17.4 EXPRESSION OF INTEREST RESULT - LOT 300 ANGLE VALE ROAD, EVANSTON GARDENS

Record Number: CC19/50;IC19/107

Author(s): Rebecca Howard, Team Leader Property & Procurement

Previous Motions: 2018:03:96 Council 26 March 2018

Attachments:

1. **Soil Assessment Report - Lot 300 Angle Vale Road Evanston Gardens - LBW Environmental Report May 2018 CR18/29676**
2. **Peregrine Corporation - Expression of Interest - Lot 300 Angle Vale Road - 7 February 2019 CR19/13510**
3. **Peregrine Corporation - Lot 300 Angle Vale Road - Proposal for Purchase - Best and Final Offer CR19/13507**
4. **Bella Build and Design - Expression of Interest Offer (07-02-2019) - Lot 300 Angle Vale Road Evanston Gardens SA CR19/13509**
5. **Bella Build and Design - Revised Offer (18-02-2019) - Lot 300 Angle Vale Road Evanston Gardens SA - Best and Final offer CR19/13508**

Reason for Confidentiality

In accordance with Sections 83(5) and 84(6) of the Local Government Act, 1999 - the Chief Executive Officer considers that this item may be considered in confidence by the Council pursuant to Section 90(3) on the grounds that it relates to:

(b)(i) information the disclosure of which could reasonably be expected to confer a commercial advantage on a person with whom the council is conducting, or proposing to conduct, business, or to prejudice the commercial position of the council.

PRESENTATION

OFFICER'S RECOMMENDATION

That:-

1. Council consider the offers received for Lot 300 Angle Vale Road, Evanston Gardens (Certificate of Title Volume 5448 Folio 384).
2. Council accept the offer from Peregrine Corporation, Option B, being a purchase price of $1.31m (GST Exclusive) for the whole of the land parcel and no requirement for planning consent to be granted prior to settlement.
3. Authorise the Mayor and Chief Executive Officer to finalise, execute and apply the Common Seal on all relevant documents to affect the sale and transfer ownership of Lot 300 Angle Vale Road, Evanston Gardens, Certificate of Title Volume 5448 Folio 384, in accordance with Point 2 above.

OFFICER RECOMMENDATION

1. Pursuant to Sections 91(7) and 91(9) of the *Local Government Act 1999* the Council orders that the:

   - The minutes
   - The written report
   - Attachments to the written report

   associated with Item 17.4 Expression of Interest Result - Lot 300 Angle Vale Road, Evanston Gardens, having been considered by the Council in confidence under Section 90(3)(b)(i) be kept confidential and not available for public inspection until **settlement of the property**, on the basis that the information received, discussed and considered in relation to this agenda item is:

   (b)(i) information the disclosure of which could reasonably be expected to confer a commercial advantage on a person with whom the council is conducting, or proposing to conduct, business, or to prejudice the commercial position of the council.

2. Further that Council delegates the power of review, but not the extension, of the confidential order to the Chief Executive Officer on a monthly basis in accordance with the provisions of Section 91(9)(c) of the Local Government Act 1999.

3. All confidential orders will be reviewed at least annually in accordance with the Local Government Act 1999.

SUMMARY

Council has approved Lot 300 Angle Vale Road (the Land) for divestment in accordance with the Land and Assets Disposal Policy, being that the property shall be marketed publicly via an Expression of Interest process through a land agent. This report outlines the offers received through the Expression of Interest process and seeks Council approval to accept one offer above all others and enter into a contract for sale of the property.

BACKGROUND

The property at the corner of Angle Vale Road and Jack Cooper Drive was initially identified within Council's Divestment Strategy Report in 2015 as a site for Divestment in the medium term. It has a site area of 8,932m2.

In March 2018 Council considered the divestment strategy for the Angle Vale Road property and resolved the following:

Moved by Cr R Symes
Seconded by Deputy Mayor I Tooley
Motion No: 2018:03:96

That Council:

1. *Approves the engagement of LBW Environmental to undertake a Detailed Site Investigation of Lot 300 Angle Vale Road, Evanston Gardens for the purposes of documenting the extent, type and location of site contamination on the land, ready for declaration to potential purchasers.*
2. *Approves a budget allocation in the 2017/2018 financial year for the soil assessment of $15,460 and subsequent expenditure of $27,230 be undertaken only as required*

(GST Exclusive) for Detailed Site Investigations, noting that these costs will be offset by the sale price in the future.

3. *Note the proposed market approach, marketing and advertising options for divestment of Lot 300 Angle Vale Road Evanston Gardens as recommended by property consultants.*
4. *Note that upon completion of the Detailed Site Investigation, that the CEO be delegated to proceed to market the property. Final offers as received to then be presented to Council for formal consideration.*

This report seeks to provide the results of the Detailed Site Investigation undertaken by LBW Environmental and the subsequent Expression of Interest process and results.

COMMENTS/DISCUSSION

Site Contamination Testing Result

The Land was once agricultural land, however it was also previously used as a CFS training area, and depot material store (rubble, gravel, sand etc.). These uses can be considered as contaminating and therefore further investigation was required. LBW Environmental were engaged to provide a Detailed Site Investigation (Attachment 1) which consisted of two parts. Testing for soil contaminates and, if warranted, testing of ground water. In this instance the soil contaminate testing resolved that no ground water testing was required.

The LBW Environmental Detailed Site Investigation Report is attached for review, however is summarised as follows:

- Chemical testing of shallow fill materials and underlying natural soils indicated concentrations of the targeted contaminants posed no unacceptable risk to human health in a commercial / industrial setting.
- Shallow soils posed a potential risk to ecological receptors from Per and Poly-fluoroalkyl “PFAS” (specifically Perfluoro-octanesultonate “PFOS”) via indirect exposure pathways. Should this land be redeveloped in the future, with sealed surfaces applied across the site, the identified potential indirect risk to ecological receptors would be negated.
- If a future redevelopment was to include accessible soils, sampling and analysis of the accessible soil areas should be carried out to assess the potential ecological risk from residual PFAS concentrations in shallow soil.
- As a part of any redevelopment on the site, the adopted management approach for residual PFAS concentrations in shallow soils should be set out in a Construction Environmental Management Plan (CEMP).
- Although groundwater was not directly assessed, the soil assessment found no evidence to suggest the presence of an onsite source that could have caused groundwater contamination.
- Shallow fill materials and underlying natural soils were compliant with the chemical limits for Waste Fill and national landfill acceptance criteria for PFAS chemicals. SA EPA approval to dispose of site soils may be subject to leachability testing for PFAS.

PFOS is a chemical frequently used in fire-fighting foams and therefore not unexpected to be present on site. No further testing or analysis of the soil was required and the LBW Environmental Report completed.

Marketing of the Land

Advice was sought from three (3) commercial property consultants regarding the following:

- Recommended configuration of the land parcel – i.e., sell as one holding or 2 or more parcels.
- Recommended Market approach
- Recommended advertising
- Commentary on potential purchasers, market value and sale timeframe

The advice provided the following:

a) The land should be offered as a single parcel, but with information included in the property prospectus regarding the ability to express interest in part or all of the land parcel.
b) An Expression of Interest process is the preferred market approach, with advertising over a 5 week period. Post the EOI phase, shortlisted respondents will be required to submit a best and final offer.
c) Advertising would be included in The Advertiser business liftout (Tuesdays) and on-line through various websites (realcommercial.com.au etc.)
d) Direct approach with developers and known investors would also be included.
e) The market value for the property is estimated between $1.1m and $2.2m, but is highly variable depending on the level and extent of site contamination.

Quotes were received from both local land agents and commercial land agents, with McGees Property selected as the most appropriate agent for this property. McGees Property had recently secured sales over similar land in the City of Playford and had established connections with known potential purchasers.

The land was advertised in late November 2018 for an 8 week period to accommodate for the Christmas and New Year period. The land was advertised on the McGees Property website, Realestate.com.au and the Advertiser business guide. Three large signboards were erected on the land and provided summary information about the land parcel and its potential.

Expressions of Interest (EOI) were required to be submitted to McGees Property by 3pm Thursday 7 February 2019.

Two responses were received by the deadline. The land agent reviewed the offers as presented and advised that as both offers were received by reputable and financial organisations, both should be offered the opportunity to submit best and final offers.

Both respondents provided best and final offers by midday Monday 18 February 2019. The offers have been attached to this report (**Attachment 2**).

The table below provides a summary of the best and final offers presented:

	Peregrine Corporation (Option A)	Peregrine Corporation (Option B)	Bella Build & Design
Whole or Part of Land	Whole	Whole	Whole
Price	$1.37m	$1.31m	$1.305m
Deposit	$50,000	$50,000	$50,000
Settlement Period	14 days after Council approval	60 days	30 June 2019
Conditions	Subject to review of Form 1 within 14 days Subject to approval of a DA for Service Station Subject to Environmental review (30 days)	Nil	Due Diligence review: -Environmental Review -Planning Advice -Investigation of Services
Condition Timing	60-90 days	Nil	45 days to satisfy conditions from date of contract

Analysis of Offers

Bella Build and Design

The initial offer received from Bella Build and Design was $1.2m for the whole site, with the only conditions being the ability to undertake due diligence investigations. No timing was suggested for the undertaking of the due diligence process, although settlement could occur 21 days post satisfaction of this condition.

In the best and final offer, Bella Build and Design increased their offer from $1.2m to $1.305m and outlined a time of 45 days to complete the due diligence requirements. Settlement was offered as 30 June 2019.

Bella Build and Design develop service station sites for various corporations, with a large percentage of their builds on behalf of the On the Run (OTR) group. Although a suitable purchaser with realistic conditions and requirements, the purchase price offered and the extended settlement period are not as competitive as the other offers received.

Peregrine Corporation

Peregrine Corporation responded to the EOI with an initial offer of $1.05m, and a number of conditions. During the call for best and final offers, the Peregrine Corporate refined their submission and provided two options. Option A provides the highest purchase price offered ($1.37m), however it is conditional on receiving Development Approval (DA) for a Service Station and Retail Shop as outlined in Annexure 1 to their proposal. This condition also has timing implications, which may be restrictive and unachievable. The other option is unconditional and provides a shorter settlement period.

A summary of the benefits and risks of the two options are outlined below.

Option A - $1.37m Conditional	**Option B - $1.31m Unconditional**
Benefits • Higher purchase price ($60,000) • Suitable purchaser (use in line with Commercial zoning) • OTR Service Stations seek to employ locals • OTR Give App (Charitable cause)	Benefits • No impediment to immediate sale • No conflict of interest through Development Approval process • Purchase proceeds to be received in current financial year in line with budget and cashflow requirements • Proceeds received earlier reduces Council interest costs (approx. $12k saving) • Limited legal review costs – standard contract terms • Suitable purchaser (use in line with Commercial zoning) • OTR Service Stations seek to employ locals • OTR Give App (Charitable cause)
Risks • Condition timing requires that a Development Application for a Service Station and Retail shop would need to be completed in a short time frame else conditions of sale will not be met.	Risks • Lesser purchase price ($60,000, less reduced interest of $12,000 = $48,000 net) • Possible public scrutiny of accepting lower price

• High risk of contractual terms not being met and contract lapsing. • Council may not be the authority to approve the Development Application, therefore reliant on the State considering the application in a timely manner. • Perceived conflict of interest in Council approving or supporting a Development Application to enable a sale of site for a higher value • Category 2 consultation required, which may extend the application process period. • Additional legal drafting costs to account for potential lapse in conditions	

Although Option A provides a slightly higher return for the Land, the level of associated risk with the proposed conditions is unacceptable. Council should consider the potential that should the conditions not be met within the timeframe allocated, the contract will lapse and the sale will not proceed. In this event, the property will need to be re-advertised and likely the value of the land parcel will decrease.

Given Council's association with the land as the vendor, any Development Application for a Service Station and Retail Shop would be assessed by the State Commission Assessment Panel (SCAP). As Council does not have the ability to fast-track any approvals by the SCAP this increases the risk of the timing not being met.

Council may consider seeking an extension to the condition timing from the Peregrine Corporation, however this will likely result in an extended sale process (Peregrine Corporate generally seeks 6 months to receive DA approval with an option for another 6 month extension if required), whilst still maintaining a risk that if the DA is not approved, the contract will still lapse.

It is recommended that, on balance, Option B as proposed by the Peregrine Corporation is the preferred option.

Post Councils acceptance of the Peregrine Corporate Option B, the sale process will proceed, including the issue of Form 1's (required for all land sales), drafting of a Contract for Sale, including any special conditions and commencing conveyancing requirements.

COMMUNICATION (INTERNAL TO COUNCIL)

Chief Executive Officer
Manager Development, Environment and Regulatory Services
Manager Finance and Corporate Services
Manager Infrastructure and Engineering Services

CONSULTATION (EXTERNAL TO COUNCIL)

Simon Lambert, Managing Director – McGees Property

POLICY IMPLICATIONS

Disposal of Land and Assets

STATUTORY REQUIREMENTS

Local Government Act 1999

Real Property Act 1886

FINANCIAL/BUDGET IMPLICATIONS

The 2018/19 Budget is predicated on the sale of surplus property assets to the value of $2.4m (sale proceeds). This provides assistance in funding capital projects, most notably the Civic Centre redevelopment project. Delays in divesting land assets has resulted in increased finance (interest) costs being incurred, and adversely affects Council's key financial indicator ratios.

In this instance, the independent market valuation for the land (completed in November 2016) provided a market value of $1.1m to $1.2m assuming the site was re-zoned commercial and a petrol station was permitted.

Estimates received from land agents in early to mid 2018 proposed that the site could realise anywhere from $1.1m to $2.2m depending on the interest in the land and if purchasers were willing to compete for the property.

The proposed purchase price of $1.31m provides a slight increase to the market value assessed in 2016 and likely accurately reflects the market interest in the property.

Costs incurred in 2018/2019 on the marketing and sale of the land is $10,000, which included $8,000 for advertising and $2,000 for property consultation services.

Anticipated costs to finalise the land sale include legal and conveyancing fees, estimated at $2,500 to $3,500 and commission on the sale which is currently being negotiated (in the region of 1.5% to 1.6% of the final purchase price).

COMMUNITY PLAN

Objective 2.1: Physical and social infrastructure to service our growing population and economy

Objective 2.4: Manage growth through the real connection of people and places

Objective 2.5: Local economic activity to create local job opportunities and generate increased local wealth

DELIVERING
ENVIRONMENTAL
SOLUTIONS

Detailed Site Investigation
Allotment 300, Angle Vale Road, Evanston Gardens, South Australia

Report for Town of Gawler

DELIVERING
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Detailed Site Investigation
Allotment 300, Angle Vale Road, Evanston Gardens, South Australia

Report for Town of Gawler

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DELIVERING ENVIRONMENTAL SOLUTIONS

List of Acronyms

ASC NEPM	National Environment Protection (Assessment of Site Contamination) Measure 1999 (amended 2013)
ASLP	Australian standard leaching procedure
BaP	benzo(a)pyrene
BTEX	benzene, toluene, ethylbenzene, xylenes
CSM	Conceptual site model
CRC CARE	Cooperative Research Centre for Contamination Assessment and Remediation of the Environment
DEWNR	Department for Environment, Water and Natural Resources, Government of South Australia
DSI	Detailed Site Investigation
EIL/ESL	Ecological investigation/screening level
EPA	Environment Protection Authority, Government of South Australia
EP Act	*Environment Protection Act 1993*, Government of South Australia
EPR	*Environment Protection Regulations 2009*, Government of South Australia
HDPE	high-density polyethylene
HEPA	Heads of EPAs Australia and New Zealand
HLCW	High-level Contaminated Waste
HIL/HSL	Health investigation/screening level
IWS	Intermediate Waste Soil
LBWco	LBW co Pty Ltd
LLCW	Low-level Contaminated Waste
LOR	Limit of reporting
mBGL	metres below ground level
NATA	National Association of Testing Authorities
NEMP	National Environmental Management Plan
OCP	Organochlorine pesticides
PAH	Polycyclic aromatic hydrocarbons
PCA	Potentially contaminating activity
PFAS	Per- and poly-fluoroalkyl substances (generally comprising of the following groups)
PFOS	Perfluoro-octanesulfonate
PFOA	Perfluoro-octanoic acid
+PFHxS	Perfluorohexane sulfonate
PSI	Preliminary Site Investigation
QA/QC	Quality assurance / quality control
RPD	Relative percentage difference
SA	South Australia
TEQ	Toxicity equivalent quotient
TRH	Total recoverable hydrocarbons
VOC	Volatile organic compound
WF	Waste Fill

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Executive Summary

LBW co Pty Ltd (LBWco) was commissioned by Town of Gawler to undertake a soil assessment at Allotment 300 Angle Vale Road, Evanston Gardens, SA (the site).

The objectives of the soil assessment were to:

- Characterise the contamination status of site soils with consideration of the PCAs and areas of interest identified in the Site History Investigation
- Assess whether site contamination of soils is present with respect to future commercial / industrial land use
- Advise on whether remediation or management is needed to make the site suitable for the future proposed land use.

LBWco undertook soil sampling at 20 soil bore locations to depths of up to 3.0 mBGL. Recovered samples were tested at a laboratory for chemical contaminants including heavy metals, polycyclic aromatic hydrocarbons (PAH), total recoverable hydrocarbons (TRH), pesticides, per- and poly-fluoroalkyl substances (PFAS) and other contaminants within the SA EPA Waste Screen.

Key findings of this soil contamination assessment were:

- Chemical testing of shallow fill materials and underlying natural soils indicated concentrations of the targeted contaminants posed no unacceptable risk to human health in a commercial / industrial setting.
- Shallow soils posed a potential risk to ecological receptors from PFAS (specifically PFOS) via indirect exposure pathways.
  - Should this land be redeveloped in the future, with sealed surfaces applied across the site, the identified potential indirect risk to ecological receptors would be negated.
  - If a future redevelopment was to include accessible soils, sampling and analysis of the accessible soil areas should be carried out to assess the potential ecological risk from residual PFAS concentrations in shallow soil.
  - As a part of any redevelopment on the site, the adopted management approach for residual PFAS concentrations in shallow soils should be set out in a Construction Environmental Management Plan (CEMP).
- Although groundwater was not directly assessed, the soil assessment found no evidence to suggest the presence of an onsite source that could have caused groundwater contamination.
- Shallow fill materials and underlying natural soils were compliant with the chemical limits for Waste Fill and national landfill acceptance criteria for PFAS chemicals. SA EPA approval to dispose of site soils may be subject to leachability testing for PFAS.

The assessment of the PFAS group of chemicals is a rapidly changing field due to current research focus. This assessment has been undertaken using current Australian published guidance available at the time of writing.

The information provided in this report is subject to the limitations expressed in Section 9. The reader should make themselves aware of the limitations and how they relate to the conclusions provided above.

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1 Introduction

LBW.co Pty Ltd (LBWco) was commissioned by the Town of Gawler to undertake a soil assessment at Allotment 300 Angle Vale Road, Evanston Gardens, SA (the site). A site location plan is provided as Figure 1 in Appendix A.

The Town of Gawler owns the site and is seeking to secure value from this asset via a potential lease or sale for light industrial / commercial use.

LBWco carried out a Preliminary Site Investigation – Site History Report in November 2017 (LBWco 2017) which indicated a potentially high risk from the site's former use as a fire training ground, and recommended intrusive investigation works:

- LBWco (2017) *Preliminary Site Investigation – Site History.* Allotment 300 Angle Vale Road, Evanston Gardens, South Australia (ref: 170974 R01 DRAFT, dated 16.11.2017)

1.1 Objectives

The objectives of the soil assessment presented in this report were to:

- Characterise the contamination status of site soils with consideration of the PCAs and areas of interest identified in the Site History Investigation
- Assess whether site contamination of soils is present with respect to the proposed commercial/industrial land uses
- Advise on whether remediation or management is needed to make the site suitable for the future proposed land use.

This investigation was undertaken in accordance with LBWco's agreement with Town of Gawler.

1.2 Background

The site is used occasionally by Council for the storage of various stockpiled materials, which it has done so since 1986. Prior to this the CFS used the site for training drills and storage from some time in the 1960s.

Surrounding areas were historically used for agriculture, with later use for residential purposes.

1.2.1 Summary of PSI – Site History

The objectives of the PSI – Site History were to:

- Research current and historical land uses and associated activities undertaken at or adjacent to the site to identify whether PCAs may have occurred on or near the subject site
- Provide a desktop assessment of risk with respect to the likelihood that PCAs could have caused site contamination, with respect to the proposed sensitive land use.

Based on desktop review of current and historic site information and a site inspection, LBWco prepared a preliminary CSM for PCAs that were undertaken or inferred to have occurred at and near the subject site. The conclusions of the PSI – Site History were as follows:

- Four PCAs were identified or inferred to have occurred on-site with the corresponding risk level assigned:
  - Fill or soil importation – LOW
  - Fire training area – MODERATE to HIGH

- Compost or mulch storage – LOW
- Market Gardening - NEGLIGIBLE

- One PCA was inferred to have occurred off-site with the corresponding risk level assigned:
  - Market Gardening - NEGLIGIBLE

While not defined as a PCA, pest management in the form of routine broad acre crop spraying and termite treatment of former buildings was also deemed to be a LOW potential risk to the commercial development of the site.

The desktop enquiries have indicated a **potentially high risk from previous site activities** from the site's former use as fire training grounds. Therefore, LBWco recommended that the level of risk relative to future development for commercial land use is assessed by intrusive investigation. A soil assessment programme was recommended to include combined grid based and targeted soil sampling and analysis.

Nationwide, there is currently particular regulatory focus on chemicals associated with fire-fighting foams and their effects on health and the environment as they are relatively new chemicals of interest. Our recommendation for intrusive assessment was therefore considered to be necessarily conservative.

Further to this, it was also recommended to identify the waste classification of site soils that may become surplus materials during future redevelopment activities.

2 Regulatory Framework

In South Australia, the assessment, management and remediation of site contamination is regulated by the *Environment Protection Act 1993* (EP Act). The EP Act defines site contamination in section 5B as follows:

(1) For the purposes of this Act, site contamination exists at a site if—

(a) chemical substances are present on or below the surface of the site in concentrations above the background concentrations (if any); and

(b) the chemical substances have, at least in part, come to be present there as a result of an activity at the site or elsewhere; and

(c) the presence of the chemical substances in those concentrations has resulted in—

(i) actual or potential harm to the health or safety of human beings that is not trivial, taking into account current or proposed land uses; or

(ii) actual or potential harm to water that is not trivial; or

(iii) other actual or potential environmental harm that is not trivial, taking into account current or proposed land uses.

(2) For the purposes of this Act, environmental harm is caused by the presence of chemical substances—

(a) whether the harm is a direct or indirect result of the presence of the chemical substances; and

(b) whether the harm results from the presence of the chemical substances alone or the combined effects of the presence of the chemical substances and other factors.

(3) For the purposes of this Act, site contamination does not exist at a site if circumstances of a kind prescribed by regulation apply to the site.

The first step in determining whether or not site contamination exists is to assess whether chemical substances have been added to the site through an activity and whether these substances are above background concentrations. The second step is to assess whether the chemical substances have resulted in actual or potential harm to the health or safety of human beings or the environment (including water) that is not trivial.

If site contamination is determined to be present at a site, the EP Act provides powers to the Environment Protection Authority (EPA) to determine responsibility for the contamination and appropriate assessment and/or remediation of the contamination.

The EPA expects the professional assessment of site contamination and risk to human health and the environment to be undertaken in accordance with the federal legislative instrument:

- National Environment Protection Council 1999, *National Environment Protection (Assessment of Site Contamination) Measure* (ASC NEPM, as amended 2013)

In addition to the ASC NEPM, other guidelines and technical publications prepared by Standards Australia, the EPA and other scientific organisations are commonly relied upon for site assessment.

3 Soil Assessment Scope and Methodology

3.1 Soil Assessment Guidance

The soil assessment was undertaken with reference to the guidance in the following:

- CRC CARE, 2017. Technical Report 38, *Assessment, management and remediation for PFOS and PFOA (Parts 1 – 5)*
- Heads of EPAs Australia and New Zealand (HEPA), 2018. *PFAS National Environmental Management Plan*, January 2018. (PFAS NEMP, 2018)
- National Environment Protection Council, 1999 *National Environment Protection (Assessment of Site Contamination) Measure* (ASC NEPM), as amended 2013;
- Standards Australia AS 4482.1-2005 *Guide to the investigation and sampling of sites with potentially contaminated soil Part 1: Non-volatile and semi-volatile compounds;*
- Standards Australia AS 4482.2-1999 *Guide to the investigation of potentially contaminated soil – Part 2: Volatile substances;*
- Western Australian Government Dept. of Environmental Regulation 2016 *Interim Guidance on the Assessment and Management of Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)* Contaminated Sites Guidelines, February 2016 (reference to sample handling procedures only).

Other relevant EPA guidelines and information sheets regarding the assessment of site contamination were also considered.

3.2 Sampling and Analysis Rationale

Prior to the commencement of intrusive investigations onsite, a sampling plan was prepared for the site. This plan was based on the findings of the site history report (LBWco 2017).

In accordance with AS 4482.1-2005, 20 grid-based intrusive locations were carried out on the 0.88 ha site to assess for circular hotspots of contamination and provide reasonable coverage of soils across the site. Soil bore locations were generally set out on a grid basis and to ensure coverage of areas of interest as identified in the site history assessment.

The grid was slightly modified where required to ensure that coverage of the following features was achieved:

- footprint of former building in the eastern part of the site (SB05)
- unidentified in-situ concrete slab in the south west of the site (possible former building) (SB19)
- suspected former laydown areas (SB20, SB04)
- asphalt roadway / former laydown areas (SB05, SB07, SB08)

Reference to the 1979 aerial photograph in Appendix D of LBWco (2017) should be made for the full context of the above locations.

Soil samples from directly beneath concrete slabs and within former building footprint areas were included in those selected for organo-chlorine pesticides (OCP) analysis. Samples selected for Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) analysis were spread across the whole site and at various depth intervals as these compounds are known to be fairly mobile through the soil profile. Samples selected for polycyclic aromatic hydrocarbons (PAH) analysis included those beneath an asphalt surface or those that had inclusions of asphalt noted in the bore log.

Soil bores were undertaken to depths of between 1 mBGL and 3 mBGL to gain sufficient coverage of the vertical profile to enable some chemical and physical characterisation of deeper soil materials.

Recovery of soil samples from cores and selection of samples for testing was undertaken using a judgemental approach. Field observations of physical evidence of contamination was used to guide selection of representative samples for laboratory analysis. Selected soil samples recovered from the sampling locations were tested for a broad range of chemicals.

3.3 Fieldwork Scope and Methodology

The soil assessment methodology is summarised in Table 1. A soil bore location plan is presented as Figure 2, Appendix A.

Table 1 Summary of Soil Assessment Methodology

Activity	Details
Environment, health and safety	Prior to the commencement of field activities, a site specific environmental health and safety (EHS) plan was prepared and a site sampling plan was developed. All drilling locations were cleared of underground services by a licenced service locator (Pipeline Technologies) prior to drilling.
Environmental soil bore drilling and sample collection	On 18 April 2018, twenty soil bores (SB01 – SB20) were drilled across the site by an experienced environmental driller (Geo-Drill), using push-tube methodology. Soil cores recovered were discharged into a clean core tray. Soil samples were obtained from each distinct soil layer at depth intervals considered appropriate by LBWco for the purposes of the investigation.
Sample handling and preservation	Soil samples were handled exclusively by an experienced LBWco field representative. Samples were stored in glass jars supplied by the primary laboratory. Separate laboratory provided containers specific to PFAS sampling were used for the collection of samples for PFAS analysis. These containers were polypropylene or high-density polyethylene (HDPE) rather than traditional glass jar with Teflon® lined lids. Specific sample handling controls were implemented to help prevent samples becoming contaminated with PFAS. These were as follows: • New clothing, Gore-Tex® or Tyvek® clothing not used onsite • Fast food wrappers not brought onto site • Labels applied to jars separately, prior to sampling • Detergents not used for decontamination. Water only decontamination approach was followed • Ice contained in double bagged polythene bags was used in place of reusable ice packs. Disposable nitrile gloves were worn by the field representative whilst handling samples and were replaced prior to the collection of each sample. Soil samples were stored under chilled conditions in a portable cooler prior to delivery to the contract laboratory. Sample transport was performed in accordance with LBWco's chain of custody procedures.
Soil logging	Soils encountered at each sampling location were logged in general accordance with AS1726-1993.
Reinstatement	Soil bores were backfilled using recovered soil. Soil was replaced back into the hole in the approximate order it was removed. Soil bores drilled through asphalt or concrete were reinstated by replacing the core in the hole and toping up using cold-mix bitumen.
Quality control duplicate samples	A total of three blind-coded inter-laboratory duplicate samples and one blind coded intra-laboratory duplicate sample were submitted for laboratory analysis for quality control purposes.

Activity	Details
Quality control rinse blank sample	One rinse blank sample was collected and tested for heavy metals.
Quality control trip blank sample	One trip blank sample accompanied the samples to the laboratory and was tested for volatile hydrocarbons to assess the potential for volatile contamination of the samples during transit to the laboratory.
Laboratory analysis	Recovered soil samples were dispatched to National Association of Testing Authorities (NATA) accredited laboratories ALS (primary laboratory) and Eurofins | mgt (secondary laboratory) for chemical testing.

4 Screening Criteria

4.1 Risk Screening Criteria

The ASC NEPM provides a nationally consistent framework for assessing the presence and significance of site contamination in soil and groundwater. The ASC NEPM methodology is based on assessing the potential for an unacceptable risk to human health or the environment by comparing concentrations of chemical substances to conservative, generic investigation levels for various environmental settings and land use scenarios.

Investigation levels are defined in the ASC NEPM as... "concentrations of a contaminant above which further appropriate investigation and evaluation will be required. They are not clean up or response levels." A response level is defined as... "the concentration of a contaminant at a specific site based on a site assessment for which some form of response is required to provide an adequate margin of safety to protect public health and/or the environment."

The ASC NEPM health investigation levels (HILs) are based on conservative assumptions around providing protection to a young child living or playing on the site and subjected to exposure to contaminated soils. The most stringent HILs are assigned to sensitive land uses such as residential (standard), child care centres and primary schools. Where the land use provides for reduced access to soils, or reduced time in the setting for a child (e.g. high density residential apartments or an industrial site), higher HILs are set respectively in the ASC NEPM.

In the event that an investigation level is exceeded at a site, the nature of the appropriate response is typically determined by site-specific environmental or human health risk assessment.

4.2 Land Use for Site Contamination Assessment

LBWco understood that the Town of Gawler is seeking to either divest or lease the land for light industrial or commercial use. Therefore, the site has been assessed relative to a continued commercial / industrial land use.

4.3 Soil Screening Criteria

4.3.1 Health

Based on the likely exposure scenarios for future site users, LBWco adopted the ASC NEPM HILs for exposure setting 'D' – which includes commercial / industrial land such as shops, offices, factories and industrial sites.

HSLs are provided in ASC NEPM and CRC CARE (Technical Report 10) for consideration of risk from petroleum hydrocarbons in soils. Several of these HSLs are based on the soil type and depth of the contamination. The adopted HSLs include the CRC CARE HSL D for direct contact in a commercial / industrial land use setting.

HSLs for PFAS and PFOA for the direct soil contact exposure pathway are provided in the PFAS NEMP (2018). There is a focus both nationally and internationally on research into the health and environmental impacts of these compounds. As such, the guidance contained within this publication, including the screening levels reflects the current state of knowledge is to be regarded as interim, as it will be updated as further information becomes available.

The adopted HILs and HSLs are shown on chemical summary tables in Appendix C.

4.3.2 Ecological

Chemical contaminants may adversely affect the ecological values of a site and the levels considered suitable based on human health considerations may not afford protection to the local ecology. In order to consider the potential for toxicity to sensitive plants and animals,

contaminant concentrations have also been compared to ecological investigation levels (EILs) and ecological screening levels (ESLs) presented in the ASC NEPM. These values are typically only applicable to the top 2 metres of the soil profile where plants (and to a lesser degree animals) are likely to interact with the soil.

EILs were derived using site specific soil characteristics as inputs into the NEPM 2013 Ecological Investigation Level Calculation Spreadsheet. Given the preliminary nature of the soil investigation. Appropriately conservative EILs were adopted from this calculation spreadsheet.

Interim Soil Ecological Guideline Values for PFAS and PFOA for both direct and indirect soil exposure are provided in the PFAS NEMP (2018). Direct exposure applies to organisms living within or closely associated with the soil such as earthworms and plants. Indirect exposure applies to the organisms that may be exposed due to bioaccumulation and / or offsite transport. These values are based on the Canadian Ecological Soil Guideline Values which have been adopted as interim criteria.

The screening guidelines adopted for assessing the contaminant status of soils at the site are provided in the soil chemical data tables. The soil chemical data tables are included in Appendix C.

4.3.3 NEPM Management Limits for Soils

Section 2.5 in ASC NEPM Schedule B (1) – Guideline on Investigation Levels for Soil and Groundwater, includes physical and aesthetic 'management limits' for petroleum hydrocarbon compounds. These limits reflect potential for adverse effects to exist beyond typical health and ecological concerns, including free phase formation, fire and explosive hazards, effects on buried infrastructure and aesthetic considerations. These values provide interim screening levels as Tier 1 guidance for residual petroleum hydrocarbon contamination and their application requires consideration of site specific factors such as the depth of building basements and services or for residual contamination to be re-excavated in the use of the land, in order to determine the maximum depth of application of these limits.

4.4 Waste Classification Criteria

Criteria used to assess classification of waste soils for offsite disposal were taken from EPA information sheet Current Criteria for the Classification of Waste including Commercial and Industrial Waste (Listed) and Waste Soil, dated March 2010.

The soil classifications, listed by severity of contamination from lowest to highest, are:

- Waste Fill (WF)
- Intermediate Waste Soil (IWS)
- Low-Level Contaminated Waste (LLCW).

Maximum permissible chemical concentrations for these soil classifications are referred to collectively as the soil disposal criteria, and are presented in soil chemical data tables in Appendix C.

In addition to chemical content, consideration was given to the physical requirements of WF as defined in the Environment Protection Regulations 2009. "Waste Fill" is defined as waste containing clay, concrete, rock, sand, soil or other inert mineralogical matter in pieces not exceeding 100 mm in length (but does not include waste consisting of or containing asbestos or bitumen).

In the absence of published SA specific waste acceptance criteria for materials containing PFAS, reference has been made to the national advice presented in the PFAS NEMP (2018). These criteria have been determined based on existing jurisdiction approaches to the derivation of landfill acceptance criteria for three standard landfill designs (unlined, clay / single composite

lined and double composite lined). The NEMP recognises that individual jurisdiction approaches may differ. Concentrations must be lower than both the leachable and the total concentration values given for each type of landfill. For the purpose of this assessment, the total concentration criteria for an unlined landfill has been conservatively applied.

5 Soil Assessment Results

5.1 Soil Lithology and Field Observations

Detailed descriptions of the materials encountered are presented in the soil logs in Appendix B.

Fill and / or reworked natural material was encountered at 19 of 20 soil bores. No fill was noted at SB01 at the northern-most extent of the site.

Fill material was generally described as a sandy or gravely clay, or a sandy gravel and was largely free from significant foreign inclusions or indications of soil contamination. Notable inclusions were as follows:

- Trace asphalt at SB02 – SB05, SB13 and SB14
- Ash and cinders at SB08
- Trace glass fragments at SB18

Fill typically extended 0.3-0.5 mBGL, with the deepest observed at SB02 (1.6 mBGL) in the northern part of the site which was recorded as reworked natural, and SB20 (0.75 mBGL) beneath the concrete slab in the eastern part of the site.

Natural soils were identified at all locations with the exception of SB16 in the south western part of the site which encountered drilling refusal at 0.4 mBGL. Natural soils generally comprised sandy clay varying from light to dark brown and low to moderate plasticity. A layer of sand or clayey sand was observed in 14 of the 20 soil bores, generally at depths of between 1.0 mBGL and 2.0 mBGL.

No visual or olfactory evidence of soil contamination was identified in natural soils at any location.

No groundwater was encountered and soil moisture conditions were recorded as being dry throughout.

5.2 Laboratory Chemical Analysis

The tabulated chemical testing results are provided in Appendix C. Laboratory certificates of analysis are included in Appendix D.

5.2.1 Human Health

Concentrations of all analytes in all samples tested were below the adopted health screening levels and/or the laboratory limit of reporting (LOR).

5.2.2 Ecological

The sum of PFHxS and PFOS in sample SB13-06 (soil bore SB13 at 0.4 – 0.5 mBGL) was 0.451 mg/kg as compared to the PFAS NEMP (2018) Interim Soil - Ecological indirect exposure guideline of 0.14 mg/kg. This concentration did not exceed the direct exposure guideline of 1.0 mg/kg.

Concentrations of other analytes in samples tested were below the adopted ecological screening levels.

5.2.3 Waste Classification Criteria

Concentrations of contaminants in each of soil samples selected for testing were compliant with the criteria for WF and the interim landfill acceptance criteria for PFAS (total concentration) set out in Table 6 of the PFAS NEMP (2018).

Fill and natural soils were both generally compliant with the physical requirements for Waste Fill.

6 Discussion

6.1 Conceptual Site Model

To enable an assessment to be made of the interrelationships between potential sources of contamination, chemicals of concern, transport mechanisms, exposure pathways, receptors and risk, a Conceptual Site Model (CSM) was developed from the site assessment information obtained to date.

The CSM is presented via the descriptive text below and provides an update to the preliminary CSM presented in PSI report (LBWco, 2017).

6.1.1 Site Contamination Risk

Risk from site contamination is determined based on the inter-relationship of the following three components:

1. Contaminant source
2. Pathway from source to receptor
3. Receptor

For an unacceptable risk to exist, all three components must be present. Should one of the three components be absent, there would be no, or at least a reduced risk of exposure. Therefore, removing a contaminant source would mitigate risk to a future site user. Removing the pathway between the source and receptor would also be an effective way to mitigate the risk to a site user, provide the mechanism for pathway disruption was robust and would endure the period of site use.

To qualify as a contaminant source for this scenario, the source must be of sufficient concentration that toxicity to a receptor would occur via exposure. Toxicity may be realised via acute (short-term) or chronic (long-term) exposure.

6.1.2 Contaminant Sources and Chemicals of Concern

Following appropriate intrusive soil investigation, indicators of site contamination were limited to the presence of trace concentrations of **PFAS in shallow soils**, likely to be associated with the site's former use as a fire training ground.

At one location, the PFAS concentration was **in excess of conservative ecological screening criteria** for indirect exposure.

6.1.3 Potential Receptors

Potential receptors identified on or near the site include:

- Future site users, including construction workers
- Offsite users (adjoining land holders or tenants)
- Future construction/maintenance workers undertaking subsurface excavation works and/or accessing utility pits and trenches
- Down gradient groundwater users
- Current and future site ecology

Of the potential receptors identified, within an ongoing commercial / industrial land use scenario, only the current and future site **ecological receptors** were considered to be realistic receptors due to the PFAS concentrations in shallow soil onsite.

6.1.4 Pathways from Source to Receptor

Soils

Site contamination identified in onsite soils was limited to PFAS at one location which was above the adopted ecological screening criteria relating to the **indirect exposure pathway** whereby ecological receptors may be affected by bio-accumulation and /or offsite transport.

This elevated concentration was located within natural soils beneath a compacted gravel layer, therefore given the current site conditions, access to this soil by site ecology was considered unlikely. It was therefore considered that the possibility of a current risk to site ecology was low.

The direct contact pathway for ecological exposure was not relevant as the guideline concentration value for direct exposure was not exceeded.

Groundwater

The direct assessment of groundwater was not undertaken as part of this investigation.

The potential for PFAS concentrations in the soil to affect the groundwater underlying the site was qualitatively assessed to be negligible. A number of lines of evidence are used to support this assessment:

- Groundwater depth was estimated to be approximately 18-20 mBGL at the site, based on WaterConnect information (refer to Appendix C of the PSI (LBWco, 2017)), topography off the area and driller experience in this area. There is therefore a large separation distance between the potential PFAS source and the groundwater (which it itself both a receptor and a transport pathway).
- Although sand lenses were present at some of the soil bores, moderate plasticity clay was present across the site providing a geological barrier to help retard the vertical movement of contaminants.
- Where PFAS was analysed for at different depths from within the same soil bore, concentrations were lower at the deeper depth (SB17), or below the LOR if the shallower sample was also below the LOR (SB20). An approximate ten-fold decrease in PFAS concentrations across 2 metres was observed in SB17. It was therefore considered that with a groundwater depth of around 20 m, dilution, dispersion, degradation and adsorption processes would be sufficient to negate risk to groundwater at these concentrations.

Overall, it was assessed that there was no realistic source of contamination onsite that had the potential to affect groundwater, therefore there were no relevant groundwater pathways for exposure to be risk assessed.

Vapour

There was no evidence of onsite or offsite vapour sources, or evidence of volatile contaminants in soil that would pose an unacceptable risk of vapour intrusion to future commercial / industrial dwellings on the site.

6.1.5 Change in Land Use

The site CSM has been described relative to the future commercial/industrial use of the site. Should a more sensitive use such as residential be considered in the future, the conclusions of this assessment may not be valid and an update to the assessment would be needed.

6.1.6 Significance of Site Contamination and Risk

Given the evidence presented in the report and included within the CSM discussion above, LBWco assessed the significance of potential site contamination and risk for commercial / industrial land use as **low**. Site contamination risk was assessed to be **low**, rather than negligible, due to the single ecological guideline exceedance in shallow soil and the still developing technical and regulatory framework in SA and around Australia.

6.2 Waste Soil Assessment

If surplus soils are generated as part of future redevelopment of the site and there is a requirement for offsite disposal, the site soils must be disposed of according to their correct waste classification.

Based on the current dataset, both fill material and natural soils were compliant with the chemical and physical requirements for **Waste Fill**.

The SA EPA has not published specific waste acceptance criteria for the PFAS group of compounds. Currently, permission needs to be sought from the EPA on a case by case basis prior to disposing of soil known to contain PFAS.

To assist in decision making, this assessment has made reference to national guidance (PFAS NEMP, 2018). Although the total site concentrations are at least two orders of magnitude below the criteria set out in the NEMP for an unlined landfill, consideration also needs to be given to the leachability of the PFAS compounds prior to disposal. Leach testing has not been carried out as part of this assessment and may be required in the future should offsite disposal of soils be required as part of future redevelopment.

7 Soil Data QA/QC Evaluation

An evaluation of all QA/QC information for the soil assessment work and a statement of the data representativeness is provided below.

As part of the evaluation of laboratory chemical data, duplicate pair results were compared by determining the relative percentage difference (RPD) between the results. The RPD was calculated using the formula:

$$RPD\ (\%) = \quad 100(x_1 - x_2) \ / \ X$$

where x_1, x_2 = duplicate results and X = mean of duplicate results.

Based on guidance provided in the ASC NEPM:

- Typical RPD values for soils range within ±30%;
- A soil RPD within the typical range is considered to show acceptable agreement and, conversely, data is considered to have poor agreement where an RPD is outside this range.

Generally higher RPD values occur for organic compounds than for metals and where low concentrations of an analyte are recorded.

The results of internal laboratory quality control procedures are provided within the laboratory certificates (Appendix D). The acceptance criterion for internal laboratory replicates is set at an RPD of -50% to 50%. Laboratory recoveries should be in the range 70% to 130%.

Table 5 indicates conformance to specific QA/QC requirements for soil data. Duplicate sample, trip blank and equipment blank results are presented in Appendix C.

Table 2 Soil Data Validation

QA/QC Requirement	Compliant	Comment	Acceptable
Chain of custody documentation completed	Yes	All samples were transported under strict LBWco COC procedures. Signed COC documents are included in Appendix D.	Yes
Samples delivered to laboratory within sample holding times	Yes	Soil samples were delivered to the laboratory within the sample holding times and in laboratory-supplied containers.	Yes
Analyses NATA accredited	Yes	ALS Environmental and Eurofins|mgt were NATA accredited for the analyses performed.	Yes
Field duplicate testing frequency of at least 5% (1 in 20)	Yes	42 primary samples were selected for analysis. Three inter-laboratory and one inter-laboratory duplicate samples were analysed, meeting the required frequency of at least 5%.	Yes
Soil QA/QC samples reported RPDs below 30%	Yes	The majority of the RPD values could not be calculated due to both the primary and duplicate concentrations being below the laboratory LOR, indicating good data correlation. Of the 128 duplicate pair results, 127 were within the recommended RPD limits. This exceedances were associated with lead and was only arginally above the upper limit of 30% (at %). This did not alter the interpretation of the results and was considered to have been caused by the heterogeneity of the sample matrix. Both primary and duplicate concentrations are displayed on the chemical tables in Appendix C. The higher of the two numbers was considered for risk	Yes

QA/QC Requirement	Compliant	Comment	Acceptable
		screening purposes, which is conservative, and therefore the use of the data was considered acceptable.	
Equipment rinsate blank frequency of at least 1 per field event	Yes	An equipment rinsate blank sample was collected from drilling equipment during the sampling event.	Yes
Equipment rinsate blank below laboratory detection limits	Yes	Concentrations of heavy metals were below the laboratory's limit of reporting. This provided confidence the decontamination procedures were sufficient.	Yes
Trip blank frequency of 1 per batch sent to the laboratory		A laboratory provided trip blank sample accompanied the primary samples to the laboratory.	Yes
Trip blanks below laboratory detection limits		Concentrations of volatile petroleum hydrocarbons were below the laboratory's limit of reporting. This provided confidence that the samples had not been affected by volatile chemicals during transit to the laboratory.	Yes
Acceptable laboratory QC results	Yes	The majority of laboratory duplicates, method blanks, laboratory control spikes and matrix spikes were within appropriate limits.	Yes

Quality control data collected during this investigation indicated that the majority of QA/QC results were within acceptable limits. Accordingly, LBWco considered that the data quality was adequate for the purpose of this investigation.

8 Conclusions

LBW co Pty Ltd (LBWco) was commissioned by Town of Gawler to undertake a soil assessment at Allotment 300 Angle Vale Road, Evanston Gardens, SA (the site).

The objectives of the soil assessment were to:

- Characterise the contamination status of site soils with consideration of the PCAs and areas of interest identified in the Site History Investigation
- Assess whether site contamination of soils is present with respect to future commercial / industrial land use
- Advise on whether remediation or management is needed to make the site suitable for the future proposed land use.

LBWco undertook soil sampling at 20 soil bore locations to depths of up to 3.0 mBGL. Recovered samples were tested at a laboratory for chemical contaminants including heavy metals, PAH, TRH, pesticides, PFAS and other contaminants within the SA EPA Waste Screen.

Key findings of this soil contamination assessment were:

- Chemical testing of shallow fill materials and underlying natural soils indicated concentrations of the targeted contaminants posed no unacceptable risk to human health in a commercial / industrial setting.
- Shallow soils posed a potential risk to ecological receptors from PFAS (specifically PFOS) via indirect exposure pathways.
  - Should this land be redeveloped in the future, with sealed surfaces applied across the site, the identified potential indirect risk to ecological receptors would be negated.
  - If a future redevelopment was to include accessible soils, sampling and analysis of the accessible soil areas should be carried out to assess the potential ecological risk from residual PFAS concentrations in shallow soil.
  - As a part of any redevelopment on the site, the adopted management approach for residual PFAS concentrations in shallow soils should be set out in a Construction Environmental Management Plan (CEMP).
- Although groundwater was not directly assessed, the soil assessment found no evidence to suggest the presence of an onsite source that could have caused groundwater contamination.
- Shallow fill materials and underlying natural soils were compliant with the chemical limits for Waste Fill and national landfill acceptance criteria for PFAS chemicals. SA EPA approval to dispose of site soils may be subject to leachability testing for PFAS.

