant rubber gloves (for persons in contact with contaminated soil).

Safe Working Practices

The contractor should ensure that adequate signage is present across the remediation area to warn unauthorised persons from entering the area.

Eating, drinking, chewing gum or tobacco, smoking or practices that involve hand to mouth transfer increases the probability of ingestion of contaminated soil or dust into the body. With respect to remediation activities, hands must be thoroughly washed after coming into contact with soil or groundwater on the site before eating, drinking or smoking.

Smoking will be prohibited in the remediation area.

9.10 Remediation Schedule

Under the proposed remediation strategy, a low-permeability cap and stormwater drainage system will be installed as part of the construction works for the proposed redevelopment. Timing of the remedial works will therefore be dependent on the construction schedule.

10 LEGISLATIVE AND REGULATORY FRAMEWORK

This section provides a summary of current legislation and regulations applicable to the RAP.

10.1 Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment Act 1979 ('EP&A Act') regulates development in NSW, and incorporates the principles of ecologically sustainable development through the EP&A Regulation 2000.

10.1.1 Changes to the Act

Part 3A of the EP&A Act was repealed and replaced by the Environmental Planning and Assessment Amendment (Part 3A Repeal) Act 2011. The complementary planning policy has also been revised to the State Environmental Planning Policy (State and Regional Development) 2011.

In accordance with Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011, Remediation of Contaminated Land is considered State Significant Development if it is classified as Category 1 Remediation Work on 'significantly contaminated land' and remediation is required under the Contaminated Land Management Act ('CLM Act').

10.1.2 State Environmental Planning Policy 55 – Remediation of Land

State Environmental Planning Policy 55 – Remediation of Land (SEPP 55) under the EP&A Act provides a framework for contaminated land remediation. Remediation work which requires development consent is known as Category 1 work. Category 1 refers to work:

- Designated development; or
- Carried out or to be carried out on land declared to be a critical habitat; or
- Likely to have a significant effect on a critical habitat or a threatened species, population or ecological community; or
- Development for which another State environmental planning policy or a regional environmental plan requires development consent; or
- Carried out or to be carried out in an area or zone to which any classifications to the following effect apply under an environmental planning instrument:

  (i) coastal protection;
  (ii) conservation or heritage conservation;
  (iii) habitat area, habitat protection area, habitat or wildlife corridor;
  (iv) environment protection;
  (v) escarpment, escarpment protection or escarpment preservation;
  (vi) floodway;
  (vii) littoral rainforest;
  (viii) nature reserve;
  (ix) scenic area or scenic protection;

(x) wetland; or
(xi) carried out or to be carried out on any land in a manner that does not comply with a policy made under the contaminated land planning guidelines by the council for any local government area in which the land is situated (or if the land is within the unincorporated area, the Western Lands Commissioner).

All other remediation work is classified as Category 2 work and may be carried out without development consent. The local council must be notified at least 30 days prior to the commencement of Category 2 remedial works.

This remediation is classified as Category 2 remedial works.

10.2 Protection of the Environment Operations Act 1997

Under Section 48 of the Protection of the Environment Operations Act 1997 ('POEO Act'), an Environment Protection Licence is required if the activity undertaken is listed in Schedule 1. The POEO Act also defines 'waste' for regulatory purposes.

10.2.1 Contaminated Soil Treatment

Contaminated soil treatment is declared to be a scheduled activity requiring a licence if:

- In any case, it has the capacity to treat more than 1,000 cubic metres per year of contaminated soil received from off-site; or
- Where it treats contaminated soil originating exclusively on-site, it has a capacity:

  (i) to incinerate more than 1,000 cubic metres per year of contaminated soil; or
  (ii) to treat (otherwise than by incineration) and store more than 30,000 cubic metres of contaminated soil; or
  (iii) to disturb more than an aggregate area of 3 hectares of contaminated soil.

As no contaminated soil is proposed to be received from off-site, less than 30,000 m^3 of contaminated soil is proposed to be stored at the site, and less than 3 hectares of contaminated soil will be disturbed, the remedial works are not considered to be a scheduled activity under the Act, and do not require a licence.

10.2.2 POEO Act Requirements

Impacted soil requiring off-site disposal (should this be required) will be classified, transported and disposed of to a licensed landfill.

If friable asbestos is encountered on site, the presence of a person holding a Class A asbestos removal licence will be required.

If non-friable asbestos is encountered on site, the presence of a person holding a Class B asbestos removal licence will be required.

Material entering/leaving the site will be tracked and documented. Documentation will be included in the site validation report.

10.3 Contaminated Land Management Act 1997

The NSW CLM Act establishes a process for the investigation and remediation of land that is contaminated, where the contamination is considered significant enough to warrant regulation.

Under Section 60 of the CLM Act, a person whose activities have contaminated land, or a landowner whose land has been contaminated, is required to notify the NSW EPA when they become aware of the contamination. Notification is required where:

- Soil concentration trigger levels are exceeded and a person either has been, or foreseeably will be, exposed to the contaminant or a by-product of the contaminant; or
- The contaminant will foreseeably enter neighbouring land; or
- The contaminant has entered or will foreseeably enter groundwater or surface water.

As described in this RAP, contaminants have been detected on the site at concentrations that exceed adopted guideline values. JME considers that there is potential for a person to be exposed to the contaminants and that the site owner therefore potentially has a duty to notify the EPA of the site's status as a contaminated site. JME recommends obtaining legal advice regarding reporting the site as potentially requiring regulation under Section 60 of the CLM Act.

10.4 Waste Classification Guidelines

Classification of excavated material (should this be required) will be undertaken according to the NSW EPA Waste Classification Guidelines Part 1: Classifying Waste (2014). The following considerations should be reviewed prior to the re-instatement or disposal of stockpiled material:

- Is the waste special (asbestos) waste?
- Does the waste classify as:
    - General solid waste?
    - Restricted solid waste? or
    - Hazardous waste?

If necessary, waste should be disposed of at an appropriately licensed landfill facility. Transport of waste should be limited by selecting the nearest appropriate facility. In this case the two likely disposal landfills are Newcastle City Council Summerhill Waste Management Centre on Minmi Road, Wallsend, and Suez Landfill at Newline Road, Raymond Terrace.

11 LONG TERM ENVIRONMENTAL MANAGEMENT PLAN

As the remedial goal does not aim to fully remediate the site, contamination remaining will be managed under an LTEMP. The LTEMP will:

- Satisfy the requirements for a capping and containment strategy outlined in the NSW EPA Guidelines for the NSW Site Auditors Scheme (3rd Edition);
- Be produced following the validation report, when the final contamination status of the site is known; and
- Manage the fill remaining beneath the surface of the site, and the potential exposure of future site workers and the ecology to heavy metal contamination within the fill.

11.1 Contents

The LTEMP will include:

- The objectives of the LTEMP;
- The party(s) responsible for adhering to the plan;
- A description of the fill encapsulated at the site, and characterisation of the contamination;
- A survey plan showing the location of buried fill;
- Record of cap thickness and extent across the site;
- Commitments for ongoing groundwater monitoring and maintenance of the cap;
- A procedure to excavate the site (if necessary). Future excavations must be minimised or if required, have appropriate environmental controls and/or procedures adopted before work is carried out;
- The requirement for the site's Section 10.7 certificate to be updated to record the site's contamination status;
- Management measures to mitigate exposure pathways to future site users; and
- Details of periodic reviews and monitoring (as required).

11.2 Groundwater Monitoring

In order to assess whether heavy metal contamination is being transported off-site via groundwater migration, groundwater monitoring will form part of the LTEMP.

Groundwater monitoring will be conducted at five locations. Existing monitoring wells MW4 and MW6 will be used if still serviceable, otherwise they will have to be reinstated. Three additional monitoring wells (MW7 – MW9) will be installed. Proposed and existing groundwater monitoring locations are shown in Figure 9.

Groundwater monitoring will be conducted quarterly.

Groundwater samples will be analysed for heavy metals (As, Cd, Cr, Cu, Pb, Ni, Zn and Hg).

12 CONTACTS

The following provisional contact numbers for project personnel are given for the duration of the project. The contact names will be displayed on a sign during the remediation process.

In the event that project personnel change, relevant parties will be notified.

TABLE 4: PROJECT PERSONNEL CONTACT NUMBERS

Environmental Consultant/Project Manager **James McMahon** JM Environments Mobile: 0427 893 668 email: james@jmenvironments.com
Client Contact **TBA**

13 CONTINGENCY PLAN

A contingency plan is outlined in Table 5, listing potential events that may arise during the field work and actions that will be undertaken if unexpected conditions occur.

TABLE 5: CONTINGENCY PLAN

Unexpected Condition	Action
Identification of uncontained contaminated materials such as tar during earthworks.	Stop work in that area. Demarcate an exclusion zone around the area. Contact JME as soon as practicable. Stockpile material on a bunded plastic lined pad Excavation of the material should continue until it has been visually removed. Waste classify and remove from site. Additional samples and analytes may be required to be collected and analysed for (depending on the nature of the material).
Identification of contained contaminated materials such as drums during earthworks.	Stop work in that area. Demarcate an exclusion zone around the area. Contact JME as soon as practicable. Check for damage or leaks from drums. Carefully remove and store drums on a bunded plastic lined pad. If drums cannot be moved without causing further leaks or spills they shall remain in-situ until they are pumped out. Excavation of the material should continue until leaks or spills have been visually removed. Waste classify and remove from site. Additional samples and analytes may be required to be collected and analysed for (depending on the nature of the material).

14 CONCLUSIONS

It is proposed to remediate the eastern part of the site (Lot 8) via a cap and contain strategy. It is considered that the emplacement of 0.5m of suitable imported material as a working surface, and associated in-ground stormwater management, will remove a potential exposure pathway between contaminated fill and surface ecological and human receptors, as well as reducing the potential for groundwater contamination.

It is considered that existing asphalt and concrete pavements over the site's western part (Lot 11, and part Lot 301) already provide an effective barrier between contaminated soil and potential receptors.

JME considers that the site may be considered suitable for its proposed redevelopment and ongoing industrial land use, pending successful implementation of remedial measures as detailed in this RAP, and the preparation and implementation of an LTEMP.

REFERENCES

EHO Consulting (2020) Environmental Site Assessment 21F & 21G School Drive, Tomago NSW 2322 (ref: JN01446)

JM Environments (2020) Detailed Contamination Assessment 21D and 21F School Drive, Tomago (ref: JME20005-2)

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 (1999, updated 2013) Schedule B1 Guideline on Investigation Levels for Soil and Groundwater

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

NSW Contaminated Land Management Act (1997)

NSW Environmental Planning and Assessment Act (1979)

NSW Environment Protection Authority (1995) Sampling Design Guidelines

NSW Environment Protection Authority (2014) The excavated natural material exemption

NSW Environment Protection Authority (2014) The excavated natural material order

NSW Environment Protection Authority (2014) Waste Classification Guidelines Part 1: Classifying Waste

NSW Environment Protection Authority (2015) Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act (1997)

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

NSW Environment Protection Authority (2020) Guidelines for Consultants reporting on contaminated land

NSW Protection of the Environment Operations Act (1997)

NSW State Environmental Planning Policy (State and Regional Development) 55 – Remediation of Land (2011)

Google Earth

maps.six.gov.nsw.au

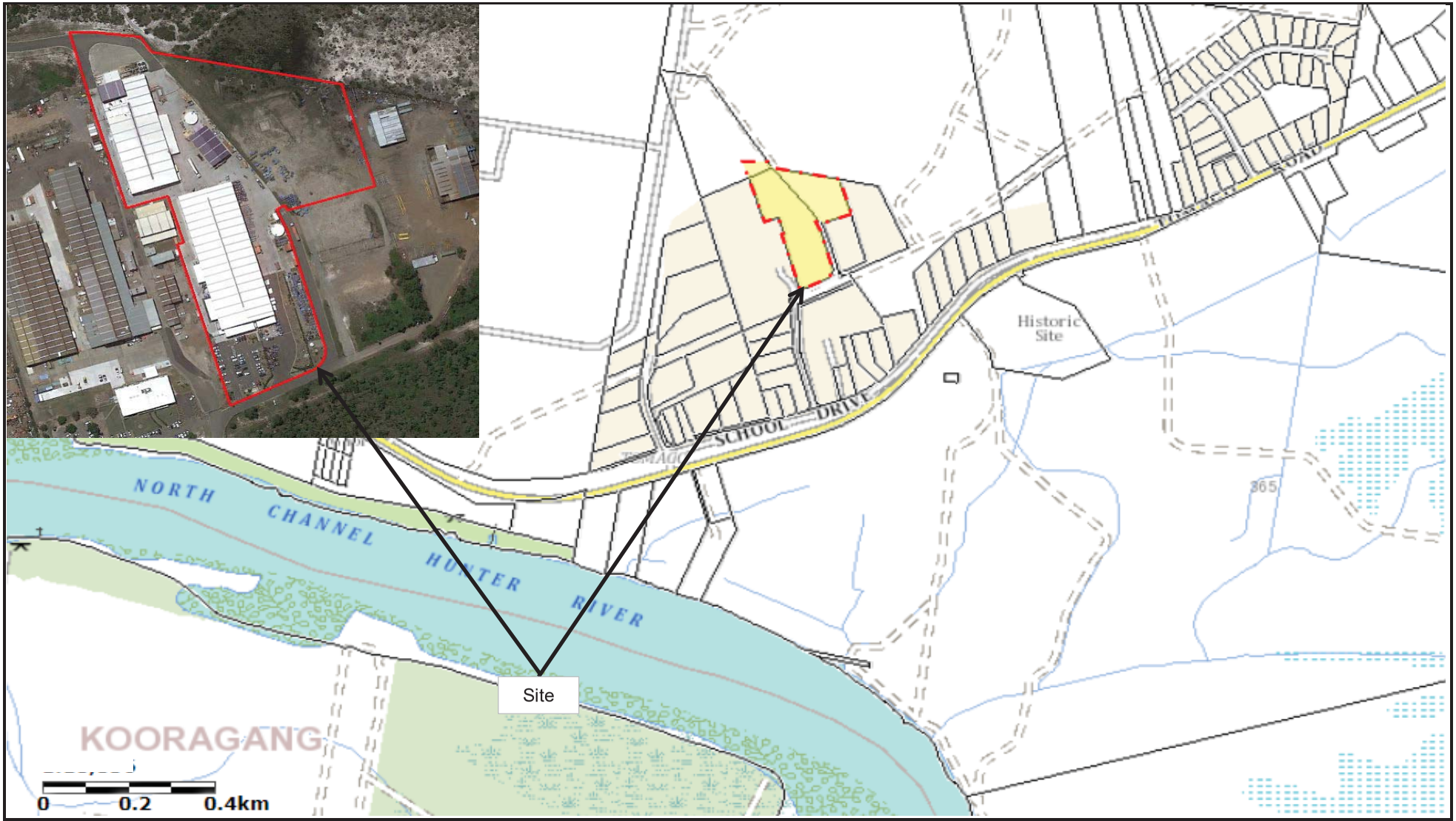
LIMITATIONS

This Remedial Action Plan was prepared for Remondis Pty Ltd, with the objective of remediating contamination on the site that could impact on its suitability for redevelopment and ongoing industrial land use. This report is not intended for other parties or other uses, with the exception of Port Stephens Council for the purpose of assessing a Development Application. 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.

The findings contained within this report are the result of discrete/specific sampling practices, used in accordance with normal practices and standards. To the best of our 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.

This report does not comprise a geotechnical assessment and should not be used for geotechnical purposes.

Figures



ENVIRONMENTS

CLIENT: **Remondis**

PROJECT TITLE: **School Drive, Tomago**

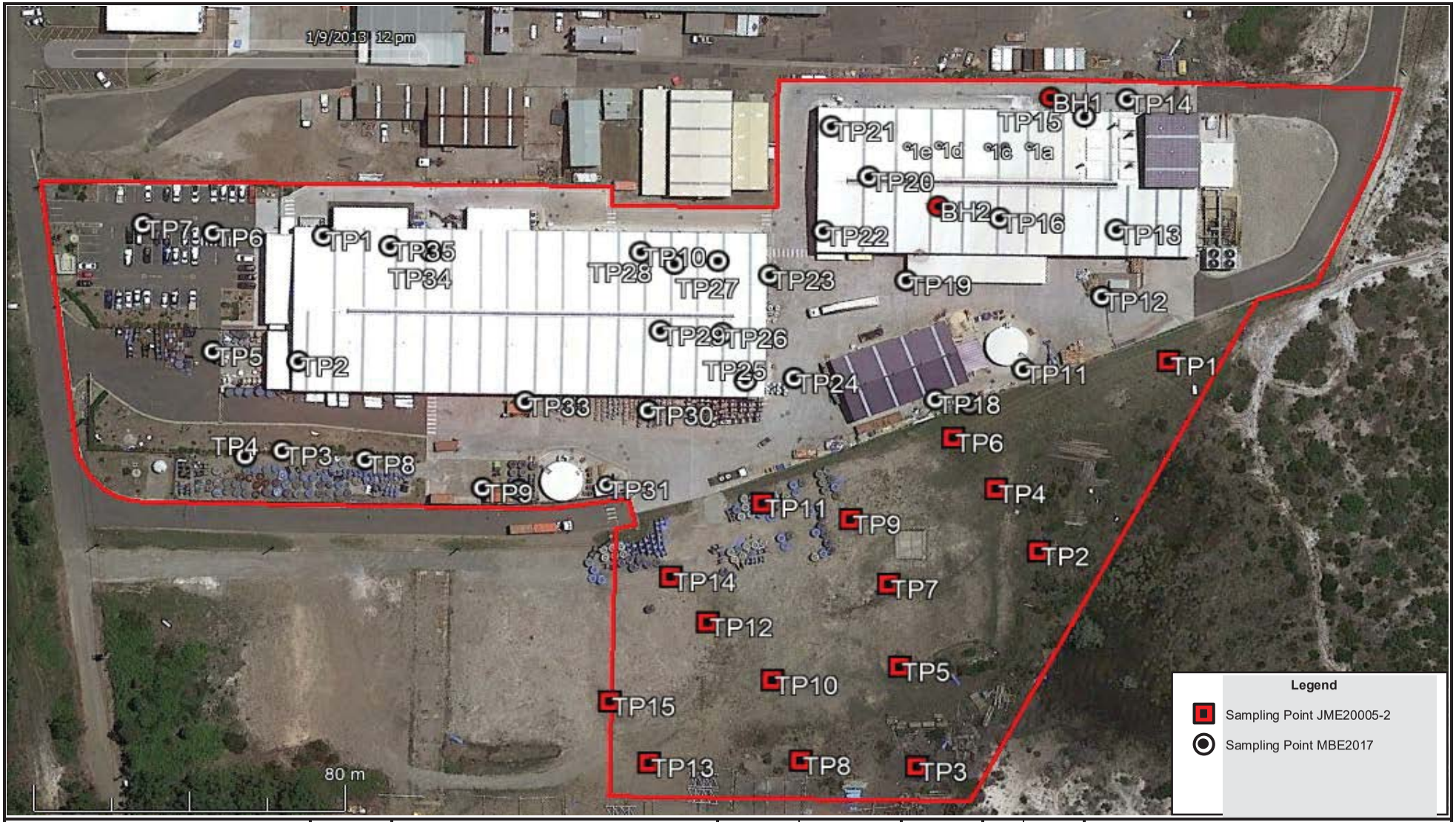
PROJECT:	JME20005	DESIGNED:	JMc	
DWG #:	1	DRAWN:	JH	
REVISION:	1	STATUS:	NFC	
SCALE:	As shown			
DATE:	8/09/2020			

FIGURE TITLE: **Site Location Plan**

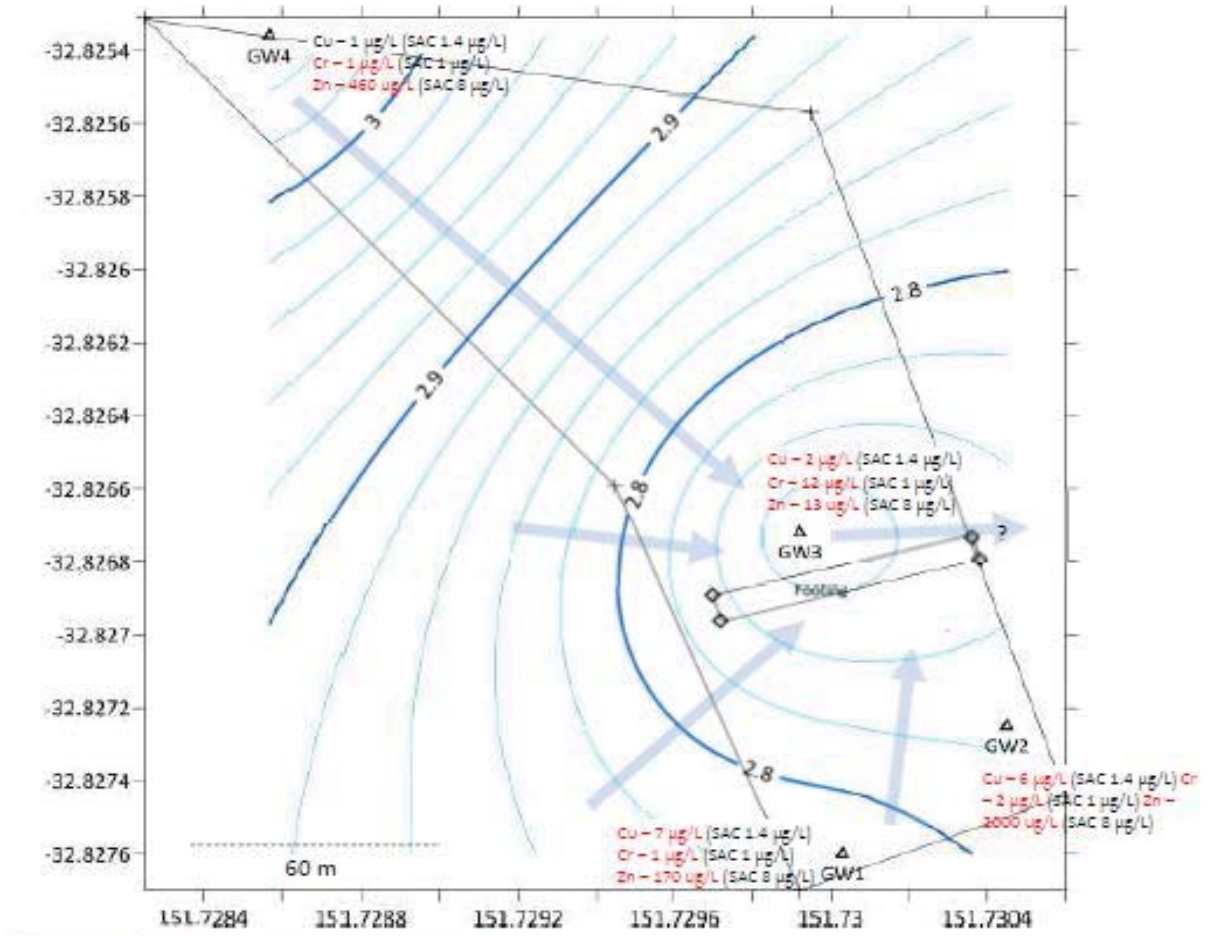
FIGURE NUMBER: **1**

CLIENT: **Remondis**	N	PROJECT:	JME20005	DESIGNED:	JMc	FIGURE TITLE
		DWG #:	1	DRAWN:	JH	**Site Features**
		REVISION:	1	STATUS:	NFC	
PROJECT TITLE: **School Drive, Tomago**		SCALE:	As shown			
		DATE:	28/10/2020			FIGURE: **2**

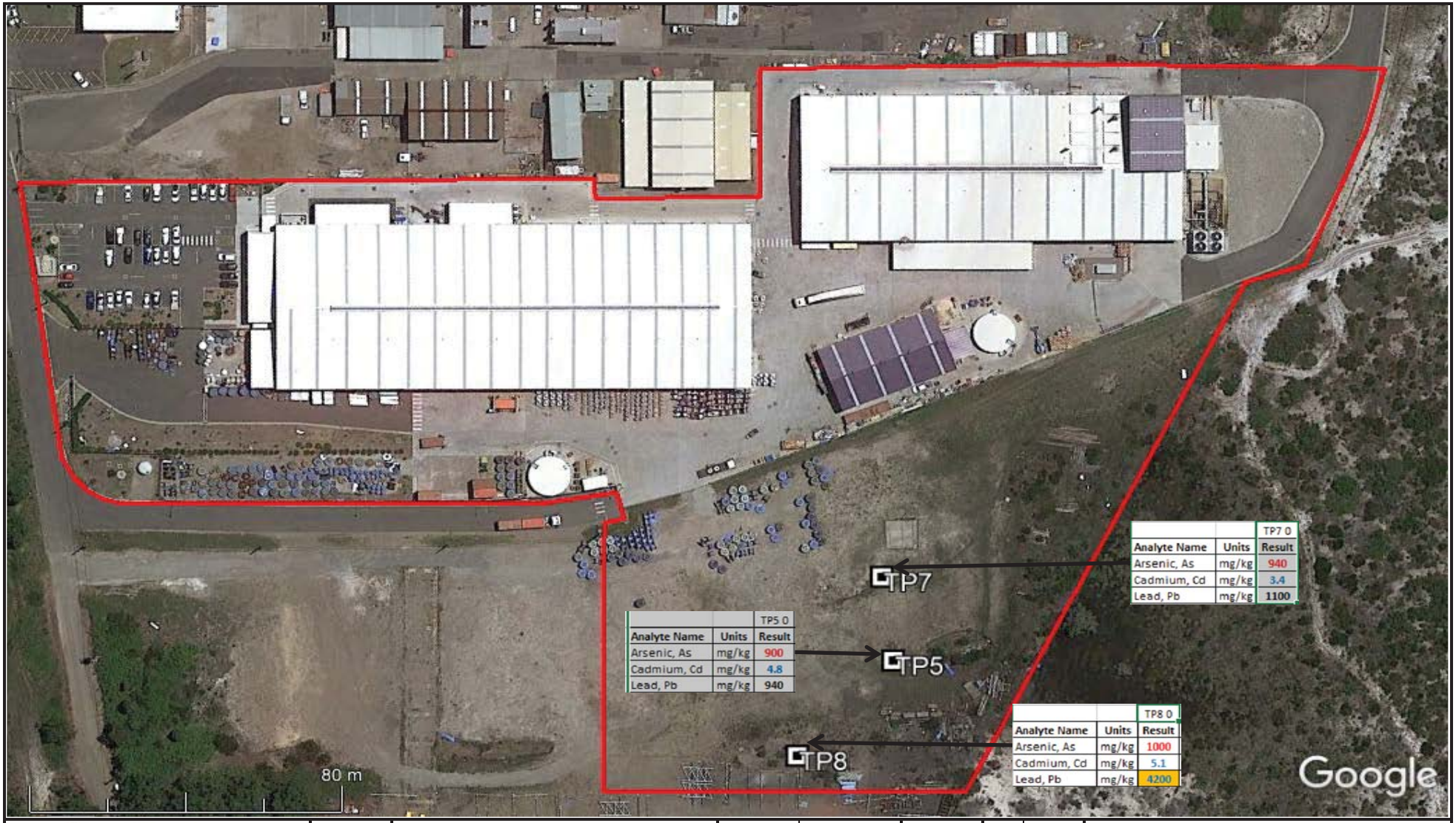
JME ENVIRONMENTS



ENVIRONMENTS	N	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:	10/09/2020			FIGURE NUMBER: **3**



ENVIRONMENTS	N	CLIENT: **Remondis**	PROJECT:	JME20005	DESIGNED:	JMc	FIGURE TITLE:
			DWG #:	1	DRAWN:	JH	**EH2020 Groundwater Wells**
			REVISION:	1			
		PROJECT TITLE: **School Drive, Tomago**	SCALE:	As shown	STATUS:	NFC	
			DATE:	27/10/2020			FIGURE NUMBER: **4**



		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	STATUS:	NFC	
SCALE:	As shown			
DATE:	8/09/2020			

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

FIGURE NUMBER: **5**

JME ENVIRONMENTS	N	CLIENT: **Remondis**	PROJECT:	JME20005	DESIGNED:	JMc	FIGURE TITLE:
			DWG #:	1	DRAWN:	JH	**Zinc Exceedances**
			REVISION:	1			
		PROJECT TITLE: **School Drive, Tomago**	SCALE:	As shown	STATUS:	NFC	
			DATE:	9/09/2020			FIGURE NUMBER: **6**

