

INFORMATION REGARDING ENVIRONMENTAL AUDIT REPORTS

August 2007

VICTORIA'S AUDIT SYSTEM

An environmental audit system has operated in Victoria since 1989. The *Environment Protection Act 1970* (the Act) provides for the appointment by the Environment Protection Authority (EPA Victoria) of environmental auditors and the conduct of independent, high quality and rigorous environmental audits.

An environmental audit is an assessment of the condition of the environment, or the nature and extent of harm (or risk of harm) posed by an industrial process or activity, waste, substance or noise. Environmental audit reports are prepared by EPA-appointed environmental auditors who are highly qualified and skilled individuals.

Under the Act, the function of an environmental auditor is to conduct environmental audits and prepare environmental audit reports. Where an environmental audit is conducted to determine the condition of a site or its suitability for certain uses, an environmental auditor may issue either a certificate or statement of environmental audit.

A certificate indicates that the auditor is of the opinion that the site is suitable for any beneficial use defined in the Act, whilst a statement indicates that there is some restriction on the use of the site.

Any individual or organisation may engage appointed environmental auditors, who generally operate within the environmental consulting sector, to undertake environmental audits. The EPA administers the environmental audit system and ensures its ongoing integrity by assessing auditor applications and ensuring audits are independent and conducted with regard to guidelines issued by EPA.

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Report executive summaries, findings and recommendations should be read and relied upon only in the context of the document as a whole, including any appendices and, where applicable, any certificate or statement of environmental audit.

AUDIT REPORT CURRENCY

Audit reports are based on the conditions encountered and information reviewed at the time of preparation and do not represent any changes that may have occurred since the date of completion. As it is not possible for an audit to present all data that could be of interest to all readers, consideration should be made to any appendices or referenced documentation for further information.

When information regarding the condition of a site changes from that at the time an audit report is issued, or where an administrative or computation error is identified, environmental audit reports, certificates and statements may be withdrawn or amended by an environmental auditor. Users are advised to check EPA's website to ensure the currency of the audit document.

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Web: www.epa.vic.gov.au/envaudit

Email: environmental.audit@epa.vic.gov.au



Environmental Audit Report

Lot 4 on PS802507T
20 Hamlet Street
Cheltenham, VIC 3192

28 August 2020

CARMS #74971-3 / Service Order #8005308

Lot 4 on PS802507T
20 Hamlet Street, Cheltenham, VIC, 3192

Maple Auditing Ref: MA115.R02

Prepared for:

Chandos Bay Pty Ltd
144 Church Street
Brighton VIC 3186

Prepared by:

Maple Auditing Pty Ltd
PO Box 7095, Upper Ferntree Gully, VIC 3156
ABN 39624505086

Written by:



Timothy Kent Russell
Environmental Auditor
(Appointed Pursuant to the Environment Protection Act 1970)

Date: 28 August 2020
Report Status: Final
Report Ref: MA115.R02

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Abbreviations

ANZECC	Australian and New Zealand Environment and Conservation Council
ATMA	ATMA Environmental Pty Ltd
BaP	Benzo(a)pyrene
Bgl	Below ground level
BTEX	Benzene, Toluene, Ethyl benzene and Xylenes
C_6-C_{36}	Hydrocarbon chain length fraction
Coffey	Coffey Environments Pty Ltd
CUTEP	Clean Up to the Extent Practicable
1,1 DCE	1,1-dichloroethene
1,1 DCA	1,1-dichloroethane
1,2 DCE	1,2-dichloroethene
1,2 DCA	1,2-dichloroethane
EIL	Ecological Investigation Level
enRiskS	Environmental Risk Sciences
EPA Victoria	Victorian Environment Protection Authority
ESL	Ecological Screening Level
Groundwater SEPP	State Environment Protection Policy (Groundwaters of Victoria)
HIL	Health Investigation Level
HSL	Health Screening Level
IWRG	Industrial Waste Resource Guidelines
Land SEPP	State Environment Protection Policy (Prevention and Management of Contamination of Land)
LOR	Limit of Reporting
Maple	Maple Auditing Pty Ltd
µg/L	micrograms per litre
MoE	Maintenance of Ecosystems
mbgl	metres below ground level
mg/kg	milligrams per kilogram
mg/L	milligrams per litre
mg/m3	milligrams per cubic meter

MW	Monitoring Well
NATA	National Association of Testing Authorities
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
OCP	Organochlorine Pesticide
OPP	Organophosphorus Pesticide
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PCE	Tetrachloroethene
PCR	Primary Contact Recreation
PID	Photoionisation Detector
PW	Potable Water (Desirable)
QA	Quality Assurance
QC	Quality Control
RPD	Relative Percent Difference
RL	Reduced Level
SEPP	State Environment Protection Policy (Waters)
SW	Stock Watering
TCE	Trichloroethylene
TDS	Total Dissolved Solids
TRH	Total Recoverable Hydrocarbon
1,1,1 TCA	1,1,1-trichloroethane
VCH	Volatile Chlorinated Hydrocarbon

Executive Summary

Mr Timothy Kent Russell of Maple Auditing Pty Ltd (Maple), an Environmental Auditor (Contaminated Land) appointed pursuant to the Environment Protection Act 1970 (Section 53S, Part IXD), was requested by Mr Andrew Johnston of Chandos Bay Pty Ltd (Chandos) (the current site owner) on 21 February 2017 to undertake an Environmental Audit of the parcel of land referred to as Lot 4 on Plan of Subdivision PS802507T and located at 20 Hamlet Street, Cheltenham, Victoria (the site).

The site was part of the larger former Nuplex site located at 322-328 Bay Rd, Cheltenham. The former Nuplex site was subdivided into 4 lots (Lots 1-4) for the purposes of site divestment and Environmental Audit works. The subject site for this Audit report is Lot 4 of the former Nuplex site. For the purposes of this Audit the site is known as Lot 4.

ARC Environmental (ARC) were engaged by Chandos to complete environmental assessment works to support the audit.

This report has been prepared in accordance with Section 53X of the Environment Protection Act and other Victorian Environment Protection Authority (EPA) guidelines and should be read in conjunction with the existing environmental assessment report(s). Further details pertaining to the site are provided in Executive Table 1 below.

Executive Table 1 Summary of Audit Information

Auditor	Timothy Kent Russell
Auditor account number	75649
Auditor appointment end date	28 March 2019 to 27 March 2024
Auditor's appointment category	Contaminated Land
Audit Type	53X
Date EPA notified of audit	24 / 02 / 2017
Audit service order number	8005308 (CARMS 74971-3)
Name of person requesting audit	Mr Andrew Johnston Chandos Bay Pty Ltd 144 Church Street Brighton, Victoria, 3186
Relationship of person requesting audit to site	Director of Chandos Bay Pty Ltd
Name of premises owner	Chandos Bay Pty Ltd
Date of auditor engagement	21 / 02 / 2017
Completion date of the audit	28 / 08 / 2020
Reason for Audit	Requirement of the EPA Victoria Clean Up Notice (#90007753) dated 11 August 2017 and amended on 19 June 2018 and amended Clean Up Notice (#90010028) dated 17 March 2020.
Audit Categorisation	Risk

Environmental Segments	Air, Land, Groundwater, Surface water
If the audit was required by an EPA notice, licence or other, please provide EPA reference number	Clean Up Notice #90007753 and #90010028.
Current land use zoning	Commercial 2 Zone (C2Z)
EPA Region	Southern Metro
Municipality	Bayside Council
Dominant Lot on title plan	Lot 4 on Plan of Subdivision PS802507T (Certificate of Title Volume 11973, Folio 119)
Additional Lot on title plan(s)	N/A
Site/Premises name	N/A
Building/complex sub-unit/lot No.	Lot 4
Street/Lot – Lower No.	20
Street/Lot – Upper No.	N/A
Street Name	Hamlet
Street type (road, court, etc.)	Street
Street suffix (North, South etc.)	N/A
Suburb	Cheltenham
Postcode	3192
GIS Coordinate of Site centroid	GDA94 – Latitude/Longitude in decimal degrees
Latitude (GDA94)	-37.956987
Longitude (GDA94)	145.040872
Site area (in square metres)	2,448 m^2
Plan of site/premises showing the audit site boundary attached	Yes
Plan of site/premises showing the audit site boundary attached in a spatial data format	No
Members and categories of support team utilised	Michael Blackam from Coffey Environments - Hydrogeology and Fate and Transport Karen Teague of Coffey Environments - Human Health and Ecological Risk Assessment)
Further works or requirements	Any landscaped area or garden bed must be constructed and maintained with at least 0.5m thickness of soil below the finished

	surface, which is demonstrated to be suitable for the site and consistent with EPA Publication IWRG 621. Groundwater at the site is polluted and is not suitable for any beneficial use. Groundwater must not be used for any beneficial use without prior testing and review of results by a suitably qualified professional to confirm its suitability for the proposed use. It may be extracted for the purpose of environmental monitoring or remediation
Nature and extent of continuing risk	Concentrations of antimony, barium, cobalt, copper, manganese, mercury, TRH F3, bis(2-ethylhexyl) phthalate, di-n-butyl phthalate, TCE and chromium VI were present in soils at the site which preclude the beneficial uses 'Maintenance of Ecosystems' and 'Production of Food, Flora and Fibre' in the context of unrestricted use of the site. Concentrations of antimony, cobalt and TCE preclude the beneficial use 'Human Health' in the contect of unrestricted use of the site. The site in its current condition precludes or potentially precludes one or more beneficial uses of land in the context of unrestricted land use and therefore the Auditor is unable to issue a Certificate of Environmental Audit for the site. However, in the context of the proposed commercial/industrial use of the site, with a requirement of a minimum of 0.5m of 'clean fill' be placed below the finished surface in all landscaped areas or garden beds directly over existing site soils, all relevant beneficial uses are considered to be protected. With the inclusion of statement conditions (see Appendix A), the site is considered to be suitable for the proposed commercial/industrial use. The Statement of Environmental Audit is provided in Appendix A. It is noted basement structures have not been assessed as part of the Environmental Audit. If a basement is incorporated in any proposed future development of the site, further assessment and the potential design and installation of mitigation measures to manage vapour/odour risks is required. A Statement Condition is included within the Statement of Environmental Audit to this effect. Groundwater at the site is polluted and is not suitable for any beneficial use. Groundwater must not be used for any beneficial use without prior testing and review of results by a suitably qualified professional to confirm its suitability for the proposed use. It may be extracted for the purpose of environmental monitoring or remediation. The beneficial uses 'Water Dependent Ecosystems', 'Potable Water Supply – Desirable', 'Agriculture and Irrigation (irrigation)',

<table>
<tr><td></td><td>'Agriculture and Irrigation (stock watering)', 'Water-Based Recreation (primary contact recreation)', 'Industrial and Commercial Use', 'Traditional Owner and Cultural Values' and 'Cultural and Spiritual Values' are precluded by one or more of arsenic, cobalt, lead, iron, nickel, ammonia, nitrate, trichloroethene, vinyl chloride, 1,1-dichloroethane, carbon tetrachloride, 1,2-dichlorobenzene, 1,4-dichlorobenzene, TRH C_6-C_{10}, benzene, 1,1,2-trichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, chloroform, cis-1,2-dichloroethene, dichloromethane, tetrachloroethene, trihalomethanes and xylenes which are not considered to be derived from the site but are regional in nature.

Groundwater beneath the site contains naturally elevated concentrations of pH, copper, zinc, sulphate, sodium and chloride. The levels are considered typical of the regional groundwater quality surrounding the site and do not constitute pollution in accordance with pollution in accordance with clause 17(3)(b) of the SEPP (Waters).

The site has been declared to be a Groundwater Quality Restricted Use Zone (GQRUZ) (as per the EPA GQRUZ Map attached to the Statement of Environmental Audit in Appendix A of this report).</td></tr>
<tr><td>Outcome of the audit</td><td>Statement of Environmental Audit</td></tr>
<tr><td>Has EPA determined CUTEP at this site?</td><td>Yes</td></tr>
<tr><td>Has the Auditor determined CUTEP at this site?</td><td>The Auditor agrees with EPA's determination that CUTEP has been achieved.</td></tr>
<tr><td>Has a GQRUZ been identified at the site/beyond the site by EPA?</td><td>Yes – the site has been declared as being a GQRUZ.</td></tr>
<tr><td>Does NAPL remain at the site?</td><td>No measurable NAPL has been observed in any well at the Lot 4 site. However, concentrations indicative of potential DNAPL considered to be sourced from off-site (i.e. from Lot 2) were reported within wells MW50B and MW50C.</td></tr>
<tr><td>Please indicate which of the Protected Beneficial Uses of groundwater are precluded due to pollution</td><td>e.g. including site-sourced and regional pollution.
<table><tr><th>Protected Use</th><th>Precluded?</th></tr><tr><td>Water Dependent Ecosystems and Species</td><td>Yes</td></tr><tr><td>Potable Water Supply (Desirable)</td><td>Yes</td></tr><tr><td>Potable Water Supply (Acceptable)</td><td>N/A</td></tr><tr><td>Potable Mineral Water Supply</td><td>N/A</td></tr><tr><td>Agriculture and Irrigation (irrigation)</td><td>Yes</td></tr></table></td></tr>
</table>

	Agriculture and irrigation (stock watering)	Yes
	Industrial and commercial	Yes
	Water based recreation (primary contact recreation)	Yes
	Traditional Owner cultural values	Yes
	Cultural and spiritual values	Yes
	Buildings and Structures	No
	Geothermal properties	N/A
Historical land use	The site history review identified that the site (and the remainder of the broader former Nuplex facility) was owned by a grazier until the area was subdivided in the 1940s. In 1949 Standard Laboratories Pty Ltd purchased the site (along with Lot 2). Ajax Chemicals acquired this same parcel of land in 1970. In 1981 the site (and Lots 1 and 2 of the wider Nuplex site) was purchased by Searle Australia, then by Clyde Industries in 1983. Asia Pacific Specialty Chemicals (APS) then owned the site between 1997-2017. It is noted that APS was acquired by Nuplex in 2002, hence reference of the wider site as the 'former Nuplex facility'. It is noted that operations of the site (and the wider Nuplex site) under Searle Australia, Clyde Industries and APS Chemicals was for the manufacture of a variety of chemicals, including lubricants, resins and polymer stabilisers. The wider site was most recently operated by Nuplex as a chemical storage and distribution facility. Chandos Bay acquired the site in January 2017. The site has remained vacant since at least the commencement of January 2017	
Current land use	At the commencement of the Audit the site was vacant with the infrastructure of the building remaining in place, but most below ground infrastructure and infrastructure within the building having been removed. One below ground TIT remained in place. At the completion of the Audit, the site remained vacant and unoccupied. The below ground TIT had been removed and validated.	
Proposed future land use	Commercial/industrial use	
Surrounding land use – north	Lot 1 within the remainder of the former Nuplex Facility, beyond which is Bay Road with commercial properties on the northern side of Bay Road including the Rietmans Business Park (formerly a nursery) and a carwash facility (Ezy Bay Wash).	

Surrounding land use – south	Lot 3 within the remainder of the former Nuplex facility, beyond which is a commercial warehouse, DSK Engineering (steel fabrication with a UST onsite) and SK partitions (manufacturer).
Surrounding land use – east	Lot 2 within the remainder of the former Nuplex facility, beyond which is Chandos Street and the Laminex industrial facility on the eastern side of Chandos Street.
Surrounding land use – west	Hamlet Street, beyond which are commercial and light industrial properties including Austral Injections (plastics injection moulding facility) and Endeavor Turf Products (turf supplier).
Proposed land use zoning	Commercial 2 Zone (no known proposed change to current zoning)
Nearest surface water receptor – name	Port Phillip Bay
Nearest surface water receptor – distance (m)	2,700
Nearest surface water receptor – direction	Southwest and west
Likely point of groundwater discharge	Port Phillip Bay
Site aquifer formation	Brighton Group Aquifer
Groundwater flow direction	West to southwest
Groundwater TDS range (mg/L)	174 - 4,588
Groundwater Segment	A1
Are there multiple aquifers impacted by pollution at the site	No
Perched groundwater depth – upper (metres below ground level (mbgl))	N/A
Perched groundwater depth – lower (mbgl)	N/A
Regional groundwater depth – upper (mbgl)	10.00
Regional groundwater depth – lower (mbgl)	11.03
Number of bores within 2 km	419
Closest extractive use (distance in m)	145 m south (domestic and stock)

Zone of groundwater plume influence (m from site boundary)	NA
Year groundwater last monitored	2020
Have you attached electronic copies of Current Groundwater Analytical Results presented as a summary table?	Yes

1 Introduction

The site located at 20 Hamlet Street (Lot 4 on Plan of Subdivision S802507), Cheltenham, Victoria, 3192, has been the subject of a Statutory Environmental Audit (Audit) by Mr Timothy Kent Russell of Maple Auditing Pty Ltd (Maple), an Auditor appointed by the Environment Protection Authority (EPA) of Victoria under the 1970 Environment Protection Act (the Act) in the category of Contaminated Land. He was initially appointed as an Environmental Auditor on 15 September 2009 under the Victorian Environment Protection Act 1970 and is currently appointed until 27 March 2024.

The site comprises the central western portion of the former Nuplex Industries Australia Chemical Storage Facility (former Nuplex facility). Prior to commencement of the audit, the former Nuplex facility was subdivided into four lots (Lots 1, 2, 3 and 4) with the site comprising Lot 4. A separate environmental audit is being completed for each individual lot.

To facilitate re-development of the site for commercial land use, Tim Russell of Maple has been engaged by the site owner, Chandos Bay Pty Ltd (Chandos) as the Environment Protection Authority (EPA) appointed Auditor to complete an Environmental Audit, under Section 53X of the Environment Protection Act. The Victorian Environment Protection Authority (EPA Victoria) was formally advised of the intended Audit on 24 February 2017, following the auditor's engagement on 21 February 2017 by Mr Andrew Johnston of Chandos Bay Pty Ltd (the current site owner).

ARC Environmental (ARC) were engaged by Chandos to complete environmental assessment works to support the audit.

It is noted that site assessment works completed at the former Nuplex facility prior to the Audit (2001 to 2016) by GHD, SMEC, ERM and Kilpatrick and Associates, and the 53V Audit completed for the former Nuplex facility in 2011, have also been considered as part of the Audit.

As required under the Act, an Environmental Audit Report shall include the following:

- An evaluation of the environmental quality of the relevant segment of the environment (as per S53X (d) (i));
- An assessment of whether the condition of the site is detrimental or potentially detrimental to the beneficial uses of the site or any other segment of the environment;
- An assessment of whether any clean-up is required to that segment of the environment (as per S53X (d) (ii)); and
- If any clean-up is necessary, any recommendations relating to the carrying out of the clean-up (as per S53X (d) (iii)).

When evaluating the above, the Auditor must have regard to the following:

- Any relevant Regulations, State Environment Protection Policy (SEPP) or Industrial Waste Management Policy.
- Any guidelines issued by the EPA Victoria for the purposes of the Act.
- The National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No. 1) (NEPM 2013).

Depending on the outcome of the Environmental Audit process, the Auditor is then required to issue a Certificate of Environmental Audit (S53Y of the Act), or if the Auditor considers that the site is detrimental or potentially detrimental to one or more beneficial uses of the site, issue a Statement of Environmental

Audit (S53Z of the Act) indicating the beneficial uses for which the site is suitable, pending future clean-up to achieve a Certificate of Environmental Audit.

1.1 Purpose of the Environmental Audit

The Environmental Audit is a requirement of the EPA Victoria Clean Up Notice (#90007753) dated 11 August 2017 and amended on 19 June 2018 and amended Clean Up Notice (#90010028) dated 17 March 2020.

The purpose of this Audit is to determine if the site is suitable for 'any beneficial use' and in doing so, determining the site's suitability for the proposed commercial use.

1.2 Audit Area

The Audit area covers approximately 2,448 square metres (m^2) and comprises all of the property known as 20 Hamlet Street, Cheltenham, Victoria, 3192 and defined as Lot 4 on Plan of Subdivision PS802507 (Certificate of Title Volume 11973 and Folio 119).

The site forms part of a larger site area (incorporating Lots 1, 2 and 3) of the former Nuplex facility located at 328 Bay Road (Lot 1), 17 Chandos Street (Lot 2) and 14 Hamlet Street (Lot 3).

The site was formerly referred to as Lot 4, 322-328 Bay Road, Cheltenham, Victoria prior to formalisation of Plan of Subdivision PS802507.

The site is currently zoned Commercial 2 Zone (C2Z). A copy of the current Certificate of Title and Planning Property Report are presented in Appendix B of this report.

1.2.1 Site Condition at Commencement of Audit

At the commencement of the Audit the majority of the site was covered by two buildings formerly occupied by the Nuplex non-hazardous store, laboratory and office space. The entire warehouse, laboratory, offices and a strip of land to the east of the buildings was concrete paved, an area to the north of the buildings (referred to as the east-west driveway) was sealed with bitumen. A strip of land to the west of the buildings (adjacent to Hamlet Street) was covered in grass or gravel. A triple interceptor trap (TIT) was located within the grassed area adjacent to the northern end of the buildings.

1.2.2 Site Condition at Completion of Audit

At the completion of the Audit, the site remained in the same condition as at Audit commencement, except for the removal of the TIT.

Figure 1 presents a site location plan and Figure 2 presents a site plan showing the site layout (and all sample locations).

1.3 Proposed Site Development

It is understood that the site owner, Chandos Bay Pty Ltd, intends to redevelop the site for commercial or industrial use. Proposed development plans are not available as they have not been determined. The current site owner proposes to either develop the site or divest the site following completion of the Audit.

2 Background

2.1 Site Details

A summary of the site details is provided in the Executive Summary.

2.2 Information Referenced by the Auditor

2.2.1 Legislation

In preparing this report the following legislation has been considered:

- Environment Protection Act 1970.
- Environment Protection (Industrial Waste Resource) Regulations 2009.
- State Environment Protection Policy (Prevention and Management of Contamination of Land), June 2002. ("the Land SEPP") (Variation No. G39 Gazette, 26 September 2013).
- State Environment Protection Policy (Waters), October 2018 ("the Water SEPP").

2.2.2 Guidelines, Standards and Codes of Practice

In preparing this report the following guidelines, standards and codes of practice have been considered:

- National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No. 1), April 2013 ("the NEPM").
- EPA Victoria (2015) Environmental Auditor (Contaminated Land). Guidelines for Issue of Certificates and Statements of Environmental Audit, EPA Publication 759.3.
- Industrial Waste Resource Guidelines (IWRG) 701 – Sampling and Analysis of Waters, Waste Waters, Soils and Wastes, EPA Victoria June 2009.
- Industrial Waste Resource Guidelines (IWRG) 621 – Solid Hazard Categorisation and Management, EPA Victoria June 2009.
- Australian Standard 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 2005.
- Australian Standard AS 4482.2-1999 Guide to the Sampling and Investigation of Potentially Contaminated Soil. Part 2: Volatile Substances, Standards Australia 1999.
- Management of asbestos in the non-occupational environment, Department of Health and Ageing and enHealth Council 2005.
- Australian Standard AS 2159-2009 Piling – Design and Installation, Standards Australia 2009.
- EPA (2006) Hydrogeological Assessment (Groundwater Quality Guidelines), EPA Publication 668, September 2006.
- EPA Victoria (2016) The Clean-Up and Management of Polluted Groundwater, EPA Publication 840.2.

2.2.3 Assessment Consultant Reports

In conducting this Environmental Audit pursuant to s53W of the Environment Protection Act 1970, the Environmental Auditor reviewed the reports and documents listed below:

- ARC Environmental (July 2017), *Preliminary Site Investigation, 322-328 Bay Road, Cheltenham, Victoria*.

- ARC Environmental (November 2018), *Summary Bore Completion and Soil Assessment Report, Lot 4 on Plan of Subdivision PS802507T, 20 Hamlet Street, Cheltenham, Victoria*.
- ARC Environmental (November 2018), *Detailed Site Investigation, Lot 4 on Plan of Subdivision PS802507T, 20 Hamlet Street, Cheltenham, Victoria*.

The Auditor has also made reference to the works completed within the following report completed prior to commencement of the Audit:

- GHD (June 2015), *Site Investigation Report, 18-22 Hamlet Street, Cheltenham, Victoria*.

A copy of each of the above reports are provided within Appendix B of the CUTEP report (provided as Appendix C of this report). It is noted that Evolution Environmental Consulting (EEC) and HydroTerra also conducted certain environmental assessment works in the months leading up to the commencement of the Audit and during the Audit. Works and supporting documentation completed by EEC are provided within the ARC reports. Documentation relating to the works completed by HydroTerra are provided within Appendix C of the CUTEP report (provided as Appendix C of this report).

The Auditor has conducted a review of each of the above reports and has considered them suitable for the purposes of the audit.

The Auditor has also made reference to the following reports previously completed for the site:

- Lane Piper (September 2011), *Environmental Audit Report (53V) 18-22 Hamlet Street, Cheltenham.*
- GHD (March 2014), *18-22 Hamlet Street, Cheltenham, Victoria, Groundwater Monitoring 2014*.
- GHD (September 2016), *18-22 Hamlet Street, Cheltenham, Victoria, Remediation Action Plan*.

Copies of the above listed reports can be made available upon request.

The Auditor notes that reports were not available for works undertaken by ERM, Kilpatrick and Associates and SMEC between 2001 and 2006. Details of the works conducted between 2001 and 2006 were obtained from summaries provided in later reports.

It is noted that the Auditor also commissioned the following assessment for the purposes of supporting the Audit:

- Coffey Environments Pty Ltd (April 2019), *Lots 3 and 4, 322-328 Bay Rd, Cheltenham, Victoria – hydro assessment review.*
- Coffey Environments Pty Ltd (July 2019), *Lot 4, Former Nuplex Chemical Storage Facility, Cheltenham, VIC.*

A copy of the Coffey (April 2019) Hydro Assessment Review Report is provided within Appendix E and the Coffey (July 2019) Risk Evaluation is provided within Appendix F of this report

The Auditor has also been provided with data/information from the Audits being conducted at Lots 1, 2 and 3 which he has also made reference to as needed. This data is provided in Appendices D and E of the CUTEP report (provided as Appendix C of this report) and within Appendix G of this report.

2.3 Activities Conducted by the Auditor

In conducting this Environmental Audit pursuant to s53W of the *Environment Protection Act* 1970, the Environmental Auditor undertook the following activities:

- Reviewed the site history and historical site assessment works that had been undertaken by previous environmental consultants during the Audit.
- Conducted a site walkover on 23 January 2017 (prior to Audit commencement) to observe site layout and site features, as well as the positioning and layout of the site in relation to the wider Nuplex site and surrounding area. Conducted follow up site visits on 7 June 2017 and 22 March 2018 to assess the condition of the site.
- Reviewed and commented on the proposed Sampling and Analysis Plans initially prepared by EEC for soil assessment and groundwater investigation works to be conducted as part of the Audit.
- Reviewed site assessment data including soil and groundwater analytical results, soil bore logs and monitoring well construction details provided by ARC.
- Reviewed and commented on the further proposed Sampling, Analysis and Quality Plans prepared by ARC for soil and groundwater assessment works.
- Reviewed and commented on the Soil Summary Report and the Detailed Site Investigation (DSI) prepared by ARC (ensuring that all matters covered in earlier review comments were being addressed).
- Engaged expert support to conduct a review and provide advice on the monitored hydrogeology and risk assessment components of the DSI report.
- Formed an opinion on the condition of the site, and the nature and extent of any harm or detriment, or the risk of any possible harm or detriment, to beneficial uses of the land caused by the site conditions.
- Sought EPA advice on 25 October 2018, 13 December 2018, 21 January 2019 and 1 February 2019 in relation to the strategy for completion of a CUTEP report.
- Received advice from EPA on 4 February 2019 in relation to completion of an EPA determined CUTEP for the site.
- Completed a clean up to the extent practicable (CUTEP) report for submission to the EPA on 29 July 2019 for EPA determined CUTEP.
- Communicated with EPA in September 2019 in regards to an implementation strategy for Groundwater Quality Management Plan (GQMP) for the site.
- Review and incorporation of additional groundwater data resultant from Lot 2 Audit works into the CUTEP report with re-submission of 16 October 2019.
- Review of Resolve (March 2020) GME data from Lot 2 GQMP works and consideration of potential risks to Lot 4.
- Received approval from EPA in regards to CUTEP on 18 August 2020.
- Completed this Environmental Audit Report and Statement of Environmental Audit.