The assessment of the PFAS group of chemicals is a rapidly changing field due to current research focus. This assessment has been undertaken using current Australian published guidance available at the time of writing..

The information provided in this report is subject to the limitations expressed in Section 9. The reader should make themselves aware of the limitations and how they relate to the conclusions provided above.

9 Limitations

Scope of Services

This environmental site assessment report ("the report") has been prepared in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Town of Gawler and LBW co Pty Ltd (LBWco) ("scope of services"). In some circumstances the scope of services may have been limited by a range of factors such as time, budget, access and/or site disturbance constraints.

Reliance on Data

In preparing the report, LBWco has relied upon data, surveys, analyses, designs, plans and other information provided by the Town of Gawler and other individuals and organisations, most of which are referred to in the report ("the data"). Except as otherwise stated in the report, LBWco has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report ("conclusions") are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. LBWco will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to LBWco.

Environmental Conclusions

In accordance with the scope of services, LBWco has relied upon the data and has conducted environmental field monitoring and/or testing in the preparation of the report. The nature and extent of monitoring and/or testing conducted is described in the report.

On all sites, varying degrees of non-uniformity of the vertical and horizontal soil or groundwater conditions are encountered. Hence no monitoring, common testing or sampling technique can eliminate the possibility that monitoring or testing results/samples are not totally representative of soil and/or groundwater conditions encountered. The conclusions are based upon the data and the environmental field monitoring and/or testing and are therefore merely indicative of the environmental condition of the site at the time of preparing the report, including the presence or otherwise of contaminants or emissions.

Also, it should be recognised that site conditions, including the extent and concentration of contaminants, can change with time.

Within the limitations imposed by the scope of services, the monitoring, testing, sampling and preparation of this report have been undertaken and performed in a professional manner, in accordance with generally accepted practices and using a degree of skill and care ordinarily exercised by reputable environmental consultants under similar circumstances. No other warranty, expressed or implied, is made.

Report for Benefit of the Town of Gawler

The report has been prepared for the benefit of the Town of Gawler and no other party. LBWco 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 LBWco or for any loss or damage suffered by any other party 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.

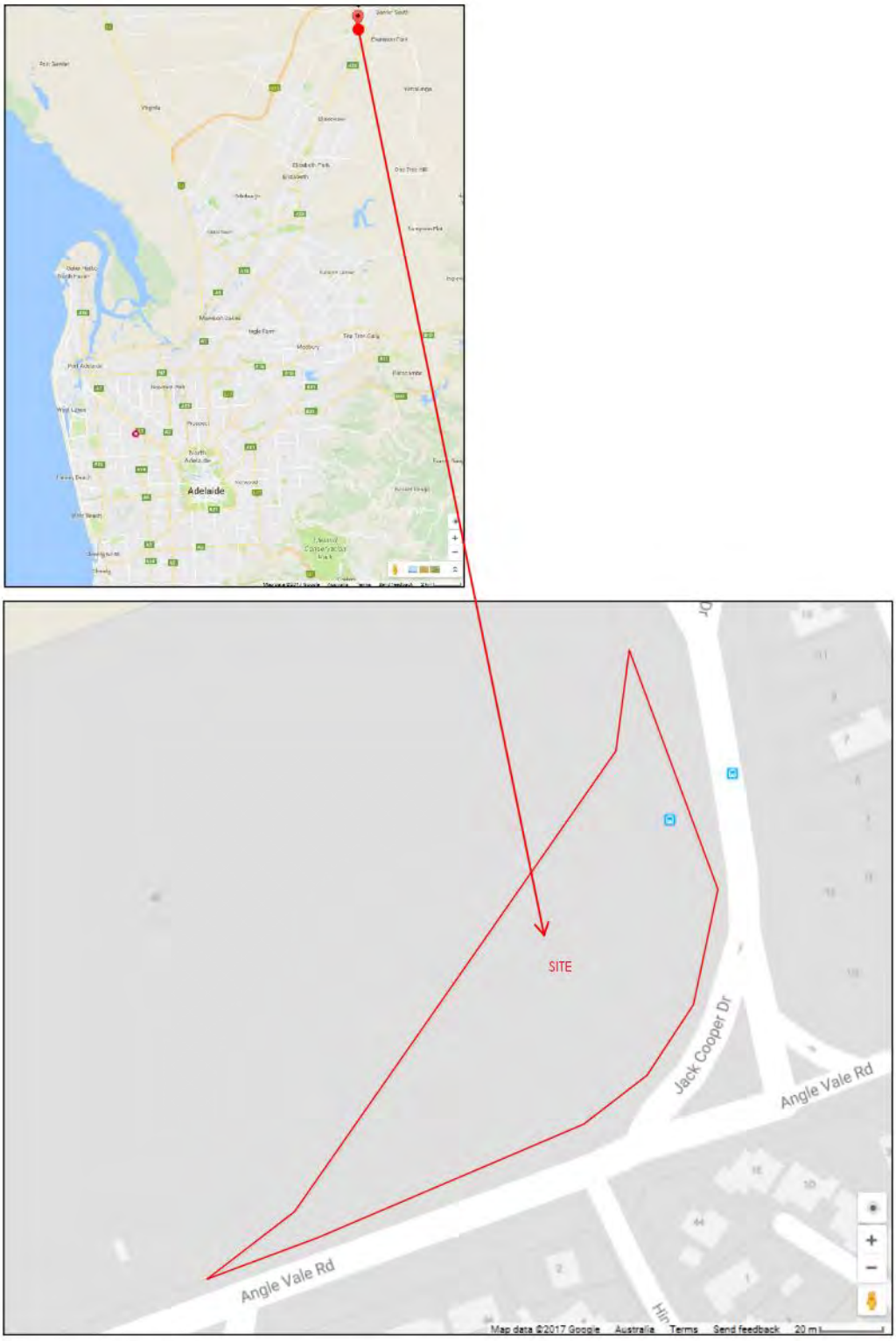
Other Limitations

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

DELIVERING ENVIRONMENTAL SOLUTIONS

Appendix A

Figures



Source: www.google.com.au/maps

Allotment 300, Angle Vale Rd, Evanston Gardens

Detailed Site Investigation

For

Town of Gawler

Job No: 170974
Drawn: ST
Checked: NB

Figure 1
Site Location Plan

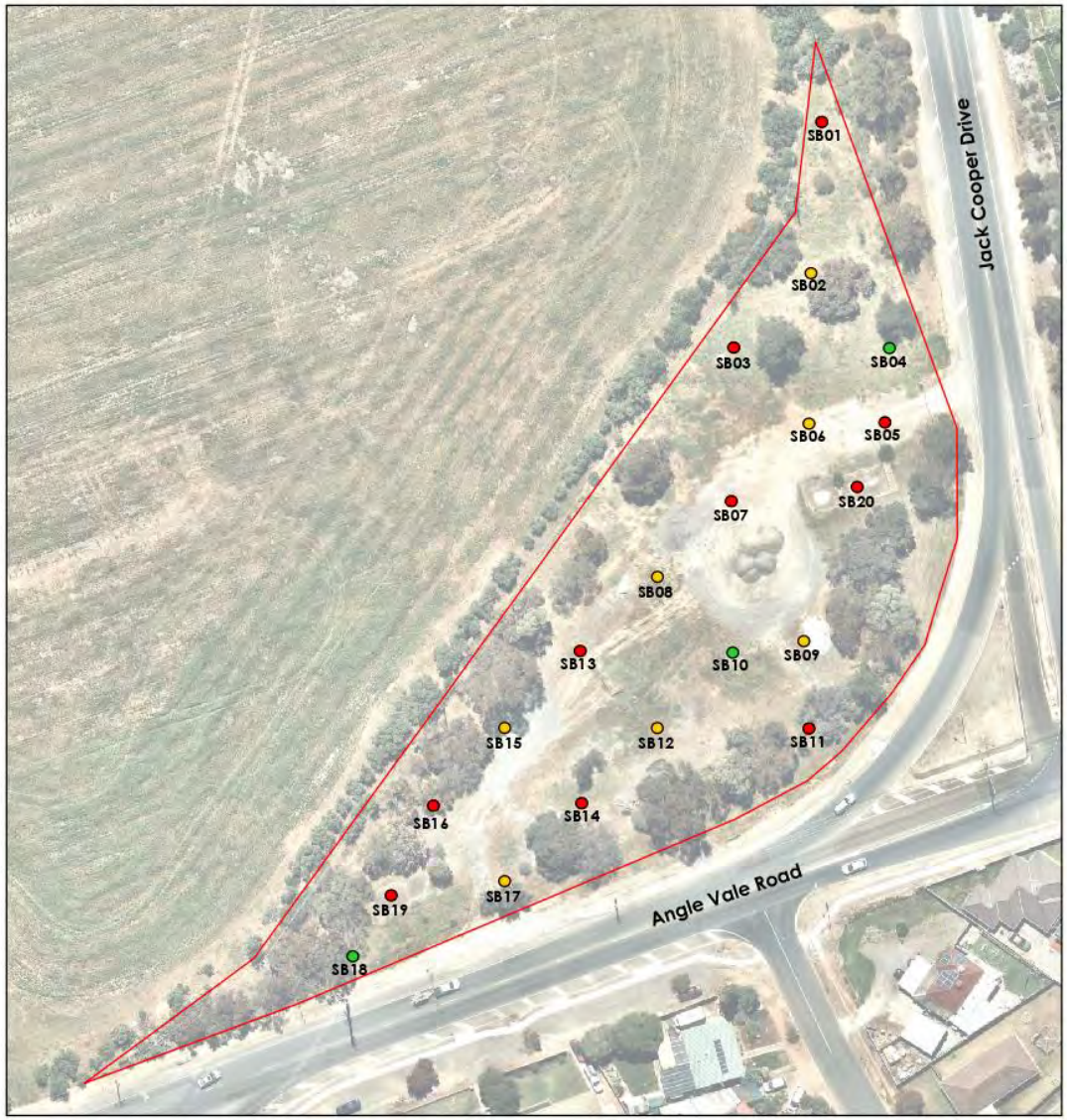


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FIGURE 2

Sample Location Plan

Allotment 300, Angle Vale Rd, Evanston Gardens

Details Site Investigation

For

Town of Gawler

LEGEND

- Approximate site boundary
- 1 m Soil Bore
- 2 m Soil Bore
- 3 m Soil Bore

SCALE

0 25 50 m

Job Number: 170974
Drawn: ST
Checked: NB

DELIVERING ENVIRONMENTAL SOLUTIONS

DELIVERING ENVIRONMENTAL SOLUTIONS

Appendix B

Soil Bore Logs

C:\Users\User\Dropbox\Evanston Gardens\DSI report\170974-01 R01.docx

SOIL BORE SB01

PROJECT NUMBER 170974-01	**DRILLING DATE** 18/04/2018 9:14:32 AM	**COORDINATES**
PROJECT NAME Angle Vale Rd PSI	**DRILLING COMPANY** GeoDrill	**COORD SYSTEM**
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens	**DRILL RIG** Rockmaster	**LOGGED BY** Stuart Twiss
	DRILLING METHOD Push Tube	**CHECKED BY**
	BOREHOLE DIAMETER (mm) 50	
	TOTAL DEPTH (mBGL) 1.000	

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
				SANDY CLAY: light brown, low-moderate plasticity, soft, trace gravel, trace rootlets	D	
	SB01-01					
0.5						
	SB01-02	SB01-04		SANDY CLAY: dark brown, stiff	D	
	SB01-03					
1				Termination Depth at 1.000 m		

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SOIL BORE SB02

PROJECT NUMBER 170974-01	**DRILLING DATE** 18/04/2018 9:10:50 AM	**COORDINATES**
PROJECT NAME Angle Vale Rd PSI	**DRILLING COMPANY** GeoDrill	**COORD SYSTEM**
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens	**DRILL RIG** Rockmaster	**LOGGED BY** Stuart Twiss
	DRILLING METHOD Push Tube	**CHECKED BY**
	BOREHOLE DIAMETER (mm) 50	
	TOTAL DEPTH (mBGL) 2.000	

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
	SB02-01			FILL (REWORKED NATURAL): gravelly sand, light brown, fine to medium, loose, poorly graded, trace asphalt	D	
0.5	SB02-02			FILL (REWORKED NATURAL): sandy clay, light brown, low-moderate plasticity, soft	D	
1	SB02-03			FILL (REWORKED NATURAL): clay, dark brown, low-moderate plasticity, stiff	D	
1.5	SB02-04			FILL (REWORKED NATURAL): sandy gravel, brown, fine and coarse, loose, angular	D	
	SB02-05			SAND: tan, fine, loose, well graded	D	
	SB02-06					
2				Termination Depth at 2.000 m		

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SOIL BORE SB03

PROJECT NUMBER 170974-01	**DRILLING DATE** 18/04/2018 9:41:50 AM	**COORDINATES**
PROJECT NAME Angle Vale Rd PSI	**DRILLING COMPANY** GeoDrill	**COORD SYSTEM**
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens	**DRILL RIG** Rockmaster	**LOGGED BY** Stuart Twiss
	DRILLING METHOD Push Tube	**CHECKED BY**
	BOREHOLE DIAMETER (mm) 50	
	TOTAL DEPTH (mBGL) 1.000	

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
				FILL: gravel, blue -brown, medium, loose	D	
	SB03-01	SB03-06				
	SB03-02			FILL (REWORKED NATURAL): gravelly clay, red-brown, low-moderate plasticity, stiff, with gravel, trace asphalt	D	
0.5						
	SB03-03			FILL: gravel, blue, medium, loose, angular	D	
	SB03-04			CLAY: brown, low-moderate plasticity, soft	D	
	SB03-05					
1				Termination Depth at 1.000 m		

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SOIL BORE SB04

PROJECT NUMBER 170974-01	**DRILLING DATE** 18/04/2018 9:42:12 AM	**COORDINATES**
PROJECT NAME Angle Vale Rd PSI	**DRILLING COMPANY** GeoDrill	**COORD SYSTEM**
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens	**DRILL RIG** Rockmaster	**LOGGED BY** Stuart Twiss
	DRILLING METHOD Push Tube	**CHECKED BY**
	BOREHOLE DIAMETER (mm) 50	
	TOTAL DEPTH (mBGL) 3.000	

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
0	SB04-01			FILL: sandy clay, red-brown, low-moderate plasticity, soft, trace asphalt, trace gravel	D	
0.5	SB04-02			CLAYEY SAND: light brown, fine, loose	D	
1	SB04-03	SB04-07		CLAY: dark brown, low-moderate plasticity, stiff	D	
1.5	SB04-04					
2	SB04-05			CLAYEY SAND: light brown, fine to medium, loose	D	
2.5	SB04-06					
	SB04-08					
3				Termination Depth at 3.000 m		

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SOIL BORE SB05

PROJECT NUMBER 170974-01	**DRILLING DATE** 18/04/2018 10:07:29 AM	**COORDINATES**
PROJECT NAME Angle Vale Rd PSI	**DRILLING COMPANY** GeoDrill	**COORD SYSTEM**
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens	**DRILL RIG** Rockmaster	**LOGGED BY** Stuart Twiss
	DRILLING METHOD Push Tube	**CHECKED BY**
	BOREHOLE DIAMETER (mm) 50	
	TOTAL DEPTH (mBGL) 1.000	

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
				ASPHALT		
	SB05-01			FILL: sandy gravel, tan, fine to coarse	D	
	SB05-02	SB05-05		FILL (REWORKED NATURAL): gravelly clay, red-brown, low-moderate plasticity, stiff, with rootlets, trace asphalt	D	
	SB05-06					
0.5						
	SB05-03			CLAYEY SAND: brown, fine, loose	D	
	SB05-04					
1				Termination Depth at 1.000 m		

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produced by ESlog.ESdat.net on 20 Apr 2018

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SOIL BORE SB06

PROJECT NUMBER 170974-01	**DRILLING DATE** 18/04/2018 10:08:00 AM	**COORDINATES**
PROJECT NAME Angle Vale Rd PSI	**DRILLING COMPANY** GeoDrill	**COORD SYSTEM**
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens	**DRILL RIG** Rockmaster	**LOGGED BY** Stuart Twiss
	DRILLING METHOD Push Tube	**CHECKED BY**
	BOREHOLE DIAMETER (mm) 50	
	TOTAL DEPTH (mBGL) 2.000	

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
				CONCRETE		
	SB06-01			FILL (REWORKED NATURAL): clay, light brown, low-moderate plasticity, soft	D	
0.5						
	SB06-02	SB06-06		FILL: sandy gravel, white, fine to coarse, loose	D	
	SB06-03			SANDY CLAY: brown, low-moderate plasticity, soft	D	
1						
1.5	SB06-04			CLAY: dark brown, low-moderate plasticity, stiff	D	
	SB06-07					
	SB06-05					
2				Termination Depth at: 2.000 m		

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SOIL BORE SB07

PROJECT NUMBER 170974-01	**DRILLING DATE** 18/04/2018 10:33:47 AM	**COORDINATES**
PROJECT NAME Angle Vale Rd PSI	**DRILLING COMPANY** GeoDrill	**COORD SYSTEM**
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens	**DRILL RIG** Rockmaster	**LOGGED BY** Stuart Twiss
	DRILLING METHOD Push Tube	**CHECKED BY**
	BOREHOLE DIAMETER (mm) 50	
	TOTAL DEPTH (mBGL) 3.000	

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
				ASPHALT		
	SB07-01			FILL: gravelly clay, tan -brown, low-moderate plasticity, soft	D	
	SB07-02			FILL: gravel, blue, fine to medium, loose, uniform	D	
0.5	SB07-03			FILL: sandy gravel, white, fine to coarse, loose	D	
	SB07-04			CLAY: dark brown, moderate plasticity, stiff	D	
1						
1.5						
	SB07-05			SANDY CLAY: light brown, low plasticity, soft	D	
2	SB07-06			SAND: light brown, fine, loose, well graded	D	
2.5	SB07-07					
	SB07-08					
3				Termination Depth at 3.000 m		

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SOIL BORE SB08

PROJECT NUMBER 170974-01
PROJECT NAME Angle Vale Rd PSI
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens

DRILLING DATE 18/04/2018 10:34:45 AM
DRILLING COMPANY GeoDrill
DRILL RIG Rockmaster
DRILLING METHOD Push Tube
BOREHOLE DIAMETER (mm) 50
TOTAL DEPTH (mBGL) 2.000

COORDINATES
COORD SYSTEM
LOGGED BY Stuart Twiss
CHECKED BY

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
				ASPHALT		
	SB08-01	SB08-06		FILL: sandy gravel, white, fine to coarse, loose, trace ash & cinders	D	
	SB08-02			FILL (REWORKED NATURAL): clay, red-brown, low-moderate plasticity, stiff	D	
0.5	SB08-03			FILL (REWORKED NATURAL): sand, dark brown, fine to medium, loose, trace gravel	D	
	SB08-04			CLAY: brown -grey, low-moderate plasticity, stiff	D	
1						
1.5	SB08-07					
	SB08-05			SAND: brown, fine, loose	D	
2				Termination Depth at 2.000 m		

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SOIL BORE SB09

PROJECT NUMBER 170974-01	**DRILLING DATE** 18/04/2018 11:10:52 AM	**COORDINATES**
PROJECT NAME Angle Vale Rd PSI	**DRILLING COMPANY** GeoDrill	**COORD SYSTEM**
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens	**DRILL RIG** Rockmaster	**LOGGED BY** Stuart Twiss
	DRILLING METHOD Push Tube	**CHECKED BY**
	BOREHOLE DIAMETER (mm) 50	
	TOTAL DEPTH (mBGL) 2.000	

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
				FILL: gravel, grey-brown, fine to medium, loose	D	
	SB09-01	SB09-05				
	SB09-02			FILL: sandy gravel, white, fine to coarse, loose	D	
	SB09-03			CLAY: brown, low-moderate plasticity, stiff	D	
0.5						
1						
	SB09-04			CLAY: dark brown, low-moderate plasticity, stiff	D	
1.5						
	SB09-06					
2				Termination Depth at 2.000 m		

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SOIL BORE SB10

PROJECT NUMBER 170974-01	**DRILLING DATE** 18/04/2018 11:13:12 AM	**COORDINATES**
PROJECT NAME Angle Vale Rd PSI	**DRILLING COMPANY** GeoDrill	**COORD SYSTEM**
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens	**DRILL RIG** Rockmaster	**LOGGED BY** Stuart Twiss
	DRILLING METHOD Push Tube	**CHECKED BY**
	BOREHOLE DIAMETER (mm) 50	
	TOTAL DEPTH (mBGL) 3.000	

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
	SB10-01			FILL: gravel, blue, fine to medium, loose	D	
	SB10-02			SANDY CLAY: low-moderate plasticity, soft, trace gravel	D	
	SB10-03			FILL: sandy gravel, white, fine to coarse, loose	D	
	SB10-04	SB10-08		FILL (REWORKED NATURAL): clay, red-brown, low-moderate plasticity, stiff	D	
0.5						
1						
	SB10-05			CLAY: dark red-brown, moderate plasticity, stiff	D	
1.5						
	SB10-06			CLAY: light brown, low-moderate plasticity, stiff	D	
2						
2.5	SB10-07			CLAYEY SAND: brown, fine, loose	D	
	SB10-09					
3				Termination Depth at: 3.000 m		

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SOIL BORE SB11

PROJECT NUMBER 170974-01	**DRILLING DATE** 18/04/2018 12:11:57 PM	**COORDINATES**
PROJECT NAME Angle Vale Rd PSI	**DRILLING COMPANY** GeoDrill	**COORD SYSTEM**
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens	**DRILL RIG** Rockmaster	**LOGGED BY** Stuart Twiss
	DRILLING METHOD Push Tube	**CHECKED BY**
	BOREHOLE DIAMETER (mm) 50	
	TOTAL DEPTH (mBGL) 1.000	

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
				FILL: gravel, blue, fine to medium, loose, trace rootlets	D	
	SB11-01	SB11-04				
	SB11-05					
	SB11-02			SANDY CLAY: red-brown, low-moderate plasticity, stiff	D	
0.5						
	SB11-03			CLAYEY SAND: brown, fine, loose	D	
1				Termination Depth at: 1.000 m		

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SOIL BORE SB12

PROJECT NUMBER 170974-01	**DRILLING DATE** 18/04/2018 12:12:20 PM	**COORDINATES**
PROJECT NAME Angle Vale Rd PSI	**DRILLING COMPANY** GeoDrill	**COORD SYSTEM**
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens	**DRILL RIG** Rockmaster	**LOGGED BY** Stuart Twiss
	DRILLING METHOD Push Tube	**CHECKED BY**
	BOREHOLE DIAMETER (mm) 50	
	TOTAL DEPTH (mBGL) 2.000	

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
	SB12-01			FILL (REWORKED NATURAL): gravelly clay, red-brown, low-moderate plasticity, stiff, trace rootlets	D	
	SB1-08					
0.5	SB12-02			FILL: sandy gravel, white, fine to coarse, loose	D	
	SB12-03			SANDY CLAY: low-moderate plasticity, soft	D	
1	SB12-04			CLAY: red-brown, low-moderate plasticity, stiff	D	
	SB12-07					
1.5	SB12-05			CLAY: dark brown, low-moderate plasticity, stiff	D	
	SB12-06					
2				Termination Depth at 2.000 m		

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SOIL BORE SB13

PROJECT NUMBER 170974-01	**DRILLING DATE** 18/04/2018 12:35:38 PM	**COORDINATES**
PROJECT NAME Angle Vale Rd PSI	**DRILLING COMPANY** GeoDrill	**COORD SYSTEM**
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens	**DRILL RIG** Rockmaster	**LOGGED BY** Stuart Twiss
	DRILLING METHOD Push Tube	**CHECKED BY**
	BOREHOLE DIAMETER (mm) 50	
	TOTAL DEPTH (mBGL) 1.000	

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
	SB13-01			FILL: sandy gravel, white, fine to coarse, loose	D	
	SB13-02	SB13-05		FILL (REWORKED NATURAL): sandy clay, brown, low-moderate plasticity, soft, trace asphalt, trace gravel	D	
	SB13-03			SANDY CLAY: brown, low-moderate plasticity, stiff	D	
	SB13-06					
0.5						
	SB13-04					
1				Termination Depth at 1.000 m		

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SOIL BORE SB14

PROJECT NUMBER 170974-01	**DRILLING DATE** 18/04/2018 12:36:02 PM	**COORDINATES**
PROJECT NAME Angle Vale Rd PSI	**DRILLING COMPANY** GeoDrill	**COORD SYSTEM**
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens	**DRILL RIG** Rockmaster	**LOGGED BY** Stuart Twiss
	DRILLING METHOD Push Tube	**CHECKED BY**
	BOREHOLE DIAMETER (mm) 50	
	TOTAL DEPTH (mBGL) 1.000	

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
				FILL (REWORKED NATURAL): sandy clay, red-brown, low-moderate plasticity, soft, trace asphalt, with gravel, trace rootlets	D	
	SB14-01	SB14-05				
	SB14-02			FILL: sandy gravel, white, fine to coarse, loose	D	
0.5	SB14-03			SANDY CLAY: light brown, low-moderate plasticity, soft	D	
	SB14-06					
				CLAY: red-brown, low-moderate plasticity, stiff	D	
	SB14-04					
1				Termination Depth at 1.000 m		

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SOIL BORE SB15

PROJECT NUMBER 170974-01
PROJECT NAME Angle Vale Rd PSI
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens

DRILLING DATE 18/04/2018 1:00:00 PM
DRILLING COMPANY GeoDrill
DRILL RIG Rockmaster
DRILLING METHOD Push Tube
BOREHOLE DIAMETER (mm) 50
TOTAL DEPTH (mBGL) 2.000

COORDINATES
COORD SYSTEM
LOGGED BY Stuart Twiss
CHECKED BY

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
	SB15-01			FILL: sandy gravel, white, fine to coarse, loose	D	
	SB15-02	SB15-07		FILL: sandy gravel, brown, fine to medium, loose, poorly graded	D	
	SB15-03			FILL: sandy gravel, white, fine to coarse, loose	D	
0.5						
	SB15-04			CLAY: dark brown, low-moderate plasticity, stiff	D	
1						
1.5						
	SB15-05			CLAY: light brown, low-moderate plasticity, stiff	D	
	SB15-08					
	SB15-06					
2				Termination Depth at 2.000 m		

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SOIL BORE SB16

PROJECT NUMBER 170974-01	**DRILLING DATE** 18/04/2018 1:00:26 PM	**COORDINATES**
PROJECT NAME Angle Vale Rd PSI	**DRILLING COMPANY** GeoDrill	**COORD SYSTEM**
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens	**DRILL RIG** Rockmaster	**LOGGED BY** Stuart Twiss
	DRILLING METHOD Push Tube	**CHECKED BY**
	BOREHOLE DIAMETER (mm) 50	
	TOTAL DEPTH (mBGL) 0.4	

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
	SB16-01	SB16-03		FILL: sandy gravel, white, fine to coarse, loose	D	
	SB16-02					
0.5				Refusal at 0.4		

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SOIL BORE SB17

PROJECT NUMBER 170974-01
PROJECT NAME Angle Vale Rd PSI
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens

DRILLING DATE 18/04/2018 1:01:18 PM
DRILLING COMPANY GeoDrill
DRILL RIG Rockmaster
DRILLING METHOD Push Tube
BOREHOLE DIAMETER (mm) 50
TOTAL DEPTH (mBGL) 2.000

COORDINATES
COORD SYSTEM
LOGGED BY Stuart Twiss
CHECKED BY

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
	SB17-01			FILL (REWORKED NATURAL): sandy clay, brown, low-moderate plasticity, soft, trace gravel, trace rootlets	D	
	SB17-07					
	SB17-02			FILL: sandy gravel, white, fine to coarse, loose	D	
0.5	SB17-03			SANDY CLAY: brown, low plasticity, soft	D	
1	SB17-04			CLAY: red-brown, low-moderate plasticity, stiff	D	
1.5	SB17-05			SANDY CLAY: light brown, low-moderate plasticity, stiff	D	
	SB17-06					
2				Termination Depth at 2.000 m		

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SOIL BORE SB18

PROJECT NUMBER 170974-01	**DRILLING DATE** 18/04/2018 1:32:14 PM	**COORDINATES**
PROJECT NAME Angle Vale Rd PSI	**DRILLING COMPANY** GeoDrill	**COORD SYSTEM**
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens	**DRILL RIG** Rockmaster	**LOGGED BY** Stuart Twiss
	DRILLING METHOD Push Tube	**CHECKED BY**
	BOREHOLE DIAMETER (mm) 50	
	TOTAL DEPTH (mBGL) 3.000	

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
	SB18-01			FILL: sandy gravel, white, fine to coarse, loose, trace rootlets	D	
	SB18-09					
	SB18-02			CLAYEY SAND: light brown, fine, loose	D	
0.5						
1	SB18-03					
1.5	SB18-04	SB18-07		CLAY: dark red-brown, moderate plasticity, stiff	D	
2						
	SB18-05			SANDY CLAY: light brown, low-moderate plasticity, soft	D	
2.5						
	SB18-08					
	SB18-06					
2				Termination Depth at 3.000 m		

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SOIL BORE SB19

PROJECT NUMBER 170974-01	**DRILLING DATE** 18/04/2018 1:32:52 PM	**COORDINATES**
PROJECT NAME Angle Vale Rd PSI	**DRILLING COMPANY** GeoDrill	**COORD SYSTEM**
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens	**DRILL RIG** Rockmaster	**LOGGED BY** Stuart Twiss
	DRILLING METHOD Push Tube	**CHECKED BY**
	BOREHOLE DIAMETER (mm) 50	
	TOTAL DEPTH (mBGL) 1.000	

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
				CONCRETE		
	SB19-01			FILL: sandy clay, brown, low-moderate plasticity, soft, trace glass fragments	D	
	SB19-02			FILL: sandy gravel, white, fine to coarse, loose	D	
	SB19-03			FILL: clay, red-brown, low-moderate plasticity, soft	D	
0.5						
	SB19-04			CLAY: brown, low-moderate plasticity, soft	D	
	SB19-05					
1				Termination Depth at 1.000 m		

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SOIL BORE SB20

PROJECT NUMBER 170974-01	**DRILLING DATE** 18/04/2018 2:09:24 PM	**COORDINATES**
PROJECT NAME Angle Vale Rd PSI	**DRILLING COMPANY** GeoDrill	**COORD SYSTEM**
ADDRESS Allotment 300 Angle Vale Road, Evanston Gardens	**DRILL RIG** Rockmaster	**LOGGED BY** Stuart Twiss
	DRILLING METHOD Push Tube	**CHECKED BY**
	BOREHOLE DIAMETER (mm) 50	
	TOTAL DEPTH (mBGL) 1.000	

COMMENTS

Depth (mBGL)	Samples	Duplicate	Graphic Log	Material Description	Moisture	Additional Observations
				CONCRETE		
	SB20-01			FILL: clayey gravel, brown, medium to coarse, medium dense, poorly graded	D	
	SB20-02			FILL (REWORKED NATURAL): clay, red-brown, fine to coarse, low-moderate plasticity, stiff	D	
	SB20-05					
0.5						
	SB20-03			FILL: sandy gravel, white, fine to coarse	D	
	SB20-04			CLAYEY SAND: brown, fine, loose	D	
	SB20-06					
1				Termination Depth at 1.000 m		

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DELIVERING ENVIRONMENTAL SOLUTIONS

Appendix C

Chemical Results Summary Tables

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Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

				Metals															
				Arsenic	Barium	Beryllium	Cadmium	Chromium (hexavalent)	Chromium (III+VI)	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Nickel	Silver	Zinc
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				5	10	1	1	0.5	2	2	5	50	5	5	0.1	2	2	5
NEPM 1999 Soil HIL D - Commercial/Industrial				3,000		500	900	3,600		4,000	240,000		1,500	60,000	730	6,000		400,000
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial																		
PFAS NEMP (2018) HSLs																		
NEPM 1999 EIL - Commercial/Industrial				160							310		1800			370		890
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)																		
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*																		
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^																		
NEPM 1999 Management Limits - Commercial/Industrial (coarse)																		
Location Code	Field ID	Depth	Date	Sample Type														
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	<5	–	–	<1	–	27	–	17	–	16	–	<0.1	12	–	41
	SB01-02	0.1 - 0.2	20/04/2018	Normal	–	–	–	–	–	–	–	–	22,100	–	–	–	–	–	–
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	<5	60	<1	<1	<0.5	17	4	10	14,800	11	168	<0.1	10	<2	25
	SB02-02	0.4 - 0.5	20/04/2018	Normal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	5	–	–	<1	–	24	–	17	–	13	–	<0.1	20	–	47
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	SB04-04	2.9 - 3	20/04/2018	Normal	<5	–	–	<1	–	44	–	26	–	8	–	<0.1	24	–	33
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	<5	–	–	<1	–	9	–	<5	–	<5	–	<0.1	2	–	6
	SB05-02	0.2 - 0.3	20/04/2018	Normal	<5	–	–	<1	–	37	–	17	–	10	–	<0.1	18	–	26
	SB05-05	2.2 - 2.3	20/04/2018	Field_D	<5	–	–	<1	–	36	–	17	–	10	–	<0.1	18	–	26
	SB05-06	0.4 - 0.5	20/04/2018	Normal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	<5	–	–	<1	–	31	–	17	–	9	–	<0.1	14	–	29
	SB06-07	1.8 - 1.9	20/04/2018	Normal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	8	–	–	<1	–	12	–	15	–	17	–	<0.1	9	–	32
	SB07-04	0.75 - 0.85	20/04/2018	Normal	<5	–	–	<1	–	23	–	10	–	9	–	<0.1	8	–	12
	SB07-08	2.9 - 3	20/04/2018	Normal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	<5	40	<1	<1	<0.5	13	6	17	13,200	22	244	<0.1	12	<2	50
	SB09-02	0.1 - 0.2	20/04/2018	Normal	<5	–	–	<1	–	3	–	6	–	<5	–	<0.1	5	–	7
	SB09-05	1.05 - 1.15	20/04/2018	Field_B	<5	–	–	<1	–	12	–	19	–	27	–	<0.1	17	–	54
	SB09-06	1.9 - 2	20/04/2018	Normal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	SB10-04	0.35 - 0.45	20/04/2018	Normal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

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Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

					Metals															
					Arsenic	Barium	Beryllium	Cadmium	Chromium (hexavalent)	Chromium (III+VI)	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Nickel	Silver	Zinc
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					5	10	1	1	0.5	2	2	5	50	5	5	0.1	2	2	5
NEPM 1999 Soil HIL D - Commercial/Industrial					3,000		500	900	3,600		4,000	240,000		1,500	60,000	730	6,000		400,000
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial																			
PFAS NEMP (2018) HSLs																			
NEPM 1999 EIL - Commercial/Industrial					160							310		1800			370		890
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)																			
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*																			
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^																			
NEPM 1999 Management Limits - Commercial/Industrial (coarse)																			
SB11	SB11-01	0.05 - 0.15	20/04/2018	Normal	7	-	-	<1	-	24	-	20	-	17	-	<0.1	14	-	68
	SB11-04	0.05 - 0.15	20/04/2018	Field D	8	-	-	<1	-	22	-	22	-	24	-	<0.1	17	-	70
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-06	1.9 - 2	20/04/2018	Normal	<5	-	-	<1	-	34	-	19	-	6	-	<0.1	16	-	24
	SB12-07	1.2 - 1.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	<5	-	-	<1	-	5	-	6	-	<5	-	<0.1	5	-	12
	SB13-02	0.2 - 0.3	20/04/2018	Normal	<5	-	-	<1	-	20	-	14	-	9	-	<0.1	9	-	18
	SB13-05	0.2 - 0.3	20/04/2018	Field D	<5	-	-	<1	-	19	-	13	-	7	-	<0.1	8	-	19
	SB13-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	<5	-	-	<1	-	10	-	9	-	11	-	<0.1	6	-	12
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB16-02	0.3 - 0.4	20/04/2018	Normal	<5	20	<1	<1	<0.5	5	<2	<5	5,550	<5	37	<0.1	2	<2	7
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	<5	-	-	<1	-	14	-	13	-	14	-	<0.1	10	-	29
	SB17-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-07	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	<5	-	-	<1	-	8	-	8	-	28	-	<0.1	4	-	40
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	<5	-	-	<1	-	11	-	7	-	12	-	<0.1	4	-	16
	SB19-03	0.3 - 0.4	20/04/2018	Normal	<5	-	-	<1	-	24	-	13	-	5	-	<0.1	13	-	16
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	<5	-	-	<1	-	16	-	10	-	15	-	<0.1	7	-	37
	SB20-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-05	0.25 - 0.35	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-06	0.9 - 1	20/04/2018	Normal	<5	-	-	<1	-	21	-	11	-	<5	-	<0.1	8	-	14

*based on 2017 Canadian Federal Environmental Quality Guidelines

^ based on human health screening values for public open space

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

				PAH																				
				Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzo[b+j]fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAH	Carcinogenic PAH (BaP TEQ zero LOR)	Carcinogenic PAH (BaP TEQ Half LOR)	Carcinogenic PAH (BaP TEQ LOR)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				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	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPM 1999 Soil HIL D - Commercial/Industrial																				4,000	40	40	40
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial																	11,000						
PFAS NEMP (2018) HSLs																							
NEPM 1999 EIL - Commercial/Industrial																	370						
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)					72																		
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*																							
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^																							
NEPM 1999 Management Limits - Commercial/Industrial (coarse)																							
Location Code	Field ID	Depth	Date	Sample Type																				
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB01-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB02-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-
	SB04-08	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-
	SB05-02	0.2 - 0.3	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB05-05	0.2 - 0.3	20/04/2018	Field_D	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB05-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-
	SB06-07	1.8 - 1.9	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB07-04	0.75 - 0.85	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-08	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB09-02	0.1 - 0.2	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB09-05	0.05 - 0.15	20/04/2018	Field_D	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB09-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB10-04	0.35 - 0.45	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-

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17/05/2018

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

					PAH																		
					Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzo(b+j)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAH	Carcinogenic PAH (BaP TEQ zero LOR)	Carcinogenic PAH (BaP TEQ Half LOR)	Carcinogenic PAH (BaP TEQ LOR)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					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	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPM 1999 Soil HIL D - Commercial/Industrial																					4,000	40	40	400
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial																		11,000						
PFAS NEMP (2018) HSLs																								
NEPM 1999 EIL - Commercial/Industrial																		370						
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)									72															
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*																								
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^																								
NEPM 1999 Management Limits - Commercial/Industrial (coarse)																								
SB11	SB11-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB11-04	0.05 - 0.15	20/04/2018	Field_D	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-
	SB12-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB13-02	0.2 - 0.3	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB13-05	0.2 - 0.3	20/04/2018	Field_D	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB13-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-
	SB16-02	0.3 - 0.4	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB17-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-07	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-
	SB19-03	0.3 - 0.4	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-
	SB20-05	0.25 - 0.35	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-06	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*based on 2017 Canadian Federal Environmental Quality Guidelines
^ based on human health screening values for public open space

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

					TRH						BTEX						
					TRH C6-C10	TRH C6-C10 less BTEX (F1)	TRH >C10-C16	TRH >C10-C16 less Naphthalene (F2)	TRH >C16-C34	TRH >C34-C40	TRH >C10-C40 (sum of fractions)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Total BTEX
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					10	10	50	50	100	100	50	0.2	0.5	0.5	0.5	0.5	0.5	0.2
NEPM 1999 Soil HIL D - Commercial/Industrial																		
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial						26,000		20,000	27,000	38,000		430	99,000	27,000			81,000	
PFAS NEMP (2018) HSLs																		
NEPM 1999 EIL - Commercial/Industrial																		
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)						215	170		1,700	3,300		75	135	165			180	
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*																		
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^																		
NEPM 1999 Management Limits - Commercial/Industrial (coarse)					700		1,000		3,500	10,000								
Location Code	**Field ID**	**Depth**	**Date**	**Sample Type**														
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB01-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB02-02	0.4 - 0.5	20/04/2018	Normal	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	<10	<10	<50	<50	340	<100	340	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB04-04	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	-	-
	SB05-02	0.2 - 0.3	20/04/2018	Normal	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB05-05	2.2 - 2.3	20/04/2018	Field_D	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB05-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB06-07	1.8 - 1.9	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	<10	<10	<50	<50	210	260	470	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB07-04	0.75 - 0.85	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-08	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	<10	<10	<50	<50	120	<100	120	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB09-02	0.1 - 0.2	20/04/2018	Normal	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB09-05	1.05 - 1.15	20/04/2018	Field_B	<10	<10	<50	<50	110	<100	110	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB09-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB10-04	0.35 - 0.45	20/04/2018	Normal	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

						TRH							BTEX						
						TRH C6-C10	TRH C6-C10 less BTEX (F1)	TRH >C10-C16	TRH >C10-C16 less Naphthalene (F2)	TRH >C16-C34	TRH >C34-C40	TRH >C10-C40 (sum of fractions)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Total BTEX
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL						10	10	50	50	100	100	50	0.2	0.5	0.5	0.5	0.5	0.5	0.2
NEPM 1999 Soil HIL D - Commercial/Industrial																			
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial							26,000		20,000	27,000	38,000		430	99,000	27,000			81,000	
PFAS NEMP (2018) HSLs																			
NEPM 1999 EIL - Commercial/Industrial																			
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)							215	170		1,700	3,300		75	135	165			180	
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*																			
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^																			
NEPM 1999 Management Limits - Commercial/Industrial (coarse)						700		1,000		3,500	10,000								
SB11	SB11-01	0.05 - 0.15	20/04/2018	Normal		<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB11-04	0.05 - 0.15	20/04/2018	Field_D		-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal		<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB12-02	0.4 - 0.5	20/04/2018	Normal		-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	-	-
	SB12-06	1.9 - 2	20/04/2018	Normal		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal		-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal		<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB13-02	0.2 - 0.3	20/04/2018	Normal		<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB13-05	0.2 - 0.3	20/04/2018	Field_D		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-06	0.4 - 0.5	20/04/2018	Normal		-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal		<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal		<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB16-02	0.3 - 0.4	20/04/2018	Normal		<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal		<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB17-06	1.9 - 2	20/04/2018	Normal		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-07	0.2 - 0.3	20/04/2018	Normal		-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal		-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal		-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	-	-
	SB19-03	0.3 - 0.4	20/04/2018	Normal		<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-02	0.2 - 0.3	20/04/2018	Normal		-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	-	-
	SB20-05	0.25 - 0.35	20/04/2018	Normal		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-06	0.9 - 1	20/04/2018	Normal		-	-	-	-	-	-	-	-	-	-	-	-	-	-

*based on 2017 Canadian Federal Environmental Quality Guidelines
^ based on human health screening values for public open space

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

				Organochlorine Pesticides																							
				4,4-DDD	4,4-DDE	4,4-DDT	DDT+DDE+DDD	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	chlordane	Chlordane (cis)	Chlordane (trans)	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor epoxide	Methoxychlor
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.05	0.05	0.2	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	0.2
NEPM 1999 Soil HIL D - Commercial/Industrial							3,600							45	530			2,000				100			50		2,500
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial																											
PFAS NEMP (2018) HSLs																											
NEPM 1999 EIL - Commercial/Industrial						640																					
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)																											
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*																											
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^																											
NEPM 1999 Management Limits - Commercial/Industrial (coarse)																											
Location Code	Field ID	Depth	Date	Sample Type																							
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB01-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	<0.05	<0.05	<0.2	<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	<0.2
	SB02-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB04-02	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	<0.05	<0.05	<0.2	<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	<0.2
	SB05-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-03	0.2 - 0.3	20/04/2018	Field_D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-04	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	<0.05	<0.05	<0.2	<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	<0.2
	SB06-07	1.8 - 1.9	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	<0.05	<0.05	<0.2	<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	<0.2
	SB07-04	0.75 - 0.85	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-05	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	<0.05	<0.05	<0.2	<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	<0.2
	SB09-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-05	1.05 - 1.15	20/04/2018	Field_B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB10-04	0.35 - 0.45	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

					Organochlorine Pesticides																							
					4,4-DDD	4,4-DDE	4,4-DDT	DDT+DDE+DDD	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	chlordane	Chlordane (cis)	Chlordane (trans)	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor epoxide	Methoxychlor
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.05	0.05	0.2	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	0.2
NEPM 1999 Soil HIL D - Commercial/Industrial								3,600							45	530			2,000				100			50		2,500
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial																												
PFAS NEMP (2018) HSLs																												
NEPM 1999 EIL - Commercial/Industrial							640																					
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)																												
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*																												
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^																												
NEPM 1999 Management Limits - Commercial/Industrial (coarse)																												
SB11	SB11-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB11-04	0.05 - 0.15	20/04/2018	Field_D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-05	0.2 - 0.3	20/04/2018	Field_D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB16-02	0.3 - 0.4	20/04/2018	Normal	<0.05	<0.05	<0.2	<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	<0.2
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-07	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	<0.05	<0.05	<0.2	<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	<0.2
	SB19-03	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	<0.05	<0.05	<0.2	<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	<0.2
	SB20-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-05	0.25 - 0.35	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-06	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*based on 2017 Canadian Federal Environmental Quality Guidelines
^ based on human health screening values for public open space

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Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

				Polychlorinated Biphenyls	Phenols								
				PCBs (Sum of total)	2,4-dimethylphenol	2-methylphenol	2-nitrophenol	3+4-methylphenol	4-Chloro-3-methylphenol	Total Phenols	Sum of Phenols	1,1,1,2-Tetrachloroethane
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.1	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5
NEPM 1999 Soil HIL D - Commercial/Industrial				7						240,000		
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial												
PFAS NEMP (2018) HSLs												
NEPM 1999 EIL - Commercial/Industrial												
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)												
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*												
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^												
NEPM 1999 Management Limits - Commercial/Industrial (coarse)												
Location Code	**Field ID**	**Depth**	**Date**	**Sample Type**								
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-
	SB01-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	<0.1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	-
	SB02-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
	SB04-02	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	-	-	-	-	-	-	-	-	<0.5
	SB05-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
	SB05-05	2.2 - 2.3	20/04/2018	Field_D	-	-	-	-	-	-	-	-	-
	SB05-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
	SB06-07	1.8 - 1.9	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
	SB07-04	0.75 - 0.85	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
	SB07-08	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	<0.5
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	<0.1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	-
	SB09-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
	SB09-05	1.05 - 1.15	20/04/2018	Field_B	-	-	-	-	-	-	-	-	-
	SB09-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
	SB10-04	0.35 - 0.45	20/04/2018	Normal	-	-	-	-	-	-	-	-	-

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

						Polychlorinated Biphenyls	Phenols								
						PCBs (Sum of total)	2,4-dimethylphenol	2-methylphenol	2-nitrophenol	3+4-methylphenol	4-Chloro-3-methylphenol	Total Phenols	Sum of Phenols	1,1,1,2-Tetrachloroethane
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL						0.1	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5
NEPM 1999 Soil HIL D - Commercial/Industrial						7						240,000		
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial														
PFAS NEMP (2018) HSLs														
NEPM 1999 EIL - Commercial/Industrial														
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)														
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*														
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^														
NEPM 1999 Management Limits - Commercial/Industrial (coarse)														
SB11	SB11-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
	SB11-04	0.3 - 0.5	20/04/2018	Field_D									
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
	SB12-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	<0.5
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
	SB13-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
	SB13-05	0.3 - 0.4	20/04/2018	Field_D									
	SB13-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
	SB16-02	0.3 - 0.4	20/04/2018	Normal	<0.1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	-
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
	SB17-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
	SB17-07	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	<0.5
	SB19-03	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
	SB20-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	<0.5
	SB20-05	0.25 - 0.35	20/04/2018	Normal	-	-	-	-	-	-	-	-	-
	SB20-06	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-	-