JM ENVIRONMENTS	N	CLIENT: **Remondis**	PROJECT:	JME20005	DESIGNED:	JMc	FIGURE TITLE:
			DWG #:	1	DRAWN:	JH	**Copper Exceedances**
			REVISION:	1			
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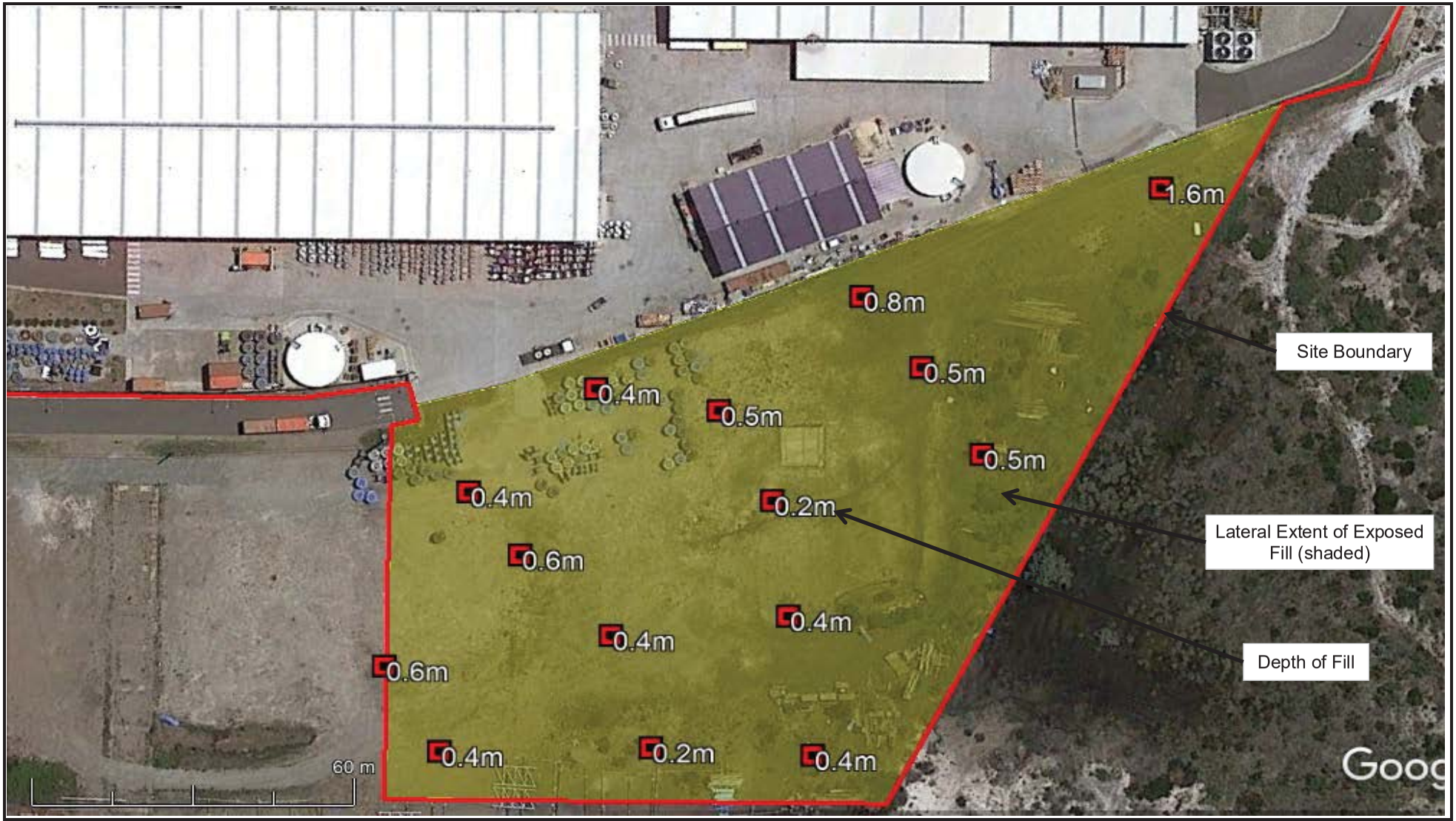
			DATE:	8/09/2020			FIGURE NUMBER: **7**



ENVIRONMENTS	N	CLIENT: **Remondis**	PROJECT:	JME20005	DESIGNED:	JMc	FIGURE TITLE:
			DWG #:	1	DRAWN:	JH	**Extent of Fill**
			REVISION:	1			
		PROJECT TITLE: **School Drive, Tomago**	SCALE:	As shown	STATUS:	NFC	
			DATE:	9/09/2020			FIGURE NUMBER: **8**

ENVIRONMENTS

CLIENT: **Remondis**

PROJECT TITLE: **School Drive, Tomago**

PROJECT:	JME20005	DESIGNED:	JMc	
DWG #:	1	DRAWN:	JH	
REVISION:	1	STATUS:	NFC	
SCALE:	As shown			
DATE:	10/09/2020			

FIGURE TITLE: **Proposed Groundwater Well Locations**

FIGURE NUMBER: **9**

Appendix A

Detailed Contamination Assessment

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: 9 September 2020

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	Original	3 June 2020	Remondis Australia Pty Ltd	Susie McBurney	
JME20005-2 Detailed Contamination Assessment 21D and 21F School Drive TomagoRev1	Revision 1	10 September 2020	Remondis Australia Pty Ltd	Susie McBurney	Amendments made in response to an email from Mark Jackson dated 24 July 2020

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 two boreholes in the western part of the site (Lot 11) in the vicinity of a hydrocarbon storage trench;
- Excavation and sampling of 15 test pits in the eastern part of the site (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. 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. 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 cadmium, arsenic and lead concentrations were observed in dark sandy material on the surface in the northeast corner of the site. These analytes are commonly found at high concentrations in slag from the Pasminco lead smelter.

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 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.

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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, and part Lot 301 DP634536 (as defined in the website maps.six.nsw.gov.au), and is approximately 4.1 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 excavated natural material (ENM) assessment by MB Engineering Solutions (MBES) (ref: MBE2017, attached in Appendix G), as well as additional sampling and analysis conducted as part of this assessment. It is noted that though MBE2017 was conducted in 2013, that part of the site 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 since that time is limited to the excavation of a hydrocarbon storage trench (addressed in Section 7.4.1).

It is further noted that the hydrocarbon storage trench was excavated to around 5-6 metres below ground level (mbgl), which is beneath the water table. It was considered possible that cracks in the concrete lining of this trench 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 4.1 hectares
Site Identification:	Lots 8 and 11 DP270328, and part Lot 301 DP634536, 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

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 DP270328	Lot 11 DP270328
	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. 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, and part Lot 301) 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).

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, and part Lot 301 DP634536; the site is approximately 4.1 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 eastern part of the site, with the addition of the assessment of soil surrounding a hydrocarbon capture trench 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 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);
- 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.

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	-	-	-	-	-	-
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	-	-	-	-	-	-

Analyte Name	Units	HIL	HSL	EIL	ESL	ACL	ABC	Management Limit
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). 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 deionised 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.

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; 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

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.

Two locations (BH1 and BH2) were concrete cored and excavated using a 4WD-mounted drilling rig fitted with solid flight augers. Boreholes were terminated at the perceived top of 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.

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;
- 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.

In Lot 8, 15 sites (TP1 – TP15) were excavated using a 1.8 tonne excavator

Samples were collected from the surface, and at observed changes in lithology. 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

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);
- 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. Samples were collected using a clean pair of disposable nitrile gloves, which were changed between each sample. Samples were placed into appropriate laboratory-supplied glass jars with Teflon™ lined lids. Samples were kept on ice during transport, and received by the primary laboratory at a temperature of 16°C.

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 samples were collected and analysed, to check whether field sampling procedures produced reproducible 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):

- TP8 0 and QC2
    - Arsenic 108%
    - Nickel 74%
- TP8 0 and QC2A
    - Arsenic 143%
    - Nickel 125%

RPD results are included in Summary Table 2 (attached).

During the assessment a rinsate sample (QCA) was collected 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).

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. Analytes were not detected at concentrations above the laboratory LOR.

QA/QC results are included in Summary Table 2 (attached).

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:

- 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).

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.

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.

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 two 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 fill. 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.

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:

- Xylenes;
- TRH F3 and F4;
- BaP;
- Chromium; and
- Nickel.

TRH were not detected at concentrations exceeding the laboratory LOR, with the exception of two samples collected from MBE2017 TP34 and one from JME20005 TP9. In a sample collected from 2mbgl at TP34, TRH F2 was detected at a concentration of 490mg/kg, which exceeds the adopted ESL, but does not exceed the adopted management limit.

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;
- Zinc exceeded the adopted EIL in 17 samples from across Lot 8, as well as one sample from MBE2017 TP34, in Lot 11;
- Copper exceeded the adopted EIL in five samples from along the eastern boundary of the site (see Figure 9); and
- Cadmium and arsenic exceeded adopted EILs in surface samples collected from TP5, TP7 and TP8 (see Figure 10).

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	TP16	TP17	TP18	TP19	TP20	TP21	TP22	TP23
		Depth to Base (mbgl)																						
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	0.1	0.2	0.1	0.1	0.2	0.1	-	0.1
	Silty SAND, dark grey to black, fine grained, common plant roots	-	-	-	-	-	-	-	0.2	0.15	-	-	-	-	-	-	-	0.3	-	-	-	-	-	
	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	-	0.4	-	0.2	-	0.2	-	0.2
	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	0.9	-	-	1.0	0.9	1.0	-	0.4
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	1.0	-	-	1.1	1.0	1.1	-	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
Arsenic	3,000	160					900	940	1,000						
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

Analyte	HIL	EIL	TP13 0	TP13 0.3	TP13 0.5	TP14 0.3	TP16 0.5	TP17 0.3	TP18 0	TP19 0	TP19 0.4	TP20 0.4	TP21 1	TP23 0.4	MBE2017 TP34 1
Arsenic	3,000	160													
Cadmium	900	3													
Copper	240,000	170		520				620			250		440		
Lead	1,500	2,000													
Zinc	400,000	480	1,200	10,000	490	2,500	750	16,000	980	2,400	3,600	2,200	5,800	920	660

11.3 Statistical Analysis

Analytical results were assessed using the USEPA's ProUCL software package. 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) 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 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 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); 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 and one additional high concentration 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).

12 DISCUSSION

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.

Copper and zinc contamination appeared to be largely confined to dark grey brown to black sandy fill in the upper 1m of the site's surface; deeper brown sand, interpreted as representing in-situ material, appeared to be largely uncontaminated.

Elevated cadmium, arsenic and lead concentrations were observed in dark sandy material collected from three test pits in the northeast corner of the site. It is noted that these analytes are commonly found at high concentrations in slag from the Pasminco lead smelter which formerly operated in Boolaroo.

Heavy metal contamination is not considered extensive, but has the potential to leach into the underlying shallow sand aquifer and be transported off site, impacting groundwater-dependent ecosystems in the surrounding area. Groundwater is expected to flow in a southerly direction toward the Hunter River. Depending on the future land use Remondis plans for the site, the NSW EPA may require ongoing groundwater monitoring as a condition of an Environmental Protection Licence.

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 hydrocarbon 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);
- A hydrocarbon storage trench in the northwest corner of the site; 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 the results of this and previous assessments, it was considered that the site had been impacted by contamination comprising heavy metals at concentrations exceeding DGVs for commercial/ industrial land use. JME considers that the site would meet the environmental requirements for commercial/industrial land use subject to the development and successful implementation of an appropriate Remedial Action Plan (RAP).

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

	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
	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
	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
Analyte Name	**Units**	**DGV**	**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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<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	-	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	<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	<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	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	<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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	-	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	<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	<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	**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**
Copper, Cu	mg/kg	170	<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
Lead, Pb	mg/kg	1500	<1	<1	<1	<1	<1	<1	<1	<1	**1**	<1	<1	<1	**12**	**3**	<1	<1	<1	<1	<1	**1**	**2**	**3**	**1**	<1	<1
Nickel, Ni	mg/kg	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	**4.3**	**0.6**	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	**0.9**	**1.5**	<0.5	<0.5	<0.5
Zinc, Zn	mg/kg	480	**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**
Mercury	mg/kg	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	<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**
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.

EILs are based on soil pH of 7.0 and CEC of 0.79meq/100g

1 Table 1A(1) Health investigation levels for soil contaminants (Recreational C).
2 Table 1A(3) Soil HSLs for vapour intrusion (HSL C recreational/open space) 0m to <1m
3 Table 1B(1) Soil-specific added contaminant limits for aged zinc in soil (Urban residential/public open space).
4 Table 1B(2) Soil-specific added contaminant limits for aged copper in soils (Urban residential/public open space).
5 Table 1B(3) Soil-specific added contaminant limits for aged chromium III and nickel in soil (Urban residential and public open space).
6 Table 1B(5) Generic EILs for aged As, fresh DDT and fresh naphthalene in soils irrespective of their physicochemical properties (Urban residential and public open space).
7 Table 1B(6) ESLs for TPH fractions F1 – F4, BTEX and benzo(a)pyrene in soil (Urban residential and public open space) - most 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'

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.

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

	Sample ID	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	TP22 1m	TP22 2m	TP23 1m	TP23 2m	TP24 1m	TP24 2m	TP25 1m	TP25 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	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
Analyte Name	**Units**	**DGV**	**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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<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	-	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	<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	<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	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	<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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	-	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	<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	<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	**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**	**0.7**	**2.0**	**2.4**	**2.0**	**1.6**	**1.9**	**1.7**	**1.7**
Copper, Cu	mg/kg	170	<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	<0.5	**1.1**	**1.4**	<0.5	**1.0**	<0.5	<0.5	**1.1**
Lead, Pb	mg/kg	1500	<1	<1	<1	<1	<1	<1	<1	**1**	<1	**1**	**4**	**7**	**2**	<1	<1	<1	<1	<1	**2**	**3**	**1**	**2**	**1**	<1	**2**
Nickel, Ni	mg/kg	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	<0.5	**0.5**	**1.0**	**0.6**	<0.5	**0.6**	**0.7**	<0.5
Zinc, Zn	mg/kg	480	**2**	**1**	**1**	**2**	**1**	**1**	**1**	**50**	**12**	**24**	**50**	**140**	**29**	**1**	**2**	**2**	**1**	**2**	**42**	**120**	**12**	**21**	**13**	**7**	**30**
Mercury	mg/kg	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	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
pH	pH Units	-	**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**	**5.8**	**6.1**	**6.3**	**6.0**	**6.3**	**6.4**	**6.7**	**6.7**
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.

EILs are based on soil pH of 7.0 and CEC of 0.79meq/100g

1 Table 1A(1) Health investigation levels for soil contaminants (Recreational C).
2 Table 1A(3) Soil HSLs for vapour intrusion (HSL C recreational/open space) 0m to <1m
3 Table 1B(1) Soil-specific added contaminant limits for aged zinc in soil (Urban residential/public open space).
4 Table 1B(2) Soil-specific added contaminant limits for aged copper in soils (Urban residential/public open space).
5 Table 1B(3) Soil-specific added contaminant limits for aged chromium III and nickel in soil (Urban residential and public open space).
6 Table 1B(5) Generic EILs for aged As, fresh DDT and fresh naphthalene in soils irrespective of their physicochemical properties (Urban residential and public open space).
7 Table 1B(6) ESLs for TPH fractions F1 – F4, BTEX and benzo(a)pyrene in soil (Urban residential and public open space) - most 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'

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.

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

	Sample ID	TP26 1m	TP26 2m	TP27 1m	TP27 2m	TP28 1m	TP28 2m	TP29 1m	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
	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	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
Analyte Name	**Units**	**DGV**	**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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<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	-	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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
TRH C6-C10 minus BTEX (F1)	mg/kg	215	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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
TRH >C10-C16	mg/kg	170	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	N.A.	<25	<25	<25	<25	**52**	**490**	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	1700	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	N.A.	<90	<90	<90	<90	**580**	**1400**	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	3300	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	N.A.	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120
Naphthalene	mg/kg	370	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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
Benzo(a)pyrene	mg/kg	172	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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
Carcinogenic PAHs, BaP TEQ	TEQ (mg/kg)	40	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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
Total PAH	mg/kg	4000	<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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	-	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	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	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	**2**	**2**	<1
Cadmium, Cd	mg/kg	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	**1.6**	**1.1**	**1.7**	**1.4**	**1.9**	**1.7**	**2.5**	**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**
Copper, Cu	mg/kg	170	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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**
Lead, Pb	mg/kg	1500	<1	<1	<1	<1	**1**	**1**	<1	**3**	**1**	<1	<1	<1	**2**	<1	<1	<1	**2**	**5**	<1	<1	**6**	**6**	<1	**4**
Nickel, Ni	mg/kg	60	**0.6**	<0.5	**0.8**	<0.5	**0.6**	<0.5	**0.8**	**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**
Zinc, Zn	mg/kg	480	**3**	**8**	**8**	**7**	**56**	**34**	**35**	**140**	**24**	**24**	**34**	**4**	**66**	**2**	**5**	**92**	**190**	**660**	**13**	**2**	**110**	**57**	<2	**61**
Mercury	mg/kg	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	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
pH	pH Units	-	**5.7**	**5.7**	**6.4**	**5.3**	**6.0**	**6.2**	**6.0**	**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.
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.	**3.6**	N.A.	N.A.

EILs are based on soil pH of 7.0 and CEC of 0.79meq/100g

1 Table 1A(1) Health investigation levels for soil contaminants (Recreational C).
2 Table 1A(3) Soil HSLs for vapour intrusion (HSL C recreational/open space) 0m to <1m
3 Table 1B(1) Soil-specific added contaminant limits for aged zinc in soil (Urban residential/public open space).
4 Table 1B(2) Soil-specific added contaminant limits for aged copper in soils (Urban residential/public open space).
5 Table 1B(3) Soil-specific added contaminant limits for aged chromium III and nickel in soil (Urban residential and public open space).
6 Table 1B(5) Generic EILs for aged As, fresh DDT and fresh naphthalene in soils irrespective of their physicochemical properties (Urban residential and public open space).
7 Table 1B(6) ESLs for TPH fractions F1 – F4, BTEX and benzo(a)pyrene in soil (Urban residential and public open space) - most 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'

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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

	Sample ID	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	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
	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
	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
Analyte Name	**Units**	**DGV**	**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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<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	**0.4**	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total VOC	mg/kg	-	N.A.	N.A.	<24	N.A.	N.A.	N.A.	N.A.	N.A.	<24	N.A.	N.A.	<24	N.A.	N.A.	N.A.	N.A.	N.A.	<24	N.A.	N.A.	N.A.	N.A.	N.A.
TRH C6-C10 minus BTEX (F1)	mg/kg	215	<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	<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	<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	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	**180**	<120	<120	<120	<120	<120	<120	<120
Naphthalene	mg/kg	370	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	**0.4**	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ	TEQ (mg/kg)	40	<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	**0.6**	<0.3	<0.3	<0.3	<0.3	<0.3
Total PAH	mg/kg	4000	<0.8	**1.7**	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	**1.3**	<0.8	<0.8	**1.3**	<0.8	<0.8	<0.8	<0.8	**3.7**	<0.8	<0.8	<0.8	<0.8	<0.8
DDT	mg/kg	640	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	<0.2	N.A.	N.A.	N.A.	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.
DDT+DDE+DDD	mg/kg	3600	N.A.	N.A.	N.A.	N.A.	<0.6	N.A.	<0.6	N.A.	N.A.	N.A.	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.
Aldrin and Dieldrin	mg/kg	45	N.A.	N.A.	N.A.	N.A.	<0.3	N.A.	<0.3	N.A.	N.A.	N.A.	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.
Chlordane	mg/kg	530	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	<0.2	N.A.	N.A.	N.A.	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.
Endosulfan	mg/kg	2000	N.A.	N.A.	N.A.	N.A.	<0.5	N.A.	<0.5	N.A.	N.A.	N.A.	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.
Hexachlorobenzene (HCB)	mg/kg	80	N.A.	N.A.	N.A.	N.A.	<0.1	N.A.	<0.1	N.A.	N.A.	N.A.	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.
Heptachlor	mg/kg	50	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	<0.2	N.A.	N.A.	N.A.	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.
Endrin	mg/kg	100	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	<0.2	N.A.	N.A.	N.A.	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.
Methoxychlor	mg/kg	2500	N.A.	N.A.	N.A.	N.A.	<0.1	N.A.	<0.1	N.A.	N.A.	N.A.	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.
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	2000	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	<0.2	N.A.	N.A.	N.A.	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.
Total OP Pesticides	mg/kg	-	N.A.	N.A.	N.A.	N.A.	<1.7	N.A.	<1.7	N.A.	N.A.	N.A.	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.
Total PCBs (Arochlors)	mg/kg	7	N.A.	N.A.	N.A.	N.A.	<1	N.A.	<1	N.A.	N.A.	N.A.	N.A.	N.A.	<1	<1	N.A.	N.A.	<1	N.A.	N.A.	<1	<1	N.A.	<1	N.A.
Phenol	mg/kg	240000	N.A.	N.A.	N.A.	N.A.	<0.5	N.A.	<0.5	N.A.	N.A.	N.A.	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.
Cresols	mg/kg	25000	N.A.	N.A.	N.A.	N.A.	<1.5	N.A.	<1.5	N.A.	N.A.	N.A.	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.
Arsenic, As	mg/kg	160	<1	**6**	**80**	**6**	**7**	**100**	<1	**3**	<1	**900**	**1**	<1	**940**	**2**	**1000**	<1	**24**	**6**	**27**	<1	**1**	**12**	<1	<1
Cadmium, Cd	mg/kg	3	<0.3	<0.3	**0.3**	<0.3	<0.3	**1.2**	<0.3	<0.3	<0.3	**4.8**	<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
Chromium, Cr	mg/kg	330	**2.2**	**42**	**11**	**3.6**	**8.2**	**31**	**1.7**	**7.3**	**1.4**	**61**	**0.6**	**1.4**	**72**	**3.9**	**37**	**2.8**	**7.9**	**6**	**6.7**	**1.8**	**4.7**	**13**	**3.9**	**1.9**
Copper, Cu	mg/kg	170	**0.9**	**56**	**53**	**11**	**67**	**680**	**1.3**	**22**	**2.8**	**1700**	**3.7**	**0.9**	**2100**	**18**	**2400**	**11**	**40**	**41**	**71**	**11**	**21**	**66**	**4.0**	**1.0**
Lead, Pb	mg/kg	1500	<1	**70**	**33**	**9**	**120**	**840**	**2**	**34**	**4**	**940**	**5**	**2**	**1100**	**33**	**4200**	**18**	**46**	**60**	**83**	**12**	**36**	**83**	**6**	<1
Nickel, Ni	mg/kg	60	**0.5**	**17**	**11**	**9.8**	**4.1**	**4.8**	<0.5	**7.1**	**0.9**	**52**	<0.5	<0.5	**38**	**0.8**	**26**	<0.5	**6.3**	**7.5**	**10**	<0.5	**0.7**	**11**	<0.5	<0.5
Zinc, Zn	mg/kg	480	**4.0**	**1300**	**510**	**74**	**1500**	**13000**	**33**	**400**	**59**	**18000**	**65**	**56**	**25000**	**430**	**27000**	**170**	**1100**	**780**	**1200**	**170**	**430**	**1600**	**620**	**30**
Mercury	mg/kg	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	<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.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	**7.7**	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.	N.A.	N.A.	**0.79**	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

1 Table 1A(1) Health investigation levels for soil contaminants (Recreational C).
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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

	Sample ID	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	Maximum Concentration	Standard Deviation	95% UCL of Mean Concentration
	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			
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Analyte Name	**Units**	**DGV**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**		
Benzene	mg/kg	3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	N.A.	N.A.
Toluene	mg/kg	135	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	N.A.	N.A.
Ethylbenzene	mg/kg	165	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	N.A.	N.A.
Total Xylenes	mg/kg	180	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	**0.4**	N.A.	N.A.
Total VOC	mg/kg	-	N.A.	<24	N.A.	N.A.	<24	N.A.	N.A.	N.A.	<24	N.A.	<24	N.A.	N.A.
TRH C6-C10 minus BTEX (F1)	mg/kg	215	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	N.A.	N.A.
TRH >C10-C16	mg/kg	170	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	**490**	N.A.	N.A.
TRH >C16-C34 (F3)	mg/kg	1700	<90	<90	<90	<90	<90	<90	<90	<90	<90	<90	**1400**	N.A.	N.A.
TRH >C34-C40 (F4)	mg/kg	3300	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	**180**	N.A.	N.A.
Naphthalene	mg/kg	370	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	N.A.	N.A.
Benzo(a)pyrene	mg/kg	172	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.4**	N.A.	N.A.
Carcinogenic PAHs, BaP TEQ	TEQ (mg/kg)	40	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	**0.6**	N.A.	N.A.
Total PAH	mg/kg	4000	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	**3.7**	N.A.	N.A.
DDT	mg/kg	640	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.
DDT+DDE+DDD	mg/kg	3600	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.6	N.A.	N.A.	N.A.	<0.6	N.A.	N.A.
Aldrin and Dieldrin	mg/kg	45	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.3	N.A.	N.A.	N.A.	<0.3	N.A.	N.A.
Chlordane	mg/kg	530	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.
Endosulfan	mg/kg	2000	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.5	N.A.	N.A.	N.A.	<0.5	N.A.	N.A.
Hexachlorobenzene (HCB)	mg/kg	80	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.1	N.A.	N.A.	N.A.	<0.1	N.A.	N.A.
Heptachlor	mg/kg	50	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.
Endrin	mg/kg	100	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.
Methoxychlor	mg/kg	2500	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.1	N.A.	N.A.	N.A.	<0.1	N.A.	N.A.
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	2000	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.	N.A.	<0.2	N.A.	N.A.
Total OP Pesticides	mg/kg	-	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<1.7	N.A.	N.A.	N.A.	<1.7	N.A.	N.A.
Total PCBs (Arochlors)	mg/kg	7	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<1	N.A.	N.A.	N.A.	<1	N.A.	N.A.
Phenol	mg/kg	240000	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<0.5	N.A.	N.A.	N.A.	<0.5	N.A.	N.A.
Cresols	mg/kg	25000	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	<1.5	N.A.	N.A.	N.A.	<1.5	N.A.	N.A.
Arsenic, As	mg/kg	160	**3**	**29**	<1	**17**	**100**	**4**	**11**	<1	**4**	**1**	**1000**	**300**	**98**
Cadmium, Cd	mg/kg	3	<0.3	<0.3	<0.3	<0.3	**0.9**	<0.3	<0.3	<0.3	<0.3	<0.3	**5.1**	**2.1**	**0.55**
Chromium, Cr	mg/kg	330	**8.2**	**7.8**	**1.9**	**11**	**27**	**3.1**	**18**	**2.9**	**5.8**	**11**	**72**	**11**	**10**
Copper, Cu	mg/kg	170	**13**	**55**	**3.5**	**66**	**520**	**25**	**65**	**0.8**	**14**	**1.8**	**2400**	**490**	**220**
Lead, Pb	mg/kg	1500	**25**	**71**	**6**	**75**	**1100**	**62**	**120**	**2**	**27**	**17**	**4200**	**590**	**270**
Nickel, Ni	mg/kg	60	**3.7**	**8.4**	**0.8**	**16**	**5.1**	<0.5	**1.4**	<0.5	**2.7**	**0.8**	**52**	**9.6**	**4.1**
Zinc, Zn	mg/kg	480	**370**	**900**	**69**	**1200**	**10000**	**490**	**2500**	**170**	**400**	**480**	**27000**	**4200**	**2800**
Mercury	mg/kg	1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<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.	**8.0**	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.	**1.5**	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

1 Table 1A(1) Health investigation levels for soil contaminants (Recreational C).
2 Table 1A(3) Soil HSLs for vapour intrusion (HSL C recreational/open space) 0m to <1m
3 Table 1B(1) Soil-specific added contaminant limits for aged zinc in soil (Urban residential/public open space).
4 Table 1B(2) Soil-specific added contaminant limits for aged copper in soils (Urban residential/public open space).
5 Table 1B(3) Soil-specific added contaminant limits for aged chromium III and nickel in soil (Urban residential and public open space).
6 Table 1B(5) Generic EILs for aged As, fresh DDT and fresh naphthalene in soils irrespective of their physicochemical properties (Urban residential and public open space).
7 Table 1B(6) ESLs for TPH fractions F1 – F4, BTEX and benzo(a)pyrene in soil (Urban residential and public open space) - most 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'

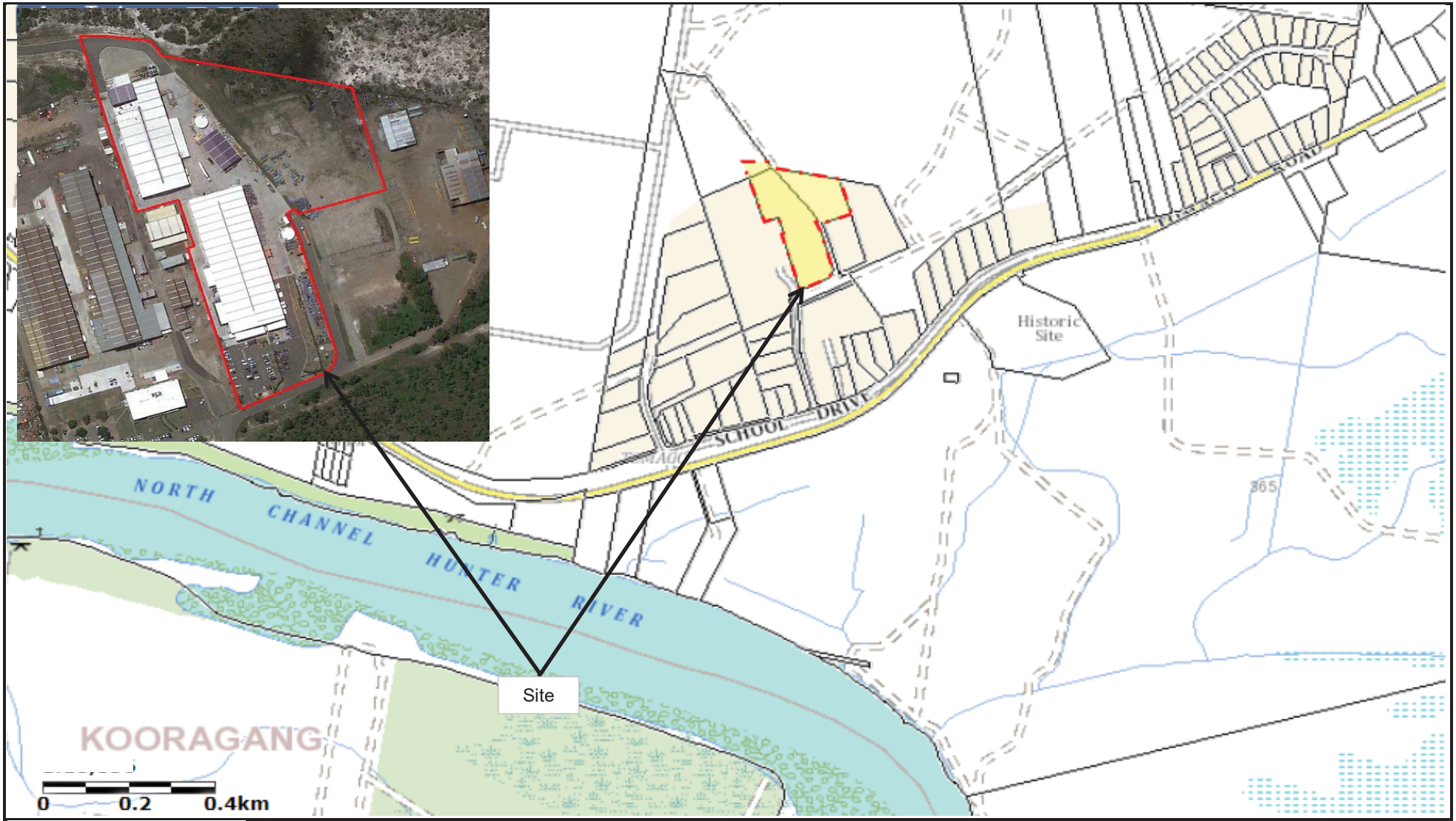
Unless otherwise specified, referred tables are within the National Environment Protection (Assessment of Site Contamination) Measure (NEPM) 1999 (amended 2013) Schedule B1, Guideline on Investigation Levels for Soil and Groundwater.