2.4 Geology and Hydrogeology

2.4.1 Topography

The site is elevated at approximately 38 mAHD on a slight ridge. Immediately west of the site, the topography slopes downwards towards the west and south-west, whilst regionally there are topographic high points located south-west and south-east of the site.

2.4.2 Regional Geology

The 1:63,360 Geological Survey of Victoria Ringwood map sheet (No. 849, Zone 7) indicates that the site is underlain by Quaternary Age swamp deposits and sand hills and ridges, which overlies the Tertiary Age Brighton Group Formation. The swamp deposits comprise sands, silts and clays while the sand ridges are recognised as a series of thin (up to several metres thick), discontinuous, longitudinal aeolian sand dunes. The underlying Brighton Group Formation comprises Red Bluff sands consisting of fine to coarse sands with minor poorly sorted gravels.

2.4.3 Site Specific Geology

The site-specific geology encountered by ARC during fieldwork comprised fill material to a maximum depth of approximately 0.7 mbgl and generally comprising sands and gravels, overlying natural sandy clay, clayey sand and sand to the maximum depth of investigation (19.5 mbgl).

The general lithology encountered during the site assessment works is summarised in Table 2.1 below.

Table 2.1: Generalised Site Lithology

Depth interval (mbgs)	Lithology
0.0 0.0 – 0.15	CONCRETE
0.15 – 0.7	FILL: Pale grey to dark grey and brown gravelly sand, sand and sandy gravel, medium dense to dense, fine to coarse grained.
0.7 – 2.5	Sandy CLAY: Grey brown to reddish brown with orange and red/brown mottling, stiff to very stiff, low plasticity.
2.5 – 10.5	Clayey SAND: Red brown and light brown to grey, medium dense to dense, fine to coarse grained. Pale yellow from approximately 3.3 mbgl.
10.5 – 19.5 (maximum depth of investigation)	SAND: Yellow brown and reddish brown, medium dense, fine to coarse grained.

Based on the Auditor's review of the bore logs and the Auditor's inspection of the site, the Auditor agrees with ARC's findings and assessment of the geological conditions observed on-site.

Bore logs are provided within Appendices B, C and D of the ARC (November 2018) DSI report (provided within Appendix B of the CUTEP report, provided as Appendix C of this report).

The geology of the site is presented on Figure 12 of this report (attached).

2.4.4 Regional Hydrogeology

The site is located in the East Port Phillip Bay groundwater catchment and groundwater beneath the site is likely to be encountered within the Upper Tertiary Aquifer comprising sand, gravel and clay.

A review of the information provided in the ARC DSI report and the Environmental Earth Sciences hydrogeological report indicates that in the vicinity of the site, the geology comprises Red Bluff Sands of the Tertiary Brighton Group, overlain by Quaternary aged dune sands and swamp deposits.

The Visualising Victoria's Groundwater online portal indicated that depth to groundwater beneath the site is likely to occur at a depth of 5 to 10 mbgl.

ARC reported the expected TDS at the site to be between 1,001 and 3,500 mg/L and classified groundwater as Segment B. ARC's classification was based on a review of the Department of Environment, Land, Water and Planning (DELWP) Groundwater Resource Report which was based on the previous SEPP (1997) Groundwaters of Victoria. As noted above, the Auditor considered groundwater in the context of the SEPP Waters (2018) and therefore a TDS range of 1,001 and 3,500 mg/L now classifies the site between Segment A2 and C.

The closest natural surface water body to the site is Port Phillip Bay located approximately 2.7 km south-west and 3.1 km west of the site and is considered to be the point of groundwater discharge.

2.4.5 Surrounding Groundwater Users

A review of the Department of Environment, Land, Water and Planning (DELWP) Groundwater Management System Database and Visualising Victoria's Groundwater Online Tool was undertaken by ARC on 11 July 2018 which identified 280 registered groundwater bores (excluding bores associated with the assessment of the former Nuplex facility) within a 2km radius of the site.

ARC noted that the majority of bores were registered for investigation or observation use, with eleven bores registered for an extractive or unknown use within 500 m of the site as follows:

- Bore WRK059611 located approximately 145 m south of the site was registered for Domestic and Stock use, with a total bore depth of 65 m.
- Bore WRK979389 located approximately 230 m north-east of the site with no registered use. ARC noted that this bore is located within the car wash premises on the northern side of Bay Road and has a total depth of 100 m.
- Bore WRK079946 located approximately 250 m north-east of the site was registered for Industrial use, with a total bore depth of 28 m.
- Bores WRK986528 to WRK986533 located approximately 330 m south-west of the site were registered for Stock and Domestic use, with total bore depths of 2.5-5 m.
- Bore 80571 located approximately 350 m south-west of the site with no registered use. ARC noted that the bore was installed in 1984 with a total bore depth of 40 m and that the bore appeared to be located within Cheltenham Cemetery.
- Bore WRK039190 located approximately 500 m south-west of the site was registered for Irrigation use, with a total depth of 33.5 m.

The Auditor conducted a review of the DELWP Water Measurement Information System and Visualising Victoria's Groundwater database (http://vvg.org.au/) on 23 October 2018 and again on 26 August 2020 in order to verify ARC's findings and to identify any groundwater bores which may have been registered between July 2018 and August 2020. The Auditor's most recent review identified 419 registered

groundwater bores within a 2 km radius of the site (including bores associated with the assessment of the former Nuplex facility), 91 of which were identified within 500 m of the site. Of the 91 bores identified within 500 m of the site, 76 are registered for observation or investigation use and 7 are registered for extractive use, and 8 have unknown use (conservatively considered to be extractive use). The greater number of bores identified by the Auditor are considered to be due to additional bores being installed in the surrounding area (as well as at the Nuplex facility) since those within the database at the time of the previous review which did not include any bores with completion dates from 2017 onwards.

Registered uses of the groundwater bores identified in the Auditor's most recent review are summarised in Table 2.2 below.

Table 2.2: Summary of Registered Groundwater Bores within 2km

Use	No. of Bores
Groundwater Investigation/Observation	263
Irrigation	30
Domestic & Stock	12
Domestic	16
Unknown	98

The closest known extractive use bore (WRK059611) is located approximately 145 m south of the site and is registered for Domestic and Stock use. This bore was completed in 2011 and had a total depth of 65 m. No other information was available for this bore.

Information for registered groundwater bores identified by ARC is provided within Section 2.2.7 and Appendix G of the ARC (November 2018) DSI report presented in Appendix B of the CUTEP report (provided as Appendix C of this report).

Results of the Auditor's registered groundwater bore search are provided within Appendix D of this report, and locations of registered bores within 2km of the site are presented on Figure 4 of this report.

In May 2017 and February 2018 ARC also conducted a survey of properties in the vicinity of the site to determine current groundwater use and to investigate possible extractive uses of groundwater from unregistered bores. The survey comprised provision of a groundwater bore survey questionnaire to the current occupants/owners of properties located on Chandos Street, Hamlet Street, Philip Street, Bay Road and Graham Road. No unregistered bores were identified from the survey. The owner of the car wash at 1 Graham Road confirmed that the registered groundwater bore WRK979389 is used for extracting groundwater to wash cars. During the survey, ARC also attempted to locate and confirm the presence and use of bore WRK059611, registered for Domestic and Stock use and located approximately 95 m south-east of the site. ARC reported that property owners/occupants within the vicinity of bore WRK059611 indicated that there were no groundwater bores on their properties. Details of the survey conducted by ARC are provided within Section 2.2.7 and Appendix F of the ARC (November 2018) DSI report.

2.4.6 Local Hydrogeology

Groundwater investigation works undertaken at the site comprised the installation of two on-site groundwater monitoring wells (BMW1 and BMW2 installed one week prior to audit commencement) as well as sampling of historically installed onsite wells (MW21 and MW38). Consideration was also given to

historical onsite wells (MW09/1, MW09/2, MW09/3, MW10/1, MW10/2, MW10/3, MW12/1, MW12/2, MW12/3) which had been decommissioned prior to audit commencement.

Several wells had also been installed on surrounding properties as part of historical works or as a result of the audits on those specific Lots. The monitoring wells considered on adjacent sites were:

- to the north (MW3, MW4, MW08/1, MW08/2, MW08/3, MW37, MW36, MW45A, MW45B),
- to the east (MW13/1, MW13/2, MW13/3, MW15/1, MW15/2, MW15/3, MW35, MW39, MW22, MW31, MW32, MW24A, MW24B, MW24C (and replacement wells MW24AR, MW24BR, MW24CR)),
- to the south (MW2, MW02A, MW50A - MW50C, MW23, MW23A MW33R, MW26, MW29, MW30, MW40, CMW1) and,
- to the west (MW52, MW53, MW55 and MW59)).

Groundwater monitoring wells installed as part of the Lot 4 Audit (BMW1 and BMW2) were drilled to a depth of 12.0 mbgl (26.62 mAHD). Groundwater in the onsite monitoring wells stabilised at depths between 10.00 mBTOC and 11.03 mBTOC (28.55 mAHD to 27.59 mAHD). The groundwater levels stabilised within the screened intervals and were considered representative of the unconfined Brighton Group aquifer at the site.

The existing onsite monitoring wells (MW21 and MW38) had been drilled to depths of 19.5mbgl and 18.0mbgl respectively. The groundwater depths in these wells ranged between 10.28 mBTOC and 10.64 mBTOC (28.19 mAHD and 27.91 mAHD) which were almost identical to BMW1 and BMW2.

It is noted that on-site wells MW21 and MW38 had standing water levels that were consistently above the screened interval. However, given the primary contaminants of concern for the wider Nuplex site were chlorinated hydrocarbons (the contaminants for which these wells were primarily installed to target the assessment of), the submerged screens were not considered to be of consequence when interpreting results from these wells (discussed further in Section 9.1). The submerged screens in these wells do have the potential to affect groundwater flow contours, as such, groundwater flow direction has been assessed based on the wider well network across the former Nuplex site, ensuring that groundwater depths from sufficient non-submerged wells have been referenced to assess groundwater flow direction.

It is further noted that MW38 (Lot 4) and MW39 (Lot 2) are located adjacent to water and fire water services, which were considered likely to be potentially leaking and were considered to have the potential to influence groundwater levels. Figure 6 provides a useful depiction of TDS concentrations, and thus presents where fresh water influences appear to be located on Lot 4 and in the vicinity of Lot 4. MW21 was noted to contain a 'long' well screen of 7.5m which has the potential to influence the concentrations of contaminants as well as the interpretation of groundwater flow direction, however, these wells have been considered as part of the broader site (i.e. all lots) gauging when interpreting groundwater flow (as discussed below).

Historically installed nested wells (MW09/1-3, MW10/1-3 and MW12/1-3) had been decommissioned prior to the commencement of the audit. All three wells had generally been screened at three depth intervals (i.e. 7.0 to 8.0m, 11.0 to 12.0m and 14.0 to 15.0m). The depth to groundwater measured in the wells varied greatly between 0.46m and 8.86m and were not consistent with the groundwater levels measured during the audit.

The geophysical survey report by GHD (2008) stated that localised perched groundwater was encountered during the drilling of MW09 and mounding was subsequently noted by GHD during gauging of MW09 and MW12 which was considered to be associated with leaking water mains or other features. The LanePiper 53V audit report stated that inconsistencies were noted with the standing water levels at a number of

nested wells across the site (including MW09, MW10 and MW12). Specifically, it was noted that the standing water levels did not always correlate with the screen depth (i.e. in MW9 the middle-screened interval well reported the highest standing water level) and the standing water levels varied significantly between monitoring events (e.g. MW9/2 May 2008 standing water level was 0.457 mBTOC and the September 2008 standing water level was 5.810 mBTOC) suggesting that the nested well installations were not sufficiently representative of groundwater depths.

Further to the above, a water main and sewer main runs north-south along Hamlet Street, which, according to anecdotal evidence from Nuplex staff, and inferred in the 53V Audit (Lane Piper, 2011) have historically leaked causing hydrological mounding, as well as lower TDS (<500 mg/L) in wells in close vicinity of Hamlet Street including former on-site monitoring wells MW9 and MW12 and off-site monitoring wells to the south including MW17, MW23, MW30 and MW40. It is also noted that a water main and fire water main runs east-west along the northern side of the office building on Lot 4 which also has the potential to have affected conditions at MW09 and MW10.

The 53V Audit report (Lane Piper, 2011) notes that groundwater flow direction across the larger Nuplex site over a three year period (based on gauging between 2008 and 2011) showed a variable groundwater flow to the west, south and east, specifically noted to be influenced by groundwater mounding at a number of locations associated with below ground structures (i.e. TIT, USTs or sumps) or leaking water mains or features.

The broader Nuplex site contains a number of acknowledged points of groundwater recharge associated with below ground infrastructure (the majority of which have since been removed). As a minimum, these are associated with the former underground storage tanks on Lot 1, Lot 2 and Lot 3 and the triple interceptor traps on Lot 1, Lot 3 and Lot 4 which overly low permeability clayey sediments in the upper profile at the site.

Due to the regional groundwater surface having a low hydraulic gradient, and the aquifer having a low transmissivity, even minor leakage of water from utility services/recharge points will potentially result in sufficient groundwater mounding to influence the rate and direction of groundwater movement, and therefore solute transport from the site. Groundwater contours across the broader site (as shown in Figures 5A to E) highlight these effects.

Other notable potential influences on local groundwater elevations include the remediation system at the nearby SEC site, a car wash groundwater extraction bore approximately 180 m to the north west, and other registered bores (ARC, 2018a).

During fieldwork conducted on Lot 4 wet soils were observed at NHS_EEC_SB104 (0.3 mbgl to 0.9 mbgl) and NHS_EEC_SB105 (0.6 mbgl to 0.8 mbgl) within the sand and gravelly sand fill material and immediately above the underlying natural sandy clay. Both bores are located in the southern portion of Lot 4, NHS_EEC_SB104 in Store C and NHS_EEC_SB105 in Store B. Although the presence of low-permeability swamp deposits is indicated at shallow depths, based on geological mapping and borelogs, there is no indication that extensive or continuous perching of water occurs near the site. Therefore, based on the evidence presented, perched water appears to be a highly localised and not representative of a broader perched water-table requiring assessment. The soil results collected from these locations are considered to be suitable for the characterisation of contamination in this area. This was supported by the Auditor's expert in hydrogeology who concluded that based on the evidence presented, perched water appears to be a local phenomenon. Although the presence of low-permeability swamp deposits is indicated at shallow depths, based on geological mapping and borelogs, there is no indication that extensive or continuous perching of water occurs near the site.

Subsequent groundwater monitoring undertaken by GHD and ARC has identified a general south westerly flow with radial groundwater flow patterns in localised areas on the adjoining Lot 2 (MW39) and Lot 3 (MW17B) which appear to have historically influenced localised groundwater flow. Groundwater flow was noted to be west to south west on Lot 1 (north of Lot 4) and to the south west to south on Lot 3 (to the south of Lot 4). Based on the variations in groundwater flow, ARC sought advice from a hydrogeologist from Environment and Earth Sciences who prepared a hydrogeological review (provided in Appendix F of the ARC (November 2018) DSI report presented in Appendix B of the CUTEP report (provided as Appendix C of this report)). As a result, the Auditor also sought advice from his expert in hydrogeology (Mr Michael Blackam of Coffey Environments) who prepared a hydro assessment review (presented in Appendix E of this report). All information was considered and incorporated (where required) into this report.

The Auditor also considered the potential for groundwater recharge via one or more sources to potentially influence vertical hydraulic gradients where present within the aquifer. ARC (2018b) provided comment on vertical gradients, and summarised from Lane Piper (2011) that Lot 2 and 3 monitoring wells generally showed little evidence of vertical hydraulic gradients, but that groundwater monitoring wells from the central and southwest portions of Lot 4 and the northwest portion of Lot 3 (specifically MW17) showed some evidence of vertical hydraulic gradients. The head difference at these locations was reported to range from 0.3 m (at MW17 on Lot 3) to 6 m (at MW9 on Lot 4).

It is noted that these wells are positioned in areas likely to have been affected by local recharge associated with infrastructure leakage. In particular, the north-south water and sewer main along Hamlet Street, and the east-west water services located along the driveway north of the former office at Lot 4 which had the potential to historically affect groundwater conditions near MW9 and MW10 to the extent that the influence on groundwater levels would have made it difficult for conclusions to be drawn with regard to the presence of vertical gradients.

The occurrence of groundwater mounding due to infrastructure leakage, or preferential surface water infiltration in (for example) former UST locations, can locally cause downward hydraulic gradients, and hence lead to some potential for downward and radially outward transport of dissolved phase contaminants. However, it is considered that the extent of influence of these effects on contaminant transport from the site overall, is likely to be localised and does not appear to have occurred to the extent that it has notably influenced contaminant distribution.

In conclusion, the groundwater hydraulic gradient across the site is considered to be relatively flat (i.e. 0.001-0.01 m/m) and as a result, where potential sources of leakage are repaired/removed from the groundwater flow diagrams (as noted on Figure 5 in Appendix E of the ARC DSI), groundwater flow direction would be expected to flow to the southwest across and in the immediate vicinity of Lot 4.

2.4.6.1 Total Dissolved Solids

The TDS concentrations reported at the site were considered by the Auditor when classifying groundwater at the site in accordance with the SEPP (2018) Waters:

- TDS concentrations for on-site wells ranged between 174 mg/L (Segment A1) to 4,588 mg/L (Segment C), with an average of 1,932 mg/L (Segment B).
- TDS concentrations for off-site hydraulically up-gradient wells within Lot 1 and Lot 2 of the former Nuplex facility (MW22, MW24AR, MW24BR, MW24CR, MW31, MW32, MW35, MW36, MW37, MW39, MW45A, MW45B) ranged between 270 mg/L (Segment A1) to 3,262 mg/L (Segment C), with an average of 1,563 mg/L (Segment B).

- TDS concentrations for off-site hydraulically up-gradient wells MW20, MW27, MW28 considered to be representative of up-gradient regional conditions ranged between 377 mg/L (Segment A1) to 657 mg/L (Segment A2), with an average of 539 mg/L (Segment A1).
- TDS concentrations for off-site and hydraulically down-gradient wells (CMW1, MW02A, MW17B, MW23A, MW52, MW53, MW55, MW59) ranged between 184 mg/L (Segment A1) to 3,853 mg/L (Segment C), with an average of 1,058 mg/L (Segment A2).
- Low TDS concentrations (<500 mg/L) were reported in MW38 and historical well MW9 located in the northern portion of the site located adjacent to underground fire water/water lines. Low TDS is also noted to have been reported in MW39 located on Lot 2 to the east which is also located adjacent to these water services (refer to Figure 6 – TDS Concentrations Contours). It is considered that the low TDS reported in these wells is due to fresh water recharge from these leaking services which is supported by the chemistry of the groundwater.
- Down gradient wells MW02A, MW17B and MW23A also reported low TDS in the range of Segment A1. Given that well MW23/MW23A is located adjacent to Hamlet Street, the low TDS reported for this well is also considered to be associated with leaking services along Hamlet Street. Minor occurrences of perched water were observed in the vicinity of the former UST tank at well MW17B), and in the vicinity of the former UST tank pit at well MW2A. The presence of perched water in the vicinity of wells MW17B and MW2A appears to be artificially influencing groundwater TDS in these two wells.
- A review of surrounding Audit sites indicates groundwater is expected to be classified as Segment A1, A2 or B, with the majority of the sites reporting groundwater within Segment A1 or A2.

Given the above, the Auditor considers that groundwater beneath the site is conservatively classified as Segment A1 in accordance with SEPP (2018) Waters. The beneficial uses to be protected under Segment A1 are summarised in Section 4.2 below.

3 Potential Contaminants Sources and Types

This section of the Audit Report summarises the potential contaminant sources, transport pathways and receptors that were considered as part of the Audit.

3.1 Scope of Site History Review

Information pertaining to the site's history (along with history for the remainder of the former Nuplex facility) was gathered by ARC in 2017. Findings are detailed in the ARC (July 2017) PSI Report, provided within Appendix B of the CUTEP report (provided as Appendix C of this report).

The site history investigation included the review of the following sources of site history information:

- Documentation relating to site ownership including historical certificates of title;
- Council zoning and planning information;
- Historical aerial photographs;
- Royal Historical Society of Victoria and the Sands and MacDougall Directories;
- South East Water trade waste records and property sewer plans;
- Energy Safe Victoria Cathodic Protection System database;
- Worksafe Victoria Dangerous Goods database;
- EPA Priority Sites Register;
- Audits completed in the vicinity of the site and nearby Groundwater Quality Restricted Use Zones; and
- Historical environmental assessment reports prepared by GHD, including anecdotal evidence obtained from interviews with former employees.

A site inspection was also completed by ARC as summarised in Section 3.2.1 below to assist in their conceptual understanding of the site and the site's history.

The Auditor has reviewed the completeness of the site history review and has concluded that the site history investigation undertaken is adequate to identify the contaminants of potential concern for the site (refer to Section 6 of this report for the Auditor's quality and completeness review of the assessment consultant's report).

3.2 Summary of Site History

The site history review identified that the site (and the remainder of the broader former Nuplex facility) was owned by a grazier until the area was subdivided in the 1940s. In 1949 Standard Laboratories Pty Ltd purchased the site (along with Lot 2). Ajax Chemicals acquired this same parcel of land in 1970.

In 1981 the site (and Lots 1 and 2 of the wider Nuplex site) was purchased by Searle Australia, then by Clyde Industries in 1983. Asia Pacific Specialty Chemicals (APS) then owned the site between 1997-2017. It is noted that APS was acquired by Nuplex in 2002, hence reference of the wider site as the 'former Nuplex facility'. It is noted that operations of the site (and the wider Nuplex site) under Searle Australia, Clyde Industries and APS Chemicals was for the manufacture of a variety of chemicals, including lubricants, resins and polymer stabilisers. The wider site was most recently operated by Nuplex as a chemical storage and distribution facility.

Chandos Bay acquired the site in January 2017. The site has remained vacant since at least the commencement of January 2017.

The site history review identified the following former and existing site infrastructure, and former activities at the site:

- Non-Hazardous Store Building used for office space, a product laboratory and a warehouse for storage of non-hazardous chemicals.
- The main area of the store (Store A) was used for Class 9 chemical storage, while two smaller stores (Store B and Store C) were used to store Class 5.1 (oxidising) and Class 3 (flammable liquids), respectively.
- Anecdotal evidence indicated that the product laboratory was formerly used as a metal finishing laboratory.
- A hole (approximately 30 cm x 30 cm) was observed to have been cut in the floor of Chemical Store B forming a pit, the purpose of which was reported to be unknown.
- A Triple Interceptor Trap (TIT) located adjacent to the western boundary of the site in the northern portion of the site.

Based on the site history information, the following potential sources of contamination were identified within the site:

- One TIT located adjacent to the western boundary of the site in the northern portion of the site.
- Metal finishing laboratory.
- A pit cut through the concrete floor was observed in Chemical Store B with an unknown use.
- Manufacturing, handling and storage of a range of chemicals, most recently non-hazardous substances.

3.2.1 Site Inspection

ARC conducted an initial site inspection on 24 March 2017. At the time of the inspection the original large brick warehouse building, with original cement sheet roof, covered the majority of the site. A two-level extension to the north was occupied by office space and a former laboratory (ground level only) and was separated from the store by a cinder block wall. The roof of the extension was noted to be galvanised.

ARC noted the following during their initial site inspection:

- The laboratory was vacant and partially decommissioned and comprised a number of small work benches, shelves and some remaining inert equipment. One small room was noted to contain two exhaust hoods.
- The two-storey office space was being used by an engineering consulting company.
- The warehouse was concrete paved; the office carpeted; and the laboratory floor appeared to have a protective surfacing, with the concrete flooring generally appearing to be in good condition.
- No chemicals were stored within the warehouse.
- A hole (approximately 30 cm x 30 cm) was observed in the floor of Chemical Store B forming a pit, the purpose of which is unknown.
- A small section of grass is located between the western side of the site buildings and the site boundary.
- A TIT was observed to the west of the office building within the grassed area.
- An electrical substation was located off-site and adjacent to the south west corner of the site.

- The cement sheet roofing of the warehouse building has the potential to contain Asbestos Containing Materials (ACM).

The Auditor and/or his support conducted a site inspection on three separate occasions (23 January 2017, 7 June 2017 and 22 March 2018) and concurred with ARCs findings.

3.3 Surrounding Land Uses

The site history assessment undertaken by ARC (including review of historical Certificates of Title, historical aerial photographs, Sands and McDougall Directories, South East Water trade waste records and property sewer plans and historical environmental assessment reports, including anecdotal evidence obtained from interviews with former Nuplex employees) indicated that the area in the vicinity of the site historically comprised grazing land prior to subdivision of the area in the 1940s and subsequent use for a mix of commercial and industrial land uses including the following notable site uses (and potential off-site sources of contamination) in the vicinity of the site:

- Lots 1, 2 and 3 of the former Nuplex facility located immediately north, east and south of the site. Lot 1 was purchased by a builder in 1945, and later owned by a furniture manufacturer between 1960 and 1974. Lot 2 was purchased by Standard Laboratories Pty Ltd in 1949, and later owned by Ajax Chemicals between 1970 and 1983. Lot 3 was purchased by sheet metal workers in 1950, and subsequently used for various commercial/industrial uses between 1974 and 1983, although no specific details were available. In 1983, Lots 1, 2 and 4 were consolidated under the ownership of Searle Australia. In 1992, Clyde Industries acquired all four lots and consolidated Lot 3 with the remaining lots. Subsequent owners of the former Nuplex Facility were Clyde Industries (1992-1997) and Asia Pacific Specialty Chemicals (APS) (1997-2002). Searle Australia, Clyde Industries and APS Chemicals are known chemical manufacturing companies. Nuplex acquired APS Chemicals in 2002.

Potential sources of contamination on Lots 1-3 are summarised below (see Figure 3A and 3B):

Lot 1: Non-toxic store warehouse (historically used by a furniture manufacturer and yacht builder; used by Nuplex for Class 5.1 (oxidising) and Class 9 (organic peroxides) chemical storage; chloroform flocculation area; indoor acid store (used by Nuplex for Class 8 (corrosive substances) chemical storage); three former ASTs (contents included hydrochloric acid, sodium hydroxide and sodium hypochlorite); disposal pit (used for the disposal of lead acid batteries); chloroform flocculation area; former TIT and associated drainage line which were reported to have leaked; outdoor drum storage area (historically unsealed, used by Nuplex for storage of Class 8 chemicals, trichloroethene, tetrachloroethane, methylene chloride, chloroform and trichloroethane).

Lot 2: Southeast corner (SEC) (the SEC was partially historically unsealed and then only partially sealed, containing a former drum shed used for decanting TCE (among other uses), former concrete sump containing TCE, 1,1,1 TCA and PCE impacted soils, former acid dock for refrigerant gases, and approximately three former USTs containing acetone, ammonia and petroleum hydrocarbons with associated bowser pump); approximately six former ASTs (contents not known); poisons and flammables building (storage of chloroform, decanting TCA, storage of Class 6.1 chemicals (toxic substances) and Class 3 chemicals (flammable liquids); former fire pump shed and former electrical substation.

Lot 3: Known as "The Button Factory" however no evidence to suggest this portion of the site was ever related to button manufacturing. Two former USTs (considered to have contained petroleum hydrocarbons based on residual contamination identified); former TIT.

It is noted that the SEC area of Lot 2 has been considered to be the primary source area of contamination on the wider Nuplex Facility. Lots 1 and 3 have also been considered to a lesser degree as being sources

of contamination. It is noted that the ARC (July 2017) report (provided in Appendix B) was completed for the entire Nuplex site. As such, further detail with respect to historical uses of Lots 1 - 3 is provided in this report:

- Electrical substation at 18 Hamlet Street located adjacent to the north-western corner of the site.
- Underground bulk fuel storage and use at 7 & 10 Hamlet Street located approximately 20 m south and south-west of the site, respectively.
- Oil storage and use at 15 Chandos Street (MGB Hive auto electrician) located immediately east of the site.
- Laminex manufacturing facility at 332 Bay Road located approximately 50 m east, northeast and southeast of the site.
- Former nursery on the north side of Bay Road approximately 150 m north of the Audit site.

Current land uses directly adjacent to the site are summarised in Table 3.1 below.