*based on 2017 Canadian Federal Environmental Quality Guidelines
^ based on human health screening values for public open space

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

				Chlorinated Hydrocarbons																												
				1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,1-dichloropropene	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Hexachlorobutadiene	Trichloroethene (TCE)	Tetrachloroethene (PCE)	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				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	0.5	0.5	0.5	5	0.5	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5
NEPM 1999 Soil HIL D - Commercial/Industrial																																
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial																																
PFAS NEMP (2018) HSLs																																
NEPM 1999 EIL - Commercial/Industrial																																
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)																																
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*																																
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^																																
NEPM 1999 Management Limits - Commercial/Industrial (coarse)																																
Location Code	**Field ID**	**Depth**	**Date**	**Sample Type**																												
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB01-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB02-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB04-04	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	SB05-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-05	2.2 - 2.3	20/04/2018	Field_D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB06-07	1.8 - 1.9	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-04	0.75 - 0.85	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-08	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-05	1.05 - 1.15	20/04/2018	Field_B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB10-04	0.35 - 0.45	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

					1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,1-dichloropropene	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromodichloromethane	Bromoform
					Chlorinated Hydrocarbons													
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					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	0.5
NEPM 1999 Soil HIL D - Commercial/Industrial																		
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial																		
PFAS NEMP (2018) HSLs																		
NEPM 1999 EIL - Commercial/Industrial																		
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)																		
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*																		
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^																		
NEPM 1999 Management Limits - Commercial/Industrial (coarse)																		
SB11	SB11-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB11-04	0.05 - 0.15	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-02	0.4 - 0.5	20/04/2018	Normal	<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	<0.5
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-05	[illegible]	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB16-02	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-07	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	<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	<0.5
	SB19-03	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-02	0.2 - 0.3	20/04/2018	Normal	<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	<0.5
	SB20-05	0.25 - 0.35	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-06	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-

					Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Hexachlorobutadiene	Trichloroethene (TCE)	Tetrachloroethene (PCE)	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride
					Chlorinated Hydrocarbons													
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.5	0.5	5	0.5	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5
NEPM 1999 Soil HIL D - Commercial/Industrial																		
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial																		
PFAS NEMP (2018) HSLs																		
NEPM 1999 EIL - Commercial/Industrial																		
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)																		
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*																		
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^																		
NEPM 1999 Management Limits - Commercial/Industrial (coarse)																		
SB11	SB11-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB11-04	0.05 - 0.15	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-02	0.4 - 0.5	20/04/2018	Normal	<0.5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-05	[illegible]	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB16-02	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-07	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	<0.5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	SB19-03	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-02	0.2 - 0.3	20/04/2018	Normal	<0.5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	SB20-05	0.25 - 0.35	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-06	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*based on 2017 Canadian Federal Environmental Quality Guidelines
^ based on human health screning values for public open space

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Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

				Halogenated Benzenes										Halogenated Hydrocarbons					Halogenated Phenols						VOCs		
				1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Iodomethane	Trichlorofluoromethane	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,6-dichlorophenol	2-chlorophenol	Pentachlorophenol	cis-1,4-Dichloro-2-butene	Pentachloroethane	trans-1,4-Dichloro-2-butene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.5	5	5	0.5	5	0.5	0.5	0.5	0.5	0.5	2	0.5	0.5	0.5
NEPM 1999 Soil HIL D - Commercial/Industrial													80											660			
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial																											
PFAS NEMP (2018) HSLs																											
NEPM 1999 EIL - Commercial/Industrial																											
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)																											
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*																											
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^																											
NEPM 1999 Management Limits - Commercial/Industrial (coarse)																											
Location Code	Field ID	Depth	Date	Sample Type																							
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB01-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	-	-	-
	SB02-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB04-02	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<5	<5	<0.5	<5	-	-	-	-	-	-	<0.5	<0.5	<0.5
	SB05-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-05	2.2 - 2.3	20/04/2018	Field_D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB06-07	1.8 - 1.9	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-04	0.75 - 0.85	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-08	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<5	<5	<0.5	<5	-	-	-	-	-	-	<0.5	<0.5	<0.5
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	-	-	-
	SB09-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-05	1.05 - 1.15	20/04/2018	Field_B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB10-04	0.35 - 0.45	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

					Halogenated Benzenes										Halogenated Hydrocarbons					Halogenated Phenols						VOCs		
					1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Iodomethane	Trichlorofluoromethane	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,6-dichlorophenol	2-chlorophenol	Pentachlorophenol	cis-1,4-Dichloro-2-butene	Pentachloroethane	trans-1,4-Dichloro-2-butene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.5	5	5	0.5	5	0.5	0.5	0.5	0.5	0.5	2	0.5	0.5	0.5
NEPM 1999 Soil HIL D - Commercial/Industrial														80											660			
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial																												
PFAS NEMP (2018) HSLs																												
NEPM 1999 EIL - Commercial/Industrial																												
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)																												
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*																												
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^																												
NEPM 1999 Management Limits - Commercial/Industrial (coarse)																												
SB11	SB11-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB11-04	0.05 - 0.15	20/04/2018	Field D																								
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-02	0.4 - 0.5	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<5	<5	<0.5	<5	-	-	-	-	-	-	<0.5	<0.5	<0.5
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-05	0.2 - 0.3	20/04/2018	Field D																								
	SB13-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB16-02	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	-	-	-
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-07	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<5	<5	<0.5	<5	-	-	-	-	-	-	<0.5	<0.5	<0.5
	SB19-03	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-02	0.2 - 0.3	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<5	<5	<0.5	<5	-	-	-	-	-	-	<0.5	<0.5	<0.5
	SB20-05	0.25 - 0.35	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-06	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*based on 2017 Canadian Federal Environmental Quality Guidelines
^ based on human health screening values for public open space

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

				Inorganics						Nutrients	MAH									Solvents					SPOCAS
				Exchangeable Sodium	Cation Exchange Capacity (CEC)	Exchangeable Magnesium	Exchangeable Calcium	Exchangeable Potassium	Cyanide Total	TOC	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Methyl Ethyl Ketone	2-hexanone (MBK)	4-Methyl-2-pentanone	Carbon disulfide	Vinyl acetate	pH (CaCl2)
				cmol/kg	cmol/kg	cmol/kg	cmol/kg	cmol/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH Unit
EQL				0.2	0.2	0.2	0.2	0.2	1	5,000	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	5	5	0.5	5	0.1
NEPM 1999 Soil HIL D - Commercial/Industrial																									
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial																									
PFAS NEMP (2018) HSLs																									
NEPM 1999 EIL - Commercial/Industrial																									
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)																									
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*																									
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^																									
NEPM 1999 Management Limits - Commercial/Industrial (coarse)																									
Location Code	**Field ID**	**Depth**	**Date**	**Sample Type**																					
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB01-02	0.1 - 0.2	20/04/2018	Normal	2.1	14.3	3.5	8.0	0.7	-	5,000	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB02-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB04-04	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	-
	SB05-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-05	2.2 - 2.3	20/04/2018	Field_D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB06-07	1.8 - 1.9	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-04	0.75 - 0.85	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-08	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	-
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-05	1.05 - 1.15	20/04/2018	Field_B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB10-04	0.35 - 0.45	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

					Inorganics						Nutrients	MAH									Solvents					SPOCAS
					Exchangeable Sodium	Cation Exchange Capacity (CEC)	Exchangeable Magnesium	Exchangeable Calcium	Exchangeable Potassium	Cyanide Total	TOC	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Methyl Ethyl Ketone	2-hexanone (MBK)	4-Methyl-2-pentanone	Carbon disulfide	Vinyl acetate	pH (CaCl2)
					cmol/kg	cmol/kg	cmol/kg	cmol/kg	cmol/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH Unit
EQL					0.2	0.2	0.2	0.2	0.2	1	5,000	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	5	5	0.5	5	0.1
NEPM 1999 Soil HIL D - Commercial/Industrial																										
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial																										
PFAS NEMP (2018) HSLs																										
NEPM 1999 EIL - Commercial/Industrial																										
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)																										
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*																										
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^																										
NEPM 1999 Management Limits - Commercial/Industrial (coarse)																										
SB11	SB11-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB11-04	0.05 - 0.15	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	-
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-05	0.2 - 0.3	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB16-02	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-07	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	-
	SB19-03	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	-
	SB20-05	0.25 - 0.35	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-06	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*based on 2017 Canadian Federal Environmental Quality Guidelines
^ based on human health screening values for public open space

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

									PFAS								
									N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (Et	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (M	N-Methyl perfluorooctane sulfonamidoethanol (MeFOS	Organic Matter	Perfluorodecane sulfonic acid (PFDS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonamide (FOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Sum of PFAS
EQL									mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
									0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.5	0.0002	0.0002	0.0002	0.0002	0.0005	0.0002	0.0002
NEPM 1999 Soil HIL D - Commercial/Industrial																						
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial																						
PFAS NEMP (2018) HSLs																						
NEPM 1999 EIL - Commercial/Industrial																						
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)																						
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*																						
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^																						
NEPM 1999 Management Limits - Commercial/Industrial (coarse)																						
Location Code	Field ID	Depth	Date	Sample Type																		
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB01-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	0.9	-	-	-	-	-	-	-	-	-	-	-
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB02-02	0.4 - 0.5	20/04/2018	Normal	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0004	0.0009	<0.0002	<0.0002	<0.0005	<0.0002	0.111				
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB04-02	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	SB06-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB06-03	0.2 - 0.3	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB06-04	0.4 - 0.5	20/04/2018	Normal	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	0.0055				
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB06-07	1.8 - 1.9	20/04/2018	Normal	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	0.0018				
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-04	0.75 - 0.85	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-05	2.9 - 3	20/04/2018	Normal	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002				
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-05	0.05 - 0.15	20/04/2018	Field B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-06	1.9 - 2	20/04/2018	Normal	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002				
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB10-04	0.35 - 0.45	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

					PFAS														
					N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (Et	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (M	N-Methyl perfluorooctane sulfonamidoethanol (MeFOS	Organic Matter	Perfluorodecane sulfonic acid (PFDS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonamide (FOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Sum of PFAS
EQL					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
					0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.1	0.0002	0.0002	0.0002	0.0002	0.0005	0.0002	0.0002
NEPM 1999 Soil HIL D - Commercial/Industrial																		
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial																		
PFAS NEMP (2018) HSLs																		
NEPM 1999 EIL - Commercial/Industrial																		
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)																		
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*																		
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^																		
NEPM 1999 Management Limits - Commercial/Industrial (coarse)																		
SB11	SB11-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB11-04	1.4 - 1.5	20/04/2018	Field_D														
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	<0.0002	<0.0002	0.0002	<0.0005	<0.0002	0.0035
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-05	0.1 - 0.2	20/04/2018	Field_D														
	SB13-06	0.4 - 0.5	20/04/2018	Normal	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0004	0.0033	0.0003	0.0013	<0.0005	<0.0002	0.468
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB16-02	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-06	1.9 - 2	20/04/2018	Normal	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	<0.0002	<0.0002	0.0002	<0.0005	<0.0002	0.0030
	SB17-07	0.2 - 0.3	20/04/2018	Normal	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	0.0026	<0.0002	<0.0002	<0.0005	<0.0002	0.0283
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB19-03	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-05	0.25 - 0.35	20/04/2018	Normal	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002
	SB20-06	0.9 - 1	20/04/2018	Normal	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002

*based on 2017 Canadian Federal Environmental Quality Guidelines
^ based on human health screening values for public open space

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

					PFAS																	Asbestos
					Sum of PFAS (WA DER List)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Sum of PFHxS and PFOS	Perfluoropentanoic acid (PFPeA)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	Perfluorobutanesulfonic acid	Perfluorobutanoic acid	Perfluorodecanoic acid	Perfluorododecanoic acid	Perfluoroheptanoic acid	Perfluorononanoic acid	Perfluoroundecanoic acid	Perfluorohexanoic acid	Asbestos fibres
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
EQL					0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0005	0.0005	0.0005	0.0005	0.0002	0.001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	
NEPM 1999 Soil HIL D - Commercial/Industrial																						
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial																						
PFAS NEMP (2018) HSLs								50	20													
NEPM 1999 EIL - Commercial/Industrial																						
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)																						
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*									0.14													
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^								10	1													
NEPM 1999 Management Limits - Commercial/Industrial (coarse)																						
Location Code	**Field ID**	**Depth**	**Date**	**Sample Type**																		
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB01-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB02-02	0.4 - 0.5	20/04/2018	Normal	0.110	0.0049	0.104	0.0006	0.109	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0006	-
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB04-02	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-03	2.2 - 2.3	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-04	0.4 - 0.5	20/04/2018	Normal	0.0055	0.0002	0.0053	<0.0002	0.0055	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB06-07	1.8 - 1.9	20/04/2018	Normal	0.0018	0.0012	0.0003	<0.0002	0.0015	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	-
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-04	0.75 - 0.85	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-08	2.9 - 3	20/04/2018	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-05	1.05 - 1.15	20/04/2018	Field B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-06	1.9 - 2	20/04/2018	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
	SB10-04	0.35 - 0.45	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- NEPM

					PFAS																		Asbestos
					Sum of PFAS (WA DER List)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Sum of PFHxS and PFOS	Perfluoropentanoic acid (PFPeA)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	Perfluorobutanesulfonic acid	Perfluorobutanoic acid	Perfluorodecanoic acid	Perfluorododecanoic acid	Perfluoroheptanoic acid	Perfluorononanoic acid	Perfluoroundecanoic acid	Perfluorohexanoic acid	Asbestos fibres
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
EQL					0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0005	0.0005	0.0005	0.0005	0.0002	0.001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	
NEPM 1999 Soil HIL D - Commercial/Industrial																							
CRC CARE 2011 Soil HSL D for Direct Contact - Commercial / Industrial																							
PFAS NEMP (2018) HSLs								50	20														
NEPM 1999 EIL - Commercial/Industrial																							
NEPM 1999 Soil ESLs - Commercial/Industrial (coarse)																							
PFAS NEMP (2018) Interim Soil - Ecological indirect exposure*									0.14														
PFAS NEMP (2018) Interim Soil - Ecological direct exposure^								10	1														
NEPM 1999 Management Limits - Commercial/Industrial (coarse)																							
SB11	SB11-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB11-04	0.25 - 0.35	20/04/2018	Field D																			
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal	0.0033	0.0010	<0.0002	<0.0002	0.0010	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0020	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-05	0.1 - 0.2	20/04/2018	Field D																			
	SB13-06	0.4 - 0.5	20/04/2018	Normal	0.463	0.0456	0.405	0.0028	0.451	0.0006	<0.0005	<0.0005	<0.0005	<0.0005	0.0004	<0.001	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	0.0082	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
	SB16-02	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-06	1.9 - 2	20/04/2018	Normal	0.0028	0.0020	0.0006	<0.0002	0.0026	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	-
	SB17-07	0.2 - 0.3	20/04/2018	Normal	0.0277	0.0062	0.0204	0.0035	0.0266	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0006	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB19-03	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-05	0.25 - 0.35	20/04/2018	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-
	SB20-06	0.9 - 1	20/04/2018	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-

*based on 2017 Canadian Federal Environmental Quality Guidelines
^ based on human health screening values for public open space

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

					Metals														
					Arsenic	Barium	Beryllium	Cadmium	Chromium (hexavalent)	Chromium (III+VI)	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Nickel	Silver	Zinc
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					5	10	1	1	0.5	2	2	5	50	5	5	0.1	2	2	5
SA EPA - Waste Fill					20	300	20	3	1		170	60		300	500	1	60		200
SA EPA - Intermediate Waste					200		40	30	200		170	2,000		1,200	6,000	30	600		14,000
SA EPA - Low Level Contaminated Waste					750		150	60	750		1,000	7,500		5,000	10,000	110	3,000		50,000
Location Code	Field ID	Depth	Date	Sample Type															
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	<5	-	-	<1	-	27	-	17	-	16	-	<0.1	12	-	41
	SB01-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	22,100	-	-	-	-	-	-
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	<5	60	<1	<1	<0.5	17	4	10	14,800	11	168	<0.1	10	<2	25
	SB02-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	5	-	-	<1	-	24	-	17	-	13	-	<0.1	20	-	47
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB04-08	2.9 - 3	20/04/2018	Normal	<5	-	-	<1	-	44	-	26	-	8	-	<0.1	24	-	33
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	<5	-	-	<1	-	9	-	<5	-	<5	-	<0.1	2	-	6
	SB05-02	0.2 - 0.3	20/04/2018	Normal	<5	-	-	<1	-	37	-	17	-	10	-	<0.1	18	-	26
	[illegible]	[illegible]	[illegible]	Field_D	<5	-	-	<1	-	[illegible]	-	17	-	[illegible]	-	<0.1	[illegible]	-	[illegible]
	SB05-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	<5	-	-	<1	-	31	-	17	-	8	-	<0.1	14	-	29
	SB06-07	1.8 - 1.9	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	8	-	-	<1	-	12	-	15	-	17	-	<0.1	9	-	32
	SB07-04	0.75 - 0.85	20/04/2018	Normal	<5	-	-	<1	-	23	-	10	-	9	-	<0.1	8	-	12
	SB07-08	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	<5	40	<1	<1	<0.5	13	5	17	13,200	22	244	<0.1	12	<2	50
	SB09-02	0.1 - 0.2	20/04/2018	Normal	<5	-	-	<1	-	3	-	6	-	<5	-	<0.1	5	-	7
	[illegible]	[illegible]	[illegible]	Field_D	<5	-	-	<1	-	12	-	[illegible]	-	23	-	<0.1	11	-	[illegible]
	SB09-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB10-04	0.35 - 0.45	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

Location Code	Field ID	Depth	Date	Sample Type	Arsenic	Barium	Beryllium	Cadmium	Chromium (hexavalent)	Chromium (III+VI)	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Nickel	Silver	Zinc
					Metals														
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					5	10	1	1	0.5	2	2	5	50	5	5	0.1	2	2	5
SA EPA - Waste Fill					20	300	20	3	1		170	60		300	500	1	60		200
SA EPA - Intermediate Waste					200		40	30	200		170	2,000		1,200	6,000	30	600		14,000
SA EPA - Low Level Contaminated Waste					750		150	60	750		1,000	7,500		5,000	10,000	110	3,000		50,000
SB11	SB11-01	0.05 - 0.15	20/04/2018	Normal	7	-	-	<1	-	24	-	20	-	17	-	<0.1	14	-	63
SB11	[illegible]	0.05 - 0.15	20/04/2018	Field_D	[illegible]	-	-	<1	-	[illegible]	-	[illegible]	-	[illegible]	-	<0.1	[illegible]	-	[illegible]
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	SB12-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	SB12-06	1.9 - 2	20/04/2018	Normal	<5	-	-	<1	-	34	-	19	-	6	-	<0.1	16	-	24
SB12	SB12-07	1.2 - 1.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	<5	-	-	<1	-	5	-	6	-	<5	-	<0.1	5	-	12
SB13	SB13-02	0.2 - 0.3	20/04/2018	Normal	<5	-	-	<1	-	20	-	14	-	9	-	<0.1	9	-	18
SB13	SB13-05	0.2 - 0.3	[illegible]	Field_D	<5	-	-	<1	-	[illegible]	-	[illegible]	-	[illegible]	-	<0.1	[illegible]	-	[illegible]
SB13	SB13-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	<5	-	-	<1	-	10	-	9	-	11	-	<0.1	6	-	72
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16	SB16-02	0.3 - 0.4	20/04/2018	Normal	<5	20	<1	<1	<0.5	5	<2	<5	5,550	<5	37	<0.1	2	<2	7
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	<5	-	-	<1	-	14	-	13	-	14	-	<0.1	10	-	29
SB17	SB17-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17	SB17-07	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	<5	-	-	<1	-	8	-	8	-	28	-	<0.1	4	-	40
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	<5	-	-	<1	-	11	-	7	-	12	-	<0.1	4	-	16
SB19	SB19-03	0.3 - 0.4	20/04/2018	Normal	<5	-	-	<1	-	24	-	13	-	5	-	<0.1	13	-	16
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	<5	-	-	<1	-	16	-	10	-	15	-	<0.1	7	-	37
SB20	SB20-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB20	SB20-05	0.25 - 0.35	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB20	SB20-06	0.9 - 1	20/04/2018	Normal	<5	-	-	<1	-	21	-	11	-	<5	-	<0.1	8	-	14

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Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

	PAH																					
	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(ghi)perylene	Benzo(k)fluoranthene	Benzo(b+j)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAH	Total Carc PAH	Carcinogenic PAH (BaP TEQ Hist LOR)	Carcinogenic PAH (BaP TEQ LOR)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	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	0.5	0.5	0.5	0.5	0.5	0.5	0.5
SA EPA - Waste Fill					3												5			
SA EPA - Intermediate Waste					3												40			
SA EPA - Low Level Contaminated Waste					3												200			

Location Code	Field ID	Depth	Date	Sample Type																				
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB01-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB02-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-
	SB04-02	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-
	SB05-02	0.2 - 0.3	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB05-03	0.4 - 0.5	20/04/2018	Normal	<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	<1	<0.5	<0.5	<0.5	0.6	1.2
	SB05-04	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-
	SB06-02	1.8 - 1.9	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB07-04	0.75 - 0.85	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-05	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB09-02	0.1 - 0.2	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB09-05	0.9 - 1	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB09-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB10-04	0.35 - 0.45	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

Location Code	Field ID	Depth	Date	Sample Type	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzo(b+j)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAH	Total Carc PAH	Carcinogenic PAH (BaP TEQ Half LOR)	Carcinogenic PAH (BaP TEQ LOR)
					PAH																			
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					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	0.5	0.5	0.5	0.5	0.5	0.5	0.5
SA EPA - Waste Fill									1												5			
SA EPA - Intermediate Waste									2												40			
SA EPA - Low Level Contaminated Waste									5												200			
SB11	SB11-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB11-04	0.05 - 0.15	20/04/2018	Field_D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-
	SB12-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB13-02	0.2 - 0.3	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB13-05	[illegible]	20/04/2018	Field_D	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	SB13-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-
	SB16-02	0.3 - 0.4	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
	SB17-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-07	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-
	SB19-03	0.3 - 0.4	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-
	SB20-05	0.25 - 0.35	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-06	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

					TRH											
					TRH C6-C9	TRH >C10-C14	TRH >C15-C28	TRH >C29 - C36	TRH >C10 - C36 (sum of fractions)	TRH C6-C10	TRH C6-C10 less BTEX (F1)	TRH >C10-C16	TRH >C10-C16 less Naphthalene (F2)	TRH >C16-C34	TRH >C34-C40	TRH >C10-C40 (sum of fractions)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
PQL					10	50	100	100	50	10	10	50	50	100	100	50
SA EPA - Waste Fi					65				1,000							
SA EPA - Intermediate Waste					100				1,000							
SA EPA - Low Level Contaminated Waste					1,000				10,000							
Location Code	Field ID	Depth	Date	Sample Type												
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50
	SB01-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50
	SB02-02	0.4 - 0.5	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	<10	<50	180	200	380	<10	<10	<50	<50	340	<100	340
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50
	SB04-03	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-02	0.2 - 0.3	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50
	SB05-03	0.4 - 0.5	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50
	SB05-04	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50
	SB06-07	1.8 - 1.9	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	<10	<50	<100	210	210	<10	<10	<50	<50	210	260	470
	SB07-04	0.75 - 0.85	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-08	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	120	<100	120
	SB09-02	0.1 - 0.2	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50
	SB09-03	0.3 - 0.4	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	-	<100	110
	SB09-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
	SB10-04	0.35 - 0.45	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50

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Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

		TRH												
		TRH C6-C9	TRH >C10-C14	TRH >C15-C28	TRH >C29 - C36	TRH >C10 - C36 (sum of fractions)	TRH C6-C10	TRH C6-C10 less BTEX (F1)	TRH >C10-C16	TRH >C10-C16 less Naphthalene (F2)	TRH >C16-C34	TRH >C34-C40	TRH >C10-C40 (sum of fractions)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		10	50	100	100	50	10	10	50	50	100	100	50
SA EPA - Water IP		65				1,000							
SA EPA - Intermediate Waste		100				1,000							
SA EPA - Low Level Contaminated Waste		1,000				10,000							
Location Code	**Field ID**	**Depth**	**Date**	**Sample Type**										
SB11	SB11-02	0.05 - 0.15	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50
	SB11-04	0.25 - 0.35	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50
	SB12-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50
	SB13-02	0.2 - 0.3	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50
	SB13-05	0.5 - 0.6	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50
	SB16-02	0.3 - 0.4	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50
	SB17-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-07	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
	SB19-03	0.3 - 0.4	20/04/2018	Normal	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-05	0.25 - 0.35	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-06	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

						BTEX						
						Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Total BTEX
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
PQL						0.2	0.5	0.5	0.5	0.5	0.5	0.2
SA EPA - Waste Fi						1	4	8.1			14	
SA EPA - Intermediate Waste						15	50	180			180	
SA EPA - Low Level Contaminated Waste						15	500	1 000			1 800	
Location Code	Field ID	Depth	Date	Sample Type								
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB01-02	0.1 - 0.2	20/04/2018	Normal		-	-	-	-	-	-	-
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB02-02	0.4 - 0.5	20/04/2018	Normal		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB04-03	2.9 - 3	20/04/2018	Normal		-	-	-	-	-	-	-
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal		<0.2	<0.5	<0.5	<0.5	<0.5	-	-
	SB05-02	0.2 - 0.3	20/04/2018	Normal		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB01-03	0.4 - 0.5	20/04/2018	Normal		-	-	-	-	-	-	-
	SB05-04	0.4 - 0.5	20/04/2018	Normal		-	-	-	-	-	-	-
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB06-07	1.8 - 1.9	20/04/2018	Normal		-	-	-	-	-	-	-
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB07-04	0.75 - 0.85	20/04/2018	Normal		-	-	-	-	-	-	-
	SB07-05	2.9 - 3	20/04/2018	Normal		-	-	-	-	-	-	-
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB09-02	0.1 - 0.2	20/04/2018	Normal		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB09-04	0.4 - 0.5	20/04/2018	Normal		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB09-06	1.9 - 2	20/04/2018	Normal		-	-	-	-	-	-	-
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal		-	-	-	-	-	-	-
	SB10-04	0.35 - 0.45	20/04/2018	Normal		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2

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17/05/2018

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

					BTEX						
					Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Total BTEX
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.2	0.5	0.5	0.5	0.5	0.5	0.2
SA EPA - Waste FP					1	5.4	2.7	-	-	14	-
SA EPA - Intermediate Waste					5	50	100			180	
SA EPA - Low Level Contaminated Waste					75	550	1,000			1,800	
Location Code	Field ID	Depth	Date	Sample Type							
SB11	SB11-02	0.05 - 0.15	20/04/2018	Normal	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB11-04	0.05 - 0.15	20/04/2018	Field D	-	-	-	-	-	-	-
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB12-02	0.4 - 0.5	20/04/2018	Normal	<0.2	<0.5	<0.5	<0.5	<0.5	-	-
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal	-	-	-	-	-	-	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB13-02	0.2 - 0.3	20/04/2018	Normal	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB13-05	0.2 - 0.3	20/04/2018	Field D	-	-	-	-	-	-	-
	SB13-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB16-02	0.3 - 0.4	20/04/2018	Normal	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
	SB17-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-
	SB17-07	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	<0.2	<0.5	<0.5	<0.5	<0.5	-	-
	SB19-03	0.3 - 0.4	20/04/2018	Normal	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-
	SB20-02	0.2 - 0.3	20/04/2018	Normal	<0.2	<0.5	<0.5	<0.5	<0.5	-	-
	SB20-05	0.25 - 0.35	20/04/2018	Normal	-	-	-	-	-	-	-
	SB20-06	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-

C:\Users\User\Desktop\Town of Gawler\Last\170974-01 Waste table.xlsx

17/05/2018

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

	Organochlorine Pesticides																												
	4,4-DDD	4,4-DDE	4,4-DDT	DDT+DDE+DDD	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	Chlordane (cis)	Chlordane (trans)	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor epoxide	Methoxychlor
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.05	0.05	0.2	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	0.1
SA EPA - Waste Fill			1								0.5	1										0.5		
SA EPA - Intermediate Waste			2								2	2										2		
SA EPA - Low Level Contaminated Waste			50								50	50										50		

Location Code	Field ID	Depth	Date	Sample Type																										
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB01-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	<0.05	<0.05	<0.2	<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	<0.2
	SB02-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB04-03	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	<0.05	<0.05	<0.2	<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	<0.2
	SB05-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-03	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	<0.05	<0.05	<0.2	<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	<0.2
	SB06-02	1.8 - 1.9	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	<0.05	<0.05	<0.2	<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	<0.2
	SB07-04	0.75 - 0.85	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-05	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	<0.05	<0.05	<0.2	<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	<0.2
	SB09-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-03	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB10-04	0.35 - 0.45	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

					Organochlorine Pesticides																									
					4.4-DDD	4.4-DDE	4.4-DDT	SDT+DDE+DDD	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	Chlordane (cis)	Chlordane (trans)	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor epoxide	Methoxychlor			
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg			
EQA					0.05	0.05	0.2	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	0.2		
SA EPA - Waste Fill							8								1.4	50									16					
SA EPA - Intermediate Waste							2								2	2									2					
SA EPA - Low Level Contaminated Waste							50								50	50									50					
Location Code	Field ID	Depth	Date	Sample Type																										
SB11	SB11-02	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SB11-04	0.05 - 0.15	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SB12-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SB12-07	1.2 - 1.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SB13-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SB13-05	0.2 - 0.3	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SB13-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SB16-02	0.3 - 0.4	20/04/2018	Normal	<0.05	<0.05	<0.2	<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	<0.2		
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SB17-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SB17-07	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	<0.05	<0.05	<0.2	<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	<0.2		
	SB19-03	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	<0.05	<0.05	<0.2	<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	<0.2		
	SB20-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SB20-05	0.25 - 0.35	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SB20-06	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

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Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

						Polychlorinated Biphenyls	Phenols						
						PCBs (Sum of total)	2,4-dimethylphenol	2-methylphenol	2-chlorophenol	3&4-methylphenol	4-chloro-3-methylphenol	Total Phenols	Sum of Phenols
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
PQL						0.1	0.5	0.5	0.5	1	0.5	0.5	0.5
SA EPA - Waste Fi						2						0.2	
SA EPA - Intermediate Waste						2						17,000	
SA EPA - Low Level Contaminated Waste						50						50,000	
Location Code	Field ID	Depth	Date	Sample Type									
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal		-	-	-	-	-	-	-	-
	SB01-02	0.3 - 0.2	20/04/2018	Normal		-	-	-	-	-	-	-	-
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	<0.1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	
	SB02-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	
	SB04-03	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	-	-	-	-	-	-	-	-	
	SB05-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	
	SB05-03	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	
	SB06-02	1.8 - 1.9	20/04/2018	Normal	-	-	-	-	-	-	-	-	
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	
	SB07-04	0.75 - 0.85	20/04/2018	Normal	-	-	-	-	-	-	-	-	
	SB07-05	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	<0.1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	
	SB09-02	0.3 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	
	SB09-03	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-	
	SB09-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	
	SB10-04	0.35 - 0.45	20/04/2018	Normal	-	-	-	-	-	-	-	-	

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17/05/2018

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

					Total Biphenyls	Phenols						
					PCBs (Sum of total)	2,4-dimethylphenol	2-methylphenol	2-nitrophenol	3,4+methylphenol	4-chloro-3-methylphenol	Total Phenols	Sum of Phenols
EQA					0.1	0.5	0.5	0.5	1	0.5	0.5	0.5
SA EPA - Waste Fill					2						0.5	
SA EPA - Intermediate Waste					2						17,000	
SA EPA - Low Level Contaminated Waste					50						50,000	
Location Code	Field ID	Depth	Date	Sample Type								
SB11	SB11-02	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-
	SB11-04	0.05 - 0.15	20/04/2018	Field D	-	-	-	-	-	-	-	-
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-
	SB12-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal	-	-	-	-	-	-	-	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-
	SB13-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-
	SB13-05	0.2 - 0.3	20/04/2018	Field D	-	-	-	-	-	-	-	-
	SB13-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-
	SB16-02	0.3 - 0.4	20/04/2018	Normal	<0.1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-
	SB17-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-
	SB17-07	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-
	SB19-03	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-
	SB20-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-
	SB20-05	0.25 - 0.35	20/04/2018	Normal	-	-	-	-	-	-	-	-
	SB20-06	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-

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Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

					Chlorinated Hydrocarbons																																	
					1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,1-dichloropropene	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Hexachlorobutadiene	Trichloroethene (TCE)	Tetrachloroethene (PCE)	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
PQL					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	0.5	0.5	0.5	0.5	1	0.5	1	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1
SA EPA - Waste Fill																																						
SA EPA - Intermediate Waste																																						14
SA EPA - Low Level Contaminated Waste																																						≥5.2
Location Code	Field ID	Depth	Date	Sample Type																																		
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB01-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB02-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB04-03	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
	SB05-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-04	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB06-07	1.8 - 1.9	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-04	0.75 - 0.85	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-08	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-05	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB10-04	0.35 - 0.45	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

					Chlorinated Hydrocarbons																																
					1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,1-dichloropropene	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Hexachlorobutadiene	Tetrachloroethene (TCE)	Tetrachloroethene (PCE)	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					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	0.5	0.5	0.5	0.5	5	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	5
SA EPA - Waste Fill																																				
SA EPA - Intermediate Waste																																14				
SA EPA - Low Level Contaminated Waste																																25.2				
Location Code	**Field ID**	**Depth**	**Date**	**Sample Type**																																
SB11	SB11-02	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB11-04	0.05 - 0.15	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-02	0.4 - 0.5	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-05	0.2 - 0.3	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB16-02	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-07	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	SB19-03	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-02	0.2 - 0.3	20/04/2018	Normal	<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	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	SB20-05	0.25 - 0.35	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-06	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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17/05/2018

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

					Halogenated Benzenes										Halogenated Hydrocarbons				
					1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Iodomethane	Trichlorofluoromethane
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.5	5	5	0.5	5
SA EPA - Waste Fi																			
SA EPA - Intermediate Waste																			
SA EPA - Low Level Contaminated Waste																			
Location Code	Field ID	Depth	Date	Sample Type															
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB01-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-
	SB02-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB04-03	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<5	<5	<0.5	<5
	SB05-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-03	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-04	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-
	SB06-02	1.8 - 1.9	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-
	SB07-04	0.75 - 0.85	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-05	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<5	<5	<0.5	<5
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-
	SB09-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-04	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB10-04	0.35 - 0.45	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

					Halogenated Benzenes										Halogenated Hydrocarbons				
					1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Iodomethane	Trichlorofluoromethane
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.5	5	5	0.5	5
SA EPA - Waste FP																			
SA EPA - Intermediate Waste																			
SA EPA - Low Level Contaminated Waste																			
Location Code	**Field ID**	**Depth**	**Date**	**Sample Type**															
SB11	SB11-02	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB11-04	0.05 - 0.15	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-02	0.4 - 0.5	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<5	<5	<0.5	<5
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-04	0.2 - 0.3	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB16-02	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-07	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<5	<5	<0.5	<5
	SB19-03	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-
	SB20-02	0.2 - 0.3	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<5	<5	<0.5	<5
	SB20-05	0.25 - 0.35	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-06	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

C:\Users\User\Desktop\Town of Gawler\Job\170974-01 Waste table.xlsx 17/05/2018

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

					Halogenated Phenols						VOCs			Inorganics							TOC
					2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,6-dichlorophenol	2-chlorophenol	Pentachlorophenol	cis-1,4-Dichloro-2-butene	Pentachloroethane	trans-1,4-Dichloro-2-butene	Exchangeable Sodium	Cation Exchange Capacity (CEC)	Exchangeable Magnesium	Exchangeable Calcium	Exchangeable Potassium	Cyanide Total	Moisture Content	TOC
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	cmol/kg	cmol/kg	cmol/kg	cmol/kg	cmol/kg	mg/kg	%	mg/kg
PQL					0.5	0.5	0.5	0.5	0.5	2	0.5	0.5	0.5	0.2	0.2	0.2	0.2	0.2	1	0.1	5,000
SA EPA - Waste Fi																			500		
SA EPA - Intermediate Waste																			1,000		
SA EPA - Low Level Contaminated Waste																			1,500		
Location Code	Field ID	Depth	Date	Sample Type																	
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.9	-
	SB01-02	0.3 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	2.1	14.3	3.5	8.0	0.7	-	6.5	5,000
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<2	-	-	-	-	-	-	-	-	<1	4.7	-
	SB02-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.6	-
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.6	-
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.4	-
	SB04-03	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.0	-
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	-	-	-	3.6	-
	SB05-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.9	-
	SB05-03	0.3 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.7	-
	SB05-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.7	-
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.9	-
	SB06-07	1.8 - 1.9	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.4	-
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.2	-
	SB07-04	0.75 - 0.85	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.8	-
	SB07-08	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.6	-
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	-	-	-	1.9	-
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<2	-	-	-	-	-	-	-	-	<1	3.1	-
	SB09-02	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43.0	-
	SB09-04	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.9	-
	SB09-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.8	-
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB10-04	0.35 - 0.45	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.3	-

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17/05/2018

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

					Halogenated Phenols						VOCs			Inorganics							TOC
					2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,6-dichlorophenol	4-chlorophenol	Pentachlorophenol	cis-1,4-Dichloro-2-butene	Pentachloroethane	trans-1,4-Dichloro-2-butene	Exchangeable Sodium	Cation Exchange Capacity (CEC)	Exchangeable Magnesium	Exchangeable Calcium	Exchangeable Potassium	Cyanide Total	Moisture Content	TOC
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	cmol+/kg	cmol+/kg	cmol+/kg	cmol+/kg	cmol+/kg	mg/kg	%	mg/kg
EQL					0.5	0.5	0.5	0.5	0.5	2	0.5	0.5	0.5	0.2	0.2	0.2	0.2	0.2	1	0.1	5,000
SA EPA - Waste Fill																			450		
SA EPA - Intermediate Waste																			1,000		
SA EPA - Low Level Contaminated Waste																			3,500		
Location Code	**Field ID**	**Depth**	**Date**	**Sample Type**																	
SB11	SB11-02	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-
	SB11-04	0.05 - 0.15	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.3	-
SB12	SB12-02	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.7	-
	SB12-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	-	-	-	2.3	-
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.8	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.3	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
	SB13-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.8	-
	SB13-03	0.3 - 0.4	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.3	-
	SB13-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.3	-
SB16	SB16-07	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.4	-
	SB16-02	0.3 - 0.4	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<2	-	-	-	-	-	-	-	-	<1	2.4	-
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	-
	SB17-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4	-
	SB17-07	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.0	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	-	-	-	3.4	-
	SB19-03	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.8	-
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.0	-
	SB20-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	-	-	-	11.4	-
	SB20-05	0.25 - 0.35	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.2	-
	SB20-06	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.6	-

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

					MAH									Solvents					SPOCAS
					1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Methyl Ethyl Ketone	2-hexanone (MBK)	4-Methyl-2-pentanone	Carbon disulfide	Vinyl acetate	pH (CaCl2)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH Units
PQL					0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	5	5	0.5	5	0.1
SA EPA - Waste Fi																			
SA EPA - Intermediate Waste																			
SA EPA - Low Level Contaminated Waste																			
Location Code	Field ID	Depth	Date	Sample Type															
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB01-02	0.3 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB02-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB04-03	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	-
	SB05-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-03	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-04	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB06-07	1.8 - 1.9	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-04	0.75 - 0.85	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-08	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	-
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-02	0.3 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-04	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB10-04	0.35 - 0.45	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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17/05/2018

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

					MAH									Solvents					SPOCAS
					1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Methyl Ethyl Ketone	2-hexanone (MBK)	4-Methyl-2-pentanone	Carbon disulfide	Vinyl acetate	pH (CaCl2)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH Unit
EQL					0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	5	5	0.5	5	0.1
SA EPA - Waste FP																			
SW EPA - Intermediate Waste																			
SW EPA - Low Level Contaminated Waste																			
Location Code	**Field ID**	**Depth**	**Date**	**Sample Type**															
SB11	SB11-02	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB11-04	0.05 - 0.15	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-02	0.4 - 0.5	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	-
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-05	0.2 - 0.3	20/04/2018	Field D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-06	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB16-02	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-07	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	-
	SB19-03	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-02	0.2 - 0.3	20/04/2018	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	-
	SB20-05	0.25 - 0.35	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-06	0.9 - 1	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

PFAS

Location Code	Field ID	Depth	Date	Sample Type	Sum of PFAS (WA DER List)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Sum of PFHxS and PFOS	Perfluoropentanoic acid (PFPeA)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	Perfluorobutanesulfonic acid	Perfluorobutanoic acid	Perfluorodecanoic acid	Perfluorododecanoic acid	Perfluoroheptanoic acid	Perfluorononanoic acid
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0005	0.0005	0.0005	0.0005	0.0002	0.001	0.0002	0.0002	0.0002	0.0002
SA EPA - Waste Fill																				
SA EPA - Intermediate Waste																				
SA EPA - Low Level Contaminated Waste																				
SB01	SB01-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB01-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB02	SB02-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB02-02	0.4 - 0.5	20/04/2018	Normal	0.110	0.0049	0.104	0.0006	0.109	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002
SB03	SB03-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04	SB04-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB04-08	2.9 - 3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB05	SB05-01	0.08 - 0.18	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB05-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	[illegible]	[illegible]	[illegible]	[illegible]																
	SB05-06	0.4 - 0.6	20/04/2018	Normal	0.0055	0.0002	0.0053	<0.0002	0.0055	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002
SB06	SB06-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB06-07	1.8 - 1.9	20/04/2018	Normal	0.0018	0.0012	0.0003	<0.0002	0.0015	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002
SB07	SB07-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-04	0.75 - 0.85	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB07-08	2.9 - 3	20/04/2018	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002
SB08	SB08-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB09	SB09-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB09-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	[illegible]	[illegible]	[illegible]	[illegible]																
	SB09-06	1.9 - 2	20/04/2018	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002
SB10	SB10-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB10-04	0.35 - 0.45	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Field ID	Perfluoroundecanoic acid	Perfluorohexanoic acid	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Organic Matter	Perfluorodecane sulfonic acid (PFDS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonamide (FOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0002	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.5	0.0002	0.0002	0.0002	0.0002	0.0005	0.0002	0.0002
SA EPA - Waste Fill																
SA EPA - Intermediate Waste																
SA EPA - Low Level Contaminated Waste																
SB01-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB01-02	-	-	-	-	-	-	-	-	0.9	-	-	-	-	-	-	-
SB02-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB02-02	<0.0002	0.0006	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0004	0.0009	<0.0002	<0.0002	<0.0005	<0.0002	0.111
SB03-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB04-08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB05-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB05-02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[illegible]																
SB05-06	<0.0002	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	0.0055
SB06-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB06-07	<0.0002	0.0003	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	0.0018
SB07-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB07-04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB07-08	<0.0002	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002
SB08-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB09-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB09-02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[illegible]																
SB09-06	<0.0002	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002
SB10-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB10-04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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17/05/2018

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table
Waste Classification

PFAS

Location Code	Field ID	Depth	Date	Sample Type	Sum of PFAS (WA DER List)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Sum of PFHxS and PFOS	Perfluoropentanoic acid (PFPeA)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	Perfluorobutanesulfonic acid	Perfluorobutanoic acid	Perfluorodecanoic acid	Perfluorododecanoic acid	Perfluoroheptanoic acid	Perfluorononanoic acid
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0005	0.0005	0.0005	0.0005	0.0002	0.001	0.0002	0.0002	0.0002	0.0002
SA EPA - Waste Fill																				
SA EPA - Intermediate Waste																				
SA EPA - Low Level Contaminated Waste																				
SB11	SB11-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12	SB12-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-02	0.4 - 0.5	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-06	1.9 - 2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB12-07	1.2 - 1.3	20/04/2018	Normal	0.0033	0.0010	<0.0002	<0.0002	0.0010	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002
SB13	SB13-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-05	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB13-06	0.4 - 0.5	20/04/2018	Normal	0.463	0.0456	0.405	0.0028	0.451	0.0006	<0.0005	<0.0005	<0.0005	<0.0005	0.0004	<0.001	<0.0002	<0.0002	0.0003	<0.0002
SB15	SB15-02	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16	SB16-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB16-02	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17	SB17-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB17-06	1.9 - 2	20/04/2018	Normal	0.0028	0.0020	0.0006	<0.0002	0.0026	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002
	SB17-07	0.2 - 0.3	20/04/2018	Normal	0.0277	0.0062	0.0204	0.0005	0.0266	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002
SB18	SB18-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19	SB19-01	0.1 - 0.2	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB19-03	0.3 - 0.4	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB20	SB20-01	0.05 - 0.15	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-02	0.2 - 0.3	20/04/2018	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB20-05	0.25 - 0.35	20/04/2018	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002
	SB20-06	0.9 - 1	20/04/2018	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002

Field ID	Perfluoroundecanoic acid	Perfluorohexanoic acid	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (E	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (M	N-Methyl perfluorooctane sulfonamidoethanol (MeFOS	Organic Matter	Perfluorodecane sulfonic acid (PFDS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonamide (FOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.0002	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.5	0.0002	0.0002	0.0002	0.0002	0.0005	0.0002	0.0002
SA EPA - Waste Fill																
SA EPA - Intermediate Waste																
SA EPA - Low Level Contaminated Waste																
SB11-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[illegible]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12-02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12-06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB12-07	<0.0002	0.0020	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	<0.0002	<0.0002	0.0002	<0.0005	<0.0002	0.0035
SB13-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13-02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13-05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB13-06	<0.0002	0.0082	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0004	0.0033	0.0003	0.0013	<0.0005	<0.0002	0.468
SB15-02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB16-02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB17-06	<0.0002	0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	<0.0002	<0.0002	0.0002	<0.0005	<0.0002	0.0030
SB17-07	<0.0002	0.0006	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	0.0006	<0.0002	<0.0002	<0.0005	<0.0002	0.0283
SB18-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB19-03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB20-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB20-02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB20-05	<0.0002	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002
SB20-06	<0.0002	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002

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DELIVERING ENVIRONMENTAL SOLUTIONS

Inputs
Select contaminant from list below
As
Below needed to calculate fresh and aged ACLs
Below needed to calculate fresh and aged ABCs
or for fresh ABCs only
or for aged ABCs only

Outputs		
Land use	Arsenic generic EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	20	40
Urban residential and open public spaces	50	100
Commercial and industrial	80	160

DELIVERING ENVIRONMENTAL SOLUTIONS

Inputs
Select contaminant from list below
Cu
Below needed to calculate fresh and aged ACLs
Enter cation exchange capacity (silver thiourea method) (values from 0 to 100 cmolc/kg dwt)
14.3
Enter soil pH (calcium chloride method) (values from 1 to 14)
7.4
Enter organic carbon content (%OC) (values from 0 to 50%)
50
Below needed to calculate fresh and aged ABCs
Measured background concentration (mg/kg). Leave blank if no measured value
or for fresh ABCs only
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration
or for aged ABCs only
Enter State (or closest State)
SA
Enter traffic volume (high or low)
low

Outputs		
Land use	Cu soil-specific EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	#NUM!	85
Urban residential and open public spaces	#NUM!	220
Commercial and industrial	#NUM!	310

DELIVERING ENVIRONMENTAL SOLUTIONS

Inputs
Select contaminant from list below
DDT
Below needed to calculate fresh and aged ACLs
Below needed to calculate fresh and aged ABCs
or for fresh ABCs only
or for aged ABCs only

Outputs		
Land use	DDT generic EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	3	3
Urban residential and open public spaces	180	180
Commercial and industrial	640	640