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 2
QA/QC

		Adopted	Sample ID	QC1	QC1A	Relative	TP8 0	QC2	Relative	QC2A	Relative	Trip Blank	Trip Spike	QCA
			Sample Date	6/4/2020	6/4/2020	Percentage	6/4/2020	6/4/2020	Percentage	6/4/2020	Percentage	6/4/2020	6/4/2020	6/4/2020
		Trigger	Matrix	Soil	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	[101%]	N.A.
Toluene	mg/kg	135	0.1	<0.1	<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	[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	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.	N.A.	N.A.	N.A.
TRH >C10-C16	mg/kg	170	25	<25	<50	N.A.	<25	<25	N.A.	<50	N.A.	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.	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.	N.A.	N.A.	N.A.
Naphthalene	mg/kg	370	0.1	<0.1	<0.5	0%	<0.1	<100	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%	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.	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.	N.A.	N.A.	N.A.
Arsenic, As	mg/kg	160	1	**2**	<5	0%	**1000**	**300**	108%	**166**	143%	N.A.	N.A.	<1
Cadmium, Cd	mg/kg	3	0.3	<0.3	<1	0%	**5.1**	**3.4**	40%	**3.0**	52%	N.A.	N.A.	<0.1
Chromium, Cr	mg/kg	330	0.5	**4.8**	**4.0**	18%	**37**	**51**	32%	**56**	41%	N.A.	N.A.	<1
Copper, Cu	mg/kg	170	0.5	**14**	**12**	15%	**2400**	**3200**	29%	**2720**	13%	N.A.	N.A.	<1
Lead, Pb	mg/kg	1500	1	**8**	**8**	0%	**4200**	**6000**	35%	**4560**	8%	N.A.	N.A.	<1
Nickel, Ni	mg/kg	60	0.5	**5.1**	**4.0**	24%	**26**	**12**	74%	**6**	125%	N.A.	N.A.	<1
Zinc, Zn	mg/kg	480	2	**170**	**252**	39%	**27000**	**44000**	48%	**42600**	45%	N.A.	N.A.	**43**
Mercury	mg/kg	1	0.05	<0.05	<0.1	0%	<0.05	<0.05	0%	<0.1	0%	N.A.	N.A.	<0.1

Figures



ENVIRONMENTS

CLIENT: **Remondis**

PROJECT TITLE: **School Drive, Tomago**

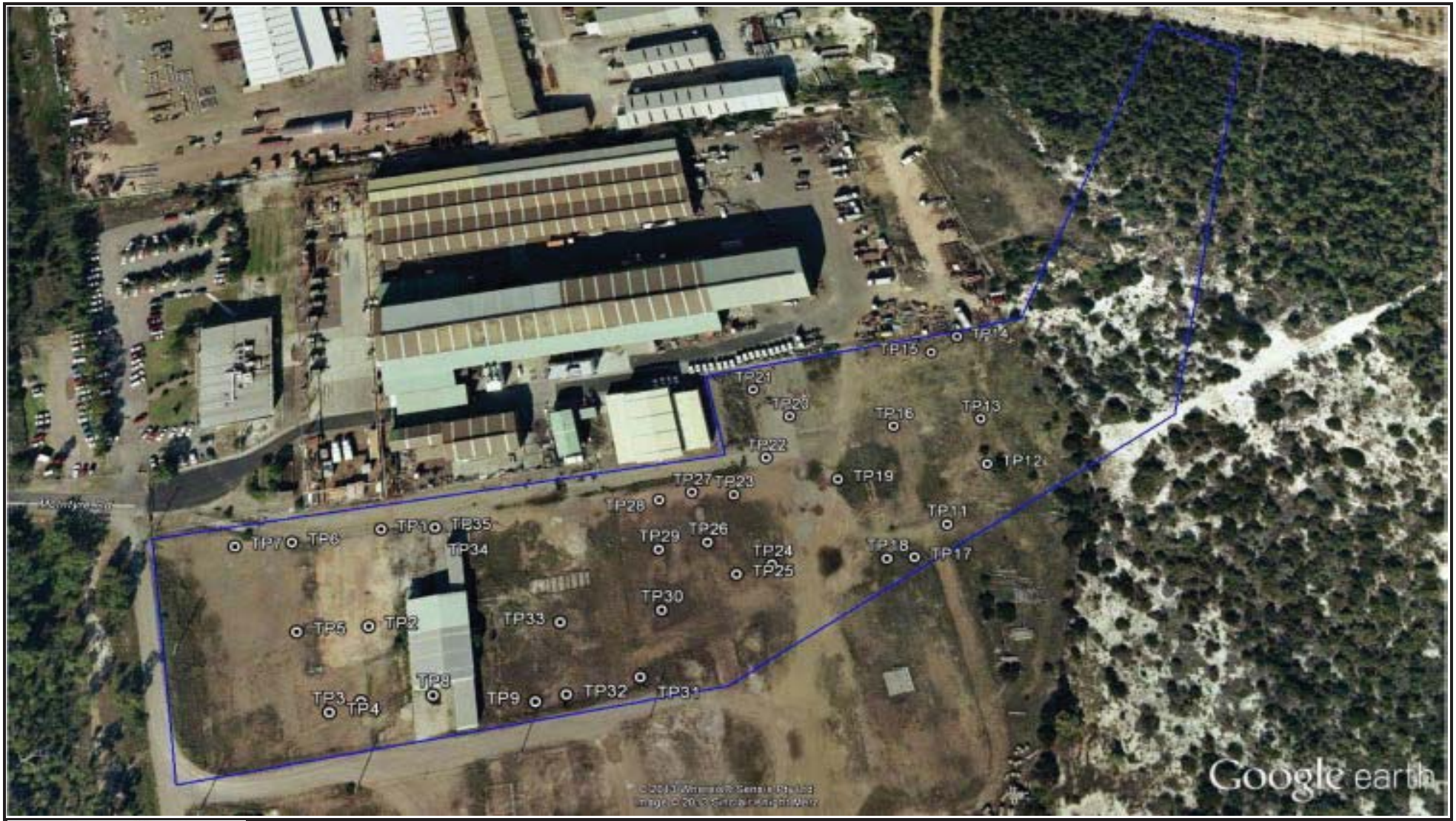
PROJECT:	JME20005	DESIGNED:	JMc	
DWG #:	1	DRAWN:	JH	
REVISION:	1	STATUS:	NFC	
SCALE:	As shown			
DATE:	8/09/2020			

FIGURE TITLE: **Site Location Plan**

FIGURE NUMBER: **1**

CLIENT: **Remondis**	N	PROJECT:	JME20005	DESIGNED:	JMc	FIGURE TITLE
		DWG #:	1	DRAWN:	JH	**Site Features**
		REVISION:	1			
PROJECT TITLE: **School Drive, Tomago**		SCALE:	As shown	STATUS:		
		DATE:	8/09/2020			FIGURE: **2**

ENVIRONMENTS



ENVIRONMENTS

CLIENT: **Remondis**

PROJECT TITLE: **School Drive, Tomago**

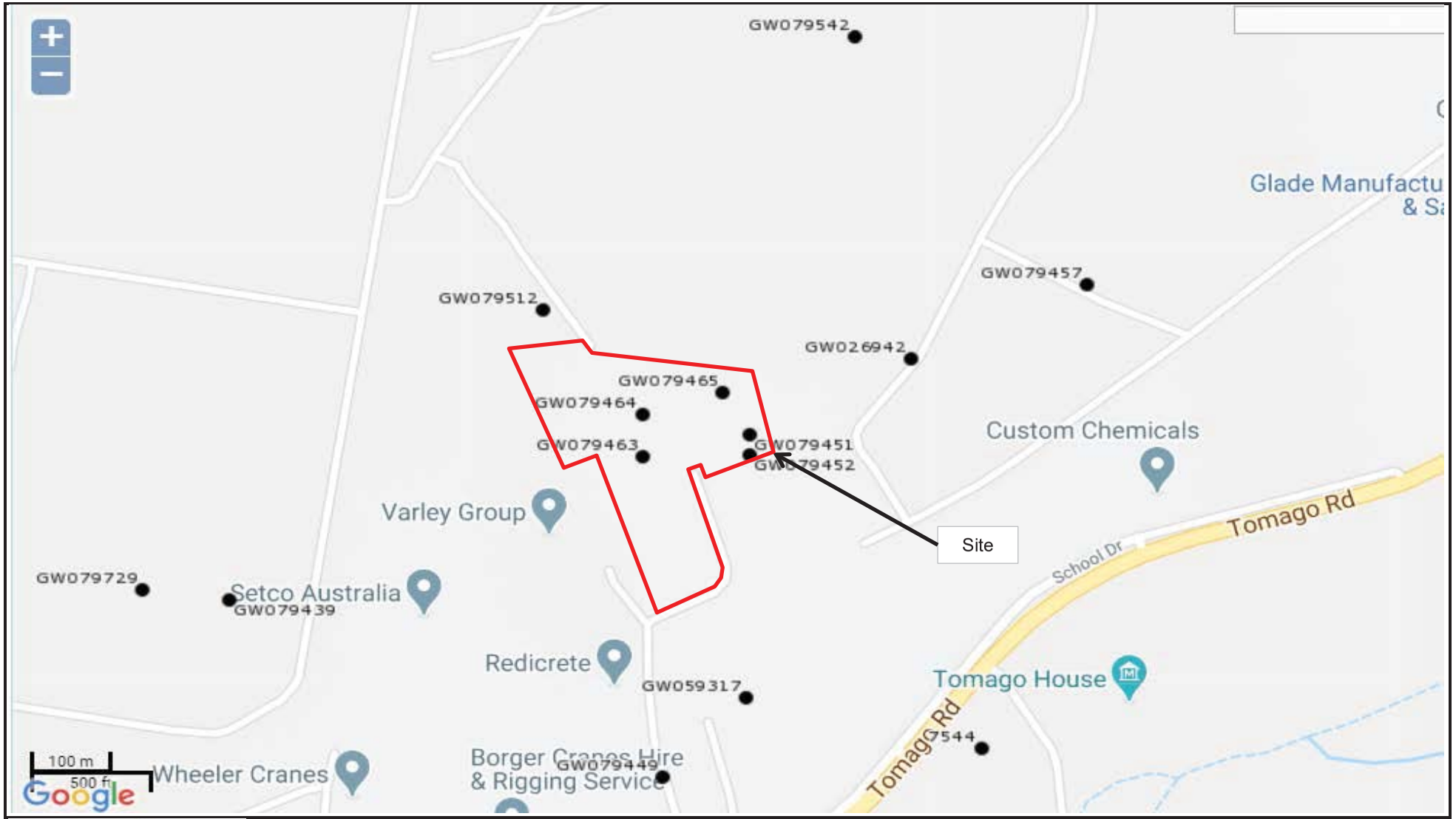
PROJECT:	JME20005	DESIGNED:	JMc		FIGURE TITLE:
DWG #:	1	DRAWN:	JH		**MBE2017 Boreholes**
REVISION:	1				
SCALE:	NTS	STATUS:	NFC		
DATE:	2/06/2020				FIGURE NUMBER: **3**

ENVIRONMENTS

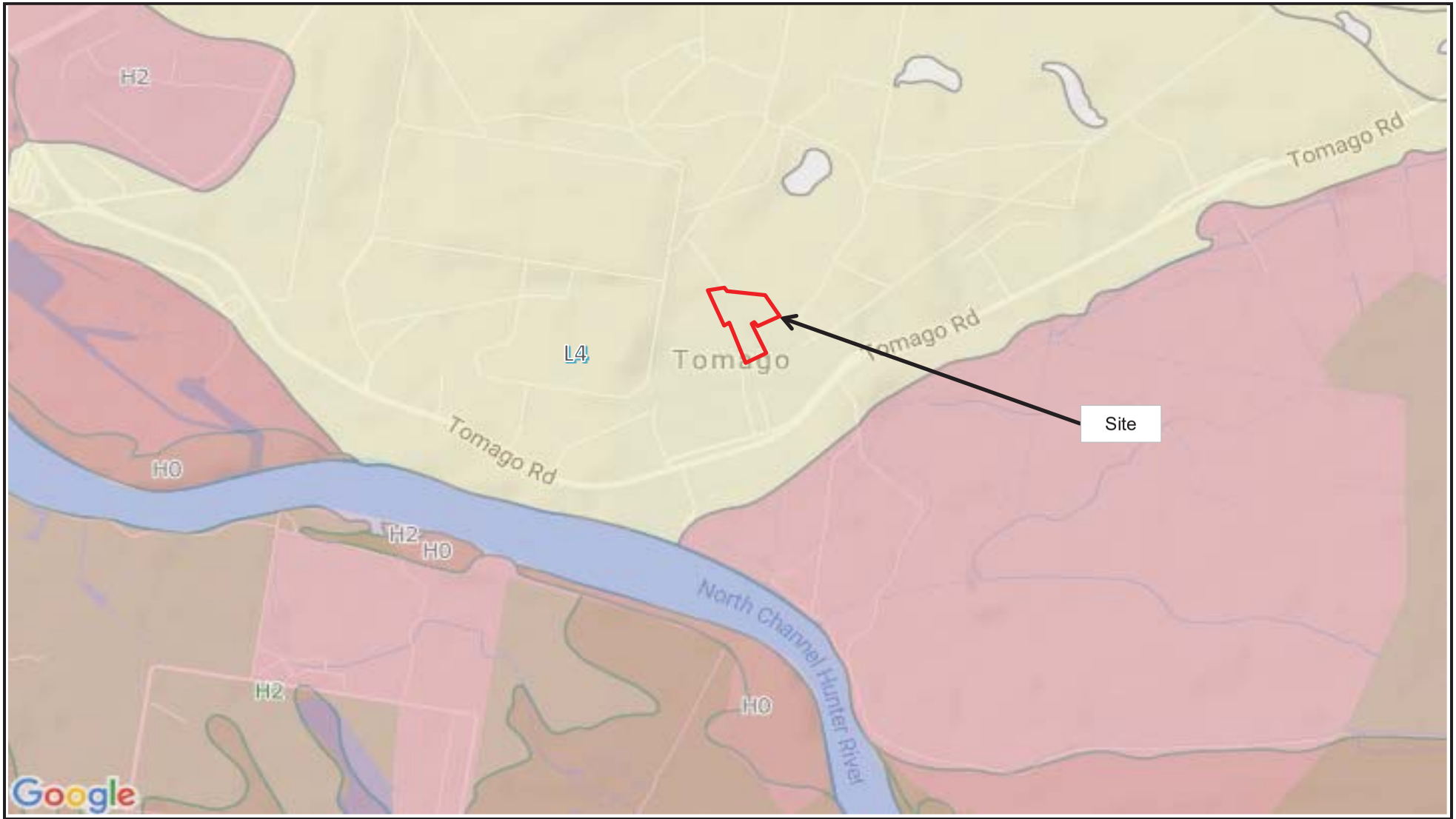
CLIENT: **Remondis**

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:	JME20005	DESIGNED:	JMc		FIGURE TITLE: **Groundwater Bores**
		DWG #:	1	DRAWN:	JH		
		REVISION:	1	STATUS:	NFC		
	PROJECT TITLE: **School Drive, Tomago**	SCALE:	As shown				
		DATE:	8/09/2020				FIGURE NUMBER: **5**



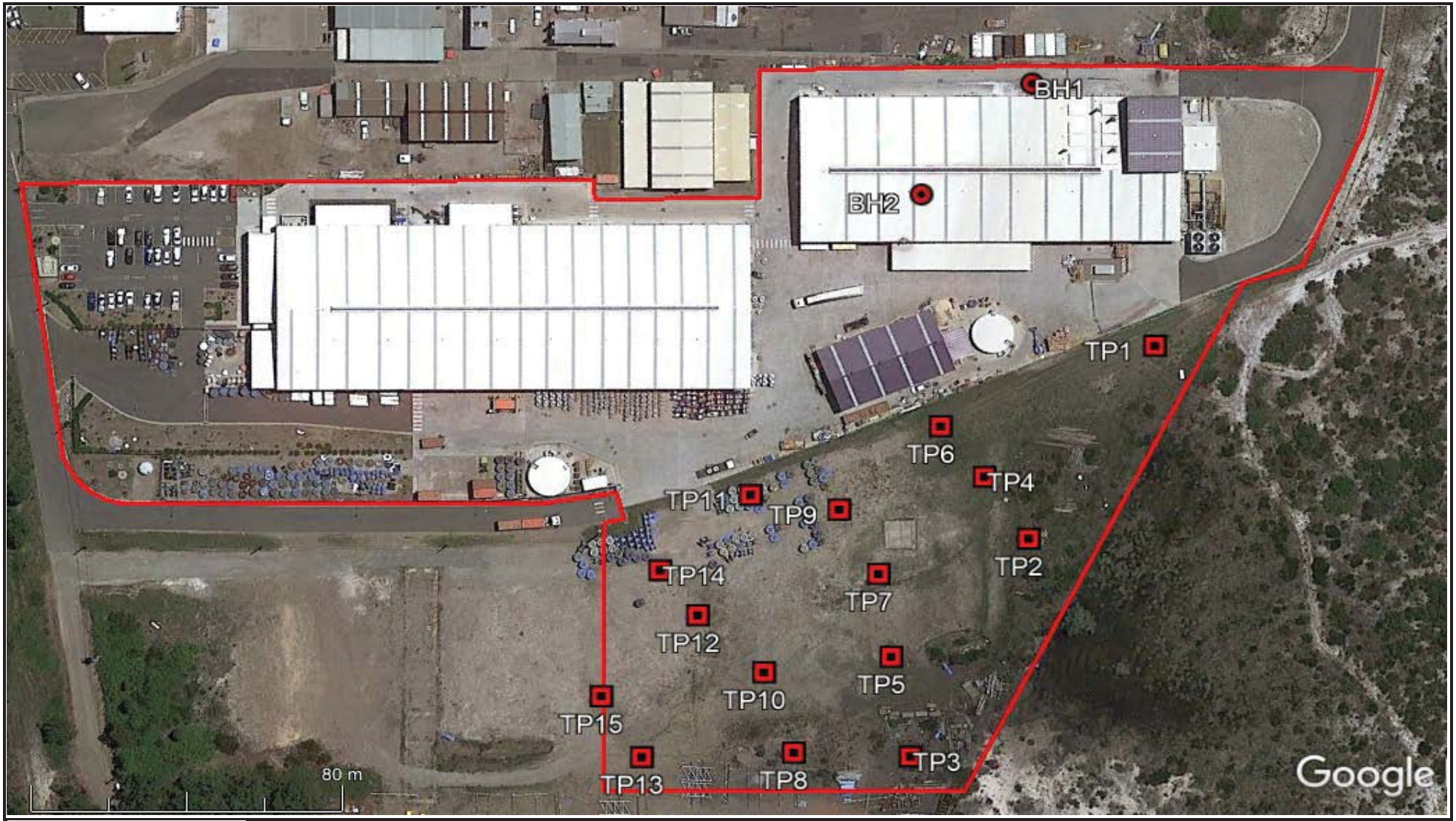
JM ENVIRONMENTS	CLIENT: **Remondis**	PROJECT:	JME20005	DESIGNED:	JMc	FIGURE TITLE:
		DWG #:	1	DRAWN:	JH	**Acid Sulfate Soils**
		REVISION:	1	STATUS:	NFC	
	PROJECT TITLE: **School Drive, Tomago**	SCALE:	NTS			
		DATE:	8/09/2020			FIGURE NUMBER: **6**

ENVIRONMENTS

CLIENT: **Remondis**

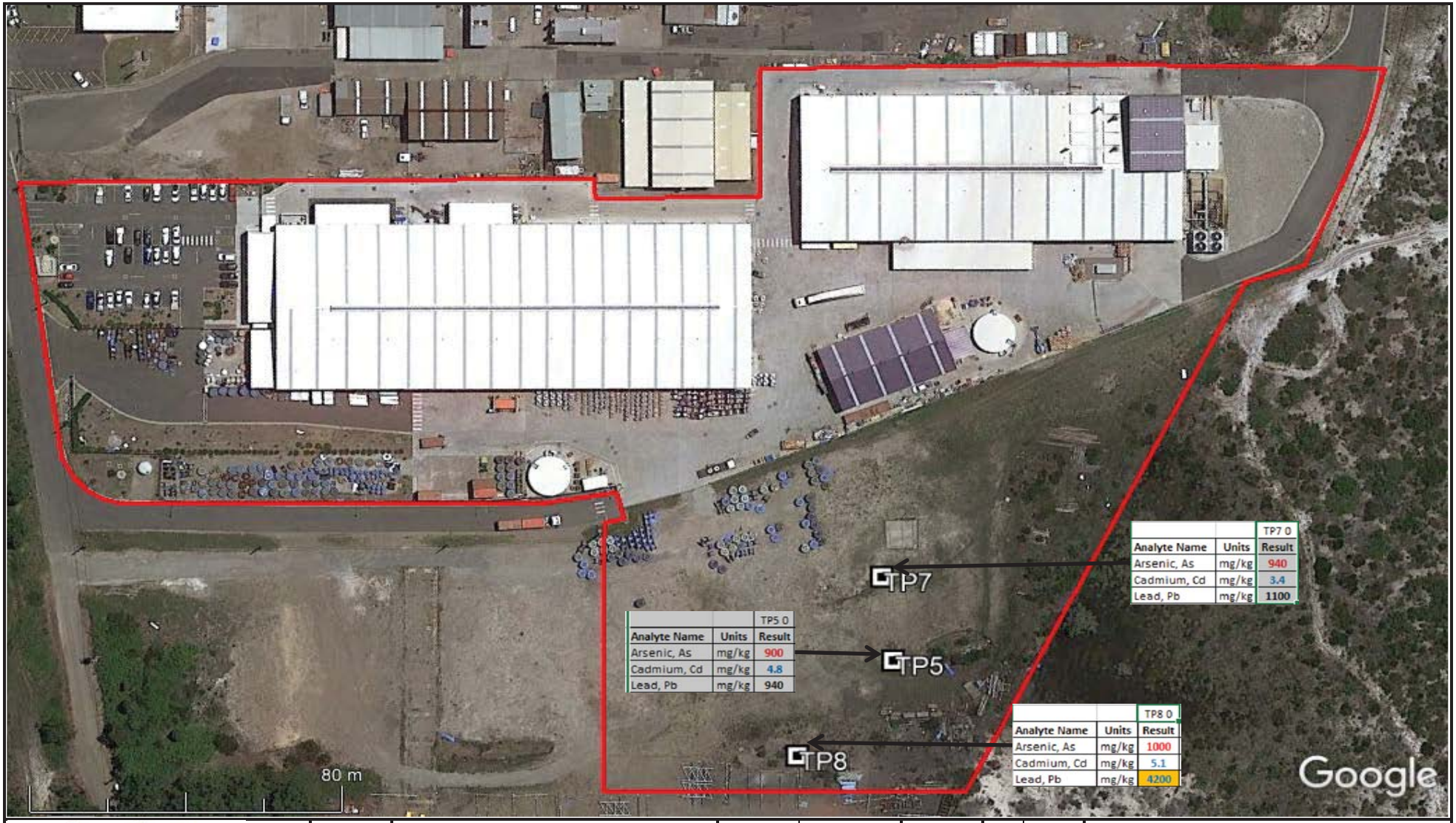
PROJECT TITLE: **School Drive, Tomago**

PROJECT:	JME20005	DESIGNED:	JMc		FIGURE TITLE:
DWG #:	1	DRAWN:	JH		**EPA Records**
REVISION:	1	STATUS:	NFC		
SCALE:	As shown				
DATE:	8/09/2020				FIGURE NUMBER: **7**



JM ENVIRONMENTS	N	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:	8/09/2020			FIGURE NUMBER: **8**

JM ENVIRONMENTS	N	CLIENT: **Remondis**	PROJECT:	JME20005	DESIGNED:	JMc	FIGURE TITLE:
			DWG #:	1	DRAWN:	JH	**Copper Exceedances**
			REVISION:	1	STATUS:	NFC	
		PROJECT TITLE: **School Drive, Tomago**	SCALE:	As shown			
			DATE:	8/09/2020			FIGURE NUMBER: **9**



		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	STATUS:	NFC	
SCALE:	As shown			
DATE:	8/09/2020			