Table 3.1: Surrounding Land Uses

Description	Land Uses
North	Lot 1 within the remainder of the former Nuplex Facility, beyond which is Bay Road with commercial properties on the northern side of Bay Road including the Rietmans Business Park (formerly a nursery) and a carwash facility (Ezy Bay Wash).
East	Lot 2 within the remainder of the former Nuplex facility, beyond which is Chandos Street and the Laminex industrial facility on the eastern side of Chandos Street.
South	Lot 3 within the remainder of the former Nuplex facility, beyond which is a commercial warehouse, DSK Engineering (steel fabrication with a UST onsite) and SK partitions (manufacturer).
West	Hamlet Street, beyond which are commercial and light industrial properties including Austral Injections (plastics injection moulding facility) and Endeavor Turf Products (turf supplier).

No current or historical landfills or backfilled quarries were identified within 500 m of the site.

Figure 3A shows the location and current use of the surrounding sites.

3.4 Environmental Audits from Surrounding Sites

Reference to the list of Issued Certificates and Statements of Environmental Audit on the EPA website indicates there have nine completed audits within approximately 1 km of the site. ARC undertook a review of three of the nine audits (refer to Section 2.2.10 of the ARC (July 2017) PSI report – Appendix B of this report).

The Auditor also conducted an independent review of these three audit reports to verify ARC's review, and the Auditor also conducted a review of the audit reports for the other six environmental audits completed within 1 km of the site. A summary of the findings of the nine audits is provided in Table 3.2 below.

Table 3.2 Summary of Surrounding Audits

Site Address, CARMS and Year Completed	Distance and Direction	Historical Site Use	Depth to Groundwater (mbgl)	TDS (mg/L)	Segment	Inferred Flow	Relevant Details
Stage 1, 7-13 Graham Road, Highett 36024-1 1999	250m north-east	Vehicle detailing by Ken Morgan Toyota who installed a UST and TIT at the site Furniture and white goods storage	Not assessed	Not assessed	Not assessed	Not assessed	Contaminants in soil – Petroleum hydrocarbon contaminated soil was removed from the site. Groundwater was not assessed. A Certificate of Environmental Audit was issued.
Stage 2, 7-13 Graham Road, Highett 36024-2 1999	250m north-east	Screen printer Electronic circuit board manufacturer	Not assessed	Not assessed	Not assessed	Not assessed	Contaminants in soil –Metals (arsenic, chromium, copper, zinc), sulphate and acidic conditions (low pH). Groundwater was not assessed. A Statement of Environmental Audit was issued.
1136 Nepean Highway, Highett 37308-1 2006	800m north-east	Gasworks Scientific Services Department and Training Centre for the Gas and Fuel Corporation	5.5 – 10.0	130 – 6,200	A2	West South-West towards Port Phillip Bay	Contaminants in soil – Metals (arsenic, nickel), pH, benzo(a)pyrene (BaP), Total PAH, cyanide remain following remediation works. Contaminants in groundwater – Background (copper, nickel and zinc). Off-site source (nitrate and ammonia). Sulphate and arsenic isolated with no significant on-site source identified. A Statement of Environmental Audit was issued.
1144-1148 Nepean Highway, Highett 69746-1 2012	800m north-east	Commercial printing facility, rain coat manufacturing, poultry farming	12.7 (reported average)	54 - 300	A1	South West	Contaminants in soil – vanadium, aldrin and dieldrin. Contaminants in groundwater – Regional (ammonia and nitrate). Chloride considered to be representative of the natural salinity of groundwater. Naturally occurring (cadmium, cobalt, copper, iron, lead, nickel and zinc). A Statement of Environmental Audit was issued.

Site Address, CARMS and Year Completed	Distance and Direction	Historical Site Use	Depth to Groundwater (mbgl)	TDS (mg/L)	Segment	Inferred Flow	Relevant Details
Lot A, 9-41 Charlton Avenue, Cheltenham 69782-1 2013	550m south	Market gardening Manufacturing of paint and lude products.	Perched Quaternary Aquifer (0.5 – 2.0) Brighton Group Aquifer (9.0 – 12.0)	Perched Quaternary Aquifer (200 – 3,020) Brighton Group Aquifer (258 – 2,300)	A1 (Perched Aquifer) B (Brighton Group Aquifer)	Perched Quaternary Aquifer (North-east) Brighton Group Aquifer (South-west)	Contaminants in soil – Metals (arsenic, beryllium, cadmium, cobalt, copper, lead, manganese, mercury, nickel, vanadium, zinc), total recoverable hydrocarbons (TRH), BaP, bis(2-ethylbexyl phthalate). Contaminants in Perched Quaternary Aquifer – Regional or background (arsenic, cobalt, copper, manganese, nickel and zinc). Site sourced (TRH). Upgradient source (formaldehyde and naphthalene). Contaminants in Brighton Group Aquifer – Regional or background (cobalt, copper, nickel and zinc). A Statement of Environmental Audit was issued. The site was designated as being a GQRUZ.
33 Jack Road, Cheltenham 72448-1 2014	400m south	Market gardens Carpet manufacturing Cabinet and furniture manufacturing, powder coating, furniture showrooms, office space, car storage, insulation distributor	Perched Quaternary Aquifer (0.5 – 1.7) Brighton Group Aquifer (7.4 – 9.8)	Perched Quaternary Aquifer (200 – 3,300) Brighton Group Aquifer (220 – 4,100)	A1	Perched Quaternary Aquifer (South) Brighton Group Aquifer (South/south-west)	Contaminants in soil – Metals (barium, manganese, vanadium, zinc) BaP, BaP toxic equivalence quotient (TEQ), TRH (>C_{16}-C_{34}) and pH. Contaminants in Perched Quaternary Aquifer – Naturally occurring (pH, aluminium and iron). Regional or upgradient source (copper, manganese, molybdenum, nickel, zinc and nitrate). Site sourced (TRH). The site was considered to be a source or co-source of trichloroethene (TCE) and perchloroethylene (PCE). Contaminants in Brighton Group Aquifer – Naturally occurring (pH, aluminium, iron and selenium). Regional or upgradient source (arsenic, total chromium, cobalt, copper, lead, manganese, nickel, zinc, nitrate, nitrite and fluoride). The site was considered to be a source or co-source of 1,1 DCA, 1,1 DCE, 1,2 DCA, vinyl chloride and TCE. A Statement of Environmental Audit was issued. The site was designated as being a GQRUZ.
257 Bay Road, Cheltenham 74276-1 2016	760m west	Mechanics workshop and service station	8.8	736 – 4,040	A2	South-southwest	Contaminants in soil – Metals (zinc, nickel) and asbestos. Contaminants in groundwater – copper, nickel, zinc and pH considered to be naturally occurring or regional. A Statement of Environmental Audit was issued.

Site Address, CARMS and Year Completed	Distance and Direction	Historical Site Use	Depth to Groundwater (mbgl)	TDS (mg/L)	Segment	Inferred Flow	Relevant Details
32-34 & 34B Tibrockney Street and 29-31 Beaumaris Parade, Highett 65236-1 2015	750m north-west	Agricultural/grazing Furniture manufacturer, basket makers, road contractors, enamelling works, ceramic manufacturer	6.5 – 7.9	350 – 4,400	A1	North-westerly to westerly	Contaminants in soil – Metals (copper, lead, zinc), BTEX, TRH, monocyclic aromatic hydrocarbons (MAH). Contaminants in groundwater – Background (arsenic, cobalt, copper, iron, selenium, zinc, sodium, chloride, pH, sulphate and TDS). Regional (nitrate). Site sourced (benzene, ethylbenzene, toluene, xylenes, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene and styrene). Co-sourced and potential off-site source (cis-1,2-dichloroethene, trichloroethene, vinyl chloride, 1,1,2-trichloroethane, 1,2-dichloroethane and 1,2-dibromoethane). A Statement of Environmental Audit was issued. The site and selected areas off-site were designated as being a GQRUZ.
32-24 Graham Road, Highett 75232-1 2018	560m north	Agricultural (grazing), Engineering (tool making), Manufacturing (television tubes and football boots), Painting, packaging and assembly of products.	3.1 – 3.5	480 – 1,000	A1	West/south-west	Contaminants in soil – Metals (arsenic, cadmium, copper, nickel, zinc), organochlorine pesticides (OCPs). None following remediation works. Contaminants in groundwater – Metals (copper, nickel, vanadium and zinc) and inorganics (TDS, pH and sodium) considered to be naturally occurring or consistent with background concentrations. A Certificate of Environmental Audit was issued.

In summary, Table 2.3 indicates that the following contaminants may be present within groundwater in the vicinity of the site:

- Metals including arsenic, aluminium, cadmium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, nickel, selenium, vanadium and zinc – these are considered to be typical of natural concentrations within the aquifer or representative of regional pollution.
- Sodium, sulphate, pH and chloride – these are considered to be typical of natural concentrations within the aquifer or representative of regional pollution.
- Ammonia and nitrate– these are considered to be representative of regional pollution.
- TRH, BTEXN, MAH and chlorinated hydrocarbons, were identified in groundwater at nearby audits, however the pollution was delineated and the potential for the identified pollution at these locations to impact on the subject site is considered to be low.

3.4.1 Groundwater Quality Restricted Use Zones

One GQRUZ was identified within 500 m of the site located at 33 Jack Road, Cheltenham (CARMS 72448-1), approximately 400m south of the site. The site is a GQRUZ restricting the use of groundwater for drinking water, livestock water supply, irrigation of crops (including domestic gardens) and parks, recreational purposes (e.g. swimming), and industrial purposes due to pollution by arsenic, total chromium, cobalt, copper, lead, manganese, nickel, zinc, nitrate, nitrite, fluoride, 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, trichloroethene and vinyl chloride. The elevated 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, trichloroethene and vinyl chloride were considered to be co-sourced from the site and were delineated within the site boundary. The inorganics were considered to be representative of regional groundwater quality.

The next nearest GQRUZ was located at 9-41 Charlton Avenue, Cheltenham (CARMS 69782-1), approximately 550 m south of the site. The site is a GQRUZ restricting the use of groundwater for drinking water, livestock water supply, irrigation of crops (including domestic gardens) and parks, recreational purposes (e.g. swimming), and industrial purposes due to pollution by TRH, PAH and formaldehyde. The elevated TRH was considered to be sourced from the site and was delineated within the site boundary. The formaldehyde and PAHs were considered to be from an upgradient source.

The Auditor has considered the likelihood of groundwater pollution from the identified GQRUZ sites above to reach 20 Hamlet Street and notes site sourced pollution including TRH, and chlorinated hydrocarbons did not extend off-site at either of the sites. Furthermore, groundwater flow was reported to be south to southwest. Given this, it is unlikely that any pollution from the GQRUZ sites, which were identified to be located to the south, will reach the site. It is however noted that groundwater at surrounding audit sites were considered to be impacted by metals, nitrate, nitrite and fluoride considered to be naturally occurring background concentrations or representative of regional pollution.

Based on the above, the Auditor considers it unlikely that pollution from the GQRUZs at 33 Jack Road, Cheltenham or 9-41 Charlton Avenue, Cheltenham is impacting the site, noting that naturally elevated and/or regionally elevated concentrations of inorganics including metals nitrate, nitrite and fluoride may be within groundwater beneath the site.

3.5 Potential Sources of Contamination

Based on information provided in the ARC (July 2017) PSI report, Appendix J of Australian Standard AS4482.1 (2005), Section 3.1 to 3.4 above and the Auditor's own experience, the following main potential sources of contamination (based on the historical use of the site, and surrounding sites) were identified:

Table 3.3 Potential Contaminants of Concern (On-site and Off-site)

Land Use/Area	Potential Contaminants of Concern
On-Site	
Chemical Handling/Manufacturing. Most recently the warehouse was used for storage of non-hazardous substances	Metals, acids/alkalis, silanes, sulphur, solvents (aliphatic and aromatic hydrocarbons, aldehydes, alcohols, ketones, carboxylic acids, esters, glycols, non-halogenated and halogenated), chloromethane, dichloromethane, phthalate esters, amines, polymers, resins, PAH, PCB, phenolic compounds, chlorinated hydrocarbons, cyanides, sodium salts, mineral acids.
Metal Finishing Laboratory	Metals and metalloids, mineral acids, organic acids, chlorinated solvents, non-chlorinated solvents (acetone, toluene).
Chemical Store B	Inorganic peroxides and acids
Triple Interceptor Trap	Grease, oil, BTEXN, TRH, lead, phenols, acids/alkalis, chlorinated solvents
Off-Site	
Former Nuplex chemical manufacturing facility located immediately north, east and south of the site, including underground bulk fuel storage	Metals, acids/alkalis, silanes, sulphur, solvents (aliphatic and aromatic hydrocarbons, aldehydes, alcohols, ketones, carboxylic acids, esters, glycols, non-halogenated and halogenated), chloromethane, dichloromethane, phthalate esters, amines, polymers, resins, PAH, PCB, phenolic compounds, chlorinated hydrocarbons, cyanides, sodium salts, mineral acids. TRH, BTEXN, Lead, Phenols
Electrical Substation located immediately south of the site (and to the east on Lot 2)	TRH, BTEXN, Phenols, Metals, PCBs
Underground bulk fuel storage and use at 7 & 10 Hamlet Street, located approximately 50m to the south and south-west of the site	TRH, BTEXN, Lead, Phenols
Oil storage and use at 15 Chandos Street, located approximately 20m south-east of the site	TRH, BTEXN, Lead, Phenols
Laminex manufacturing facility (adhesive resins, dyes and inks) located at 332 Bay Road located approximately 50 m east, northeast and southeast of the site.	Polyvinyl acetate, phenols, formaldehyde, phthalate esters, PCBs, solvents, metals, cresols, chlorinated hydrocarbons.
Former nursery on the north side of Bay Road located approximately 80 m north of the site.	Organochlorine pesticides (OCPs), organophosphate pesticides (OPPs), herbicides, calcium salts, nitrates, ammonium sulfate, potassium, copper, magnesium, molybdenum, boron, cadmium.

An outline of works undertaken as part of the audit are summarised in Sections 8 to 10 below and a summary of the above potential contaminants of concern and how they were assessed in the soil and groundwater investigation is included in Table A (attached).

3.6 Contaminant Transport Pathways and Mechanisms

The following potential contaminant transport pathways and mechanisms have been identified for mobile contaminants that may be present at the site:

- Underground services - underground services have the potential to transmit contaminants given that they are usually backfilled with gravel which has a higher permeability than the surrounding aquifer lithology.
- Unsaturated zone and perched groundwater – i.e. solute transport of contaminants through the unsaturated zone and via perched groundwater (it is noted that perched groundwater was encountered in the southern portion of the site and within the TIT backfill material).
- Groundwater.
- Vapour.

3.7 Potential Human and Environmental Receptors of Contamination

Based on the background information obtained, it is anticipated that exposure to potential contaminants from site soils (or groundwater) may occur through the following potential pathways (for sensitive site use):

- Ingestion of surficial soil by site users.
- Human contact with surficial and sub-surface soils.
- Plant uptake through garden cultivation in surficial and sub-surface soils and subsequent ingestion through consumption of the garden produce.
- Plants and soil fauna.
- Dermal contact with surficial and sub-surface soils by site workers (short-term construction or maintenance activity).
- Ingestion of soils by site workers (short-term construction or maintenance activity).
- Inhalation of airborne dusts by site workers (short-term construction or maintenance activity) with surficial and sub-surface soils.
- Off-site impact through dust inhalation resulting from on-site construction activity/disturbance of surficial soils.
- Vapour impact (indoor) to site users by volatilisation from site soils.
- Vapour impact to users of adjacent sites (indoor and outdoor) by volatilisation from site groundwater.
- Users of extracted groundwater.
- Off-site ecosystems, where groundwater may discharge.

It is noted that for the purposes of an Environmental Audit, consideration must be given to potential receptors in the context of unrestricted use. It is noted that not all of the above receptors are likely to be applicable under the proposed commercial development.

4 Relevant Segments of the Environment (Assessment of Beneficial Uses Relevant to the Site)

4.1 Beneficial Uses of Land

The protected beneficial uses of land are defined in the SEPP Prevention and Management of Contamination of Land (2002) (Variation No. G39 Gazette, 26 September 2013), which identifies the following beneficial uses that would need to be protected for unrestricted use of the site, including those beneficial uses in context with the proposed commercial development. Table 4.1 below identifies the beneficial uses of land.

Table 4.1 Protected Beneficial Uses of Land [1,2]

Beneficial use	Land use						
			Sensitive use				
	Parks and Reserves	Agriculture	High-density	Other	Recreation/ Open space	Commercial	Industrial
Maintenance of ecosystems							
Natural ecosystems	✓						
Modified ecosystems	✓	✓		✓	✓		
Highly modified ecosystems		✓	✓	✓	✓	✓	✓
Human health	✓	✓	✓	✓	✓	✓	✓
Buildings and structures	✓	✓	✓	✓	✓	✓	✓
Aesthetics	✓		✓	✓	✓	✓	
Production of food, flora and fibre	✓	✓		✓			

Notes:

1. The above table is a reproduction of Table 1 from the State Environment Protection Policy Prevention and Management of Contamination of Land (June 2002).
2. Shading denotes beneficial uses to be protected for the purpose of the proposed commercial use of the site. Other beneficial uses have been considered in the context of determining whether the site would also be suitable for beneficial uses relevant to a type of development different than the proposed site use.
3. Sensitive Use is defined within the Land SEPP (2002) as the following: 'Sensitive use: consisting of land used for residential use, a child care centre, pre-school, or primary school. A sensitive use may occur in an area of high density (where development makes maximum use of available land space and there is minimal access to soil) or in other lower density areas (where there is generally substantial access to soil)'.

Based on the above table and with specific consideration to the Land SEPP (2002), the following beneficial uses would need to be protected for the proposed commercial use of the site:

- Maintenance of Highly Modified Ecosystems.
- Human Health.

- Buildings and Structures.
- Aesthetics.

In accordance with the Land SEPP, 'Maintenance of Natural Ecosystems' and 'Production of Food, Flora and Fibre' are not required to be protected for a commercial development however; cognisance is given to these beneficial uses in order to consider unrestricted use of the site.

4.2 Beneficial Uses of Groundwater

The protected beneficial uses of groundwater are defined in SEPP (2018) *Waters*, by the inherent capacity of the groundwater (i.e. TDS concentrations) at the site, to support specific uses.

As discussed in Section 2.4.6.1 above, based on TDS reported at the site, groundwater was classified within Segment A1 in accordance with the SEPP (2018) *Waters*.

The beneficial uses to be protected under Segment A1 are summarised in Table 4.2 below.

Table 4.2 Protected Beneficial Uses of Groundwater [1,2]

Beneficial uses	Segments (mg/L) TDS						
	A1	A2	B	C	D	E	F
	0 - 600	601 – 1200	1201 - 3100	3101 - 5400	5401 - 7100	7101 - 10000	>10000
Water dependent ecosystems and species	✓	✓	✓	✓	✓	✓	✓
Potable water supply (desirable)	✓						
Potable water supply (acceptable)		✓					
Potable mineral water supply	✓	✓	✓	✓			
Agriculture and irrigation (irrigation)	✓	✓	✓				
Agriculture and irrigation (stock watering)	✓	✓	✓	✓	✓	✓	
Industrial and commercial	✓	✓	✓	✓	✓		
Water-based recreation (primary contact recreation)	✓	✓	✓	✓	✓	✓	✓
Traditional Owner cultural values	✓	✓	✓	✓	✓	✓	✓
Cultural and spiritual values	✓	✓	✓	✓	✓	✓	✓
Buildings and structures	✓	✓	✓	✓	✓	✓	✓
Geothermal properties	✓	✓	✓	✓	✓	✓	✓

Notes:

1. The above table is a reproduction of Table 2 from the Water SEPP (2018).
2. Shading denotes the required beneficial uses to be protected.

Based on the Water SEPP (2018), the following beneficial uses would need to be protected for the TDS reported at the site:

- Water dependent ecosystems and species.
- Potable Water Supply (desirable)
- Potable Mineral Water Supply. However, it is noted that Potable Mineral Water is not relevant as the site is not located in a mineral springs area.
- Agriculture and irrigation (irrigation)
- Agriculture and irrigation (stock watering).
- Industrial and commercial.
- Water-based recreation (primary contact recreation).
- Traditional owner cultural values.
- Cultural and spiritual values.
- Buildings and Structures
- Geothermal properties. However, it is noted that geothermal properties are not relevant as the site is not considered to be within designated geothermal area.

4.3 Beneficial Uses of Surface Water

Surface water is not considered to be a relevant element to be audited as there are no surface water bodies within the site boundary.

The closest natural surface water body to the site is Port Phillip Bay located approximately 2.7 km south-west and 3.1 km west of the site. Based on the south-westerly flow direction as discussed in Section 2.4.6, it is considered likely that the groundwater discharges to Port Phillip Bay.

4.4 Beneficial Uses of Air

Beneficial uses of air may be considered relevant in determining the outcome of the environmental Audit, where those beneficial uses may be adversely affected by the condition of other elements at the site. An assessment of Air Quality with respect to the protection of beneficial uses of air is considered in Section 11.3 of this report.

5 Adopted Assessment Criteria

5.1 Soil Screening Criteria

With respect to assessing the contamination status of soil at the site, the hierarchy (consistent with the objectives presented in Table 2 of the Land SEPP) of assessment criteria adopted for this Audit are detailed in the Sections below.

The adopted soil criteria are provided in Table B1 attached to this report.

5.1.1 Ecological/Environmental

The protection of the beneficial use 'Maintenance of Ecosystems' is assessed with reference to the NEPM Ecological Investigation Levels (EILs) and Ecological Screening Levels (ESLs) as provided within the National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No.1) (NEPM 2013). EILs are available for selected metals and organic substances and ESLs are available for selected petroleum hydrocarbon compounds (BTEX and benzo(a)pyrene and total recoverable hydrocarbon (TRH) fractions. Both EILs and ESLs are applicable for assessing risk to terrestrial ecosystems, depending on land use scenarios and generally apply to the top 2.0 m of soil.

As per methodology outlined with the NEPM 2013, the following guidelines were adopted to assess the impact on the beneficial use 'Maintenance of Ecosystems':

- Generic EILs are provided in NEPM (2013) for DDT, naphthalene, arsenic and lead. EILs were adopted for the 'commercial and industrial' land use for the proposed commercial development.
- Site-specific EILs were calculated for copper, chromium III, nickel and zinc based on soil physicochemical properties including pH, cation exchange capacity (CEC), total organic carbon (TOC), and clay content. A total of 26 samples were analysed for pH, 32 samples for TOC, and 11 samples for CEC and clay content, and the average values for each parameter were used to calculate the site-specific EILs. For the purpose of the derivation of the site-specific EILs it was assumed that any copper, zinc, chromium III or nickel contamination present was aged, and that the site was located in a low traffic area. The Auditor has reviewed the rationale and calculations of site specific EILs by ARC and considers that in general the calculated site specific EILs to be appropriate for the Audit. The ARC EIL calculations have been provided within Appendix M of the ARC (November 2018) DSI report presented in Appendix B of the CUTEP report (provided as Appendix C of this report).
- ESLs are provided in NEPM (2013) for both coarse and fine-grained soil. Given the presence of sand and gravel at depths <2 mbgl at the site, the Auditor has adopted the ESLs for coarse grained soil for the purpose of assessing site condition at the completion of the Audit.
- In the absence of criteria from the NEPM 2013, international criteria were referenced including the Canadian Soil Quality Guidelines (Canadian Council of Ministers of the Environment, 2007) for the protection of Environmental and Human Health, and the US EPA Ecological Screening Levels.

5.1.2 Human Health

The protection of the beneficial use 'Human Health' is assessed with reference to the NEPM guidelines comprising Health Investigation Levels (HILs) and Health Screening Levels (HSLs). HILs are provided for a broad range of metals and organic substances and are applicable for assessing human health risk via all relevant pathways of exposure. The HILs are generic to all soil types and apply generally to a depth of 3 m below the surface for residential use.

HSLs are available for selected petroleum compounds and fractions and are applicable to assessing human health risk via the inhalation and direct contact pathways. The HSLs depend on specific soil physicochemical properties, land use scenarios, and the characteristics of building structures. They apply to different soil types, and depths below surface to >4 m.

Given the presence of sand and gravel fill material, the Auditor considers the adoption of HSLs for sand to be appropriate for the purpose of assessing the site condition for the Audit.

Both HILs and HSLs are provided for a range of site uses including standard residential (exposure setting A), residential with minimal soil access (exposure setting B), public open space (exposure setting C) and commercial / industrial (exposure setting D). HIL Level 'A' criteria are used to evaluate the potential impact to the protection of human health in the context of unrestricted site use. In accordance with the Land SEPP, the proposed commercial development is defined as commercial use and therefore HILs for commercial / industrial land use (HIL D) have been adopted to evaluate the potential impact to the protection of human health in the context of the proposed use. In addition, the Auditor has assessed the site against other NEPM investigation levels to determine potential suitability for unrestricted site use.

In the absence of criteria from the NEPM 2013, international criteria were referenced including the US EPA Regional Screening Levels.

5.1.3 Buildings and Structures

The Land SEPP states that 'contamination must not cause the land to be corrosive to or adversely affect the integrity of structures or buildings materials'. Where structures are likely to come into contact with contaminated soils, criteria for pH, chloride and sulphate can be adopted from AS 2159-2009 Piling – Design and Installation (SAI Global 2009).

5.1.4 Aesthetics

The Land SEPP (2002) states that 'contamination must not cause the land to be offensive to the senses of human beings'. Currently there are no concentration based aesthetic criteria for soil however, while aesthetic observations are subjective, it is considered that if there is discolouration or noticeable odour from the soil, or if waste materials such as rubble, slag or similar wastes are present, then a potential aesthetic concern exists. The Auditor referenced Section 3.6 in Schedule B(1) in NEPM 2013 for general guidance in regard to the assessment of 'Aesthetics' for the purposes of the Audit.

5.1.5 Production of Food, Flora and Fibre

The Land SEPP (2002) states that 'contamination must not adversely affect the produce quality or yield or effect the level of any indicator in food, flora and fibre produced at the site (or that may be produced), such that the level of the indicator is greater than that specified by the Australia New Zealand Food Authority, Food Standards Code'.

The Food Standards Code sets out the maximum level of specified metal and non-metal and natural toxicants in nominated foods, maximum residue limits for a chemical to be present in a food, extraneous residue limits for a pesticide residue to be on a food and provides details with regard to permissible articles and materials.

In consideration of the above, the Auditor has primarily assessed the protection of the beneficial use 'Production of Food, Flora and Fibre' with reference to the phytotoxicity-based EILs. However, as the potential for a specific soil contaminant to adversely affect the beneficial use 'Production of Food, Flora and Fibre' is also a function of the bioavailability of the contaminant, where appropriate, the Auditor has

also assessed the protection of the beneficial use 'Production of Food, Flora and Fibre' with consideration to site-specific and/or published lines of evidence (such as the physical characteristics and mobility of the contaminant(s) of concern).

5.1.6 Asbestos

In considering the potential presence of asbestos at the site, the Auditor has referenced guidance in Schedule B(1) Section 4 of the NEPM 2013.

5.2 Groundwater Screening Criteria

The protected beneficial uses of groundwater are defined in the SEPP (2018) *Waters*, by the inherent capacity of the groundwater (i.e. TDS concentrations) at the site, to support specific uses.

Groundwater criteria used to assess whether groundwater conditions at the site precludes any of the relevant beneficial uses requiring protection have been adopted from the guidelines referenced below.

The adopted groundwater criteria are provided in Table B2 (attached). Where no specific criteria are available in the guidelines listed, alternative criteria have been adopted.

The Auditor has also given cognisance to the NEPM Groundwater HSLs in order to consider potential vapour risks to future occupants of the site from petroleum hydrocarbons should they be identified in groundwater.

5.2.1 Water Dependent Ecosystems and Species

SEPP (2018) *Waters* defines water dependent ecosystems and species as water quality that is suitable to protect the integrity and biodiversity of water dependent ecosystems.

The following guidelines were primarily adopted by the Auditor to assess the impact on the beneficial use Water Dependent Ecosystems and Species:

- SEPP (Waters) 2018
- Australian and New Zealand Environment and Conservation Council (ANZECC) (2000, revised Water Quality Guidelines 2018) *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, 95% Level of Protection.
- US EPA 2003 Region 5 RCRA Ecological Screening Levels (ESLs) (US EPA 2003);
- Canadian Water Quality Guidelines for the Protection of Aquatic Life (2007) (CCME 2007) Freshwater;
- Netherlands (2009) Circular on Target Values and Intervention Values for Soil Remediation. Ministry of Housing, Spatial Planning and the Environment, Netherlands Government (Dutch Intervention Value); and

In the absence of available criteria from the above sources, other international criteria were referenced (as per Table B2 (attached)).