DELIVERING ENVIRONMENTAL SOLUTIONS

Inputs
Select contaminant from list below
Ni
Below needed to calculate fresh and aged ACLs
Enter cation exchange capacity (silver thiourea method) (values from 0 to 100 cmolc/kg dwt)
14.3
Below needed to calculate fresh and aged ABCs
Measured background concentration (mg/kg). Leave blank if no measured value
or for fresh ABCs only
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration
or for aged ABCs only
Enter State (or closest State)
SA
Enter traffic volume (high or low)
low

Outputs		
Land use	Ni soil-specific EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	#NUM!	40
Urban residential and open public spaces	#NUM!	220
Commercial and industrial	#NUM!	370

DELIVERING ENVIRONMENTAL SOLUTIONS

Inputs
Select contaminant from list below
Naphthalene
Below needed to calculate fresh and aged ACLs
Below needed to calculate fresh and aged ABCs
or for fresh ABCs only
or for aged ABCs only

Outputs		
Land use	Naphthalene generic EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	10	10
Urban residential and open public spaces	170	170
Commercial and industrial	370	370

Inputs
Select contaminant from list below
Cr_III
Below needed to calculate fresh and aged ACLs
Enter % clay (values from 0 to 100%)
10
Below needed to calculate fresh and aged ABCs
Measured background concentration (mg/kg). Leave blank if no measured value
or for fresh ABCs only
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration
or for aged ABCs only
Enter State (or closest State)
SA
Enter traffic volume (high or low)
low

Outputs		
Land use	Cr III soil-specific EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	#NUM!	140
Urban residential and open public spaces	#NUM!	410
Commercial and industrial	#NUM!	680

DELIVERING ENVIRONMENTAL SOLUTIONS

Inputs
Select contaminant from list below
Pb
Below needed to calculate fresh and aged ACLs
Below needed to calculate fresh and aged ABCs
or for fresh ABCs only
or for aged ABCs only

Outputs		
Land use	Lead generic EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	110	470
Urban residential and open public spaces	270	1100
Commercial and industrial	440	1800

DELIVERING ENVIRONMENTAL SOLUTIONS

Inputs
Select contaminant from list below
Zn
Below needed to calculate fresh and aged ACLs
Enter cation exchange capacity (silver thiourea method) (values from 0 to 100 cmolc/kg dwt)
14.3
Enter soil pH (calcium chloride method) (values from 1 to 14)
7.4
Below needed to calculate fresh and aged ABCs
Measured background concentration (mg/kg). Leave blank if no measured value
or for fresh ABCs only
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration
or for aged ABCs only
Enter State (or closest State)
SA
Enter traffic volume (high or low)
low

Outputs		
Land use	Zn soil-specific EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	#NUM!	170
Urban residential and open public spaces	#NUM!	590
Commercial and industrial	#NUM!	890

Town of Gawler - Angle Vale Rd PS

Chemical Summary Table
Duplicate Table

			Field ID	SB05-02	SB05-05	RPD	SB09-01	SB09-05	RPD
			Date	20/04/2018	20/04/2018		20/04/2018	20/04/2018	
		Unit	EQL						
NA	C10-C16	mg/kg	50	<50	<50	0	<50	<50	0
	F2-NAPHTHALENE	mg/kg	50	<50	<50	0	<50	<50	0
	C16-C34	mg/kg	100	<100	<100	0	120	110	9
	C34-C40	mg/kg	100	<100	<100	0	<100	<100	0
	C6 - C9	mg/kg	10	<10	<10	0	<10	<10	0
	C10 - C14	mg/kg	50	<50	<50	0	<50	<50	0
	C15 - C28	mg/kg	100	<100	<100	0	<100	<100	0
	C29-C36	mg/kg	100	<100	<100	0	<100	<100	0
	+C10 - C36 (Sum of total)	mg/kg	50	<50	<50	0	<50	<50	0
	C10 - C40 (Sum of total)	mg/kg	50	<50	<50	0	120	110	9
	C6-C10	mg/kg	10	<10	<10	0	<10	<10	0
Phenols	Sum of Phenols	mg/kg	0.5				<0.5		
BTEX	Benzene	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0
	Toluene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Ethylbenzene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Xylene (m & p)	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Xylene (o)	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Xylene Total	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Total BTEX	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0
	C6-C10 less BTEX (F1)	mg/kg	10	<10	<10	0	<10	<10	0
alogenated Benzene	Hexachlorobenzene	mg/kg	0.05				<0.05		
Halogenated Phenol	2,4,5-trichlorophenol	mg/kg	0.5				<0.5		
	2,4,6-trichlorophenol	mg/kg	0.5				<0.5		
	2,4-dichlorophenol	mg/kg	0.5				<0.5		
	2,6-dichlorophenol	mg/kg	0.5				<0.5		
	2-chlorophenol	mg/kg	0.5				<0.5		
	Pentachlorophenol	mg/kg	2				<2		
Inorganics	Cyanide Total	mg/kg	1				<1		
	Moisture Content	%	1	11.9	11.7	2	3.1	2.9	7
Lead	Lead	mg/kg	5	10	10	0	22	27	20
Metals	Arsenic	mg/kg	5	<5	<5	0	<5	<5	0
	Barium	mg/kg	10				40		
	Beryllium	mg/kg	1				<1		
	Cadmium	mg/kg	1	<1	<1	0	<1	<1	0
	Chromium (hexavalent)	mg/kg	0.5				<0.5		
	Chromium (III+VI)	mg/kg	2	37	36	3	13	12	8
	Cobalt	mg/kg	2				6		
	Copper	mg/kg	5	17	17	0	17	17	0
	Iron	mg/kg	50				13,200		
	Manganese	mg/kg	5				244		
	Mercury	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0
	Nickel	mg/kg	2	18	18	0	12	11	9
	Silver	mg/kg	2				<2		
	Zinc	mg/kg	5	26	26	0	50	64	25
ganochlorine Pestici	4,4-DDE	mg/kg	0.05				<0.05		
	a-BHC	mg/kg	0.05				<0.05		
	Aldrin	mg/kg	0.05				<0.05		
	Aldrin + Dieldrin	mg/kg	0.05				<0.05		
	b-BHC	mg/kg	0.05				<0.05		
	chlordane	mg/kg	0.05				<0.05		
	Chlordane (cis)	mg/kg	0.05				<0.05		
	Chlordane (trans)	mg/kg	0.05				<0.05		
	d-BHC	mg/kg	0.05				<0.05		
	DDD	mg/kg	0.05				<0.05		
	DDT	mg/kg	0.2				<0.2		
	DDT+DDE+DDD	mg/kg	0.05				<0.05		
	Dieldrin	mg/kg	0.05				<0.05		
	Endosulfan	mg/kg	0.05				<0.05		
	Endosulfan I	mg/kg	0.05				<0.05		
	Endosulfan II	mg/kg	0.05				<0.05		
	Endosulfan sulphate	mg/kg	0.05				<0.05		
	Endrin	mg/kg	0.05				<0.05		
	Endrin aldehyde	mg/kg	0.05				<0.05		
	Endrin ketone	mg/kg	0.05				<0.05		
	g-BHC (Lindane)	mg/kg	0.05				<0.05		
	Heptachlor	mg/kg	0.05				<0.05		
	Heptachlor epoxide	mg/kg	0.05				<0.05		
	Methoxychlor	mg/kg	0.2				<0.2		

Town of Gawler - Angle Vale Rd PS

Chemical Summary Table
Duplicate Table

			Field ID	SB05-02	SB05-05	RPD	SB09-01	SB09-05	RPD
			Date	20/04/2018	20/04/2018		20/04/2018	20/04/2018	
		Unit	EQL						
PAH	Benzo(b+j)fluoranthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Naphthalene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	PAHs (Sum of total)	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
PAH/Phenols	2,4-dimethylphenol	mg/kg	0.5				<0.5		
	2-methylphenol	mg/kg	0.5				<0.5		
	2-nitrophenol	mg/kg	0.5				<0.5		
	3-&4-methylphenol	mg/kg	1				<1		
	4-chloro-3-methylphenol	mg/kg	0.5				<0.5		
	Acenaphthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Acenaphthylene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Anthracene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Benz(a)anthracene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a) pyrene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(g,h,i)perylene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(k)fluoranthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Chrysene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Dibenz(a,h)anthracene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Fluoranthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Fluorene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Phenanthrene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
	Phenol	mg/kg	0.5				<0.5		
	Pyrene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0
lychlorinated Biphen	PCBs (Sum of total)	mg/kg	0.1				<0.1		

Town of Gawler - Angle Vale Rd PS

Chemical Summary Table
Duplicate Table

			SB11-01	SB11-04	RPD	SB13-02	SB13-05	RPD
			20/04/2018	20/04/2018		20/04/2018	20/04/2018	
		Unit						
NA	C10-C16	mg/kg	<50			<50		
	F2-NAPHTHALENE	mg/kg	<50			<50		
	C16-C34	mg/kg	<100			<100		
	C34-C40	mg/kg	<100			<100		
	C6 - C9	mg/kg	<10			<10		
	C10 - C14	mg/kg	<50			<50		
	C15 - C28	mg/kg	<100			<100		
	C29-C36	mg/kg	<100			<100		
	+C10 - C36 (Sum of total)	mg/kg	<50			<50		
	C10 - C40 (Sum of total)	mg/kg	<50			<50		
	C6-C10	mg/kg	<10			<10		
Phenols	Sum of Phenols	mg/kg						
BTEX	Benzene	mg/kg	<0.2			<0.2		
	Toluene	mg/kg	<0.5			<0.5		
	Ethylbenzene	mg/kg	<0.5			<0.5		
	Xylene (m & p)	mg/kg	<0.5			<0.5		
	Xylene (o)	mg/kg	<0.5			<0.5		
	Xylene Total	mg/kg	<0.5			<0.5		
	Total BTEX	mg/kg	<0.2			<0.2		
	C6-C10 less BTEX (F1)	mg/kg	<10			<10		
alogenated Benzene	Hexachlorobenzene	mg/kg						
Halogenated Phenols	2,4,5-trichlorophenol	mg/kg						
	2,4,6-trichlorophenol	mg/kg						
	2,4-dichlorophenol	mg/kg						
	2,6-dichlorophenol	mg/kg						
	2-chlorophenol	mg/kg						
	Pentachlorophenol	mg/kg						
Inorganics	Cyanide Total	mg/kg						
	Moisture Content	%	2.0	1.7	16	4.8	5.3	10
Lead	Lead	mg/kg	17	24	34	9	9	0
Metals	Arsenic	mg/kg	7	8	13	<5	<5	0
	Barium	mg/kg						
	Beryllium	mg/kg						
	Cadmium	mg/kg	<1	<1	0	<1	<1	0
	Chromium (hexavalent)	mg/kg						
	Chromium (III+VI)	mg/kg	24	23	4	20	19	5
	Cobalt	mg/kg						
	Copper	mg/kg	20	26	26	14	13	7
	Iron	mg/kg						
	Manganese	mg/kg						
	Mercury	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0
	Nickel	mg/kg	14	17	19	9	8	12
	Silver	mg/kg						
	Zinc	mg/kg	63	70	11	18	19	5
ganochlorine Pestici	4,4-DDE	mg/kg						
	a-BHC	mg/kg						
	Aldrin	mg/kg						
	Aldrin + Dieldrin	mg/kg						
	b-BHC	mg/kg						
	chlordane	mg/kg						
	Chlordane (cis)	mg/kg						
	Chlordane (trans)	mg/kg						
	d-BHC	mg/kg						
	DDD	mg/kg						
	DDT	mg/kg						
	DDT+DDE+DDD	mg/kg						
	Dieldrin	mg/kg						
	Endosulfan	mg/kg						
	Endosulfan I	mg/kg						
	Endosulfan II	mg/kg						
	Endosulfan sulphate	mg/kg						
	Endrin	mg/kg						
	Endrin aldehyde	mg/kg						
	Endrin ketone	mg/kg						
	g-BHC (Lindane)	mg/kg						
	Heptachlor	mg/kg						
	Heptachlor epoxide	mg/kg						
	Methoxychlor	mg/kg						

Town of Gawler - Angle Vale Rd PS

Chemical Summary Table
Duplicate Table

			SB11-01	SB11-04	RPD	SB13-02	SB13-05	RPD
			20/04/2018	20/04/2018		20/04/2018	20/04/2018	
		Unit						
PAH	Benzo(b+j)fluoranthene	mg/kg	<0.5			<0.5	<0.5	0
	Naphthalene	mg/kg	<0.5			<0.5	<0.5	0
	PAHs (Sum of total)	mg/kg	<0.5			<0.5	<0.5	0
PAH/Phenols	2,4-dimethylphenol	mg/kg						
	2-methylphenol	mg/kg						
	2-nitrophenol	mg/kg						
	3-&4-methylphenol	mg/kg						
	4-chloro-3-methylphenol	mg/kg						
	Acenaphthene	mg/kg	<0.5			<0.5	<0.5	0
	Acenaphthylene	mg/kg	<0.5			<0.5	<0.5	0
	Anthracene	mg/kg	<0.5			<0.5	<0.5	0
	Benz(a)anthracene	mg/kg	<0.5			<0.5	<0.5	0
	Benzo(a) pyrene	mg/kg	<0.5			<0.5	<0.5	0
	Benzo(g,h,i)perylene	mg/kg	<0.5			<0.5	<0.5	0
	Benzo(k)fluoranthene	mg/kg	<0.5			<0.5	<0.5	0
	Chrysene	mg/kg	<0.5			<0.5	<0.5	0
	Dibenz(a,h)anthracene	mg/kg	<0.5			<0.5	<0.5	0
	Fluoranthene	mg/kg	<0.5			<0.5	<0.5	0
	Fluorene	mg/kg	<0.5			<0.5	<0.5	0
	Indeno(1,2,3-c,d)pyrene	mg/kg	<0.5			<0.5	<0.5	0
	Phenanthrene	mg/kg	<0.5			<0.5	<0.5	0
	Phenol	mg/kg						
	Pyrene	mg/kg	<0.5			<0.5	<0.5	0
lychlorinated Bipher	PCBs (Sum of total)	mg/kg						

Town of Gawler - Angle Vale Rd PSI

Chemical Summary Table- Field Blanks

		Field ID	RINSE-01	TRIP-01
		Date	20/04/2018	20/04/2018
		Unit		
NA	C6 - C9	µg/L		<20
	C6-C10	µg/L		<20
BTEX	Benzene	µg/L		<1
	Toluene	µg/L		<2
	Ethylbenzene	µg/L		<2
	Xylene (m & p)	µg/L		<2
	Xylene (o)	µg/L		<2
	Xylene Total	µg/L		<2
	Total BTEX	mg/L		<0.001
	C6-C10 less BTEX (F1)	mg/L		<0.02
Lead	Lead	mg/L	<0.001	
Metals	Arsenic	mg/L	<0.001	
	Cadmium	mg/L	<0.0001	
	Chromium (III+VI)	mg/L	<0.001	
	Copper	mg/L	<0.001	
	Mercury	mg/L	<0.0001	
	Nickel	mg/L	<0.001	
	Zinc	mg/L	<0.005	
PAH	Naphthalene	µg/L		<5

C:\Users\User\Dropbox\Evanston Gardens\Laboratory\170974-01- Field Blanks.xlsx 29/05/2018

DELIVERING ENVIRONMENTAL SOLUTIONS

Appendix D

Laboratory Certificates and Chain of Custody Documentation

C:\Users\User\Dropbox\Evanston Gardens\DSI report\170974-01 R01.docx

LBWco
DELIVERING ENVIRONMENTAL SOLUTIONS

184 Magill Road, Norwood SA 5067
PO Box 225 Stepney SA 5069
P: 08 8331 2417 F: 08 8331 2415

E: admin@lbwco.com.au
ABN: 58 126 992 274

SAMPLE REGISTER & CHAIN OF CUSTODY

Project Title: Town of Gawler-Hogle Vale
Job Number: 170974
Project manager: Nicki Brewer
Email: nicki.brewer@lbwco.com.au
Phone: 8331 2417
Send results to: results@lbwco.com.au
Send invoice to: admin@lbwco.com.au

Primary Lab:
Lab Quote Ref:

Secondary lab:

COC Reference: (sample delivery group) 170974-COC-01

Sample Details 1	Sample Details 2
SB01-01 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB03-01** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB01-02 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB03-02** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB01-03 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB03-03** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB01-04 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB03-04** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB02-01 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB03-05** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB02-02 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB03-06** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB02-03 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB04-01** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB02-04 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB4-02** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB02-05 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB04-03** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB02-06 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB04-04** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018

Sample Custody - Step 1

Relinquished by: Stuart Twiss

Date/Time Relinquished: 19/4/18

Signature: S.Twiss

FREIGHT

Courier and consignment number:

Received by: TOM C

Date/Time Received: 19/4/18 3:05

Signature:

Sample Custody - Step 2

Relinquished by:

Environmental Division Melbourne
Work Order Reference
EM1806723

Date/Time Relinquishe

Signature:

Telephone : +61-3-8549 9600

Courier and consignr

Received by: Bharathi (ALS)

Date/Time Received: 20/4/18 10.30 a

SCANNED

Signature:

Page___ of ___

LBWco
DELIVERING ENVIRONMENTAL SOLUTIONS

184 Magill Road, Norwood SA 5067
PO Box 225 Stepney SA 5069
P: 08 8331 2417 F: 08 8331 2415

E: admin@lbwco.com.au
ABN: 58 126 992 274

SAMPLE REGISTER & CHAIN OF CUSTODY

Project Title:
Job Number:
Project manager:
Email:
Phone: 8331 2417
Send results to: results@lbwco.com.au
Send invoice to: admin@lbwco.com.au

Primary Lab:
Lab Quote Ref:
Secondary lab:

COC Reference:
(sample delivery group)

Sample Details 1	Sample Details 2
SB04-05 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB06-01** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB04-06 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB06-02** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB04-07 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB06-03** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB04-08	**SB06-04** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB05-01 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB06-05** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB05-02 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB06-06** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB05-03 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	SB06-07.
SB05-04 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB07-01** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB05-05 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB07-02** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB05-06.	**SB07-03** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018

Sample Custody - Step 1
Relinquished by:
Date/Time Relinquished:
Signature:
Courier and consignment number:
Received by:
Date/Time Received:
Signature:

Sample Custody - Step 2
Relinquished by:
Date/Time Relinquished:
Signature:
Courier and consignment number:
Received by: Bharathi (ALS) 20/4/18 10.30 a
Date/Time Received:
Signature:

Page___ of ___

LBWco
DELIVERING ENVIRONMENTAL SOLUTIONS

184 Magill Road, Norwood SA 5067
PO Box 225 Stepney SA 5069
P: 08 8331 2417 F: 08 8331 2415

E: admin@lbwco.com.au
ABN: 58 126 992 274

SAMPLE REGISTER & CHAIN OF CUSTODY

Project Title:
Job Number:
Project manager:
Email:
Phone: 8331 2417
Send results to: results@lbwco.com.au
Send invoice to: admin@lbwco.com.au

Primary Lab:
Lab Quote Ref:

Secondary lab:

COC Reference:
(sample delivery group)

Sample Details 1	Sample Details 2
SB07-04 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB08-06** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB07-05 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	SB08-07.
SB07-06 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB09-01** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB07-07 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB09-02** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB07-08 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB09-03** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB08-01 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB09-04** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB08-02 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB09-05** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB08-03 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	SB09-06.
SB08-04 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB10-01** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB08-05 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB10-02** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018

Sample Custody - Step 1

Relinquished by:

Date/Time Relinquished:

Signature:

Courier and consignment number:

Received by:

Date/Time Received:

Signature:

Sample Custody - Step 2

Relinquished by:

Date/Time Relinquished:

Signature:

Courier and consignment number:

Received by: Bharathi (CALS)

Date/Time Received: 20/4/18 10.30 a

Signature:

Page___ of ___

LBWco
DELIVERING ENVIRONMENTAL SOLUTIONS

184 Magill Road, Norwood SA 5067
PO Box 225 Stepney SA 5069
P: 08 8331 2417 F: 08 8331 2415

E: admin@lbwco.com.au
ABN: 58 126 992 274

SAMPLE REGISTER & CHAIN OF CUSTODY

Project Title:
Job Number:
Project manager:
Email:
Phone: 8331 2417
Send results to: results@lbwco.com.au
Send invoice to: admin@lbwco.com.au

Primary Lab:
Lab Quote Ref:
Secondary lab:

COC Reference:
(sample delivery group)

Sample Details 1	Sample Details 2
SB10-03 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	SB11-05
SB10-04 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB12-01** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB10-05 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB12-02** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB10-06 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB12-03** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB10-07 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB12-04** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB10-08 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB12-05** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB11-01 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB12-06** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB11-02 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	SB12-07
SB11-03 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	SB12-08
SB11-04 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB13-01** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018

Sample Custody - Step 1

Relinqisned by:
Date/Time Relinquished:
Signature:
Courier and consignment number:
Received by:
Date/Time Received:
Signature:

Sample Custody - Step 2

Relinqisned by:
Date/Time Relinquished:
Signature:
Courier and consignment number:
Received by: Bharathi CA (S)
Date/Time Received: 20/4/18 10.30 a
Signature:

Page___ of ____

DELIVERING ENVIRONMENTAL SOLUTIONS

184 Magill Road, Norwood SA 5067
PO Box 225 Stepney SA 5069
P: 08 8331 2417 F: 08 8331 2415

E: admin@lbwco.com.au
ABN: 58 126 992 274

SAMPLE REGISTER & CHAIN OF CUSTODY

Project Title:
Job Number:
Project manager:
Email:
Phone: 8331 2417
Send results to: results@lbwco.com.au
Send invoice to: admin@lbwco.com.au

Primary Lab:
Lab Quote Ref:
Secondary lab:

COC Reference: (sample delivery group)

Sample Details 1	Sample Details 2
SB13-02 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	SB14-06
SB13-03 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB15-01** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB13-04 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB15-02** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB13-05 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB15-03** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB13-06	**SB15-04** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB14-01 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB15-05** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB14-02 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB15-06** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB14-03 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB15-07** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018
SB14-04 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	SB15-08
SB14-05 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB16-01** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018

Sample Custody - Step 1

Relinqished by:

Date/Time Relinquished:

Signature:

Courier and consignment number:

Received by:

Date/Time Received:

Signature:

Sample Custody - Step 2

Relinqished by:

Date/Time Relinquished:

Signature:

Courier and consignment number:

Received by: Bharath (ALS)

Date/Time Received: 20/4/18 10.30 am

Signature:

Page___ of ____

LBWco
DELIVERING ENVIRONMENTAL SOLUTIONS

184 Magill Road, Norwood SA 5067
PO Box 225 Stepney SA 5069
P: 08 8331 2417 F: 08 8331 2415

E: admin@lbwco.com.au
ABN: 58 126 992 274

SAMPLE REGISTER & CHAIN OF CUSTODY

Project Title:
Job Number:
Project manager:
Email:
Phone: 8331 2417
Send results to: results@lbwco.com.au
Send invoice to: admin@lbwco.com.au

Primary Lab:
Lab Quote Ref:
Secondary lab:

COC Reference:
(sample delivery group)

Sample Details 1	Sample Details 2	Sample Custody - Step 1
SB16-02 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB18-02** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	Relinqished by:
SB16-03 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB18-03** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	Date/Time Relinquished: Signature:
SB17-01 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB18-04** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	Courier and consignment number: Received by:
SB17-02 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB18-05** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	Date/Time Received: Signature:
SB17-03 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB18-06** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	
SB17-04 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB18-07** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**Sample Custody - Step 2** Relinqished by:
SB17-05 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	SB18-08	Date/Time Relinquished: Signature:
SB17-06	SB18-09	Courier and consignment number: Received by: Bharathi (ALS)
SB17-07	**SB19-01** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	Date/Time Received: 20/4/18 10:30
SB18-01 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	**SB19-02** LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	Signature:

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lbw co
DELIVERING ENVIRONMENTAL SOLUTIONS

184 Magill Road, Norwood SA 5067
PO Box 225 Stepney SA 5069
P: 08 8331 2417 F: 08 8331 2415

E: admin@lbwco.com.au
ABN: 58 126 992 274

SAMPLE REGISTER & CHAIN OF CUSTODY

Project Title:
Job Number:
Project manager:
Email:
Phone: 8331 2417
Send results to: results@lbwco.com.au
Send invoice to: admin@lbwco.com.au

Primary Lab:
Lab Quote Ref:

Secondary lab:

COC Reference:
(sample delivery group)

Sample Details 1	Sample Details 2	Sample Custody - Step 1
SB19-03 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018	TRIP-01	Relinquished by:
SB19-04 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018		Date/Time Relinquished:
SB19-05		Signature:
SB20-01 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018		Courier and consignment number:
SB20-02 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018		Received by:
SB20-03 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018		Date/Time Received:
SB20-04 LBWco Job#: 170974 Matrix: Soil Date: 18.04.2018		Signature:
SB20-05		**Sample Custody - Step 2**
SB20-06		Relinquished by:
Rinse-01		Date/Time Relinquished:
		Signature:
		Courier and consignment number:
		Received by: Bharathi (AL)
		Date/Time Received: 20/4/18 10:30 am
		Signature:

Page___ of ___

LSPECS Lab Submission Analysis received 20/04/18 15:52

PLEASE SEND SB905, SB11-04 AND SB13-05 TO EUROFINS FOR SECONDARY LAB ANALYSIS

Company	LBWco	Laboratory		Report To		Billing	
Project ID	170974	Destination Lab	ALS	Primary Contact	LBWco Laboratory Results results@lbwco.com.au	Purchase Order #	170974-01
Project Name	Town of Gawler - Angle Vale Rd PSI	Lab Quote No	ADSQ-001-17	Secondary Contact	Nick Brewer nick.brewer@lbwco.com.au	Org to be Billed	LBWco
SDG/COC #	2018-04-20-ALS-LT	Lab Contact	Keren Burns (0881525130) Keren Burns			Bill To	admin@lbwco.com.au
Request / Version	1/1					Attention	Nick Brewer

TURNAROUND REQUEST: 7 DAYS
SPECIAL INSTRUCTIONS: -
SAMPLED BY:

	Field ID	Matrix	Date	Asbestos fibres in soil	Metals 8 (S/W 2)	NEPM Soil Characteristics	OCP	PAH	PFAS long	SA EPA Waste Screen (P-15/1)	TRH / BTEXN (S/W 4)	TRH + BTEX + PAH + Metals 8 (S/W-26)	TRH C6-C10	VOC	Hold	Comments
1	RINSE-01	Water	20/04/2018		✓											
2	TRIP-01	Water	20/04/2018										✓			
3	SB01-01	Soil	20/04/2018 8:48 AM									✓				
4	SB01-02	Soil	20/04/2018 8:48 AM			✓										
5	SB01-03	Soil	20/04/2018 8:49 AM												Y	
6	SB01-04	Soil	20/04/2018 8:49 AM												Y	
7	SB02-01	Soil	20/04/2018 8:50 AM							✓						
8	SB02-02	Soil	20/04/2018 8:50 AM						✓		✓					
9	SB02-03	Soil	20/04/2018 8:50 AM												Y	
10	SB02-04	Soil	20/04/2018 8:50 AM												Y	
11	SB02-05	Soil	20/04/2018 8:50 AM												Y	
12	SB02-06	Soil	20/04/2018 8:51 AM												Y	
13	SB03-01	Soil	20/04/2018 8:52 AM	✓								✓				
14	SB03-02	Soil	20/04/2018 8:52 AM												Y	
15	SB03-03	Soil	20/04/2018 8:53 AM												Y	
16	SB03-04	Soil	20/04/2018 8:53 AM												Y	
17	SB03-05	Soil	20/04/2018 8:53 AM												Y	
18	SB03-06	Soil	20/04/2018 8:53 AM												Y	
19	SB04-01	Soil	20/04/2018 8:54 AM								✓					
20	SB04-02	Soil	20/04/2018 8:54 AM												Y	
21	SB04-03	Soil	20/04/2018 8:54 AM												Y	
22	SB04-04	Soil	20/04/2018 8:55 AM												Y	
23	SB04-05	Soil	20/04/2018 8:55 AM												Y	
24	SB04-06	Soil	20/04/2018 8:55 AM												Y	
25	SB04-07	Soil	20/04/2018 8:55 AM												Y	
26	SB04-08	Soil	20/04/2018 8:56 AM		✓											
27	SB05-01	Soil	20/04/2018 8:56 AM		✓		✓							✓		
28	SB05-02	Soil	20/04/2018 8:57 AM									✓				
29	SB05-03	Soil	20/04/2018 8:57 AM												Y	
30	SB05-04	Soil	20/04/2018 8:57 AM												Y	
31	SB05-05	Soil	20/04/2018 8:57 AM									✓				
32	SB05-06	Soil	20/04/2018 8:57 AM						✓							
33	SB06-01	Soil	20/04/2018 8:59 AM		✓		✓				✓					
34	SB06-02	Soil	20/04/2018 8:59 AM												Y	
35	SB06-03	Soil	20/04/2018 8:59 AM												Y	
36	SB06-04	Soil	20/04/2018 9:00 AM												Y	
37	SB06-05	Soil	20/04/2018 9:00 AM												Y	
38	SB06-06	Soil	20/04/2018 9:00 AM												Y	
39	SB06-07	Soil	20/04/2018 9:01 AM						✓							
40	SB07-01	Soil	20/04/2018 9:03 AM		✓		✓					✓				
41	SB07-02	Soil	20/04/2018 9:03 AM												Y	
42	SB07-03	Soil	20/04/2018 9:03 AM												Y	
43	SB07-04	Soil	20/04/2018 9:03 AM		✓											
44	SB07-05	Soil	20/04/2018 9:03 AM												Y	
45	SB07-06	Soil	20/04/2018 9:04 AM												Y	
46	SB07-07	Soil	20/04/2018 9:04 AM												Y	
47	SB07-08	Soil	20/04/2018 9:04 AM						✓							

http://esdat.lbwep.com.au/export/LabSubmission/2641 20/04/2018

TURNAROUND REQUEST: 7 DAYS
SPECIAL INSTRUCTIONS: -
SAMPLED BY:

	FIELD ID	MATRIX	DATE	Asbestos fibres in soil	Metals 8 (S/W-2)	NEPM Soil Characteristics	OCP	PAH	PFAS long	SA EPA Waste Screen (P-15/1)	TRH / BTEX N (S/W-4)	TRH + BTEX + PAH + Metals 8 (S/W-26)	TRH C6-C10	VOC	HOLD	COMMENTS
48	SB08-01	Soil	20/04/2018 9:06 AM								4			4		
49	SB08-02	Soil	20/04/2018 9:06 AM												Y	
50	SB08-03	Soil	20/04/2018 9:06 AM												Y	
51	SB08-04	Soil	20/04/2018 9:06 AM												Y	
52	SB08-05	Soil	20/04/2018 9:06 AM												Y	
53	SB08-06	Soil	20/04/2018 9:07 AM												Y	
54	SB08-07	Soil	20/04/2018 9:07 AM												Y	
55	SB09-01	Soil	20/04/2018 9:07 AM							4						
56	SB09-02	Soil	20/04/2018 9:08 AM									4				
57	SB09-03	Soil	20/04/2018 9:08 AM												Y	
58	SB09-04	Soil	20/04/2018 9:08 AM												Y	
59	SB09-05	Soil	20/04/2018 9:08 AM									4				
60	SB09-06	Soil	20/04/2018 9:08 AM						4							
61	SB10-01	Soil	20/04/2018 9:13 AM	4												
62	SB10-02	Soil	20/04/2018 9:13 AM												Y	
63	SB10-03	Soil	20/04/2018 9:13 AM												Y	
64	SB10-04	Soil	20/04/2018 9:14 AM								4					
65	SB10-05	Soil	20/04/2018 9:14 AM												Y	
66	SB10-06	Soil	20/04/2018 9:14 AM												Y	
67	SB10-07	Soil	20/04/2018 9:15 AM												Y	
68	SB10-08	Soil	20/04/2018 9:16 AM												Y	
69	SB11-01	Soil	20/04/2018 9:19 AM									4				
70	SB11-02	Soil	20/04/2018 9:21 AM												Y	
71	SB11-03	Soil	20/04/2018 9:21 AM												Y	
72	SB11-04	Soil	20/04/2018 9:21 AM		4											
73	SB11-05	Soil	20/04/2018 9:21 AM												Y	
74	SB12-01	Soil	20/04/2018 9:22 AM								4					
75	SB12-02	Soil	20/04/2018 9:22 AM											4		
76	SB12-03	Soil	20/04/2018 9:22 AM												Y	
77	SB12-04	Soil	20/04/2018 9:22 AM												Y	
78	SB12-05	Soil	20/04/2018 9:22 AM												Y	
79	SB12-06	Soil	20/04/2018 9:22 AM		4											
80	SB12-07	Soil	20/04/2018 9:23 AM						4							
81	SB12-08	Soil	20/04/2018 9:23 AM												Y	
82	SB10-09	Soil	20/04/2018 9:24 AM												Y	
83	SB13-01	Soil	20/04/2018 9:26 AM									4				
84	SB13-02	Soil	20/04/2018 9:26 AM									4				
85	SB13-03	Soil	20/04/2018 9:26 AM												Y	
86	SB13-04	Soil	20/04/2018 9:26 AM												Y	
87	SB13-05	Soil	20/04/2018 9:26 AM		4			4								
88	SB13-06	Soil	20/04/2018 9:26 AM						4							
89	SB14-01	Soil	20/04/2018 9:27 AM												Y	
90	SB14-02	Soil	20/04/2018 9:27 AM												Y	
91	SB14-03	Soil	20/04/2018 9:27 AM												Y	
92	SB14-04	Soil	20/04/2018 9:27 AM												Y	
93	SB14-05	Soil	20/04/2018 9:27 AM												Y	
94	SB14-06	Soil	20/04/2018 9:28 AM												Y	
95	SB15-01	Soil	20/04/2018 9:28 AM												Y	
96	SB15-02	Soil	20/04/2018 9:28 AM									4				
97	SB15-03	Soil	20/04/2018 9:28 AM												Y	
98	SB15-04	Soil	20/04/2018 9:28 AM												Y	
99	SB15-05	Soil	20/04/2018 9:28 AM												Y	
100	SB15-06	Soil	20/04/2018 9:28 AM												Y	

LSPECS Lab Submission

TURNAROUND REQUEST: 7 DAYS
SPECIAL INSTRUCTIONS: -
SAMPLED BY:

	FIELD ID	MATRIX	DATE	Asbestos fibres in soil	Metals 8 (S/W-2)	NEPM Soil Characterisation	OCP	PAH	PFAS long	SA EPA Waste Screen (P-15/1)	TRH / BTEXN (S/W-4)	TRH + BTEX + PAH + Metals 8 (S/W-26)	TRH C6-C10	VOC	HOLD	COMMENTS
101	SB15-07	Soil	20/04/2018 9:29 AM												Y	
102	SB15-08	Soil	20/04/2018 9:29 AM												Y	
103	SB16-01	Soil	20/04/2018 9:30 AM	q							q					
104	SB16-02	Soil	20/04/2018 9:30 AM							q						
105	SB16-03	Soil	20/04/2018 9:30 AM												Y	
106	SB17-01	Soil	20/04/2018 9:30 AM									q				
107	SB17-02	Soil	20/04/2018 9:31 AM												Y	
108	SB17-03	Soil	20/04/2018 9:31 AM												Y	
109	SB17-04	Soil	20/04/2018 9:31 AM												Y	
110	SB17-05	Soil	20/04/2018 9:31 AM												Y	
111	SB17-06	Soil	20/04/2018 9:32 AM						q							
112	SB17-07	Soil	20/04/2018 9:32 AM						q							
113	SB18-01	Soil	20/04/2018 9:32 AM		q											
114	SB18-02	Soil	20/04/2018 9:32 AM												Y	
115	SB18-03	Soil	20/04/2018 9:32 AM												Y	
116	SB18-04	Soil	20/04/2018 9:33 AM												Y	
117	SB18-05	Soil	20/04/2018 9:33 AM												Y	
118	SB18-06	Soil	20/04/2018 9:33 AM												Y	
119	SB18-07	Soil	20/04/2018 9:33 AM												Y	
120	SB18-08	Soil	20/04/2018 9:34 AM												Y	
121	SB18-09	Soil	20/04/2018 9:34 AM												Y	
122	SB19-01	Soil	20/04/2018 9:34 AM		q		q							q		
123	SB19-02	Soil	20/04/2018 9:34 AM												Y	
124	SB19-03	Soil	20/04/2018 9:35 AM									q				
125	SB19-04	Soil	20/04/2018 9:35 AM												Y	
126	SB19-05	Soil	20/04/2018 9:35 AM												Y	
127	SB20-01	Soil	20/04/2018 9:35 AM		q		q									
128	SB20-02	Soil	20/04/2018 9:40 AM											q		
129	SB20-03	Soil	20/04/2018 9:40 AM												Y	
130	SB20-04	Soil	20/04/2018 9:40 AM												Y	
131	SB20-05	Soil	20/04/2018 9:40 AM						q							
132	SB20-06	Soil	20/04/2018 9:40 AM		q				q							

Hand Over		Relinquished	Received	Relinquished	Received	e-Request Sent
# of Delivery Boxes 3	Signature					Name -
Cooled yes	Name	Stuart Twiss				Org -
Con Note -	Org	LBWoc				Date -
	Date :	19/04/2018 ; 12:00 AM				

Anitha Hiranyahalli

From: Kieren Burns
Sent: Tuesday, 24 April 2018 12:26 PM
To: Anitha Hiranyahalli
Subject: FW: EM1806723 - LBW - 170974

Hi Anitha

Stuarts response.

Regards

Kieren Burns
Business Development Manager - SA
Environmental

T +61 8 8162 5130
F +61 8 8349 0199 M +61 448 527 608
kieren.burns@alsglobal.com
Unit 3/1 Burma Road
Pooraka SA 5095
Australia

From: Stuart Twiss [mailto:stuart.twiss@lbwco.com.au]
Sent: Tuesday, 24 April 2018 11:54 AM
To: Kieren Burns <Kieren.Burns@alsglobal.com>
Cc: Nick Brewer <nick.brewer@lbwco.com.au>
Subject: RE: EM1806723 - LBW - 170974

Hi Kieren,

In regards to sample #004 that is fine. And for sample #013 and #0103 its ok if you split the samples.

Thank

Kind Regards,

Stuart Twiss
Graduate Environmental Consultant

1

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m| 0433 336 006 p| 08 8331 2417 www.lbwco.com.au

From: Kieren Burns [mailto:Kieren.Burns@alsglobal.com]
Sent: Tuesday, 24 April 2018 11:22 AM
To: Nick Brewer
Cc: Stuart Twiss
Subject: FW: EM1806723 - LBW - 170974

Hi Nick

Just letting you know that for Sample #004 we are unable to book the full P-22 as we did not receive a 500g Zip Lock bag of the soil for the % clay (PSD) analysis.
Thus this has only been booked for P-22 minus PSD.

Sample #013 & #0103
Requested for Asbestos + other analysis and received only a jar.
Samples placed on hold until confirmation for Asbestos splits due to bags not received.

Can you please confirm it is OK to take a split for analysis?
This will be reported as a non-compliance.

Sample dates logged as 18/04/18.

Regards

Kieren Burns
Business Development Manager - SA
Environmental

ALS
T +61 8 8162 5130
F +61 8 8349 0199 M +61 448 527 608
kieren.burns@alsglobal.com
Unit 3/1 Burma Road
Pooraka SA 5095
Australia

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **EM1806723**	Page	: 1 of 64
Client	: **LBW CO PTY LTD**	Laboratory	: Environmental Division Melbourne
Contact	: Nick Brewer	Contact	: KIEREN BURNS
Address	: 184 MAGILL ROAD NORWOOD SA, AUSTRALIA 5067	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: +61 08 8331 2417	Telephone	: +61-3-8549 9600
Project	: 170974	Date Samples Received	: 20-Apr-2018 10:00
Order number	: 170974-01	Date Analysis Commenced	: 24-Apr-2018
C-O-C number	: 2018-04-20-ALS-LT	Issue Date	: 02-May-2018 14:59
Sampler	: ---		
Site	: Town of Gawler - Angle Vale Rd PSI		
Quote number	: ADBQ/001/17		
No. of samples received	: 132		
No. of samples analysed	: 48		

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
- Descriptive 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*
Alex Rossi	Organic Chemist	Sydney Inorganics, Smithfield, NSW
Alex Rossi	Organic Chemist	Sydney Organics, Smithfield, NSW
Dilani Fernando	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC
Emily Daos	Approved Asbestos Identifier	Melbourne Asbestos, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Organics, Springvale, VIC
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics, Smithfield, NSW
Xing Lin	Senior Organic Chemist	Melbourne Organics, Springvale, VIC

Page	2 of 64
Work Order	EM1806723
Client	LBW CO PTY LTD
Project	170974

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by 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.

- **EA200: As only one sample container was submitted for multiple tests, at the client's request, sub sampling was conducted prior to Asbestos analysis. As this has the potential to understate detection, results should be scrutinised accordingly.**
- EA200 'Am' Amosite (brown asbestos)
- EA200 'Cr' Crocidolite (blue asbestos)
- EA200 'Trace' - Asbestos fibres ("Free Fibres") detected by trace analysis per AS4964. The result can be interpreted that the sample contains detectable 'respirable' asbestos fibres
- EA200: Asbestos Identification Samples were analysed by Polarised Light Microscopy including dispersion staining.
- EA200 Legend
- EA200 'Ch' Chrysotile (white asbestos)
- EA200: 'UMF' Unknown Mineral Fibres. "-" indicates fibres detected may or may not be asbestos fibres. Confirmation by alternative techniques is recommended.
- EA200: Negative results for vinyl tiles should be confirmed by an independent analytical technique.
- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) 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.
- EA200: For samples larger than 30g, the <2mm fraction may be sub-sampled prior to trace analysis as outlined in ISO23909:2008(E) Sect 6.3.2-2
- ED007 and ED008: When Exchangeable Al is reported from these methods, it should be noted that Rayment & Lyons (2011) suggests Exchange Acidity by 1M KCl - Method 15G1 (ED005) is a more suitable method for the determination of exchange acidity (H+ + Al3+).
- EA200: 'Yes' - Asbestos detected by polarised light microscopy including dispersion staining.
- EA200: 'No*' - No asbestos found, at the reporting limit of 0.1g/kg, by polarised light microscopy including dispersion staining. Asbestos material was detected and positively identified at concentrations estimated to be below 0.1g/kg.
- EA200: 'No' - No asbestos found at the reporting limit 0.1g/kg, by polarised light microscopy including dispersion staining.