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

FIGURE NUMBER: **10**

ENVIRONMENTS

CLIENT: **Remondis**

PROJECT TITLE: **School Drive, Tomago**

PROJECT:	JME20005	DESIGNED:	JMc	
DWG #:	1	DRAWN:	JH	
REVISION:	1	STATUS:	NFC	
SCALE:	NTS			
DATE:	8/09/2020			

FIGURE TITLE: **Aerial photograph 1954**

FIGURE NUMBER: **11**

ENVIRONMENTS

CLIENT: **Remondis**

PROJECT TITLE: **School Drive, Tomago**

PROJECT:	JME20005	DESIGNED:	JMc	
DWG #:	1	DRAWN:	JH	
REVISION:	1	STATUS:	NFC	
SCALE:	NTS			
DATE:	8/09/2020			

FIGURE TITLE: **Aerial photograph 1974**

FIGURE NUMBER: **12**

ENVIRONMENTS

CLIENT: **Remondis**

PROJECT TITLE: **School Drive, Tomago**

PROJECT:	JME20005	DESIGNED:	JMc	
DWG #:	1	DRAWN:	JH	
REVISION:	1	STATUS:	NFC	
SCALE:	NTS			
DATE:	8/09/2020			

FIGURE TITLE: **Aerial photograph 1987**

FIGURE NUMBER: **13**

ENVIRONMENTS

CLIENT: **Remondis**

PROJECT TITLE: **School Drive, Tomago**

PROJECT:	JME20005	DESIGNED:	JMc		FIGURE TITLE:
DWG #:	1	DRAWN:	JH		**Aerial photograph 1993**
REVISION:	1	STATUS:	NFC		
SCALE:	NTS				
DATE:	8/09/2020				FIGURE NUMBER: **14**

ENVIRONMENTS

CLIENT: **Remondis**

PROJECT TITLE: **School Drive, Tomago**

PROJECT:	JME20005	DESIGNED:	JMc	
DWG #:	1	DRAWN:	JH	
REVISION:	1	STATUS:	NFC	
SCALE:	As shown			
DATE:	8/09/2020			

FIGURE TITLE: **Aerial photograph 2007**

FIGURE NUMBER: **15**

ENVIRONMENTS

CLIENT: **Remondis**

PROJECT TITLE: **School Drive, Tomago**

PROJECT:	JME20005	DESIGNED:	JMc	
DWG #:	1	DRAWN:	JH	
REVISION:	1	STATUS:	NFC	
SCALE:	As shown			
DATE:	8/09/2020			

FIGURE TITLE: **Aerial photograph 2016**

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
2				BH1 1.9 - 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
DATE: 06/04/2020
EASTING: 380983
SITE: 21 School Drive, Tomago
LOGGED BY: J McCreery
NORTHING: 6367349
CLIENT: Remondis
TOTAL DEPTH: 1.6

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
0		~~Ground Surface~~			
		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
SITE: 21 School Drive, Tomago
CLIENT: Remondis

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

EASTING: 381111
NORTHING: 6367323

DEPTH (m)	LEGEND	DESCRIPTION	ODOUR	SAMPLE LABEL	REMARKS
0		~~Ground Surface~~			
		SAND, black, fine grained		TP3 0	Fill
		SAND, brown, fine grained		TP3 0.9	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: 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
1		SAND, light brown, fine grained		TP6 1	EOH 1.1m
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
DATE: 06/04/2020
EASTING: 381100
SITE: 21 School Drive, Tomago
LOGGED BY: J Howard
NORTHING: 6367280
CLIENT: Remondis
TOTAL DEPTH: 0.6

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
DATE: 06/04/2020
EASTING: 381054
SITE: 21 School Drive, Tomago
LOGGED BY: J Howard
NORTHING: 6367262
CLIENT: Remondis
TOTAL DEPTH: 0.8

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
SITE: 21 School Drive, Tomago
CLIENT: Remondis

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

EASTING: 381081
NORTHING: 6367246

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**

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 ***

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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 ***

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LAND REGISTRY SERVICES

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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 ***

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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 ***

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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 ***

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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

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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

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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 ***

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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 ***

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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	

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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	

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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 & Sons
Attorneys for John Thomas McKee

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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

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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

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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

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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

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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
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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

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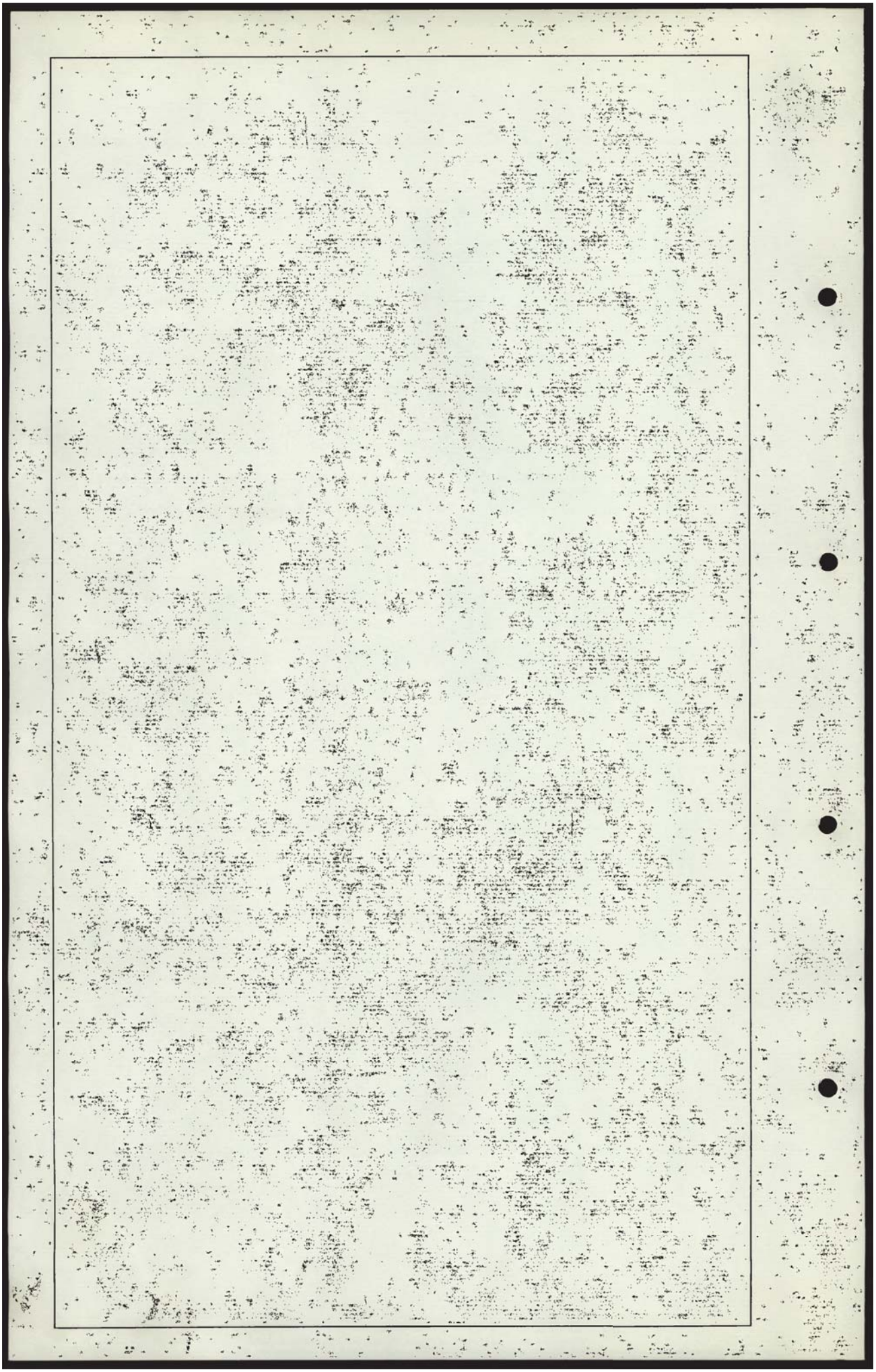

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SHEET MUST NOT BE FOLDED OR CREASED

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.~~

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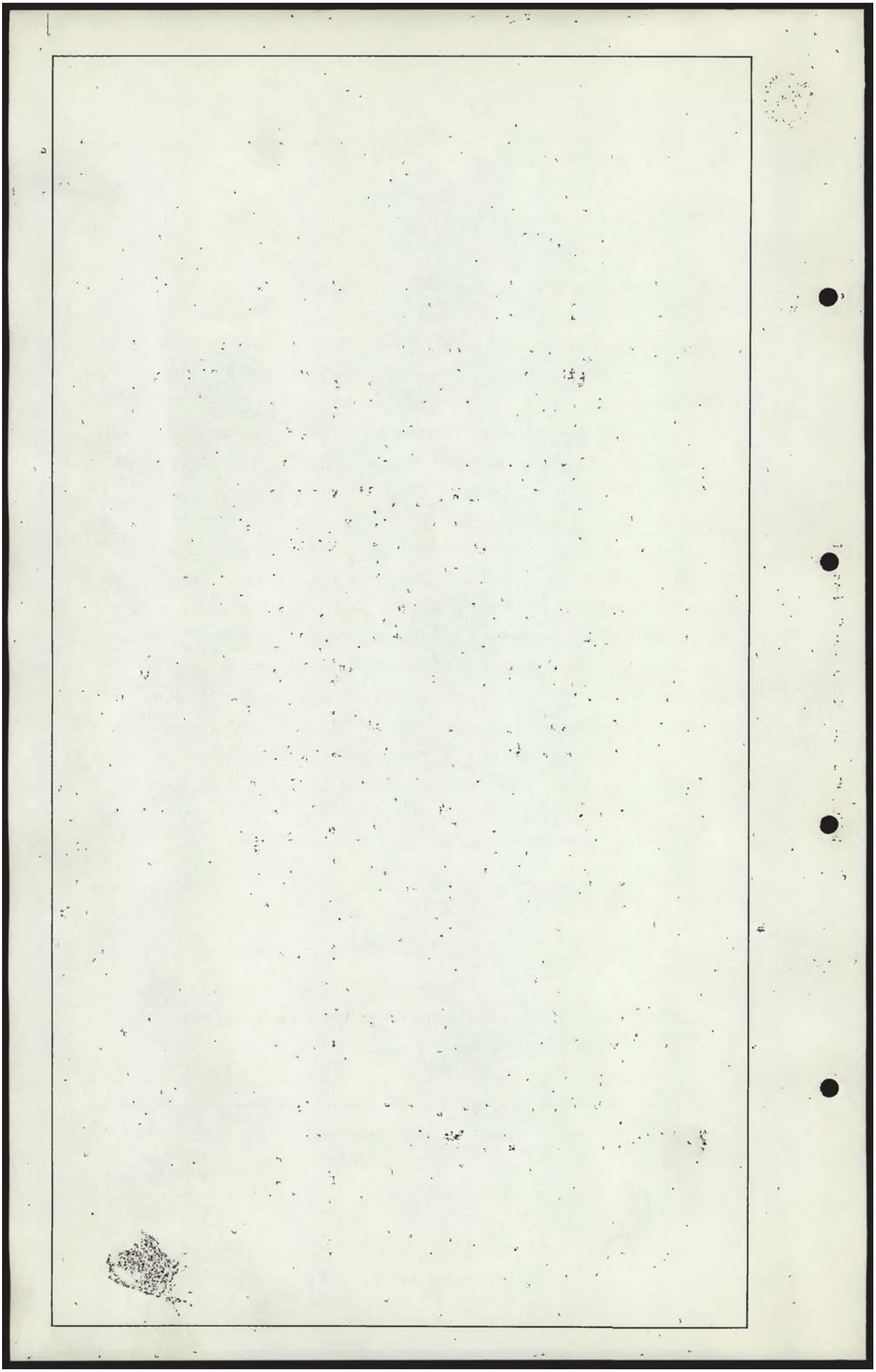

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2.
3. Conveyance Registered Number 415 Book 2131 dated 1st June 1950 between John Thomas McKee and Courtaulds (Australia) Limited.

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

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: Sandra T. Harrison JP

A Justice of the Peace

S. Mallam

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

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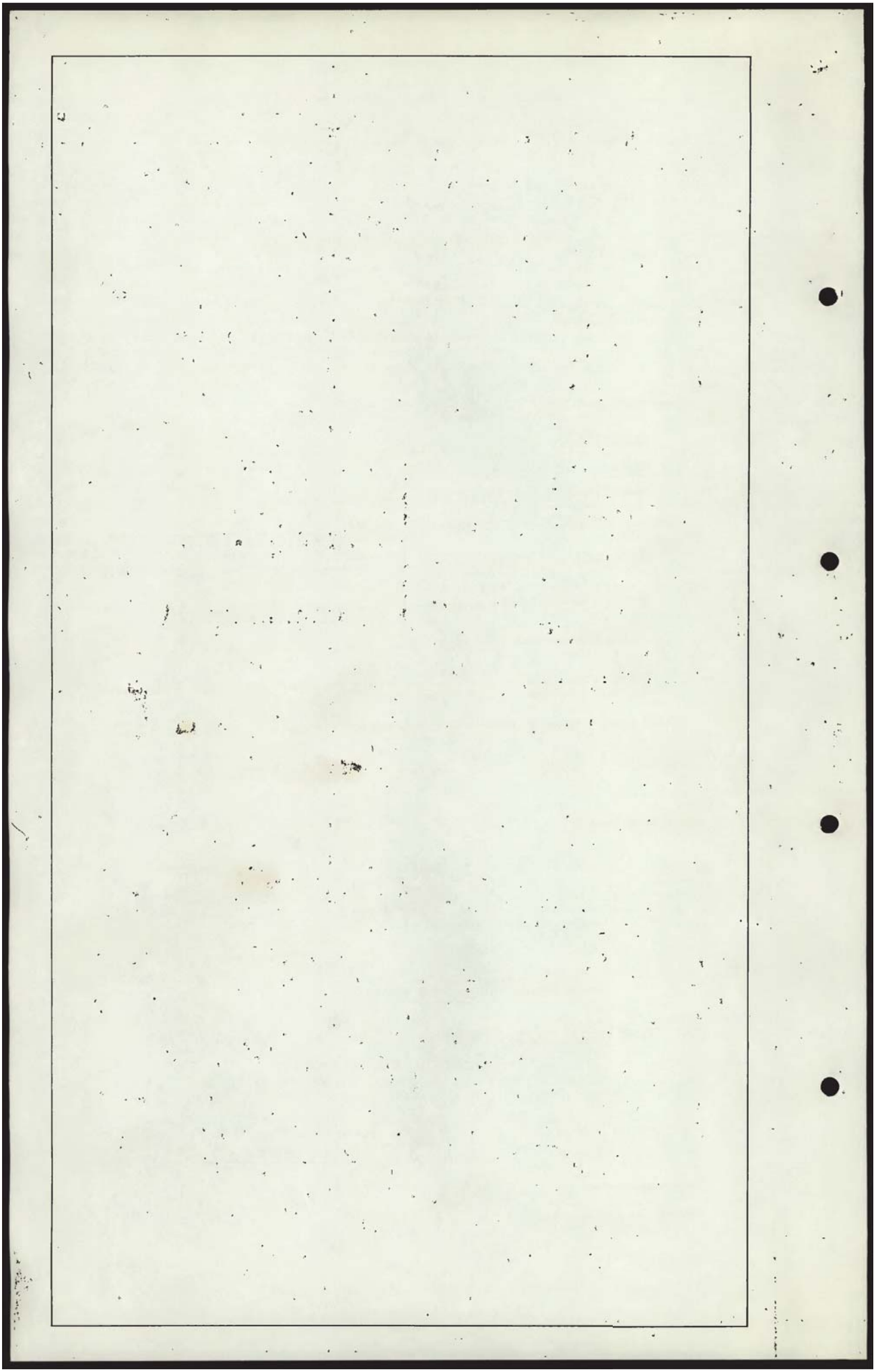

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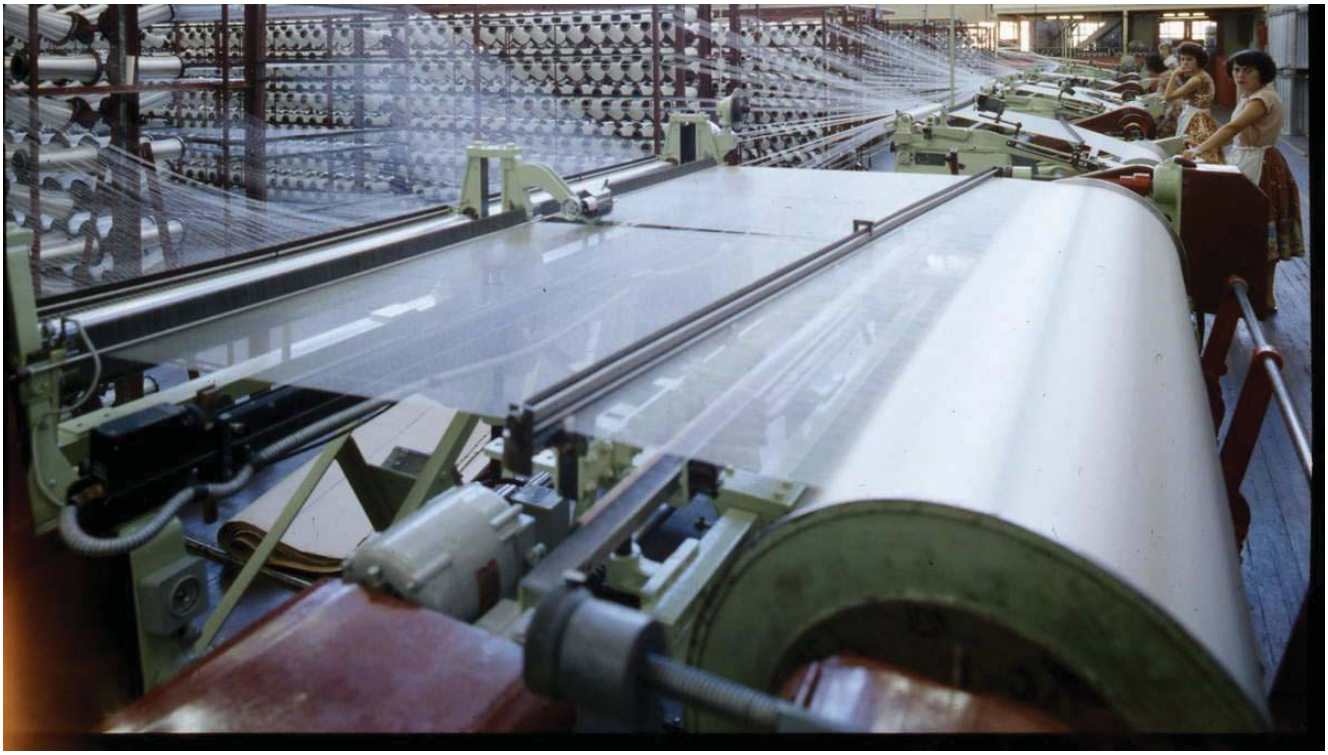
February 26 2013 - 10:30PM

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.

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Picture: Douglass Baglin

Picture: Douglass Baglin

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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

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6882809V

New South Wales

~~Real Property Act 1900~~

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

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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
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Form: 01T
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(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
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AG216557R

Form: 01TCV
Release: 3.0
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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

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(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
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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

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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;

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(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

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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;

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(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:

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(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

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(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 Gellweiler

Req:R641216 /Doc:DL AN271076 /Rev:27-Apr-2018 /NSW LRS /Pgs:ALL /Prt:17-Feb-2020 09:45 /Seq:1 of 1
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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
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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
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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.

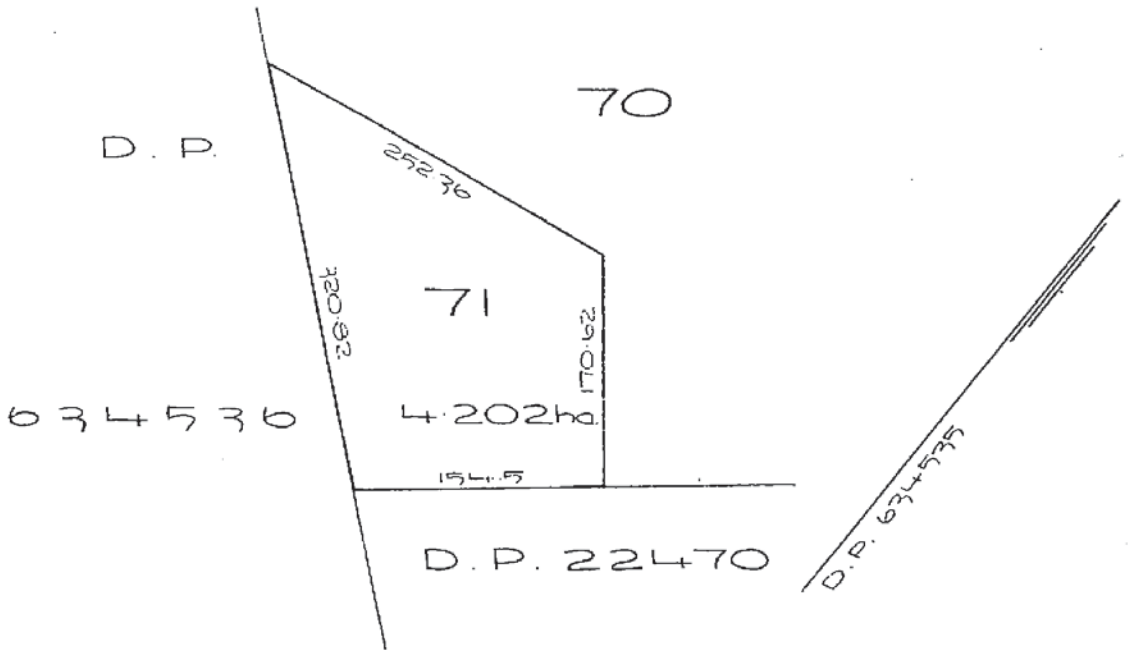
CANCELLED

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
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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

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: 8/4/20 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

SGS

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: [signature]	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
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

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

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

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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

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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

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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

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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

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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

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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.

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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

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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

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

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.

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

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.

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 Aromatic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
			Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	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 ①
			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.

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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:
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.

ALS Environmental

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

MBE2017 ENM Assessment Reports

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

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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

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- 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

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		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.

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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
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		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
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		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
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		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

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Order Number	**MBE2017**
Samples	77

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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

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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 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
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 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
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: SE114571.009 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: 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: 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
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 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
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: SE114571.017 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: 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: SE114571.029 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: 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 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
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: 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
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 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
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 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
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: SE114571.053 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: 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: SE114571.057 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: 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 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
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: 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
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 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
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 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
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

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	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

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ANALYTICAL REPORT

WORLD RECOGNISED ACCREDITATION

bhli 9F Di FGlhc

boOctant	PG, i c , b , GWO9
bAeOt	, 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 COExroCu 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 Ic O/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 Sample Matrix Sample Date Sample Name SE116019.001 Soil 12 Mar 2013 TP31 3m	SE116019.002 Soil 12 Mar 2013 Dup 1
VOC's in Soil Method: AN433/AN434				
, oConynAn Grou atɔn WydronarmoCs				
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 Sample Matrix Sample Date Sample Name SE116019.001 Soil 12 Mar 2013 TP31 3m	SE116019.002 Soil 12 Mar 2013 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 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 Ass 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 xEoAtxAe 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 ANd2e 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 xtT 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. QNaCtxbhatxoC 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 (7 ID) tTat prodNnes aC eAentroCxn sx2CaAxC proportxoC to tTe nou mNstxmAs u atter passxC2 tTroN2T xt. FotaARenoEeramAs WydronarmoCs (FRW) are roNtxCeAy reported as HoNr 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 apTtTaAseCe.
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) HoAs5 s tTe sau e u etTod oHaCaAysxs aHter sxAna 2eAnAsaCNp oHtTe soAEeCt el trant. GAApTatxn/Grou atxn c penxatxoC HoAs5 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 eAsNxted to tTe aCaAysxs oHreHxCed Tx2T moxAC2 poxCt u aterxaAs (xe ANmrxnatxC2 oxAs or 2reases) mNt xs partxoNarAy sNxted Hor u easNrxC2 dxeseAlkeroseCe aCd petroAxHnare to noCtroAEoAatxAty xs takeC. FTxs u etTod 5 xAdetent CatNraAy onnNrnxC2 TydronarmoCs1Apxds1aCxu aAHalts1pTeCoAs aCd YGWs xHtTey are preseCt at sNHHxeCt AsEeAs1depeCdaCt oC tTe Nse oHspenxbh nAeaCNp/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 HoAs5 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 xCxbaAy el tranted 5 xT u etTaCoA5 TxAst AqNxd sau pAes are pronessed dxrentAy. ReHereCnes: v c i YG 4080J 1w0M0G1wMJ0.

METHOD SUMMARY

, i FWOD

G9 +88/G9 +8+/G9 +60

, i FWODOhOSB c v , , GRB

VOb s aCd b U-b f /b U-b 60 Wydronarmo Cs my S b -, c Y&F: VOb `s are EoAatxAe or2aCon 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). c oAd sau pAes are xCtxaAy el tranted 5 xT u etTaCoA5 TxAst AqNxd sau pAes are pronessed dxentAy. ReHereCnes: v c i YG 4080J 1w0M0G1wMU0.

7OOF9 OFi c

Ic	ICsNHtxeCt sau pAe Hor aCaAysxs.	hOR	hxu xt oHReportxC2
h9 R	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
		Q7h	Qb resNAxs meAo5 tTe Ao5 er toAeraCne
**	ICdxnatxEe data1tTeoretxnaATotAdxC2 txu e el needed.	-	FTe sau pAe 5 as Cot aCaAysed Hor tTxs aCaAyte
^	YerHoru ed my oNtsxde Aamoratory.	9 Vh	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 nrxtenxa are sNmlent to xCterCaAreExe5 annordxC2 to tTe c Sc QGQb pAaC aCd u ay me proExded oC reqNest or aAerCatxEeAy naC me HdNCd Tere:
Tttp://5 5 5 .s2s.nou .aN.pE.s2sE8/↑/u edxa/honaAGNstraAa/DonNu eCts/FenTCxnaA, M0DonNu eCts/, Y-Gv -i 9 V-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 c erExne 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 CxbnatxoC aCd lNnsdxntxoC xssNes deHxCed tTerexC.

GCy otTer ToAter oH tTxs donNu eCt xs adExsed tTat xCHoru atxoC noCtaxCed TereoC reHAents tTe b ou paCy's HCdxC2s at tTe txu e oH xts xCterEeCtxoC oCAy aCd 5 xTxC tTe Au xts oH bAeCt's xCstrNntxoCs1 xH aCy. FTe b ou paCy's soAe respoCsxmAty xs to xts bAeCt aCd tTxs donNu eCt does Cot el oCerate partxes to a traCsantxoC Hrou el ermxsxC2 aAtTexr n2Tts aCd omA2atxoCs NCder tTe traCsantxoC donNu eCts.

FTxs report u Nst Cot me reprodNned1el nept xC HWA.

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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.

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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:

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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
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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:

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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

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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.

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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.

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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.

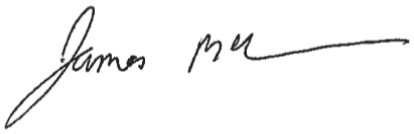
This report should be read in conjunction with MBES 2017-Report-Rev1.

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
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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

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Order Number	**MBE2017**
Samples	77

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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

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Organics Chemist

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Inorganics Metals Team Leader

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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 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
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 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
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: SE114571.009 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: 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: 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
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 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
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: SE114571.017 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: 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: SE114571.029 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: 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 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
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: 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
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 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
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 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
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: SE114571.053 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: 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: SE114571.057 Sample Matrix: Soil Sample Date: 09 Jan 2013 Sample Name: 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 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
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: 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
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 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
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 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
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

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	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

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Appendix B

EHO Consulting Environmental Site Assessment

EHO CONSULTING
ENVIRONMENTAL HAZMAT OCCUPATIONAL

ENVIRONMENTAL SITE ASSESSMENT
21F & 21G SCHOOL DRIVE,
TOMAGO NSW 2322

Job Number:	JN01446
Issued date:	12 October 2020
Prepared for:	Tomago Aluminium Company Ltd
Address:	638 Tomago Road, Tomago NSW 2322
Prepared for:	Remondis Australia Pty Ltd
Address:	Level 4, 163 O'Riordan Street, Mascot NSW 2020
Report by:	Craig Wellings, Principal Scientist
Total No of pages:	26

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EHO Consulting has no liability to any other person who acts or relies upon any information contained in this report without confirmation.

EHO Consulting Pty Ltd - ABN 49 620 205 192
Unit 16/380 Pennant Hills Road, Pennant Hills NSW 2120

EHO CONSULTING
ENVIRONMENTAL HAZMAT OCCUPATIONAL

21F & 21G School Drive, Tomago NSW 2322

Author: Craig Wellings – Principal (BSc)
EHO Consulting Pty Ltd
12 October 2020

Executive Summary

Background

EHO Consulting Pty Ltd (EHO) were engaged by Tomago Aluminium Company Ltd (TAC) to undertake a review of a Preliminary Contamination Assessment (PCA) report prepared by JM Environments (JME), (Ref: JME2005-1, 22 April 2020), (**Ref.1**), for the properties identified as 21D, 21F and 21G School Drive, Tomago NSW 2322. The PCA report was prepared on behalf of Remondis Australia Pty Ltd (Remondis) as part of pre-purchase due diligence carried out as part of the potential sale of the Site to Remondis by TAC.