5.2.2 Potable Water Supply (Desirable)

SEPP (2018) *Waters* defines potable water supply (both acceptable and desirable) as groundwater quality that is suitable for raw/potable water supply. Specifically, groundwater (or the constituents of groundwater) must not be affected to the extent, or in a manner, that the level of any environmental quality indicator is greater than the health-related guideline value for that indicator as specified in the

Australian Drinking Water Guidelines or that leads to an aesthetic guideline value being exceeded (also as defined in the Australian Drinking Water Guidelines).

Subsequently, the following guidelines were primarily adopted by the Auditor to assess the impact on the beneficial use Potable Water (both desirable and acceptable):

- NHMRC/NRMMC (2011, updated August 2018) Australian Drinking Water Guidelines – Health and Aesthetic Values;
- US EPA (November 2019) Regional Screening Levels – Tap water

In the absence of available criteria from the above sources, other international criteria were referenced (as per Table B2 (attached)).

5.2.3 Agriculture and Irrigation (Irrigation)

SEPP (2018) *Waters* defines agriculture and irrigation as water quality that is suitable for agricultural activities such as irrigation, as well as a range of other uses such as the irrigation of domestic gardens, commercial agriculture, parks and golf courses.

Specifically, for the purposes of agriculture and irrigation (irrigation), groundwater must not be affected to the extent that the level of any environmental quality indicator is greater than the level of that indicator specified for irrigation in the ANZECC Guidelines.

Therefore, the primary reference adopted for assessing impacts to the beneficial use agriculture and irrigation (irrigation) is ANZECC (2000) Australian Water Quality Guidelines for Fresh and Marine Water – Water quality for irrigation and general water use.

In the absence of available criteria from the above sources, other international criteria were referenced (as per Table B2 (attached)).

5.2.4 Agriculture and Irrigation (Stock watering)

SEPP (2018) *Waters* defines agriculture and irrigation as water quality that is suitable for agricultural activities such as stock watering and irrigation, as well as a range of other uses such as the irrigation of domestic gardens, commercial agriculture, parks and golf courses.

The primary reference adopted for assessing impacts to the beneficial use Agriculture and Irrigation (stock watering) is ANZECC (2000) *Australian Water Quality Guidelines for Fresh and Marine Water* – Livestock Drinking Water Criteria.

For organic analytes the NHMRC/NRMMC (2011, updated August 2018) *National Water Quality Management Strategy*, Australian Drinking Water Guidelines (Health/Aesthetic) criteria are adopted.

In the absence of available criteria from the above sources, other international criteria were referenced (as per Table B2 (attached)).

5.2.5 Industrial and Commercial

SEPP (2018) *Waters* defines industrial and commercial as water quality that is suitable for industrial and commercial use.

Schedule 3 (Environmental Quality Indicators and Objectives), sub section 7 (Groundwaters) of SEPP (2018) *Waters* refers to the beneficial use of industrial and commercial and notes that for the purposes of the beneficial use industrial and commercial, groundwater must not be affected to the extent that industrial or commercial water quality is impacted. Reference is made to the ANZECC Guidelines. It is noted that the

ANZECC Guidelines do not currently provide specific guidance for industrial and commercial water use, therefore, in the event that any other extractive beneficial use is precluded due to the presence of pollution, it will be deemed that the beneficial use industrial and commercial is also precluded by the same contaminant(s).

5.2.6 Water-Based Recreation (Primary Contact Recreation)

Water-based recreation is defined in SEPP (2018) *Waters* as water quality that is suitable for primary contact recreation (e.g. swimming, diving, water skiing, caving and spas), secondary contact recreation (e.g. boating and fishing) and for aesthetic enjoyment.

Reference is made to the NHMRC/NRMMC (2008) *National Water Quality Management Strategy, Guidelines for Managing Risks in Recreational Waters* (Health/Aesthetic). It is noted that these Guidelines reference the NHMRC/NRMMC (2004) *National Water Quality Management Strategy, Australian Drinking Water Guidelines* (Health/Aesthetic), however given the more current NHMRC/NRMMC (2011, updated August 2018) Drinking Water Guidelines have been released, they have been referenced over the NHMRC/NRMMC (2004) Drinking Water Guidelines.

It is noted that in accordance with the NHMRC/NRMMC (2008) *Guidelines for Managing Risks in Recreational Waters*, non-volatile chemicals have been adjusted by a factor of 10.

Additional consideration has been given to the following guidelines where no criteria is available in the NHMRC/NRMMC (2008) Guidelines:

- ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Recreational Waters".
- US EPA (November 2019) Regional Screening Levels – Tap water
- ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters – Recreational Water Quality and Aesthetics. This reverts to the ANZECC (1992) Raw Water for Drinking Purposes criteria for organic analytes.

In the absence of available criteria from the above sources, other international criteria were referenced (as per Table B2 (attached)).

5.2.7 Traditional Owner Cultural Values

SEPP (2018) *Waters* defines traditional owner cultural values as water quality that protects the cultural values of Traditional Owners, having recognised primary responsibility for protecting the values of water for cultural needs, to ensure that Traditional Owner cultural practices can continue. Values may include traditional aquaculture, fishing, harvesting, cultivation of freshwater and marine foods, fish, grasses, medicines and filtration of water holes.

No specific environmental quality indicators or objectives are provided in SEPP (2018) *Waters* for this beneficial use. In lieu of specific criteria, groundwater quality objectives as per Water Dependent Ecosystems and Species, Potable Water Supply and Primary Contact Recreation have been adopted.

5.2.8 Cultural and Spiritual Values

SEPP (2018) *Waters* defines cultural and spiritual values as water quality that is suitable for cultural and spiritual needs and that will ensure that cultural, spiritual and ceremonial practices can continue. These include the cultural values held by communities (e.g. baptisms, water-based festivals and cultural celebrations).

No specific environmental quality indicators or objectives are provided in SEPP (2018) *Waters* for this beneficial use. In lieu of specific criteria, groundwater quality objectives as per Water Dependent Ecosystems and Species, Potable Water Supply and Primary Contact Recreation have been adopted.

5.2.9 Buildings and Structures

SEPP (2018) *Waters* states that '*introduced contaminants shall not cause groundwater to become corrosive to structures or building materials*. Currently there are no available concentration-based criteria for groundwater. However, field-based measurements including pH, redox and sulphate analytical results have been used to assess for the presence of any extreme conditions (i.e. acidity) that may have the potential to impact on buildings and structures. In addition, where any buildings or structures may come into contact with groundwater, criteria for pH, chloride and sulphate can be adopted from Australian Standard AS2159-2009 *Piling Design and Installation*.

5.3 Vapour

The Auditor has considered the beneficial uses of air where those beneficial uses may be adversely affected by the condition of land or groundwater at the site. Specifically, the potential human health risks to future users of the site associated with vapour intrusion and subsequent inhalation of organic contaminants in soil and groundwater was considered with cognisance given to the soil and groundwater HSLs provided in NEPC (2013).

6 Quality and Completeness of Assessment Consultant's Report

This environmental audit report provides an audit on the environmental quality of the segment of land at the subject site and relies upon site assessment works conducted by the assessment consultant (ARC). As part of the Audit, the work completed by ARC was reviewed by the Auditor in the context of its completeness in accordance with relevant Regulations and Guidelines. In addition, ARC provided scopes of work to the Auditor for review and comment prior to commencement of field works undertaken during the course of the Audit. The Auditor generally concurred with the proposed scopes of work and provided on-going guidance where appropriate, including specific written comment throughout the Audit.

6.1 Conformance with EPA Victoria requirements

The specific details of the assessment, including the nature and extent of soil contamination, are described in detail later in relevant sections of this Environmental Audit Report. This section reviews the quality and completeness of the environmental assessment works performed by ARC, assessing the attributes of ARC's work against the requirements of Appendix 2 of the *Environmental Auditor (Contaminated Land) Guidelines for Issue of Certificates and Statements of Environmental Audit* (EPA Victoria 2015) ['EPA Publication 759.3']. Conformance with other key requirements of the *National Environment Protection (Assessment of Site Contamination) Measure 2013* has also been included in this assessment.

The Auditor has considered the following aspects of the ARC site assessment report:

- The contents of the site assessment report.
- The scope of site investigations to support an Environmental Audit.
- The information required for contaminants of concern.
- The significance of site investigation results.

The review of the completeness of all ARC assessment works are summarised in Tables 6.1 - 6.4 (below).

Table 6.1 Assessment of Content of Site Assessment Reports

History of site uses	Information pertaining to the site's history was gathered by ARC 2017. Findings are detailed in the ARC (July 2017) PSI report provided within Appendix B of the CUTEP report (provided as Appendix C to this report). The site history review conducted by ARC included a review of documentation related to site ownership and certificates of title, council zoning and planning information, state and local government records, aerial photographs, groundwater database search, surrounding Audit reports and publicly available historical records. A summary of site history is provided in Section 3 of the ARC (July 2017) PSI report.
History of adjacent land uses	Details of surrounding site history, and storage of chemicals was obtained by ARC from various sources of information as far as practicable and is provided throughout the ARC (July 2017) PSI report provided within Appendix B of the CUTEP report (provided as Appendix C to this report). A summary of site history is provided in Section 3 of the ARC (July 2017) PSI report.

Identification and summary of previous environmental investigations	The ARC (July 2017) PSI report includes a summary of works completed at the site between 2001 and 2016 (prior to Audit commencement) by ERM, Kilpatrick and Associates, SMEC and GHD. This is provided as Table 3.4 in Section 3.1.8 of the ARC (July 2017) PSI report. As noted in Section 2.2.3, the Auditor has also made reference to the works completed within the *GHD (June 2015) Site Investigation Report which is provided* within Appendix B of the CUTEP report (provided as Appendix C of this report). The Auditor has also made reference to the *Lane Piper (September 2011) Environmental Audit Report (53V), GHD (March 2014) Groundwater Monitoring report, and the GHD (September 2016) Remediation Action Plan.* The Auditor notes that reports were not available for works undertaken by ERM, Kilpatrick and Associates and SMEC between 2001 and 2006. Details of the works conducted between 2001 and 2006 were obtained from summaries provided in later reports.
Identification of potential contaminants of concern	The site history review completed enabled a comprehensive list of potential contaminants to be identified as summarised in Table 4.1, Section 4.1 of the ARC (July 2017) PSI report (for each section of the Nuplex site located at 322-328 Bay Rd, Cheltenham) with contaminants pertaining to Lot 4 summarised in Table 2.7, Section 2.5 of the ARC (November 2018) DSI report.
Visual Inspections	ARC provided a description of their initial site inspection completed on 24 March 2017 in Section 3.1.9 of the ARC (July 2017) PSI report. At the time of the inspection the site was observed to comprise a large brick warehouse building covering the majority of the site with a two-level extension to the north occupied by office space and a former laboratory (ground level) which was vacant. The two-storey office space was being used by an engineering consulting company. In general, during the site inspections, observations were made pertaining to on-site features, condition of on-site buildings and site surface, and apparent former site use including any evidence of chemical storage at the site, as well as surrounding site uses. In addition to visual inspections performed by ARC, the Auditor and/or his representative performed a site inspection during fieldwork to provide additional assurance of the site condition.
Geology and hydrogeology	Details of the geology and hydrogeology of the area were based on regional geological and hydrogeological survey data (including a groundwater database search), as described in Section 2.2 of the ARC (July 2017) PSI report. Observations of local soil and groundwater at the site were undertaken during sampling and is summarised in Section 7 of the ARC (November 2018) DSI report.
Condition of site structures and watercourses	No watercourses were identified on-site. At the time of the initial inspection, the original large brick warehouse building, with original cement sheet roof, covered the majority of the site. A two-level extension to the north was occupied by office space (occupied for commercial use) and a former laboratory (ground level only) and was separated from the store by a cinder block wall. The roof of the extension was noted to be galvanised. The laboratory was vacant and partially decommissioned and comprised a number of small work benches, shelves and some remaining inert equipment. One small room was noted to contain two exhaust hoods. The warehouse was concrete paved; the office carpeted; and the laboratory floor appeared to have a protective surfacing, with the concrete flooring generally appearing to be in good condition. A hole was observed in the floor of Chemical Store B forming a pit, the purpose of which is unknown. A TIT was observed to

	the west of the office building. An electrical substation was located off-site and adjacent to the south west corner of the site. The cement sheet roofing of the warehouse building has the potential to contain Asbestos Containing Materials (ACM). Further description of site condition at the time of the site inspection conducted by ARC is provided in Section 3.1.9 of the ARC (July 2017) PSI report. At the completion of the Audit, the existing building structure remained, however the TIT had been removed and validated.
Analytical detection limits	Standard laboratory detection limits were adopted for most analytes for soil sample analysis and were lower than the adopted assessment criteria. Low levels VOCs were requested for selected soil samples. Standard laboratory detection limits were adopted for all analytes for groundwater sample analysis with the exception of VOCs for which low level limits of reporting (LORs) were requested. Where analytes were reported with laboratory detection limits above criteria the Auditor has reviewed the data with the identified contaminants of potential concern in mind and considers that the limits of reporting for these contaminants are not of material relevance for the conclusions of the Audit.

Table 6.2 Assessment of Scope of Site Investigations to Support an Environmental Audit

Sampling and analysis program	Details of the soil and groundwater sampling and analysis works undertaken by ARC during the Audit are provided in Section 4 of the ARC (November 2018) DSI report and are summarised in Sections 8 to 9 below.
Compliance with approved methods/protocols	Soil sampling was undertaken in accordance with AS4482.1-2005 for non-volatile and semi-volatile compounds and in accordance with AS4482.2–1999 for volatile substances. The total number of test points advanced at the site was greater than the minimum number of sampling points required by AS4482.1-2005. The construction of groundwater monitoring wells was based on the techniques and recommendations established in the Groundwater Sampling Guidelines by the State Environment Protection Policy, and the Auditor considers the monitoring well network suitable for assessment of groundwater conditions for the purposes of the Audit. Soil and groundwater sampling were conducted in general accordance with EPA Publication 669 (Groundwater Sampling Guidelines) and EPA Publication IWRG 701 (Sampling and Analysis of Waters, Wastewaters, Soils and Waste).
Laboratory accreditation	ARC used ALS as their primary laboratory and Eurofins MGT as their secondary laboratory for independent check sample analyses. All analysing laboratories selected by ARC carry NATA accreditation for the analyses undertaken, and all laboratory reports were NATA endorsed.
Site plans and bore logs	Site plans/figures are provided as attachments to the ARC (November 2018) DSI report. The figures depict the site layout, site features, soil sample locations, groundwater monitoring well locations, and excavation extents. Bore logs are presented in Appendix B and Appendix C of the ARC (November 2018) DSI report and groundwater monitoring well construction logs are presented in Appendix D of the ARC (November 2018) DSI report.
Quality assurance	A quality assurance/quality control (QA/QC) program was adopted throughout assessment works and provides assurance of the quality/reliability of the data.

	A discussion of the QA/QC program adopted is presented in Section 7.7 of the ARC (November 2018) DSI report. The Auditor's review of the QA/QC programme is provided as Table C (attached), and a discussion is provided in Section 7 of this report.
Background samples	Off-site "background" data was obtained through a review of Environmental Audits previously conducted within the general vicinity of the site. The Auditor notes that extensive assessment works have occurred and have continued to occur on surrounding lots of the wider Nuplex site. As such, where relevant, results from adjacent lots have been incorporated in discussions provided in Sections 8 to 10 below.
Analytical screens/targeted chemicals	The analysis programme focused on the potential contaminants identified during the site history review (including results of previously conducted assessments). In addition, analysis of selected samples encompassed a broad range of contaminants with consideration given to the analytes detailed in the NEPM (2013), AS4482.1-2005 and AS4482.2-1999. Analytical suites are discussed in Section 4.3.1 of the ARC (November 2018) DSI report.
Other environmental hazards	No other environmental hazards were identified at the site during assessment works. No suspect asbestos containing material was observed within soil at any time during the soil assessment works undertaken by ARC during the audit. It is noted that an audit of asbestos containing materials (ACM) at the former Nuplex facility was historically undertaken by Integrated Risk Management (IRM) in 2011 which indicated that ACM was present within Lot 4 (administration building, level 1 and 2 offices, and laboratory A, B and C stores). The (IRM, 2011) asbestos audit is provided within Appendix G of the ARC (November 2018) DSI report.

Table 6.3 Assessment of Information Required for Chemicals of Concern

Chemical properties	An interpretation of results for the chemicals of concern has been provided in the relevant sections of the ARC (November 2018) DSI report. Where relevant, comments regarding the characteristics (i.e. mobility, availability, physical characteristics, species present, etc.), potential exposure pathways, potential harm to beneficial uses have been provided. A comparison with established guideline concentrations has been made in order to complete a preliminary assessment of the toxicity of the chemicals of potential concern.
Form/species	
Physical characteristics	
Potential exposure pathways	
Potential harm	
Detriment to beneficial uses	
Potential off-site effects	

Table 6.4 Auditor's Comments on Assessment of Significance of Site Investigation Results

Reference to Land SEPP	The significance of soil assessment results is assessed against the Objectives in the SEPP *Prevention and Management of Contamination of Land* 2002 (Variation No. G39 Gazette, 26 September 2013), as discussed in Section 9.6 of the ARC (November 2018) DSI report. The Auditor has assessed the significance of soil assessment results against the objectives in the SEPP *Prevention and Management of Contamination of Land* 2002 in Section 11 of this Audit report.
Evaluation of risk	An evaluation of risk was undertaken by comparison with the NEPM (2013) guidelines, as discussed in Section 9.6 and 9.7 of the ARC (November 2018) DSI report. The Auditor has discussed the nature and extent of contamination, and risk to beneficial uses in Sections 8 to 11 of this Audit report.
Compliance of risk evaluation with NEPM	Some contaminant concentrations in soil exceeded NEPM (2013) guidelines. Options for the management of potential risks (where required) have been implemented through a condition within the Statement of Environmental Audit and/or through the 'other related information' portion of the Statement of Environmental Audit.
Use of other guidelines	In some cases, other published guideline values have been used to evaluate risk. These have been referenced as appropriate. It is noted that where site specific EILs were not calculated, international criteria has been referenced.
Consideration of impact to all beneficial uses	The evaluation of risks presented by contamination included potential impacts on all beneficial uses of the site. The Auditor has provided additional comments regarding potential impacts to beneficial uses of the site in Section 11 of this Audit report.
Appropriate use of waste classification criteria	No soil was disposed off-site during Audit assessment works. It is noted that the TIT excavation was backfilled with soil sourced from a stockpile created following excavation works completed on Lot 1. The stockpile was classified as fill material in accordance with the Industrial Waste Resource Guidelines (IWRG) 621, as per the stockpile classification report provided within Appendix J of the ARC (November 2018) DSI report.

From an overall perspective, it is concluded that the dataset developed by ARC provides a reliable understanding of potential site contamination. It is therefore considered that the information provided by ARC provides an appropriate basis for use for the Environmental Audit Report.

The ARC report contains a Statement of Limitations (Section 11 of the ARC (November 2018) DSI report) which draws attention to the fact that, as with all site assessments, the data derived from the assessment was considered to be accurate at the time of issue in accordance with the current conditions of the site.

7 Quality Assurance of Assessment Data

This section of the Environmental Audit report focuses on the fieldwork and analysis undertaken as part of the environmental site assessment and the quality assurance/quality control (QA/QC) programmes implemented by ARC to ensure the reliability and traceability of samples collected. The key features were:

The key features of the QA/QC program were:

- Sampling procedures were undertaken using the guidance of AS4482.1-2005, AS4482.2-1999, Sampling and Analysis of Waters, Wastewaters, Soils and Wastes, IWRG 702 – Soil Sampling and NEPM guidelines.
- Decontamination of sampling equipment was conducted between samples to ensure cross contamination could not occur.
- Samples were collected in clean vessels provided by the assessor's primary analytical laboratory and unique sample identification (and other information relevant to the sample) was recorded on sample jars prior to them being placed in insulated containers for transport to the laboratory. Review of laboratory Sample Receipt Notices indicate that appropriate sample containers (preserved where applicable) were used and the samples were received by the laboratory appropriately chilled.
- Chain of custody sheets were used to track transport and analysis of the samples collected.
- During the course of fieldworks undertaken at the site, ARC collected quality control samples, including rinsates, trip blanks and replicate (intra- and inter laboratory) samples. The rinsate and trip blank samples were intended to indicate if cross-contamination of samples had occurred. The replicate samples were intended to assess the precision of the sample collection, transport, storage and analysis process.

The Auditor has completed an independent assessment of the QA/QC programme adopted by ARC (provided as Table C, attached). It is noted that in forming this opinion, the Auditor has also considered field observations made during assessment works.

The Auditor's review of the QA/QC program adopted by ARC concluded that:

- Generally, it is considered that a sufficient number of QA/QC samples including duplicate and split duplicate samples, rinsate samples and trip blanks were analysed during soil and groundwater sampling works. It is noted that rinsate samples were not collected on soil sampling days where no re-usable sampling equipment was used (i.e. during TIT validation works). While it is noted that trip blanks were not analysed for each batch of soil samples, no volatile contaminants were detected in primary samples where trip blanks were not analysed, and therefore the lack of trip blank samples is not considered of concern with regard to acceptability of the results for interpretive use.
- Where relative percent difference outliers existed, ARC adopted the highest concentration for interpretive use as a conservative approach.
- All rinsate sample sand trip blank samples collected and analysed during soil and groundwater sampling works reported analytical results below the laboratory LOR with the exception of:
    - The trip blank for soil samples collected on 21 November 2017 which reported a detection of m & p xylene. As no xylene concentrations were reported within any soil samples it is considered that no cross contamination had occurred during sample transport.
    - Rinsate blanks collected during groundwater sampling undertaken on 23-25 August 2017 (ammonia, chloroform, dichloromethane, trichloroethene and trihalomethanes), 27 October 2017 (acetone), 18 January 2018 (manganese), 15 May 2018 (chloride and copper), and 4-5

July 2018 (copper, iron and manganese). The Auditor reviewed the concentrations of these analytes in primary samples collected on these days of sampling as well as results from other groundwater sampling rounds does not consider that the detections reported affect the overall acceptability of the data set for interpretive use or the outcome of the Audit.

- Sample analyses were completed within holding times with the exception of:
    - Analysis of soil samples NHS_ARC_SB203_0.5 and NHS_ARC_SB203_1.0 for MAHs, naphthalene, VHCs and TRH which was completed one day outside of holding time.
    - Analysis of glycols in groundwater samplesMW34B, MW32 and MW35 collected on 27 October 2017 which was completed 1 day outside of holding time.
    - Analysis of ferrous iron in groundwater sample MW53 collected on 16 January 2018 which was completed 2 days outside of holding time.
    - Analysis of aldehydes in groundwater samples MW28, MW45A and MW45B collected on 17 January 2018 which was completed 1 day outside of holding time.

  The Auditor has reviewed the results of the analyses completed outside of holding time with the remaining data set and does not consider the breaches of holding times to affect the overall acceptability of the data for interpretive use.
- Several laboratory QC outliers were reported in soil and groundwater laboratory reports including spike recovery outliers which were attributed to sample matrix interference. Several laboratory duplicate outliers were also reported. Upon review of the laboratory internal QC reports, and consideration of all analytical results reported over the course of soil and groundwater investigations at the site, the Auditor does not consider the reported laboratory quality control outliers to have impacted on the acceptability of the quality of the data for interpretive use.

Overall, the QA/QC program implemented is considered to be acceptable for the purpose of the Audit.

7.1 Auditor Verification Samples

No Auditor verification samples were collected as part of the Audit however the Auditor and the Auditor's representative visited the site during field works to observe and assess the appropriateness and acceptability of the sampling methodology and quality control procedures undertaken by ARC and conducted thorough inspections of the final site surface in order to provide assurance of the acceptability of the assessment results obtained during the Audit.

The Auditor notes that ARC was observed to adhere to appropriate sample collection procedures between each sample location. In general, ARC personnel followed the procedures outlined in the proposed sampling and analysis plans for assessment works undertaken as part of the Audit. Review of chain of custody (COC) documentation and laboratory sample receipts confirms that primary and QC samples were appropriately identified, placed on ice and received at the laboratory suitably chilled and in appropriate sample containers.

The Auditor concluded that the sample results obtained by ARC could be relied upon for the purposes of the Audit.

8 Summary of Soil Investigation

8.1 Soil Assessment Works

Soil and groundwater assessment works have been conducted at the site since 2001. Initially works were completed as part of an assessment and 53V Environmental Audit of the larger Nuplex site. In early 2017, the site was subdivided for the purposes of Audit works (with separate CUNs issued for each lot). As such, all assessment works completed for the site following this date have been specific to Lot 4, with assessments works targeting Lots 1 - 3 also having occurred (or currently occurring) as part of 53x Environmental Audits being conducted on each of these lots.

Soil and groundwater works completed prior to the commencement of the Audit have been summarised and referenced as part of the consideration of the condition of the site. It is however noted that not all documentation and data pertaining to works completed prior to the Audit were made available for review. As such, this data has only been considered qualitatively to assist in directing works for the Audit.

In reviewing the extensive historical data available for the site at the time of the commencement of the Audit, it was also noted that Lot 2, of the wider Nuplex facility, had previously been identified as a primary source of groundwater pollution, (primarily chlorinated hydrocarbons, amongst several other contaminants). The source area of chlorinated hydrocarbons on Lot 2 had been defined through extensive soil, groundwater and vapour sampling. Lot 2 is located immediately to the east of Lot 4. Further, available historical data also suggested that Lot 1 (to the immediate north of Lot 4) was also considered to be an established source of soil and groundwater pollution (i.e. primarily chlorinated hydrocarbons and chloroform). Groundwater pollution from Lots 1 and 2 was considered to extend onto Lot 4.

Given the extensive historical data available upon commencement of the audit, works were completed to verify the historical findings, as well as determine current site status, and assess the extent to which the site may have contributed to the known groundwater pollution.

Based on the above and utilising all site history information, soil investigation works were completed to validate/investigate historical findings, address data gaps relevant for completion of the 53x Environmental Audit and characterise soil to determine the extent to which the former use of the site may have resulted in soil (and thus ultimately groundwater) pollution.

All soil works completed for the site under Audit have been considered by the Auditor for the purposes of this Audit (and have been deemed suitable).

The Auditor notes that assessment works have continued to occur on surrounding lots of the wider Nuplex site. As such, where relevant, results from adjacent lots have been incorporated in the below discussion.

Sections 8.1.1-8.1.6 below provide a summary of soil investigation works completed for Lot 4 since 2001. Soil works comprised targeted and grid sampling over a number of phases of investigation.

8.1.1 ERM (2001 - 2002)

- Review of historical reports suggest that ERM drilled a total of ten soil bores across the former Nuplex facility in 2001, with one of these bores (BH3) located just inside the southern boundary of the current Lot 4 site. Information pertaining to these works is limited to a brief historical account documented by GHD (2015), as well as borelogs and results tables provided within the

LanePiper 53V audit report. Review of the borelog shows no odours, staining or elevated PIDs (all 0.0 ppm) at BH3.

- One sample from BH3 at a depth of 0.5m was composited with MW02 and analysed for metals, TPH, OCPs, phenols, PAHs, SVOCs, CHCs and OPPs. All organics results were reported below laboratory limits of reporting (LORs). It was however noted that samples were composited and as such results for volatile contaminants were not considered sufficient. Metals reported copper of 240 mg/kg (this is consistent with copper concentrations reported in fill during the audit). The location of BH3 is presented on Figure 2.

In May 2001, a total of seventeen groundwater monitoring wells were installed by ERM, with three nested wells (MW9/1-3, MW10/1-3 and MW12/1-3) located within Lot 4. No soil samples were collected during the drilling of these three wells. Reports (and bore logs) detailing the installation of these wells were not available.

In 2001, ERM also collected PID and FID samples across the site (specifically with VP15, VP18, VP19, VP22, VP23, VP27 and VP28 located in Lot 4 (noting GHD incorrectly presented these vapour sample locations within their report)). No information is available in regards to this investigation with the exception of one figure showing sample locations and one table listing the results provided within the appendices of the LanePiper 53V report. The maximum result was reported at VP28 (PID 13ppm and FID 95ppm) in the south-east portion of the site (closest to the Lot 2 SEC area, being the primary source of the chlorinated hydrocarbons). The table showing results from VP15, VP18, VP19, VP22, VP23, VP27 and VP28 is presented as Table A4 (attached).