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Project : 170974

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	SB01-01	SB01-02	SB02-01	SB02-02	SB03-01
			Client sampling date / time	18-Apr-2018 08:18	18-Apr-2018 08:18	18-Apr-2018 08:20	18-Apr-2018 08:20	18-Apr-2018 08:22
Compound	CAS Number	LOR	Unit	EM1806723-003	EM1806723-004	EM1806723-007	EM1806723-008	EM1806723-013
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl2)	----	0.1	pH Unit	----	7.4	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	6.9	6.5	4.7	3.6	4.6
EA200: AS 4964 - 2004 Identification of Asbestos in bulk samples								
Asbestos (Trace)	1332-21-4	5	Fibres	----	----	----	----	No
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	----	----	----	----	No
Asbestos Type	1332-21-4	-	--	----	----	----	----	-
Sample weight (dry)	----	0.01	g	----	----	----	----	49.1
APPROVED IDENTIFIER:	----	-	--	----	----	----	----	E.DAOS
ED006: Exchangeable Cations on Alkaline Soils								
ø Exchangeable Calcium	----	0.2	meq/100g	----	8.0	----	----	----
ø Exchangeable Magnesium	----	0.2	meq/100g	----	3.5	----	----	----
ø Exchangeable Potassium	----	0.2	meq/100g	----	0.7	----	----	----
ø Exchangeable Sodium	----	0.2	meq/100g	----	2.1	----	----	----
ø Cation Exchange Capacity	----	0.2	meq/100g	----	14.3	----	----	----
EG005T: Total Metals by ICP-AES								
Barium	7440-39-3	10	mg/kg	----	----	60	----	----
Beryllium	7440-41-7	1	mg/kg	----	----	<1	----	----
Cobalt	7440-48-4	2	mg/kg	----	----	4	----	----
Iron	7439-89-6	0.005	%	----	2.21	----	----	----
Iron	7439-89-6	50	mg/kg	----	----	14800	----	----
Manganese	7439-96-5	5	mg/kg	----	----	168	----	----
Silver	7440-22-4	2	mg/kg	----	----	<2	----	----
Arsenic	7440-38-2	5	mg/kg	<5	----	<5	----	5
Cadmium	7440-43-9	1	mg/kg	<1	----	<1	----	<1
Chromium	7440-47-3	2	mg/kg	27	----	17	----	24
Copper	7440-50-8	5	mg/kg	17	----	10	----	17
Lead	7439-92-1	5	mg/kg	16	----	11	----	13
Nickel	7440-02-0	2	mg/kg	12	----	10	----	20
Zinc	7440-66-6	5	mg/kg	41	----	25	----	47
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	----	<0.1	----	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB01-01	SB01-02	SB02-01	SB02-02	SB03-01
				Client sampling date / time	18-Apr-2018 08:18	18-Apr-2018 08:18	18-Apr-2018 08:20	18-Apr-2018 08:20	18-Apr-2018 08:22
Compound	CAS Number	LOR	Unit		EM1806723-003	EM1806723-004	EM1806723-007	EM1806723-008	EM1806723-013
					Result	Result	Result	Result	Result
EG048: Hexavalent Chromium (Alkaline Digest) - Continued									
Hexavalent Chromium	18540-29-9	0.5	mg/kg		---	---	<0.5	---	---
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	1	mg/kg		---	---	<1	---	---
EP004: Organic Matter									
Organic Matter	---	0.5	%		---	0.9	---	---	---
Total Organic Carbon	---	0.5	%		---	0.5	---	---	---
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	---	0.1	mg/kg		---	---	<0.1	---	---
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		---	---	<0.05	---	---
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		---	---	<0.05	---	---
beta-BHC	319-85-7	0.05	mg/kg		---	---	<0.05	---	---
gamma-BHC	58-89-9	0.05	mg/kg		---	---	<0.05	---	---
delta-BHC	319-86-8	0.05	mg/kg		---	---	<0.05	---	---
Heptachlor	76-44-8	0.05	mg/kg		---	---	<0.05	---	---
Aldrin	309-00-2	0.05	mg/kg		---	---	<0.05	---	---
Heptachlor epoxide	1024-57-3	0.05	mg/kg		---	---	<0.05	---	---
^ Total Chlordane (sum)	---	0.05	mg/kg		---	---	<0.05	---	---
trans-Chlordane	5103-74-2	0.05	mg/kg		---	---	<0.05	---	---
alpha-Endosulfan	959-98-8	0.05	mg/kg		---	---	<0.05	---	---
cis-Chlordane	5103-71-9	0.05	mg/kg		---	---	<0.05	---	---
Dieldrin	60-57-1	0.05	mg/kg		---	---	<0.05	---	---
4,4`-DDE	72-55-9	0.05	mg/kg		---	---	<0.05	---	---
Endrin	72-20-8	0.05	mg/kg		---	---	<0.05	---	---
beta-Endosulfan	33213-65-9	0.05	mg/kg		---	---	<0.05	---	---
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		---	---	<0.05	---	---
4,4`-DDD	72-54-8	0.05	mg/kg		---	---	<0.05	---	---
Endrin aldehyde	7421-93-4	0.05	mg/kg		---	---	<0.05	---	---
Endosulfan sulfate	1031-07-8	0.05	mg/kg		---	---	<0.05	---	---
4,4`-DDT	50-29-3	0.2	mg/kg		---	---	<0.2	---	---
Endrin ketone	53494-70-5	0.05	mg/kg		---	---	<0.05	---	---
Methoxychlor	72-43-5	0.2	mg/kg		---	---	<0.2	---	---
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		---	---	<0.05	---	---

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Client : LBW CO PTY LTD
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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB01-01	SB01-02	SB02-01	SB02-02	SB03-01
				Client sampling date / time	18-Apr-2018 08:18	18-Apr-2018 08:18	18-Apr-2018 08:20	18-Apr-2018 08:20	18-Apr-2018 08:22
Compound	CAS Number	LOR	Unit		EM1806723-003	EM1806723-004	EM1806723-007	EM1806723-008	EM1806723-013
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg		---	---	<0.05	---	---
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		---	---	<0.5	---	---
2-Chlorophenol	95-57-8	0.5	mg/kg		---	---	<0.5	---	---
2-Methylphenol	95-48-7	0.5	mg/kg		---	---	<0.5	---	---
3- & 4-Methylphenol	1319-77-3	1	mg/kg		---	---	<1	---	---
2-Nitrophenol	88-75-5	0.5	mg/kg		---	---	<0.5	---	---
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		---	---	<0.5	---	---
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		---	---	<0.5	---	---
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		---	---	<0.5	---	---
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		---	---	<0.5	---	---
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		---	---	<0.5	---	---
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		---	---	<0.5	---	---
Pentachlorophenol	87-86-5	2	mg/kg		---	---	<2	---	---
^ Sum of Phenols	---	0.5	mg/kg		---	---	<0.5	---	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	---	<0.5	---	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	---	<0.5	---	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	---	<0.5	---	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	---	<0.5	---	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	---	<0.5	---	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	---	<0.5	---	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	---	<0.5	---	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	---	<0.5	---	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	---	<0.5	---	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	---	<0.5	---	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	---	<0.5	---	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	---	<0.5	---	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	---	<0.5	---	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	---	<0.5	---	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	---	<0.5	---	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	---	<0.5	---	<0.5
^ Sum of polycyclic aromatic hydrocarbons	---	0.5	mg/kg		<0.5	---	<0.5	---	<0.5
^ Benzo(a)pyrene TEQ (zero)	---	0.5	mg/kg		<0.5	---	<0.5	---	<0.5

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB01-01	SB01-02	SB02-01	SB02-02	SB03-01
				Client sampling date / time	18-Apr-2018 08:18	18-Apr-2018 08:18	18-Apr-2018 08:20	18-Apr-2018 08:20	18-Apr-2018 08:22
Compound	CAS Number	LOR	Unit		EM1806723-003	EM1806723-004	EM1806723-007	EM1806723-008	EM1806723-013
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
^ Benzo(a)pyrene TEQ (half LOR)	---	0.5	mg/kg		**0.6**	---	**0.6**	---	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	---	0.5	mg/kg		**1.2**	---	**1.2**	---	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	---	10	mg/kg		<10	---	<10	<10	<10
C10 - C14 Fraction	---	50	mg/kg		<50	---	<50	<50	<50
C15 - C28 Fraction	---	100	mg/kg		<100	---	<100	<100	**180**
C29 - C36 Fraction	---	100	mg/kg		<100	---	<100	<100	**200**
^ C10 - C36 Fraction (sum)	---	50	mg/kg		<50	---	<50	<50	**380**
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	---	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	---	<10	<10	<10
>C10 - C16 Fraction	---	50	mg/kg		<50	---	<50	<50	<50
>C16 - C34 Fraction	---	100	mg/kg		<100	---	<100	<100	**340**
>C34 - C40 Fraction	---	100	mg/kg		<100	---	<100	<100	<100
^ >C10 - C40 Fraction (sum)	---	50	mg/kg		<50	---	<50	<50	**340**
^ >C10 - C16 Fraction minus Naphthalene (F2)	---	50	mg/kg		<50	---	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	---	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	---	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	---	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	---	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	---	<0.5	<0.5	<0.5
^ Sum of BTEX	---	0.2	mg/kg		<0.2	---	<0.2	<0.2	<0.2
^ Total Xylenes	---	0.5	mg/kg		<0.5	---	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	---	<1	<1	<1
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		---	---	---	<0.0002	---
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		---	---	---	<0.0002	---
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		---	---	---	**0.0049**	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB01-01	SB01-02	SB02-01	SB02-02	SB03-01
				Client sampling date / time	18-Apr-2018 08:18	18-Apr-2018 08:18	18-Apr-2018 08:20	18-Apr-2018 08:20	18-Apr-2018 08:22
Compound	CAS Number	LOR	Unit		EM1806723-003	EM1806723-004	EM1806723-007	EM1806723-008	EM1806723-013
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	---	---	---	---	**0.0009**	---
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	---	---	---	---	**0.104**	---
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	---	---	---	---	**0.0004**	---
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	---	---	---	---	<0.001	---
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	---	---	---	---	<0.0002	---
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	---	---	---	---	**0.0006**	---
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	---	---	---	---	<0.0002	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	---	---	---	---	**0.0006**	---
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	---	---	---	---	<0.0002	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	---	---	---	---	<0.0002	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	---	---	---	---	<0.0002	---
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	---	---	---	---	<0.0002	---
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	---	---	---	---	<0.0002	---
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	---	---	---	---	<0.0005	---
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	---	---	---	---	<0.0002	---
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	---	---	---	---	<0.0005	---
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	---	---	---	---	<0.0005	---
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	---	---	---	---	<0.0005	---
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	---	---	---	---	<0.0005	---
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	---	---	---	---	<0.0002	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB01-01	SB01-02	SB02-01	SB02-02	SB03-01
				Client sampling date / time	18-Apr-2018 08:18	18-Apr-2018 08:18	18-Apr-2018 08:20	18-Apr-2018 08:20	18-Apr-2018 08:22
Compound	CAS Number	LOR	Unit		EM1806723-003	EM1806723-004	EM1806723-007	EM1806723-008	EM1806723-013
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		---	---	---	<0.0002	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		---	---	---	<0.0005	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		---	---	---	<0.0005	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		---	---	---	<0.0005	---
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		---	---	---	<0.0005	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		---	---	---	**0.111**	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		---	---	---	**0.109**	---
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		---	---	---	**0.110**	---
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		---	---	**106**	---	---
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		---	---	**85.1**	---	---
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		---	---	**86.0**	---	---
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**95.6**	---	**92.4**	---	**97.0**
2-Chlorophenol-D4	93951-73-6	0.5	%		**100**	---	**97.4**	---	**102**
2.4.6-Tribromophenol	118-79-6	0.5	%		**78.9**	---	**82.1**	---	**89.3**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**100**	---	**94.9**	---	**99.2**
Anthracene-d10	1719-06-8	0.5	%		**110**	---	**106**	---	**112**
4-Terphenyl-d14	1718-51-0	0.5	%		**111**	---	**107**	---	**111**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**84.9**	---	**85.2**	**87.9**	**71.4**
Toluene-D8	2037-26-5	0.2	%		**79.6**	---	**80.6**	**77.5**	**72.2**

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Client	: LBW CO PTY LTD
Project	: 170974

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB01-01	SB01-02	SB02-01	SB02-02	SB03-01
				Client sampling date / time	18-Apr-2018 08:18	18-Apr-2018 08:18	18-Apr-2018 08:20	18-Apr-2018 08:20	18-Apr-2018 08:22
Compound	CAS Number	LOR	Unit		EM1806723-003	EM1806723-004	EM1806723-007	EM1806723-008	EM1806723-013
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		84.6	---	82.4	85.6	88.7
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		---	---	---	68.0	---
13C8-PFOA	---	0.0002	%		---	---	---	85.0	---

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Work Order : EM1806723
Client : LBW CO PTY LTD
Project : 170974

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB04-01	SB04-08	SB05-01	SB05-02	SB05-05
				Client sampling date / time	18-Apr-2018 08:24	18-Apr-2018 08:26	18-Apr-2018 08:26	18-Apr-2018 08:27	18-Apr-2018 08:27
Compound	CAS Number	LOR	Unit		EM1806723-019	EM1806723-026	EM1806723-027	EM1806723-028	EM1806723-031
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		3.4	10.0	3.6	11.9	11.7
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		----	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg		----	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg		----	44	9	37	36
Copper	7440-50-8	5	mg/kg		----	26	<5	17	17
Lead	7439-92-1	5	mg/kg		----	8	<5	10	10
Nickel	7440-02-0	2	mg/kg		----	24	2	18	18
Zinc	7440-66-6	5	mg/kg		----	33	6	26	26
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		----	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		----	----	<0.05	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		----	----	<0.05	----	----
beta-BHC	319-85-7	0.05	mg/kg		----	----	<0.05	----	----
gamma-BHC	58-89-9	0.05	mg/kg		----	----	<0.05	----	----
delta-BHC	319-86-8	0.05	mg/kg		----	----	<0.05	----	----
Heptachlor	76-44-8	0.05	mg/kg		----	----	<0.05	----	----
Aldrin	309-00-2	0.05	mg/kg		----	----	<0.05	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg		----	----	<0.05	----	----
^ Total Chlordane (sum)	----	0.05	mg/kg		----	----	<0.05	----	----
trans-Chlordane	5103-74-2	0.05	mg/kg		----	----	<0.05	----	----
alpha-Endosulfan	959-98-8	0.05	mg/kg		----	----	<0.05	----	----
cis-Chlordane	5103-71-9	0.05	mg/kg		----	----	<0.05	----	----
Dieldrin	60-57-1	0.05	mg/kg		----	----	<0.05	----	----
4,4`-DDE	72-55-9	0.05	mg/kg		----	----	<0.05	----	----
Endrin	72-20-8	0.05	mg/kg		----	----	<0.05	----	----
beta-Endosulfan	33213-65-9	0.05	mg/kg		----	----	<0.05	----	----
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		----	----	<0.05	----	----
4,4`-DDD	72-54-8	0.05	mg/kg		----	----	<0.05	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg		----	----	<0.05	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg		----	----	<0.05	----	----
4,4`-DDT	50-29-3	0.2	mg/kg		----	----	<0.2	----	----
Endrin ketone	53494-70-5	0.05	mg/kg		----	----	<0.05	----	----

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Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID	SB04-01	SB04-08	SB05-01	SB05-02	SB05-05
				Client sampling date / time	18-Apr-2018 08:24	18-Apr-2018 08:26	18-Apr-2018 08:26	18-Apr-2018 08:27	18-Apr-2018 08:27
					EM1806723-019	EM1806723-026	EM1806723-027	EM1806723-028	EM1806723-031
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
Methoxychlor	72-43-5	0.2	mg/kg		----	---	<0.2	---	---
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		----	---	<0.05	---	---
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		----	---	<0.05	---	---
EP074A: Monocyclic Aromatic Hydrocarbons									
Benzene	71-43-2	0.2	mg/kg		----	---	<0.2	---	---
Toluene	108-88-3	0.5	mg/kg		----	---	<0.5	---	---
Ethylbenzene	100-41-4	0.5	mg/kg		----	---	<0.5	---	---
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		----	---	<0.5	---	---
Styrene	100-42-5	0.5	mg/kg		----	---	<0.5	---	---
ortho-Xylene	95-47-6	0.5	mg/kg		----	---	<0.5	---	---
Isopropylbenzene	98-82-8	0.5	mg/kg		----	---	<0.5	---	---
n-Propylbenzene	103-65-1	0.5	mg/kg		----	---	<0.5	---	---
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg		----	---	<0.5	---	---
sec-Butylbenzene	135-98-8	0.5	mg/kg		----	---	<0.5	---	---
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg		----	---	<0.5	---	---
tert-Butylbenzene	98-06-6	0.5	mg/kg		----	---	<0.5	---	---
p-Isopropyltoluene	99-87-6	0.5	mg/kg		----	---	<0.5	---	---
n-Butylbenzene	104-51-8	0.5	mg/kg		----	---	<0.5	---	---
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	5	mg/kg		----	---	<5	---	---
2-Butanone (MEK)	78-93-3	5	mg/kg		----	---	<5	---	---
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg		----	---	<5	---	---
2-Hexanone (MBK)	591-78-6	5	mg/kg		----	---	<5	---	---
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	0.5	mg/kg		----	---	<0.5	---	---
EP074D: Fumigants									
2.2-Dichloropropane	594-20-7	0.5	mg/kg		----	---	<0.5	---	---
1.2-Dichloropropane	78-87-5	0.5	mg/kg		----	---	<0.5	---	---
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg		----	---	<0.5	---	---
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg		----	---	<0.5	---	---
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg		----	---	<0.5	---	---
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg		----	---	<5	---	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB04-01	SB04-08	SB05-01	SB05-02	SB05-05
				Client sampling date / time	18-Apr-2018 08:24	18-Apr-2018 08:26	18-Apr-2018 08:26	18-Apr-2018 08:27	18-Apr-2018 08:27
Compound	CAS Number	LOR	Unit		EM1806723-019	EM1806723-026	EM1806723-027	EM1806723-028	EM1806723-031
					Result	Result	Result	Result	Result
EP074E: Halogenated Aliphatic Compounds - Continued									
Chloromethane	74-87-3	5	mg/kg		---	---	<5	---	---
Vinyl chloride	75-01-4	5	mg/kg		---	---	<5	---	---
Bromomethane	74-83-9	5	mg/kg		---	---	<5	---	---
Chloroethane	75-00-3	5	mg/kg		---	---	<5	---	---
Trichlorofluoromethane	75-69-4	5	mg/kg		---	---	<5	---	---
1.1-Dichloroethene	75-35-4	0.5	mg/kg		---	---	<0.5	---	---
Iodomethane	74-88-4	0.5	mg/kg		---	---	<0.5	---	---
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg		---	---	<0.5	---	---
1.1-Dichloroethane	75-34-3	0.5	mg/kg		---	---	<0.5	---	---
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg		---	---	<0.5	---	---
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg		---	---	<0.5	---	---
1.1-Dichloropropylene	563-58-6	0.5	mg/kg		---	---	<0.5	---	---
Carbon Tetrachloride	56-23-5	0.5	mg/kg		---	---	<0.5	---	---
1.2-Dichloroethane	107-06-2	0.5	mg/kg		---	---	<0.5	---	---
Trichloroethene	79-01-6	0.5	mg/kg		---	---	<0.5	---	---
Dibromomethane	74-95-3	0.5	mg/kg		---	---	<0.5	---	---
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg		---	---	<0.5	---	---
1.3-Dichloropropane	142-28-9	0.5	mg/kg		---	---	<0.5	---	---
Tetrachloroethene	127-18-4	0.5	mg/kg		---	---	<0.5	---	---
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg		---	---	<0.5	---	---
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg		---	---	<0.5	---	---
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg		---	---	<0.5	---	---
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg		---	---	<0.5	---	---
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg		---	---	<0.5	---	---
Pentachloroethane	76-01-7	0.5	mg/kg		---	---	<0.5	---	---
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg		---	---	<0.5	---	---
Hexachlorobutadiene	87-68-3	0.5	mg/kg		---	---	<0.5	---	---
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg		---	---	<0.5	---	---
Bromobenzene	108-86-1	0.5	mg/kg		---	---	<0.5	---	---
2-Chlorotoluene	95-49-8	0.5	mg/kg		---	---	<0.5	---	---
4-Chlorotoluene	106-43-4	0.5	mg/kg		---	---	<0.5	---	---
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg		---	---	<0.5	---	---
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg		---	---	<0.5	---	---
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg		---	---	<0.5	---	---

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Client : LBW CO PTY LTD
Project : 170974

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB04-01	SB04-08	SB05-01	SB05-02	SB05-05
				Client sampling date / time	18-Apr-2018 08:24	18-Apr-2018 08:26	18-Apr-2018 08:26	18-Apr-2018 08:27	18-Apr-2018 08:27
Compound	CAS Number	LOR	Unit		EM1806723-019	EM1806723-026	EM1806723-027	EM1806723-028	EM1806723-031
					Result	Result	Result	Result	Result
EP074F: Halogenated Aromatic Compounds - Continued									
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg		---	---	<0.5	---	---
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg		---	---	<0.5	---	---
EP074G: Trihalomethanes									
Chloroform	67-66-3	0.5	mg/kg		---	---	<0.5	---	---
Bromodichloromethane	75-27-4	0.5	mg/kg		---	---	<0.5	---	---
Dibromochloromethane	124-48-1	0.5	mg/kg		---	---	<0.5	---	---
Bromoform	75-25-2	0.5	mg/kg		---	---	<0.5	---	---
EP074H: Naphthalene									
Naphthalene	91-20-3	1	mg/kg		---	---	<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	<10
C10 - C14 Fraction	---	50	mg/kg		<50	---	---	<50	<50
C15 - C28 Fraction	---	100	mg/kg		<100	---	---	<100	<100

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB04-01	SB04-08	SB05-01	SB05-02	SB05-05
				Client sampling date / time	18-Apr-2018 08:24	18-Apr-2018 08:26	18-Apr-2018 08:26	18-Apr-2018 08:27	18-Apr-2018 08:27
Compound	CAS Number	LOR	Unit		EM1806723-019	EM1806723-026	EM1806723-027	EM1806723-028	EM1806723-031
					Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued									
C29 - C36 Fraction	---	100	mg/kg		<100	---	---	<100	<100
^ C10 - C36 Fraction (sum)	---	50	mg/kg		<50	---	---	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	---	---	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	---	---	<10	<10
>C10 - C16 Fraction	---	50	mg/kg		<50	---	---	<50	<50
>C16 - C34 Fraction	---	100	mg/kg		<100	---	---	<100	<100
>C34 - C40 Fraction	---	100	mg/kg		<100	---	---	<100	<100
^ >C10 - C40 Fraction (sum)	---	50	mg/kg		<50	---	---	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	---	50	mg/kg		<50	---	---	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	---	---	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
^ Sum of BTEX	---	0.2	mg/kg		<0.2	---	---	<0.2	<0.2
^ Total Xylenes	---	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	---	---	<1	<1
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		---	---	99.8	---	---
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		---	---	95.5	---	---
EP074S: VOC Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.5	%		---	---	82.1	---	---
Toluene-D8	2037-26-5	0.5	%		---	---	84.1	---	---
4-Bromofluorobenzene	460-00-4	0.5	%		---	---	102	---	---
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		---	---	---	95.5	92.2
2-Chlorophenol-D4	93951-73-6	0.5	%		---	---	---	98.9	95.0
2.4.6-Tribromophenol	118-79-6	0.5	%		---	---	---	82.6	81.7
EP075(SIM)T: PAH Surrogates									

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB04-01	SB04-08	SB05-01	SB05-02	SB05-05
				Client sampling date / time	18-Apr-2018 08:24	18-Apr-2018 08:26	18-Apr-2018 08:26	18-Apr-2018 08:27	18-Apr-2018 08:27
Compound	CAS Number	LOR	Unit		EM1806723-019	EM1806723-026	EM1806723-027	EM1806723-028	EM1806723-031
					Result	Result	Result	Result	Result
EP075(SIM)T: PAH Surrogates - Continued									
2-Fluorobiphenyl	321-60-8	0.5	%		----	----	----	99.0	97.4
Anthracene-d10	1719-06-8	0.5	%		----	----	----	111	112
4-Terphenyl-d14	1718-51-0	0.5	%		----	----	----	109	111
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		88.7	----	----	78.0	82.3
Toluene-D8	2037-26-5	0.2	%		82.6	----	----	74.4	83.6
4-Bromofluorobenzene	460-00-4	0.2	%		84.9	----	----	79.6	83.6

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Client : LBW CO PTY LTD
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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB05-06	SB06-01	SB06-07	SB07-01	SB07-04
				Client sampling date / time	18-Apr-2018 08:27	18-Apr-2018 08:29	18-Apr-2018 08:31	18-Apr-2018 08:33	18-Apr-2018 08:33
Compound	CAS Number	LOR	Unit		EM1806723-032	EM1806723-033	EM1806723-039	EM1806723-040	EM1806723-043
					Result	Result	Result	Result	Result
EA055: Moisture Content									
Moisture Content	---	1.0	%		---	9.9	---	---	---
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	---	0.1	%		9.7	---	10.4	---	---
Moisture Content	---	1.0	%		---	---	---	7.7	7.8
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		---	<5	---	8	<5
Cadmium	7440-43-9	1	mg/kg		---	<1	---	<1	<1
Chromium	7440-47-3	2	mg/kg		---	31	---	12	23
Copper	7440-50-8	5	mg/kg		---	17	---	15	10
Lead	7439-92-1	5	mg/kg		---	8	---	17	9
Nickel	7440-02-0	2	mg/kg		---	14	---	9	8
Zinc	7440-66-6	5	mg/kg		---	29	---	32	12
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		---	<0.1	---	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		---	<0.05	---	<0.05	---
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		---	<0.05	---	<0.05	---
beta-BHC	319-85-7	0.05	mg/kg		---	<0.05	---	<0.05	---
gamma-BHC	58-89-9	0.05	mg/kg		---	<0.05	---	<0.05	---
delta-BHC	319-86-8	0.05	mg/kg		---	<0.05	---	<0.05	---
Heptachlor	76-44-8	0.05	mg/kg		---	<0.05	---	<0.05	---
Aldrin	309-00-2	0.05	mg/kg		---	<0.05	---	<0.05	---
Heptachlor epoxide	1024-57-3	0.05	mg/kg		---	<0.05	---	<0.05	---
^ Total Chlordane (sum)	---	0.05	mg/kg		---	<0.05	---	<0.05	---
trans-Chlordane	5103-74-2	0.05	mg/kg		---	<0.05	---	<0.05	---
alpha-Endosulfan	959-98-8	0.05	mg/kg		---	<0.05	---	<0.05	---
cis-Chlordane	5103-71-9	0.05	mg/kg		---	<0.05	---	<0.05	---
Dieldrin	60-57-1	0.05	mg/kg		---	<0.05	---	<0.05	---
4,4`-DDE	72-55-9	0.05	mg/kg		---	<0.05	---	<0.05	---
Endrin	72-20-8	0.05	mg/kg		---	<0.05	---	<0.05	---
beta-Endosulfan	33213-65-9	0.05	mg/kg		---	<0.05	---	<0.05	---
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		---	<0.05	---	<0.05	---
4,4`-DDD	72-54-8	0.05	mg/kg		---	<0.05	---	<0.05	---
Endrin aldehyde	7421-93-4	0.05	mg/kg		---	<0.05	---	<0.05	---

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Client : LBW CO PTY LTD
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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB05-06	SB06-01	SB06-07	SB07-01	SB07-04
				Client sampling date / time	18-Apr-2018 08:27	18-Apr-2018 08:29	18-Apr-2018 08:31	18-Apr-2018 08:33	18-Apr-2018 08:33
Compound	CAS Number	LOR	Unit		EM1806723-032	EM1806723-033	EM1806723-039	EM1806723-040	EM1806723-043
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
Endosulfan sulfate	1031-07-8	0.05	mg/kg	---	<0.05	---	<0.05	---	
4.4`-DDT	50-29-3	0.2	mg/kg	---	<0.2	---	<0.2	---	
Endrin ketone	53494-70-5	0.05	mg/kg	---	<0.05	---	<0.05	---	
Methoxychlor	72-43-5	0.2	mg/kg	---	<0.2	---	<0.2	---	
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	---	<0.05	---	<0.05	---	
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg	---	<0.05	---	<0.05	---	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	---	---	---	<0.5	---	
Acenaphthylene	208-96-8	0.5	mg/kg	---	---	---	<0.5	---	
Acenaphthene	83-32-9	0.5	mg/kg	---	---	---	<0.5	---	
Fluorene	86-73-7	0.5	mg/kg	---	---	---	<0.5	---	
Phenanthrene	85-01-8	0.5	mg/kg	---	---	---	<0.5	---	
Anthracene	120-12-7	0.5	mg/kg	---	---	---	<0.5	---	
Fluoranthene	206-44-0	0.5	mg/kg	---	---	---	<0.5	---	
Pyrene	129-00-0	0.5	mg/kg	---	---	---	<0.5	---	
Benz(a)anthracene	56-55-3	0.5	mg/kg	---	---	---	<0.5	---	
Chrysene	218-01-9	0.5	mg/kg	---	---	---	<0.5	---	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	---	---	---	<0.5	---	
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	---	---	---	<0.5	---	
Benzo(a)pyrene	50-32-8	0.5	mg/kg	---	---	---	<0.5	---	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	---	---	---	<0.5	---	
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	---	---	---	<0.5	---	
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	---	---	---	<0.5	---	
^ Sum of polycyclic aromatic hydrocarbons	---	0.5	mg/kg	---	---	---	<0.5	---	
^ Benzo(a)pyrene TEQ (zero)	---	0.5	mg/kg	---	---	---	<0.5	---	
^ Benzo(a)pyrene TEQ (half LOR)	---	0.5	mg/kg	---	---	---	**0.6**	---	
^ Benzo(a)pyrene TEQ (LOR)	---	0.5	mg/kg	---	---	---	**1.2**	---	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	---	10	mg/kg	---	<10	---	<10	---	
C10 - C14 Fraction	---	50	mg/kg	---	<50	---	<50	---	
C15 - C28 Fraction	---	100	mg/kg	---	<100	---	<100	---	
C29 - C36 Fraction	---	100	mg/kg	---	<100	---	**210**	---	
^ C10 - C36 Fraction (sum)	---	50	mg/kg	---	<50	---	**210**	---	

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB05-06	SB06-01	SB06-07	SB07-01	SB07-04
				Client sampling date / time	18-Apr-2018 08:27	18-Apr-2018 08:29	18-Apr-2018 08:31	18-Apr-2018 08:33	18-Apr-2018 08:33
Compound	CAS Number	LOR	Unit		EM1806723-032	EM1806723-033	EM1806723-039	EM1806723-040	EM1806723-043
					Result	Result	Result	Result	Result
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	---	**210**	---	
>C34 - C40 Fraction	---	100	mg/kg	---	<100	---	**260**	---	
^ >C10 - C40 Fraction (sum)	---	50	mg/kg	---	<50	---	**470**	---	
^ >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	---	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	---	<0.0002	---	---	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	---	<0.0002	---	---	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	**0.0002**	---	**0.0012**	---	---	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	---	<0.0002	---	---	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**0.0053**	---	**0.0003**	---	---	
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	---	<0.0002	---	---	
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	---	<0.001	---	---	
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	---	<0.0002	---	---	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	---	**0.0003**	---	---	

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB05-06	SB06-01	SB06-07	SB07-01	SB07-04
				Client sampling date / time	18-Apr-2018 08:27	18-Apr-2018 08:29	18-Apr-2018 08:31	18-Apr-2018 08:33	18-Apr-2018 08:33
Compound	CAS Number	LOR	Unit		EM1806723-032	EM1806723-033	EM1806723-039	EM1806723-040	EM1806723-043
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	---	<0.0002	---	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	---	<0.0002	---	---
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	---	<0.0002	---	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	---	<0.0002	---	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	---	<0.0002	---	---
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	---	<0.0002	---	---
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	---	<0.0002	---	---
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	---	<0.0005	---	---
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	---	<0.0002	---	---
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	---	<0.0005	---	---
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	---	<0.0005	---	---
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	---	<0.0005	---	---
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	---	<0.0005	---	---
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	---	<0.0002	---	---
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	---	<0.0002	---	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	---	<0.0005	---	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	---	<0.0005	---	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	---	<0.0005	---	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB05-06	SB06-01	SB06-07	SB07-01	SB07-04
				Client sampling date / time	18-Apr-2018 08:27	18-Apr-2018 08:29	18-Apr-2018 08:31	18-Apr-2018 08:33	18-Apr-2018 08:33
Compound	CAS Number	LOR	Unit		EM1806723-032	EM1806723-033	EM1806723-039	EM1806723-040	EM1806723-043
					Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	---	<0.0005	---	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		0.0055	---	0.0018	---	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		0.0055	---	0.0015	---	---
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		0.0055	---	0.0018	---	---
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		---	102	---	100	---
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		---	92.2	---	95.8	---
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		---	---	---	96.2	---
2-Chlorophenol-D4	93951-73-6	0.5	%		---	---	---	101	---
2.4.6-Tribromophenol	118-79-6	0.5	%		---	---	---	89.2	---
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		---	---	---	98.8	---
Anthracene-d10	1719-06-8	0.5	%		---	---	---	111	---
4-Terphenyl-d14	1718-51-0	0.5	%		---	---	---	110	---
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		---	90.6	---	82.5	---
Toluene-D8	2037-26-5	0.2	%		---	95.1	---	75.7	---
4-Bromofluorobenzene	460-00-4	0.2	%		---	90.3	---	82.8	---
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		87.5	---	71.5	---	---
13C8-PFOA	---	0.0002	%		89.0	---	75.5	---	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	SB07-08	SB08-01	SB09-01	SB09-02	SB09-05
			Client sampling date / time	18-Apr-2018 08:34	18-Apr-2018 08:36	18-Apr-2018 08:37	18-Apr-2018 08:38	18-Apr-2018 08:38
Compound	CAS Number	LOR	Unit	EM1806723-047	EM1806723-048	EM1806723-055	EM1806723-056	EM1806723-059
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	---	0.1	%	3.6	---	---	---	---
Moisture Content	---	1.0	%	---	1.9	3.1	<1.0	2.9
EG005T: Total Metals by ICP-AES								
Barium	7440-39-3	10	mg/kg	---	---	40	---	---
Beryllium	7440-41-7	1	mg/kg	---	---	<1	---	---
Cobalt	7440-48-4	2	mg/kg	---	---	6	---	---
Iron	7439-89-6	50	mg/kg	---	---	13200	---	---
Manganese	7439-96-5	5	mg/kg	---	---	244	---	---
Silver	7440-22-4	2	mg/kg	---	---	<2	---	---
Arsenic	7440-38-2	5	mg/kg	---	---	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	---	---	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	---	---	13	3	12
Copper	7440-50-8	5	mg/kg	---	---	17	6	17
Lead	7439-92-1	5	mg/kg	---	---	22	<5	27
Nickel	7440-02-0	2	mg/kg	---	---	12	5	11
Zinc	7440-66-6	5	mg/kg	---	---	50	7	64
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	---	---	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	0.5	mg/kg	---	---	<0.5	---	---
EK026SF: Total CN by Segmented Flow Analyser								
Total Cyanide	57-12-5	1	mg/kg	---	---	<1	---	---
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	---	0.1	mg/kg	---	---	<0.1	---	---
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	---	---	<0.05	---	---
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	---	---	<0.05	---	---
beta-BHC	319-85-7	0.05	mg/kg	---	---	<0.05	---	---
gamma-BHC	58-89-9	0.05	mg/kg	---	---	<0.05	---	---
delta-BHC	319-86-8	0.05	mg/kg	---	---	<0.05	---	---
Heptachlor	76-44-8	0.05	mg/kg	---	---	<0.05	---	---
Aldrin	309-00-2	0.05	mg/kg	---	---	<0.05	---	---
Heptachlor epoxide	1024-57-3	0.05	mg/kg	---	---	<0.05	---	---
^ Total Chlordane (sum)	---	0.05	mg/kg	---	---	<0.05	---	---

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Client : LBW CO PTY LTD
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Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID	SB07-08	SB08-01	SB09-01	SB09-02	SB09-05
				Client sampling date / time	18-Apr-2018 08:34	18-Apr-2018 08:36	18-Apr-2018 08:37	18-Apr-2018 08:38	18-Apr-2018 08:38
					EM1806723-047	EM1806723-048	EM1806723-055	EM1806723-056	EM1806723-059
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
trans-Chlordane	5103-74-2	0.05	mg/kg		---	---	<0.05	---	---
alpha-Endosulfan	959-98-8	0.05	mg/kg		---	---	<0.05	---	---
cis-Chlordane	5103-71-9	0.05	mg/kg		---	---	<0.05	---	---
Dieldrin	60-57-1	0.05	mg/kg		---	---	<0.05	---	---
4,4`-DDE	72-55-9	0.05	mg/kg		---	---	<0.05	---	---
Endrin	72-20-8	0.05	mg/kg		---	---	<0.05	---	---
beta-Endosulfan	33213-65-9	0.05	mg/kg		---	---	<0.05	---	---
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		---	---	<0.05	---	---
4,4`-DDD	72-54-8	0.05	mg/kg		---	---	<0.05	---	---
Endrin aldehyde	7421-93-4	0.05	mg/kg		---	---	<0.05	---	---
Endosulfan sulfate	1031-07-8	0.05	mg/kg		---	---	<0.05	---	---
4,4`-DDT	50-29-3	0.2	mg/kg		---	---	<0.2	---	---
Endrin ketone	53494-70-5	0.05	mg/kg		---	---	<0.05	---	---
Methoxychlor	72-43-5	0.2	mg/kg		---	---	<0.2	---	---
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		---	---	<0.05	---	---
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		---	---	<0.05	---	---
EP074A: Monocyclic Aromatic Hydrocarbons									
Styrene	100-42-5	0.5	mg/kg		---	<0.5	---	---	---
Isopropylbenzene	98-82-8	0.5	mg/kg		---	<0.5	---	---	---
n-Propylbenzene	103-65-1	0.5	mg/kg		---	<0.5	---	---	---
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg		---	<0.5	---	---	---
sec-Butylbenzene	135-98-8	0.5	mg/kg		---	<0.5	---	---	---
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg		---	<0.5	---	---	---
tert-Butylbenzene	98-06-6	0.5	mg/kg		---	<0.5	---	---	---
p-Isopropyltoluene	99-87-6	0.5	mg/kg		---	<0.5	---	---	---
n-Butylbenzene	104-51-8	0.5	mg/kg		---	<0.5	---	---	---
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	5	mg/kg		---	<5	---	---	---
2-Butanone (MEK)	78-93-3	5	mg/kg		---	<5	---	---	---
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg		---	<5	---	---	---
2-Hexanone (MBK)	591-78-6	5	mg/kg		---	<5	---	---	---
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	0.5	mg/kg		---	<0.5	---	---	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB07-08	SB08-01	SB09-01	SB09-02	SB09-05
				Client sampling date / time	18-Apr-2018 08:34	18-Apr-2018 08:36	18-Apr-2018 08:37	18-Apr-2018 08:38	18-Apr-2018 08:38
Compound	CAS Number	LOR	Unit		EM1806723-047	EM1806723-048	EM1806723-055	EM1806723-056	EM1806723-059
					Result	Result	Result	Result	Result
EP074D: Fumigants									
2.2-Dichloropropane	594-20-7	0.5	mg/kg	----	<0.5	----	----	----	----
1.2-Dichloropropane	78-87-5	0.5	mg/kg	----	<0.5	----	----	----	----
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg	----	<0.5	----	----	----	----
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg	----	<0.5	----	----	----	----
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	----	<0.5	----	----	----	----
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg	----	<5	----	----	----	----
Chloromethane	74-87-3	5	mg/kg	----	<5	----	----	----	----
Vinyl chloride	75-01-4	5	mg/kg	----	<5	----	----	----	----
Bromomethane	74-83-9	5	mg/kg	----	<5	----	----	----	----
Chloroethane	75-00-3	5	mg/kg	----	<5	----	----	----	----
Trichlorofluoromethane	75-69-4	5	mg/kg	----	<5	----	----	----	----
1.1-Dichloroethene	75-35-4	0.5	mg/kg	----	<0.5	----	----	----	----
Iodomethane	74-88-4	0.5	mg/kg	----	<0.5	----	----	----	----
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg	----	<0.5	----	----	----	----
1.1-Dichloroethane	75-34-3	0.5	mg/kg	----	<0.5	----	----	----	----
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg	----	<0.5	----	----	----	----
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg	----	<0.5	----	----	----	----
1.1-Dichloropropylene	563-58-6	0.5	mg/kg	----	<0.5	----	----	----	----
Carbon Tetrachloride	56-23-5	0.5	mg/kg	----	<0.5	----	----	----	----
1.2-Dichloroethane	107-06-2	0.5	mg/kg	----	<0.5	----	----	----	----
Trichloroethene	79-01-6	0.5	mg/kg	----	<0.5	----	----	----	----
Dibromomethane	74-95-3	0.5	mg/kg	----	<0.5	----	----	----	----
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	----	<0.5	----	----	----	----
1.3-Dichloropropane	142-28-9	0.5	mg/kg	----	<0.5	----	----	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	----	<0.5	----	----	----	----
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	----	<0.5	----	----	----	----
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	----	<0.5	----	----	----	----
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	----	<0.5	----	----	----	----
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	----	<0.5	----	----	----	----
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	----	<0.5	----	----	----	----
Pentachloroethane	76-01-7	0.5	mg/kg	----	<0.5	----	----	----	----
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	----	<0.5	----	----	----	----
Hexachlorobutadiene	87-68-3	0.5	mg/kg	----	<0.5	----	----	----	----

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Analytical Results

Sub-Matrix: SOIL
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Compound	CAS Number	LOR	Unit	Client sample ID	SB07-08	SB08-01	SB09-01	SB09-02	SB09-05
				Client sampling date / time	18-Apr-2018 08:34	18-Apr-2018 08:36	18-Apr-2018 08:37	18-Apr-2018 08:38	18-Apr-2018 08:38
					EM1806723-047	EM1806723-048	EM1806723-055	EM1806723-056	EM1806723-059
					Result	Result	Result	Result	Result
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg	---	<0.5	---	---	---	---
Bromobenzene	108-86-1	0.5	mg/kg	---	<0.5	---	---	---	---
2-Chlorotoluene	95-49-8	0.5	mg/kg	---	<0.5	---	---	---	---
4-Chlorotoluene	106-43-4	0.5	mg/kg	---	<0.5	---	---	---	---
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	---	<0.5	---	---	---	---
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	---	<0.5	---	---	---	---
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	---	<0.5	---	---	---	---
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	---	<0.5	---	---	---	---
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	---	<0.5	---	---	---	---
EP074G: Trihalomethanes									
Chloroform	67-66-3	0.5	mg/kg	---	<0.5	---	---	---	---
Bromodichloromethane	75-27-4	0.5	mg/kg	---	<0.5	---	---	---	---
Dibromochloromethane	124-48-1	0.5	mg/kg	---	<0.5	---	---	---	---
Bromoform	75-25-2	0.5	mg/kg	---	<0.5	---	---	---	---
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg	---	---	---	<0.5	---	---
2-Chlorophenol	95-57-8	0.5	mg/kg	---	---	---	<0.5	---	---
2-Methylphenol	95-48-7	0.5	mg/kg	---	---	---	<0.5	---	---
3- & 4-Methylphenol	1319-77-3	1	mg/kg	---	---	---	<1	---	---
2-Nitrophenol	88-75-5	0.5	mg/kg	---	---	---	<0.5	---	---
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	---	---	---	<0.5	---	---
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	---	---	---	<0.5	---	---
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	---	---	---	<0.5	---	---
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	---	---	---	<0.5	---	---
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	---	---	---	<0.5	---	---
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	---	---	---	<0.5	---	---
Pentachlorophenol	87-86-5	2	mg/kg	---	---	---	<2	---	---
^ Sum of Phenols	---	0.5	mg/kg	---	---	---	<0.5	---	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	---	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	---	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	---	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	---	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	---	<0.5	<0.5	<0.5	<0.5	<0.5

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB07-08	SB08-01	SB09-01	SB09-02	SB09-05
				Client sampling date / time	18-Apr-2018 08:34	18-Apr-2018 08:36	18-Apr-2018 08:37	18-Apr-2018 08:38	18-Apr-2018 08:38
Compound	CAS Number	LOR	Unit		EM1806723-047	EM1806723-048	EM1806723-055	EM1806723-056	EM1806723-059
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Anthracene	120-12-7	0.5	mg/kg	----	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	----	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	----	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	----	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	----	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	----	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	----	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	----	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	----	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	----	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	----	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	----	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	----	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	----	0.6	0.6	0.6	0.6	0.6
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	----	1.2	1.2	1.2	1.2	1.2
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	----	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	----	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	----	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	----	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	----	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg	----	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	----	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	----	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	----	<100	120	<100	110	<100
>C34 - C40 Fraction	----	100	mg/kg	----	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	----	<50	120	<50	110	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	----	<50	<50	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	----	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	----	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	----	<0.5	<0.5	<0.5	<0.5	<0.5

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB07-08	SB08-01	SB09-01	SB09-02	SB09-05
				Client sampling date / time	18-Apr-2018 08:34	18-Apr-2018 08:36	18-Apr-2018 08:37	18-Apr-2018 08:38	18-Apr-2018 08:38
Compound	CAS Number	LOR	Unit		EM1806723-047	EM1806723-048	EM1806723-055	EM1806723-056	EM1806723-059
					Result	Result	Result	Result	Result
EP080: BTEXN - Continued									
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	---	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	---	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	---	0.2	mg/kg	---	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	---	0.5	mg/kg	---	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	---	<1	<1	<1	<1	<1
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	---	---	---	---	---
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	---	---	---	---	---
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	---	---	---	---	---
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	---	---	---	---	---
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	---	---	---	---	---
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	---	---	---	---	---
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	---	---	---	---	---
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	---	---	---	---	---
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	---	---	---	---	---
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	---	---	---	---	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	---	---	---	---	---
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	---	---	---	---	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	---	---	---	---	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	---	---	---	---	---
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	---	---	---	---	---
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	---	---	---	---	---
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	---	---	---	---	---
EP231C: Perfluoroalkyl Sulfonamides									

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB07-08	SB08-01	SB09-01	SB09-02	SB09-05
				Client sampling date / time	18-Apr-2018 08:34	18-Apr-2018 08:36	18-Apr-2018 08:37	18-Apr-2018 08:38	18-Apr-2018 08:38
Compound	CAS Number	LOR	Unit		EM1806723-047	EM1806723-048	EM1806723-055	EM1806723-056	EM1806723-059
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	—	—	—	—
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	—	—	—	—
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	—	—	—	—
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	—	—	—	—
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	—	—	—	—
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	—	—	—	—
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	—	—	—	—
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	—	—	—	—
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	—	—	—	—
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	—	—	—	—
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	—	—	—	—
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	—	—	—	—
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	—	—	—	—
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	—	—	—	—
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		---	—	109	—	—
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		---	—	98.8	—	—
EP068T: Organophosphorus Pesticide Surrogate									

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB07-08	SB08-01	SB09-01	SB09-02	SB09-05
				Client sampling date / time	18-Apr-2018 08:34	18-Apr-2018 08:36	18-Apr-2018 08:37	18-Apr-2018 08:38	18-Apr-2018 08:38
Compound	CAS Number	LOR	Unit		EM1806723-047	EM1806723-048	EM1806723-055	EM1806723-056	EM1806723-059
					Result	Result	Result	Result	Result
EP068T: Organophosphorus Pesticide Surrogate - Continued									
DEF	78-48-8	0.05	%		---	---	106	---	---
EP074S: VOC Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.5	%		---	75.3	---	---	---
Toluene-D8	2037-26-5	0.5	%		---	80.8	---	---	---
4-Bromofluorobenzene	460-00-4	0.5	%		---	93.8	---	---	---
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		---	93.8	99.1	96.2	96.0
2-Chlorophenol-D4	93951-73-6	0.5	%		---	98.8	105	102	101
2.4.6-Tribromophenol	118-79-6	0.5	%		---	85.4	95.6	86.5	89.3
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		---	96.6	101	99.9	99.7
Anthracene-d10	1719-06-8	0.5	%		---	108	113	111	112
4-Terphenyl-d14	1718-51-0	0.5	%		---	107	113	110	110
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		---	75.7	88.9	82.3	79.3
Toluene-D8	2037-26-5	0.2	%		---	78.2	92.8	69.8	74.6
4-Bromofluorobenzene	460-00-4	0.2	%		---	88.2	84.6	79.6	79.2
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		79.0	---	---	---	---
13C8-PFOA	---	0.0002	%		80.0	---	---	---	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	SB09-06	SB10-01	SB10-04	SB11-01	SB11-04
			Client sampling date / time	18-Apr-2018 08:38	18-Apr-2018 08:42	18-Apr-2018 08:44	18-Apr-2018 08:49	18-Apr-2018 08:51
Compound	CAS Number	LOR	Unit	EM1806723-060	EM1806723-061	EM1806723-064	EM1806723-069	EM1806723-072
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	---	0.1	%	8.8	---	---	---	---
Moisture Content	---	1.0	%	---	---	7.3	2.0	1.7
EA200: AS 4964 - 2004 Identification of Asbestos in bulk samples								
Asbestos (Trace)	1332-21-4	5	Fibres	---	No	---	---	---
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	---	No	---	---	---
Asbestos Type	1332-21-4	-	-	---	-	---	---	---
Sample weight (dry)	---	0.01	g	---	143	---	---	---
APPROVED IDENTIFIER:	---	-	-	---	E.DAOS	---	---	---
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	---	---	---	7	8
Cadmium	7440-43-9	1	mg/kg	---	---	---	<1	<1
Chromium	7440-47-3	2	mg/kg	---	---	---	24	23
Copper	7440-50-8	5	mg/kg	---	---	---	20	26
Lead	7439-92-1	5	mg/kg	---	---	---	17	24
Nickel	7440-02-0	2	mg/kg	---	---	---	14	17
Zinc	7440-66-6	5	mg/kg	---	---	---	63	70
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	---
Acenaphthylene	208-96-8	0.5	mg/kg	---	---	---	<0.5	---
Acenaphthene	83-32-9	0.5	mg/kg	---	---	---	<0.5	---
Fluorene	86-73-7	0.5	mg/kg	---	---	---	<0.5	---
Phenanthrene	85-01-8	0.5	mg/kg	---	---	---	<0.5	---
Anthracene	120-12-7	0.5	mg/kg	---	---	---	<0.5	---
Fluoranthene	206-44-0	0.5	mg/kg	---	---	---	<0.5	---
Pyrene	129-00-0	0.5	mg/kg	---	---	---	<0.5	---
Benz(a)anthracene	56-55-3	0.5	mg/kg	---	---	---	<0.5	---
Chrysene	218-01-9	0.5	mg/kg	---	---	---	<0.5	---
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	---	---	---	<0.5	---
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	---	---	---	<0.5	---
Benzo(a)pyrene	50-32-8	0.5	mg/kg	---	---	---	<0.5	---
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	---	---	---	<0.5	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB09-06	SB10-01	SB10-04	SB11-01	SB11-04
				Client sampling date / time	18-Apr-2018 08:38	18-Apr-2018 08:42	18-Apr-2018 08:44	18-Apr-2018 08:49	18-Apr-2018 08:51
Compound	CAS Number	LOR	Unit		EM1806723-060	EM1806723-061	EM1806723-064	EM1806723-069	EM1806723-072
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	---	---	---	---	<0.5	---
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	---	---	---	---	<0.5	---
^ Sum of polycyclic aromatic hydrocarbons	---	0.5	mg/kg	---	---	---	---	<0.5	---
^ Benzo(a)pyrene TEQ (zero)	---	0.5	mg/kg	---	---	---	---	<0.5	---
^ Benzo(a)pyrene TEQ (half LOR)	---	0.5	mg/kg	---	---	---	---	0.6	---
^ Benzo(a)pyrene TEQ (LOR)	---	0.5	mg/kg	---	---	---	---	1.2	---
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	---	10	mg/kg	---	---	---	<10	<10	---
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	---
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	---	---	---	---	---

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Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB09-06	SB10-01	SB10-04	SB11-01	SB11-04
				Client sampling date / time	18-Apr-2018 08:38	18-Apr-2018 08:42	18-Apr-2018 08:44	18-Apr-2018 08:49	18-Apr-2018 08:51
Compound	CAS Number	LOR	Unit		EM1806723-060	EM1806723-061	EM1806723-064	EM1806723-069	EM1806723-072
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	—	—	—	—
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	—	—	—	—
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	—	—	—	—
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	—	—	—	—
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	—	—	—	—
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	—	—	—	—
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	—	—	—	—
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	—	—	—	—
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	—	—	—	—
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	—	—	—	—
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	—	—	—	—
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	—	—	—	—
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	—	—	—	—
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	—	—	—	—
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	—	—	—	—
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	—	—	—	—
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	—	—	—	—
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	—	—	—	—
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	—	—	—	—
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	—	—	—	—