Objectives

In general accordance with National Environmental Protection Council, National Environment Protection (Assessment of Site Contamination) Measure 1999, Schedule B4 – Guideline on Site Specific Risk Assessments (**Ref.2**), the objective of this report is to assess and to the extent practicable define the potential risks to environmental and/or ecological receptors in and around the Site from:

- Contaminants of concern (COC) within soil encountered at the Site; and
- COC within groundwater at and/or migrating from the Site.

Scope of Works

EHO attended the Site on 4 June 2020 and 12 June 2020 in order to install and sample a total of four (4) temporary groundwater wells across the site.

In addition to the groundwater wells a total of 32 soil samples were collected from 17 locations across the general Site as part of the PCA (Ref.1) and a total of eight (8) samples from an additional test pits were advanced by EHO in the north-eastern section of the Site, previously identified as the 'Metals Area'.

Summary of Results

Soil

General Site

- Arsenic (As) was detected in concentrations exceeding the adopted site assessment criteria (SAC), (**Ref.2**) at the surface in two (2) of locations, both results indicate contamination hotspots (>250% of SAC);
  - TP5, TP7;
- Chromium (Cr) was not detected in concentrations which exceed the SAC;
- Copper (Cu) was detected in concentrations exceeding the SAC at varying depths in seven (7) locations, with six (6) results indicate contamination hotspots;
  - TP3, TP5, TP7, TP13, TP17, TP19, TP21;
- Lead (Pb) was not detected in concentrations which exceed the SAC;
- Nickel (Ni) was not detected in concentrations which exceed the SAC; and
- Zinc (Zn) was detected in concentrations exceeding the SAC in 24 samples from 16 locations across the Site;
  - TP1 (x2), TP2, TP3, TP4, TP5, TP7 (x2); TP12 (x2), TP13 (x3); TP14, TP15 (x2), TP16, TP17, TP18, TP19 (x2), TP20, TP21 (x2).

Metals Area

- Arsenic (As) was detected in concentrations exceeding the SAC at the surface in one (1) location within the metals area, with the result indicating a contamination hotspot of SAC);
    - TP8;
- Chromium (Cr) was not detected in concentrations which exceed the SAC;
- Copper (Cu) was detected in concentrations exceeding the SAC at varying depths in six (6) locations, with three (3) results indicate contamination hotspots;
    - TP8, TP25, TP27, TP28, TP29, TP31;
- Lead (Pb) was detected in concentrations which exceed the SAC in two locations but neither result indicates a contamination hotspot;
    - TP8, TP27;
- Nickel (Ni) was not detected in concentrations which exceed the SAC; and
- Zinc (Zn) was detected in concentrations exceeding the SAC in 11 samples from 12 locations across the metals area;
    - TP8, TP9 (x2), TP10, TP11 (x2), TP25, TP27, TP29, TP31.

Groundwater

- Arsenic (As) was not detected in concentrations exceeding the SAC in groundwater at the Site;
- Cadmium (Cd) was not detected in concentrations which exceed the SAC;
- Copper (Cu) was detected in concentrations exceeding the SAC at three (3) of the four (4) locations;
    - GW1, GW2, GW3;
- Chromium was detected in concentrations equalling or exceeding the SAC in all of the four (4) locations;
    - GW1 – GW4
- Mercury (Hg) was not detected in groundwater at the Site;
- Lead (Pb) was not detected in groundwater in concentrations which exceed the SAC;
- Nickel (Ni) was not detected in groundwater in concentrations which exceed the SAC; and
- Zinc (Zn) was detected in concentrations exceeding the SAC in all of the four (4) locations;
    - GW1 - GW4.

Conclusions and Recommendations

Soil

Based on the results of the investigation four (4) COC were detected in soil in concentrations greater than the respective SACs (As, Cu, Pb & Zn), but Pb was not detected in hotspot concentrations. Zinc has been detected in concentrations exceeding the SAC in 24 of 25 locations sampled with hotspots concentrations detected in 21 of 25 locations.

The results indicate that significant potential risk to on-site receptors exists however, potential onsite receptors have been assessed as being limited, so risk to on-site receptors could be considered low.

Based on the surface condition of the site at the time of assessment, off-site migration potential of impacted soils due to environmental factors such as wind and erosion from surface water runoff is low, and so the potential risk to off-site receptors due to migration of impacted soils from the Site is also considered low.

Groundwater

Based on the results of the investigation three (3) COC were detected in groundwater in concentrations greater than the respective SACs (Cu, Cr & Zn). Of these COC, Cr and Zn were detected in Background sample (GW4) in concentrations already exceeding the respective SACs, that is groundwater entering the Site from upgradient exceeds the SAC for both Cr and Zn.

On-site Groundwater Risk

The only on-site ecological receptor of groundwater is the existing flora which has already been assessed as being of low conservation value, being highly disturbed with largely introduced species including a number of priority weed species. It is also understood that the future development of the Site will require the majority if not the entirely of the Site to be further disturbed and/or cleared, effectively removing the only onsite ecological receptor to groundwater. As a result, the exposure pathway to impacts from onsite groundwater is incomplete and so the associated risk to ecological receptors is considered negligible.

Off-site Groundwater Risk

Due to the limitations of well placement and indicators of the potential for attenuation to be occurring, the risk associated with concentrations of COC in groundwater migrating from the Site cannot be clearly defined in this assessment. Observations of vegetation beyond the Site boundary did not note evidence of plant stress occurring, with established vegetation appearing healthy and evidence of vegetation repopulating cleared areas particularly to the east and south of the Site boundary.

It is also understood that the future development of the Site will result in the majority, if not the entirely of the Site having a low permeability surface. Any reduction in concentrations of COC impacting groundwater via infiltration, combined with reduction of flow rate of groundwater through the Site is likely to result in overall reductions in COC potentially migrating from the Site, due to the combined mechanisms of source reduction and impact attenuation.

Taking into account the above factors, potential risk to off-site receptors from groundwater migrating from the Site is currently considered low with future risk likely to reduce as a result of the nature of the proposed development.

Duty to Report

Based on the findings of this assessment it could be argued that the definition of 'foreseeable exposure' to the soil and/or groundwater impacts as they apply to the Site based on the available are not yet proven to have been met, and so there is currently no duty to report the site, due to environmental / ecological considerations.

However, further investigation of off-site groundwater conditions close to the Site may change this conclusion, if off-site migration of elevated concentrations of COC (i.e. above Background) is found to be occurring.

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1 Introduction

1.1 Background

EHO Consulting Pty Ltd (EHO) were engaged by Tomago Aluminium Company Ltd (TAC) to undertake a review of a Preliminary Contamination Assessment (PCA) report prepared by JM Environments (JME), (Ref: JME2005-1, 22 April 2020), (**Ref.1**), for the properties identified as 21D, 21F and 21G School Drive, Tomago NSW 2322. The PCA report was prepared on behalf of Remondis Australia Pty Ltd (Remondis) as part of pre-purchase due diligence carried out as part of the potential sale of the Site to Remondis by TAC.

Based on the results further assessment was determined to be required to be undertaken at 21F and 21G School Drive, Tomago NSW 2322 (the Site).

This Environmental Site Assessment (ESA) report has been prepared to assist in informing the due diligence process associated with the potential sale of the Site, targeted at better defining specific issues identified in the PCA report. As such this report may not satisfy all requirements of a report prepared for statutory review by regulators. It is noted that the background information regarding the site history and use have been comprehensively covered in the PCA report (**Ref.1**).

1.2 Objectives

In general accordance with National Environmental Protection Council, National Environment Protection (Assessment of Site Contamination) Measure 1999, Schedule B4 – Guideline on Site Specific Risk Assessments (**Ref.2**), the objective of this report is to assess and to the extent practicable define the potential risks to environmental and/or ecological receptors in and around the Site from:

- Contaminants of concern (COC) within soil encountered at the Site; and
- COC within groundwater at and/or migrating from the Site.

1.3 Subsequent Reports

Following the works completed by EHO, Remondis engaged Wildthing Environmental Consultants to undertake a Biodiversity Development Assessment (BDA) of the Site, with the following report completed on 11 August 2020:

- Biodiversity Development Assessment Report for a Resource Recovery Facility at 21D, 21F and part 35A School Drive Tomago NSW (Project No 12490, Version 2, 11 August 2020), (**Ref.3**).

The BDA report has been referred to within the preparation of this report where the findings have implications with regards to the conclusions drawn by EHO regarding the environmental risk associated with the Site.

2 Site Information

2.1 Site Address

21F and 21G School Drive, Tomago NSW 2322.

2.2 Lot and Deposited Plan

Lot 7 and 8, DP 270328

2.3 Site Coordinates

Latitude -32.82651, Longitude 151.72979 (approximate centre of Site).

2.4 Site Locality and Layout

The Site is located on the northern side of the eastern end of School Drive, Tomago NSW 2322, and extends to the north approximately 300 m, with an average width of approximately 80 m.

The Site layout is presented on Figure 2 in **Appendix A**.

2.5 Conceptual Site Model

A conceptual site model (CSM) was developed within the PCA report (**Ref.1**). The environmental risk the elements of the CSM are summarised as follows:

- Areas of Environmental Concern;
  - AECs on the site were considered to include fill across the site's surface.
- 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.
- 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 then 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; and
  - Off-site migration of groundwater potentially impacting hydraulically down-gradient surface water users and ecology.
- Identification of Receptors at Risk
  - Potential receptors were considered to include:
    - Local ecology;
    - Groundwater; and
    - Down-gradient surface water (Hunter River) users and ecology.

2.6 Areas Investigated

The following areas of the Site were invested as part of this assessment:

- Site general - groundwater; and
- Area of metals impact in shallow soil (<0.5 m below existing ground level, (mbgl)) in the vicinity of 'TP8' (Lat. -32.82595, Long. 151.72993), in the north-eastern portion of the Site.

The areas investigated are presented on Figures 2 and 3 in **Appendix A**.

3 Site Assessment Criteria

For the purposes of this assessment the site assessment criteria detailed in the following sections have been adopted.

3.1 Ecological

- National Environmental Protection Council, National Environment Protection (Assessment of Site Contamination) Measure 1999, Schedule B1 – Guideline on Investigation Levels for Soil and Groundwater (**Ref.4**);
    - Table 1B(1) Soil-specific added contaminant limits for aged zinc in soil – Commercial / industrial;
    - Table 1B(2) Soil-specific added contaminant limits for aged copper in soil – Commercial / industrial;
    - Table 1B(3) Soil-specific added contaminant limits for aged chromium III and nickel in soil – Commercial / industrial;
    - Table 1B(4) Generic added contaminant limits for lead in soils irrespective of their physicochemical properties – Commercial / industrial;
    - Table 1B(5) Generic EILs for aged arsenic in soils irrespective of their physicochemical properties – Commercial / industrial; and
    - Table 1C Groundwater Investigation Levels (GILs)

4 Investigation Scope

The following scope was undertaken as part of the investigation into the potential human health risk posed by the COPC identified at the Site.

EHO attended the Site on 4 June 2020 in order to complete the scope described below. Prior to EHO attending the Site the fieldworks associated with the PCA (**Ref.1**) were undertaken on the 6 April 2020.

4.1 Groundwater

A total of four (4) temporary monitoring wells were advanced across the using a 6 tonne (T) excavator equipped with 300 mm auger attachment, to the maximum depth achievable after groundwater was encountered. The wells were surveyed as follows:

	MGA or ISG coordinates (Grid or Ground Coords)		RL (AHD)	
Borehole ID	Easting	Northing	Top of PVC pipe level	Ground level
MW-1	381130.5	6367111.0	5.339	4.50
MW-2	381169.2	6367150.3	6.456	6.00
MW-3	381118.6	6367208.3	6.652	5.70
MW-4	380990.7	6367357.7	5.621	4.85

The location of the wells and the interpolated groundwater gradient and are presented on Figure 3 in **Appendix A**.

4.1.1 Well Construction

The temporary groundwater monitoring wells were constructed of 50 mm Class 18 PVC pipe fitted with sealed screw connectors, with the screen section being 1.5 m long and having laser cut apertures. The bottom of the wells were fitted with a conical push-in plug and the top with a domed push on cap of the same PVC as the well pipe (casing and screen). Following advancement of the bores, the wells were hand pushed into the sub-aquifer strata and the bore anulus backfilled with the cuttings from the bore advancement. The cuttings were primarily fine-medium sands and a seal was not employed due to the high permeability of the general strata across the site (fine-medium sands).

The wells were located to attempt to represent the entirely of groundwater flow through the site based on the topography and site orientation, subject to accessibility. Approximately 0.5m of casing was left above the level of the surrounding site surface to aid location and sampling.

4.2 Soil

4.2.1 General Site

A total of 32 soil samples were collected from 17 locations across the general Site as part of the PCA (Ref.1). The results of the analyses from these samples have been used for the purposes of this assessment and are presented in the results summary table provided in **Appendix B**.

4.3 Area of Metals Impact

A total of eight (8) test pits (TP24-TP31) were advanced by EHO using an excavator to depths of at least 0.5 metres below ground level (mbgl) or natural ground whichever was encountered first. The test pits were set out in roughly semi-circular pattern in two (2) rows to the west of, and centred on

the position of 'TP8', which was advanced during the investigation associated with the PCA (**Ref.1**). TP8 had not been backfilled and so was able to be positively identified and visually assessed. The investigation was not extended to the east of the position of TP8, as the test pit is positioned close to the eastern boundary of the Site.

The location of the test pits advanced within the area of metals impact by EHO were recorded with a hand-held GPS and are presented on Figure 2 in **Appendix A**.

4.4 Sampling Methodology

4.4.1 Soil

Samples were collected by hand from the sides of each test pit using new, disposable nitrile gloves for each sample. Samples were placed into laboratory supplied jars fitted with sealable lids and filled to minimise headspace in order to minimise the potential for the loss of volatiles.

4.4.1.1 Metals Area

The samples collected from the metals area were taken from fill encountered in each test pit. Where the fill was observed to comprise similar dark grey to black fine sand as was observed in TP8, this material was preferentially sampled in order to ensure to the extent practicable, that the metals encountered in high concentration in TP8 may be similarly encountered, if present in the surrounding test pits. The intent of this strategy was to ensure that the potential for unidentified hotspots to the be present following the investigation was minimised.

In addition to the samples collected by EHO, results of eight (8) relevant samples collected from test pits in the vicinity of TP8 as part of the PCA (Ref.1) have been used for the purposes of this assessment.

The metals area assessed is approximately 4 900 m^2 (70 m x 70 m). Based on the frequency of testing the number of samples complies with frequency for detection of a circular hotspot of greater than 22.5 m in diameter as provided within the NSW EPA Sampling Design Guidelines (**Ref.5**) for a site <0.5 hectares (Ha).

4.4.2 Groundwater

Groundwater wells were developed following installation by using a disposable PVC bailer to remove at least 20 Litres (L) of groundwater from each well, with wells allowed to stablise for a period of eight (8) days following development.

Prior to sampling wells were equipped with new, dedicated PVC bailers which were used to purge the well to ensure that the sample collected was representative of the surrounding aquifer at the sampling location. During purging the groundwater was screened for pH, electrical conductivity, dissolved oxygen (DO) and temperature. Purging continued at each location until the pH units for three successive reading varied by less than 0.1 pH unit.

Sampling was undertaken using the bailer dedicated to each well to collect a grab sample after purging, with the collected groundwater being field filtered using a 45 µm filter.

4.4.3 Sample Handling and Submission

Samples were placed immediately following collection into a cooler box supplied with ice. The samples were transported within the cooler box to the NATA accredited laboratory used for the analyses of the samples (SGS Alexandria – NATA Accreditation No. 2562), by courier under standard chain of custody (CoC) protocols.

5 Results & Discussion

This section provides a summary of results from both samples collected by EHO and relevant samples collected as part of the PCA (**Ref.1**), compared to the adopted site assessment criteria (SAC) used for this assessment. Locations of samples are presented on Figures 2 and 3 provided in **Appendix A**.

Results of laboratory analyses undertaken as part of this assessment compared to the adopted SAC are presented in on the results summary tables in **Appendix B**. Copies of the laboratory certificates of analysis are provided in **Appendix C**.

5.1 Soil

5.1.1 General Site

Results from the 32 samples collected from 17 locations across the general site as part of the PCA (Ref.1) have been included in the consideration of the environmental status of the Site provided in this assessment. Analytes compared to the SAC are summarised as follows:

- Arsenic (As) was detected in concentrations exceeding the SAC at the surface in two (2) of locations, both results indicate contamination hotspots (>250% of SAC);
  - TP5, TP7;
- Chromium (Cr) was not detected in concentrations which exceed the SAC;
- Copper (Cu) was detected in concentrations exceeding the SAC at varying depths in seven (7) locations, with six (6) results indicate contamination hotspots;
  - TP3, TP5, TP7, TP13, TP17, TP19, TP21;
- Lead (Pb) was not detected in concentrations which exceed the SAC;
- Nickel (Ni) was not detected in concentrations which exceed the SAC; and
- Zinc (Zn) was detected in concentrations exceeding the SAC in 24 samples from 16 locations across the Site;
  - TP1 (x2), TP2, TP3, TP4, TP5, TP7 (x2); TP12 (x2), TP13 (x3); TP14, TP15 (x2), TP16, TP17, TP18, TP19 (x2), TP20, TP21 (x2).

5.1.2 Metals Area

A total of 16 samples, eight (8) collected by EHO and eight (8) collected during the PCA (**Ref.1**), including the sample collected from TP8 have been included in this assessment. The metals area assessed is approximately 4 900 m^2 (70 m x 70 m). Based on the frequency of testing the number of samples complies with frequency for detection of a circular hotspot of greater than 22.5 m in diameter as provided within the NSW EPA Sampling Design Guidelines (**Ref.5**) for a site <0.5 hectares (Ha). All samples collected by EHO were analysed for a range of metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn) with the results compared to the ecological criteria (**Ref.4**) adopted for the assessment based on the proposed site use. The results of the analyses compared to the adopted criteria are presented on the Results Summary Tables in **Appendix B**.

- Arsenic (As) was detected in concentrations exceeding the SAC at the surface in one (1) location within the metals area, with the result indicating a contamination hotspot of SAC);
  - TP8;
- Chromium (Cr) was not detected in concentrations which exceed the SAC;
- Copper (Cu) was detected in concentrations exceeding the SAC at varying depths in six (6) locations, with three (3) results indicate contamination hotspots;
  - TP8, TP25, TP27, TP28, TP29, TP31;

- Lead (Pb) was detected in concentrations which exceed the SAC in two locations but neither result indicates a contamination hotspot;
    - TP8, TP27;
- Nickel (Ni) was not detected in concentrations which exceed the SAC; and
- Zinc (Zn) was detected in concentrations exceeding the SAC in 11 samples from 12 locations across the metals area;
    - TP8, TP9 (x2), TP10, TP11 (x2), TP25, TP27, TP29, TP31.

5.2 Groundwater

A total of four (4) groundwater wells were installed across the Site for the purpose of this assessment. The location of the test pits is presented on Figure 2 and 3 in **Appendix A**.

Groundwater results are also summarised as follows:

- Arsenic (As) was not detected in concentrations exceeding the SAC in groundwater at the Site;
- Cadmium (Cd) was not detected in concentrations which exceed the SAC;
- Copper (Cu) was detected in concentrations exceeding the SAC at three (3) of the four (4) locations;
    - GW1, GW2, GW3;
- Chromium was detected in concentrations equalling or exceeding the SAC in all of the four (4) locations;
    - GW1 – GW4
- Mercury (Hg) was not detected in groundwater at the Site;
- Lead (Pb) was not detected in groundwater in concentrations which exceed the SAC;
- Nickel (Ni) was not detected in groundwater in concentrations which exceed the SAC; and
- Zinc (Zn) was detected in concentrations exceeding the SAC in all of the four (4) locations;
    - GW1 - GW4.

It is noted that groundwater coming onto the Site (Background) already equals or exceeds the SAC for chromium and zinc. Copper concentrations in groundwater increase on the Site compared to Background and also exceed the SAC.

The Site subsurface is highly disturbed, presumably due to the long history of mining and industrial development at the Site. Due to this disturbance the groundwater does not flow in the direction expected based on the topography, that being towards the south. Rather, groundwater seems to concentrate toward the centre of the Site. As a result, and based on the limitations of the data available, the direction of flow and point at which groundwater departs from the Site is not clearly defined. However, it is likely that groundwater departs the site at several points but most likely along the eastern side of Lot 21G. The position and structure of the large concrete footing which bisects the Site also seems to be affecting groundwater movement with the low point of the inferred groundwater flow direction being just to the north of the footing and close to the eastern boundary.

The position of groundwater bores, inferred flow direction and the concentrations of analytes exceeding the SACs are shown on Figure 3 in **Appendix A**.

5.3 Potential Receptors

5.3.1 Soil

Based on the findings of the Biodiversity Development Assessment Report (2020), (Ref.3) the ecological community located within the site was not consistent with any nationally listed

threatened ecological communities, with only the following environmental and/or ecological receptors have potential to be exposed to soil contamination at the Site.

- Flora
  - One (1) plant community has been identified on Site
    - Red Bloodwood – Smooth Barked Apple healthy woodland – highly disturbed consisting of a few native shrubs with largely introduced groundcover including the following priority weed species:
      - Bitou Bush, Pampas Grass, Lantana and Fireweed;
- Fauna
  - Mahony's Toadlet (Uperolia mahonyi)
    - Assumed to be present only.

5.3.2 Groundwater

The following environmental and/or ecological receptors have potential to be exposed to soil contamination at the Site based on the findings of the Biodiversity Development Assessment Report (2020), (Ref.3).

- Flora (on Site)
  - One (1) plant community has been identified on Site
    - Red Bloodwood – Smooth Barked Apple healthy woodland – highly disturbed consisting of a few native shrubs with largely introduced groundcover including the following priority weed species:
      - Bitou Bush, Pampas Grass, Lantana and Fireweed;
- Flora and Fauna (off Site)
  - Four (4) nationally threatened ecological communities and 46 nationally threatened species were recorded as having potential habitat within 10 km of the Site.

5.4 Potential Exposure Pathways

The following exposure pathways are considered to exist on the site:

- Uptake of contaminants in soil and groundwater by plants;
- Ingestion and/or dermal absorption of contaminants in soil by animals.

5.5 Potential Exposure Risk

The following sections provide discussion of potential environmental risk posed by contaminants of concern (COC) detected at the Site.

5.5.1 Soil

Based on the results of the investigation four (4) COC were detected in soil in concentrations greater than the respective SACs (As, Cu, Pb & Zn), but Pb was not detected in hotspot concentrations. Of the remaining COC, Zn is both the most widespread across the Site and is also the highest in concentration when compared to the relative SACs. For these reasons the remainder of this discussion will focus on risk from Pb in soil as that risk can be inferred to be the greatest posed by COC in soil at the Site. Figures presenting the respective concentrations of As, Cu and Zn detected in soil at the Site are provided as Figures 2a, 2b and 2c respectively in **Appendix A**.

Zinc has been detected in concentrations exceeding the SAC in 24 of 25 locations sampled with hotspots concentrations detected in 21 of 25 locations. The greatest concentrations of metals including Zn appear to be in the Metals Area previously identified in the north- eastern section of the

Site, with the highest concentration of 27 000 mg/kg (TP8), being (TP8) 7 500 times the SAC (360 mg/kg).

The results indicate that significant potential risk to on-site receptors exists. However, potential receptors are limited as the existing flora which has already been assessed as being of low conservation value being highly disturbed with largely introduced species including a number of priority weed species and fauna is limited to a single species which has not be positively identified as being present on the site. Based on these factors alone, despite the high Zn concentrations detected, potential risk to on-site receptors could be considered to be low.

The Site surface is currently a combination of sparsely vegetated, compacted materials (sands and gravels) and more vegetated areas of lower compaction and stockpiled soils, with vegetation cover consisting primarily of shubs, grasses and weeds. The result is that the off-site migration potential of impacted soils due to environmental factors such as wind and erosion from surface water runoff is low. Based on the surface condition of the site at the time of assessment the potential risk to off-site receptors due to migration of impacted soils from the Site is considered low.

It is also understood that the future development of the Site will result in the majority, if not the entirely of the Site having a low permeability surface, due to the placement of building slabs and pavements significantly reducing if not effectively eliminating potential for on-site ecological receptors to contact impacted soils but also the potential for impacted soils to migrate off-site, further lowering potential risk to both on and off-site ecological receptors.

5.5.2 Groundwater

5.5.2.1 On site

Based on the results of the investigation three (3) COC were detected in groundwater in concentrations greater than the respective SACs (Cu, Cr & Zn). Of these COC, Cr and Zn were detected in Background sample (GW4) in concentrations already exceeding the respective SACs, that is groundwater entering the Site from upgradient exceeds the SAC for both Cr and Zn. Although, all on site samples exceeded the SACs and at least one (1) on site result for each of these analytes was greater than the respective Background concentration, indicating potential for the Site to contribute to further Cr and Zn impact to groundwater. Copper (Cu) was not detected in the Background sample in a concentration exceeding the SAC. However, Cu was detected in concentrations exceeding the SAC in all three on site samples, indicating potential for Cu, like Cr and Zn to contribute to impacts to groundwater.

The only on-site ecological receptor of groundwater is the existing flora which has already been assessed as being of low conservation value being highly disturbed with largely introduced species including a number of priority weed species. It is also understood that the future development of the Site will require the majority if not the entirely of the Site to be further disturbed and/or cleared, effectively removing the only onsite ecological receptor to groundwater. As a result, the exposure pathway to impacts from onsite groundwater is incomplete and so the associated risk to ecological receptors is considered negligible.

5.5.2.2 Off site

Biodiversity Development Assessment Report (2020), (Ref.3) identified four (4) nationally threatened ecological communities and 46 nationally threatened species as having potential habitat within 10 km of the Site.

Mapping of the groundwater flow through the Site has found that the disturbed nature of the subsurface and the position of the large concrete footing in the centre of the Site appears to be affecting the groundwater flow direction. Because of this the groundwater appears to be exiting the site via the eastern boundary rather than the southern boundary which was expected based on the topography. This means that although GW3 is positioned towards the inferred point of egress, there is no well in a position to provide definitive values for concentrations of contaminants of concern (COC) in groundwater migrating from the Site.

Although remaining elevated, the concentrations of Cr and Zn in GW3 are the lowest of the on-site wells (GW4 representing Background concentrations) indicating potential for some attenuation of Cr and Zn in groundwater to be occurring onsite. Conversely, Cu concentrations increase from Background to GW3, indicating that the Site is contributing to impacts of Cu in groundwater.

Based on the above, it is considered that there is potential for risk to off-site ecological communities and species previously identified, as having potential for habitat around the Site from groundwater migrating from the Site. However, due to the limitations of well placement and indications for attenuation to be occurring, the risk associated with concentrations of COC in groundwater migrating from the Site cannot be clearly defined in this assessment.

Observations of vegetation beyond the Site boundary did not show evidence of plant stress occurring, with established vegetation appearing healthy and evidence of vegetation repopulating cleared areas particularly to the east and south of the Site boundary.

It is also understood that the future development of the Site will result in the majority, if not the entirely of the Site having a low permeability surface, due to the placement of building slabs and pavements, significantly reducing not only infiltration rates of rainwater through impacted soils, but also having the likelihood of reducing groundwater flow through the Site. Any reduction in concentrations of COC impacting groundwater via infiltration, combined with reduction of flow rate of groundwater through the Site is likely to result in overall reductions in COC potentially migrating from the Site, due to the combined mechanisms of source reduction and impact attenuation.

Taking into account the above factors potential risk to off-site receptors from groundwater migrating from the Site is considered low with future risk likely to reduce as a result of the nature of the proposed development.