The works conducted by ERM are summarised in the GHD (June 2015) DSI report (provided within Appendix B of the CUTEP report, included as Appendix C of this report).

The location of BH3 is shown on Figure 2 (attached) and the locations of MW9/1-3, MW10/1-3 and MW12/1-3 are shown on Figure 9A (attached). The locations of the PID/FID sample locations are presented on Figure 11 (attached).

8.1.2 SMEC (2006)

In 2006, SMEC drilled a total of 23 soil bores across the former Nuplex facility with two of these bores (BH111 and BH124) located within Lot 4. Information pertaining to these works is limited to a brief historical account documented by GHD (2015). GHD state that samples all reported SVOCs and VOCs below LORs. Metals were also all reported below HIL criteria relevant for commercial/industrial at the time. Vanadium exceeded the EIL criteria (based on the criteria current for 2006). The locations of BH111 and BH124 are presented on Figure 2.

In October 2006, MW21 was noted to have been installed on Lot 4 by SMEC to a depth of 19.5mbgl. No soil samples were collected during the drilling of this well. A borelog for this well produced by GHD shows no odours or staining, however the borelog appears to have been produced by GHD through geophysical logging on 29 September 2007.

The works conducted by SMEC are summarised in the GHD (June 2015) DSI report (provided within Appendix B of this report).

The locations of BH111 and BH124 are shown on Figure 2 (attached) and the location of MW21 is shown on Figures 5A-5D (attached).

8.1.3 GHD (2009)

In November 2009, MW38 was drilled by GHD on-site to a depth of 18 mbgl. No soil samples were collected during the drilling of this well. A review of the borelog for this bore shows no staining or odours observed and all PID readings of 0.0 ppm.

8.1.4 GHD (2015)

In April 2015, GHD conducted soil assessment works across the former Nuplex facility, including five soil bores located within the site (NHS_SB01, NHS_SB02, NHS_SB03, NHS_SB04 and EW_SB01). The main objectives of the GHD assessment were to provide additional coverage to supplement the work completed by ERM and SMEC, to potentially identify residual sources of ongoing groundwater contamination. The bore locations are presented on Figure 2 (attached).

The bores were drilled to a maximum depth of 4.1 mbgl using a Geoprobe and push tube. Natural soil was encountered at all bore locations. Subsurface conditions comprised fill overlying natural clay, clayey sand and sand to the maximum depth of investigation (4.1 mbgl). Fill material extended to depths ranging from 1.1 mbgl to 1.3 mbgl and generally comprised sand, gravelly sand and sandy clay.

A 'slight sweet odour' was noted in fill material from approximately 0.9 mbgl to 1.3 mbgl at bore NHS_SB02, charcoal or possible gasworks waste was noted in fill material from approximately 0.2 mbgl to 0.8 mbgl at bore NHS_SB04, and black gravel fill material (possible crushed asphalt) was noted from approximately 0.4 mbgl to 0.7 mbgl at EW_SB01. These observations did not extend to the underlying natural soil. Based on the observations noted in the GHD borelogs, each of these locations was re-visited during the audit (see Section 8.1.5 below, noting subsequent works confirmed that none of these observations were determined to be representative of a more extensive issue). No other odours or staining were noted during drilling and field screening of samples with a PID reported VOC readings ranging from 0.0 ppm to 0.9 ppm.

A total of eleven soil samples, five fill samples and six natural soil samples, were analysed for a range of analytes including metals, TRH, BTEX, PAHs, phenols, VOCs, acrylates, phthalates, formaldehyde, pesticides, herbicides, cyanide, nutrients, PCBs and pH.

Analytical analysis identified the following:

- Cobalt above the adopted EIL, and equal to HIL A, in fill material at NHS_SB02 (100 mg/kg).
- Manganese above the adopted EIL in fill material at EW_SB01 (400 mg/kg).
- TRH >C_{16}-C_{34} above the adopted ESL for urban residential and public open space, but below the ESL for commercial and industrial, in fill material at EW_SB01 (310 mg/kg).
- pH results outside the adopted range of 6-8 for fill material at three locations (EW_SB01, NHS_SB01 and NHS_SB03) and natural soil at one location (NHS_SB04).

All exceedances in fill material were vertically delineated within natural soil. All other analytes were reported at concentrations below the laboratory detection limits or below the adopted assessment criteria.

Figure 7 (attached) presents soil concentrations above EIL and HIL criteria.

The findings of GHD's work are provided within the GHD (June 2015) DSI report (provided within Appendix B of the CUTEP, attached as Appendix C).

8.1.5 ARC and EEC (2017-2018)

In February 2017, ARC commenced assessment works for the Audit. Works completed by ARC initially comprised a review of the ERM, SMEC and GHD works, compilation of a PSI report, and a site walkover to

identify any additional sources on-site. ARC noted the presence of a TIT remaining in the north-west corner of the site and the presence of a concrete pit in former 'Chemical Store B'. TIT removal and validation works were completed in October 2017, and investigation of the concrete pit was conducted in June 2018, as discussed below.

Between February 2017 and June 2018, ARC completed a gridded and targeted soil sampling program to supplement the GHD data and to characterise soil across the site. The Auditor notes that some of the fieldwork (i.e. works conducted in February 2017, May 2017 and February 2018) were conducted by EEC and reported by ARC. In addition, the TIT removal works were conducted by EEC in October 2017 and reported by ARC.

The bore locations are presented on Figure 2 (attached).

February 2017

In February 2017, EEC drilled two soil bores (BMW1 and BMW2) to 12.0 mbgl with solid flight augers and the bores were converted to groundwater monitoring wells.

Subsurface conditions encountered below the concrete slab comprised fill material overlying natural silty clay/sandy clay and clayey sand. Fill material was logged to a depth of approximately 0.6 mbgl at both locations and comprised pale grey and brown sandy gravel. No odours or staining were noted during the drilling works. The Auditor notes that no soil sampling or PID readings were collected during these works. Borelogs for BMW1 and BMW2 are provided in Appendix D of the ARC DSI (provided in Appendix B of this report).

May and July 2017

In May 2017, EEC conducted soil assessment works comprising drilling of five gridded soil bores (EW_EEC_SB101, NHS_EEC_SB103 to NHS_EEC_SB105 and NHS_EEC_SB107) and one target soil bore of the adjacent off-site substation (NHS_EEC_SB106) across the site.

In July 2017, ARC conducted soil assessment works comprising drilling of two additional gridded soil bores (NHS_EEC_SB101 and NHS_EEC_SB102).

Bores were drilled to a maximum depth of 3.0 mbgl using a combination of hand auger and Geoprobe and push tube. Subsurface conditions encountered comprised fill overlying natural clay, clayey sand and sand to the maximum depth of investigation (3.0 mbgl). The Auditor notes that there are some inconsistencies with the depth of fill material logged by EEC and ARC. The EEC bore logs indicate that fill material extended to depths ranging from 0.3 mbgl to 0.4 mbgl, while the ARC bore logs indicate that the fill material extended to depths ranging from 0.9 mgbl to 1.0 m mbgl (and generally consistent with the fill depths logged by GHD in 2015).

ARC's review of the EEC bore logs indicated that shallow sand and gravelly sand within the top 1 m of the soil profile was logged by EEC as natural soil which was inconsistent with the subsurface geology logged by ARC and GHD. The ARC (March 2018) Summary Bore Completion Assessment Report stated that the shallow sand and gravelly sand logged by EEC as natural soil was considered to be fill material. The Auditor agrees with ARC's interpretation of the subsurface geology.

No odours or staining were noted during drilling and field screening of samples with a PID reported VOC readings ranging from 0.0 ppm to 2.0 ppm. Trace brick fragments were observed in the fill material at NHS_EEC_SB107.

A total of seventeen soil samples, fifteen fill samples and two natural soil samples, were analysed for a range of analytes including metals, TRH, BTEX, MAHs, VHCs, PAHs, phenols, VOCs, SVOCs, PCBs, cyanide, glycols, acidity and alkalinity, sulphate, ammonia and pH.

Laboratory analysis identified the following:

- Antimony above the adopted EIL and HIL A, B and C, but below HIL D, for fill material at NHS_EEC_SB103 (54 mg/kg at a depth of 0.2m). This sample was vertically delineated at 0.5m.
- Barium above the adopted EIL for fill material at NHS_EEC_SB104 (800 mg/kg) at 0.5m.
- Cobalt above the adopted EIL in fill material at all eight locations, with a maximum concentration of 256 mg/kg. The cobalt concentrations at four locations (NHS_EEC_SB101, NHS_EEC_SB102, NHS_EEC_SB104 and NHS_EEC_SB107) were also above HIL A. All results were vertically delineated with the exception of three locations (NHS_EEC_104-106).
- Copper above the adopted EIL in fill material at NHS_EEC_SB104 (220 mg/kg) at 0.5m.
- Manganese above the adopted EIL in fill material at EW_EEC_SB101 (582 mg/kg) and NHS_EEC_SB103 (228 mg/kg) (both samples vertically delineated).
- pH results outside the adopted range of 6-8 for fill material at four locations (EW_EEC_SB101, NHS_EEC_SB101, NHS_EEC_SB103 and NHS_EEC_SB104) and natural soil at one location (NHS_EEC_SB101).
- Bis(2-ethylhexyl) phthalate above the adopted EIL in fill material at NHS_EEC_SB101 at 0.2m (vertically delineated to <LOR at 1.0m) and di-n-butyl phthalate above the adopted EIL in fill material at NHS_EEC_SB104 at 0.5m (vertically delineated to <LOR at 1.5m).
- Detectable concentrations of TRH (fill material at NHS_EEC_SB104 at 0.5m and NHS_EEC_SB105 at 0.2m) and acetophenone (fill material at NHS_EEC_SB104 at 0.5m), were reported at or marginally above the laboratory detection limits. Results were below the adopted soil assessment criteria.
- All other analytes were reported at concentrations below the laboratory detection limits.

Figure 7 (attached) presents soil concentrations above EIL and HIL criteria.

As noted above, shallow sand and gravelly sand fill material was incorrectly logged by EEC as natural soil. Analysis of soil samples that EEC considered to be representative of natural soil were in fact samples of fill material. Therefore, limited analysis of natural soil was conducted during this investigation and there are a number of exceedances that were not vertically delineated within natural soil, or within the underlying fill material, as follows:

- Barium at NHS_EEC_SB104 at 0.5m.
- Cobalt at NHS_EEC_SB104, NHS_EEC_SB105 and NHS_EEC_SB106, each at 0.5m.
- Copper at NHS_EEC_SB104 0.5m.
- Di-n-butyl phthalate at NHS_EEC_SB104 at 0.5m.

Further soil assessment works were conducted by ARC in November 2017 and June 2018 to vertically delineate the exceedances listed above as follows:

- November 2017: ARC drilled one soil bore (NHS_EEC_SB104A) adjacent to bore NHS_EEC_SB104 to vertically delineate the elevated concentrations of metals and di-n-butyl phthalate (and detectable acetophenone and TRH C_{16}-C_{34}) identified in fill material at NHS_EEC_SB104 and to provide additional analysis in natural soil for a broad suite of COPCs.

  The bore was drilled using a hand auger and terminated in natural sandy clay at 1.6 mbgl. No odours or staining were noted during drilling and field screening of samples with a PID reported VOC readings ranging from 0.0 ppm to 0.1 ppm.

Two samples (fill at 0.5m and natural at 1.5m) were analysed for a selected range of analytes including metals, TRH, BTEX, MAHs, VHCs, PAHs, phenols, SVOCs (including phthalates), OCPs, PCBs, acidity and alkalinity, cyanide, glycols, sulphate and pH. Metals and inorganics concentrations were below the adopted EIL and HILs, or below the laboratory detection limits. All other analytes were reported at concentrations below the laboratory detection limits.

- June 2018: ARC conducted soil assessment works comprising drilling of five targeted soil bores as follows:
  - NHS_ARC_SB105A was drilled adjacent to NHS_EEC_SB105 to a maximum depth of 1.0m to vertically delineate cobalt (53 mg/kg) reported at 0.5m. One sample at 1.0m analysed for metals. All metals (including cobalt) were reported below criteria and as such cobalt at this location was not considered likely to be impacted groundwater.
  - NHS_ARC_SB106A was drilled adjacent to bore NHS_EEC_SB106 to a maximum depth of 1.0m to vertically delineate cobalt (54 mg/kg) reported at 0.5m. One sample at 1.0m analysed for metals. All metals (including cobalt) were reported below criteria as such cobalt at this location was not considered likely to be impacted groundwater.
  - NHS_ARC_SB02A was drilled to a depth 1.0m adjacent to NHS_SB02 to further investigate the slight sweet odour logged at NHS_SB02 at 1.0m by GHD in 2015. One sample of natural soil (at a depth of 1.0m) was analysed for TRH, BTEX, MAHs and VHCs. Results were all reported <LOR. No odour was noted at this location. The odour was not considered to be representative of potential contamination requiring further investigation (nor was it considered likely to represent a potential source of groundwater pollution).
  - NHS_ARC_SB04A was drilled to a depth of 0.5m adjacent to NHS_SB04 to further investigate the potential gasworks waste logged at NHS_SB04 at 0.2m by GHD in 2015. Two samples of fill material (at depths of 0.15m and 0.5m) were analysed for metals, TRH, BTEX, MAHs, VHCs, VOCs and PAHs. One concentration of cobalt was reported above EIL (77 mg/kg) at 0.15m. All other metals results (including cobalt at 0.5m) were all below criteria. All other results were reported <LOR. Comments on the borelog for NHS_SB04 by GHD indicating EW_ARC_SB01A was drilled to 1.0m adjacent to EW_SB01 to further investigate the elevated concentrations of TRH and black soils logged to depths up to 1.0m at EW_SB01 by GHD in 2015 (observed to look like crushed asphalt). One sample of natural soil (at a depth of 1.0m) was analysed for metals, TRH and BTEX. Results were reported below criteria (metals) and <LOR (TRH and BTEX).
- In June 2018, ARC also completed four further target samples to address data gaps in assessment of potential source areas as follows:
  - EW_ARC_SB201 was advanced to 1.0m targeting the north-east corner of the site to investigate the possible presence of the former chloroform flocculation area identified on Lot 1 extending into Lot 4. Two samples of fill material (at depths of 0.1m and 0.5m) and one sample of natural soil (at a depth of 1.0m) were analysed for metals, TRH, BTEX, MAHs, VHCs and VOCs. One concentration of manganese was reported above EIL (368 mg/kg) at 0.1m. All other metals results (including manganese at 0.5m and 1.0m) were all below criteria. All other results were reported <LOR. Based on the results it was considered unlikely that the chloroform flocculation area extended into Lot 4.
  - NHS_ARC_SB202 was advanced to 1.0m targeted the concrete pit observed in Chemical Store B. The pit extended into natural material (0.6m below the base of the pit). One sample of fill

material (at a depth of 0.6m) and one sample of natural soil (depth of 1.0m) were analysed for metals, TRH, BTEX, MAHs, VHCs, VOCs, PAHs, SVOCs, cyanide and pH. One concentration of cobalt was reported above HIL A (147 mg/kg) and mercury above EIL (30 mg/kg) in fill. All other metals results (including cobalt and mercury at 1.0m) were below criteria. All other results were reported <LOR. The concrete pit was not considered to be a potential source of groundwater pollution.

- NHS_ARC_SB203 and NHS_ARC SB203A targeted remnant TIT pipework. One sample of fill material (at a depth of 0.5m) and one sample of natural soil (1.0m) from NHS_ARC_SB203 were analysed for metals, TRH, BTEX, MAHs, VHCs, VOCs, PAHs, SVOCs, cyanide and pH. One concentration of copper was reported above EIL (232 mg/kg) at 0.5m. All other metals results (including copper at 1.0m) were all below criteria. All other results were reported <LOR. Remnant TIT pipework was not considered to be a potential source of groundwater pollution.

It is noted that no odours or staining were noted during drilling and field screening of all samples collected in November 2017 and June 2018, with a PID reporting VOC readings ranging from 0.0 ppm to 0.5 ppm.

8.1.5.1 TIT Excavation and Validation Works (2017-2018)

In October 2017, EEC removed and validated the TIT located immediately west of the site buildings within the northern portion of the site. Removal of the TIT resulted in a pit of approximately 1.5 m x 0.5 m, with a depth of 1.2 m. The Auditor notes that soils surrounding the TIT were not excavated.

Four wall validation samples (EEC_TIT1_1, EEC_TIT1_2, EEC_TIT1_3 and EC_TIT1_4) were collected from approximately 0.6 mbgl, and one validation sample was collected from the base of the excavation (EEC_TIT1_5) at approximately 1.2 mbgl. No odours or staining were noted during removal of the TIT and collection of the validation samples from the walls and base of the pit. PID readings for the validation samples were all 0.0 ppm. The TIT excavation and validation sample locations are presented on Figure 2 (attached).

Wet soils were observed in the TIT backfill from approximately 1.0 mbgl to 1.3 mbgl and immediately above the underlying natural sandy clay in bore ARC_TIT_5A.

The TIT validation samples were analysed for TRH, BTEX, MAHs, VHCs and VOCs. The laboratory results for all analytes for all samples were below the laboratory detection limits.

It was determined that not all relevant contaminants of concern were analysed within the validation samples collected from the TIT pit. As such, the TIT pit was re-visited by ARC on 5 June 2018. One soil bore was drilled to the base of the pit and into natural soil. One sample (ARC_TIT_5A_1.5) of natural soil was collected for analysis of lead, pH, oil and grease and phenols.

Results were all below relevant criteria with minor detectable concentrations of oil and grease (120 mg/kg) reported.

The TIT was backfilled with $1m^3$ of soil sourced from a $200m^3$ stockpile (SP10-1) created following excavation works completed on Lot 1. The stockpile was classified as fill material, as per the stockpile classification report provided within Appendix J of the ARC DSI report. It is noted that although the stockpile was classified as fill material (in accordance with the Industrial Waste Resource Guidelines (IWRG) 621), detectable concentrations of chlorinated hydrocarbons and hexavalent chromium were identified within the stockpile. Concentrations were identified as follows:

- TCE ranging from <0.02 to 0.43 mg/kg

- PCE ranging from <0.02 to 0.17 mg/kg
- One detectable concentration of Cis 1,2 -DCE ranging of 0.02 mg/kg
- Once detectable concentration of chromium VI just above the LOR at 0.6 mg/kg.

It is noted that only $1m^3$ of SP10-1 was used to backfill the TIT, as such the volume is not considered sufficient to act as a future potential source of groundwater pollution. However, based on the detectable concentrations reported within the material used, on 22 February 2018, one soil bore (TIT1 (backfill)) was placed through the backfill material within the TIT to further confirm its level of contamination. Three samples at depths of 0.2m, 0.5m and 0.8m were collected for analysis (to ensure sufficient variability of the material was captured). Samples were analysed for TRH C_6-C_{10}, BTEXN and a limited VOC suite (which included chlorinated hydrocarbons). All concentrations were reported less than LOR. Despite the samples collected from TIT1 (backfill) being reported below detection limits (also noting that the action of moving the stockpile and backfilling the pit would likely have caused much, if not all, of the chlorinated hydrocarbons within the material to have volatilised), the Auditor has considered the potential risks associated with the possible presence of residual chlorinated hydrocarbons within the TIT pit (see Section 11.3 below).

All exceedances were vertically delineated within natural soil, or within the underlying fill material, at all locations.

8.1.6 Off-site Soil Investigation Works

The Auditor notes that soil investigation works occurred concurrently over this period immediately over the northern boundary shared with the Lot 1 site, over the eastern boundary shared with Lot 2 and over the southern boundary shared with Lot 3.

A brief summary of some select relevant works and results reported over each boundary is provided below. The summary provided below specifically focusses on the potential presence of volatile contaminants outside (but in the immediate proximity of) the boundary of Lot 4:

Lot 1

Between 2001 and 2015, a total of 16 soil bores and six test pits were advanced across the former outdoor drum storage area and former chloroform flocculation area as well as the east west driveway, located immediately north of the Lot 4 boundary. Analytical results reported detectable maximum concentrations of cis-1,2-DCE of 1.0 mg/kg, formaldehyde of 11 mg/kg, and TRH C_{29}-C_{36} of 65 mg/kg. The detectable concentrations were generally reported within the top 0.5 mbgl with one detection of cis-1,2,-DCE reported at a depth of 1.0 mbgl (0.12 mg/kg). It is noted that all reported concentrations were below the adopted human health assessment criteria.

Additionally, eight soil bores were historically drilled in the vicinity of two former ASTs and former TIT, located north east of the Lot 4 boundary. VOC concentrations were reported below the laboratory detection limits in all samples. The TIT was removed in October 2017. No detectable concentrations of TRH and VOCs were reported in the validation samples (with the exception of chloroform reported at a concentration of 0.05 mg/kg in the eastern wall sample (EEC_TIT3_3)) at a depth of 1.5 mbgl. The reported concentration was well below the adopted RBC (0.6 mg/kg). The pipeline/drain connecting the TIT to the sewer connection near the western boundary was removed in March 2018. The validation samples collected from the trench are considered be the closest soil samples collected on Lot 1 in proximity to Lot

4 and thus the most relevant for Lot 4. All validation samples collected from the trench reported concentrations of TRH and VOCs below the laboratory LOR.

The former drum store area was excavated to a minimum depth of 0.6 mbgl and a maximum depth of 1.3 mbgl where drainage and drainage pits were removed as well as previously identified impacted soils. A total of 22 validation samples were collected and analysed for TRH and VOCs with all concentrations reported below the laboratory LOR.

Excavation extents and validation sample locations in the area of the former drum storage area on Lot 1 are presented on Figure 8A (attached). Validation sample results are presented in Appendix D (attached).

It is understood that a CUTEP report was submitted in to EPA for review and approval. Following EPA's acceptance of the CUTEP report, the Environmental Audit Report and associated Statement of Environmental were completed on 9 April 2020.

Lot 2

In 2015, five soil bores were advanced in the north-south driveway, east of (and parallel to) the Lot 4 boundary. All samples reported VOC concentrations below the laboratory LOR with the exception of TRH C_{15}-C_{28} in NS_SB05_0.5 (the southernmost bore located between Lot 4 and the SEC area) which was reported at 59 mg/kg; well below all adopted assessment criteria.

Extensive remediation works have been undertaken within the SEC area, the primary source area of chlorinated hydrocarbons on Lot 2, including excavation works and subsequent validation of chlorinated hydrocarbon soil contamination in 2017. The western portion of the SEC, located approximately 5.0m beyond the Lot 4 boundary, was excavated (1.5 m wide x 10 m long to a depth of 5.0 mbgl ("S1 Excavation" as shown on Figure 8C)). A larger excavation area of the SEC, shown as "Main Excavation" on Figure 8C was undertaken to a maximum depth of 5.0 mbgl. A total of 13 validation samples were collected from the walls and base of the S1 Excavation, six of which were located within the western wall (i.e. approximately 5.0 m east of the Lot 4 boundary). Analytical results reported concentrations of VOCs below the laboratory LOR with the exception of the following:

- 1,2-dichlorobenzene at a concentration of 0.03 mg/kg in a southern wall sample (VS01_S2_4.5) at a depth of 4.5 mbgl.
- Cis-1,2-DCE at a concentration of 0.02 mg/kg and 0.07 mg/kg in two western wall samples (VS01_W1_2.0 and VS01_W2_4.5 respectively) at a depths of 2.0 and 4.5 mbgl respectively (presented on Figure 8F).
- Cis-1,2-DCE at a concentration of 0.03 mg/kg and 0.04 mg/kg in two base samples (VS01_B1_5.0 and VS01_B2_5.0 respectively) at a depth of 5.0 mbgl (presented on Figure 8G).

It is noted that the above reported detections were below the adopted assessment criteria.

In addition to validation sampling of the bulk excavations, three boreholes (SEC_EEC_SB101 to SEC_EEC_SB103) were advanced within the remainder of the SEC area (i.e. non-excavated areas between the S1 Excavation and the Main Excavation, as presented on Figure 8B) with samples reporting the following detections of VOCs remaining in soil:

- Cis-1,2-DCE at a maximum concentration of 0.12 mg/kg at a depth of 5.0 mbgl.
- TCE at a maximum concentration of 1.23 mg/kg at a depth of 4.0 mbgl.
- PCE at a maximum concentration of 0.12 mg/kg at a depth of 4.0 mbgl.

In regards the reported concentrations of chlorinated hydrocarbons reported in the SEC area the Auditor has engaged his expert support member in risk to comment on the risk of the concentrations to impact Lot 4. This is discussed is Section 11.3 below.

It is understood that at the time of submission of this Audit Report, on-going groundwater monitoring to assess post-remediation groundwater conditions (in support of a future CUTEP submission to EPA) was being conducted.

Lot 3

One sample (BF_EEC_103) was collected over the southern site boundary on Lot 3 which reported a concentration of carbon tetrachloride (0.41 mg/kg, below criteria) in fill at a depth of 0.1m. Although the result was below criteria, the Auditor considered the volatility of carbon tetrachloride to warrant further consideration. Review of the distribution of samples on Lots 3 and 4 showed sample NHS_EEC_SB105 positioned just over the Lot 3 / 4 boundary, in the immediate vicinity of BF_EEC_103 which was considered to delineate the carbon tetrachloride reported on Lot 3 in the direction of Lot 4. Fill at NHS_EEC_SB105 was sampled for analysis at depths of 0.2m and 0.5m, both of which reporting carbon tetrachloride <0.01 mg/kg. As such, the one fill sample result of carbon tetrachloride reported on Lot 3 was not considered to extend to Lot 4.

Soil sampling locations and reported exceedances are presented on Figure 8H.

Based on the Auditor's review of results from Lot 3, just over the boundary, it is concluded that no concentrations were identified which would be considered to potentially impact the beneficial uses of land on Lot 3. No other volatile contaminants were detected within close proximity to the southern site boundary of Lot 4.

A CUTEP report was submitted in 25 April 2019 to EPA for review and approval. Following EPA's acceptance of the CUTEP report, the Environmental Audit Report and associated Statement of Environmental for Lot 3 were completed on 28 February 2020.

8.2 Nature and Extent of Contamination – Summary of Final Soil Condition

The findings of the soil investigation works are provided within the ARC Summary Bore Completion and Soil Assessment Report; Lot 4 on Plan of Subdivision PS802507T 20 Hamlet Street, Cheltenham, Victoria; 16 November 2018 and the ARC Detailed Site Investigation; Lot 4 on Plan of Subdivision PS802507T 20 Hamlet Street, Cheltenham, Victoria; 12 November 2018 (provided within Appendix B of the CUTEP report, provided in Appendix C of this report).

Figure 2 (attached) provides the locations of all soil bores drilled across the site.

Based on the soil assessment works, certain contaminants were identified in soil above the Auditor's adopted screening criteria.

The following contaminants were considered to exceed the adopted EIL/ESL and/or HIL/HSL criteria:

- Metals (antimony, barium, cobalt, copper, manganese, mercury);
- TRH (>C_{16} - C_{34}) (F3);
- di-n-butyl phthalate and bis (2-ethylhexylphthalate); and
- pH.

In addition, concentrations of TCE and chromium VI (above relevant criteria) were present within the backfilled soil within the TIT excavation.

Table E (attached) summarises all soil contaminant concentrations above the Auditor's adopted criteria reported on-site. Figure 7 presents the location of all soil exceedances across the site.

Further discussion of the extent and distribution of each of the above contaminants detected in soil is provided below.

8.2.1 pH

The reported pH values were in the range of 6.2 – 9.8 units in fill, and 5.5 – 8.0 units in natural soil. Generally, pH within fill was reported between 6.2 – 8.5 with three samples reporting pH greater than 9 at shallow depths of 0.2 mbgl and 0.5 mbgl at historical GHD (2015) locations NHS_SB01 and NHS_SB03 and EEC (2017) location EEC_SB104. No potential sources of pH impact were observed at these locations, Fill material at these locations generally comprised sand with some gravel. The most alkaline pH samples were reported in shallow fill material immediately below the concrete surface and are considered likely to be associated with the alkalinity of the concrete surface in contact with the shallow fill material. Reported pH in natural soil was generally slightly acidic to neutral and was within the ranges reported on Lots 1, 2 and 3 and considered to be representative of background conditions.