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Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB09-06	SB10-01	SB10-04	SB11-01	SB11-04
				Client sampling date / time	18-Apr-2018 08:38	18-Apr-2018 08:42	18-Apr-2018 08:44	18-Apr-2018 08:49	18-Apr-2018 08:51
Compound	CAS Number	LOR	Unit		EM1806723-060	EM1806723-061	EM1806723-064	EM1806723-069	EM1806723-072
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	---	---	---	---
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	---	---	---	---
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	---	---	---	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	---	---	---	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	---	---	---	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	---	---	---	---
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	---	---	---	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	---	---	---	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	---	---	---	---
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	---	---	---	---
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		---	---	---	94.2	---
2-Chlorophenol-D4	93951-73-6	0.5	%		---	---	---	100	---
2.4.6-Tribromophenol	118-79-6	0.5	%		---	---	---	84.3	---
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		---	---	---	98.9	---
Anthracene-d10	1719-06-8	0.5	%		---	---	---	109	---
4-Terphenyl-d14	1718-51-0	0.5	%		---	---	---	108	---
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		---	---	76.9	77.3	---
Toluene-D8	2037-26-5	0.2	%		---	---	72.9	62.8	---
4-Bromofluorobenzene	460-00-4	0.2	%		---	---	79.9	75.0	---
EP231S: PFAS Surrogate									

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB09-06	SB10-01	SB10-04	SB11-01	SB11-04
				Client sampling date / time	18-Apr-2018 08:38	18-Apr-2018 08:42	18-Apr-2018 08:44	18-Apr-2018 08:49	18-Apr-2018 08:51
Compound	CAS Number	LOR	Unit		EM1806723-060	EM1806723-061	EM1806723-064	EM1806723-069	EM1806723-072
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	---	0.0002	%		65.5	---	---	---	---
13C8-PFOA	---	0.0002	%		74.0	---	---	---	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB12-01	SB12-02	SB12-06	SB12-07	SB13-01
				Client sampling date / time	18-Apr-2018 08:52	18-Apr-2018 08:52	18-Apr-2018 08:52	18-Apr-2018 08:53	18-Apr-2018 08:54
Compound	CAS Number	LOR	Unit		EM1806723-074	EM1806723-075	EM1806723-079	EM1806723-080	EM1806723-083
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	---	0.1	%		---	2.3	---	4.3	---
Moisture Content	---	1.0	%		3.7	---	7.8	---	1.2
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		---	---	<5	---	<5
Cadmium	7440-43-9	1	mg/kg		---	---	<1	---	<1
Chromium	7440-47-3	2	mg/kg		---	---	34	---	5
Copper	7440-50-8	5	mg/kg		---	---	19	---	6
Lead	7439-92-1	5	mg/kg		---	---	6	---	<5
Nickel	7440-02-0	2	mg/kg		---	---	16	---	5
Zinc	7440-66-6	5	mg/kg		---	---	24	---	12
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		---	---	<0.1	---	<0.1
EP074A: Monocyclic Aromatic Hydrocarbons									
Benzene	71-43-2	0.2	mg/kg		---	<0.2	---	---	---
Toluene	108-88-3	0.5	mg/kg		---	<0.5	---	---	---
Ethylbenzene	100-41-4	0.5	mg/kg		---	<0.5	---	---	---
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		---	<0.5	---	---	---
Styrene	100-42-5	0.5	mg/kg		---	<0.5	---	---	---
ortho-Xylene	95-47-6	0.5	mg/kg		---	<0.5	---	---	---
Isopropylbenzene	98-82-8	0.5	mg/kg		---	<0.5	---	---	---
n-Propylbenzene	103-65-1	0.5	mg/kg		---	<0.5	---	---	---
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg		---	<0.5	---	---	---
sec-Butylbenzene	135-98-8	0.5	mg/kg		---	<0.5	---	---	---
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg		---	<0.5	---	---	---
tert-Butylbenzene	98-06-6	0.5	mg/kg		---	<0.5	---	---	---
p-Isopropyltoluene	99-87-6	0.5	mg/kg		---	<0.5	---	---	---
n-Butylbenzene	104-51-8	0.5	mg/kg		---	<0.5	---	---	---
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	5	mg/kg		---	<5	---	---	---
2-Butanone (MEK)	78-93-3	5	mg/kg		---	<5	---	---	---
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg		---	<5	---	---	---
2-Hexanone (MBK)	591-78-6	5	mg/kg		---	<5	---	---	---
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	0.5	mg/kg		---	<0.5	---	---	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB12-01	SB12-02	SB12-06	SB12-07	SB13-01
				Client sampling date / time	18-Apr-2018 08:52	18-Apr-2018 08:52	18-Apr-2018 08:52	18-Apr-2018 08:53	18-Apr-2018 08:54
Compound	CAS Number	LOR	Unit		EM1806723-074	EM1806723-075	EM1806723-079	EM1806723-080	EM1806723-083
					Result	Result	Result	Result	Result
EP074D: Fumigants									
2.2-Dichloropropane	594-20-7	0.5	mg/kg	----	<0.5	----	----	----	
1.2-Dichloropropane	78-87-5	0.5	mg/kg	----	<0.5	----	----	----	
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg	----	<0.5	----	----	----	
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg	----	<0.5	----	----	----	
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	----	<0.5	----	----	----	
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg	----	<5	----	----	----	
Chloromethane	74-87-3	5	mg/kg	----	<5	----	----	----	
Vinyl chloride	75-01-4	5	mg/kg	----	<5	----	----	----	
Bromomethane	74-83-9	5	mg/kg	----	<5	----	----	----	
Chloroethane	75-00-3	5	mg/kg	----	<5	----	----	----	
Trichlorofluoromethane	75-69-4	5	mg/kg	----	<5	----	----	----	
1.1-Dichloroethene	75-35-4	0.5	mg/kg	----	<0.5	----	----	----	
Iodomethane	74-88-4	0.5	mg/kg	----	<0.5	----	----	----	
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg	----	<0.5	----	----	----	
1.1-Dichloroethane	75-34-3	0.5	mg/kg	----	<0.5	----	----	----	
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg	----	<0.5	----	----	----	
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg	----	<0.5	----	----	----	
1.1-Dichloropropylene	563-58-6	0.5	mg/kg	----	<0.5	----	----	----	
Carbon Tetrachloride	56-23-5	0.5	mg/kg	----	<0.5	----	----	----	
1.2-Dichloroethane	107-06-2	0.5	mg/kg	----	<0.5	----	----	----	
Trichloroethene	79-01-6	0.5	mg/kg	----	<0.5	----	----	----	
Dibromomethane	74-95-3	0.5	mg/kg	----	<0.5	----	----	----	
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	----	<0.5	----	----	----	
1.3-Dichloropropane	142-28-9	0.5	mg/kg	----	<0.5	----	----	----	
Tetrachloroethene	127-18-4	0.5	mg/kg	----	<0.5	----	----	----	
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	----	<0.5	----	----	----	
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	----	<0.5	----	----	----	
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	----	<0.5	----	----	----	
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	----	<0.5	----	----	----	
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	----	<0.5	----	----	----	
Pentachloroethane	76-01-7	0.5	mg/kg	----	<0.5	----	----	----	
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	----	<0.5	----	----	----	
Hexachlorobutadiene	87-68-3	0.5	mg/kg	----	<0.5	----	----	----	

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB12-01	SB12-02	SB12-06	SB12-07	SB13-01
				Client sampling date / time	18-Apr-2018 08:52	18-Apr-2018 08:52	18-Apr-2018 08:52	18-Apr-2018 08:53	18-Apr-2018 08:54
Compound	CAS Number	LOR	Unit		EM1806723-074	EM1806723-075	EM1806723-079	EM1806723-080	EM1806723-083
					Result	Result	Result	Result	Result
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg	---	<0.5	---	---	---	
Bromobenzene	108-86-1	0.5	mg/kg	---	<0.5	---	---	---	
2-Chlorotoluene	95-49-8	0.5	mg/kg	---	<0.5	---	---	---	
4-Chlorotoluene	106-43-4	0.5	mg/kg	---	<0.5	---	---	---	
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	---	<0.5	---	---	---	
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	---	<0.5	---	---	---	
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	---	<0.5	---	---	---	
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	---	<0.5	---	---	---	
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	---	<0.5	---	---	---	
EP074G: Trihalomethanes									
Chloroform	67-66-3	0.5	mg/kg	---	<0.5	---	---	---	
Bromodichloromethane	75-27-4	0.5	mg/kg	---	<0.5	---	---	---	
Dibromochloromethane	124-48-1	0.5	mg/kg	---	<0.5	---	---	---	
Bromoform	75-25-2	0.5	mg/kg	---	<0.5	---	---	---	
EP074H: Naphthalene									
Naphthalene	91-20-3	1	mg/kg	---	<1	---	---	---	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	---	---	---	---	---	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	---	---	---	---	---	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	---	---	---	---	---	<0.5
Fluorene	86-73-7	0.5	mg/kg	---	---	---	---	---	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	---	---	---	---	---	<0.5
Anthracene	120-12-7	0.5	mg/kg	---	---	---	---	---	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	---	---	---	---	---	<0.5
Pyrene	129-00-0	0.5	mg/kg	---	---	---	---	---	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	---	---	---	---	---	<0.5
Chrysene	218-01-9	0.5	mg/kg	---	---	---	---	---	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	---	---	---	---	---	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	---	---	---	---	---	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	---	---	---	---	---	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	---	---	---	---	---	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	---	---	---	---	---	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	---	---	---	---	---	<0.5
^ Sum of polycyclic aromatic hydrocarbons	---	0.5	mg/kg	---	---	---	---	---	<0.5

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB12-01	SB12-02	SB12-06	SB12-07	SB13-01
				Client sampling date / time	18-Apr-2018 08:52	18-Apr-2018 08:52	18-Apr-2018 08:52	18-Apr-2018 08:53	18-Apr-2018 08:54
Compound	CAS Number	LOR	Unit		EM1806723-074	EM1806723-075	EM1806723-079	EM1806723-080	EM1806723-083
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		----	----	----	----	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		----	----	----	----	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		----	----	----	----	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	----	----	----	<10
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
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		----	----	----	**0.0003**	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		----	----	----	**0.0002**	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		----	----	----	**0.0010**	----

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB12-01	SB12-02	SB12-06	SB12-07	SB13-01
				Client sampling date / time	18-Apr-2018 08:52	18-Apr-2018 08:52	18-Apr-2018 08:52	18-Apr-2018 08:53	18-Apr-2018 08:54
Compound	CAS Number	LOR	Unit		EM1806723-074	EM1806723-075	EM1806723-079	EM1806723-080	EM1806723-083
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	---	---	---	---	<0.0002	---
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	---	---	---	---	<0.0002	---
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	---	---	---	---	<0.0002	---
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	---	---	---	---	<0.001	---
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	---	---	---	---	<0.0002	---
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	---	---	---	---	**0.0020**	---
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	---	---	---	---	<0.0002	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	---	---	---	---	<0.0002	---
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	---	---	---	---	<0.0002	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	---	---	---	---	<0.0002	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	---	---	---	---	<0.0002	---
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	---	---	---	---	<0.0002	---
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	---	---	---	---	<0.0002	---
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	---	---	---	---	<0.0005	---
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	---	---	---	---	<0.0002	---
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	---	---	---	---	<0.0005	---
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	---	---	---	---	<0.0005	---
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	---	---	---	---	<0.0005	---
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	---	---	---	---	<0.0005	---
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	---	---	---	---	<0.0002	---

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Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB12-01	SB12-02	SB12-06	SB12-07	SB13-01
				Client sampling date / time	18-Apr-2018 08:52	18-Apr-2018 08:52	18-Apr-2018 08:52	18-Apr-2018 08:53	18-Apr-2018 08:54
Compound	CAS Number	LOR	Unit		EM1806723-074	EM1806723-075	EM1806723-079	EM1806723-080	EM1806723-083
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		---	---	---	<0.0002	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		---	---	---	<0.0005	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		---	---	---	<0.0005	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		---	---	---	<0.0005	---
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		---	---	---	<0.0005	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		---	---	---	**0.0035**	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		---	---	---	**0.0010**	---
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		---	---	---	**0.0033**	---
EP074S: VOC Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.5	%		---	**81.5**	---	---	---
Toluene-D8	2037-26-5	0.5	%		---	**89.3**	---	---	---
4-Bromofluorobenzene	460-00-4	0.5	%		---	**93.2**	---	---	---
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		---	---	---	---	**91.2**
2-Chlorophenol-D4	93951-73-6	0.5	%		---	---	---	---	**96.2**
2.4.6-Tribromophenol	118-79-6	0.5	%		---	---	---	---	**87.4**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		---	---	---	---	**96.0**
Anthracene-d10	1719-06-8	0.5	%		---	---	---	---	**108**
4-Terphenyl-d14	1718-51-0	0.5	%		---	---	---	---	**107**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**72.9**	---	---	---	**78.7**
Toluene-D8	2037-26-5	0.2	%		**58.5**	---	---	---	**64.5**
4-Bromofluorobenzene	460-00-4	0.2	%		**72.2**	---	---	---	**77.9**
EP231S: PFAS Surrogate									

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Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB12-01	SB12-02	SB12-06	SB12-07	SB13-01
				Client sampling date / time	18-Apr-2018 08:52	18-Apr-2018 08:52	18-Apr-2018 08:52	18-Apr-2018 08:53	18-Apr-2018 08:54
Compound	CAS Number	LOR	Unit		EM1806723-074	EM1806723-075	EM1806723-079	EM1806723-080	EM1806723-083
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	---	0.0002	%		---	---	---	65.5	---
13C8-PFOA	---	0.0002	%		---	---	---	66.5	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	SB13-02	SB13-05	SB13-06	SB15-02	SB16-01
			Client sampling date / time	18-Apr-2018 08:56	18-Apr-2018 08:56	18-Apr-2018 08:56	18-Apr-2018 08:58	18-Apr-2018 09:00
Compound	CAS Number	LOR	Unit	EM1806723-084	EM1806723-087	EM1806723-088	EM1806723-096	EM1806723-103
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	---	0.1	%	---	---	4.2	---	---
Moisture Content	---	1.0	%	4.8	5.3	---	2.3	3.4
EA200: AS 4964 - 2004 Identification of Asbestos in bulk samples								
Asbestos (Trace)	1332-21-4	5	Fibres	---	---	---	---	No
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	---	---	---	---	No
Asbestos Type	1332-21-4	-	-	---	---	---	---	-
Sample weight (dry)	---	0.01	g	---	---	---	---	48.7
APPROVED IDENTIFIER:	---	-	-	---	---	---	---	E.DAOS
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	---	<5	---
Cadmium	7440-43-9	1	mg/kg	<1	<1	---	<1	---
Chromium	7440-47-3	2	mg/kg	20	19	---	10	---
Copper	7440-50-8	5	mg/kg	14	13	---	9	---
Lead	7439-92-1	5	mg/kg	9	9	---	11	---
Nickel	7440-02-0	2	mg/kg	9	8	---	6	---
Zinc	7440-66-6	5	mg/kg	18	19	---	12	---
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	---	<0.1	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	---	<0.5	---
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	---	<0.5	---
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	---	<0.5	---
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	---	<0.5	---
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	---	<0.5	---
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	---	<0.5	---
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	---	<0.5	---
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	---	<0.5	---
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	---	<0.5	---
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	---	<0.5	---
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	---	<0.5	---
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	---	<0.5	---
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	---	<0.5	---
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	---	<0.5	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB13-02	SB13-05	SB13-06	SB15-02	SB16-01
				Client sampling date / time	18-Apr-2018 08:56	18-Apr-2018 08:56	18-Apr-2018 08:56	18-Apr-2018 08:58	18-Apr-2018 09:00
Compound	CAS Number	LOR	Unit		EM1806723-084	EM1806723-087	EM1806723-088	EM1806723-096	EM1806723-103
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	---	<0.5	---
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	---	<0.5	---
^ Sum of polycyclic aromatic hydrocarbons	---	0.5	mg/kg		<0.5	<0.5	---	<0.5	---
^ Benzo(a)pyrene TEQ (zero)	---	0.5	mg/kg		<0.5	<0.5	---	<0.5	---
^ Benzo(a)pyrene TEQ (half LOR)	---	0.5	mg/kg		0.6	0.6	---	0.6	---
^ Benzo(a)pyrene TEQ (LOR)	---	0.5	mg/kg		1.2	1.2	---	1.2	---
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	---	10	mg/kg		<10	---	---	<10	<10
C10 - C14 Fraction	---	50	mg/kg		<50	---	---	<50	<50
C15 - C28 Fraction	---	100	mg/kg		<100	---	---	<100	<100
C29 - C36 Fraction	---	100	mg/kg		<100	---	---	<100	<100
^ C10 - C36 Fraction (sum)	---	50	mg/kg		<50	---	---	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	---	---	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	---	---	<10	<10
>C10 - C16 Fraction	---	50	mg/kg		<50	---	---	<50	<50
>C16 - C34 Fraction	---	100	mg/kg		<100	---	---	<100	<100
>C34 - C40 Fraction	---	100	mg/kg		<100	---	---	<100	<100
^ >C10 - C40 Fraction (sum)	---	50	mg/kg		<50	---	---	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	---	50	mg/kg		<50	---	---	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	---	---	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
^ Sum of BTEX	---	0.2	mg/kg		<0.2	---	---	<0.2	<0.2
^ Total Xylenes	---	0.5	mg/kg		<0.5	---	---	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	---	---	<1	<1
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		---	---	0.0004	---	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB13-02	SB13-05	SB13-06	SB15-02	SB16-01
				Client sampling date / time	18-Apr-2018 08:56	18-Apr-2018 08:56	18-Apr-2018 08:56	18-Apr-2018 08:58	18-Apr-2018 09:00
Compound	CAS Number	LOR	Unit		EM1806723-084	EM1806723-087	EM1806723-088	EM1806723-096	EM1806723-103
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	---	---	**0.0013**	---	---	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	---	---	**0.0456**	---	---	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	---	---	**0.0033**	---	---	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	---	---	**0.405**	---	---	
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	---	---	**0.0004**	---	---	
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	---	---	<0.001	---	---	
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	---	---	**0.0006**	---	---	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	---	---	**0.0082**	---	---	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	---	---	**0.0003**	---	---	
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	---	---	**0.0028**	---	---	
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	---	---	<0.0002	---	---	
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	---	---	<0.0002	---	---	
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	---	---	<0.0002	---	---	
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	---	---	<0.0002	---	---	
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	---	---	<0.0002	---	---	
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	---	---	<0.0005	---	---	
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	---	---	**0.0003**	---	---	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	---	---	<0.0005	---	---	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	---	---	<0.0005	---	---	
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	---	---	<0.0005	---	---	

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB13-02	SB13-05	SB13-06	SB15-02	SB16-01
				Client sampling date / time	18-Apr-2018 08:56	18-Apr-2018 08:56	18-Apr-2018 08:56	18-Apr-2018 08:58	18-Apr-2018 09:00
Compound	CAS Number	LOR	Unit		EM1806723-084	EM1806723-087	EM1806723-088	EM1806723-096	EM1806723-103
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		---	---	<0.0005	---	---
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		---	---	<0.0002	---	---
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		---	---	<0.0002	---	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		---	---	<0.0005	---	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		---	---	<0.0005	---	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		---	---	<0.0005	---	---
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		---	---	<0.0005	---	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		---	---	0.468	---	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		---	---	0.451	---	---
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		---	---	0.463	---	---
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		94.0	89.4	---	102	---
2-Chlorophenol-D4	93951-73-6	0.5	%		99.7	99.2	---	111	---
2.4.6-Tribromophenol	118-79-6	0.5	%		85.3	73.0	---	80.8	---
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		99.1	103	---	99.5	---
Anthracene-d10	1719-06-8	0.5	%		111	107	---	118	---
4-Terphenyl-d14	1718-51-0	0.5	%		110	113	---	125	---
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		78.8	---	---	86.9	68.3
Toluene-D8	2037-26-5	0.2	%		75.7	---	---	93.9	70.7
4-Bromofluorobenzene	460-00-4	0.2	%		77.1	---	---	89.6	89.8
EP231S: PFAS Surrogate									

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB13-02	SB13-05	SB13-06	SB15-02	SB16-01
				Client sampling date / time	18-Apr-2018 08:56	18-Apr-2018 08:56	18-Apr-2018 08:56	18-Apr-2018 08:58	18-Apr-2018 09:00
Compound	CAS Number	LOR	Unit		EM1806723-084	EM1806723-087	EM1806723-088	EM1806723-096	EM1806723-103
					Result	Result	Result	Result	Result
EP231S: PFAS Surrogate - Continued									
13C4-PFOS	---	0.0002	%		---	---	67.5	---	---
13C8-PFOA	---	0.0002	%		---	---	79.0	---	---

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Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID	SB16-02	SB17-01	SB17-06	SB17-07	SB18-01
				Client sampling date / time	18-Apr-2018 09:00	18-Apr-2018 09:00	18-Apr-2018 09:02	18-Apr-2018 09:02	18-Apr-2018 09:02
					EM1806723-104	EM1806723-106	EM1806723-111	EM1806723-112	EM1806723-113
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	---	0.1	%		---	---	7.4	6.0	---
Moisture Content	---	1.0	%		2.4	3.5	---	---	2.2
EG005T: Total Metals by ICP-AES									
Barium	7440-39-3	10	mg/kg		20	---	---	---	---
Beryllium	7440-41-7	1	mg/kg		<1	---	---	---	---
Cobalt	7440-48-4	2	mg/kg		<2	---	---	---	---
Iron	7439-89-6	50	mg/kg		5550	---	---	---	---
Manganese	7439-96-5	5	mg/kg		37	---	---	---	---
Silver	7440-22-4	2	mg/kg		<2	---	---	---	---
Arsenic	7440-38-2	5	mg/kg		<5	<5	---	---	<5
Cadmium	7440-43-9	1	mg/kg		<1	<1	---	---	<1
Chromium	7440-47-3	2	mg/kg		5	14	---	---	8
Copper	7440-50-8	5	mg/kg		<5	13	---	---	8
Lead	7439-92-1	5	mg/kg		<5	14	---	---	28
Nickel	7440-02-0	2	mg/kg		2	10	---	---	4
Zinc	7440-66-6	5	mg/kg		7	29	---	---	40
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	---	---	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg		<0.5	---	---	---	---
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	1	mg/kg		<1	---	---	---	---
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	---	0.1	mg/kg		<0.1	---	---	---	---
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	---	---	---	---
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	---	---	---	---
beta-BHC	319-85-7	0.05	mg/kg		<0.05	---	---	---	---
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	---	---	---	---
delta-BHC	319-86-8	0.05	mg/kg		<0.05	---	---	---	---
Heptachlor	76-44-8	0.05	mg/kg		<0.05	---	---	---	---
Aldrin	309-00-2	0.05	mg/kg		<0.05	---	---	---	---
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	---	---	---	---
^ Total Chlordane (sum)	---	0.05	mg/kg		<0.05	---	---	---	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB16-02	SB17-01	SB17-06	SB17-07	SB18-01
				Client sampling date / time	18-Apr-2018 09:00	18-Apr-2018 09:00	18-Apr-2018 09:02	18-Apr-2018 09:02	18-Apr-2018 09:02
Compound	CAS Number	LOR	Unit		EM1806723-104	EM1806723-106	EM1806723-111	EM1806723-112	EM1806723-113
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	---	---	---	---
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	---	---	---	---
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	---	---	---	---
Dieldrin	60-57-1	0.05	mg/kg		<0.05	---	---	---	---
4,4`-DDE	72-55-9	0.05	mg/kg		<0.05	---	---	---	---
Endrin	72-20-8	0.05	mg/kg		<0.05	---	---	---	---
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	---	---	---	---
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	---	---	---	---
4,4`-DDD	72-54-8	0.05	mg/kg		<0.05	---	---	---	---
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	---	---	---	---
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	---	---	---	---
4,4`-DDT	50-29-3	0.2	mg/kg		<0.2	---	---	---	---
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	---	---	---	---
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	---	---	---	---
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	---	---	---	---
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	---	---	---	---
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	---	---	---	---
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	---	---	---	---
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	---	---	---	---
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	---	---	---	---
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	---	---	---	---
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	---	---	---	---
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	---	---	---	---
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	---	---	---	---
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.5	---	---	---	---
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	---	---	---	---
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	---	---	---	---
Pentachlorophenol	87-86-5	2	mg/kg		<2	---	---	---	---
^ Sum of Phenols	---	0.5	mg/kg		<0.5	---	---	---	---
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	---	---	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB16-02	SB17-01	SB17-06	SB17-07	SB18-01
				Client sampling date / time	18-Apr-2018 09:00	18-Apr-2018 09:00	18-Apr-2018 09:02	18-Apr-2018 09:02	18-Apr-2018 09:02
Compound	CAS Number	LOR	Unit		EM1806723-104	EM1806723-106	EM1806723-111	EM1806723-112	EM1806723-113
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
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	----	----	----
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									

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB16-02	SB17-01	SB17-06	SB17-07	SB18-01
				Client sampling date / time	18-Apr-2018 09:00	18-Apr-2018 09:00	18-Apr-2018 09:02	18-Apr-2018 09:02	18-Apr-2018 09:02
Compound	CAS Number	LOR	Unit		EM1806723-104	EM1806723-106	EM1806723-111	EM1806723-112	EM1806723-113
					Result	Result	Result	Result	Result
EP080: BTEXN - Continued									
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	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		---	---	<0.0002	<0.0002	---
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		---	---	**0.0002**	<0.0002	---
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		---	---	**0.0020**	**0.0062**	---
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		---	---	<0.0002	**0.0006**	---
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		---	---	**0.0006**	**0.0204**	---
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		---	---	<0.0002	<0.0002	---
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		---	---	<0.001	<0.001	---
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		---	---	<0.0002	<0.0002	---
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		---	---	**0.0002**	**0.0006**	---
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		---	---	<0.0002	<0.0002	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		---	---	<0.0002	**0.0005**	---
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		---	---	<0.0002	<0.0002	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		---	---	<0.0002	<0.0002	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		---	---	<0.0002	<0.0002	---
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		---	---	<0.0002	<0.0002	---
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		---	---	<0.0002	<0.0002	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB16-02	SB17-01	SB17-06	SB17-07	SB18-01
				Client sampling date / time	18-Apr-2018 09:00	18-Apr-2018 09:00	18-Apr-2018 09:02	18-Apr-2018 09:02	18-Apr-2018 09:02
Compound	CAS Number	LOR	Unit		EM1806723-104	EM1806723-106	EM1806723-111	EM1806723-112	EM1806723-113
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		---	---	<0.0005	<0.0005	---
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		---	---	<0.0002	<0.0002	---
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		---	---	<0.0005	<0.0005	---
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		---	---	<0.0005	<0.0005	---
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		---	---	<0.0005	<0.0005	---
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		---	---	<0.0005	<0.0005	---
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		---	---	<0.0002	<0.0002	---
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		---	---	<0.0002	<0.0002	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		---	---	<0.0005	<0.0005	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		---	---	<0.0005	<0.0005	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		---	---	<0.0005	<0.0005	---
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		---	---	<0.0005	<0.0005	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		---	---	**0.0030**	**0.0283**	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		---	---	**0.0026**	**0.0266**	---
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		---	---	**0.0028**	**0.0277**	---
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**107**	---	---	---	---

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Client : LBW CO PTY LTD
Project : 170974

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB16-02	SB17-01	SB17-06	SB17-07	SB18-01
				Client sampling date / time	18-Apr-2018 09:00	18-Apr-2018 09:00	18-Apr-2018 09:02	18-Apr-2018 09:02	18-Apr-2018 09:02
Compound	CAS Number	LOR	Unit		EM1806723-104	EM1806723-106	EM1806723-111	EM1806723-112	EM1806723-113
					Result	Result	Result	Result	Result
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		95.1	---	---	---	---
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		106	---	---	---	---
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		89.6	99.1	---	---	---
2-Chlorophenol-D4	93951-73-6	0.5	%		100	109	---	---	---
2.4.6-Tribromophenol	118-79-6	0.5	%		70.3	73.3	---	---	---
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		98.0	98.8	---	---	---
Anthracene-d10	1719-06-8	0.5	%		117	117	---	---	---
4-Terphenyl-d14	1718-51-0	0.5	%		122	122	---	---	---
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		80.1	85.4	---	---	---
Toluene-D8	2037-26-5	0.2	%		73.1	86.3	---	---	---
4-Bromofluorobenzene	460-00-4	0.2	%		80.5	86.4	---	---	---
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		---	---	69.0	84.5	---
13C8-PFOA	---	0.0002	%		---	---	73.5	78.5	---

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Work Order : EM1806723
Client : LBW CO PTY LTD
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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB19-01	SB19-03	SB20-01	SB20-02	SB20-05
				Client sampling date / time	18-Apr-2018 09:04	18-Apr-2018 09:05	18-Apr-2018 09:09	18-Apr-2018 09:10	18-Apr-2018 09:10
Compound	CAS Number	LOR	Unit		EM1806723-122	EM1806723-124	EM1806723-127	EM1806723-128	EM1806723-131
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	---	0.1	%		---	---	---	11.4	8.2
Moisture Content	---	1.0	%		3.4	7.8	4.0	---	---
EG005T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		<5	<5	<5	---	---
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	---	---
Chromium	7440-47-3	2	mg/kg		11	24	16	---	---
Copper	7440-50-8	5	mg/kg		7	13	10	---	---
Lead	7439-92-1	5	mg/kg		12	5	15	---	---
Nickel	7440-02-0	2	mg/kg		4	13	7	---	---
Zinc	7440-66-6	5	mg/kg		16	16	37	---	---
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	---	---
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	---	<0.05	---	---
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	---	<0.05	---	---
beta-BHC	319-85-7	0.05	mg/kg		<0.05	---	<0.05	---	---
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	---	<0.05	---	---
delta-BHC	319-86-8	0.05	mg/kg		<0.05	---	<0.05	---	---
Heptachlor	76-44-8	0.05	mg/kg		<0.05	---	<0.05	---	---
Aldrin	309-00-2	0.05	mg/kg		<0.05	---	<0.05	---	---
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	---	<0.05	---	---
^ Total Chlordane (sum)	---	0.05	mg/kg		<0.05	---	<0.05	---	---
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	---	<0.05	---	---
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	---	<0.05	---	---
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	---	<0.05	---	---
Dieldrin	60-57-1	0.05	mg/kg		<0.05	---	<0.05	---	---
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	---	<0.05	---	---
Endrin	72-20-8	0.05	mg/kg		<0.05	---	<0.05	---	---
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	---	<0.05	---	---
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	---	<0.05	---	---
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	---	<0.05	---	---
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	---	<0.05	---	---
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	---	<0.05	---	---
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	---	<0.2	---	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB19-01	SB19-03	SB20-01	SB20-02	SB20-05
				Client sampling date / time	18-Apr-2018 09:04	18-Apr-2018 09:05	18-Apr-2018 09:09	18-Apr-2018 09:10	18-Apr-2018 09:10
Compound	CAS Number	LOR	Unit		EM1806723-122	EM1806723-124	EM1806723-127	EM1806723-128	EM1806723-131
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	---	<0.05	---	---
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	---	<0.2	---	---
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	---	<0.05	---	---
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	---	<0.05	---	---
EP074A: Monocyclic Aromatic Hydrocarbons									
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	---
Styrene	100-42-5	0.5	mg/kg		<0.5	---	---	<0.5	---
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	---	---	<0.5	---
Isopropylbenzene	98-82-8	0.5	mg/kg		<0.5	---	---	<0.5	---
n-Propylbenzene	103-65-1	0.5	mg/kg		<0.5	---	---	<0.5	---
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg		<0.5	---	---	<0.5	---
sec-Butylbenzene	135-98-8	0.5	mg/kg		<0.5	---	---	<0.5	---
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg		<0.5	---	---	<0.5	---
tert-Butylbenzene	98-06-6	0.5	mg/kg		<0.5	---	---	<0.5	---
p-Isopropyltoluene	99-87-6	0.5	mg/kg		<0.5	---	---	<0.5	---
n-Butylbenzene	104-51-8	0.5	mg/kg		<0.5	---	---	<0.5	---
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	5	mg/kg		<5	---	---	<5	---
2-Butanone (MEK)	78-93-3	5	mg/kg		<5	---	---	<5	---
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg		<5	---	---	<5	---
2-Hexanone (MBK)	591-78-6	5	mg/kg		<5	---	---	<5	---
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	0.5	mg/kg		<0.5	---	---	<0.5	---
EP074D: Fumigants									
2.2-Dichloropropane	594-20-7	0.5	mg/kg		<0.5	---	---	<0.5	---
1.2-Dichloropropane	78-87-5	0.5	mg/kg		<0.5	---	---	<0.5	---
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg		<0.5	---	---	<0.5	---
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg		<0.5	---	---	<0.5	---
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg		<0.5	---	---	<0.5	---
EP074E: Halogenated Aliphatic Compounds									

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Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID	SB19-01	SB19-03	SB20-01	SB20-02	SB20-05
				Client sampling date / time	18-Apr-2018 09:04	18-Apr-2018 09:05	18-Apr-2018 09:09	18-Apr-2018 09:10	18-Apr-2018 09:10
					EM1806723-122	EM1806723-124	EM1806723-127	EM1806723-128	EM1806723-131
					Result	Result	Result	Result	Result
EP074E: Halogenated Aliphatic Compounds - Continued									
Dichlorodifluoromethane	75-71-8	5	mg/kg		<5	---	---	<5	---
Chloromethane	74-87-3	5	mg/kg		<5	---	---	<5	---
Vinyl chloride	75-01-4	5	mg/kg		<5	---	---	<5	---
Bromomethane	74-83-9	5	mg/kg		<5	---	---	<5	---
Chloroethane	75-00-3	5	mg/kg		<5	---	---	<5	---
Trichlorofluoromethane	75-69-4	5	mg/kg		<5	---	---	<5	---
1.1-Dichloroethene	75-35-4	0.5	mg/kg		<0.5	---	---	<0.5	---
Iodomethane	74-88-4	0.5	mg/kg		<0.5	---	---	<0.5	---
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg		<0.5	---	---	<0.5	---
1.1-Dichloroethane	75-34-3	0.5	mg/kg		<0.5	---	---	<0.5	---
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg		<0.5	---	---	<0.5	---
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg		<0.5	---	---	<0.5	---
1.1-Dichloropropylene	563-58-6	0.5	mg/kg		<0.5	---	---	<0.5	---
Carbon Tetrachloride	56-23-5	0.5	mg/kg		<0.5	---	---	<0.5	---
1.2-Dichloroethane	107-06-2	0.5	mg/kg		<0.5	---	---	<0.5	---
Trichloroethene	79-01-6	0.5	mg/kg		<0.5	---	---	<0.5	---
Dibromomethane	74-95-3	0.5	mg/kg		<0.5	---	---	<0.5	---
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg		<0.5	---	---	<0.5	---
1.3-Dichloropropane	142-28-9	0.5	mg/kg		<0.5	---	---	<0.5	---
Tetrachloroethene	127-18-4	0.5	mg/kg		<0.5	---	---	<0.5	---
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg		<0.5	---	---	<0.5	---
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg		<0.5	---	---	<0.5	---
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg		<0.5	---	---	<0.5	---
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg		<0.5	---	---	<0.5	---
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg		<0.5	---	---	<0.5	---
Pentachloroethane	76-01-7	0.5	mg/kg		<0.5	---	---	<0.5	---
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg		<0.5	---	---	<0.5	---
Hexachlorobutadiene	87-68-3	0.5	mg/kg		<0.5	---	---	<0.5	---
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg		<0.5	---	---	<0.5	---
Bromobenzene	108-86-1	0.5	mg/kg		<0.5	---	---	<0.5	---
2-Chlorotoluene	95-49-8	0.5	mg/kg		<0.5	---	---	<0.5	---
4-Chlorotoluene	106-43-4	0.5	mg/kg		<0.5	---	---	<0.5	---
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg		<0.5	---	---	<0.5	---
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg		<0.5	---	---	<0.5	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB19-01	SB19-03	SB20-01	SB20-02	SB20-05
				Client sampling date / time	18-Apr-2018 09:04	18-Apr-2018 09:05	18-Apr-2018 09:09	18-Apr-2018 09:10	18-Apr-2018 09:10
Compound	CAS Number	LOR	Unit		EM1806723-122	EM1806723-124	EM1806723-127	EM1806723-128	EM1806723-131
					Result	Result	Result	Result	Result
EP074F: Halogenated Aromatic Compounds - Continued									
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg		<0.5	---	---	<0.5	---
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg		<0.5	---	---	<0.5	---
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg		<0.5	---	---	<0.5	---
EP074G: Trihalomethanes									
Chloroform	67-66-3	0.5	mg/kg		<0.5	---	---	<0.5	---
Bromodichloromethane	75-27-4	0.5	mg/kg		<0.5	---	---	<0.5	---
Dibromochloromethane	124-48-1	0.5	mg/kg		<0.5	---	---	<0.5	---
Bromoform	75-25-2	0.5	mg/kg		<0.5	---	---	<0.5	---
EP074H: Naphthalene									
Naphthalene	91-20-3	1	mg/kg		<1	---	---	<1	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		---	<0.5	---	---	---
Acenaphthylene	208-96-8	0.5	mg/kg		---	<0.5	---	---	---
Acenaphthene	83-32-9	0.5	mg/kg		---	<0.5	---	---	---
Fluorene	86-73-7	0.5	mg/kg		---	<0.5	---	---	---
Phenanthrene	85-01-8	0.5	mg/kg		---	<0.5	---	---	---
Anthracene	120-12-7	0.5	mg/kg		---	<0.5	---	---	---
Fluoranthene	206-44-0	0.5	mg/kg		---	<0.5	---	---	---
Pyrene	129-00-0	0.5	mg/kg		---	<0.5	---	---	---
Benz(a)anthracene	56-55-3	0.5	mg/kg		---	<0.5	---	---	---
Chrysene	218-01-9	0.5	mg/kg		---	<0.5	---	---	---
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		---	<0.5	---	---	---
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		---	<0.5	---	---	---
Benzo(a)pyrene	50-32-8	0.5	mg/kg		---	<0.5	---	---	---
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		---	<0.5	---	---	---
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		---	<0.5	---	---	---
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		---	<0.5	---	---	---
^ Sum of polycyclic aromatic hydrocarbons	---	0.5	mg/kg		---	<0.5	---	---	---
^ Benzo(a)pyrene TEQ (zero)	---	0.5	mg/kg		---	<0.5	---	---	---
^ Benzo(a)pyrene TEQ (half LOR)	---	0.5	mg/kg		---	0.6	---	---	---
^ Benzo(a)pyrene TEQ (LOR)	---	0.5	mg/kg		---	1.2	---	---	---
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	---	10	mg/kg		---	<10	---	---	---
C10 - C14 Fraction	---	50	mg/kg		---	<50	---	---	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB19-01	SB19-03	SB20-01	SB20-02	SB20-05
				Client sampling date / time	18-Apr-2018 09:04	18-Apr-2018 09:05	18-Apr-2018 09:09	18-Apr-2018 09:10	18-Apr-2018 09:10
Compound	CAS Number	LOR	Unit		EM1806723-122	EM1806723-124	EM1806723-127	EM1806723-128	EM1806723-131
					Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued									
C15 - C28 Fraction	---	100	mg/kg		---	<100	---	---	---
C29 - C36 Fraction	---	100	mg/kg		---	<100	---	---	---
^ C10 - C36 Fraction (sum)	---	50	mg/kg		---	<50	---	---	---
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		---	<10	---	---	---
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		---	<10	---	---	---
>C10 - C16 Fraction	---	50	mg/kg		---	<50	---	---	---
>C16 - C34 Fraction	---	100	mg/kg		---	<100	---	---	---
>C34 - C40 Fraction	---	100	mg/kg		---	<100	---	---	---
^ >C10 - C40 Fraction (sum)	---	50	mg/kg		---	<50	---	---	---
^ >C10 - C16 Fraction minus Naphthalene (F2)	---	50	mg/kg		---	<50	---	---	---
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		---	<0.2	---	---	---
Toluene	108-88-3	0.5	mg/kg		---	<0.5	---	---	---
Ethylbenzene	100-41-4	0.5	mg/kg		---	<0.5	---	---	---
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		---	<0.5	---	---	---
ortho-Xylene	95-47-6	0.5	mg/kg		---	<0.5	---	---	---
^ Sum of BTEX	---	0.2	mg/kg		---	<0.2	---	---	---
^ Total Xylenes	---	0.5	mg/kg		---	<0.5	---	---	---
Naphthalene	91-20-3	1	mg/kg		---	<1	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		---	---	---	---	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		---	---	---	---	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		---	---	---	---	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		---	---	---	---	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		---	---	---	---	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		---	---	---	---	<0.0002

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB19-01	SB19-03	SB20-01	SB20-02	SB20-05
				Client sampling date / time	18-Apr-2018 09:04	18-Apr-2018 09:05	18-Apr-2018 09:09	18-Apr-2018 09:10	18-Apr-2018 09:10
Compound	CAS Number	LOR	Unit		EM1806723-122	EM1806723-124	EM1806723-127	EM1806723-128	EM1806723-131
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		---	---	---	---	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		---	---	---	---	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		---	---	---	---	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		---	---	---	---	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		---	---	---	---	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		---	---	---	---	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		---	---	---	---	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		---	---	---	---	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		---	---	---	---	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		---	---	---	---	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		---	---	---	---	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		---	---	---	---	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		---	---	---	---	<0.0005
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		---	---	---	---	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		---	---	---	---	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		---	---	---	---	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		---	---	---	---	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		---	---	---	---	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		---	---	---	---	<0.0005

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Client : LBW CO PTY LTD
Project : 170974

Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

Compound	CAS Number	LOR	Unit	Client sample ID	SB19-01	SB19-03	SB20-01	SB20-02	SB20-05
				Client sampling date / time	18-Apr-2018 09:04	18-Apr-2018 09:05	18-Apr-2018 09:09	18-Apr-2018 09:10	18-Apr-2018 09:10
					EM1806723-122	EM1806723-124	EM1806723-127	EM1806723-128	EM1806723-131
					Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		---	---	---	---	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		---	---	---	---	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		---	---	---	---	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		---	---	---	---	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		---	---	---	---	<0.0002
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		---	---	---	---	<0.0002
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		94.5	---	100	---	---
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		112	---	106	---	---
EP074S: VOC Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.5	%		79.9	---	---	82.5	---
Toluene-D8	2037-26-5	0.5	%		85.6	---	---	86.1	---
4-Bromofluorobenzene	460-00-4	0.5	%		92.6	---	---	89.5	---
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		---	94.4	---	---	---
2-Chlorophenol-D4	93951-73-6	0.5	%		---	105	---	---	---
2.4.6-Tribromophenol	118-79-6	0.5	%		---	68.3	---	---	---
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		---	95.1	---	---	---
Anthracene-d10	1719-06-8	0.5	%		---	115	---	---	---
4-Terphenyl-d14	1718-51-0	0.5	%		---	122	---	---	---
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		---	77.9	---	---	---
Toluene-D8	2037-26-5	0.2	%		---	74.3	---	---	---
4-Bromofluorobenzene	460-00-4	0.2	%		---	79.0	---	---	---
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		---	---	---	---	67.0
13C8-PFOA	---	0.0002	%		---	---	---	---	74.5

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Project : 170974

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	SB20-06	---	---	---	---
			Client sampling date / time	18-Apr-2018 09:10	---	---	---	---
Compound	CAS Number	LOR	Unit	EM1806723-132	------	------	------	------
				Result	---	---	---	---
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	---	1.0	%	7.6	---	---	---	---
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	---	---	---	---
Cadmium	7440-43-9	1	mg/kg	<1	---	---	---	---
Chromium	7440-47-3	2	mg/kg	21	---	---	---	---
Copper	7440-50-8	5	mg/kg	11	---	---	---	---
Lead	7439-92-1	5	mg/kg	<5	---	---	---	---
Nickel	7440-02-0	2	mg/kg	8	---	---	---	---
Zinc	7440-66-6	5	mg/kg	14	---	---	---	---
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	---	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	---	---	---	---
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	---	---	---	---
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	---	---	---	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	---	---	---	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB20-06	---	---	---	---
				Client sampling date / time	18-Apr-2018 09:10	---	---	---	---
Compound	CAS Number	LOR	Unit		EM1806723-132	------	------	------	------
					Result	---	---	---	---
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	---	---	---	---
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	---	---	---	---
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	---	---	---	---
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	---	---	---	---
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	---	---	---	---
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	---	---	---	---
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	---	---	---	---
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	---	---	---	---
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	---	---	---	---
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	---	---	---	---
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	---	---	---	---
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	---	---	---	---
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	---	---	---	---
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	---	---	---	---
EP231P: PFAS Sums									
Sum of PFAS	---	0.0002	mg/kg		<0.0002	---	---	---	---
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	---	---	---	---

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Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	SB20-06	---	---	---	---
				Client sampling date / time	18-Apr-2018 09:10	---	---	---	---
Compound	CAS Number	LOR	Unit	EM1806723-132	-------	-------	-------	-------	
					Result	---	---	---	---
EP231P: PFAS Sums - Continued									
Sum of PFAS (WA DER List)	---	0.0002	mg/kg		<0.0002	---	---	---	---
EP231S: PFAS Surrogate									
13C4-PFOS	---	0.0002	%		75.0	---	---	---	---
13C8-PFOA	---	0.0002	%		76.0	---	---	---	---

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Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	RINSE-01	TRIP-01	---	---	---
				Client sampling date / time	18-Apr-2018 00:00	18-Apr-2018 00:00	---	---	---
Compound	CAS Number	LOR	Unit		EM1806723-001	EM1806723-002	-------	-------	-------
					Result	Result	---	---	---
EG020T: Total Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L		<0.001	---	---	---	---
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	---	---	---	---
Chromium	7440-47-3	0.001	mg/L		<0.001	---	---	---	---
Copper	7440-50-8	0.001	mg/L		<0.001	---	---	---	---
Nickel	7440-02-0	0.001	mg/L		<0.001	---	---	---	---
Lead	7439-92-1	0.001	mg/L		<0.001	---	---	---	---
Zinc	7440-66-6	0.005	mg/L		<0.005	---	---	---	---
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	---	---	---	---
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	---	20	µg/L		---	<20	---	---	---
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	20	µg/L		---	<20	---	---	---
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L		---	<20	---	---	---
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		---	<1	---	---	---
Toluene	108-88-3	2	µg/L		---	<2	---	---	---
Ethylbenzene	100-41-4	2	µg/L		---	<2	---	---	---
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		---	<2	---	---	---
ortho-Xylene	95-47-6	2	µg/L		---	<2	---	---	---
^ Total Xylenes	---	2	µg/L		---	<2	---	---	---
^ Sum of BTEX	---	1	µg/L		---	<1	---	---	---
Naphthalene	91-20-3	5	µg/L		---	<5	---	---	---
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	2	%		---	99.3	---	---	---
Toluene-D8	2037-26-5	2	%		---	91.7	---	---	---
4-Bromofluorobenzene	460-00-4	2	%		---	99.1	---	---	---

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Analytical Results

Descriptive Results

Sub-Matrix: **SOIL**

Method: Compound	Client sample ID - Client sampling date / time	Analytical Results
EA200: AS 4964 - 2004 Identification of Asbestos in Soils		
EA200: Description	SB03-01 - 18-Apr-2018 08:22	Brown soil with rock and organic matter.
EA200: Description	SB10-01 - 18-Apr-2018 08:42	Brown rocky soil with organic matter.
EA200: Description	SB16-01 - 18-Apr-2018 09:00	Brown orange soil with rock matter.

Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	36	140
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	38	128
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	33	139
EP074S: VOC Surrogates			
1.2-Dichloroethane-D4	17060-07-0	62	122
Toluene-D8	2037-26-5	64	120
4-Bromofluorobenzene	460-00-4	66	124
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	54	125
2-Chlorophenol-D4	93951-73-6	65	123
2.4.6-Tribromophenol	118-79-6	34	122
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	61	125
Anthracene-d10	1719-06-8	62	130
4-Terphenyl-d14	1718-51-0	67	133
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	51	125
Toluene-D8	2037-26-5	55	125
4-Bromofluorobenzene	460-00-4	56	124
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	130
13C8-PFOA	----	60	130

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	73	129
Toluene-D8	2037-26-5	70	125
4-Bromofluorobenzene	460-00-4	71	129

ALS Environmental

Automated Guideline Comparison Report

SA EPA Waste Disposal Criteria – Table 1&2 Classification of Waste

Work Order	: **EM1806723**	Page	: 1 of 8
Client	: **LBW CO PTY LTD**	Laboratory	: Environmental Division Melbourne
Contact	: Nick Brewer		
Address	: 184 MAGILL ROAD NORWOOD SA, AUSTRALIA 5067	Address	: 4 Westall Rd Springvale VIC Australia 3171
E-mail	: nick.brewer@lbwco.com.au	E-mail	: Kieren.Burns@alsglobal.com
Telephone	: +61 08 8331 2417	Telephone	: +61-3-8549 9600
Facsimile	: +61 08 8331 2415	Facsimile	: +61-3-8549 9626
Project	: 170974	Date Received	: 20-Apr-2018 10:00
Order number	: 170974-01	Date Analysed	: 24-Apr-2018
C-O-C number	: 2018-04-20-ALS-LT	Date Issued	: 02-May-2018 14:57
No. of samples received	: 132		
No. of samples analysed	: 48	Quote number	: ADBQ/001/17

General Comments

This guideline comparison report **only** provides evaluation of total concentration data against upper limit thresholds for the 'Waste Derived Fill', 'Intermediate Waste', and 'Low Level Contaminated Waste' Categories in Tables 1&2 of SA EPA Publication '4771346 Current Waste Criteria 2010 '.

This guideline comparison report is **NOT** a soil classification report. Classification of soils as Waste Derived Fill, Intermediate Contaminated, or Low Level Contaminated requires consideration of a number of other criteria including the source of the waste and its risk based assessment, as set out in SA EPA Publication 'Standard for the Production and use of Waste Derived Fill'.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

This guideline comparison report only provides evaluation data where chemical parameters specifically listed within the SA EPA WDF guideline are analysed by ALS using the **P-15/1 package in full**.

Red shading is applied where the result is equal to or greater than the guideline upper limit and/or equal to or lower than the guideline lower limit. Red shading is not applied to the 'Summary of Thresholds Reached or Exceeded'.

For the 'Summary of Thresholds Reached or Exceeded' to accurately function, all samples must be analysed and included in the 'Analytical Results' section of the following report. Please verify that all required IDs are listed and analysed.

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.

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Summary of Thresholds Reached or Exceeded

Results for all samples detailed in this report are below the upper threshold limits for Fill Material.

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Client	LBW CO PTY LTD
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Analytical Results

Standard for the production and use of waste derived fill
Criteria for the Classification of Waste: Intermediate Contaminated Waste Criteria

Sub-Matrix: **SOIL**

Compound	Method	LOR	Unit	Guideline Lower Limit	Guideline Upper Limit	Client sample ID: SB02-01 Sampling date/time: 18-Apr-2018 08:20 EM1806723-007	SB09-01 18-Apr-2018 08:37 EM1806723-055	SB16-02 18-Apr-2018 09:00 EM1806723-104	--- --- ---	--- --- ---
EG005T: Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	---	200	<5	<5	<5	---	---
Beryllium	EG005T	1	mg/kg	---	40	<1	<1	<1	---	---
Cadmium	EG005T	1	mg/kg	---	30	<1	<1	<1	---	---
Cobalt	EG005T	2	mg/kg	---	170	**4**	**6**	<2	---	---
Copper	EG005T	5	mg/kg	---	2000	**10**	**17**	<5	---	---
Lead	EG005T	5	mg/kg	---	1200	**11**	**22**	<5	---	---
Manganese	EG005T	5	mg/kg	---	6000	**168**	**244**	**37**	---	---
Nickel	EG005T	2	mg/kg	---	600	**10**	**12**	**2**	---	---
Zinc	EG005T	5	mg/kg	---	14000	**25**	**50**	**7**	---	---
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	---	30	<0.1	<0.1	<0.1	---	---
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	0.5	mg/kg	---	200	<0.5	<0.5	<0.5	---	---
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	1	mg/kg	---	1000	<1	<1	<1	---	---
EP066: Polychlorinated Biphenyls (PCB)										
Total Polychlorinated biphenyls	EP066	0.1	mg/kg	---	2	<0.1	<0.1	<0.1	---	---
EP068A: Organochlorine Pesticides (OC)										
Heptachlor	EP068	0.05	mg/kg	---	2	<0.05	<0.05	<0.05	---	---
Total Chlordane (sum)	EP068	0.05	mg/kg	---	2	<0.05	<0.05	<0.05	---	---
4.4'-DDT	EP068	0.2	mg/kg	---	2	<0.2	<0.2	<0.2	---	---
Sum of Aldrin + Dieldrin	EP068	0.05	mg/kg	---	2	<0.05	<0.05	<0.05	---	---
EP075(SIM)A: Phenolic Compounds										
Sum of Phenols	EP075(SIM)	0.5	mg/kg	---	17000	<0.5	<0.5	<0.5	---	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	---	2	<0.5	<0.5	<0.5	---	---
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	---	40	<0.5	<0.5	<0.5	---	---
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP080	10	mg/kg	---	100	<10	<10	<10	---	---
C10 - C36 Fraction (sum)	EP071	50	mg/kg	---	1000	<50	<50	<50	---	---
EP080: BTEXN										
Benzene	EP080	0.2	mg/kg	---	5	<0.2	<0.2	<0.2	---	---

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Standard for the production and use of waste derived fill
Criteria for the Classification of Waste: Intermediate Contaminated Waste Criteria

Sub-Matrix: **SOIL**

Compound	Method	LOR	Unit	Guideline Lower Limit	Guideline Upper Limit	Client sample ID: SB02-01 Sampling date/time: 18-Apr-2018 08:20 EM1806723-007	SB09-01 18-Apr-2018 08:37 EM1806723-055	SB16-02 18-Apr-2018 09:00 EM1806723-104	---	---
EP080: BTEXN - Continued										
Toluene	EP080	0.5	mg/kg	---	50	<0.5	<0.5	<0.5	---	---
Ethylbenzene	EP080	0.5	mg/kg	---	100	<0.5	<0.5	<0.5	---	---
Total Xylenes	EP080	0.5	mg/kg	---	180	<0.5	<0.5	<0.5	---	---

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Work Order	EM1806723
Client	LBW CO PTY LTD
Project	170974

Standard for the production and use of waste derived fill
Criteria for the Classification of Waste: Low-Level Contaminated Waste Criteria

Sub-Matrix: **SOIL**

Compound	Method	LOR	Unit	Guideline Lower Limit	Guideline Upper Limit	SB02-01 18-Apr-2018 08:20 EM1806723-007	SB09-01 18-Apr-2018 08:37 EM1806723-055	SB16-02 18-Apr-2018 09:00 EM1806723-104	--- --- ---	--- --- ---
EG005T: Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	---	750	<5	<5	<5	---	---
Beryllium	EG005T	1	mg/kg	---	150	<1	<1	<1	---	---
Cadmium	EG005T	1	mg/kg	---	60	<1	<1	<1	---	---
Cobalt	EG005T	2	mg/kg	---	1000	**4**	**6**	<2	---	---
Copper	EG005T	5	mg/kg	---	7500	**10**	**17**	<5	---	---
Lead	EG005T	5	mg/kg	---	5000	**11**	**22**	<5	---	---
Manganese	EG005T	5	mg/kg	---	10000	**168**	**244**	**37**	---	---
Nickel	EG005T	2	mg/kg	---	3000	**10**	**12**	**2**	---	---
Zinc	EG005T	5	mg/kg	---	50000	**25**	**50**	**7**	---	---
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	---	110	<0.1	<0.1	<0.1	---	---
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	0.5	mg/kg	---	750	<0.5	<0.5	<0.5	---	---
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	1	mg/kg	---	3500	<1	<1	<1	---	---
EP066: Polychlorinated Biphenyls (PCB)										
Total Polychlorinated biphenyls	EP066	0.1	mg/kg	---	50	<0.1	<0.1	<0.1	---	---
EP068A: Organochlorine Pesticides (OC)										
Heptachlor	EP068	0.05	mg/kg	---	50	<0.05	<0.05	<0.05	---	---
Total Chlordane (sum)	EP068	0.05	mg/kg	---	50	<0.05	<0.05	<0.05	---	---
4.4'-DDT	EP068	0.2	mg/kg	---	50	<0.2	<0.2	<0.2	---	---
Sum of Aldrin + Dieldrin	EP068	0.05	mg/kg	---	50	<0.05	<0.05	<0.05	---	---
EP075(SIM)A: Phenolic Compounds										
Sum of Phenols	EP075(SIM)	0.5	mg/kg	---	50000	<0.5	<0.5	<0.5	---	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	---	5	<0.5	<0.5	<0.5	---	---
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	---	200	<0.5	<0.5	<0.5	---	---
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP080	10	mg/kg	---	1000	<10	<10	<10	---	---
C10 - C36 Fraction (sum)	EP071	50	mg/kg	---	10000	<50	<50	<50	---	---
EP080: BTEXN										
Benzene	EP080	0.2	mg/kg	---	15	<0.2	<0.2	<0.2	---	---
Toluene	EP080	0.5	mg/kg	---	500	<0.5	<0.5	<0.5	---	---

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Work Order	EM1806723
Client	LBW CO PTY LTD
Project	170974

Standard for the production and use of waste derived fill
Criteria for the Classification of Waste: Low-Level Contaminated Waste Criteria

Sub-Matrix: **SOIL**

Compound	*Method*	*LOR*	*Unit*	Guideline Lower Limit	Guideline Upper Limit	*Client sample ID* / *Sampling date/time* SB02-01 18-Apr-2018 08:20 EM1806723-007	SB09-01 18-Apr-2018 08:37 EM1806723-055	SB16-02 18-Apr-2018 09:00 EM1806723-104	---	---
EP080: BTEXN - Continued										
Ethylbenzene	EP080	0.5	mg/kg	---	1000	<0.5	<0.5	<0.5	---	---
Total Xylenes	EP080	0.5	mg/kg	---	1800	<0.5	<0.5	<0.5	---	---

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Work Order	EM1806723
Client	LBW CO PTY LTD
Project	170974

Standard for the production and use of waste derived fill
Criteria for the Classification of Waste: Waste Fill Criteria

Sub-Matrix: **SOIL**

Compound	Method	LOR	Unit	Guideline Lower Limit	Guideline Upper Limit	SB02-01 18-Apr-2018 08:20 EM1806723-007	SB09-01 18-Apr-2018 08:37 EM1806723-055	SB16-02 18-Apr-2018 09:00 EM1806723-104	--- --- ---	--- --- ---
EG005T: Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	---	20	<5	<5	<5	---	---
Barium	EG005T	10	mg/kg	---	300	**60**	**40**	**20**	---	---
Beryllium	EG005T	1	mg/kg	---	20	<1	<1	<1	---	---
Cadmium	EG005T	1	mg/kg	---	3	<1	<1	<1	---	---
Cobalt	EG005T	2	mg/kg	---	170	**4**	**6**	<2	---	---
Copper	EG005T	5	mg/kg	---	60	**10**	**17**	<5	---	---
Lead	EG005T	5	mg/kg	---	300	**11**	**22**	<5	---	---
Manganese	EG005T	5	mg/kg	---	500	**168**	**244**	**37**	---	---
Nickel	EG005T	2	mg/kg	---	60	**10**	**12**	**2**	---	---
Zinc	EG005T	5	mg/kg	---	200	**25**	**50**	**7**	---	---
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	---	1	<0.1	<0.1	<0.1	---	---
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	0.5	mg/kg	---	1	<0.5	<0.5	<0.5	---	---
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	1	mg/kg	---	500	<1	<1	<1	---	---
EP066: Polychlorinated Biphenyls (PCB)										
Total Polychlorinated biphenyls	EP066	0.1	mg/kg	---	2	<0.1	<0.1	<0.1	---	---
EP068A: Organochlorine Pesticides (OC)										
Heptachlor	EP068	0.05	mg/kg	---	2	<0.05	<0.05	<0.05	---	---
Total Chlordane (sum)	EP068	0.05	mg/kg	---	2	<0.05	<0.05	<0.05	---	---
4.4'-DDT	EP068	0.2	mg/kg	---	2	<0.2	<0.2	<0.2	---	---
Sum of Aldrin + Dieldrin	EP068	0.05	mg/kg	---	2	<0.05	<0.05	<0.05	---	---
EP075(SIM)A: Phenolic Compounds										
Sum of Phenols	EP075(SIM)	0.5	mg/kg	---	0.5	<0.5	<0.5	<0.5	---	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075(SIM)	0.5	mg/kg	---	1	<0.5	<0.5	<0.5	---	---
Sum of polycyclic aromatic hydrocarbons	EP075(SIM)	0.5	mg/kg	---	5	<0.5	<0.5	<0.5	---	---
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP080	10	mg/kg	---	65	<10	<10	<10	---	---
C10 - C36 Fraction (sum)	EP071	50	mg/kg	---	1000	<50	<50	<50	---	---
EP080: BTEXN										
Benzene	EP080	0.2	mg/kg	---	1	<0.2	<0.2	<0.2	---	---

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Work Order : EM1806723
Client : LBW CO PTY LTD
Project : 170974

Standard for the production and use of waste derived fill
Criteria for the Classification of Waste: Waste Fill Criteria

Sub-Matrix: **SOIL**

				Client sample ID		SB02-01	SB09-01	SB16-02	---	---
				Sampling date/time		18-Apr-2018 08:20	18-Apr-2018 08:37	18-Apr-2018 09:00	---	---
Compound	*Method*	*LOR*	*Unit*	Guideline Lower Limit	Guideline Upper Limit	EM1806723-007	EM1806723-055	EM1806723-104	------	------
EP080: BTEXN - Continued										
Toluene	EP080	0.5	mg/kg	---	1.4	<0.5	<0.5	<0.5	---	---
Ethylbenzene	EP080	0.5	mg/kg	---	3.1	<0.5	<0.5	<0.5	---	---
Total Xylenes	EP080	0.5	mg/kg	---	14	<0.5	<0.5	<0.5	---	---

Note: Red shading is applied where the result is equal to or greater than the guideline upper limit and/or equal to or lower than the guideline lower limit.

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **EM1806723**	Page	: 1 of 29
Client	: **LBW CO PTY LTD**	Laboratory	: Environmental Division Melbourne
Contact	: Nick Brewer	Contact	: KIEREN BURNS
Address	: 184 MAGILL ROAD NORWOOD SA, AUSTRALIA 5067	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: +61 08 8331 2417	Telephone	: +61-3-8549 9600
Project	: 170974	Date Samples Received	: 20-Apr-2018
Order number	: 170974-01	Date Analysis Commenced	: 24-Apr-2018
C-O-C number	: 2018-04-20-ALS-LT	Issue Date	: 02-May-2018
Sampler	: ---		
Site	: Town of Gawler - Angle Vale Rd PSI		
Quote number	: ADBQ/001/17		
No. of samples received	: 132		
No. of samples analysed	: 48		

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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*
Alex Rossi	Organic Chemist	Sydney Inorganics, Smithfield, NSW
Alex Rossi	Organic Chemist	Sydney Organics, Smithfield, NSW
Dilani Fernando	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC
Emily Daos	Approved Asbestos Identifier	Melbourne Asbestos, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Organics, Springvale, VIC
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics, Smithfield, NSW
Xing Lin	Senior Organic Chemist	Melbourne Organics, Springvale, VIC

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Work Order : EM1806723
Client : LBW CO PTY LTD
Project : 170974

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by 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 (%)
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 1590546)									
EM1806447-050	Anonymous	EA001: pH (CaCl2)	---	0.1	pH Unit	7.9	7.9	0.00	0% - 20%
EM1806536-032	Anonymous	EA001: pH (CaCl2)	---	0.1	pH Unit	7.4	7.6	2.67	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 1596747)									
EM1806717-004	Anonymous	EA055: Moisture Content	---	0.1	%	15.3	14.9	2.80	0% - 50%
EM1806723-027	SB05-01	EA055: Moisture Content	---	0.1	%	3.6	3.6	0.00	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 1596748)									
EM1806723-064	SB10-04	EA055: Moisture Content	---	0.1	%	7.3	7.0	3.15	No Limit
EM1806723-103	SB16-01	EA055: Moisture Content	---	0.1	%	3.4	3.4	0.00	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 1603081)									
EM1806723-047	SB07-08	EA055: Moisture Content	---	0.1	%	3.6	4.3	15.8	0% - 20%
ES1812009-001	Anonymous	EA055: Moisture Content	---	0.1	%	14.0	13.2	6.15	0% - 50%
ED006: Exchangeable Cations on Alkaline Soils (QC Lot: 1600226)									
EM1806444-001	Anonymous	ED006: Exchangeable Calcium	---	0.2	meq/100g	5.9	5.5	7.25	0% - 20%
		ED006: Exchangeable Magnesium	---	0.2	meq/100g	11.6	11.0	5.42	0% - 20%
		ED006: Exchangeable Potassium	---	0.2	meq/100g	4.0	3.8	5.17	0% - 20%
		ED006: Exchangeable Sodium	---	0.2	meq/100g	10.6	10.0	6.20	0% - 20%
		ED006: Cation Exchange Capacity	---	0.2	meq/100g	32.2	30.4	5.98	0% - 20%
EM1806536-019	Anonymous	ED006: Exchangeable Calcium	---	0.2	meq/100g	7.4	7.7	4.59	0% - 20%
		ED006: Exchangeable Magnesium	---	0.2	meq/100g	6.8	7.0	2.09	0% - 20%
		ED006: Exchangeable Potassium	---	0.2	meq/100g	0.8	0.8	0.00	No Limit
		ED006: Exchangeable Sodium	---	0.2	meq/100g	0.6	0.6	0.00	No Limit
		ED006: Cation Exchange Capacity	---	0.2	meq/100g	15.6	16.1	3.12	0% - 20%
EG005T: Total Metals by ICP-AES (QC Lot: 1596978)									
EM1806723-004	SB01-02	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.00	No Limit

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Work Order : EM1806723
Client : LBW CO PTY LTD
Project : 170974

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 (%)
EG005T: Total Metals by ICP-AES (QC Lot: 1596978) - continued									
EM1806723-004	SB01-02	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	60	60	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	27	26	0.00	0% - 50%
		EG005T: Cobalt	7440-48-4	2	mg/kg	10	9	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	13	12	0.00	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	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	15	15	0.00	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	7	7	0.00	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	398	376	5.63	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	19	18	0.00	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	2.21 %	21200	4.36	0% - 20%
EM1806636-030	Anonymous	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	30	30	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	16	16	0.00	No Limit
		EG005T: Cobalt	7440-48-4	2	mg/kg	5	6	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	10	10	0.00	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	49	53	6.30	0% - 50%
		EG005T: Copper	7440-50-8	5	mg/kg	12	13	12.2	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	8	8	0.00	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	166	180	7.84	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	36	40	9.47	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	15000	16600	10.2	0% - 20%
EG005T: Total Metals by ICP-AES (QC Lot: 1596980)									
EM1806723-056	SB09-02	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	10	10	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	3	3	0.00	No Limit
		EG005T: Cobalt	7440-48-4	2	mg/kg	4	4	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	5	6	0.00	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	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	6	6	0.00	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	282	305	8.09	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	7	8	0.00	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	3780	3950	4.41	0% - 20%
EM1806723-096	SB15-02	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.00	No Limit

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Work Order : EM1806723
Client : LBW CO PTY LTD
Project : 170974

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 (%)*
EG005T: Total Metals by ICP-AES (QC Lot: 1596980) - continued									
EM1806723-096	SB15-02	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	30	30	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	10	14	29.7	No Limit
		EG005T: Cobalt	7440-48-4	2	mg/kg	3	3	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	6	7	20.7	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	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	9	10	0.00	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	11	10	0.00	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	183	179	2.54	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	12	13	0.00	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	9120	10200	11.1	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 1596979)									
EM1806636-030	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EM1806723-056	SB09-02	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 1596981)									
EM1806723-096	SB15-02	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 1596682)									
EM1806691-011	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EM1806727-054	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 1597558)									
EM1806691-011	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.00	No Limit
EM1806727-054	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.00	No Limit
EP004: Organic Matter (QC Lot: 1591199)									
EM1806447-050	Anonymous	EP004: Organic Matter	---	0.5	%	<0.5	<0.5	0.00	No Limit
		EP004: Total Organic Carbon	---	0.5	%	<0.5	<0.5	0.00	No Limit
EM1806681-077	Anonymous	EP004: Organic Matter	---	0.5	%	2.7	2.9	6.21	No Limit
		EP004: Total Organic Carbon	---	0.5	%	1.6	1.7	6.19	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 1596321)									
EM1806723-007	SB02-01	EP066: Total Polychlorinated biphenyls	---	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 1596345)									
EM1806723-104	SB16-02	EP066: Total Polychlorinated biphenyls	---	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 1596322)									
EM1806723-007	SB02-01	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit

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Work Order : EM1806723
Client : LBW CO PTY LTD
Project : 170974

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 (%)
EP068A: Organochlorine Pesticides (OC) (QC Lot: 1596322) - continued									
EM1806723-007	SB02-01	EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 1596346)									
EM1806723-104	SB16-02	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 1590144)									
EM1806723-048	SB08-01	EP074: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP074: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

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Client : LBW CO PTY LTD
Project : 170974

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 1590144) - continued									
EM1806723-048	SB08-01	EP074: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP074B: Oxygenated Compounds (QC Lot: 1590144)									
EM1806723-048	SB08-01	EP074: Vinyl Acetate	108-05-4	5	mg/kg	<5	<5	0.00	No Limit
		EP074: 2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.00	No Limit
		EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	<5	0.00	No Limit
		EP074: 2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	<5	0.00	No Limit
EP074C: Sulfonated Compounds (QC Lot: 1590144)									
EM1806723-048	SB08-01	EP074: Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP074D: Fumigants (QC Lot: 1590144)									
EM1806723-048	SB08-01	EP074: 2.2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP074E: Halogenated Aliphatic Compounds (QC Lot: 1590144)									
EM1806723-048	SB08-01	EP074: 1.1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Iodomethane	74-88-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.1.1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Dibromomethane	74-95-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

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Client : LBW CO PTY LTD
Project : 170974

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 (%)
EP074E: Halogenated Aliphatic Compounds (QC Lot: 1590144) - continued									
EM1806723-048	SB08-01	EP074: 1.3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Dichlorodifluoromethane	75-71-8	5	mg/kg	<5	<5	0.00	No Limit
		EP074: Chloromethane	74-87-3	5	mg/kg	<5	<5	0.00	No Limit
		EP074: Vinyl chloride	75-01-4	5	mg/kg	<5	<5	0.00	No Limit
		EP074: Bromomethane	74-83-9	5	mg/kg	<5	<5	0.00	No Limit
		EP074: Chloroethane	75-00-3	5	mg/kg	<5	<5	0.00	No Limit
		EP074: Trichlorofluoromethane	75-69-4	5	mg/kg	<5	<5	0.00	No Limit
EP074F: Halogenated Aromatic Compounds (QC Lot: 1590144)									
EM1806723-048	SB08-01	EP074: Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Bromobenzene	108-86-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP074G: Trihalomethanes (QC Lot: 1590144)									
EM1806723-048	SB08-01	EP074: Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Bromoform	75-25-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP074H: Naphthalene (QC Lot: 1590144)									
EM1806723-048	SB08-01	EP074: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 1596319)									
EM1806723-056	SB09-02	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

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Work Order : EM1806723
Client : LBW CO PTY LTD
Project : 170974

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)A: Phenolic Compounds (QC Lot: 1596319) - continued									
EM1806723-056	SB09-02	EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.00	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.00	No Limit
EM1806723-007	SB02-01	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.00	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.00	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 1596343)									
EM1806727-087	Anonymous	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.00	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.00	No Limit
EM1806723-104	SB16-02	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

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Work Order : EM1806723
Client : LBW CO PTY LTD
Project : 170974

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)A: Phenolic Compounds (QC Lot: 1596343) - continued									
EM1806723-104	SB16-02	EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.00	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.00	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 1596319)									
EM1806723-056	SB09-02	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
		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
EM1806723-007	SB02-01	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
		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)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 1596343)									

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Work Order : EM1806723
Client : LBW CO PTY LTD
Project : 170974

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 1596343) - continued									
EM1806727-087	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
		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
EM1806723-104	SB16-02	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
		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
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1590145)									
EM1806723-048	SB08-01	EP080: C6 - C9 Fraction	---	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1590184)									
EM1806723-003	SB01-01	EP080: C6 - C9 Fraction	---	10	mg/kg	<10	<10	0.00	No Limit
EM1806723-059	SB09-05	EP080: C6 - C9 Fraction	---	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1591177)									

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Client : LBW CO PTY LTD
Project : 170974

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1591177) - continued									
EM1806723-013	SB03-01	EP080: C6 - C9 Fraction	---	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1596320)									
EM1806723-007	SB02-01	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
		EP071: C10 - C36 Fraction (sum)	---	50	mg/kg	<50	<50	0.00	No Limit
EM1806723-056	SB09-02	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
		EP071: C10 - C36 Fraction (sum)	---	50	mg/kg	<50	<50	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1596344)									
EM1806727-087	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
		EP071: C10 - C36 Fraction (sum)	---	50	mg/kg	<50	<50	0.00	No Limit
EM1806723-104	SB16-02	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
		EP071: C10 - C36 Fraction (sum)	---	50	mg/kg	<50	<50	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 1590145)									
EM1806723-048	SB08-01	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 1590184)									
EM1806723-003	SB01-01	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
EM1806723-059	SB09-05	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 1591177)									
EM1806723-013	SB03-01	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 1596320)									
EM1806723-007	SB02-01	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
		EP071: >C10 - C40 Fraction (sum)	---	50	mg/kg	<50	<50	0.00	No Limit
EM1806723-056	SB09-02	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
		EP071: >C10 - C40 Fraction (sum)	---	50	mg/kg	<50	<50	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 1596344)									
EM1806727-087	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

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Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 1596344) - continued									
EM1806727-087	Anonymous	EP071: >C10 - C40 Fraction (sum)	---	50	mg/kg	<50	<50	0.00	No Limit
EM1806723-104	SB16-02	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
		EP071: >C10 - C40 Fraction (sum)	---	50	mg/kg	<50	<50	0.00	No Limit
EP080: BTEXN (QC Lot: 1590145)									
EM1806723-048	SB08-01	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
EP080: BTEXN (QC Lot: 1590184)									
EM1806723-003	SB01-01	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
EM1806723-059	SB09-05	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
EP080: BTEXN (QC Lot: 1591177)									
EM1806723-013	SB03-01	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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 1604380)									
EM1806723-008	SB02-02	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0049	0.0046	5.65	0% - 20%

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Client : LBW CO PTY LTD
Project : 170974

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 (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 1604380) - continued									
EM1806723-008	SB02-02	EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	0.0009	0.0008	13.8	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.104	0.0933	10.5	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	0.0004	0.0004	0.00	No Limit
EM1806723-132	SB20-06	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 1604380)									
EM1806723-008	SB02-02	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	0.0006	0.0006	0.00	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	0.0006	0.0006	0.00	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.00	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.00	No Limit
EM1806723-132	SB20-06	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.00	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.00	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 1604380)									
EM1806723-008	SB02-02	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.00	No Limit

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Client : LBW CO PTY LTD
Project : 170974

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 1604380) - continued									
EM1806723-008	SB02-02	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.00	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.00	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.00	No Limit
EM1806723-132	SB20-06	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.00	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.00	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.00	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.00	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.00	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 1604380)									
EM1806723-008	SB02-02	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.00	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.00	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.00	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.00	No Limit
EM1806723-132	SB20-06	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.00	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.00	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.00	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.00	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG020T: Total Metals by ICP-MS (QC Lot: 1595902)									
EM1806354-003	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.00	No Limit

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Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG020T: Total Metals by ICP-MS (QC Lot: 1595902) - continued									
EM1806354-003	Anonymous	EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.00	No Limit
EM1806656-002	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-T: Copper	7440-50-8	0.001	mg/L	0.001	0.001	0.00	No Limit
		EG020A-T: Lead	7439-92-1	0.001	mg/L	0.001	<0.001	0.00	No Limit
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	0.009	0.010	12.9	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 1596318)									
EM1806354-003	Anonymous	EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
EM1806625-001	Anonymous	EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1595797)									
EM1806723-002	TRIP-01	EP080: C6 - C9 Fraction	---	20	µg/L	<20	<20	0.00	No Limit
EM1806734-017	Anonymous	EP080: C6 - C9 Fraction	---	20	µg/L	<20	<20	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 1595797)									
EM1806723-002	TRIP-01	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.00	No Limit
EM1806734-017	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.00	No Limit
EP080: BTEXN (QC Lot: 1595797)									
EM1806723-002	TRIP-01	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit
EM1806734-017	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit

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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
ED006: Exchangeable Cations on Alkaline Soils (QCLot: 1600226)								
ED006: Exchangeable Calcium	----	0.2	meq/100g	<0.2	33 meq/100g	87.0	80	120
ED006: Exchangeable Magnesium	----	0.2	meq/100g	<0.2	32 meq/100g	102	80	120
ED006: Exchangeable Potassium	----	0.2	meq/100g	<0.2	2.2 meq/100g	105	80	120
ED006: Exchangeable Sodium	----	0.2	meq/100g	<0.2	5.6 meq/100g	91.0	80	120
ED006: Cation Exchange Capacity	----	0.2	meq/100g	<0.2	----	----	----	----
EG005T: Total Metals by ICP-AES (QCLot: 1596978)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	86.2	79	113
EG005T: Barium	7440-39-3	10	mg/kg	<10	143 mg/kg	84.0	79	110
EG005T: Beryllium	7440-41-7	1	mg/kg	<1	5.63 mg/kg	95.0	85	120
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	97.1	85	109
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	92.3	83	109
EG005T: Cobalt	7440-48-4	2	mg/kg	<2	16 mg/kg	88.3	78	112
EG005T: Copper	7440-50-8	5	mg/kg	<5	32 mg/kg	89.4	78	108
EG005T: Iron	7439-89-6	50	mg/kg	<50	8400 mg/kg	91.5	90	110
EG005T: Lead	7439-92-1	5	mg/kg	<5	40 mg/kg	84.1	78	106
EG005T: Manganese	7439-96-5	5	mg/kg	<5	130 mg/kg	93.1	82	107
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55 mg/kg	91.5	82	111
EG005T: Silver	7440-22-4	2	mg/kg	<2	2.1 mg/kg	95.9	80	108
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	90.6	82	111
EG005T: Total Metals by ICP-AES (QCLot: 1596980)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	86.5	79	113
EG005T: Barium	7440-39-3	10	mg/kg	<10	143 mg/kg	87.3	79	110
EG005T: Beryllium	7440-41-7	1	mg/kg	<1	5.63 mg/kg	97.1	85	120
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	86.0	85	109
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	96.0	83	109
EG005T: Cobalt	7440-48-4	2	mg/kg	<2	16 mg/kg	91.1	78	112
EG005T: Copper	7440-50-8	5	mg/kg	<5	32 mg/kg	92.0	78	108
EG005T: Iron	7439-89-6	50	mg/kg	<50	8400 mg/kg	96.8	90	110
EG005T: Lead	7439-92-1	5	mg/kg	<5	40 mg/kg	85.6	78	106
EG005T: Manganese	7439-96-5	5	mg/kg	<5	130 mg/kg	96.1	82	107
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55 mg/kg	94.6	82	111
EG005T: Silver	7440-22-4	2	mg/kg	<2	2.1 mg/kg	95.7	80	108
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	93.1	82	111
EG035T: Total Recoverable Mercury by FIMS (QCLot: 1596979)								

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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
EG035T: Total Recoverable Mercury by FIMS (QCLot: 1596979) - continued								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	77.9	77	104
EG035T: Total Recoverable Mercury by FIMS (QCLot: 1596981)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	78.5	77	104
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 1596682)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	88.7	75	112
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 1597558)								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	93.8	80	110
EP004: Organic Matter (QCLot: 1591199)								
EP004: Organic Matter	---	0.5	%	<0.5	77 %	85.5	81	112
EP004: Total Organic Carbon	---	0.5	%	<0.5	43.5 %	87.8	83	114
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 1596321)								
EP066: Total Polychlorinated biphenyls	---	0.1	mg/kg	<0.1	1 mg/kg	110	63	115
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 1596345)								
EP066: Total Polychlorinated biphenyls	---	0.1	mg/kg	<0.1	1 mg/kg	99.4	63	115
EP068A: Organochlorine Pesticides (OC) (QCLot: 1596322)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	96.4	65	120
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	96.7	68	121
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	97.5	70	121
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	97.1	64	119
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	87.0	56	121
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	81.9	63	114
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	92.1	64	121
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	95.8	68	120
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	97.1	72	124
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	96.9	69	125
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	98.1	71	123
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	88.2	59	123
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	86.6	70	123
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	96.1	64	119
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	92.5	69	124
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	91.0	66	128
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	99.3	62	121
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	95.4	57	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	92.8	60	124
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	93.4	73	120
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	93.2	61	121
EP068A: Organochlorine Pesticides (OC) (QCLot: 1596346)								

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Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 1596346) - continued								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	80.7	65	120
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	79.2	68	121
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	82.4	70	121
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	67.1	64	119
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	78.4	56	121
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	80.8	63	114
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	86.6	64	121
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	85.0	68	120
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	83.7	72	124
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	85.6	69	125
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	83.2	71	123
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	78.2	59	123
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	75.1	70	123
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	83.1	64	119
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	82.1	69	124
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	86.5	66	128
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	105	62	121
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	91.5	57	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	97.2	60	124
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	93.7	73	120
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	91.8	61	121
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 1590144)								
EP074: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	108	81	120
EP074: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	104	83	121
EP074: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	108	80	120
EP074: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	108	80	121
EP074: Styrene	100-42-5	0.5	mg/kg	<0.5	1 mg/kg	102	77	118
EP074: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	105	83	121
EP074: Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	1 mg/kg	103	77	116
EP074: n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	1 mg/kg	100	68	111
EP074: 1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	1 mg/kg	99.6	71	111
EP074: sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	1 mg/kg	105	69	113
EP074: 1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	1 mg/kg	96.6	72	108
EP074: tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	1 mg/kg	104	73	111
EP074: p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	1 mg/kg	100	70	115
EP074: n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	1 mg/kg	99.4	60	110
EP074B: Oxygenated Compounds (QCLot: 1590144)								
EP074: Vinyl Acetate	108-05-4	5	mg/kg	<5	10 mg/kg	91.3	63	128

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Work Order : EM1806723
Client : LBW CO PTY LTD
Project : 170974

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP074B: Oxygenated Compounds (QCLot: 1590144) - continued								
EP074: 2-Butanone (MEK)	78-93-3	5	mg/kg	<5	10 mg/kg	90.1	68	130
EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	10 mg/kg	110	67	128
EP074: 2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	10 mg/kg	97.4	62	130
EP074C: Sulfonated Compounds (QCLot: 1590144)								
EP074: Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	1 mg/kg	120	50	128
EP074D: Fumigants (QCLot: 1590144)								
EP074: 2.2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	1 mg/kg	97.1	65	120
EP074: 1.2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	1 mg/kg	102	78	116
EP074: cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	1 mg/kg	91.5	64	107
EP074: trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	1 mg/kg	87.9	61	107
EP074: 1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	1 mg/kg	79.4	73	117
EP074E: Halogenated Aliphatic Compounds (QCLot: 1590144)								
EP074: Dichlorodifluoromethane	75-71-8	5	mg/kg	<5	10 mg/kg	79.3	45	123
EP074: Chloromethane	74-87-3	5	mg/kg	<5	10 mg/kg	84.9	55	133
EP074: Vinyl chloride	75-01-4	5	mg/kg	<5	10 mg/kg	103	58	138
EP074: Bromomethane	74-83-9	5	mg/kg	<5	10 mg/kg	89.3	48	119
EP074: Chloroethane	75-00-3	5	mg/kg	<5	10 mg/kg	86.4	66	126
EP074: Trichlorofluoromethane	75-69-4	5	mg/kg	<5	10 mg/kg	106	62	126
EP074: 1.1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	1 mg/kg	108	68	121
EP074: Iodomethane	74-88-4	0.5	mg/kg	<0.5	1 mg/kg	97.7	47	116
EP074: trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	1 mg/kg	97.2	66	119
EP074: 1.1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	1 mg/kg	102	73	117
EP074: cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	1 mg/kg	103	74	122
EP074: 1.1.1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	1 mg/kg	96.4	64	116
EP074: 1.1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	1 mg/kg	102	66	118
EP074: Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	1 mg/kg	92.9	55	113
EP074: 1.2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	1 mg/kg	94.1	75	116
EP074: Trichloroethene	79-01-6	0.5	mg/kg	<0.5	1 mg/kg	109	67	120
EP074: Dibromomethane	74-95-3	0.5	mg/kg	<0.5	1 mg/kg	82.1	70	110
EP074: 1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	1 mg/kg	92.3	75	117
EP074: 1.3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	1 mg/kg	86.5	72	121
EP074: Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	1 mg/kg	103	73	121
EP074: 1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	1 mg/kg	84.2	65	109
EP074: trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	<0.5	1 mg/kg	88.3	56	114
EP074: cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	1 mg/kg	86.7	40	114
EP074: 1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	1 mg/kg	104	76	124
EP074: 1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	1 mg/kg	96.4	75	123
EP074: Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	1 mg/kg	84.0	51	123

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Client : LBW CO PTY LTD
Project : 170974

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP074E: Halogenated Aliphatic Compounds (QCLot: 1590144) - continued								
EP074: 1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	1 mg/kg	84.8	54	106
EP074: Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	1 mg/kg	100	60	118
EP074F: Halogenated Aromatic Compounds (QCLot: 1590144)								
EP074: Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	1 mg/kg	108	82	117
EP074: Bromobenzene	108-86-1	0.5	mg/kg	<0.5	1 mg/kg	96.9	75	113
EP074: 2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	1 mg/kg	104	74	113
EP074: 4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	1 mg/kg	106	72	112
EP074: 1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	1 mg/kg	111	75	115
EP074: 1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	1 mg/kg	109	77	120
EP074: 1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	1 mg/kg	103	81	115
EP074: 1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	1 mg/kg	105	64	118
EP074: 1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	1 mg/kg	105	76	120
EP074G: Trihalomethanes (QCLot: 1590144)								
EP074: Chloroform	67-66-3	0.5	mg/kg	<0.5	1 mg/kg	99.2	77	123
EP074: Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	1 mg/kg	89.4	65	107
EP074: Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	1 mg/kg	76.9	61	105
EP074: Bromoform	75-25-2	0.5	mg/kg	<0.5	1 mg/kg	84.5	54	104
EP074H: Naphthalene (QCLot: 1590144)								
EP074: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	94.7	74	118
EP075(SIM)A: Phenolic Compounds (QCLot: 1596319)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	3 mg/kg	105	70	125
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	3 mg/kg	106	74	128
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	3 mg/kg	105	76	123
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	6 mg/kg	109	70	128
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	3 mg/kg	89.1	56	114
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	3 mg/kg	96.2	70	122
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	3 mg/kg	106	70	121
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	3 mg/kg	106	70	126
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	3 mg/kg	103	67	120
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	3 mg/kg	97.1	63	121
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	3 mg/kg	105	71	133
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	6 mg/kg	86.7	20	110
EP075(SIM)A: Phenolic Compounds (QCLot: 1596343)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	3 mg/kg	102	70	125
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	3 mg/kg	107	74	128
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	3 mg/kg	99.0	76	123
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	6 mg/kg	104	70	128
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	3 mg/kg	85.1	56	114

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Project : 170974

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)A: Phenolic Compounds (QCLot: 1596343) - continued								
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	3 mg/kg	93.4	70	122
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	3 mg/kg	99.2	70	121
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	3 mg/kg	98.0	70	126
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	3 mg/kg	89.8	67	120
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	3 mg/kg	91.0	63	121
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	3 mg/kg	98.4	71	133
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	6 mg/kg	54.1	20	110
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 1596319)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	3 mg/kg	108	75	131
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	3 mg/kg	110	70	132
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	3 mg/kg	111	80	128
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	3 mg/kg	110	70	128
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	3 mg/kg	116	80	128
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	1.8 mg/kg	95.6	72	126
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	3 mg/kg	113	70	128
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	3 mg/kg	116	80	125
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	3 mg/kg	105	70	130
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	3 mg/kg	116	80	126
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	3 mg/kg	105	71	124
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	3 mg/kg	109	75	125
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	3 mg/kg	96.1	70	125
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	3 mg/kg	104	71	128
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	3 mg/kg	107	72	126
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	3 mg/kg	103	68	127
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 1596343)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	3 mg/kg	98.4	75	131
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	3 mg/kg	107	70	132
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	3 mg/kg	99.2	80	128
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	3 mg/kg	104	70	128
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	3 mg/kg	104	80	128
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	1.6 mg/kg	104	72	126
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	3 mg/kg	110	70	128
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	3 mg/kg	113	80	125
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	3 mg/kg	97.9	70	130
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	3 mg/kg	100	80	126
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	3 mg/kg	94.5	71	124
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	3 mg/kg	100	75	125

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Client : LBW CO PTY LTD
Project : 170974

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
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 1596343) - continued								
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	3 mg/kg	89.1	70	125
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	3 mg/kg	99.5	71	128
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	3 mg/kg	104	72	126
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	3 mg/kg	96.3	68	127
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1590145)								
EP080: C6 - C9 Fraction	---	10	mg/kg	<10	36 mg/kg	114	70	127
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1590184)								
EP080: C6 - C9 Fraction	---	10	mg/kg	<10	36 mg/kg	96.0	70	127
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1591177)								
EP080: C6 - C9 Fraction	---	10	mg/kg	<10	36 mg/kg	95.6	70	127
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1596320)								
EP071: C10 - C14 Fraction	---	50	mg/kg	<50	806 mg/kg	100	80	120
EP071: C15 - C28 Fraction	---	100	mg/kg	<100	3006 mg/kg	109	84	115
EP071: C29 - C36 Fraction	---	100	mg/kg	<100	1584 mg/kg	95.8	80	112
EP071: C10 - C36 Fraction (sum)	---	50	mg/kg	<50	---	---	---	---
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1596344)								
EP071: C10 - C14 Fraction	---	50	mg/kg	<50	806 mg/kg	97.4	80	120
EP071: C15 - C28 Fraction	---	100	mg/kg	<100	3006 mg/kg	113	84	115
EP071: C29 - C36 Fraction	---	100	mg/kg	<100	1584 mg/kg	103	80	112
EP071: C10 - C36 Fraction (sum)	---	50	mg/kg	<50	---	---	---	---
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 1590145)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	45 mg/kg	113	68	125
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 1590184)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	45 mg/kg	94.5	68	125
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 1591177)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	45 mg/kg	94.8	68	125
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 1596320)								
EP071: >C10 - C16 Fraction	---	50	mg/kg	<50	1160 mg/kg	103	83	117
EP071: >C16 - C34 Fraction	---	100	mg/kg	<100	3978 mg/kg	106	82	114
EP071: >C34 - C40 Fraction	---	100	mg/kg	<100	313 mg/kg	92.3	73	115
EP071: >C10 - C40 Fraction (sum)	---	50	mg/kg	<50	---	---	---	---
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 1596344)								
EP071: >C10 - C16 Fraction	---	50	mg/kg	<50	1160 mg/kg	102	83	117
EP071: >C16 - C34 Fraction	---	100	mg/kg	<100	3978 mg/kg	109	82	114
EP071: >C34 - C40 Fraction	---	100	mg/kg	<100	313 mg/kg	93.5	73	115
EP071: >C10 - C40 Fraction (sum)	---	50	mg/kg	<50	---	---	---	---
EP080: BTEXN (QCLot: 1590145)								

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Client : LBW CO PTY LTD
Project : 170974

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP080: BTEXN (QCLot: 1590145) - continued								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	2 mg/kg	104	74	124
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	2 mg/kg	110	77	125
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2 mg/kg	119	73	125
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	4 mg/kg	118	77	128
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2 mg/kg	113	81	128
EP080: Naphthalene	91-20-3	1	mg/kg	<1	0.5 mg/kg	98.5	66	130
EP080: BTEXN (QCLot: 1590184)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	2 mg/kg	100	74	124
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	2 mg/kg	96.2	77	125
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2 mg/kg	96.2	73	125
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	4 mg/kg	98.3	77	128
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2 mg/kg	95.5	81	128
EP080: Naphthalene	91-20-3	1	mg/kg	<1	0.5 mg/kg	98.2	66	130
EP080: BTEXN (QCLot: 1591177)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	2 mg/kg	95.0	74	124
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	2 mg/kg	98.0	77	125
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2 mg/kg	100	73	125
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	4 mg/kg	102	77	128
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2 mg/kg	108	81	128
EP080: Naphthalene	91-20-3	1	mg/kg	<1	0.5 mg/kg	90.6	66	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 1604380)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	81.6	57	121
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	55	125
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	80.0	52	126
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	76.4	54	123
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	65.6	55	127
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	67.2	54	125
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 1604380)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	73.7	52	128
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	54	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	71.6	58	127
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	70.0	57	128
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	76.0	60	134
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	72.0	63	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	66.0	55	130

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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
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 1604380) - continued								
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	81.6	62	130
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	74.4	53	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	80.4	49	129
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	68.8	59	129
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 1604380)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	68.0	52	132
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	88.3	65	126
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	67.1	64	126
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	65.9	63	124
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	70.2	58	125
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	71.2	61	130
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.4	55	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 1604380)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	74.0	54	130
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	86.8	61	130
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	78.4	62	130
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	110	60	130

Sub-Matrix: **WATER**

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
EG020T: Total Metals by ICP-MS (QCLot: 1595902)								
EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	101	90	110
EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	93.9	86	111
EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	88.8	87	109
EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	94.6	87	108
EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	97.7	88	109
EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	96.1	87	111
EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	101	87	113
EG035T: Total Recoverable Mercury by FIMS (QCLot: 1596318)								
EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	104	81	114
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1595797)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	360 µg/L	109	68	125
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 1595797)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	450 µg/L	108	66	123

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Sub-Matrix: **WATER**

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: BTEXN (QCLot: 1595797)								
EP080: Benzene	71-43-2	1	µg/L	<1	20 µg/L	107	74	123
EP080: Toluene	108-88-3	2	µg/L	<2	20 µg/L	109	77	128
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	20 µg/L	109	73	126
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	40 µg/L	110	72	131
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	20 µg/L	113	74	131
EP080: Naphthalene	91-20-3	5	µg/L	<5	5 µg/L	103	74	124