6 Duty to Report

The NSW EPA Duty to report guidelines (August 2020) state that with respect to on-site soil contamination:

For the purposes of section 60(3)(b) of the CLM Act, notification of contamination in, or on, soil on the land is required where:

- *the 95 % upper confidence limit on the arithmetic average concentration of a contaminant in or on soil is equal to or above the Health Investigation Level and/or Health Screening Level for that contaminant for the current or approved use of the respective on-site land, as specified in Section 6, Schedule B1 of the National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPC 2013)*

OR

- *the concentration of a contaminant in an individual soil sample is equal to or more than 250% of the Health Investigation Level and/or Health Screening Level for that contaminant for the current or approved use of the respective on-site land, as specified in Section 6, Schedule B1 of the National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPC 2013)*

AND

- *a person has been or foreseeably will be exposed to the contaminant or a by-product of the contaminant.*

The CLM Act uses the key concept of 'foreseeable' to determine the likelihood of the presence of contamination or potential routes for its migration. Foreseeability depends on a number of considerations, including:

- the physical and chemical properties of the contaminants
- the quantity of the contaminants
- the location of the site
- the geological and hydrogeological conditions (soil stratigraphy, depth to groundwater, and direction and rate of groundwater or surface water flow)
- the potential fate and transport mechanisms.

As:

- the metal impacts in shallow soil on the Site are unlikely to migrate from the site;
- potential on-site ecological receptors of soil and/or groundwater are of low conservation value and/or are either;
    - proposed for removal during development; or
    - have not been proven to exist on the Site;
- off-site migration of contamination in groundwater has not been proven; and
- observations of both on and off-site flora do not indicate stress due to groundwater impacts;

it could be argued that the definition of 'foreseeable exposure' to the soil and/or groundwater impacts as they apply to the Site based on the available are not yet proven to have been met, and so there is currently no duty to report the site, based on environmental / ecological considerations.

However:

- Further investigation of off-site groundwater conditions close to the Site may change this assessment, if off-site migration of elevated concentrations of COC (i.e. above Background) is found to be occurring.

7 Conclusions and Recommendations

7.1 Soil

Based on the results of the investigation four (4) COC were detected in soil in concentrations greater than the respective SACs (As, Cu, Pb & Zn), but Pb was not detected in hotspot concentrations. Zinc has been detected in concentrations exceeding the SAC in 24 of 25 locations sampled with hotspots concentrations detected in 21 of 25 locations.

The results indicate that significant potential risk to on-site receptors exists however, onsite receptors have been assessed as being limited, so potential risk to on-site receptors could be considered to be low.

Based on the surface condition of the site at the time of assessment, off-site migration potential of impacted soils due to environmental factors such as wind and erosion from surface water runoff is low, and so the potential risk to off-site receptors due to migration of impacted soils from the Site is also considered low.

7.2 Groundwater

Based on the results of the investigation three (3) COC were detected in groundwater in concentrations greater than the respective SACs (Cu, Cr & Zn). Of these COC, Cr and Zn were detected in Background sample (GW4) in concentrations already exceeding the respective SACs, that is groundwater entering the Site from upgradient exceeds the SAC for both Cr and Zn.

7.2.1 On-site Groundwater Risk

The only on-site ecological receptor of groundwater is the existing flora which has already been assessed as being of low conservation value being highly disturbed with largely introduced species including a number of priority weed species. It is also understood that the future development of the Site will require the majority if not the entirely of the Site to be further disturbed and/or cleared, effectively removing the only onsite ecological receptor to groundwater. As a result, the exposure pathway to impacts from onsite groundwater is incomplete and so the associated risk to ecological receptors is considered negligible.

7.2.2 Off-site Groundwater Risk

Due to the limitations of well placement and indications for attenuation to be occurring, the risk associated with concentrations of COC in groundwater migrating from the Site cannot be clearly defined in this assessment. Observations of vegetation beyond the Site boundary did not show evidence of plant stress occurring, with established vegetation appearing healthy and evidence of vegetation repopulating cleared areas particularly to the east and south of the Site boundary.

It is also understood that the future development of the Site will result in the majority, if not the entirely of the Site having a low permeability surface. Any reduction in concentrations of COC impacting groundwater via infiltration, combined with reduction of flow rate of groundwater through the Site is likely to result in overall reductions in COC potentially migrating from the Site, due to the combined mechanisms of source reduction and impact attenuation.

Taking into account the above factors potential risk to off-site receptors from groundwater migrating from the Site is currently considered low with future risk likely to reduce as a result of the nature of the proposed development.

7.2.3 Duty to Report

Based on the findings of this assessment it could be argued that the definition of 'foreseeable exposure' to the soil and/or groundwater impacts as they apply to the Site based on the available are not yet proven to have been met, and so there is currently no duty to report the site, due to environmental / ecological considerations.

However, further investigation of off-site groundwater conditions close to the Site may change this conclusion, if off-site migration of elevated concentrations of COC (i.e. above Background) in groundwater is found to be occurring.

8 References

1. Preliminary Contamination Assessment (PCA) report prepared by JM Environments (JME), (Ref: JME2005-1, 22 April 2020).
2. National Environmental Protection Council, National Environment Protection (Assessment of Site Contamination) Measure 1999, Schedule B4 – Guideline on Site Specific Risk Assessments.
3. Wildthing Environmental Consultants - Biodiversity Development Assessment Report for a Resource Recovery Facility at 21D, 21F and part 35A School Drive Tomago NSW (Project No 12490, Version 2, 11 August 2020).
4. National Environmental Protection Council, National Environment Protection (Assessment of Site Contamination) Measure 1999, Schedule B1 – Guideline on Investigation Levels for Soil and Groundwater.
5. NSW EPA Contaminated Sites: Sampling Design Guidelines, 1995.
6. NSW EPA Guidelines on the Duty to Report Contamination under the *Contaminated Land Management Act 1997*; August 2020.

9 Limitations

Observations and sampling/test results were indicative of the conditions present at the time of our investigation are a snapshot of conditions as they were at the time of the investigation, and may not be representative of past or future conditions.

Our report is limited in to the agreed scope of works outlined in our fee proposal.

The report has been prepared for the benefit of the Client and no other party. EHO Consulting assumes no responsibility and will not be liable to any other person or organisation for or in relation to any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report (including without limitation matters arising from any negligent act or omission of EHO Consulting or for any loss or damage suffered by any other party in relying upon the matters dealt with or conclusions expressed in the report). Other parties should not rely upon the report or the accuracy or completeness of any conclusions and should make their own enquiries and obtain independent advice in relation to such matters.

EHO Consulting will not be liable to update or revise the report to take into account any events, emergent circumstances or facts occurring or becoming apparent after the date of the report.

The scope of services did not include any assessment of the title to nor ownership of the properties, buildings and structures referred to in the report, nor the application or interpretation of laws in the jurisdiction in which those properties, buildings and structures are located.

APPENDIX A - FIGURES

FIGURE 1 – SITE LOCATION
21G & 21F SCHOOL DRIVE TOMAGO NSW 2322

Testpit – EHO Consulting 4/6/20

Testpit – JM Environments 6-7/4/20

FIGURE 2 – TEST PIT LOCATIONS

21G & 21F SCHOOL DRIVE TOMAGO NSW 2322

Testpit – JM Environments 6-7/4/20

Arsenic SAC (NEPM 2013) - 160 mg/kg

FIGURE 2A – ARSENIC EXCEEDANCES

21G & 21F SCHOOL DRIVE TOMAGO NSW 2322

Testpit – EHO Consulting 4/6/20

Testpit – JM Environments 6-7/4/20

Copper SAC (NEPM 2013) - 140 mg/kg

FIGURE 2B – COPPER EXCEEDANCES

21G & 21F SCHOOL DRIVE TOMAGO NSW 2322

APPENDIX A

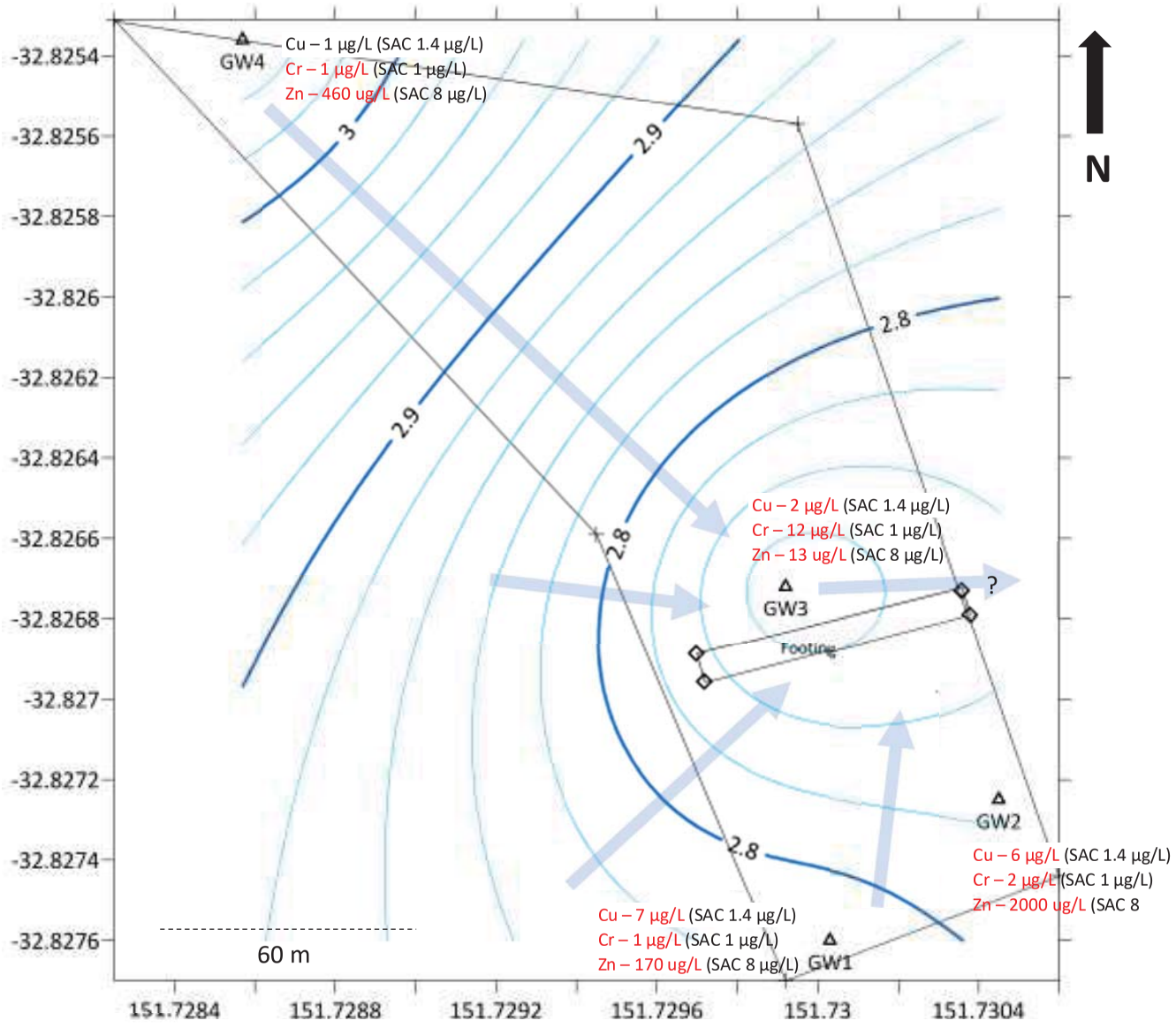
Testpit – EHO Consulting 4/6/20

Testpit – JM Environments 6-7/4/20

Zinc SAC (NEPM 2013) - 360 mg/kg

FIGURE 2C – ZINC EXCEEDANCES IN SOIL

21G & 21F SCHOOL DRIVE TOMAGO NSW 2322



? Inferred groundwater direction

Groundwater contours (m AHD)

SAC – NEPM 2013

FIGURE 3 – GROUNDWATER RESULTS

21G & 21F SCHOOL DRIVE TOMAGO NSW 2322

APPENDIX B – RESULTS SUMMARY TABLES

Result Summary Table
Soil - General Site

			Analyte Name	Arsenic, As	Chromium, Cr	Copper, Cu	Lead, Pb	Nickel, Ni	Zinc, Zn
1. NEPM Table 1B(1) Zn ACL - Commercial Industrial (pH 6, CEC 5)									360
2. NEPM Table 1B(2) Cu ACL - Commercial Industrial (CEC 5)						140			
3. NEPM Table 1B(3) Cr III and Ni ACL - Commercial Industrial (Clay content 1%, CEC 5)					310			55	
4. NEPM Table 1B(4) Pb ACL- Commercial Industrial							1800		
5. NEPM Table 1B(5) As EIL- Commercial Industrial				160					
			Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Description	Sample Date	Matrix	Reporting Limit	1	0.5	0.5	1	0.5	2
TP1 0.0	06-04-20	Soil	Result	6	42	56	70	17	1300
TP1 1.6	06-04-20	Soil	Result	80	11	53	33	11	510
TP2 0.0	06-04-20	Soil	Result	6	3.6	11	9	9.8	74
TP2 0.7	06-04-20	Soil	Result	7	8.2	67	120	4.1	13000
TP3 0.0	06-04-20	Soil	Result	100	31	680	840	4.8	13000
TP3 0.55	06-04-20	Soil	Result	*1*	*0.3*	1.3	2	*0.5*	33
TP4 0.0	06-04-20	Soil	Result	3	7.3	22	34	7.1	400
TP4 0.7	06-04-20	Soil	Result	*1*	1.4	2.8	4	0.9	59
TP5 0.0	06-04-20	Soil	Result	900	61	1700	940	52	18000
TP5 0.5	06-04-20	Soil	Result	1	0.6	3.7	5	*0.5*	65
TP6 1.0	06-04-20	Soil	Result	*1*	1.4	0.9	2	*0.5*	56
TP7 0.0	06-04-20	Soil	Result	940	72	2100	1100	38	25000
TP7 0.6	06-04-20	Soil	Result	2	3.9	18	33	0.8	430
TP12 0.0	06-04-20	Soil	Result	3	8.2	13	25	3.7	370
TP12 0.5	06-04-20	Soil	Result	29	7.8	55	71	8.4	900
TP12 0.7	06-04-20	Soil	Result	*1*	1.9	3.5	6	0.8	69
TP13 0.0	06-04-20	Soil	Result	17	11	66	75	16	1200
TP13 0.3	06-04-20	Soil	Result	100	27	520	1100	5.1	10000
TP13 0.5	06-04-20	Soil	Result	4	3.1	25	62	*0.5*	490
TP14 0.3	06-04-20	Soil	Result	11	18	65	120	1.4	2500
TP14 0.5	06-04-20	Soil	Result	*1*	2.9	0.8	2	*0.5*	170
TP15 0.0	06-04-20	Soil	Result	4	5.8	14	27	2.7	400
TP15 0.5	06-04-20	Soil	Result	1	11	1.8	17	0.8	480
TP16 0.5	06-04-20	Soil	Result	1	20	2.1	28	1.3	750
TP17 0.3	06-04-20	Soil	Result	72	32	620	1000	7.2	16000
TP18 0.0	06-04-20	Soil	Result	5	110	58	100	5.5	980
TP19 0.0	06-04-20	Soil	Result	4	42	100	190	14	2400
TP19 0.4	06-04-20	Soil	Result	5	15	250	410	1.6	3600
TP20 0.0	06-04-20	Soil	Result	*1*	1.7	1.6	3	1.3	29
TP20 0.4	06-04-20	Soil	Result	*1*	17	21	55	1.5	2200
TP21 0.0	06-04-20	Soil	Result	4	4.9	21	43	4.8	480
TP21 1.0	06-04-20	Soil	Result	110	15	440	660	3.9	5800
			Average	83	19	243	248	7	3781
			Count	32	32	32	32	32	32

Result Summary Table
Soil - Metals Area

EHO CONSULTING
ENVIRONMENTAL HAZMAT OCCUPATIONAL

			Analyte Name	Arsenic, As	Chromium, Cr	Copper, Cu	Lead, Pb	Nickel, Ni	Zinc, Zn
1. NEPM Table 1B(1) Zn ACL - Commercial Industrial (pH 6, CEC 5)									360
2. NEPM Table 1B(2) Cu ACL - Commercial Industrial (CEC 5)						140			
3. NEPM Table 1B(3) Cr III and Ni ACL - Commercial Industrial (Clay content 1%, CEC 5)					310			55	
4. NEPM Table 1B(4) Pb ACL- Commercial Industrial							1800		
5. NEPM Table 1B(5) As EIL- Commercial Industrial				160					
			Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Description	**Sample Date**	**Matrix**	**Reporting Limit**	1	0.5	0.5	1	0.5	2
TP8 0.0	06-04-20	Soil	**Result**	**1000**	37	**2400**	**4200**	26	**27000**
TP8 0.7	06-04-20	Soil	**Result**	*1*	2.8	11	18	*0.5*	170
TP9 0.3	06-04-20	Soil	**Result**	24	7.9	40	46	6.3	**1100**
TP9 0.5	06-04-20	Soil	**Result**	6	6	41	60	7.5	**780**
TP10 0.0	06-04-20	Soil	**Result**	27	6.7	71	83	10	**1200**
TP10 0.3	06-04-20	Soil	**Result**	*1*	1.8	11	12	*0.5*	170
TP10 0.6	06-04-20	Soil	**Result**	1	4.7	21	36	0.7	430
TP11 0.0	06-04-20	Soil	**Result**	12	13	66	83	11	**1600**
TP11 0.2	06-04-20	Soil	**Result**	*1*	3.9	4	6	*0.5*	**620**
TP-25	4-6-2020	Soil	**Result**	72	22	**340**	500	4.6	**8500**
TP-26	4-6-2020	Soil	**Result**	6	4.5	**8.3**	**5**	9.1	41
TP-27	4-6-2020	Soil	**Result**	130	32	**1100**	**2700**	5.5	**22000**
TP-28	4-6-2020	Soil	**Result**	25	31	**260**	330	8.6	**6200**
TP-29	4-6-2020	Soil	**Result**	18	35	**280**	520	3.1	**8300**
TP-30	4-6-2020	Soil	**Result**	6	4.8	**9.0**	7	9.7	54
TP-31	4-6-2020	Soil	**Result**	21	18	**460**	790	2.9	**12000**
			Average	84	14	**320**	587	**7**	**5635**
			Count	16	16	16	16	16	16

Result Summary Table
Groundwater

			Analyte Name	Arsenic, As	Cadmium, Cd	Copper, Cu	Chromium, Cr	Nickel, Ni	Lead, Pb	Zinc, Zn	Mercury
1. NEPM Table 1C GILs - Fresh Waters				13	0.2	1.4	1	11	3.4	8	0.06
			Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
Description	**Sample Date**	**Matrix**	**Reporting Limit**	1	0.1	1	1	1	1	5	0.0001
GW1	12-5-2020	Water	**Result**	**1**	**0.1**	**7**	**1**	**7**	<1	**170**	<0.0001
GW2	12-5-2020	Water	**Result**	<1	**0.1**	**6**	**2**	**4**	<1	**2000**	<0.0001
GW3	12-5-2020	Water	**Result**	<1	<0.1	**2**	**12**	<1	<1	**13**	<0.0001
GW4	12-5-2020	Water	**Result**	<1	**0.1**	**1**	**1**	**2**	<1	**460**	<0.0001

APPENDIX C – LABORATORY CERTIFICATES OF ANALYSIS

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS		LABORATORY DETAILS	
Contact	Craig Wellings	Manager	Huong Crawford
Client	EHO CONSULTING PTY LIMITED	Laboratory	SGS Alexandria Environmental
Address	16/380 PENNANT HILLS ROAD PENNANT HILLS NSW 2120	Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	(Not specified)	Telephone	+61 2 8594 0400
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499
Email	craig@ehoc.com.au	Email	au.environmental.sydney@sgs.com
Project	**JN1446 Tomago**	SGS Reference	**SE207183 R0**
Order Number	**JN1446**	Date Received	05 Jun 2020
Samples	31	Date Reported	15 Jun 2020

COMMENTS

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

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

Asbestos analysed by Approved Identifiers Ravee Sivasubramaniam and Yusuf Kuthpudin .

SIGNATORIES

Akheeqar BENIAMEEN
Chemist

Dong LIANG
Metals/Inorganics Team Leader

Kamrul AHSAN
Senior Chemist

Ly Kim HA
Organic Section Head

Ravee SIVASUBRAMANIAM
Hygiene Team Leader

Yusuf KUTHPUDIN
Asbestos Analyst

Parameter	Units	LOR	Sample Number: SE207183.001 Sample Matrix: Soil Sample Date: 04 Jun 2020 Sample Name: WC-1	SE207183.002 Soil 04 Jun 2020 WC-2	SE207183.003 Soil 04 Jun 2020 WC-3	SE207183.004 Soil 04 Jun 2020 WC-4
VOC's in Soil Method: AN433 Tested: 9/6/2020						
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						
d4-1,2-dichloroethane (Surrogate)	%	-	**108**	**109**	**102**	**106**
d8-toluene (Surrogate)	%	-	**106**	**108**	**100**	**105**
Bromofluorobenzene (Surrogate)	%	-	**97**	**97**	**89**	**94**
Totals						
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
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 9/6/2020						
TRH C6-C10	mg/kg	25	<25	<25	<25	<25
TRH C6-C9	mg/kg	20	<20	<20	<20	<20
Surrogates						
d4-1,2-dichloroethane (Surrogate)	%	-	**108**	**109**	**102**	**106**
d8-toluene (Surrogate)	%	-	**106**	**108**	**100**	**105**
Bromofluorobenzene (Surrogate)	%	-	**97**	**97**	**89**	**94**
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 SE207183.001 Soil 04 Jun 2020 WC-1	SE207183.002 Soil 04 Jun 2020 WC-2	SE207183.003 Soil 04 Jun 2020 WC-3	SE207183.004 Soil 04 Jun 2020 WC-4
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 9/6/2020						
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 (F bands)	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
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
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 9/6/2020						
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&j)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(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	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	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
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	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
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**98**	**98**	**94**	**91**
2-fluorobiphenyl (Surrogate)	%	-	**85**	**93**	**94**	**86**
d14-p-terphenyl (Surrogate)	%	-	**97**	**103**	**116**	**115**
Speciated Phenols in Soil Method: AN420 Tested: 9/6/2020						
Phenol	mg/kg	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
3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1	<1	<1	<1
Total Cresol	mg/kg	1.5	<1.5	<1.5	<1.5	<1.5
2-chlorophenol	mg/kg	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
2,6-dichlorophenol	mg/kg	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
2,4,6-trichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
2-nitrophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
4-nitrophenol	mg/kg	1	<1	<1	<1	<1
2,4,5-trichlorophenol	mg/kg	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
Pentachlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
2,4-dinitrophenol	mg/kg	2	<2	<2	<2	<2
4-chloro-3-methylphenol	mg/kg	2	<2	<2	<2	<2

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE207183.001 Soil 04 Jun 2020 WC-1	SE207183.002 Soil 04 Jun 2020 WC-2	SE207183.003 Soil 04 Jun 2020 WC-3	SE207183.004 Soil 04 Jun 2020 WC-4
Speciated Phenols in Soil Method: AN420 Tested: 9/6/2020 (continued)						
Surrogates						
2,4,6-Tribromophenol (Surrogate)	%	-	**81**	**81**	**85**	**84**
d5-phenol (Surrogate)	%	-	**78**	**76**	**84**	**81**
OC Pesticides in Soil Method: AN420 Tested: 9/6/2020						
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	**107**	**107**	**106**	**91**
OP Pesticides in Soil Method: AN420 Tested: 9/6/2020						
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	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
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	**0.3**	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7
Surrogates						
2-fluorobiphenyl (Surrogate)	%	-	**85**	**93**	**94**	**86**
d14-p-terphenyl (Surrogate)	%	-	**97**	**103**	**116**	**115**

Parameter	Units	LOR	Sample Number: SE207183.001 Sample Matrix: Soil Sample Date: 04 Jun 2020 Sample Name: WC-1	SE207183.002 Soil 04 Jun 2020 WC-2	SE207183.003 Soil 04 Jun 2020 WC-3	SE207183.004 Soil 04 Jun 2020 WC-4
PCBs in Soil Method: AN420 Tested: 9/6/2020						
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	**107**	**107**	**106**	**91**
Total Cyanide in soil by Discrete Analyser (Aquakem) Method: AN077/AN287 Tested: 15/6/2020						
Total Cyanide	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Cyanide Amenable to Chlorination*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 9/6/2020						
Arsenic, As	mg/kg	1	**4**	**2**	**3**	**28**
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	**0.4**
Chromium, Cr	mg/kg	0.5	**11**	**7.8**	**27**	**16**
Copper, Cu	mg/kg	0.5	**22**	**16**	**55**	**75**
Nickel, Ni	mg/kg	0.5	**5.5**	**4.8**	**12**	**7.6**
Lead, Pb	mg/kg	1	**40**	**28**	**98**	**100**
Zinc, Zn	mg/kg	2	**580**	**420**	**1800**	**1200**
Mercury in Soil Method: AN312 Tested: 9/6/2020						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002 Tested: 9/6/2020						
% Moisture	%w/w	1	**6.9**	**4.7**	**7.4**	**9.8**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE207183.001 Soil 04 Jun 2020 WC-1	SE207183.002 Soil 04 Jun 2020 WC-2	SE207183.003 Soil 04 Jun 2020 WC-3	SE207183.004 Soil 04 Jun 2020 WC-4
Fibre Identification in soil Method: AN602 Tested: 15/6/2020						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
SemiQuant						
Estimated Fibres*	%w/w	0.01	-	-	-	-
Fibre ID in bulk materials Method: AN602 Tested: 15/6/2020						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-

Parameter	Units	LOR	Sample Number: SE207183.005 Sample Matrix: Soil Sample Date: 04 Jun 2020 Sample Name: WC-5	SE207183.006 Soil 04 Jun 2020 WC-6	SE207183.007 Soil 04 Jun 2020 WC-7	SE207183.008 Soil 04 Jun 2020 WC-8
VOC's in Soil Method: AN433 Tested: 9/6/2020						
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						
d4-1,2-dichloroethane (Surrogate)	%	-	**120**	**116**	**112**	**105**
d8-toluene (Surrogate)	%	-	**119**	**114**	**111**	**104**
Bromofluorobenzene (Surrogate)	%	-	**105**	**99**	**97**	**89**
Totals						
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
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 9/6/2020						
TRH C6-C10	mg/kg	25	<25	<25	<25	<25
TRH C6-C9	mg/kg	20	<20	<20	<20	<20
Surrogates						
d4-1,2-dichloroethane (Surrogate)	%	-	**120**	**116**	**112**	**105**
d8-toluene (Surrogate)	%	-	**119**	**114**	**111**	**104**
Bromofluorobenzene (Surrogate)	%	-	**105**	**99**	**97**	**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 Sample Matrix Sample Date Sample Name SE207183.005 Soil 04 Jun 2020 WC-5	SE207183.006 Soil 04 Jun 2020 WC-6	SE207183.007 Soil 04 Jun 2020 WC-7	SE207183.008 Soil 04 Jun 2020 WC-8
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 9/6/2020						
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	**55**	<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 (F bands)	mg/kg	210	<210	<210	<210	<210
TRH F Bands						
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
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 9/6/2020						
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**	**0.2**
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	**0.2**	**0.2**	**0.4**
Pyrene	mg/kg	0.1	<0.1	**0.2**	**0.2**	**0.3**
Benzo(a)anthracene	mg/kg	0.1	<0.1	**0.1**	**0.1**	**0.2**
Chrysene	mg/kg	0.1	<0.1	**0.2**	**0.2**	**0.3**
Benzo(b&j)fluoranthene	mg/kg	0.1	**0.1**	**0.2**	**0.2**	**0.3**
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	**0.1**	**0.2**	**0.2**
Benzo(a)pyrene	mg/kg	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	**0.2**
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**	**0.2**
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	**0.3**
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	**0.4**
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	**0.2**	**0.2**	**0.4**
Total PAH (18)	mg/kg	0.8	<0.8	**1.1**	**1.4**	**2.9**
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	**1.1**	**1.4**	**2.9**
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**93**	**93**	**89**	**96**
2-fluorobiphenyl (Surrogate)	%	-	**94**	**94**	**98**	**99**
d14-p-terphenyl (Surrogate)	%	-	**89**	**84**	**97**	**90**
Speciated Phenols in Soil Method: AN420 Tested: 9/6/2020						
Phenol	mg/kg	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
3/4-methyl phenol (m/p-cresol)	mg/kg	1	<1	<1	<1	<1
Total Cresol	mg/kg	1.5	<1.5	<1.5	<1.5	<1.5
2-chlorophenol	mg/kg	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
2,6-dichlorophenol	mg/kg	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
2,4,6-trichlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
2-nitrophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
4-nitrophenol	mg/kg	1	<1	<1	<1	<1
2,4,5-trichlorophenol	mg/kg	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
Pentachlorophenol	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
2,4-dinitrophenol	mg/kg	2	<2	<2	<2	<2
4-chloro-3-methylphenol	mg/kg	2	<2	<2	<2	<2