8.2.2 Metals

Concentrations of metals (antimony, barium, cobalt, copper, manganese and mercury) were reported exceeding the adopted soil assessment criteria as summarised below.

The Auditor notes that in some cases, ARC has referenced different soil assessment criteria for selected metals than that adopted by the Auditor and as such, there is some variance in the exceedances reported in the ARC (November 2018) DSI report and those identified by the Auditor. The Auditor's adopted criteria (generally more conservative than that adopted by ARC) has been used to assess the risk to the protected beneficial uses of land. It is noted that the selection of criteria does not change the assessment of risk to the protected beneficial uses of land or alter the outcome of the audit.

<u>Antimony</u>

- Antimony exceeding the adopted EILs and HILs for Residential 'A', Residential 'B' and Recreational/Open Space 'C' land use scenarios, and the adopted EIL for Commercial/Industrial 'D' land use scenario was reported in one fill sample at a depth of 0.2 mbgl from NHS_EEC_SB103.
- This sample was vertically delineated by underlying fill at 0.5m, with antimony results reported below all relevant criteria. In addition, leachability analysis conducted on the sample at 0.2m reported antimony leachability <LOR.
- Based on the above, the Auditor does not consider the reported antimony in fill to be a potential source of groundwater pollution at the site. The Auditor further notes that antimony was not reported at elevated concentrations exceeding the adopted assessment criteria in groundwater at the site.

<u>Barium</u>

- Barium exceeding the adopted EILs for Residential 'A', Residential 'B' and Recreational/Open Space 'C' land use scenarios was reported in one fill sample at a depth of 0.5 mbgl from NHS_EEC_SB104.

- This sample was vertically delineated in underlying natural at 1.5m, with barium results reported below all relevant criteria. In addition, leachability analysis conducted on the sample at 0.5m reported barium leachability <LOR.
- Based on the above, the Auditor does not consider the reported barium in fill to be a potential source of groundwater pollution at the site. The Auditor further notes that barium was not reported at elevated concentrations exceeding the adopted assessment criteria in groundwater at the site.

Cobalt

- Cobalt exceeding the adopted EILs for Residential 'A', Residential 'B' and Recreational/Open Space 'C' land use scenarios and the adopted HILs for Residential 'A' land use scenario in twelve fill samples (from NHS_SB02, EW_EEC_SB101, NHS_EEC_SB101, NHS_EEC_SB102, NHS_EEC_SB103, NHS_EEC_SB104, NHS_EEC_SB104, NHS_EEC_SB105, NHS_EEC_SB106, NHS_EEC_SB107, NHS_ARC_SB04A and NHS_ARC_SB202) at depths ranging between 0.1 mbgl and 0.6 mbgl. All exceedances were vertically delineated in either underlying fill or natural samples.
- Leachability analysis was conducted for cobalt on one fill sample (NHS_EEC_SB104/SB104A) and two natural samples (NHS_ARC_SB105A, NHS_ARC_SB106A). Results reported concentrations of 1.4 mg/L, <0.1 mg/L and 0.3 mg/L respectively. Leachability was calculated was having a maximum of 0.75% leachability (at a pH of 5). The Auditor also compared the reported leachable cobalt concentrations to the adopted drinking water criteria (US EPA regional screening levels in the absence of Australian Drinking Water criteria) which was adjusted by a factor of 100 to allow for dilution and dispersion to groundwater. Reported results from the natural sample were well below 100 times the drinking water guideline (0.6 mg/L), however, results from the fill sample reporting a leachability of 1.4 mg/L were above. As noted, leachability was conducted at a pH of 5 (which is considered to present a highly conservative representation of leachability. Review of the results at this location however shown the fill sample results to be reported at a concentration of 256 mg/kg, with the underlying natural sample reporting a notably lower concentration (well below criteria of 14mg/kg). As such, despite the leachability analysis reporting results higher than 100 times the drinking water criteria, the Auditor does not consider this result to be indicative of the fill representing a source of groundwater pollution.
- It is noted that elevated concentrations of cobalt were reported in groundwater, however these concentrations were not considered to be representative of site sourced pollution. This is discussed further in Section 9.3.3.2 below.

Copper

- Copper exceeding the adopted EILs for Residential 'A', Residential 'B', Recreational/Open Space 'C' and Commercial/Industrial 'D' land use scenarios in two fill samples (0.5 mbgl from both NHS_EEC_SB104 and NHS_ARC_SB203).
- These sample were vertically delineated by the samples collected in the underlying natural soil. In addition, leachability analysis conducted on the sample at NHS_EEC_SB104/SB104A 0.5m reported copper leachability <LOR.
- Based on the above, the Auditor does not consider the reported copper in fill to be a potential source of groundwater pollution at the site.
- It is noted that elevated concentrations of copper were reported in groundwater, however these concentrations were considered to be representative of the aquifer and not site derived pollution. This is discussed further in Section 9.3.3.4 below.

Manganese

- Manganese exceeding the adopted EILs for Residential 'A', Residential 'B', Recreational/Open Space 'C' and Commercial/Industrial 'D' land use scenarios in four fill samples (from EW_SB01, EW_EEC_SB101, NHS_EEC_SB103 and EW_ARC_SB201) at depths between 0.1 mbgl and 0.5 mbgl. All exceedances were vertically delineated in either underlying fill or natural samples.
- The Auditor notes that leachability analysis was conducted on one fill sample (NHS_EEC_SB04/SB04A). The reported manganese leachability in this sample was reported <LOR.
- Based on the above, the Auditor does not consider the reported manganese in fill to be a potential source of groundwater pollution at the site. The Auditor further notes that manganese was not reported at elevated concentrations exceeding the adopted assessment criteria in groundwater at the site.

Mercury

- Mercury exceeding the adopted EILs for Residential 'A', Residential 'B', Recreational/Open Space 'C' and Commercial/Industrial 'D' land use scenarios in one fill sample at a depth of 0.6 mbgl from NHS_ARC_SB202. The exceedance was vertically delineated in underlying natural soil at 1.0m.
- The Auditor notes that leachability analysis was conducted on one fill sample (NHS_EEC_SB04/SB04A). The reported mercury leachability in this sample was reported <LOR.
- Based on the above, the Auditor does not consider the reported mercury in fill to be a potential source of groundwater pollution at the site. The Auditor further notes that although mercury was reported as pollution during one GME on-site during the Audit, the concentration was not considered to represent site derived pollution.

8.2.3 Total Recoverable Hydrocarbons

A TRH F3 concentration of 310 mg/kg was reported in fill material at EW_SB01 exceeding the adopted ESLs for Residential 'A', Residential 'B', Recreational/Open Space 'C' and Commercial/Industrial 'D' land use scenarios. Further, detectable TRH F4 (below criteria) was also reported in this sample. Two other detectable concentrations of TRH F3 were reported in fill across the site, at NHS_EEC_SB105 at 0.5m and NHS_EEC_SB106 at 0.2m.

All concentrations were vertically delineated to <LOR in underlying fill and natural material.

- Based on the above, the Auditor does not consider the reported TRH in fill to be a potential source of groundwater pollution at the site.
- It is noted that elevated concentrations of TRH were reported in groundwater, however these concentrations were not considered to be representative of site derived pollution. This is discussed further in Section 9.3.2 below.

8.2.4 Phthalates

Bis(2-ethylhexyl) phthalate (one fill sample at a depth of 0.2 mbgl at NHS_EEC_SB101) and di-n-butyl phthalate (one fill sample at a depth of 0.5 mbgl at NHS_EEC_SB104) exceeding the adopted EILs for Residential 'A', Residential 'B', Recreational/Open Space 'C' and Commercial/Industrial 'D' land use scenarios.

The Auditor notes that ARC has not referenced EILs for phthalates. Comparison of the reported phthalate results with the Auditor's adopted EIL criteria highlighted exceedances not reported in the ARC (November

2018) DSI report. The Auditor's adopted criteria has been used to assess the risk to the protected beneficial uses of land. It is noted that the selection of criteria does not change the assessment of risk to the protected beneficial uses of land or alter the outcome of the audit.

The exceedances were vertically delineated in underlying natural soil to <LOR.

- Based on the above, the Auditor does not consider the reported phthalates in fill to be a potential source of groundwater pollution at the site.
- The Auditor further notes that phthalates were not reported at elevated concentrations exceeding the adopted assessment criteria in groundwater at the site.

8.2.5 Other contaminants/observations

8.2.5.1 Asbestos

An audit of asbestos containing materials (ACM) was undertaken by Integrated Risk Management in 2011 for the wider former Nuplex facility. This assessment indicated that ACM was present within the Administration Building, Level 1 and Level 2 Offices, Laboratory and A, B and C Stores on Lot 4. The asbestos audit is provided within Appendix G of the ARC (November 2018) DSI Report, presented in Appendix C of the CUTEP report (Appendix C of this report).

The potential presence of ACM was monitored during soil assessment works. No ACM was noted on the site surface or during intrusive soil assessment works during any of the investigation and excavation works undertaken during the Audit.

Based on the identified presence of asbestos remaining within on-site buildings on Lot 4, the Auditor considers the inclusion of a comment in "other related information" of the Statement of Environmental Audit (see Appendix A) which states that asbestos containing material has been reported on the site as part of on-site buildings and that as part of future site development, asbestos removal works must be conducted in accordance with the Occupational Health & Safety Regulations 2007 (Part 4.3 Asbestos), including the use of an appropriately licensed contractor.

8.2.5.2 Aesthetics

Some trace anthropogenic materials were noted within the fill material across the site comprising brick, terracotta and concrete. It is noted that none of the anthropogenic materials were considered to be present on-site to the extent that they would be considered to preclude the beneficial use of aesthetics.

Based on the information obtained during the audit, the final site condition is not considered to pose an aesthetic concern.

8.2.6 Conclusion

Figure 2 (attached to this report) provides the locations of all soil bores installed across the site. Figure 7 shows the location of soil bores and exceedances on Lot 4.

Figures 8A – 8H shows the locations of relevant soil bores and results on Lot 1, 2 and 3. Appendix E of the CUTEP report (attached as Appendix C) presents relevant tabulated results for soil samples collected on surrounding Lots 1, 2 and 3.

Based on the above soil assessment works, certain contaminants were identified in soils on-site above the Auditor's adopted ecological and health screening criteria.

In addition to the above listed contaminants, detectable concentrations below the adopted criteria of metals (aluminium, arsenic, beryllium, cadmium, total chromium, iron, lead, nickel, vanadium, zinc), oil and grease, TRH F4, sulphate, sulphur, ammonia, TKN, nitrate and total nitrogen were also reported in soil at the site.

All other contaminants (metals (boron, selenium) cyanide, BTEX, MAHs, VOCs, PAHs, SVOCs, phenols, solvents, amino aliphatics, amino aromatics, anilines, explosives, herbicides, nitroaromatics glycols, PCBs, OCPs and OPPs) were below laboratory detection limits.

Tables 1 and 2 of the ARC (November 2018) DSI Report (extracted and attached to this report as Table D) provides tabulated results for all soil contaminant concentrations.

9 Groundwater Investigation Works

9.1 Groundwater Assessment Works

Groundwater investigation works completed for the site have included the installation of three nested groundwater monitoring wells (MW9/1-3, MW10/1-3 and MW12/1-3) and four groundwater monitoring wells (MW21, MW38, BMW1 and BMW2). All wells were installed prior to the commencement of the Audit, however noting that BMW1 and BMW2 were installed only one week prior to Audit commencement). Wells were installed as detailed below:

- MW9/1, MW9/2, MW9/3, MW10/1, MW10/2 and MW10/3 were installed by ERM in May 2001 to the north of the Non-Hazardous Store building on Lot 4.
- MW12/1, MW12/2 and MW12/3 were installed by ERM in May 2001 in the south-west corner of the site.
- MW21 was installed by SMEC in October 2006, on the northern most boundary of Lot 4 (noting this boundary is shared with the southern boundary of Lot 1).
- MW38 was installed by GHD in November 2009 in the northern portion of the site.
- BMW1 and BMW2 were installed by EEC in February 2019 in the centre of the site (BMW1) and central southern portion of the site (BMW2) to increase site coverage.

It is noted that no specific potential on-site sources of groundwater pollution were identified on Lot 4 which were considered to require targeting.

Construction details for wells installed and sampled on Lot 4 are listed in Table F attached.

Groundwater sampling works commenced in 2001 by ERM. Limited information is provided in regards to earlier groundwater sampling rounds, completed between 2001 and 2008. Available results are limited to some historical tables provided within the appendices of the Lane Piper 53V Audit Report. The Auditor has reviewed available information and has referenced data where sufficiently comprehensive to provide a relevant understanding of historical site conditions.

Wells MW9/1-3, MW10/1-3 and MW12/1-3 were decommissioned prior to Audit commencement. Consideration of the need for re-installation of these wells was considered as part of the Audit. It was however determined that the well network existing on-site at the commencement of the Audit (in conjunction with consideration of the historical results reported for MW9, MW10 and MW12), was sufficient for providing suitable characterisation of the site, and as such re-installation of replacement wells was not considered necessary.

In reviewing the groundwater well network, the Auditor notes that no wells are located in the immediate south-eastern corner of the site, to assess groundwater concentrations extending immediately over the Lot 2 / 4 boundary in the vicinity of the Lot 2 SEC area (the primary source area of chlorinated hydrocarbons on Lot 2). The nearest well located on Lot 4 downgradient of the Lot 2 SEC zone is BMW2 (located approximately 15m west of the Lot 2 / 4 boundary). BMW2 is considered to be a useful well for site characterisation, however given the potential for groundwater concentrations in the immediate proximity to the Lot 2 / 4 boundary to be impacted by contamination sourced from the Lot 2 SEC area, consideration was given to concentrations reported in MW50A, MW50B and MW50C (located on Lot 3). Concentrations reported in MW50A, MW50B and MW50C were considered to be sufficiently representative of potential concentrations in the south-eastern corner of Lot 4 (noting given the south-westerly groundwater flow MW50A-C was considered to be a conservative assumption of groundwater concentrations in the south-eastern corner of Lot 4) and therefore installation of a separate well within this area of Lot 4 was not considered to be required. It is also noted that Lot 3, where MW50A-C are located, was also under audit by the Auditor at approximately the same time as the Lot 4 audit (see CARMS #74971-2; Service Order #8005307), with the Lot 3 Audit having been completed on 28 February 2020.

In addition to wells located on-site, off-site downgradient wells MW52, MW53, MW55, MW59 were installed by ARC in May 2017 (MW52, MW53), March 2018 (MW55) and April 2019 (MW59) to the west of Lot 4 (on the western side of Hamlet Street). MW59 was a deep well installed as part of the Lot 1 Audit to delineate chlorinated hydrocarbons reported deeper in the aquifer at MW45B.

Groundwater monitoring works for the wider Nuplex site were undertaken by ARC (and later Resolve) at the same time as conducting groundwater sampling works for Lot 4. As such, sampling works also included wells from across the wider Nuplex site. Results from off-site wells in close proximity to Lot 4 have been referenced as needed to provide an understanding of the distribution of contaminants up, down and cross-hydraulic gradient of Lot 4. Wells referenced include:

- MW52, MW53, MW55 and MW59 (located off-site to the west of Lot 4, understood to have been installed as part of the Lot 1 Audit, which was completed on 9 April 2020);
- CMW1, MW02A, MW17B, MW23A, MW50A, MW50B, MW50C (located down-gradient on Lot 3);
- MW20, MW27, MW28 (located on Lot 1 on the far northern boundary, considered to be representative of groundwater conditions entering the broader site);
- MW36, MW37, MW39, MW45A, MW45B (upgradient on Lot 1); and
- MW22, MW24AR, MW24BR, MW24CR, MW31, MW32, MW35 (upgradient/cross gradient on Lot 2).

It is also noted that former off-site up, cross and down gradient wells MW3, MW4, MW7, MW11, MW13, MW15, MW16/1, MW17/1, MW23, MW33, MW24A, MW24B, MW24C have also been referenced in order to assist in the understanding of off-site contaminant concentrations. On occasion, results from additional wells across the wider Nuplex site have also been referenced where needed to provide a more comprehensive understanding of groundwater conditions.

It is noted that on-site wells MW21 and MW38 and several off-site monitoring wells (which have been considered to represent up-gradient or cross-gradient groundwater conditions for the purpose of the Audit), standing water levels were consistently historically gauged above the screened interval. However, given the primary contaminants of concern for the wider Nuplex site were chlorinated hydrocarbons (the

contaminants for which these wells were primarily installed to target assessment of), the submerged screens were not considered to be of consequence when interpreting the results from these wells.

Based on data from groundwater monitoring rounds undertaken between August 2017 and August 2019 (i.e. during the Audit), on-site groundwater levels stabilised between 10.00 and 11.03 mbgl (28.55 and 27.55 mAHD) with the uppermost aquifer at the site being identified as the Brighton Group Red Bluff sands.

The locations of all groundwater monitoring wells on Lot 4 and in close proximity to Lot 4 are shown on Figures 9A-9B and 10A-10G. Figure 9A shows the locations of all historical wells located across the site (as provided within the GHD 2015 ESA report). Figure 9B shows the locations of all Lot 1 wells, noting the primary purpose of including this Figure is to show the location of well MW59 (installed as part of the Lot 1 Audit in April 2019). Table F (attached) presents a summary of well construction for all wells installed across the site (prior to and during the Audit). This table also includes well construction details for relevant off-site wells. Stabilised groundwater levels gauged in all wells over the course of the Audit are also provided in Table F.

The Auditor notes that all groundwater monitoring wells were installed in accordance with EPA Publication 669 (Groundwater Sampling Guidelines). The groundwater monitoring well network is considered to be adequate to assess the lateral and vertical extent of groundwater pollution within the site (with consideration of the Section 8.3 Delineating Groundwater Contamination of Schedule B2, NEPM (2013)). Additionally, sufficient data has been provided to enable a confident appraisal of groundwater flow directions (as discussed in Section 2.4.6).

A total of seven groundwater monitoring events (GMEs) were undertaken by ARC and Resolve over the course of the Audit spanning a two-year sampling period (August 2017 to August 2019). Further, one additional GME was undertaken in March 2020, as part of the Lot 2 Audit GQMP works. Results from this GME have not been included within the tables, discussion and interpretation of this Audit report as the works were completed post submission of the CUTEP for Lot 4 and not all on-going works for the Lot 2 Audit were incorporated. It is however noted that the results were reviewed to determine any potential change in the risk profile for Lot 4. Results from this review determined that no potential change in the risk profile was likely to have occurred (see Section 11.3 for the full discussion).

An additional GME was undertaken by HydroTerra in January 2017 (as directed by the client), just prior to Audit commencement has also been included within this data set (noting that it was not completed under the supervision of the Auditor). A summary of the January 2017 GME works was not included within the ARC 2018 DSI report, with only the results provided within Table 7 (extracted from the ARC report and attached as Table G1). The Auditor sourced the HydroTerra GME documentation and has provided it within Appendix C of the CUTEP report (attached as Appendix C of this report).

Prior to the Audit, a total of eight GMEs were conducted between 2008 and 2014 across the wider Nuplex site (including on Lot 4), six of which were completed as part of the 53V LanePiper Audit Report. As noted above, data and supporting documentation for GMEs conducted between 2008 and 2014 has been reviewed as part of the Audit. Tabulated results from GMEs conducted between 2008 and 2014 have been extracted from the GHD (2015) ESA report and attached as Table G2 to this report. Prior to 2008, it is not specifically known how many GMEs were conducted. Some limited data is provided for GMEs conducted between 2001 and 2008 within reports attached to the 53V Audit Report, however the majority of results are not sufficiently legible to reference and complete copies could not be obtained.

Groundwater monitoring wells were sampled using the 'low flow' (micropurge) technique during all GMEs conducted on on-site wells for Lot 4 during the audit, with the exception of BMW1 in August 2019 which was completed by bailer due to a limited water column (not considered to be of material difference to the results of the Audit).

During sampling, field measurements were recorded including purge rates, volumes purged, temperature, electrical conductivity, pH, redox, dissolved oxygen, standing water level as well as visual and olfactory observations. Groundwater samples were analysed for a range of analytes as shown in Table 9.1 below.

Table 9.1: Groundwater Monitoring Events

Date Sampling Undertaken	Wells Sampled	Analysis Undertaken (select wells)
30 January 2017	On-site: MW21 and MW38	TRH, BTEXN, CHCs
23-24 August 2017	On-site: BMW1, BMW2, MW21 and MW38 Off-site: MW50A, MW50B and MW50C	TRH, BTEXN, MAHs, PAHs, phenols, low level VOCs, solvents, metals, cations and anions, acidity and alkalinity, ammonia, nitrate, nitrite, ferrous/ferric iron, methane, ethene, ethane, glycols, volatile fatty acids, ethanol, methanol, cyanide, PCBs
23-24 October 2017	On-site: BMW1, BMW2, MW21 and MW38 Off-site: MW50A, MW50B and MW50C	TRH, BTEXN, MAHs, PAHs, phenols, low level VOCs, solvents, metals, cations and anions, acidity and alkalinity, ammonia, nitrate, nitrite, ferrous/ferric iron, methane, ethene, ethane, glycols, volatile fatty acids, ethanol, methanol, cyanide, PCBs
14-16 January 2018	On-site: BMW1, BMW2, MW21 and MW38 Off-site: MW50A, MW50B and MW50C	TRH, BTEXN, low level VOCs, metals, cations and anions, alkalinity, ammonia, nitrate, nitrite, ferrous/ferric iron, methane, ethene, ethane, glycols, volatile fatty acids, ethanol, formaldehyde
15 May 2018	Off-site: MW50A, MW50B, MW50C	TRH, BTEXN, MAHs, PAHs, phenols, low level VOCs, solvents, metals, cations and anions, ammonia, nitrate, nitrite, ferrous/ferric iron, methane, cyanide
5 July 2018	Off-site: MW50A, MW50B, MW50C	TRH, BTEXN, MAHs, PAHs, phenols, low level VOCs, solvents, metals, cations and anions, ammonia, nitrate, nitrite, ferrous/ferric iron, methane, cyanide
14 August 2018	On-site: MW21 and MW38	TRH, BTEXN, low level VOCs, metals, chloride, sulphate, sodium, fluoride, ammonia, nitrate, nitrite, formaldehyde
16 January 2019	On-site: BMW2 Off-site: MW50A, MW50B and MW50C	TRH, BTEXN, MAHs, VOCs, solvents, TDS, metals, cations and anions, fluoride, ammonia, nitrate, nitrite, ferrous iron

Date Sampling Undertaken	Wells Sampled	Analysis Undertaken (select wells)
10 April 2019	Off-site: MW50A, MW50B and MW50C	TRH, BTEXN, MAHs, VOCs, solvents, metals, cations and anions, ammonia, nitrate, nitrite, ferrous iron
29 – 30 August 2019	On-site: BMW1, BMW2 and MW38 Off-site: MW50A, MW50B and MW50C	TRH, BTEXN, MAHs, PAHs, phenols, VOCs, solvents

No measurable LNAPL, DNAPL or surface sheen was observed in any of these wells during gauging or sampling. It is noted that based on the presence of groundwater concentrations (i.e. TCE) exceeding 1% of aqueous solubility reported within MW50B and MW50C (which have conservatively been assumed to also be representative of groundwater concentrations on Lot 4, given the groundwater flow direction and proximity of those wells to the Lot 3 / 4 boundary), a NAPL notification was provided to EPA on 23 January 2019.

The Auditor conducted a review of groundwater concentrations reported between 2008 and 2014, prior to the commencement of the Audit, to assist in guiding groundwater sampling works during the Audit. Table 8.1 of the ARC (November 2018) DSI report provides a summary of maximum contaminant concentrations reported over this period. Concentrations are summarised for historical on-site wells MW9/2, MW12/1, MW21 and MW38, as well as off-site up and cross-gradient wells MW3, MW4, MW13/2, MW15/3, MW22, MW24A, MW24B and MW24C, MW32 and MW35, and down-gradient wells MW16/1, MW17/1, MW23, and MW33.

The Auditor has also completed Table I (attached) which provides a summary of all groundwater contaminant exceedances reported on-site (against the Auditor's criteria) between 2008 and 2014.

As summarised in Table I (attached), the following contaminants were present in groundwater in on-site wells, above the Auditor's adopted screening criteria, prior to commencement of the Audit:

- pH;
- Inorganics (ammonia, nitrate, nitrite, chloride, sodium);
- Metals (arsenic, cobalt, copper, iron, lead, manganese, nickel and zinc);
- Trichloroethene, cis-1,2 dichloroethene, carbon tetrachloride, dichloromethane, bromomethane (methyl bromide);
- TPH C_6-C_9, TRH C_{10}-C_{36}

The Auditor does also note that the following contaminants were analysed on-site with reported detection limits above criteria: 1,1-dichloroethane, 1,2-dichloroethane, 1,1,2-trichloroethane, vinyl chloride, 1,2-dichlorobenzene, 1,4-dichlorobenzene, benzene and ethylbenzene. It is noted that all contaminants, with the exception of 1,1,2 TCA were analysed with sufficiently low detection limits during the audit.

Although 1,1,2 TCA was not analysed with a sufficiently low detection limit, it is not considered to alter the outcomes of the audit as 1,1,2 TCA was reported as pollution in MW50A-C (considered to extend on to Lot 4) and thus, regardless, 1,1,2 TCA pollution was considered to be present on Lot 4. 1,1,2 TCA was not

considered to have been sourced from Lot 4. Therefore, the elevated detection limits during the 2008 - 2014 monitoring period are not considered to be of consequence to the audit.

In addition to the above, concentrations of mercury, fluoride, sulphate, chloroform, tetrachloroethene and toluene were also detected on-site but below criteria.

The Auditor also notes that from review of the off-site up and cross-hydraulic gradient well results the following contaminants were also reported in off-site up gradient wells: nitrate, nitrite, chloride, fluoride, sodium, sulphate, cyanide, arsenic, cadmium, cobalt, copper, iron, manganese, mercury, lead, nickel and zinc, trichloroethene, tetrachloroethene, cis and trans-1,2 dichloroethene, vinyl chloride, carbon tetrachloride, 1,1-dichloroethane, 1,1-dichloroethene, 1,2 dichloroethane, 1,1,2-trichloroethane, 1,1,1-trichloroethane, 1,2-dichlorobenzene, 1,4-dichlorobenzene, chlorobenzene, chloroform, bromodichloromethane, dichloromethane, benzene, toluene, ethyl benzene, xylenes, acetone, chlorodibromomethane, pyrene, 1,3 dichloropropane, TPH C_6-C_9 and TRH C_{10}-C_{36}.

All tabulated groundwater concentrations reported between 2008 and 2014 are presented in Table G2 (attached) (extracted from GHD 2015 DSI report). It is noted that Table G2 provides groundwater concentrations for all wells across the wider Nuplex site installed and sampled during this period. Table I (attached) provides a summary of groundwater results against the Auditor's adopted criteria for the 2008 – 2014 sampling period.

Table H2 (attached) provides a summary of groundwater results reported above the Auditor's adopted screening criteria over the course of the Audit, noting this table also includes groundwater results reported during the January 2017 GME. Table H1 (attached) provides a summary of groundwater results reported above the Auditor's adopted screening criteria during the final GME. Tables 6 to 8 of the ARC (November 2018) DSI report and Table 3 of the Resolve (August 2019) GME report, extracted and provided as Tables G2 and G3 of this report, summarise all groundwater analytical results for sampling undertaken over the course of the Audit for all on-site and relevant off-site groundwater monitoring wells.

Figures 9A, 9B and 10A-10G present the location of all groundwater monitoring wells on and off-site included as the monitoring well networks considered relevant for the assessment of Lot 4. These figures also present concentrations of benzene, chlorinated hydrocarbons, metals (arsenic, cobalt, copper iron, lead, manganese, nickel and zinc), inorganics (ammonia, nitrate, nitrite, chloride and sulphate) reported between 2008 and 2018. It is also noted that Figure 9A and 9B presents the groundwater monitoring well network across the wider Nuplex site as reported in June 2015 and June 2019 (to demonstrate the location of some historical wells which have since been destroyed and the location of well MW59 installed as part of the Lot 1 Audit). It is noted that groundwater sampling results from GME's conducted in January, April and August 2019 are not presented on the figures. Results are presented in the Resolve (October 2019) GME report, presented in Appendix G of this report. Tabulated results from these GMEs have been extracted from the Resolve report and shown as Table G3.