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
EG005T: Total Metals by ICP-AES (QCLot: 1596978)							
EM1806723-003	SB01-01	EG005T: Arsenic	7440-38-2	50 mg/kg	89.3	78	124
		EG005T: Barium	7440-39-3	50 mg/kg	83.0	71	135
		EG005T: Beryllium	7440-41-7	50 mg/kg	95.3	85	125
		EG005T: Cadmium	7440-43-9	50 mg/kg	88.6	84	116
		EG005T: Chromium	7440-47-3	50 mg/kg	86.7	79	121
		EG005T: Copper	7440-50-8	50 mg/kg	88.2	82	124
		EG005T: Lead	7439-92-1	50 mg/kg	87.1	76	124
		EG005T: Manganese	7439-96-5	50 mg/kg	# Not Determined	68	136
		EG005T: Nickel	7440-02-0	50 mg/kg	87.4	78	120
		EG005T: Zinc	7440-66-6	50 mg/kg	80.0	74	128
EG005T: Total Metals by ICP-AES (QCLot: 1596980)							
EM1806723-104	SB16-02	EG005T: Arsenic	7440-38-2	50 mg/kg	101	78	124
		EG005T: Barium	7440-39-3	50 mg/kg	103	71	135
		EG005T: Beryllium	7440-41-7	50 mg/kg	105	85	125
		EG005T: Cadmium	7440-43-9	50 mg/kg	98.7	84	116
		EG005T: Chromium	7440-47-3	50 mg/kg	101	79	121
		EG005T: Copper	7440-50-8	50 mg/kg	97.9	82	124
		EG005T: Lead	7439-92-1	50 mg/kg	101	76	124
		EG005T: Manganese	7439-96-5	50 mg/kg	122	68	136
		EG005T: Nickel	7440-02-0	50 mg/kg	99.6	78	120
		EG005T: Zinc	7440-66-6	50 mg/kg	102	74	128

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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
EG035T: Total Recoverable Mercury by FIMS (QCLot: 1596979)							
EM1806723-003	SB01-01	EG035T: Mercury	7439-97-6	5 mg/kg	84.4	76	116
EG035T: Total Recoverable Mercury by FIMS (QCLot: 1596981)							
EM1806723-104	SB16-02	EG035T: Mercury	7439-97-6	5 mg/kg	87.7	76	116
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 1596682)							
EM1806723-007	SB02-01	EG048G: Hexavalent Chromium	18540-29-9	40 mg/kg	61.4	58	114
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 1597558)							
EM1806723-007	SB02-01	EK026SF: Total Cyanide	57-12-5	20 mg/kg	96.4	77	113
EP004: Organic Matter (QCLot: 1591199)							
EM1806447-082	Anonymous	EP004: Organic Matter	---	2.86 %	97.2	70	120
		EP004: Total Organic Carbon	---	1.66 %	97.2	70	120
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 1596321)							
EM1806723-055	SB09-01	EP066: Total Polychlorinated biphenyls	---	1 mg/kg	101	44	144
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 1596345)							
EM1806727-067	Anonymous	EP066: Total Polychlorinated biphenyls	---	1 mg/kg	93.0	44	144
EP068A: Organochlorine Pesticides (OC) (QCLot: 1596322)							
EM1806723-027	SB05-01	EP068: gamma-BHC	58-89-9	0.5 mg/kg	84.8	22	139
		EP068: Heptachlor	76-44-8	0.5 mg/kg	83.4	18	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	107	23	136
		EP068: Dieldrin	60-57-1	0.5 mg/kg	93.1	42	136
		EP068: Endrin	72-20-8	0.5 mg/kg	104	23	146
		EP068: 4.4`-DDT	50-29-3	0.5 mg/kg	94.3	20	133
EP068A: Organochlorine Pesticides (OC) (QCLot: 1596346)							
EM1806723-122	SB19-01	EP068: gamma-BHC	58-89-9	0.5 mg/kg	83.4	22	139
		EP068: Heptachlor	76-44-8	0.5 mg/kg	72.4	18	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	86.3	23	136
		EP068: Dieldrin	60-57-1	0.5 mg/kg	83.4	42	136
		EP068: Endrin	72-20-8	0.5 mg/kg	82.7	23	146
		EP068: 4.4`-DDT	50-29-3	0.5 mg/kg	76.9	20	133
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 1590144)							
EM1806723-048	SB08-01	EP074: Benzene	71-43-2	2 mg/kg	90.3	51	137
		EP074: Toluene	108-88-3	2 mg/kg	98.9	59	141
EP074E: Halogenated Aliphatic Compounds (QCLot: 1590144)							
EM1806723-048	SB08-01	EP074: 1,1-Dichloroethene	75-35-4	2 mg/kg	95.7	29	141
		EP074: Trichloroethene	79-01-6	2 mg/kg	83.3	50	126
EP074F: Halogenated Aromatic Compounds (QCLot: 1590144)							

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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
EP074F: Halogenated Aromatic Compounds (QCLot: 1590144) - continued							
EM1806723-048	SB08-01	EP074: Chlorobenzene	108-90-7	2 mg/kg	95.6	65	133
EP075(SIM)A: Phenolic Compounds (QCLot: 1596319)							
EM1806723-007	SB02-01	EP075(SIM): Phenol	108-95-2	3 mg/kg	96.5	63	117
		EP075(SIM): 2-Chlorophenol	95-57-8	3 mg/kg	95.0	65	123
		EP075(SIM): 2-Nitrophenol	88-75-5	3 mg/kg	104	40	134
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	95.1	56	122
		EP075(SIM): Pentachlorophenol	87-86-5	3 mg/kg	67.3	15	139
EP075(SIM)A: Phenolic Compounds (QCLot: 1596343)							
EM1806723-096	SB15-02	EP075(SIM): Phenol	108-95-2	3 mg/kg	105	63	117
		EP075(SIM): 2-Chlorophenol	95-57-8	3 mg/kg	105	65	123
		EP075(SIM): 2-Nitrophenol	88-75-5	3 mg/kg	84.3	40	134
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	79.8	56	122
		EP075(SIM): Pentachlorophenol	87-86-5	3 mg/kg	47.6	15	139
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 1596319)							
EM1806723-007	SB02-01	EP075(SIM): Acenaphthene	83-32-9	3 mg/kg	100	67	117
		EP075(SIM): Pyrene	129-00-0	3 mg/kg	107	52	148
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 1596343)							
EM1806723-096	SB15-02	EP075(SIM): Acenaphthene	83-32-9	3 mg/kg	103	67	117
		EP075(SIM): Pyrene	129-00-0	3 mg/kg	124	52	148
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1590184)							
EM1806723-007	SB02-01	EP080: C6 - C9 Fraction	---	28 mg/kg	54.1	42	131
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1591177)							
EM1806723-103	SB16-01	EP080: C6 - C9 Fraction	---	28 mg/kg	83.5	42	131
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1596320)							
EM1806723-008	SB02-02	EP071: C10 - C14 Fraction	---	806 mg/kg	103	53	123
		EP071: C15 - C28 Fraction	---	3006 mg/kg	109	70	124
		EP071: C29 - C36 Fraction	---	1584 mg/kg	96.5	64	118
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1596344)							
EM1806723-103	SB16-01	EP071: C10 - C14 Fraction	---	806 mg/kg	87.0	53	123
		EP071: C15 - C28 Fraction	---	3006 mg/kg	96.3	70	124
		EP071: C29 - C36 Fraction	---	1584 mg/kg	87.4	64	118
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 1590184)							
EM1806723-007	SB02-01	EP080: C6 - C10 Fraction	C6_C10	33 mg/kg	50.9	39	129
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 1591177)							
EM1806723-103	SB16-01	EP080: C6 - C10 Fraction	C6_C10	33 mg/kg	79.6	39	129

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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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 1596320)							
EM1806723-008	SB02-02	EP071: >C10 - C16 Fraction	---	1160 mg/kg	104	65	123
		EP071: >C16 - C34 Fraction	---	3978 mg/kg	106	67	121
		EP071: >C34 - C40 Fraction	---	313 mg/kg	94.7	44	126
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 1596344)							
EM1806723-103	SB16-01	EP071: >C10 - C16 Fraction	---	1160 mg/kg	89.4	65	123
		EP071: >C16 - C34 Fraction	---	3978 mg/kg	92.1	67	121
		EP071: >C34 - C40 Fraction	---	313 mg/kg	80.1	44	126
EP080: BTEXN (QCLot: 1590184)							
EM1806723-007	SB02-01	EP080: Benzene	71-43-2	2 mg/kg	76.2	50	136
		EP080: Toluene	108-88-3	2 mg/kg	72.7	56	139
EP080: BTEXN (QCLot: 1591177)							
EM1806723-103	SB16-01	EP080: Benzene	71-43-2	2 mg/kg	116	50	136
		EP080: Toluene	108-88-3	2 mg/kg	115	56	139
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 1604380)							
EM1806723-008	SB02-02	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	82.8	50	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	106	50	130
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	97.6	50	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	76.4	50	130
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	# Not Determined	50	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	68.4	50	130
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 1604380)							
EM1806723-008	SB02-02	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	73.9	30	130
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	83.2	50	130
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	93.6	50	130
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	78.4	50	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	90.0	50	130
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	95.2	50	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	96.4	50	130
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	105	50	130
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	81.2	50	130
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	90.8	30	130
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	71.3	30	130
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 1604380)							
EM1806723-008	SB02-02	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	76.0	50	130
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	103	30	130

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Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Recovery Limits (%): Low	Recovery Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 1604380) - continued							
EM1806723-008	SB02-02	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	83.8	30	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	95.5	30	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	85.4	30	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	78.4	30	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	113	30	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 1604380)							
EM1806723-008	SB02-02	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	86.4	50	130
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	107	50	130
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	119	50	130
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	105	50	130

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Recovery Limits (%): Low	Recovery Limits (%): High
EG020T: Total Metals by ICP-MS (QCLot: 1595902)							
EM1806354-003	Anonymous	EG020A-T: Arsenic	7440-38-2	1 mg/L	98.4	82	118
		EG020A-T: Cadmium	7440-43-9	0.25 mg/L	93.9	75	129
		EG020A-T: Chromium	7440-47-3	1 mg/L	89.9	80	118
		EG020A-T: Copper	7440-50-8	1 mg/L	91.4	81	115
		EG020A-T: Lead	7439-92-1	1 mg/L	95.1	83	121
		EG020A-T: Nickel	7440-02-0	1 mg/L	93.0	80	118
		EG020A-T: Zinc	7440-66-6	1 mg/L	94.4	74	116
EG035T: Total Recoverable Mercury by FIMS (QCLot: 1596318)							
EM1806354-032	Anonymous	EG035T: Mercury	7439-97-6	0.01 mg/L	102	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1595797)							
EM1806734-012	Anonymous	EP080: C6 - C9 Fraction	----	280 µg/L	72.6	43	125
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 1595797)							
EM1806734-012	Anonymous	EP080: C6 - C10 Fraction	C6_C10	330 µg/L	70.8	44	122
EP080: BTEXN (QCLot: 1595797)							
EM1806734-012	Anonymous	EP080: Benzene	71-43-2	20 µg/L	88.8	68	130
		EP080: Toluene	108-88-3	20 µg/L	78.6	72	132

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EM1806723**	Page	: 1 of 15
Client	: **LBW CO PTY LTD**	Laboratory	: Environmental Division Melbourne
Contact	: Nick Brewer	Telephone	: +61-3-8549 9600
Project	: 170974	Date Samples Received	: 20-Apr-2018
Site	: Town of Gawler - Angle Vale Rd PSI	Issue Date	: 02-May-2018
Sampler	: ---	No. of samples received	: 132
Order number	: 170974-01	No. of samples analysed	: 48

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.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **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.**

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Client : LBW CO PTY LTD
Project : 170974

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EG005T: Total Metals by ICP-AES	EM1806723--003	SB01-01	**Manganese**	7439-96-5	Not Determined	---	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	EM1806723--008	SB02-02	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	Not Determined	---	**MS recovery not determined, background level greater than or equal to 4x spike level.**

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*
EA001: pH in soil using 0.01M CaCl extract							
Soil Glass Jar - Unpreserved (EA001)							
SB01-02	**18-Apr-2018**	**24-Apr-2018**	25-Apr-2018	✓	**24-Apr-2018**	24-Apr-2018	✓
EA055: Moisture Content							
Soil Glass Jar - Unpreserved (EA055)							
SB06-01	**18-Apr-2018**	---	---	---	**26-Apr-2018**	02-May-2018	✓

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Work Order : EM1806723
Client : LBW CO PTY LTD
Project : 170974

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)								
HDPE Soil Jar (EA055)								
SB04-08		18-Apr-2018	---	---	---	26-Apr-2018	02-May-2018	✓
HDPE Soil Jar (EA055)								
SB05-06,	SB06-07,	18-Apr-2018	---	---	---	28-Apr-2018	02-May-2018	✓
SB07-08,	SB09-06,							
SB12-07,	SB13-06,							
SB17-06,	SB17-07,							
SB20-05								
Soil Glass Jar - Unpreserved (EA055)								
SB01-01,	SB01-02,	18-Apr-2018	---	---	---	26-Apr-2018	02-May-2018	✓
SB02-01,	SB02-02,							
SB03-01,	SB04-01,							
SB05-01,	SB05-02,							
SB05-05,	SB07-01,							
SB07-04,	SB08-01,							
SB09-01,	SB09-02,							
SB09-05,	SB10-04,							
SB11-01,	SB11-04,							
SB12-01,	SB12-02,							
SB12-06,	SB13-01,							
SB13-02,	SB13-05,							
SB15-02,	SB16-01,							
SB16-02,	SB17-01,							
SB18-01,	SB19-01,							
SB19-03,	SB20-01,							
SB20-02,	SB20-06							
EA200: AS 4964 - 2004 Identification of Asbestos in bulk samples								
Snap Lock Bag - Subsampled by ALS (EA200)								
SB03-01,	SB16-01	18-Apr-2018	---	---	---	26-Apr-2018	15-Oct-2018	✓
Soil Glass Jar - Unpreserved (EA200)								
SB10-01		18-Apr-2018	---	---	---	24-Apr-2018	15-Oct-2018	✓
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Snap Lock Bag - Subsampled by ALS (EA200)								
SB03-01,	SB16-01	18-Apr-2018	---	---	---	26-Apr-2018	15-Oct-2018	✓
Soil Glass Jar - Unpreserved (EA200)								
SB10-01		18-Apr-2018	---	---	---	24-Apr-2018	15-Oct-2018	✓
ED006: Exchangeable Cations on Alkaline Soils								
Soil Glass Jar - Unpreserved (ED006)								
SB01-02		18-Apr-2018	27-Apr-2018	16-May-2018	✓	27-Apr-2018	16-May-2018	✓

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Work Order : EM1806723
Client : LBW CO PTY LTD
Project : 170974

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
EG005T: Total Metals by ICP-AES							
HDPE Soil Jar (EG005T)							
SB04-08	18-Apr-2018	27-Apr-2018	15-Oct-2018	✓	27-Apr-2018	15-Oct-2018	✓
Soil Glass Jar - Unpreserved (EG005T)							
SB01-01, SB01-02, SB02-01, SB03-01, SB05-01, SB05-02, SB05-05, SB06-01, SB07-01, SB07-04, SB09-01, SB09-02, SB09-05, SB11-01, SB11-04, SB12-06, SB13-01, SB13-02, SB13-05, SB15-02, SB16-02, SB17-01, SB18-01, SB19-01, SB19-03, SB20-01, SB20-06	18-Apr-2018	27-Apr-2018	15-Oct-2018	✓	27-Apr-2018	15-Oct-2018	✓
EG035T: Total Recoverable Mercury by FIMS							
HDPE Soil Jar (EG035T)							
SB04-08	18-Apr-2018	27-Apr-2018	16-May-2018	✓	30-Apr-2018	16-May-2018	✓
Soil Glass Jar - Unpreserved (EG035T)							
SB01-01, SB02-01, SB03-01, SB05-01, SB05-02, SB05-05, SB06-01, SB07-01, SB07-04, SB09-01, SB09-02, SB09-05, SB11-01, SB11-04, SB12-06, SB13-01, SB13-02, SB13-05, SB15-02, SB16-02, SB17-01, SB18-01, SB19-01, SB19-03, SB20-01, SB20-06	18-Apr-2018	27-Apr-2018	16-May-2018	✓	30-Apr-2018	16-May-2018	✓
EG048: Hexavalent Chromium (Alkaline Digest)							
Soil Glass Jar - Unpreserved (EG048G)							
SB02-01, SB09-01, SB16-02	18-Apr-2018	26-Apr-2018	16-May-2018	✓	26-Apr-2018	03-May-2018	✓
EK026SF: Total CN by Segmented Flow Analyser							
Soil Glass Jar - Unpreserved (EK026SF)							
SB02-01, SB09-01, SB16-02	18-Apr-2018	26-Apr-2018	02-May-2018	✓	27-Apr-2018	10-May-2018	✓

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Client	: LBW CO PTY LTD
Project	: 170974

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
EP004: Organic Matter							
Soil Glass Jar - Unpreserved (EP004)							
SB01-02	18-Apr-2018	26-Apr-2018	16-May-2018	✓	26-Apr-2018	16-May-2018	✓
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved (EP066)							
SB02-01, SB09-01, SB16-02	18-Apr-2018	26-Apr-2018	02-May-2018	✓	27-Apr-2018	05-Jun-2018	✓
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved (EP068)							
SB02-01, SB05-01, SB06-01, SB07-01, SB09-01, SB16-02, SB19-01, SB20-01	18-Apr-2018	26-Apr-2018	02-May-2018	✓	27-Apr-2018	05-Jun-2018	✓
EP074A: Monocyclic Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP074)							
SB05-01, SB08-01, SB12-02, SB19-01, SB20-02	18-Apr-2018	24-Apr-2018	25-Apr-2018	✓	24-Apr-2018	25-Apr-2018	✓
EP074B: Oxygenated Compounds							
Soil Glass Jar - Unpreserved (EP074)							
SB05-01, SB08-01, SB12-02, SB19-01, SB20-02	18-Apr-2018	24-Apr-2018	25-Apr-2018	✓	24-Apr-2018	25-Apr-2018	✓
EP074C: Sulfonated Compounds							
Soil Glass Jar - Unpreserved (EP074)							
SB05-01, SB08-01, SB12-02, SB19-01, SB20-02	18-Apr-2018	24-Apr-2018	25-Apr-2018	✓	24-Apr-2018	25-Apr-2018	✓
EP074D: Fumigants							
Soil Glass Jar - Unpreserved (EP074)							
SB05-01, SB08-01, SB12-02, SB19-01, SB20-02	18-Apr-2018	24-Apr-2018	25-Apr-2018	✓	24-Apr-2018	25-Apr-2018	✓
EP074E: Halogenated Aliphatic Compounds							
Soil Glass Jar - Unpreserved (EP074)							
SB05-01, SB08-01, SB12-02, SB19-01, SB20-02	18-Apr-2018	24-Apr-2018	25-Apr-2018	✓	24-Apr-2018	25-Apr-2018	✓

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Client : LBW CO PTY LTD
Project : 170974

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
EP074F: Halogenated Aromatic Compounds							
Soil Glass Jar - Unpreserved (EP074)							
SB05-01, SB08-01, SB12-02, SB19-01, SB20-02	**18-Apr-2018**	**24-Apr-2018**	25-Apr-2018	✓	**24-Apr-2018**	25-Apr-2018	✓
EP074G: Trihalomethanes							
Soil Glass Jar - Unpreserved (EP074)							
SB05-01, SB08-01, SB12-02, SB19-01, SB20-02	**18-Apr-2018**	**24-Apr-2018**	25-Apr-2018	✓	**24-Apr-2018**	25-Apr-2018	✓
EP074H: Naphthalene							
Soil Glass Jar - Unpreserved (EP074)							
SB05-01, SB12-02, SB19-01, SB20-02	**18-Apr-2018**	**24-Apr-2018**	25-Apr-2018	✓	**24-Apr-2018**	25-Apr-2018	✓
EP075(SIM)A: Phenolic Compounds							
Soil Glass Jar - Unpreserved (EP075(SIM))							
SB02-01, SB09-01, SB16-02	**18-Apr-2018**	**26-Apr-2018**	02-May-2018	✓	**27-Apr-2018**	05-Jun-2018	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP075(SIM))							
SB01-01, SB02-01, SB03-01, SB05-02, SB05-05, SB07-01, SB08-01, SB09-01, SB09-02, SB09-05, SB11-01, SB13-01, SB13-02, SB13-05, SB15-02, SB16-02, SB17-01, SB19-03	**18-Apr-2018**	**26-Apr-2018**	02-May-2018	✓	**27-Apr-2018**	05-Jun-2018	✓

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Client	: LBW CO PTY LTD
Project	: 170974

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
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved (EP080)							
SB08-01	**18-Apr-2018**	**24-Apr-2018**	02-May-2018	✓	**24-Apr-2018**	02-May-2018	✓
Soil Glass Jar - Unpreserved (EP080)							
SB01-01, SB02-01, SB02-02, SB03-01, SB04-01, SB05-02, SB05-05, SB06-01, SB07-01, SB09-01, SB09-02, SB09-05, SB10-04, SB11-01, SB12-01, SB13-01, SB13-02, SB15-02, SB16-01, SB16-02, SB17-01, SB19-03	**18-Apr-2018**	**24-Apr-2018**	02-May-2018	✓	**27-Apr-2018**	02-May-2018	✓
Soil Glass Jar - Unpreserved (EP071)							
SB01-01, SB02-01, SB02-02, SB03-01, SB04-01, SB05-02, SB05-05, SB06-01, SB07-01, SB08-01, SB09-01, SB09-02, SB09-05, SB10-04, SB11-01, SB12-01, SB13-01, SB13-02	**18-Apr-2018**	**26-Apr-2018**	02-May-2018	✓	**26-Apr-2018**	05-Jun-2018	✓
Soil Glass Jar - Unpreserved (EP071)							
SB15-02, SB16-01, SB16-02, SB17-01, SB19-03	**18-Apr-2018**	**26-Apr-2018**	02-May-2018	✓	**27-Apr-2018**	05-Jun-2018	✓

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Client : LBW CO PTY LTD
Project : 170974

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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Soil Glass Jar - Unpreserved (EP080)							
SB08-01	**18-Apr-2018**	**24-Apr-2018**	02-May-2018	✓	**24-Apr-2018**	02-May-2018	✓
Soil Glass Jar - Unpreserved (EP080)							
SB01-01, SB02-01, SB02-02, SB03-01, SB04-01, SB05-02, SB05-05, SB06-01, SB07-01, SB09-01, SB09-02, SB09-05, SB10-04, SB11-01, SB12-01, SB13-01, SB13-02, SB15-02, SB16-01, SB16-02, SB17-01, SB19-03	**18-Apr-2018**	**24-Apr-2018**	02-May-2018	✓	**27-Apr-2018**	02-May-2018	✓
Soil Glass Jar - Unpreserved (EP071)							
SB01-01, SB02-01, SB02-02, SB03-01, SB04-01, SB05-02, SB05-05, SB06-01, SB07-01, SB08-01, SB09-01, SB09-02, SB09-05, SB10-04, SB11-01, SB12-01, SB13-01, SB13-02	**18-Apr-2018**	**26-Apr-2018**	02-May-2018	✓	**26-Apr-2018**	05-Jun-2018	✓
Soil Glass Jar - Unpreserved (EP071)							
SB15-02, SB16-01, SB16-02, SB17-01, SB19-03	**18-Apr-2018**	**26-Apr-2018**	02-May-2018	✓	**27-Apr-2018**	05-Jun-2018	✓

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Client : LBW CO PTY LTD
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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
EP080: BTEXN								
Soil Glass Jar - Unpreserved (EP080)								
SB08-01		18-Apr-2018	24-Apr-2018	02-May-2018	✓	24-Apr-2018	02-May-2018	✓
Soil Glass Jar - Unpreserved (EP080)								
SB01-01,	SB02-01,	18-Apr-2018	24-Apr-2018	02-May-2018	✓	27-Apr-2018	02-May-2018	✓
SB02-02,	SB03-01,							
SB04-01,	SB05-02,							
SB05-05,	SB06-01,							
SB07-01,	SB09-01,							
SB09-02,	SB09-05,							
SB10-04,	SB11-01,							
SB12-01,	SB13-01,							
SB13-02,	SB15-02,							
SB16-01,	SB16-02,							
SB17-01,	SB19-03							
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE Soil Jar (EP231X)								
SB02-02,	SB05-06,	18-Apr-2018	01-May-2018	15-Oct-2018	✓	01-May-2018	10-Jun-2018	✓
SB06-07,	SB07-08,							
SB09-06,	SB12-07,							
SB13-06,	SB17-06,							
SB17-07,	SB20-05,							
SB20-06								
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE Soil Jar (EP231X)								
SB02-02,	SB05-06,	18-Apr-2018	01-May-2018	15-Oct-2018	✓	01-May-2018	10-Jun-2018	✓
SB06-07,	SB07-08,							
SB09-06,	SB12-07,							
SB13-06,	SB17-06,							
SB17-07,	SB20-05,							
SB20-06								
EP231C: Perfluoroalkyl Sulfonamides								
HDPE Soil Jar (EP231X)								
SB02-02,	SB05-06,	18-Apr-2018	01-May-2018	15-Oct-2018	✓	01-May-2018	10-Jun-2018	✓
SB06-07,	SB07-08,							
SB09-06,	SB12-07,							
SB13-06,	SB17-06,							
SB17-07,	SB20-05,							
SB20-06								

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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
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
SB02-02, SB05-06, SB06-07, SB07-08, SB09-06, SB12-07, SB13-06, SB17-06, SB17-07, SB20-05, SB20-06	18-Apr-2018	01-May-2018	15-Oct-2018	✓	01-May-2018	10-Jun-2018	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
SB02-02, SB05-06, SB06-07, SB07-08, SB09-06, SB12-07, SB13-06, SB17-06, SB17-07, SB20-05, SB20-06	18-Apr-2018	01-May-2018	15-Oct-2018	✓	01-May-2018	10-Jun-2018	✓

Matrix: **WATER** 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
EG020T: Total Metals by ICP-MS							
Clear Plastic Bottle - Unspecified; Lab-acidified (EG020A-T)							
RINSE-01	18-Apr-2018	26-Apr-2018	15-Oct-2018	✓	26-Apr-2018	15-Oct-2018	✓
EG035T: Total Recoverable Mercury by FIMS							
Clear Plastic Bottle - Unspecified; Lab-acidified (EG035T)							
RINSE-01	18-Apr-2018	---	---	---	30-Apr-2018	16-May-2018	✓
EP080/071: Total Petroleum Hydrocarbons							
Clear glass VOC vial - HCl (EP080)							
TRIP-01	18-Apr-2018	26-Apr-2018	02-May-2018	✓	26-Apr-2018	02-May-2018	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Clear glass VOC vial - HCl (EP080)							
TRIP-01	18-Apr-2018	26-Apr-2018	02-May-2018	✓	26-Apr-2018	02-May-2018	✓
EP080: BTEXN							
Clear glass VOC vial - HCl (EP080)							
TRIP-01	18-Apr-2018	26-Apr-2018	02-May-2018	✓	26-Apr-2018	02-May-2018	✓

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Work Order : EM1806723
Client : LBW CO PTY LTD
Project : 170974

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)							
Exchangeable Cations on Alkaline Soils	ED006	2	15	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Organic Matter	EP004	2	12	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	4	26	15.38	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	11	18.18	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	13	15.38	10.00	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	12	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	2	8	25.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	2	15	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	3	28	10.71	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	4	36	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	4	31	12.90	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	4	28	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	1	5	20.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Exchangeable Cations on Alkaline Soils	ED006	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Organic Matter	EP004	1	12	8.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	2	26	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	11	9.09	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	13	15.38	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	2	8	25.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	28	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	36	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	31	6.45	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	3	28	10.71	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Exchangeable Cations on Alkaline Soils	ED006	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organic Matter	EP004	1	12	8.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	2	26	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	11	9.09	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	13	15.38	5.00	✓	NEPM 2013 B3 & ALS QC Standard

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Client : LBW CO PTY LTD
Project : 170974

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	
Method Blanks (MB) - Continued							
Polychlorinated Biphenyls (PCB)	EP066	2	8	25.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	28	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	36	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	31	6.45	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	3	28	10.71	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Organic Matter	EP004	1	12	8.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	2	26	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	11	9.09	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	13	15.38	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	2	8	25.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Cyanide by Segmented Flow Analyser	EK026SF	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	28	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	36	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	31	6.45	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	28	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

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)							
Total Mercury by FIMS	EG035T	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	15	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Total Mercury by FIMS	EG035T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Total Mercury by FIMS	EG035T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Total Mercury by FIMS	EG035T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard

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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
pH in soil using a 0.01M CaCl2 extract	EA001	SOIL	In house: Referenced to Rayment and Lyons (2011) 4B3 (mod.) or 4B4 (mod.) 10 g of soil is mixed with 50 mL of 0.01M CaCl2 and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM (2013) Schedule B(3)
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 7.1 and Table 1 (14 day holding time).
Asbestos Identification in Soils	EA200	SOIL	AS 4964 - 2004 Method for the qualitative identification of asbestos in bulk samples Analysis by Polarised Light Microscopy including dispersion staining
Exchangeable Cations on Alkaline Soils	* ED006	SOIL	In house: Referenced to Soil Survey Test Method C5. Soluble salts are removed from the sample prior to analysis. Cations are exchanged from the sample by contact with alcoholic ammonium chloride at pH 8.5. They are then quantitated in the final solution by ICPAES and reported as meq/100g of original soil.
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)
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	SOIL	In house: Referenced to USEPA SW846, Method 3060A. Hexavalent chromium is extracted by alkaline digestion. The digest is determined by photometrically by automatic discrete analyser, following pH adjustment. The instrument uses colour development using dephenylcarbazide. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
Total Cyanide by Segmented Flow Analyser	EK026SF	SOIL	In house: Referenced to APHA 4500-CN C / ASTM D7511. Caustic leachates of soil samples are introduced into an automated segmented flow analyser. Complex bound cyanide is decomposed in a continuously flowing stream, at a pH of 3.8, by the effect of UV light. A UV-B lamp (312 nm) and a decomposition spiral of borosilicate glass are used to filter out UV light with a wavelength of less than 290 nm thus preventing the conversion of thiocyanate into cyanide. The hydrogen cyanide present at a pH of 3.8 is separated by gas dialysis. The hydrogen cyanide is then determined photometrically, based on the reaction of cyanide with chloramine-T to form cyanogen chloride. This then reacts with 4-pyridine carboxylic acid and 1,3-dimethylbarbituric acid to give a red colour which is measured at 600 nm. This method is compliant with NEPM (2013) Schedule B(3)
Organic Matter	EP004	SOIL	In house: Referenced to AS1289.4.1.1 - 1997. Dichromate oxidation method after Walkley and Black. This method is compliant with NEPM (2013) Schedule B(3).
Polychlorinated Biphenyls (PCB)	EP066	SOIL	In house: Referenced to USEPA SW 846 - 8270D Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3) (Method 504)

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Analytical Methods	Method	Matrix	Method Descriptions
Pesticides by GCMS	EP068	SOIL	In house: Referenced to USEPA SW 846 - 8270D Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM (2013) Schedule B(3) (Method 504,505)
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.
Volatile Organic Compounds	EP074	SOIL	In house: Referenced to USEPA SW 846 - 8260B Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3) (Method 501)
PAH/Phenols (SIM)	EP075(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270D. 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 - 8260B. 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.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-House. A portion of soil is extracted with MTBE. The extract is taken to dryness, made up in mobile phase. Analysis is by LC/MSMS, ESI Negative Mode using MRM. Where commercially available, isotopically labelled analogues of the target analytes are used as internal standards for quantification. Where a labelled analogue is not commercially available, the internal standard with similar chemistry and the closest retention time to the target is used for quantification. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. This method complies with the quality control definitions as stated in QSM 5.1. Data is reviewed in line with the DQOs as stated in QSM5.1
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020; ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Total Mercury by FIMS	EG035T	WATER	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. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the unfiltered sample. The 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 Volatiles/BTEX	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with the QC requirements of NEPM (2013) Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
NaOH leach for CN in Soils	CN-PR	SOIL	In house: APHA 4500 CN. Samples are extracted by end-over-end tumbling with NaOH.
pH in soil using a 0.01M CaCl2 extract	EA001-PR	SOIL	In house: Referenced to Rayment and Higginson 4B1, 10 g of soil is mixed with 50 mL of 0.01M CaCl2 and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM (2013) Schedule B(3) (Method 103)

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Preparation Methods	Method	Matrix	Method Descriptions
Exchangeable Cations Preparation Method (Alkaline Soils)	ED006PR	SOIL	In house: Referenced to Rayment and Lyons 2011 method 15C1.
Exchangeable Cations Preparation Method	ED007PR	SOIL	In house: Referenced to Rayment & Higginson (1992) method 15A1. A 1M NH4Cl extraction by end over end tumbling at a ratio of 1:20. There is no pretreatment for soluble salts. Extracts can be run by ICP for cations.
Alkaline digestion for Hexavalent Chromium	EG048PR	SOIL	In house: Referenced to USEPA SW846, Method 3060A.
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)
Organic Matter	EP004-PR	SOIL	In house: Referenced to AS1289.4.1.1 - 1997. Dichromate oxidation method after Walkley and Black. This method is compliant with NEPM (2013) Schedule B(3) (Method 105)
Sample Extraction for PFAS	EP231-PR	SOIL	In house
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.
Digestion for Total Recoverable Metals	EN25	WATER	In house: Referenced to USEPA SW846-3005. Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM (2013) Schedule B(3)
Volatiles Water Preparation	ORG16-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VOC vial for sparging.

Expression of Interest Form

McGEES PROPERTY

This document should be used for registering an Expression of Interest for the purchase of the property at **Lot 300 Angle Vale Road, Evanston Gardens, South Australia, closing Thursday 7 February 2019 at 4pm at the offices of McGees Property.**

Following completion of the details set out in the form, we ask it be marked *"Private and Confidential"* and forwarded to:

Attention:	Simon Lambert Managing Director McGees Property
Email:	slambert@adl.mcgees.com.au
Phone:	08 8414 7800
Facsimile:	08 8231 1143
Office:	Level 10, 60 Waymouth Street, Adelaide SA 5000
Postal:	GPO Box 1646, Adelaide SA 5001

The Vendor is not bound to negotiate with any person who registers interest. This process does not create any binding obligations on either party until a formal Contract of Sale is completed.

SALE

1. **Details of Purchasing Entity**

Individual(s)/Company Name: Peregrine Corporation and/or Nominee

ABN:

Registered Address: 270 The Parade Norwood SA 5068

Principal Contact: c/- Mij Looker

Telephone: 0418 820 853

Facsimile:

Email: mij@tenancysolutions.com.au

Expression of Interest Form

McGEES PROPERTY

2. **Indicative Purchase Price** ~~Whole~~ / ~~Portion of Site~~ *(Please circle one option)*
If Portion of site _____ sqm *(Please complete)*

Price: $ 1050 000
GST: $ if applicable
Total: $

Note: If your Expression of Interest (EOI) relates to multiple portions, then submit a complete EOI form for each offer.

3. **Deposit** $ 50000

4. **Settlement Terms**

60 days after satisfaction of Special Conditions.

5. **Special Conditions**

Any Special Conditions to be addressed and timing associated with them:

subject to planning - satisfaction with Form 1. (Indicative clauses attached).

6. **Financier (Name and Branch)**

—

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Expression of Interest Form

McGEES PROPERTY

7. **Legal Adviser (Name and Branch)**

In house.

8. **Authority**

The registrant, by signing this document, authorises the Vendor to make whatever enquiries it deems appropriate to satisfy itself as to the ability of the registrant to complete a purchase of the property for the terms proposed.

Signature of Individual or on behalf of Company Representative registering interest:

Signed: Looker as authorised

James Looker.

(Print name in BLOCK LETTERS)

Date: 7/2/2019.

3. **DEPOSIT**

The Purchaser shall pay the Deposit within 14 days after execution by the parties of this Contract.

4. **CONDITIONS PRECEDENT TO SETTLEMENT**

4.1 **Purchaser Conditions**

Performance by the Purchaser of its obligations at Settlement is subject to and conditional upon:

4.1.1 (**development plan consent**) the Purchaser notifying the Vendor in writing that the Purchaser has obtained development plan consent from the relevant authorities to develop and use the Land for the purpose/s intended by the Purchaser in a form and on terms and conditions acceptable to the Purchaser in the Purchaser's sole discretion;

4.1.2 (**environmental**) the Purchaser notifying the Vendor in writing that the Purchaser is satisfied that the Land is suitable for use as its intended purpose in accordance with environmental and development laws and is not subject to environmental damage or contamination from the presence, discharge, emission or migration of chemicals, contaminants, petroleum products, asbestos or other hazardous substances except to the extent acceptable to the Purchaser; and

4.1.3 (**Form 1**) the Purchaser notifying the Vendor in writing that the Purchaser is satisfied with the information disclosed in the Form 1 Vendor's Statement, which must be served on the Purchaser within 30 days of the execution by the parties of this Contract,

(**Purchaser Conditions**).

4.2 **Satisfaction of Purchaser Conditions**

The Purchaser must use its reasonable endeavours to satisfy the Purchaser Conditions within **SIX MONTHS** after the date of this Contract plus an additional six months if required by the Purchaser or such longer period as may be agreed in writing by the Vendor and Purchaser (**Purchaser Conditions Period**).

4.3 **Vendor Consents**

The Vendor must:

4.3.1 use its reasonable endeavours to assist the Purchaser to satisfy the Purchaser Conditions;

4.3.2 give all consents reasonably required in order for the Purchaser to satisfy the Purchaser Conditions, including consent to the lodgement of a development application in respect of the Land (and all variations and supplementary documents proposed by the Purchaser); and

4.3.3 allow the Purchaser access to the Land as required by the Vendor to satisfy the Purchaser Conditions. This includes access, surveying and the taking of soil and groundwater samples from the Land by relevant authorities, professional consultants and employees on behalf of the Purchaser for inspection and testing in relation to the Purchaser Conditions.

4.4 **Waiver of Purchaser Conditions**

The Purchaser Conditions are for the benefit of the Purchaser and may be waived in writing only by the Purchaser. Any waiver is effective only to the extent specifically set out in writing by the Purchaser.

4.5 **Non-Satisfaction of Purchaser Conditions**

The Purchaser may terminate the Contract by notice in writing to the Vendor if:

4.5.1 a Purchaser Condition is, or becomes, incapable of being satisfied;

4.5.2 each Purchaser Condition is not satisfied, or waived by the Purchaser, by 5.00pm on the last day of the Purchaser Conditions Period, or by an alternative date agreed in writing by the Vendor and Purchaser; or

4.5.3 a Purchaser Condition, having been satisfied, does not remain satisfied in all respects at all times before Settlement,

and this Contract will automatically terminate upon receipt of the written notice by the Vendor.

4.6 **Effect of Termination**

If the Purchaser terminates this Agreement under SC 4.6:

4.6.1 the Vendor must refund the Deposit and any other moneys paid by the Purchaser within three days;

4.6.2 accrued rights and remedies of a party are not affected; and

4.6.3 subject to SC 4.7.1 and 4.7.2, the parties are released from further performing their obligations under this Contract.

Tenancy Solutions

Level 4
97 Pirie Street
ADELAIDE SA 5000

ACN 117 179 101
ABN 72 117 179 101

Phone: 08 8231 6556
Fax: 08 8231 6670

PEREGRINE CORPORATION - PROPOSAL FOR PURCHASE OF LOT 300 ANGLE VALE ROAD, EVANSTON GARDENS

Settlement: (2 Options)

A. 14 days after Council approve development – we provide an undertaking that we will lodge detailed plans within 30 days of contract.

B. If unconditional price option accepted then settlement in 60 days

Price Option A:

$1.37 Million + GST if applicable and inclusion of our Planning condition as set out above.

Price Option B:

$1.31 Million + GST if applicable if we are to waive our Planning condition.

Proposed Build:

Concept attached (Annexure 1) - OTR and affiliated retail / services.

We are sure Council are aware of the numerous examples of OTR offers across the Metropolitan area.

Please note that the plan attached is by no means the final concept – it is simply provided as an indication of the proposed usage as requested.

Also attached is an artistic impression of the quality of the build.

Community Benefit – A large South Australian employer

Employment
Peregrine employs in the vicinity of 3,000 South Australians.

Significantly in the area between Two Wells, Gawler, Cavan and Elizabeth (as shown on the attached Annexure 2) the statistics are:

- OTR have 703 employees
- Of these 533 live in the same area (within the triangle), this is 75.82% of the employees in this area.
- 318 of these employees work in a suburb immediately adjacent to where they live – this is 45.23% of their employees in this area.

The development of a facility as is planned for Evanston ***WILL*** provide significant local employment benefits. This evidence is that OTR will employ locals.

OTRGive Program

The innovative **OTRGive** program is a key way that OTR is supporting the community on an ongoing basis. Every time a customer shops or refuels at OTR with the OTR App, OTR will make a donation on the customer's behalf to the community group of their choice, at no cost to the customer. This has exceeded over $54,000 since the program launched in late-June 2018.

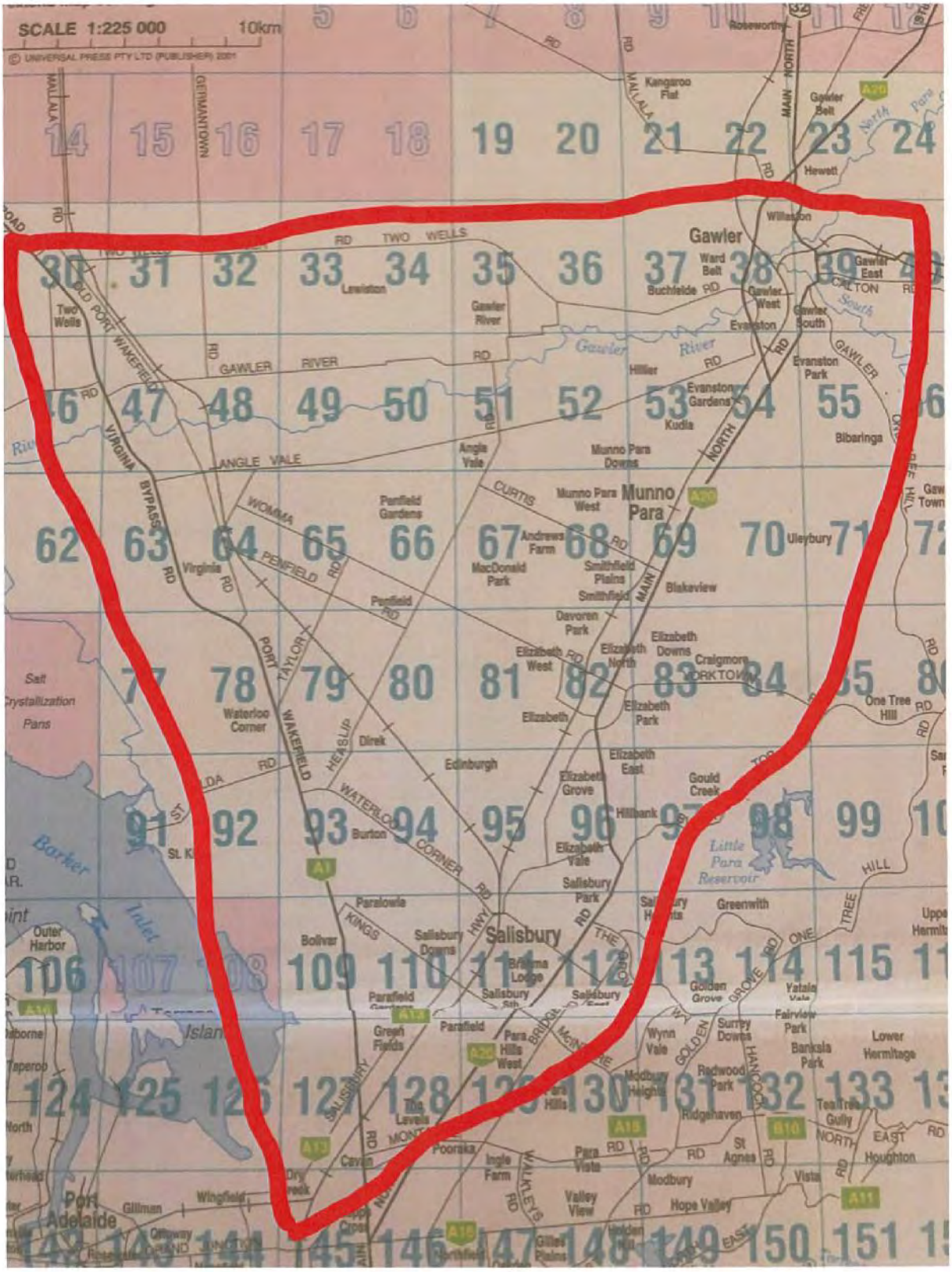
There are over 30 causes to choose in OTRGive including Royal Flying Doctor Service, Anglicare SA, CFS Foundation and Guide Dogs SA/NT.

OTR now have 21,700 people who have joined OTRGive and are thrilled to be fast approaching the 25,000th person who links to the OTRGive program and scans their App. When that occurs, OTR will donate a further $25,000 on the guest's behalf to their chosen cause to make a real difference to the community.

Annexure 1


Jack Cooper Dr
jack cooper drive
pylon
affiliated retail / services
control building
order
pick up
canopy
car wash
plant
auto wash
vacuum
pylon
angle vale road
SITE PLAN 1:250 AT A1
OTR EVANSTON SOUTH
CORNER ANGLE VALE ROAD AND JACK COOPER DRIVE, EVANSTON SOUTH
CONCEPT DESIGN
14.02.19
EVANSTON SOUTH (2) COMMC
ADS Architects

14/02/2019 Annexure 2 Map of Northern Area.jpg



Artist's Impression

ARCQ

07 February 2019

Mr Chet Al
McGees Property
Level 10, 60 Waymouth Street
Adelaide SA 5000
Email: cal@adl.mcgees.com.au

Dear Chet,

I refer to our various conversations and recent correspondence.

Property Development Consultants

367 Military Road
Henley Beach
South Australia 5022

RE: Lot 300 Angle Vale Road Evanston Gardens SA

As discussed, on behalf of Arcq Property Consultants and/or Nominees we provide headline terms for the purchase of the abovementioned property.

Based on a total site area of approximately 8933 sqm, forming the entire site across two street frontages including Angle Vale Road and Clifford Road, refer terms below:

- **Purchase:**
  $1.2M+ GST (if applicable)
- **Subject to a Satisfactory Planning Approval:**
- Conduct Satisfactory Services due diligence;
- Conduct and be satisfied with Environmental investigations for Suitable Land Use; and
- $50,000 Refundable Deposit payable upon 30 days from signing of agreement:
- **Settlement:**
  21 days from satisfaction of all above conditions

ARCQ

Property Development Consultants

367 Military Road
Henley Beach
South Australia 5022

Please note that this does not form a binding offer. We are happy to meet to discuss the critical next steps.

Look forward to hearing from you.

Yours sincerely

Cosimo Dichiera

0429 350 887

ARCQ

18 February 2019

Mr Simon Lambert
McGees Property
Level 10, 60 Waymouth Street
Adelaide SA 5000
Email: slambert@adl.mcgees.com.au

Dear Simon

RE: Lot 300 Angle Vale Road Evanston Gardens SA

Property Development Consultants

367 Military Road
Henley Beach
South Australia 5022

On behalf of Bella Build and Design and/or Nominees we provide revised headline terms for the purchase of the abovementioned property.

Based on a total site area of approximately 8933 sqm, forming the entire site across two street frontages including Angle Vale Road and Clifford Road, refer terms below:

- **Revised Purchase Price:**
  - $1,305,000.00 + GST (if applicable)
- **Subject to 45 days Due Diligence period to conduct the following:**
  - Conduct and be satisfied with Environmental investigations for Suitable Land Use
  - Conduct initial planning advice
  - Investigate all services requirement for proposed development
- **Deposit**
  - $50,000 refundable deposit payable upon signing of agreement:
- **Settlement:**
  - 30 June 2019

Following successful completion of the due diligence period, it is agreed that we shall be unconditional and the deposit non-refundable.

ARCQ

Property Development Consultants

367 Military Road
Henley Beach
South Australia 5022

Please note that this does not form a binding offer, should this offer be accepted contract of land sale shall be prepared and capture all above agreed essential terms.

I look forward to hearing from you.

Yours sincerely

Cosimo Dichiera
0429 350 887