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE207183.005 Soil 04 Jun 2020 WC-5	SE207183.006 Soil 04 Jun 2020 WC-6	SE207183.007 Soil 04 Jun 2020 WC-7	SE207183.008 Soil 04 Jun 2020 WC-8
Speciated Phenols in Soil Method: AN420 Tested: 9/6/2020 (continued)						
Surrogates						
2,4,6-Tribromophenol (Surrogate)	%	-	**86**	**86**	**87**	**89**
d5-phenol (Surrogate)	%	-	**82**	**83**	**83**	**85**
OC Pesticides in Soil Method: AN420 Tested: 9/6/2020						
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	**107**	**111**	**106**	**109**
OP Pesticides in Soil Method: AN420 Tested: 9/6/2020						
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	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
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	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
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7
Surrogates						
2-fluorobiphenyl (Surrogate)	%	-	**94**	**94**	**98**	**99**
d14-p-terphenyl (Surrogate)	%	-	**89**	**84**	**97**	**90**

Parameter	Units	LOR	Sample Number: SE207183.005 Sample Matrix: Soil Sample Date: 04 Jun 2020 Sample Name: WC-5	SE207183.006 Soil 04 Jun 2020 WC-6	SE207183.007 Soil 04 Jun 2020 WC-7	SE207183.008 Soil 04 Jun 2020 WC-8
PCBs in Soil Method: AN420 Tested: 9/6/2020						
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	**107**	**111**	**106**	**109**
Total Cyanide in soil by Discrete Analyser (Aquakem) Method: AN077/AN287 Tested: 15/6/2020						
Total Cyanide	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Cyanide Amenable to Chlorination*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 9/6/2020						
Arsenic, As	mg/kg	1	**5**	**9**	**23**	**8**
Cadmium, Cd	mg/kg	0.3	<0.3	**0.3**	**0.6**	**0.3**
Chromium, Cr	mg/kg	0.5	**57**	**27**	**35**	**29**
Copper, Cu	mg/kg	0.5	**110**	**190**	**200**	**140**
Nickel, Ni	mg/kg	0.5	**9.3**	**8.6**	**19**	**12**
Lead, Pb	mg/kg	1	**190**	**220**	**350**	**270**
Zinc, Zn	mg/kg	2	**3100**	**4000**	**6400**	**4600**
Mercury in Soil Method: AN312 Tested: 9/6/2020						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002 Tested: 9/6/2020						
% Moisture	%w/w	1	**6.6**	**5.6**	**7.5**	**8.4**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE207183.005 Soil 04 Jun 2020 WC-5	SE207183.006 Soil 04 Jun 2020 WC-6	SE207183.007 Soil 04 Jun 2020 WC-7	SE207183.008 Soil 04 Jun 2020 WC-8
Fibre Identification in soil Method: AN602 Tested: 15/6/2020							
FibreID							
Asbestos Detected	No unit	-		-	-	-	-
SemiQuant							
Estimated Fibres*	%w/w	0.01		-	-	-	-
Fibre ID in bulk materials Method: AN602 Tested: 15/6/2020							
FibreID							
Asbestos Detected	No unit	-		-	-	-	-

Parameter	Units	LOR	Sample Number: SE207183.009 Sample Matrix: Soil Sample Date: 04 Jun 2020 Sample Name: WC-9	SE207183.010 Soil 04 Jun 2020 WC-10	SE207183.011 Soil 04 Jun 2020 WC-11	SE207183.012 Material 04 Jun 2020 GW-1A
VOC's in Soil Method: AN433 Tested: 9/6/2020						
Monocyclic Aromatic Hydrocarbons						
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	-
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	-
Surrogates						
d4-1,2-dichloroethane (Surrogate)	%	-	**114**	**118**	**113**	-
d8-toluene (Surrogate)	%	-	**113**	**117**	**111**	-
Bromofluorobenzene (Surrogate)	%	-	**97**	**101**	**97**	-
Totals						
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	-
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 9/6/2020						
TRH C6-C10	mg/kg	25	<25	<25	<25	-
TRH C6-C9	mg/kg	20	<20	<20	<20	-
Surrogates						
d4-1,2-dichloroethane (Surrogate)	%	-	**114**	**118**	**113**	-
d8-toluene (Surrogate)	%	-	**113**	**117**	**111**	-
Bromofluorobenzene (Surrogate)	%	-	**97**	**101**	**97**	-
VPH F Bands						
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	-
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE207183.009 Soil 04 Jun 2020 WC-9	SE207183.010 Soil 04 Jun 2020 WC-10	SE207183.011 Soil 04 Jun 2020 WC-11	SE207183.012 Material 04 Jun 2020 GW-1A
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 9/6/2020							
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-C36 Total	mg/kg	110		<110	<110	<110	-
TRH >C10-C40 Total (F bands)	mg/kg	210		<210	<210	<210	-
TRH F Bands							
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	-
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 9/6/2020							
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	-
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		**94**	**92**	**92**	-
2-fluorobiphenyl (Surrogate)	%	-		**89**	**93**	**100**	-
d14-p-terphenyl (Surrogate)	%	-		**85**	**114**	**90**	-
Speciated Phenols in Soil Method: AN420 Tested: 9/6/2020							
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	-

Parameter	Units	LOR	Sample Number: SE207183.009 Sample Matrix: Soil Sample Date: 04 Jun 2020 Sample Name: WC-9	SE207183.010 Soil 04 Jun 2020 WC-10	SE207183.011 Soil 04 Jun 2020 WC-11	SE207183.012 Material 04 Jun 2020 GW-1A
Speciated Phenols in Soil Method: AN420 Tested: 15/6/2020 (continued)						
Surrogates						
2,4,6-Tribromophenol (Surrogate)	%	-	**86**	**85**	**84**	-
d5-phenol (Surrogate)	%	-	**83**	**83**	**84**	-
OC Pesticides in Soil Method: AN420 Tested: 9/6/2020						
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	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	**108**	**107**	**117**	-
OP Pesticides in Soil Method: AN420 Tested: 9/6/2020						
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	-
Surrogates						
2-fluorobiphenyl (Surrogate)	%	-	**89**	**93**	**100**	-
d14-p-terphenyl (Surrogate)	%	-	**85**	**114**	**90**	-

Parameter	Units	LOR	Sample Number: SE207183.009 Sample Matrix: Soil Sample Date: 04 Jun 2020 Sample Name: WC-9	SE207183.010 Soil 04 Jun 2020 WC-10	SE207183.011 Soil 04 Jun 2020 WC-11	SE207183.012 Material 04 Jun 2020 GW-1A
PCBs in Soil Method: AN420 Tested: 9/6/2020						
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	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	**108**	**107**	**117**	-
Total Cyanide in soil by Discrete Analyser (Aquakem) Method: AN077/AN287 Tested: 15/6/2020						
Total Cyanide	mg/kg	0.5	<0.5	<0.5	<0.5	-
Cyanide Amenable to Chlorination*	mg/kg	0.5	<0.5	<0.5	<0.5	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 9/6/2020						
Arsenic, As	mg/kg	1	**7**	**2**	**2**	-
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	-
Chromium, Cr	mg/kg	0.5	**22**	**11**	**30**	-
Copper, Cu	mg/kg	0.5	**56**	**28**	**70**	-
Nickel, Ni	mg/kg	0.5	**9.2**	**4.7**	**5.2**	-
Lead, Pb	mg/kg	1	**59**	**58**	**81**	-
Zinc, Zn	mg/kg	2	**2200**	**980**	**1300**	-
Mercury in Soil Method: AN312 Tested: 9/6/2020						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	-
Moisture Content Method: AN002 Tested: 9/6/2020						
% Moisture	%w/w	1	**5.4**	**5.7**	**6.3**	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE207183.009 Soil 04 Jun 2020 WC-9	SE207183.010 Soil 04 Jun 2020 WC-10	SE207183.011 Soil 04 Jun 2020 WC-11	SE207183.012 Material 04 Jun 2020 GW-1A
Fibre Identification in soil Method: AN602 Tested: 15/6/2020							
FibreID							
Asbestos Detected	No unit	-		-	-	-	-
SemiQuant							
Estimated Fibres*	%w/w	0.01		-	-	-	-
Fibre ID in bulk materials Method: AN602 Tested: 15/6/2020							
FibreID							
Asbestos Detected	No unit	-		-	-	-	Yes

Parameter	Units	LOR	Sample Number: SE207183.013 Sample Matrix: Soil Sample Date: 04 Jun 2020 Sample Name: WC-1A	SE207183.014 Soil 04 Jun 2020 WC-2A	SE207183.015 Soil 04 Jun 2020 WC-3A	SE207183.016 Soil 04 Jun 2020 WC-4A
VOC's in Soil Method: AN433 Tested: 15/6/2020						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	-	-	-	-
Toluene	mg/kg	0.1	-	-	-	-
Ethylbenzene	mg/kg	0.1	-	-	-	-
m/p-xylene	mg/kg	0.2	-	-	-	-
o-xylene	mg/kg	0.1	-	-	-	-
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	-	-	-	-
Surrogates						
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	mg/kg	0.3	-	-	-	-
Total BTEX	mg/kg	0.6	-	-	-	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 15/6/2020						
TRH C6-C10	mg/kg	25	-	-	-	-
TRH C6-C9	mg/kg	20	-	-	-	-
Surrogates						
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: SE207183.013 Sample Matrix: Soil Sample Date: 04 Jun 2020 Sample Name: WC-1A	SE207183.014 Soil 04 Jun 2020 WC-2A	SE207183.015 Soil 04 Jun 2020 WC-3A	SE207183.016 Soil 04 Jun 2020 WC-4A
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 12/6/2020						
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 (F bands)	mg/kg	210	-	-	-	-
TRH F Bands						
TRH >C10-C16	mg/kg	25	-	-	-	-
TRH >C10-C16 - Naphthalene (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 Tested: 12/6/2020						
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&j)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(ah)anthracene	mg/kg	0.1	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.1	-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	-	-	-	-
Total PAH (18)	mg/kg	0.8	-	-	-	-
Total PAH (NEPM/WHO 16)	mg/kg	0.8	-	-	-	-
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	-	-	-	-
2-fluorobiphenyl (Surrogate)	%	-	-	-	-	-
d14-p-terphenyl (Surrogate)	%	-	-	-	-	-
Speciated Phenols in Soil Method: AN420 Tested: 15/6/2020						
Phenol	mg/kg	0.5	-	-	-	-
2-methyl phenol (o-cresol)	mg/kg	0.5	-	-	-	-
3/4-methyl phenol (m/p-cresol)	mg/kg	1	-	-	-	-
Total Cresol	mg/kg	1.5	-	-	-	-
2-chlorophenol	mg/kg	0.5	-	-	-	-
2,4-dimethylphenol	mg/kg	0.5	-	-	-	-
2,6-dichlorophenol	mg/kg	0.5	-	-	-	-
2,4-dichlorophenol	mg/kg	0.5	-	-	-	-
2,4,6-trichlorophenol	mg/kg	0.5	-	-	-	-
2-nitrophenol	mg/kg	0.5	-	-	-	-
4-nitrophenol	mg/kg	1	-	-	-	-
2,4,5-trichlorophenol	mg/kg	0.5	-	-	-	-
2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1	-	-	-	-
Pentachlorophenol	mg/kg	0.5	-	-	-	-
2,4-dinitrophenol	mg/kg	2	-	-	-	-
4-chloro-3-methylphenol	mg/kg	2	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE207183.013 Soil 04 Jun 2020 WC-1A	SE207183.014 Soil 04 Jun 2020 WC-2A	SE207183.015 Soil 04 Jun 2020 WC-3A	SE207183.016 Soil 04 Jun 2020 WC-4A
Speciated Phenols in Soil Method: AN420 Tested: 15/6/2020 (continued)							
Surrogates							
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
d5-phenol (Surrogate)	%	-		-	-	-	-
OC Pesticides in Soil Method: AN420 Tested: 15/6/2020							
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		-	-	-	-
Surrogates							
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-		-	-	-	-
OP Pesticides in Soil Method: AN420 Tested: 12/6/2020							
Dichlorvos	mg/kg	0.5		-	-	-	-
Dimethoate	mg/kg	0.5		-	-	-	-
Diazinon (Dimpylate)	mg/kg	0.5		-	-	-	-
Fenitrothion	mg/kg	0.2		-	-	-	-
Malathion	mg/kg	0.2		-	-	-	-
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2		-	-	-	-
Parathion-ethyl (Parathion)	mg/kg	0.2		-	-	-	-
Bromophos Ethyl	mg/kg	0.2		-	-	-	-
Methidathion	mg/kg	0.5		-	-	-	-
Ethion	mg/kg	0.2		-	-	-	-
Azinphos-methyl (Guthion)	mg/kg	0.2		-	-	-	-
Total OP Pesticides*	mg/kg	1.7		-	-	-	-
Surrogates							
2-fluorobiphenyl (Surrogate)	%	-		-	-	-	-
d14-p-terphenyl (Surrogate)	%	-		-	-	-	-

Parameter	Units	LOR	Sample Number: SE207183.013 Sample Matrix: Soil Sample Date: 04 Jun 2020 Sample Name: WC-1A	SE207183.014 Soil 04 Jun 2020 WC-2A	SE207183.015 Soil 04 Jun 2020 WC-3A	SE207183.016 Soil 04 Jun 2020 WC-4A
PCBs in Soil Method: AN420 Tested: 15/6/2020						
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	-	-	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-	-
Total Cyanide in soil by Discrete Analyser (Aquakem) Method: AN077/AN287 Tested: 15/6/2020						
Total Cyanide	mg/kg	0.5	-	-	-	-
Cyanide Amenable to Chlorination*	mg/kg	0.5	-	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 12/6/2020						
Arsenic, As	mg/kg	1	-	-	-	-
Cadmium, Cd	mg/kg	0.3	-	-	-	-
Chromium, Cr	mg/kg	0.5	-	-	-	-
Copper, Cu	mg/kg	0.5	-	-	-	-
Nickel, Ni	mg/kg	0.5	-	-	-	-
Lead, Pb	mg/kg	1	-	-	-	-
Zinc, Zn	mg/kg	2	-	-	-	-
Mercury in Soil Method: AN312 Tested: 12/6/2020						
Mercury	mg/kg	0.05	-	-	-	-
Moisture Content Method: AN002 Tested: 11/6/2020						
% Moisture	%w/w	1	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE207183.013 Soil 04 Jun 2020 WC-1A	SE207183.014 Soil 04 Jun 2020 WC-2A	SE207183.015 Soil 04 Jun 2020 WC-3A	SE207183.016 Soil 04 Jun 2020 WC-4A
Fibre Identification in soil Method: AN602 Tested: 12/6/2020						
FibreID						
Asbestos Detected	No unit	-	No	No	No	No
SemiQuant						
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01
Fibre ID in bulk materials Method: AN602 Tested: 15/6/2020						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-

Parameter	Units	LOR	Sample Number: SE207183.017 Sample Matrix: Soil Sample Date: 04 Jun 2020 Sample Name: WC-5A	SE207183.018 Soil 04 Jun 2020 WC-6A	SE207183.019 Soil 04 Jun 2020 WC-7A	SE207183.020 Soil 04 Jun 2020 WC-8A
VOC's in Soil Method: AN433 Tested: 15/6/2020						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	-	-	-	-
Toluene	mg/kg	0.1	-	-	-	-
Ethylbenzene	mg/kg	0.1	-	-	-	-
m/p-xylene	mg/kg	0.2	-	-	-	-
o-xylene	mg/kg	0.1	-	-	-	-
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	-	-	-	-
Surrogates						
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	mg/kg	0.3	-	-	-	-
Total BTEX	mg/kg	0.6	-	-	-	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 15/6/2020						
TRH C6-C10	mg/kg	25	-	-	-	-
TRH C6-C9	mg/kg	20	-	-	-	-
Surrogates						
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	SE207183.017 Soil 04 Jun 2020 WC-5A	SE207183.018 Soil 04 Jun 2020 WC-6A	SE207183.019 Soil 04 Jun 2020 WC-7A	SE207183.020 Soil 04 Jun 2020 WC-8A
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 12/6/2020							
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 (F bands)	mg/kg	210		-	-	-	-
TRH F Bands							
TRH >C10-C16	mg/kg	25		-	-	-	-
TRH >C10-C16 - Naphthalene (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 Tested: 12/6/2020							
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&j)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(ah)anthracene	mg/kg	0.1		-	-	-	-
Benzo(ghi)perylene	mg/kg	0.1		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2		-	-	-	-
Total PAH (18)	mg/kg	0.8		-	-	-	-
Total PAH (NEPM/WHO 16)	mg/kg	0.8		-	-	-	-
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		-	-	-	-
2-fluorobiphenyl (Surrogate)	%	-		-	-	-	-
d14-p-terphenyl (Surrogate)	%	-		-	-	-	-
Speciated Phenols in Soil Method: AN420 Tested: 15/6/2020							
Phenol	mg/kg	0.5		-	-	-	-
2-methyl phenol (o-cresol)	mg/kg	0.5		-	-	-	-
3/4-methyl phenol (m/p-cresol)	mg/kg	1		-	-	-	-
Total Cresol	mg/kg	1.5		-	-	-	-
2-chlorophenol	mg/kg	0.5		-	-	-	-
2,4-dimethylphenol	mg/kg	0.5		-	-	-	-
2,6-dichlorophenol	mg/kg	0.5		-	-	-	-
2,4-dichlorophenol	mg/kg	0.5		-	-	-	-
2,4,6-trichlorophenol	mg/kg	0.5		-	-	-	-
2-nitrophenol	mg/kg	0.5		-	-	-	-
4-nitrophenol	mg/kg	1		-	-	-	-
2,4,5-trichlorophenol	mg/kg	0.5		-	-	-	-
2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1		-	-	-	-
Pentachlorophenol	mg/kg	0.5		-	-	-	-
2,4-dinitrophenol	mg/kg	2		-	-	-	-
4-chloro-3-methylphenol	mg/kg	2		-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE207183.017 Soil 04 Jun 2020 WC-5A	SE207183.018 Soil 04 Jun 2020 WC-6A	SE207183.019 Soil 04 Jun 2020 WC-7A	SE207183.020 Soil 04 Jun 2020 WC-8A
Speciated Phenols in Soil Method: AN420 Tested: 15/6/2020 (continued)							
Surrogates							
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
d5-phenol (Surrogate)	%	-		-	-	-	-
OC Pesticides in Soil Method: AN420 Tested: 15/6/2020							
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		-	-	-	-
Surrogates							
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-		-	-	-	-
OP Pesticides in Soil Method: AN420 Tested: 12/6/2020							
Dichlorvos	mg/kg	0.5		-	-	-	-
Dimethoate	mg/kg	0.5		-	-	-	-
Diazinon (Dimpylate)	mg/kg	0.5		-	-	-	-
Fenitrothion	mg/kg	0.2		-	-	-	-
Malathion	mg/kg	0.2		-	-	-	-
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2		-	-	-	-
Parathion-ethyl (Parathion)	mg/kg	0.2		-	-	-	-
Bromophos Ethyl	mg/kg	0.2		-	-	-	-
Methidathion	mg/kg	0.5		-	-	-	-
Ethion	mg/kg	0.2		-	-	-	-
Azinphos-methyl (Guthion)	mg/kg	0.2		-	-	-	-
Total OP Pesticides*	mg/kg	1.7		-	-	-	-
Surrogates							
2-fluorobiphenyl (Surrogate)	%	-		-	-	-	-
d14-p-terphenyl (Surrogate)	%	-		-	-	-	-

Parameter	Units	LOR	Sample Number: SE207183.017 Sample Matrix: Soil Sample Date: 04 Jun 2020 Sample Name: WC-5A	SE207183.018 Soil 04 Jun 2020 WC-6A	SE207183.019 Soil 04 Jun 2020 WC-7A	SE207183.020 Soil 04 Jun 2020 WC-8A
PCBs in Soil Method: AN420 Tested: 15/6/2020						
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	-	-	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-	-
Total Cyanide in soil by Discrete Analyser (Aquakem) Method: AN077/AN287 Tested: 15/6/2020						
Total Cyanide	mg/kg	0.5	-	-	-	-
Cyanide Amenable to Chlorination*	mg/kg	0.5	-	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 12/6/2020						
Arsenic, As	mg/kg	1	-	-	-	-
Cadmium, Cd	mg/kg	0.3	-	-	-	-
Chromium, Cr	mg/kg	0.5	-	-	-	-
Copper, Cu	mg/kg	0.5	-	-	-	-
Nickel, Ni	mg/kg	0.5	-	-	-	-
Lead, Pb	mg/kg	1	-	-	-	-
Zinc, Zn	mg/kg	2	-	-	-	-
Mercury in Soil Method: AN312 Tested: 12/6/2020						
Mercury	mg/kg	0.05	-	-	-	-
Moisture Content Method: AN002 Tested: 11/6/2020						
% Moisture	%w/w	1	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE207183.017 Soil 04 Jun 2020 WC-5A	SE207183.018 Soil 04 Jun 2020 WC-6A	SE207183.019 Soil 04 Jun 2020 WC-7A	SE207183.020 Soil 04 Jun 2020 WC-8A
Fibre Identification in soil Method: AN602 Tested: 12/6/2020						
FibreID						
Asbestos Detected	No unit	-	No	No	No	No
SemiQuant						
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01
Fibre ID in bulk materials Method: AN602 Tested: 15/6/2020						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-

Parameter	Units	LOR	Sample Number: SE207183.021 Sample Matrix: Soil Sample Date: 04 Jun 2020 Sample Name: WC-9A	SE207183.022 Soil 04 Jun 2020 WC-10A	SE207183.023 Soil 04 Jun 2020 WC-11A	SE207183.024 Soil 04 Jun 2020 TP-24
VOC's in Soil Method: AN433 Tested: 15/6/2020						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	-	-	-	-
Toluene	mg/kg	0.1	-	-	-	-
Ethylbenzene	mg/kg	0.1	-	-	-	-
m/p-xylene	mg/kg	0.2	-	-	-	-
o-xylene	mg/kg	0.1	-	-	-	-
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	-	-	-	-
Surrogates						
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	mg/kg	0.3	-	-	-	-
Total BTEX	mg/kg	0.6	-	-	-	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 15/6/2020						
TRH C6-C10	mg/kg	25	-	-	-	-
TRH C6-C9	mg/kg	20	-	-	-	-
Surrogates						
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	SE207183.021 Soil 04 Jun 2020 WC-9A	SE207183.022 Soil 04 Jun 2020 WC-10A	SE207183.023 Soil 04 Jun 2020 WC-11A	SE207183.024 Soil 04 Jun 2020 TP-24
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 12/6/2020							
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 (F bands)	mg/kg	210		-	-	-	-
TRH F Bands							
TRH >C10-C16	mg/kg	25		-	-	-	-
TRH >C10-C16 - Naphthalene (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 Tested: 12/6/2020							
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&j)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(ah)anthracene	mg/kg	0.1		-	-	-	-
Benzo(ghi)perylene	mg/kg	0.1		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2		-	-	-	-
Total PAH (18)	mg/kg	0.8		-	-	-	-
Total PAH (NEPM/WHO 16)	mg/kg	0.8		-	-	-	-
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		-	-	-	-
2-fluorobiphenyl (Surrogate)	%	-		-	-	-	-
d14-p-terphenyl (Surrogate)	%	-		-	-	-	-
Speciated Phenols in Soil Method: AN420 Tested: 15/6/2020							
Phenol	mg/kg	0.5		-	-	-	-
2-methyl phenol (o-cresol)	mg/kg	0.5		-	-	-	-
3/4-methyl phenol (m/p-cresol)	mg/kg	1		-	-	-	-
Total Cresol	mg/kg	1.5		-	-	-	-
2-chlorophenol	mg/kg	0.5		-	-	-	-
2,4-dimethylphenol	mg/kg	0.5		-	-	-	-
2,6-dichlorophenol	mg/kg	0.5		-	-	-	-
2,4-dichlorophenol	mg/kg	0.5		-	-	-	-
2,4,6-trichlorophenol	mg/kg	0.5		-	-	-	-
2-nitrophenol	mg/kg	0.5		-	-	-	-
4-nitrophenol	mg/kg	1		-	-	-	-
2,4,5-trichlorophenol	mg/kg	0.5		-	-	-	-
2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1		-	-	-	-
Pentachlorophenol	mg/kg	0.5		-	-	-	-
2,4-dinitrophenol	mg/kg	2		-	-	-	-
4-chloro-3-methylphenol	mg/kg	2		-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE207183.021 Soil 04 Jun 2020 WC-9A	SE207183.022 Soil 04 Jun 2020 WC-10A	SE207183.023 Soil 04 Jun 2020 WC-11A	SE207183.024 Soil 04 Jun 2020 TP-24
Speciated Phenols in Soil Method: AN420 Tested: 15/6/2020 (continued)							
Surrogates							
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
d5-phenol (Surrogate)	%	-		-	-	-	-
OC Pesticides in Soil Method: AN420 Tested: 15/6/2020							
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		-	-	-	-
Surrogates							
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-		-	-	-	-
OP Pesticides in Soil Method: AN420 Tested: 12/6/2020							
Dichlorvos	mg/kg	0.5		-	-	-	-
Dimethoate	mg/kg	0.5		-	-	-	-
Diazinon (Dimpylate)	mg/kg	0.5		-	-	-	-
Fenitrothion	mg/kg	0.2		-	-	-	-
Malathion	mg/kg	0.2		-	-	-	-
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2		-	-	-	-
Parathion-ethyl (Parathion)	mg/kg	0.2		-	-	-	-
Bromophos Ethyl	mg/kg	0.2		-	-	-	-
Methidathion	mg/kg	0.5		-	-	-	-
Ethion	mg/kg	0.2		-	-	-	-
Azinphos-methyl (Guthion)	mg/kg	0.2		-	-	-	-
Total OP Pesticides*	mg/kg	1.7		-	-	-	-
Surrogates							
2-fluorobiphenyl (Surrogate)	%	-		-	-	-	-
d14-p-terphenyl (Surrogate)	%	-		-	-	-	-

Parameter	Units	LOR	Sample Number: SE207183.021 Sample Matrix: Soil Sample Date: 04 Jun 2020 Sample Name: WC-9A	SE207183.022 Soil 04 Jun 2020 WC-10A	SE207183.023 Soil 04 Jun 2020 WC-11A	SE207183.024 Soil 04 Jun 2020 TP-24
PCBs in Soil Method: AN420 Tested: 15/6/2020						
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	-	-	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-	-
Total Cyanide in soil by Discrete Analyser (Aquakem) Method: AN077/AN287 Tested: 15/6/2020						
Total Cyanide	mg/kg	0.5	-	-	-	-
Cyanide Amenable to Chlorination*	mg/kg	0.5	-	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 12/6/2020						
Arsenic, As	mg/kg	1	-	-	-	**42**
Cadmium, Cd	mg/kg	0.3	-	-	-	**1.1**
Chromium, Cr	mg/kg	0.5	-	-	-	**25**
Copper, Cu	mg/kg	0.5	-	-	-	**490**
Nickel, Ni	mg/kg	0.5	-	-	-	**7.6**
Lead, Pb	mg/kg	1	-	-	-	**760**
Zinc, Zn	mg/kg	2	-	-	-	**12000**
Mercury in Soil Method: AN312 Tested: 12/6/2020						
Mercury	mg/kg	0.05	-	-	-	<0.05
Moisture Content Method: AN002 Tested: 11/6/2020						
% Moisture	%w/w	1	-	-	-	**11.4**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE207183.021 Soil 04 Jun 2020 WC-9A	SE207183.022 Soil 04 Jun 2020 WC-10A	SE207183.023 Soil 04 Jun 2020 WC-11A	SE207183.024 Soil 04 Jun 2020 TP-24
Fibre Identification in soil Method: AN602 Tested: 12/6/2020						
FibreID						
Asbestos Detected	No unit	-	No	No	No	-
SemiQuant						
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	-
Fibre ID in bulk materials Method: AN602 Tested: 15/6/2020						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-