9.2 Groundwater Remediation Works

No active groundwater remediation was undertaken at the site, neither pre-Audit nor post-Audit.

At the time of the Lot 4 audit works, soil and active groundwater remediation works had been occurring on the up-hydraulic gradient Lot 2 site, targeting the chlorinated hydrocarbon pollution. At the time of preparation of the audit report, it is understood that Lot 2 remediation works had been completed and that the site was in a period of groundwater monitoring to assess contaminant trends to support CUTEP.

9.3 Final Groundwater Condition

The groundwater monitoring well network showing all wells on Lot 4 is shown on Figures 9A, 9B, 10A-10G.

Groundwater investigation works completed for the site included the installation and sampling of a total of seven on-site groundwater monitoring wells (in addition to three historical on-site nested wells).

In addition, a total of 24 wells were installed as part of the Lots 1, 2 and 3 groundwater investigation works, as well as 18 off-site wells installed as part of delineation works. Twenty-four of these wells (seven on Lot 1, eight on Lot 2, five on Lot 3, and four off-site wells to the east of Lot 4) were considered in the assessment of groundwater for the Lot 4 site. Results from a further four wells historically installed on Lot 1 and Lot 2 (now destroyed) have also been referenced in order to assist in the understanding of upgradient sources of pollution.

As noted in Section 9.1 above, seven groundwater monitoring events spanning from August 2017 to August 2019 were conducted during the Audit (with one additional GME conducted just prior to the Audit in January 2017). Eight groundwater sampling rounds were conducted between 2008 and 2014 (for which all supporting documentation was available for review and reliance). A number of groundwater sampling rounds were conducted prior to 2008 (exact number not known) with the majority of results from these GMEs being illegible within the historical reports and as such they have not been reference or summarised.

Results from all GMEs have been used to delineate and characterise groundwater contamination (with consideration of Section 8.3 Delineating Groundwater Contamination of Schedule B2, NEPM (2013)). It is noted that groundwater monitoring events spanned a period of more than twelve months, accounting for temporal and seasonal variations in groundwater.

Based on the above, the groundwater monitoring well network to assess the lateral and vertical extend of groundwater pollution within the site is considered adequate. Additionally, sufficient data has been provided to enable a confident appraisal of groundwater flow directions and to appraise aquifer hydraulic characteristics for estimation of groundwater flow and contaminant migration rates.

Summaries of groundwater contaminant ranges reported above criteria during all rounds completed during the Audit (August 2017 – August 2019; and including the January 2017 GME) are provided in Table H2 and groundwater contaminant ranges reported above criteria in the final round of sampling are provided in Table H1 (appended).

It is noted that no sheen (and no measurable LNAPL or DNAPL) was observed in any on-site well during all GMEs (noting this does not include Lot 2 wells). As noted above however, a NAPL notification was provided to EPA on 23 January 2019 to notify EPA of the likely presence of groundwater concentrations (i.e. TCE) exceeding 1% of aqueous solubility in MW50B and MW50C (considered to be representative of groundwater concentrations extending onto Lot 4).

Based on the final groundwater sampling round (as summarised within Table H1 attached), the beneficial uses Water Dependent Ecosystems and Species, Potable Water Supply (desirable), Agriculture and Irrigation (irrigation), Agriculture and Irrigation (stock watering), Water-based Recreation (primary contact recreation), Traditional Owner Cultural Values, Cultural and Spiritual Values, and Industrial and Commercial are precluded on-site by concentrations of pH, metals (arsenic, cobalt, copper, iron, lead, nickel, zinc), inorganics (ammonia, nitrate, chloride, sodium, sulphate), TRH C_6-C_{10}, benzene, trichloroethene, vinyl chloride, 1,1-dichloroethane, 1,1-dichloroethene, carbon tetrachloride, 1,2-dichlorobenzene and 1,4-dichlorobenzene.

Concentrations of trichloroethene, vinyl chloride, 1,1-dichloroethane, 1,2-dichlorobenzene, 1,4-dichlorobenzene, TRH C_6-C_{10}, benzene, 1,1,2-trichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, chloroform, cis-1,2-dichloroethene, dichloromethane, tetrachloroethene, xylenes and trihalomethanes were also reported as pollution in MW50A, MW50B and/or MW50C in the final round of sampling. As noted in Section 9.1 above, the Auditor has considered concentrations reported in MW50A-C to also be representative of concentrations present in the south-eastern corner of Lot 4.

It is also noted that concentrations of mercury and ethylbenzene were reported as pollution on Lot 4 and/or MW50A-C during one or more GMEs completed prior to the final GME (i.e. as shown in Table H2).

It is noted that concentrations of certain metals and inorganics were also reported as pollution in MW50A, MW50B and/or MW50C in the final GME for these wells. Review of metals and inorganics across Lot 4 and in MW50A-C identified that consistent contaminants were reported as pollution on both sites, with the exception of mercury, manganese and nitrite which were reported as pollution in MW50A-C but not on Lot 4. Concentrations in MW50A-C were considered likely to be sourced from Lot 2 and as such could also realistically extend onto Lot 4. The Auditor notes that he has limited his consideration of contaminants potentially extending to Lot 4 to those which are considered to pose a potential risk to site users and/or alter the outcomes of the Audit (e.g. volatile organic compounds). Concentrations of mercury, manganese and nitrite in MW50A, MW50B and/or MW50C were considered to be sufficiently low and in the context of other pollution identified on Lot 4, they were not considered to alter the outcomes of the audit. As such, no further consideration of metals or inorganics reported as pollution on MW50A, MW50B or MW50C has been made by the Auditor.

Figures 10A – 10G present groundwater exceedances above relevant criteria during sampling rounds conducted between 2017 - 2018. It is noted that figures do not present the results from January, April and August 2019 (as reported on by Resolve). These results have been presented in Table G3 and in the Resolve (October 2019) GME Report (provided in Appendix G of this report).

It is also noted that the following contaminants were detected at concentrations below the relevant criteria on Lot 4 during one or more groundwater sampling rounds conducted during the Audit: barium, cadmium, chromium, manganese, nitrite, fluoride, toluene, chloroform, tetrachloroethene, chlorobenzene, trihalomethanes, formaldehyde and TRH >C_{10} – C_{40}.

It is also noted that the following contaminants have been reported as pollution and/or detected in up and/or cross gradient wells (current or historical GMEs), but have not been detected on Lot 4: MEK, acetone, 4-methyl-2-pentanone, carbon disulphide, ethanol, chlorodibromomethane, bromide, pyrene, trans 1,2 dichloroethene, 1,2 dichloroethane, 1,1,2 trichloroethane, 1,1,1-trichloroethane and 1,3 – dichloropropane. Although, extensive groundwater sampling conducted over many years has never identified these contaminants on Lot 4, the Auditor has considered any potential risks to on-site receptors in the event that these contaminants did extend to Lot 4 in the future (see Section 9.3 below and Appendix H). It is noted that risks associated with these contaminants to the proposed development were considered to be low and acceptable.

Sections 9.3.1 - 9.3.7 below provide a discussion on the nature, extent and likely source of each contaminant identified as pollution in all on and off-site wells.

9.3.1 Chlorinated Hydrocarbons, Trihalomethanes and TRH C_6-C_{10}

Based on the results reported during the final groundwater sampling round, the beneficial uses Potable Water Supply (desirable), Agriculture and Irrigation (stock watering), Water-based Recreation (primary contact recreation) are precluded on-site in wells BMW1, BMW2 and/or MW21 by one or more of TRH C_6-C_{10}, trichloroethene, vinyl chloride, 1,1, dichloroethane, 1,1 dichloroethene, carbon tetrachloride, 1,1,2-trichloroethane, 1,2 dichlorobenzene and 1,4 dichlorobenzene.

Further, the beneficial uses Water Dependent Ecosystems and Species, Potable Water Supply (desirable), Agriculture and Irrigation (stock watering), Water-based Recreation (primary contact recreation), Traditional Owner Cultural Values and Cultural and Spiritual Values are also precluded in wells MW50A, MW50B and/or MW50C by one or more of trichloroethene, tetrachloroethene, cis 1,2 dichloroethene, 1,1 dichloroethane, 1,1 dichloroethene, 1,2 dichloroethane, 1,1,2 trichloroethane, carbon tetrachloride, vinyl chloride, 1,2 dichlorobenzene, 1,4 dichlorobenzene, chloroform, dichloromethane, trihalomethanes and TRH C_6-C_{10} (assumed to also be present on Lot 4).

Figures 10A-10D (attached) present concentrations of TRH C_6-C_{10}, trichloroethene, tetrachloroethene, cis 1,2 dichloroethene, 1,1 dichloroethane, 1,1 dichloroethene, 1,2 dichloroethane, 1,1,2 trichloroethane and carbon tetrachloride, vinyl chloride, chloroform, 1,2 dichlorobenzene, 1,4 dichlorobenzene and chlorobenzene (noting Figures 10A, 10C and 10D show concentrations reported 2017-2018 and Figure 10B shows concentrations for the period 2008-2018). Results from 2019 are presented in Table G3. It is noted that Figures 10A and 10B have been extracted from the ARC report, with ARC having referenced different criteria. As such the highlighting showing exceedances of criteria are not consistent with the Auditor's nominated exceedances. The figures have however been included to present contaminant concentrations and distribution. The Auditor has referenced his criteria when drawing conclusions with respect to CUTEP and the Audit.

As noted above, sources of chlorinated hydrocarbons and trihalomethanes have been identified on Lot 1 (immediately to the north and northeast) and Lot 2 (immediately to the east). The Auditor has reviewed the distribution of contamination reported on Lot 4, in conjunction with the results from the soil investigation, to determine if all chlorinated hydrocarbons and trihalomethanes are likely to be sourced from off-site or if the site may have also contributed to the observed concentrations.

It is noted that reported concentrations of TRH C_6-C_{10} within BMW1, BMW2 and MW21 were considered to comprise chlorinated hydrocarbons. A small component of the TRH C_6-C_{10} reported in wells MW50A, MW50B, MW50C and, to a much lesser extent BMW1 and BMW2, was likely to comprise petroleum hydrocarbons. However, given the disproportionate concentration of chlorinated hydrocarbons within these wells compared to petroleum hydrocarbons, for the purpose of this Audit the TRH C_6-C_{10} pollution will be addressed as comprising chlorinated hydrocarbons.

As noted in Section 8.1 above, concentrations of all chlorinated hydrocarbons and trihalomethanes analysed in soil on Lot 4 were reported below LOR, noting a total of 44 samples were analysed across Lot 4 for chlorinated hydrocarbons and relied upon for the Audit.

Soil sampling (which has also comprised excavation and validation works) has been undertaken across Lots 1 and 2. As noted in Section 8.1.6 above, Lot 1 soil sampling has identified elevated concentrations of chlorinated hydrocarbons in soil, including concentrations of chloroform, tetrachloroethane, trichloroethene, cis-1,2-dichloroethene. As noted in Section 2.2 above, Lot 1 was considered to have been a potential source area for chloroform and chlorinated hydrocarbons, with source areas comprising the

drum storage area (used for storing drums of TCE, PCE, chloroform and methylene chloride), a TIT (which was known to have leaked) and a chloroform flocculation area.

Further (and as also noted in Section 8.1.6 above), Lot 2 soil sampling identified elevated concentrations of chlorinated hydrocarbons in soil, including concentrations of trichloroethene, cis-1,2-dichloroethene, 1,1-dichloroethane, 1,1,2-trichloroethane, tetrachloroethane, carbon tetrachloride, dichlorobenzenes and chlorobenzene. The Auditor notes that concentrations of trichloroethene have been reported in soil on Lot 2 up to 8,180 mg/kg. As noted in Section 3.3 above, the southeast corner (SEC) of Lot 2 was historically used for decanting drums of TCE (and other chlorinated hydrocarbons) and contained a former concrete sump containing TCE, 1,1,1 TCA and PCE impacted soils. Further to the north of the SEC area, a poisons store and a flammables store building was also located on Lot 2, where concentrations of 1,2 DCA, chloroform, PCE, TCE and cis-1,2 DCE were identified in soil.

A review of the distribution of chlorinated hydrocarbons on Lot 4 was completed by ARC and the Auditor to assess potential sources of the reported concentrations.

Findings from review of the distribution of chlorinated hydrocarbons and trihalomethane concentrations on Lot 4, and on surrounding sites (Lots 1, 2 and 3), shows there to be multiple sources of chlorinated hydrocarbons and trihalomethanes on Lots 1 and 2 (i.e. up and cross hydraulic gradient) extending on to Lot 4.

Groundwater assessment of the northern portion of Lot 4 was undertaken through wells MW21 and MW38, as well as now destroyed wells MW9/1-3 and MW10/1-3 (noting however that groundwater sampling and analysis was never conducted on MW10). MW21 was installed in the far north-western corner of Lot 4, essentially on the Lot 1 / Lot 4 boundary. MW38 was installed in the central northern portion of the site.

Elevated concentrations of TCE and cis 1,2 DCE were reported at MW21 during one or more sampling rounds conducted during the Audit. Further, detectable concentrations of chloroform, PCE, carbon tetrachloride and 1,4 dichlorobenzene were also reported at MW21 during sampling conducted as part of the audit.

One elevated concentration of 1,4 dichlorobenzene was reported in MW38 in one GME conducted during the Audit.

Both MW21 and MW38 also have standing water levels above the screened intervals. Given the primary contaminants of concern are chlorinated hydrocarbons (with no potential sources of petroleum hydrocarbons identified on Lot 4), the submerged screens are not considered to be of relevance for the CUTEP and Audit conclusions.

Based on the groundwater flow direction, MW38 is positioned to assess potential impact from the former TIT on Lot 1 towards Lot 4 (i.e. immediately down hydraulic gradient of the TIT) and MW21 is positioned to assess potential impact from the former drum storage area on Lot 1 towards Lot 4.

MW21 is however also located immediately adjacent to the drain which extended from the TIT on Lot 1 to off-site on the western side of Lot 1 (see Figure 8A). Given the positioning of MW21 (immediately adjacent to the TIT drain and on the far up hydraulic gradient side of Lot 4), MW21 was considered likely to be representative of contamination which had extended through the preferential pathway of the drain from the TIT and not considered likely to be associated with any potential sources from Lot 4. It is noted that MW38 reported chlorinated hydrocarbon concentrations significantly less than MW21, and thus the

Auditor considers the positioning of MW38 (further into Lot 4 from MW21 and immediately adjacent to the Lot 4 building) would also suggest that pollution at MW21 (i.e. in the northern portion of the site) has not been sourced from Lot 4. Further it is noted that the soil investigation works did not identify indicative sources of groundwater pollution on Lot 4, however sources (the TIT and associated drain) were identified offsite on Lot 1, immediately up hydraulic gradient of Lot 4.

The Auditor also notes the presence of the former drum storage area on Lot 1, immediately to the north of Lot 4. As per Section 3.3 above, the former drum storage area was used for the storage of TCE, PCE, chloroform and methylene chloride. Well MW37 was installed within the former drum storage area (up hydraulic gradient of MW21) as part of the Lot 1 works to assess the potential for contamination within this portion of Lot 1 to have resulted in groundwater pollution. MW37 reported detectable concentrations of PCE, cis 1,2 DCE and chloroform (below criteria) and concentrations of TCE above criteria. It is also noted that review of soil sampling conducted in this portion of Lot 1 also reported detectable concentrations of PCE, cis-1,2 DCE and chloroform. It is considered that concentrations of chlorinated hydrocarbons reported in MW21 are also partially sourced from the former drum storage area of Lot 1, noting in particular the PCE which was not reported at the former TIT, but were reported in MW21 at concentrations commensurate with those reported at MW37.

It is noted that MW21 was installed with a 7.5m long screen and thus has the potential to have under reported groundwater contaminant concentrations due to dilution from the long screen length. It is however noted that all wells surrounding MW21 (i.e. MW38 (located approximately 10m to the southeast on Lot 4), MW52 (located approximately 15m downgradient off-site), MW37 (located approximately 10m northeast on Lot 1)) have been constructed with 3m long screens. Results reported within these wells are consistent with the understanding of contaminant distribution as reported in MW21 and thus the long screen is not considered to alter the conclusions able to be drawn in this Audit report.

Historically (i.e. prior to commencement of the Audit) concentrations of TCE (above criteria) and chloroform (below criteria) were reported at MW38. Review of results reported in groundwater monitoring well MW3 (installed and sampled as part of the former 53V Audit) and wells MW45A and MW45B (installed more recently as part of the 53X Audit on Lot 1) identified significantly higher concentrations of chloroform at the TIT (maximum 11,600 ug/L in MW3, as compared to the maximum of 32 ug/L in MW38) and higher concentrations of TCE (maximum 273 ug/L at MW45A, as compared to 13 ug/L at MW38). As noted above, much of the contamination associated with the former TIT appears to have extended through the drain (acting as a preferential pathway) along the southern portion of Lot 1. It is however considered that some of the contamination (albeit at lower concentrations) has also been transported through groundwater in the direction of the groundwater flow path, thus resulting in the concentrations reported at MW38. Pollution at MW38 may also have potentially resulted from use of the southern portion of Lot 1 as the chloroform flocculation area. As noted in Section 8.1.5 above, although figures show the chloroform flocculation area on Lot 1 to partially extend marginally into Lot 4 in the far north-eastern corner, soil investigation results undertaken for Lot 4 have shown this area of Lot 4 to have not been directly impacted by these activities other than via groundwater transport.

The Auditor does note that concentrations of TCE and cis-1,2 DCE were reported at much lower concentrations in historical well MW3 (located at the former TIT prior to its removal), than in wells MW45A and MW45B (installed just prior to removal of the TIT). It is unknown why well MW3 reported much lower chlorinated hydrocarbons than MW45A and MW45B, however it is noted that the 53V Audit report noted uncertainties with respect to the construction of some wells installed during the earlier years of the Nuplex

investigations, including MW3. Review of the construction of MW3, MW45A and MW45B show MW3 to have been installed to a depth of 11.5 mbgl, with the screen length extending to as shallow as 2 mbgl, whereas MW45A and MW45B were installed to depths of 17.0 mbgl (screen 14.0-17.0 mbgl) and 20.5 mbgl (screen 17.0-20.0 mbgl) respectively. Groundwater investigations across the wider Nuplex site have shown the highest chlorinated hydrocarbon concentrations to be reported at depths of approximately 12.0 – 18.0 mbgl. Given the shallow nature of MW3 and uncertainties with respect to construction and reliability of this well, the Auditor considers MW45A and MW45B to be more representative of groundwater conditions sourced from the former TIT area on Lot 1.

Nested wells MW9/1-3 were installed in the northern portion of the site, approximately 5m from MW21 and 8m from MW38. (As noted above, MW10/1-3 were also installed in the northern portion of Lot 4 but were not sampled.) MW9/1, MW9/2 and MW9/3 were installed to depths of 15.3m, 7.1m and 11.3m respectively. Of these wells, only MW9/2 was sampled (July 2008), with all chlorinated hydrocarbon results reported <LOR. As per MW3 (as described above), MW9/2 was installed shallower in the aquifer, to a maximum depth of 7.1, with a screened interval of 4.3-7.1 mbgl. Gauging of MW9 reported depth to water as shallow as 0.46 mbgl, with conclusions based on its positioning in proximity to services and TDS results, that it was influenced by fresh water recharge from leaking services. Results from MW9, although useful qualitatively, have not been relied upon quantitatively (in favour of groundwater results from MW21 and MW38 located in the same vicinity of former well MW9).

Based on the above discussion, the Auditor considers that the chlorinated hydrocarbon and trihalomethane pollution reported in MW21 and MW38 in the northern portion of the site not to be site sourced pollution, but to be a result of off-site sources (i.e. the former TIT, the former drain extending from the TIT and the former drum storage area, all located on Lot 1) to be the sources of the pollution. As summarised in Section 6.1.6 above, remediation works on Lot 1 have been conducted as part of the Lot 1 Audit. It is understood that in late 2017 and early 2018 works on Lot 1 have included removal and validation of the TIT, removal and validation of the drain and excavation and validation works within the drum storage area. Based on completion of remediation works on Lot 1, the Auditor anticipates concentrations at MW21 and MW38 to improve in the future (see Section 9.4 below).

Wells BMW1 and BMW2 were installed in the central and south-central portion of Lot 4. These wells were installed to assess potential groundwater pollution which may have either resulted from on and/or off-site sources. BMW1 is located down and cross hydraulic gradient of the poisons and flammables stores on Lot 2, with BMW2 being located down and cross hydraulic gradient of the poisons and flammables stores and the SEC area on Lot 2. Wells BMW1 and BMW2 reported concentrations of carbon tetrachloride, 1,1 DCA, 1,1 DCE, cis 1,2 DCE, 1,1,2 TCA, TCE, PCE, vinyl chloride, chloroform, 1,2 dichlorobenzene and 1,4 dichlorobenzene all of which were reported at significantly higher concentrations in off-site up gradient wells on Lot 2 (as presented in Table I and Figures 10A-10D).

Based on the reported distribution of contaminant concentrations, concentrations of carbon tetrachloride and 1,2 DCA in BMW1 (37-135 ug/L) and BMW2 (21-165 ug/L) were considered likely to have been sourced from the area of the poisons and flammables stores on the eastern portion of Lot 2 (with maximum concentrations of carbon tetrachloride and 1,2 DCA reported in well MW35 of 593 ug/L and 4,590 ug/L respectively).

Concentrations of PCE, TCE, cis 1,2 DCE, vinyl chloride, 1,2 dichlorobenzene, 1,4 dichlorobenzene, chloroform, 1,1,2 TCA, 1,1 DCA, and 1,1 DCE reported in BMW1 and BMW2 were considered to have been

sourced from the SEC area on Lot 2 (with the maximum concentrations of each of these contaminants all reported in wells MW24AR-CR and/or historical wells MW13, MW15 and MW24A-C).

It is noted that an increase in chlorinated hydrocarbon concentrations (PCE, TCE, cis 1,2 DCE, vinyl chloride, 1,2 dichlorobenzene, 1,4 dichlorobenzene, 1,1 DCA, 1,1 DCE and 1,1,2 TCA) was observed in BMW1 and BMW2 between August 2017 and October 2017 (chlorinated hydrocarbon concentrations in BMW1 and BMW2 in August 2017 were generally two orders of magnitude lower than in subsequent sampling rounds). This increase was considered to be a result of active remediation conducted in the SEC on Lot 2. In 2017, active remediation works were undertaken on Lot 2, targeting the chlorinated hydrocarbons located in the SEC on Lot 2. In March-April 2017, soil remediation works comprised excavation and validation works to a depth of 5.0m in the southern portion of Lot 2. Active groundwater remediation works were then conducted from August to December 2017, comprising soil vapour extraction and air sparge and in July 2019 comprising ISCO. Results from the remediation works appear to have reduced concentrations in the centre of the chlorinated hydrocarbon plume on Lot 2, as represented through review of concentrations presented in Table H1 (final GME), Table H2 (all rounds during the audit) and Figures 10A – 10D (attached). However, in surrounding wells, concentrations appear to have increased, considered likely to have been 'pushed' outwards from the source zone as a result of the introduction of air. This effect is not unexpected given the applied remediation method.

It is however noted that no increase in concentrations was observed for carbon tetrachloride or 1,2 DCA. These contaminants were considered to have been sourced from further to the north in Lot 2, (in the poisons and flammables stores), where no remediation was undertaken and therefore no lateral influence from the remediation appears to have occurred. Thus, this conclusion would be consistent with the conceptual understanding that contaminants in surrounding wells sourced from the SEC remediation zone exhibited a rise in concentrations in response to the air sparge works, but those sourced from outside of the SEC zone did not increase.

Nested wells MW12/1-3 were historically installed in the south-western corner of Lot 4. Of these wells, only MW12/1 was sampled only three occasions between July 2008 and September 2009. Chlorinated hydrocarbons were all reported below LOR in MW12/1. Results from this well also provide a supporting line of evidence that Lot 4 is not a source of the groundwater pollution observed in BMW1 and BMW2, with contaminant concentrations only decreasing in the downgradient direction of the site, rather than increasing.

Further supporting these conclusions are the known use of Lot 2 SEC and poisons and flammables stores for the storage and handling of chlorinated hydrocarbons (including decanting of TCE) and trihalomethanes (including chloroform and refrigerants such as carbon tetrachloride) (as per Section 3.3), the identified presence of these contaminants in soil on Lot 2 (as per Section 8.1.6) and the lack of soil contamination, odours or PID readings on Lot 4 (as per Section 8.1).

As noted above in Section 6.4 above, results from wells MW50A, MW50B and MW50C were also considered likely to be representative of concentrations present in the south-eastern corner of Lot 4. This is considered to be a conservative approach given MW50A-C are located immediately down hydraulic gradient from the SEC area, and Lot 4 is located cross-hydraulic gradient. Given the proximity of the south-eastern corner of Lot 4 to the SEC area, and the level of groundwater pollution observed in the SEC area, the Auditor considers it reasonable that pollution from the SEC would have extended at least marginally into the south-east corner of Lot 4 and considers it to be a reasonable approach to infer concentrations at MW50A-C as an indication of groundwater conditions impacted from the Lot 2 SEC area in this area of Lot 4.

Concentrations of contaminants reported as pollution in MW50A-C in the final GME for MW50A-C are also presented in Table H1 (attached).

Review of results from MW50A-C showed that concentrations in these wells were likely to be solely sourced from Lot 2. A review of the distribution of chlorinated hydrocarbon and trihalomethane concentrations over time shows that wells MW50A-C have reported the highest concentrations of all chlorinated hydrocarbon and trihalomethane concentrations across Lot 3 (down hydraulic gradient of Lot 2), with results in off-site up gradient wells on Lot 2 reporting the maximum concentrations for all chlorinated hydrocarbons and trihalomethanes, much higher than those detected on Lot 3 (e.g. MW13 reported TCE of 791,000 ug/L in March 2010; MW15 reported dichloromethane of 179,000 ug/L in December 2009). The same distribution pattern over time has been reported on Lot 4 in comparison to results on Lot 2.

It is also noted that wells MW50A, MW50B and MW50C were installed to assess the vertical distribution of chlorinated hydrocarbons within the aquifer. As reported in MW50A-C, the lowest concentrations were reported at the shallowest depth, MW50A (as would be expected for chlorinated hydrocarbons). Review of groundwater levels of MW50A-C found the depth to groundwater to be consistently a maximum of approximately 2-3mm from each interval, with MW50A and MW50B frequently reporting the same level, thus suggesting little to no vertical gradient It is also noted that concentrations of trichloroethene were reported in MW50B and MW50C at concentrations exceeding 1% of aqueous solubility (i.e. 14,720 ug/L) with concentrations in MW50B and MW50C having ranged between 12,700 and 77,200ug/L (concentrations indicative of the potential proximity of DNAPL). No measurable DNAPL has been observed in any well at the Lot 3 or Lot 4 sites. Concentrations indicative of potential DNAPL in MW50B and MW50C are delineated onto Lot 3 and on to Lot 4 (i.e. down and cross hydraulic gradient of MW50B and MW50C and away from the source area on Lot 2) by MW02A, CMW1 and MW33R on Lot 3 and BMW1 and BMW2 on Lot 4.

As discussed in Section 8.1.6, the off-site source located on Lot 2 of the wider former Nuplex site is currently being addressed through a separate 53x Environmental Audit (in accordance with a Clean Up Notice issued for Lot 2). However, the Auditor notes that at the time of writing this Audit report, remediation and/or assessment of groundwater pollution on, and extending from, Lot 2 was still being undertaken. It is understood that three stages of remediation had been undertaken comprising the excavation of a residual chlorinated hydrocarbon soil source, the implementation of air sparge and soil vapour extraction to remediate soil and groundwater and more recently ISCO injections in the same area (i.e. southern end of Lot 2). The ongoing remediation works on Lot 2, have inhibited the Auditor's ability to comment on whether current site conditions (i.e. without the effects of active remediation) are likely to be conducive to reductive de-chlorination. The need to draw such conclusions is however considered to be outside of the scope of this Audit, noting responsibility of the Audit being conducted on Lot 2 to draw such conclusions.

As previously discussed, concentrations of chlorinated hydrocarbons extending onto Lots 3 (and by default onto Lot 4) from Lot 2 are indicative of potential DNAPL. As such, discussions between the Auditor and EPA resulted in email communication from EPA (dated 18 December 2019) notifying that the chlorinated hydrocarbon pollution on Lot 4 would also result in the need for completion of an EPA determined CUTEP for the site.