Parameter	Units	LOR	Sample Number: SE207183.025 Sample Matrix: Soil Sample Date: 04 Jun 2020 Sample Name: TP-25	SE207183.026 Soil 04 Jun 2020 TP-26	SE207183.027 Soil 04 Jun 2020 TP-27	SE207183.028 Soil 04 Jun 2020 TP-28
VOC's in Soil Method: AN433 Tested: 15/6/2020						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	-	-	-	-
Toluene	mg/kg	0.1	-	-	-	-
Ethylbenzene	mg/kg	0.1	-	-	-	-
m/p-xylene	mg/kg	0.2	-	-	-	-
o-xylene	mg/kg	0.1	-	-	-	-
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	-	-	-	-
Surrogates						
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	mg/kg	0.3	-	-	-	-
Total BTEX	mg/kg	0.6	-	-	-	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 15/6/2020						
TRH C6-C10	mg/kg	25	-	-	-	-
TRH C6-C9	mg/kg	20	-	-	-	-
Surrogates						
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	SE207183.025 Soil 04 Jun 2020 TP-25	SE207183.026 Soil 04 Jun 2020 TP-26	SE207183.027 Soil 04 Jun 2020 TP-27	SE207183.028 Soil 04 Jun 2020 TP-28
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 12/6/2020							
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 (F bands)	mg/kg	210		-	-	-	-
TRH F Bands							
TRH >C10-C16	mg/kg	25		-	-	-	-
TRH >C10-C16 - Naphthalene (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 Tested: 12/6/2020							
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&j)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(ah)anthracene	mg/kg	0.1		-	-	-	-
Benzo(ghi)perylene	mg/kg	0.1		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2		-	-	-	-
Total PAH (18)	mg/kg	0.8		-	-	-	-
Total PAH (NEPM/WHO 16)	mg/kg	0.8		-	-	-	-
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		-	-	-	-
2-fluorobiphenyl (Surrogate)	%	-		-	-	-	-
d14-p-terphenyl (Surrogate)	%	-		-	-	-	-
Speciated Phenols in Soil Method: AN420 Tested: 15/6/2020							
Phenol	mg/kg	0.5		-	-	-	-
2-methyl phenol (o-cresol)	mg/kg	0.5		-	-	-	-
3/4-methyl phenol (m/p-cresol)	mg/kg	1		-	-	-	-
Total Cresol	mg/kg	1.5		-	-	-	-
2-chlorophenol	mg/kg	0.5		-	-	-	-
2,4-dimethylphenol	mg/kg	0.5		-	-	-	-
2,6-dichlorophenol	mg/kg	0.5		-	-	-	-
2,4-dichlorophenol	mg/kg	0.5		-	-	-	-
2,4,6-trichlorophenol	mg/kg	0.5		-	-	-	-
2-nitrophenol	mg/kg	0.5		-	-	-	-
4-nitrophenol	mg/kg	1		-	-	-	-
2,4,5-trichlorophenol	mg/kg	0.5		-	-	-	-
2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1		-	-	-	-
Pentachlorophenol	mg/kg	0.5		-	-	-	-
2,4-dinitrophenol	mg/kg	2		-	-	-	-
4-chloro-3-methylphenol	mg/kg	2		-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE207183.025 Soil 04 Jun 2020 TP-25	SE207183.026 Soil 04 Jun 2020 TP-26	SE207183.027 Soil 04 Jun 2020 TP-27	SE207183.028 Soil 04 Jun 2020 TP-28
Speciated Phenols in Soil Method: AN420 Tested: 15/6/2020 (continued)							
Surrogates							
2,4,6-Tribromophenol (Surrogate)	%	-		-	-	-	-
d5-phenol (Surrogate)	%	-		-	-	-	-
OC Pesticides in Soil Method: AN420 Tested: 15/6/2020							
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		-	-	-	-
Surrogates							
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-		-	-	-	-
OP Pesticides in Soil Method: AN420 Tested: 12/6/2020							
Dichlorvos	mg/kg	0.5		-	-	-	-
Dimethoate	mg/kg	0.5		-	-	-	-
Diazinon (Dimpylate)	mg/kg	0.5		-	-	-	-
Fenitrothion	mg/kg	0.2		-	-	-	-
Malathion	mg/kg	0.2		-	-	-	-
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2		-	-	-	-
Parathion-ethyl (Parathion)	mg/kg	0.2		-	-	-	-
Bromophos Ethyl	mg/kg	0.2		-	-	-	-
Methidathion	mg/kg	0.5		-	-	-	-
Ethion	mg/kg	0.2		-	-	-	-
Azinphos-methyl (Guthion)	mg/kg	0.2		-	-	-	-
Total OP Pesticides*	mg/kg	1.7		-	-	-	-
Surrogates							
2-fluorobiphenyl (Surrogate)	%	-		-	-	-	-
d14-p-terphenyl (Surrogate)	%	-		-	-	-	-

Parameter	Units	LOR	Sample Number: SE207183.025 Sample Matrix: Soil Sample Date: 04 Jun 2020 Sample Name: TP-25	SE207183.026 Soil 04 Jun 2020 TP-26	SE207183.027 Soil 04 Jun 2020 TP-27	SE207183.028 Soil 04 Jun 2020 TP-28
PCBs in Soil Method: AN420 Tested: 15/6/2020						
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	-	-	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-	-
Total Cyanide in soil by Discrete Analyser (Aquakem) Method: AN077/AN287 Tested: 15/6/2020						
Total Cyanide	mg/kg	0.5	-	-	-	-
Cyanide Amenable to Chlorination*	mg/kg	0.5	-	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 9/6/2020						
Arsenic, As	mg/kg	1	**72**	**6**	**130**	**25**
Cadmium, Cd	mg/kg	0.3	**1.3**	<0.3	**2.1**	**0.6**
Chromium, Cr	mg/kg	0.5	**22**	**4.5**	**32**	**31**
Copper, Cu	mg/kg	0.5	**340**	**8.3**	**1100**	**260**
Nickel, Ni	mg/kg	0.5	**4.6**	**9.1**	**5.5**	**8.6**
Lead, Pb	mg/kg	1	**500**	**5**	**2700**	**330**
Zinc, Zn	mg/kg	2	**8500**	**41**	**22000**	**6200**
Mercury in Soil Method: AN312 Tested: 9/6/2020						
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content Method: AN002 Tested: 9/6/2020						
% Moisture	%w/w	1	**4.1**	**6.0**	**4.2**	**8.8**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE207183.025 Soil 04 Jun 2020 TP-25	SE207183.026 Soil 04 Jun 2020 TP-26	SE207183.027 Soil 04 Jun 2020 TP-27	SE207183.028 Soil 04 Jun 2020 TP-28
Fibre Identification in soil Method: AN602 Tested: 15/6/2020							
FibreID							
Asbestos Detected	No unit	-		-	-	-	-
SemiQuant							
Estimated Fibres*	%w/w	0.01		-	-	-	-
Fibre ID in bulk materials Method: AN602 Tested: 15/6/2020							
FibreID							
Asbestos Detected	No unit	-		-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE207183.029 Soil 04 Jun 2020 TP-29	SE207183.030 Soil 04 Jun 2020 TP-30	SE207183.031 Soil 04 Jun 2020 TP-31
VOC's in Soil Method: AN433 Tested: 15/6/2020					
Monocyclic Aromatic Hydrocarbons					
Benzene	mg/kg	0.1	-	-	-
Toluene	mg/kg	0.1	-	-	-
Ethylbenzene	mg/kg	0.1	-	-	-
m/p-xylene	mg/kg	0.2	-	-	-
o-xylene	mg/kg	0.1	-	-	-
Polycyclic VOCs					
Naphthalene	mg/kg	0.1	-	-	-
Surrogates					
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-
Totals					
Total Xylenes	mg/kg	0.3	-	-	-
Total BTEX	mg/kg	0.6	-	-	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 15/6/2020					
TRH C6-C10	mg/kg	25	-	-	-
TRH C6-C9	mg/kg	20	-	-	-
Surrogates					
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	SE207183.029 Soil 04 Jun 2020 TP-29	SE207183.030 Soil 04 Jun 2020 TP-30	SE207183.031 Soil 04 Jun 2020 TP-31
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 12/6/2020						
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 (F bands)	mg/kg	210		-	-	-
TRH F Bands						
TRH >C10-C16	mg/kg	25		-	-	-
TRH >C10-C16 - Naphthalene (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 Tested: 12/6/2020						
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&j)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(ah)anthracene	mg/kg	0.1		-	-	-
Benzo(ghi)perylene	mg/kg	0.1		-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2		-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3		-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2		-	-	-
Total PAH (18)	mg/kg	0.8		-	-	-
Total PAH (NEPM/WHO 16)	mg/kg	0.8		-	-	-
Surrogates						
d5-nitrobenzene (Surrogate)	%	-		-	-	-
2-fluorobiphenyl (Surrogate)	%	-		-	-	-
d14-p-terphenyl (Surrogate)	%	-		-	-	-
Speciated Phenols in Soil Method: AN420 Tested: 15/6/2020						
Phenol	mg/kg	0.5		-	-	-
2-methyl phenol (o-cresol)	mg/kg	0.5		-	-	-
3/4-methyl phenol (m/p-cresol)	mg/kg	1		-	-	-
Total Cresol	mg/kg	1.5		-	-	-
2-chlorophenol	mg/kg	0.5		-	-	-
2,4-dimethylphenol	mg/kg	0.5		-	-	-
2,6-dichlorophenol	mg/kg	0.5		-	-	-
2,4-dichlorophenol	mg/kg	0.5		-	-	-
2,4,6-trichlorophenol	mg/kg	0.5		-	-	-
2-nitrophenol	mg/kg	0.5		-	-	-
4-nitrophenol	mg/kg	1		-	-	-
2,4,5-trichlorophenol	mg/kg	0.5		-	-	-
2,3,4,6/2,3,5,6-tetrachlorophenol	mg/kg	1		-	-	-
Pentachlorophenol	mg/kg	0.5		-	-	-
2,4-dinitrophenol	mg/kg	2		-	-	-

Parameter	Units	LOR	Sample Number: SE207183.029 Sample Matrix: Soil Sample Date: 04 Jun 2020 Sample Name: TP-29	SE207183.030 Soil 04 Jun 2020 TP-30	SE207183.031 Soil 04 Jun 2020 TP-31
Speciated Phenols in Soil Method: AN420 Tested: 15/6/2020 (continued)					
4-chloro-3-methylphenol	mg/kg	2	-	-	-
Surrogates					
2,4,6-Tribromophenol (Surrogate)	%	-	-	-	-
d5-phenol (Surrogate)	%	-	-	-	-
OC Pesticides in Soil Method: AN420 Tested: 15/6/2020					
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	-	-	-
Surrogates					
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-
OP Pesticides in Soil Method: AN420 Tested: 12/6/2020					
Dichlorvos	mg/kg	0.5	-	-	-
Dimethoate	mg/kg	0.5	-	-	-
Diazinon (Dimpylate)	mg/kg	0.5	-	-	-
Fenitrothion	mg/kg	0.2	-	-	-
Malathion	mg/kg	0.2	-	-	-
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	-	-	-
Parathion-ethyl (Parathion)	mg/kg	0.2	-	-	-
Bromophos Ethyl	mg/kg	0.2	-	-	-
Methidathion	mg/kg	0.5	-	-	-
Ethion	mg/kg	0.2	-	-	-
Azinphos-methyl (Guthion)	mg/kg	0.2	-	-	-
Total OP Pesticides*	mg/kg	1.7	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE207183.029 Soil 04 Jun 2020 TP-29	SE207183.030 Soil 04 Jun 2020 TP-30	SE207183.031 Soil 04 Jun 2020 TP-31
OP Pesticides in Soil Method: AN420 Tested: 12/6/2020 (continued)					
Surrogates					
2-fluorobiphenyl (Surrogate)	%	-	-	-	-
d14-p-terphenyl (Surrogate)	%	-	-	-	-
PCBs in Soil Method: AN420 Tested: 15/6/2020					
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	-	-	-
Surrogates					
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-
Total Cyanide in soil by Discrete Analyser (Aquakem) Method: AN077/AN287 Tested: 15/6/2020					
Total Cyanide	mg/kg	0.5	-	-	-
Cyanide Amenable to Chlorination*	mg/kg	0.5	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 9/6/2020					
Arsenic, As	mg/kg	1	**18**	**6**	**21**
Cadmium, Cd	mg/kg	0.3	**0.4**	<0.3	**0.6**
Chromium, Cr	mg/kg	0.5	**35**	**4.8**	**18**
Copper, Cu	mg/kg	0.5	**280**	**9.0**	**460**
Nickel, Ni	mg/kg	0.5	**3.1**	**9.7**	**2.9**
Lead, Pb	mg/kg	1	**520**	**7**	**790**
Zinc, Zn	mg/kg	2	**8300**	**54**	**12000**
Mercury in Soil Method: AN312 Tested: 9/6/2020					
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE207183.029 Soil 04 Jun 2020 TP-29	SE207183.030 Soil 04 Jun 2020 TP-30	SE207183.031 Soil 04 Jun 2020 TP-31
Moisture Content Method: AN002 Tested: 9/6/2020					
% Moisture	%w/w	1	**6.8**	**7.1**	**7.2**
Fibre Identification in soil Method: AN602 Tested: 15/6/2020					
FibreID					
Asbestos Detected	No unit	-	-	-	-
SemiQuant					
Estimated Fibres*	%w/w	0.01	-	-	-
Fibre ID in bulk materials Method: AN602 Tested: 15/6/2020					
FibreID					
Asbestos Detected	No unit	-	-	-	-

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	LB201550	mg/kg	0.05	<0.05	0%	109%	109%

Moisture Content **Method: ME-(AU)-[ENV]AN002**

Parameter	QC Reference	Units	LOR	DUP %RPD
% Moisture	LB201473	%w/w	1	2 - 6%

OC Pesticides in Soil **Method: ME-(AU)-[ENV]AN420**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Hexachlorobenzene (HCB)	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Alpha BHC	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Lindane	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Heptachlor	LB201474	mg/kg	0.1	<0.1	0%	105%	106%
Aldrin	LB201474	mg/kg	0.1	<0.1	0%	108%	107%
Beta BHC	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Delta BHC	LB201474	mg/kg	0.1	<0.1	0%	106%	106%
Heptachlor epoxide	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
o,p'-DDE	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Alpha Endosulfan	LB201474	mg/kg	0.2	<0.2	0%	NA	NA
Gamma Chlordane	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Alpha Chlordane	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
trans-Nonachlor	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
p,p'-DDE	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Dieldrin	LB201474	mg/kg	0.2	<0.2	0%	105%	103%
Endrin	LB201474	mg/kg	0.2	<0.2	0%	103%	102%
o,p'-DDD	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
o,p'-DDT	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Beta Endosulfan	LB201474	mg/kg	0.2	<0.2	0%	NA	NA
p,p'-DDD	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
p,p'-DDT	LB201474	mg/kg	0.1	<0.1	0%	81%	71%
Endosulfan sulphate	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Endrin Aldehyde	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Methoxychlor	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Endrin Ketone	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Isodrin	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Mirex	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Total CLP OC Pesticides	LB201474	mg/kg	1	<1	0%	NA	NA

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Tetrachloro-m-xylene (TCMX) (Surrogate)	LB201474	%	-	101%	3%	96%	101%

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.

OP Pesticides in Soil **Method: ME-(AU)-[ENV]AN420**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Dichlorvos	LB201474	mg/kg	0.5	<0.5	0%	79%	65%
Dimethoate	LB201474	mg/kg	0.5	<0.5	0%	NA	NA
Diazinon (Dimpylate)	LB201474	mg/kg	0.5	<0.5	0%	85%	90%
Fenitrothion	LB201474	mg/kg	0.2	<0.2	0%	NA	NA
Malathion	LB201474	mg/kg	0.2	<0.2	0%	NA	NA
Chlorpyrifos (Chlorpyrifos Ethyl)	LB201474	mg/kg	0.2	<0.2	0%	92%	102%
Parathion-ethyl (Parathion)	LB201474	mg/kg	0.2	<0.2	0%	NA	NA
Bromophos Ethyl	LB201474	mg/kg	0.2	<0.2	0%	NA	NA
Methidathion	LB201474	mg/kg	0.5	<0.5	0%	NA	NA
Ethion	LB201474	mg/kg	0.2	<0.2	0%	73%	93%
Azinphos-methyl (Guthion)	LB201474	mg/kg	0.2	<0.2	0%	NA	NA
Total OP Pesticides*	LB201474	mg/kg	1.7	<1.7	0%	NA	NA

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
2-fluorobiphenyl (Surrogate)	LB201474	%	-	83%	5%	94%	92%
d14-p-terphenyl (Surrogate)	LB201474	%	-	78%	18%	69%	80%

PAH (Polynuclear Aromatic Hydrocarbons) in Soil **Method: ME-(AU)-[ENV]AN420**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Naphthalene	LB201474	mg/kg	0.1	<0.1	0%	103%	114%
2-methylnaphthalene	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
1-methylnaphthalene	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Acenaphthylene	LB201474	mg/kg	0.1	<0.1	0%	96%	104%
Acenaphthene	LB201474	mg/kg	0.1	<0.1	0%	93%	106%
Fluorene	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Phenanthrene	LB201474	mg/kg	0.1	<0.1	0%	108%	96%
Anthracene	LB201474	mg/kg	0.1	<0.1	0%	105%	90%
Fluoranthene	LB201474	mg/kg	0.1	<0.1	0%	88%	109%
Pyrene	LB201474	mg/kg	0.1	<0.1	0%	99%	108%
Benzo(a)anthracene	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Chrysene	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Benzo(b&j)fluoranthene	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Benzo(k)fluoranthene	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Benzo(a)pyrene	LB201474	mg/kg	0.1	<0.1	0%	92%	120%
Indeno(1,2,3-cd)pyrene	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Dibenzo(ah)anthracene	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Benzo(ghi)perylene	LB201474	mg/kg	0.1	<0.1	0%	NA	NA
Carcinogenic PAHs, BaP TEQ <LOR=0	LB201474	TEQ (mg/kg)	0.2	<0.2	0%	NA	NA
Carcinogenic PAHs, BaP TEQ <LOR=LOR	LB201474	TEQ (mg/kg)	0.3	<0.3	0%	NA	NA
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	LB201474	TEQ (mg/kg)	0.2	<0.2	0%	NA	NA
Total PAH (18)	LB201474	mg/kg	0.8	<0.8	0%	NA	NA
Total PAH (NEPM/WHO 16)	LB201474	mg/kg	0.8	<0.8			

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
d5-nitrobenzene (Surrogate)	LB201474	%	-	93%	2%	96%	97%
2-fluorobiphenyl (Surrogate)	LB201474	%	-	83%	5%	94%	92%
d14-p-terphenyl (Surrogate)	LB201474	%	-	78%	18%	69%	80%

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.

PCBs in Soil **Method: ME-(AU)-[ENV]AN420**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Arochlor 1016	LB201474	mg/kg	0.2	<0.2	0%	NA	NA
Arochlor 1221	LB201474	mg/kg	0.2	<0.2	0%	NA	NA
Arochlor 1232	LB201474	mg/kg	0.2	<0.2	0%	NA	NA
Arochlor 1242	LB201474	mg/kg	0.2	<0.2	0%	NA	NA
Arochlor 1248	LB201474	mg/kg	0.2	<0.2	0%	NA	NA
Arochlor 1254	LB201474	mg/kg	0.2	<0.2	0%	NA	NA
Arochlor 1260	LB201474	mg/kg	0.2	<0.2	0%	97%	96%
Arochlor 1262	LB201474	mg/kg	0.2	<0.2	0%	NA	NA
Arochlor 1268	LB201474	mg/kg	0.2	<0.2	0%	NA	NA
Total PCBs (Arochlors)	LB201474	mg/kg	1	<1	0%	NA	NA

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Tetrachloro-m-xylene (TCMX) (Surrogate)	LB201474	%	-	101%	3%	100%	104%

Speciated Phenols in Soil **Method: ME-(AU)-[ENV]AN420**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Phenol	LB201474	mg/kg	0.5	<0.5	0%	74%	74%
2-methyl phenol (o-cresol)	LB201474	mg/kg	0.5	<0.5	0%	NA	NA
3/4-methyl phenol (m/p-cresol)	LB201474	mg/kg	1	<1	0%	NA	NA
Total Cresol	LB201474	mg/kg	1.5	<1.5	0%	NA	NA
2-chlorophenol	LB201474	mg/kg	0.5	<0.5	0%	NA	NA
2,4-dimethylphenol	LB201474	mg/kg	0.5	<0.5	0%	NA	NA
2,6-dichlorophenol	LB201474	mg/kg	0.5	<0.5	0%	NA	NA
2,4-dichlorophenol	LB201474	mg/kg	0.5	<0.5	0%	88%	87%
2,4,6-trichlorophenol	LB201474	mg/kg	0.5	<0.5	0%	70%	74%
2-nitrophenol	LB201474	mg/kg	0.5	<0.5	0%	NA	NA
4-nitrophenol	LB201474	mg/kg	1	<1	0%	NA	NA
2,4,5-trichlorophenol	LB201474	mg/kg	0.5	<0.5	0%	NA	NA
2,3,4,6/2,3,5,6-tetrachlorophenol	LB201474	mg/kg	1	<1	0%	NA	NA
Pentachlorophenol	LB201474	mg/kg	0.5	<0.5	0%	72%	76%
2,4-dinitrophenol	LB201474	mg/kg	2	<2	0%	NA	NA
4-chloro-3-methylphenol	LB201474	mg/kg	2	<2	0%	NA	NA

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
2,4,6-Tribromophenol (Surrogate)	LB201474	%	-	88%	2%	87%	85%
d5-phenol (Surrogate)	LB201474	%	-	86%	0%	84%	79%

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 Cyanide in soil by Discrete Analyser (Aquakem) **Method: ME-(AU)-[ENV]AN077/AN287**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Total Cyanide	LB201896	mg/kg	0.5	<0.5	0%	111%	99%

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES **Method: ME-(AU)-[ENV]AN040/AN320**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Arsenic, As	LB201546	mg/kg	1	<1	7 - 94%	99%	94%
Cadmium, Cd	LB201546	mg/kg	0.3	<0.3	0 - 61%	100%	83%
Chromium, Cr	LB201546	mg/kg	0.5	<0.5	17 - 22%	91%	102%
Copper, Cu	LB201546	mg/kg	0.5	<0.5	17 - 24%	98%	102%
Nickel, Ni	LB201546	mg/kg	0.5	<0.5	3 - 29%	94%	96%
Lead, Pb	LB201546	mg/kg	1	<1	14 - 25%	100%	102%
Zinc, Zn	LB201546	mg/kg	2	<2.0	14 - 15%	97%	168%

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	LB201474	mg/kg	20	<20	0%	88%	88%
TRH C15-C28	LB201474	mg/kg	45	<45	0%	80%	80%
TRH C29-C36	LB201474	mg/kg	45	<45	0%	65%	68%
TRH C37-C40	LB201474	mg/kg	100	<100	0%	NA	NA
TRH C10-C36 Total	LB201474	mg/kg	110	<110	0%	NA	NA
TRH >C10-C40 Total (F bands)	LB201474	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	LB201474	mg/kg	25	<25	0%	85%	85%
TRH >C10-C16 - Naphthalene (F2)	LB201474	mg/kg	25	<25	0%	NA	NA
TRH >C16-C34 (F3)	LB201474	mg/kg	90	<90	0%	75%	78%
TRH >C34-C40 (F4)	LB201474	mg/kg	120	<120	0%	65%	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

Monocyclic Aromatic Hydrocarbons

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Benzene	LB201475	mg/kg	0.1	<0.1	0%	76%	73%
Toluene	LB201475	mg/kg	0.1	<0.1	0%	78%	76%
Ethylbenzene	LB201475	mg/kg	0.1	<0.1	0%	78%	76%
m/p-xylene	LB201475	mg/kg	0.2	<0.2	0%	79%	77%
o-xylene	LB201475	mg/kg	0.1	<0.1	0%	77%	76%

Polycyclic VOCs

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Naphthalene	LB201475	mg/kg	0.1	<0.1	0%	NA	NA

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
d4-1,2-dichloroethane (Surrogate)	LB201475	%	-	111%	13%	108%	105%
d8-toluene (Surrogate)	LB201475	%	-	107%	13%	110%	107%
Bromofluorobenzene (Surrogate)	LB201475	%	-	102%	15%	96%	94%

Totals

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Total Xylenes	LB201475	mg/kg	0.3	<0.3	0%	NA	NA
Total BTEX	LB201475	mg/kg	0.6	<0.6	0%	NA	NA

Volatile Petroleum Hydrocarbons in Soil Method: ME-(AU)-[ENV]AN433

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
TRH C6-C10	LB201475	mg/kg	25	<25	0%	75%	73%
TRH C6-C9	LB201475	mg/kg	20	<20	0%	79%	77%

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
d4-1,2-dichloroethane (Surrogate)	LB201475	%	-	111%	13%	108%	105%
d8-toluene (Surrogate)	LB201475	%	-	107%	13%	110%	107%
Bromofluorobenzene (Surrogate)	LB201475	%	-	102%	15%	96%	94%

VPH F Bands

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Benzene (F0)	LB201475	mg/kg	0.1	<0.1	0%	NA	NA
TRH C6-C10 minus BTEX (F1)	LB201475	mg/kg	25	<25	0%	74%	71%

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 analysis by ASS or ICP as per USEPA Method 200.8.
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.
AN077	Hydrogen cyanide is liberated from an acidified alkali soil extract by distillation and purging with air. The hydrogen cyanide gas is then collected by passing it through a sodium hydroxide scrubbing solution. The scrubbing solution will then be analysed for cyanide by the appropriate method.
AN287	A buffered distillate or water sample is treated with chloramine/barbituric acid reagents and the intensity of the colour developed is proportional to the cyanide concentration by Aquakem DA.
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.

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.
AN602	Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.
AN602	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples , Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."
AN602	The sample can be reported “no asbestos found at the reporting limit of 0.1 g/kg” (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (a) no trace asbestos fibres have been detected (i.e. no ‘respirable ’ fibres): (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

FOOTNOTES

IS	Insufficient sample for analysis.	LOR	Limit of Reporting
LNR	Sample listed, but not received.	↑↓	Raised or Lowered Limit of Reporting
*	NATA accreditation does not cover the performance of this service.	QFH	QC result is above the upper tolerance
		QFL	QC result is below the lower tolerance
**	Indicative data, theoretical holding time exceeded.	-	The sample was not analysed for this analyte
		NVL	Not Validated

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.

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ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS		LABORATORY DETAILS	
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Client	EHO CONSULTING PTY LIMITED	Laboratory	SGS Alexandria Environmental
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Project	**JN1446 - Tomago**	SGS Reference	**SE207529 R0**
Order Number	(Not specified)	Date Received	16 Jun 2020
Samples	4	Date Reported	18 Jun 2020

COMMENTS

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

SIGNATORIES

Dong LIANG
Metals/Inorganics Team Leader

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE207529.001 Water 12 May 2020 GW1	SE207529.002 Water 12 May 2020 GW2	SE207529.003 Water 12 May 2020 GW3	SE207529.004 Water 12 May 2020 GW4
Trace Metals (Dissolved) in Water by ICPMS Method: AN318 Tested: 16/6/2020						
Arsenic, As	µg/L	1	**1**	<1	<1	<1
Cadmium, Cd	µg/L	0.1	**0.1**	**0.1**	<0.1	**0.1**
Chromium, Cr	µg/L	1	**1**	**2**	**12**	**1**
Copper, Cu	µg/L	1	**7**	**6**	**2**	**1**
Lead, Pb	µg/L	1	<1	<1	<1	<1
Nickel, Ni	µg/L	1	**7**	**4**	<1	**2**
Zinc, Zn	µg/L	5	**170**	**2000**	**13**	**460**
Mercury (dissolved) in Water Method: AN311(Perth)/AN312 Tested: 18/6/2020						
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001

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 (dissolved) in Water **Method: ME-(AU)-[ENV]AN311(Perth)/AN312**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Mercury	LB202202	mg/L	0.0001	<0.0001	0%	101%

Trace Metals (Dissolved) in Water by ICPMS **Method: ME-(AU)-[ENV]AN318**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Arsenic, As	LB202045	µg/L	1	<1	0%	96%	119%
Cadmium, Cd	LB202045	µg/L	0.1	<0.1	0 - 6%	105%	107 - 108%
Chromium, Cr	LB202045	µg/L	1	<1	0 - 3%	105%	100%
Copper, Cu	LB202045	µg/L	1	<1	2%	111%	97 - 104%
Lead, Pb	LB202045	µg/L	1	<1	0%	107%	101%
Nickel, Ni	LB202045	µg/L	1	<1	1 - 3%	107%	93%
Zinc, Zn	LB202045	µg/L	5	<5	0 - 2%	105%	69 - 181%

METHOD SUMMARY

METHOD	METHODOLOGY SUMMARY
AN020	Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.
AN311(Perth)/AN312	Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.
AN318	Determination of elements at trace level in waters by ICP-MS technique,, referenced to USEPA 6020B and USEPA 200.8 (5.4).

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