The Auditor notes that operation of the active remediation work on Lot 2 (as previously noted) has resulted in temporary measurable changes in both groundwater flow and the distribution of contaminants (from Lot 2) in groundwater in the vicinity of Lot 2. The reported concentrations in groundwater have fluctuated

and have the potential to continue to fluctuate as the aquifer re-equilibrates. Changes in concentrations in groundwater across Lot 4 (as a result of the Lot 2 remediation) were considered within Section 8.5 and as part of the risk assessment review in Section 9.3 and Appendix H.

In summary, based on the above discussion the following was noted (with respect to pollution identified in the final GME at the site):

- Trichloroethene pollution reported in well MW21 was considered to be sourced from the former TIT and associated drain, and to a lesser extent the former drum storage area, on Lot 1.
- TRH C_6-C_{10}, Trichloroethene, 1,1 dichloroethane, 1,1 dichloroethene, vinyl chloride, 1,1,2 trichloroethane, 1,2 dichlorobenzene and 1,4 dichlorobenzene in wells BMW1 and/or BMW2 are considered to be sourced from the SEC portion of Lot 2.
- Carbon tetrachloride reported in BMW1 and BMW2 is considered to be sourced from the poisons and flammables stores in Lot 2.
- Concentrations of trichloroethene, tetrachloroethene, cis 1,2 dichloroethene, 1,1 dichloroethane, 1,1 dichloroethene, 1,2 dichloroethane, 1,1,2 trichloroethane, carbon tetrachloride (assumed to be present still due to elevated detection limits), vinyl chloride, 1,2 dichlorobenzene, 1,4 dichlorobenzene, chloroform, dichloromethane, trihalomethanes and TRH C_6-C_{10} identified in MW50A, MW50B and MW50C are considered to be also present in the south-eastern corner of Lot 4, and are not considered to be sourced from the site, but are considered to be a result of off-site upgradient sources on Lot 2.

The Auditor has assessed the potential risk posed to beneficial uses of the land (or other use of the land) by the presence of volatile contaminants present in groundwater (refer to Section 11.3).

9.3.2 Petroleum Hydrocarbons

In the final GME conducted for Lot 4, benzene was reported in on-site well BMW2 at a concentration equal to the criteria for Potable Water Supply (desirable), Agriculture and Irrigation (stock watering), Water-based Recreation (primary contact recreation).

Over the course of all GMEs conducted on Lot 4 during the audit, benzene pollution was reported in BMW1 (2 ug/L) and BMW2 (1 ug/L) in October 2017 and January 2019. Detectable toluene, below criteria, was also reported in BMW2 at concentrations of 5 ug/L and 3 ug/L in October 2017 and January 2018 respectively.

No detectable petroleum hydrocarbon concentrations were reported in wells MW21 and MW38 during any GME conducted during the Audit and pre-Audit.

As noted above, wells MW21 and MW38 have standing water levels above the screened intervals. Given the presence of low concentrations of benzene (maximum 2ug/L) in upgradient off-site well MW45B, theoretically the submerged screens of MW21 and MW38 may be masking the presence of benzene in the northern portion of Lot 4 (sourced from the TIT on Lot 1). It is however noted that the potential presence of benzene on Lot 4 has been assessed through the risk review (with reported upgradient concentrations being well below the relevant HSLs). Further it is noted that historical well MW3, formerly installed in the location of MW45A and B, was installed with the screen across the standing water level. No detectable concentrations of petroleum hydrocarbons were reported in MW3, with the exception of one

concentration of toluene (58 ug/L in March 2010). As such, the submerged screens are not considered to affect the outcomes of the Audit.

Historical well MW12, located in the south-western corner of Lot 4, to the north of the former UST on the western side of Lot 3, consistently reported petroleum hydrocarbons <LOR during monitoring of the well (between July 2008 and January 2011), with the exception of two detectable concentrations of toluene (5 ug/L in July 2008 and 11 ug/L in March 2010), both below criteria.

The benzene pollution reported in BMW1 and BMW2 was considered to be sourced from Lot 2, in line with the increase in concentrations of chlorinated hydrocarbons, observed in these two wells in October 2017 following air sparge remediation works commencing on Lot 2 in August 2017 (as noted in Section 9.3.1 above).

It is however noted that benzene and xylenes pollution was also reported in MW50A-C, and was thus considered to extend on to south-eastern corner of Lot 4.

Based on the results reported during the final groundwater sampling round, the beneficial uses Potable Water Supply (desirable), Agriculture and Irrigation (stock watering) and Water-based Recreation (primary contact recreation) are precluded on-site by benzene and xylenes as indicated in wells MW50A, MW50B and MW50C.

Wells MW50A-C have consistently reported concentrations of benzene (maximum concentration of 10 ug/L) during all six groundwater sampling rounds conducted on these wells, between August 2017 and April 2019. MW50B and MW50C have also reported concentrations of toluene, ethylbenzene and xylenes in certain sampling rounds. It is noted that over the same period, off-site up/cross-gradient wells MW24AR, MW24BR and MW24CR have also reported concentrations of BTEX (with the maximum benzene reported as 27 ug/L). Historically, former wells MW13 and MW15 (located on Lot 2) also reported benzene concentrations, with a maximum of 52 ug/L (reported in MW13/2 in January 2011).

It is understood that Lot 3 was its own source of petroleum hydrocarbon pollution, with historical USTs being present in the central and western portions of Lot 3. It is also understood that no sources of petroleum hydrocarbons have been detected on the eastern side of Lot 3 in the vicinity of MW50A-C, with MW50A-C being located on the up hydraulic gradient side of Lot 3. In addition, historical documentation states that three USTs were previously located in the southern portion of Lot 2 (i.e. immediately up hydraulic gradient of MW50A-C). Two of the three USTs were stated to have contained acetone and ammonia, with one UST containing petroleum hydrocarbons (e.g. toluene). Detectable concentrations of benzene (maximum 0.3 mg/kg), ethylbenzene (maximum 86.1 mg/kg), toluene (maximum 13.8 mg/kg) and xylenes (maximum 94.9 mg/kg) were also reported in soil across the southern portion of Lot 2. As such, it is considered that Lot 2 is likely to be the source of petroleum hydrocarbon pollution to wells MW50A-C on Lot 3. Consistent with the approach applied for chlorinated hydrocarbons and trihalomethanes (as discussed above), the Auditor considers that the benzene pollution reported at MW50A-C was also likely to be present in the south-eastern corner of Lot 4.

In summary, based on the above discussion the following was noted:

- Benzene identified in BMW1 and BMW2 was not considered to be sourced from Lot 4, but considered to be a result of off-site upgradient sources on Lot 2.

- Benzene and xylenes pollution reported in MW50A, MW50B, MW50C are considered to also be present in the south-eastern corner of Lot 4 and are considered to be a result of off-site upgradient sources on Lot 2.

Figure 10E (attached) presents benzene concentrations reported over time (2008-2018) (noting xylenes have not been included in this figure).

The Auditor has assessed the potential risk posed to beneficial uses of the land (or other use of the land) by the presence of volatile contaminants present in groundwater (refer to Section 11.3).

9.3.3 Metals

Metals concentrations reported in groundwater across Lot 4 and in wells in the immediate vicinity of Lot 4 between 2008 and 2018 are presented on Figure 10F (attached). It is noted that not all historical and current wells are included within Figure 10F and as such Figures 9A and 9B should also be referenced for the location of additional wells referenced within the below discussion.

9.3.3.1 Arsenic and Iron

Based on the results reported during the final groundwater sampling round, the beneficial uses Water Dependent Ecosystems and Species, Potable Water Supply (desirable), Traditional Owner Cultural Values and Cultural and Spiritual Values are precluded by arsenic in on-site well MW38. The beneficial uses Potable Water Supply, Agriculture and Irrigation (irrigation) and Water-based Recreation (primary contact recreation), are precluded by iron in MW38.

A review of historical arsenic and iron concentrations in on-site wells shows that elevated concentrations have been consistently reported in MW38, dating back to initial groundwater sampling in December 2009. Maximum concentrations were reported as follows: arsenic (305 ug/L in March 2010) and iron (30,800 ug/L in December 2009). Concentrations of both arsenic and iron were noted to have decreased over the course of the nine groundwater sampling rounds conducted on MW38, with concentrations reducing to 96 ug/L for arsenic and 4,830 ug/L in the final GME for MW38 (August 2018).

No elevated concentrations of arsenic or iron were reported in soil (either fill or natural soil) across Lot 4. Limited soil analysis for iron was completed on-site, however where iron was analysed concentrations were not reported above criteria. Based on the soil results, the site was not considered likely to be a source of arsenic or iron contamination in groundwater.

The Auditor reviewed the distribution of arsenic and iron in groundwater monitoring wells from off-site in up, down and cross hydraulic wells installed as part of the wider Nuplex works to assist in assessing the potential source of the elevated concentrations.

Review of results from upgradient wells MW45A and MW45B, and historical wells MW3 and MW4 on Lot 1, shows elevated iron to a maximum concentration of 1,640 ug/L (MW45A) and one elevated concentration of arsenic of 15 ug/L (MW4).

Review of results from wells further across the Nuplex site shows elevated arsenic and iron to be reported sporadically across the site, with the highest concentrations reported in wells MW24CR (iron of 46,100 ug/L) and MW24BR (arsenic of 308 ug/L), in the source area on Lot 2 where the highest chlorinated hydrocarbons were reported. It is noted though that concentrations in these wells fluctuated significantly between GMEs, with concentrations reported between <LOR and their maximums as noted over time.

Over time, elevated concentrations of arsenic and iron were also reported in other wells on and off-site as follows: on Lot 3 (maximum arsenic of 258 ug/L and iron of 3,060 ug/L in MW17); to the south of Lot 3 in MW40 (maximum arsenic 392 ug/L and iron 13,100 ug/L); and off-site to west at MW55 (maximum arsenic of 114 ug/L and iron of 12,700 ug/L).

Based on the location of wells exhibiting the sporadic presence of elevated iron and arsenic in wells across the wider Nuplex site (and in off-site wells), it is considered that the elevated concentrations are likely to be associated with the biodegradation of petroleum and chlorinated hydrocarbons and mobilisation of iron and arsenic within the Brighton Group aquifer due to alterations in the geochemistry. It is noted that review of the highest concentrations of total dissolved iron in wells across the site exhibits concentrations to be predominantly comprising ferrous iron (e.g. within historical well MW17/1, MW38 and MW24CR), and thus likely to be representative of the occurrence of anaerobic degradation. It is also noted that low concentrations of dissolved methane have also been observed in wells across the Nuplex site with elevated ferrous iron (e.g. MW38 ranging from <10-220 ug/L) consistent with the occurrence of anaerobic degradation.

It is noted that well MW38 (on Lot 4) has only reported limited concentrations of chlorinated hydrocarbons and trihalomethanes (i.e. TCE and chloroform), between December 2009 and January 2014, and thus showing an absence of a source of breakdown products to result in the elevated iron and arsenic reported in MW38 during later GMEs (January 2017 – August 2018). It is however considered likely that the elevated iron and arsenic reported in MW38 is as a result of degradation of chlorinated hydrocarbons sourced from off-site up-gradient (i.e. at the former TIT on Lot 1).

Dissolved oxygen (DO) in wells across the site, and across the wider Nuplex site, has been reported to be consistently elevated (i.e. generally >2 mg/L), thus providing a consistent source of available oxygen electron acceptors for degradation of the hydrocarbons, which does not appear to have been depleted within the aquifer. It is considered that localised transient anaerobic conditions appear to have historically occurred (the source of which is unknown), thus resulting in temporary elevated ferrous iron and dissolved methane in select wells. However, highly oxygenated aquifer conditions have resulted in a return to steady state, whereby aerobic degradation prevails as the primary mechanism for hydrocarbon degradation and elevated ferrous iron and methane concentrations do not persist. It is however noted that lower DO (i.e. <1 mg/L) has historically consistently been reported in MW38, and thus likely to result in the consistently higher concentrations of iron and arsenic over time in this well. MW38 has exhibited predominantly reducing conditions over the course of the audit (-89.6 - 7.5mV), as opposed to the remainder of wells on Lot 4 which have reported predominantly oxidizing conditions (7.3 – 228.9mV), thus resulting in the observed variance in redox reported in MW38. More recent groundwater sampling rounds in MW38 (i.e. in January 2018) have reported significant increases in DO (3.6 - 4.61mg/L) and redox (368.1mV), and corresponding decreases in arsenic (as low as 18ug/L in January 2018) and iron (920ug/L in January 2018). This is considered potentially to be a result of the remediation works (i.e. removal, excavation and validation of the TIT and associated drain on Lot 1 in the months prior). Alternatively, it is also noted that the fresh water influence from leaking water services (as historically observed by water levels reported in MW9 and MW10) may have, over time, extended through the aquifer from the head of pressure created by the leakage, thus resulting in more oxygenated fresh water impacting results reported in MW38 in the later groundwater sampling rounds. Either way, the change in conditions appears to only result in a reduction in the off-site sourced groundwater pollution observed at MW38.

It appears that off-site sources may also be contributing to the elevated concentrations of arsenic and iron present in the aquifer as a result of hydrocarbon degradation occurring on the Nuplex site (specifically Lots 1, 2 and 3). Downgradient off-site well MW40 has reported concentrations ranging between 392 ug/L - 92 ug/L (arsenic) and 13,100 ug/L - 4,950 ug/L (total dissolved iron). Iron appears to be predominantly reported as ferrous iron. Wells up hydraulic gradient of MW40 (MW29 and MW30, located in between Lot 3 and MW40) have not reported arsenic or iron concentrations to the extent that they have been reported in MW40, during any sampling rounds. As such, it is considered that the concentrations of both arsenic and iron in MW40 are likely to be a result of an off-site source. It is noted that potential off-site sources in the vicinity of MW40 include a UST (known to be present just upgradient of MW40), as well as the sewer running along Hamlet Street. It is also noted that negative redox has been observed in MW40 (ranging from -24.6 mV to -74.0 mV), whereas a positive redox has been observed in virtually all other wells across the site (with the odd exceptions such as negative redox of -8 mV and -9 mV reported in MW50B and MW50C respectively in January 2018). The exact source of the contamination (and reducing conditions) at MW40 is not known, however as the source is not considered to be a result of activities on Lot 3, the identification of this source is considered to be outside of the scope of this audit.

Additionally, the Auditor notes the elevated iron and arsenic in MW55 (between 70 ug/L - 114 ug/L (arsenic) and 7,660 ug/L – 12,700 ug/L (total dissolved iron). This well is located approximately 80m to the west of the site, noting wells MW52 and MW53 in between the site and MW55 have also not reported arsenic or iron concentrations to the extent that they have been reported in MW55, during any sampling rounds. It is also noted that an off-site source of chlorinated hydrocarbons appears to have resulted in TCE pollution at MW55.

In summary, based on the above, the Auditor considers that arsenic and iron pollution reported in on-site wells MW38 is not sourced from the site, but is considered to be resultant from degradation of an off-site source on Lot 1. Figure 10F presents arsenic and iron concentrations reported across the site.

9.3.3.2 Cobalt

Based on the results reported during the final groundwater sampling round, the beneficial uses Water Dependent Ecosystems and Species, Traditional Owner Cultural Values and Cultural and Spiritual Values are precluded by cobalt in MW21, BMW1 and BMW2. Potable Water Supply is also precluded by cobalt in BMW1 and BMW2.

Historically, well MW38 also reported concentrations of cobalt above criteria, with the final two GME reported concentrations <LOR.

As per Section 8.2.2 above, cobalt was reported in soil across the site at concentrations exceeding the HIL A criteria. All elevated concentrations were reported in fill, but delineated with the underlying fill and/or natural soil. Three samples (one fill and two natural) were analysed for cobalt leachability (ASLP). Leachability analysis was conducted for cobalt on one fill sample (NHS_EEC_SB104/SB104A) and two natural samples (NHS_ARC_SB105A, NHS_ARC_SB106A). Results reported concentrations of 1.4 mg/L, <0.1 mg/L and 0.3 mg/L respectively. Leachability was calculated was having a maximum of 0.75% leachability (at a pH of 5). The Auditor also compared the reported leachable cobalt concentrations to the adopted drinking water criteria (US EPA regional screening levels in the absence of Australian Drinking Water criteria) which was adjusted by a factor of 100 to allow for dilution and dispersion to groundwater. Reported results from the natural sample were well below 100 times the drinking water guideline (0.6 mg/L), however, results from the fill sample reporting a leachability of 1.4 mg/L were above. As noted,

leachability was conducted at a pH of 5 (which is considered to present a highly conservative representation of leachability. Review of the results at this location however shown the fill sample results to be reported at a concentration of 256 mg/kg, with the underlying natural sample reporting a significantly lower concentration (well below criteria of 14mg/kg). As such, despite the leachability analysis reporting results higher than 100 times the drinking water criteria, the Auditor does not consider this result to be indicative of the fill representing a source of groundwater pollution. Based on the soil results, the site was not considered likely to be a source of cobalt contamination.

Review of the distribution of cobalt in wells across the site shows wells in the southern portion of the site (BMW1 and BMW2) to have reported the highest concentrations, ranging from 5 - 17 ug/L, compared to wells in the northern portion of the site (MW21 and MW38) which reported concentrations ranging from <1 – 7 ug/L. It should also be noted that historical on-site well MW12/1 also reported elevated cobalt, at a maximum concentration of 125 ug/L.

Review of cobalt concentrations reported in wells across the wider Nuplex site shows elevated concentrations consistently reported in virtually all wells across on and off-site, with concentrations ranging from approximately 1 – 20 ug/L. Select wells have also reported significantly higher concentrations, e.g. MW13 (maximum 101 ug/L), MW15 (maximum 89 ug/L), MW32 (maximum 117 ug/L), MW34B (maximum 74 ug/L). Wells MW13, MW15 and MW32 are located up or cross hydraulic gradient of Lot 4 on Lot 2.

Wells MW50A-C reported the highest concentrations on Lot 3, up to a concentration of 27 ug/L (MW50B), noting that MW50 is located immediately downgradient of the highest reported concentrations on Lot 2.

Off-site downgradient well MW40 reported the highest concentration of cobalt across the whole of the Nuplex site, with a maximum concentration of 471 ug/L reported in August 2017. Wells MW29 and MW30, located in between Lot 3 and MW40 reported cobalt below LOR.

Based on the above, cobalt is not considered to be site derived pollution, but is considered likely to be from an off-site source.

9.3.3.3 Nickel

Based on the results reported during the final groundwater sampling round, the beneficial use Potable Water Supply is precluded by nickel in MW21 and BMW1.

Elevated concentrations of nickel above criteria have also historically been reported in MW38 and BMW2.

Concentrations of nickel in the four on-site wells have fluctuated between concentrations ranging from 4–99ug/L over the course of the historical and current groundwater sampling rounds.

Nickel was reported below criteria in all fill and natural samples on-site. Based on the soil results, the site was not considered likely to be a source of nickel contamination.

Review of the distribution of nickel concentrations in groundwater on and off-site up gradient of the site shows nickel concentrations to vary widely across the Nuplex site, including across Lot 4. Wells MW3, MW4, MW37, MW45A and MW45B on Lot 1, upgradient of MW21 and MW38, have also reported fluctuating concentrations ranging from 1 – 134 ug/L, with the highest concentration (134 ug/L) reported in MW3. Wells MW22, MW32, MW35, MW24AR-MW24CR, up and cross gradient of BMW1 and BMW2, have also reported a wide range of concentrations, ranging from <1 – 103 ug/L, with the highest (103 ug/L) being reported in MW24CR.

Based on the soil results (i.e. no nickel exceedances reported in fill or natural across the site) and the distribution of nickel pollution in groundwater across the site, it is considered that nickel pollution reported at the site is from an off-site source and not site derived pollution.

9.3.3.4 Copper and Zinc

Based on the final groundwater sampling round, the beneficial uses Water Dependent Ecosystems and Species, Traditional Owner Cultural Values and Cultural and Spiritual Values are precluded by copper and zinc in on-site wells MW21, MW38, BMW1 and/or BMW2.

Historically all on and off-site wells have reported copper and zinc pollution during at least one GME.

As noted in Section 8.2.2 above, copper concentrations exceeding the EIL criteria were reported in fill material, however all concentrations in natural soil were below criteria. No exceedances of zinc were identified in fill or natural. Based on the soil results, the site was not considered likely to be a source of copper and zinc contamination.

Based on a review of current and historical concentrations, copper across all Lot 4 wells has remained at concentrations <15 ug/L.

Zinc across all Lot 4 wells has been reported at concentrations between 4 and 197 ug/L.

Copper and zinc have been reported at similar concentrations across Lot 4, as well as across the wider Nuplex site. The Auditor has also reviewed concentrations of copper and zinc reported in wells MW20, MW27 and MW28, located on the northern boundary of Lot 1, and potentially representative of concentrations upgradient of the Nuplex site. Copper at a maximum of 12 ug/L and zinc to a maximum of 114 ug/L were reported in these wells. The distribution and range of both copper and zinc concentrations appear to suggest the exceedances are representative of natural concentrations within the Brighton Group Aquifer.

Based on the above, copper and zinc concentrations are considered to be naturally occurring and therefore not representative of pollution.

9.3.3.5 Lead

Based on the final groundwater sampling round, the beneficial uses Water Dependent Ecosystems and Species, Traditional Owner Cultural Values and Cultural and Spiritual Values are precluded by lead in on-site well BMW2.

Historically wells MW21 and MW38 have reported lead pollution during at least one GME.

As noted in Section 8.1 above, no elevated concentrations of lead were identified in fill or natural across the site. Based on the soil results, the site was not considered likely to be a source of lead contamination.

Review of the distribution of lead pollution shows that lead has been reported in off-site wells during several groundwater sampling rounds over the course of the Audit and during pre-Audit GMEs. In order to gain an understanding of lead pollution, the Auditor has drawn on results from wells installed across the wider Nuplex site as review of these results shows lead pollution to be widespread across the area.

Off-site up-hydraulic gradient lead pollution has historically been reported in several wells across the wider Nuplex site, including (but not limited to) the following: MW3 (maximum 19 ug/L), MW5 (maximum 20 ug/L), MW7 (maximum 1,070 ug/L), MW11 (maximum 385 ug/L), MW13 (maximum 9 ug/L), MW15

(maximum 44 ug/L), MW31 (maximum 89 ug/L), MW32 (maximum 44 ug/L), MW33 (maximum 7ug/L), MW37 (maximum 31 ug/L).

From a review of the results, it appears that lead pollution has primarily been centred on Lot 1 and in the central northern portion of Lot 2 (potentially extending off-site or originating from off-site to the east based on the results reported in MW7).

It is noted that lead concentrations have fluctuated significantly over the sampling period. The reason for the fluctuations is unknown, however based on the soil results on Lot 4 (i.e. no exceedances reported), the limited exceedances of lead reported in groundwater on Lot 4, and the distribution of lead pollution in groundwater across the wider Nuplex site and extending off-site up gradient, the Auditor considers the lead pollution on Lot 4 to be the result of an off-site source and not considered to be site derived pollution.

9.3.4 Inorganics

Inorganics concentrations reported in groundwater across Lot 4 and in wells in the immediate vicinity of Lot 4 between 2008 and 2018 are presented on Figure 10G (attached). It is noted that not all historical and current wells are included within Figure 10G and as such Figures 9A and 9B should also be referenced for the location of additional wells referenced within the below discussion.

9.3.4.1 pH

Based on the final groundwater sampling round, the beneficial uses Water Dependent Ecosystems and Species, Potable Water (desirable), Agriculture and Irrigation (Irrigation), Agriculture and Irrigation (stock watering), Water-based Recreation (primary contact recreation), Traditional Owner Cultural Values and Cultural and/or Spiritual Values are precluded on and off-site.

A review of the distribution of pH in on-site, up gradient and down gradient wells shows pH to be generally consistent in all wells, with pH reported to be slightly acidic. The Auditor considers the reported pH in all wells (i.e. 5.6 – 6.8) to be consistent with anticipated pH within the Brighton Group Aquifer.

The Auditor considers that pH observed across all wells on and off-site is not considered to be associated with site sourced contamination and is considered likely to be associated are naturally occurring conditions within the Brighton Group Aquifer.

It is noted that Figure 10G does not present pH, however pH results reported during the Audit are presented in Table 5 of the ARC (November 2018).

9.3.4.2 Nitrate and Ammonia

Based on the final groundwater sampling round, the beneficial uses Water Dependent Ecosystems and Species, Potable Water (desirable), Traditional Owner Cultural Values and Cultural and/or Spiritual Values are precluded by nitrate in BMW1 and BMW2.

The beneficial uses Potable Water (desirable), Agriculture and Irrigation (stock watering) and Water Based Recreation (primary contact recreation) are precluded by ammonia in MW38.

Nitrite pollution has not been observed in any well on Lot 4.

Based on a review of the distribution of nitrate from historical and current groundwater sampling, the highest concentrations were reported in off-site upgradient Lot 2 wells MW22 (53,400ug/L in March 2010),

MW32 (116,000 ug/L, December 2009) and MW13 (113,000 ug/L, July 2008). The maximum nitrate concentration reported on Lot 4 was in BMW1 of 33,100 ug/L (January 2018).

Historical information presented for Lot 2 identified one UST (now reported to have been removed) located in the southern portion of Lot 2 which formerly contained ammonia. Based on the primarily oxidising conditions across the site, ammonia converts readily to nitrate. As such, it is considered that the elevated nitrate observed in groundwater was likely to be as a result of ammonia sourced from the former ammonia UST, oxidising to nitrate.

In the northern portion of the site, ammonia pollution (marginally above the lowest criterion) was observed in MW38. Upgradient of MW38, MW3 and MW45A have historically reported low ammonia concentrations (below criteria of maximum 180ug/L in February 2013), but elevated nitrate concentrations (maximum 8,860ug/L in March 2010). MW45B was noted to have reported marginally higher ammonia (maximum 330ug/L in October 2017) and lower nitrate (maximum 420ug/L). Further upgradient wells have also recently reported elevated nitrate concentrations (e.g. MW28 reported a concentration of 16,400ug/L and MW37 a concentration of 13,100ug/L in August 2018 (noting Figure 10G presents incorrect values for nitrate for the final round shown for MW37).

Based on the above, it is considered that elevated nitrate is present within the aquifer as a result of both a regional source and as a result of historical storage and use of ammonia on Lot 2.

As noted in Section 9.3.3.1 above, MW38 exhibited predominantly reducing conditions, thus the elevated nitrate observed in the aquifer (sourced from off-site) is converted to ammonia in MW38, resulting in ammonia pollution in this well. It is therefore considered that the reported ammonia pollution is from an off-site source.

Based on the above, nitrate and ammonia pollution in on wells was considered likely to be sourced from an off-site source and not site derived pollution.

9.3.4.3 Sodium and Chloride

Based on the final groundwater sampling round, the beneficial uses Potable Water (desirable), Agriculture and Irrigation (irrigation) and Water-based Recreation (primary contact recreation) are precluded on-site by sodium and chloride in wells MW21, BMW1 and BMW2.

Review of the distribution of sodium and chloride concentrations reported in all wells across the site, shows sodium and chloride concentrations to be relatively consistent across all wells, with the exception of wells which are considered to be influenced by a fresh water source.

MW38 has reported considerably lower concentrations of chloride, sodium and TDS in since the commencement of the Audit in 2017. As discussed in Sections 2.4.6 and 9.3.3.1 above, well MW38 is located adjacent to water and fire water services, which are considered likely to be potentially leaking (noting water levels and TDS observed in historical wells MW9 and MW10, located to the immediate east and west of MW38). Figure 6 provides a useful depiction of TDS concentrations, and thus presents where fresh water influences appear to be located on Lot 4 and in the vicinity of Lot 4.

The Auditor considers that concentrations of sodium and chloride reported on the lower end of the range are artificially lowered by the influence of services and that concentrations observed across the remainder of the site are naturally occurring.

It is noted that Figure 10G does not present sodium concentrations, however the distribution of elevated sodium and chloride concentrations are generally in line and as such review of the chloride concentrations on Figure 10G provides sufficient indication of both contaminants.

9.3.4.4 Sulphate

Based on the final groundwater sampling round, the beneficial uses Potable Water (desirable) and Water-based Recreation (primary contact recreation) are precluded on-site in wells BMW1 and BMW2 by sulphate.

Wells on and in the vicinity of Lot 4 which are considered to be potentially influenced by a fresh water source (i.e. leaking services) have reported sulphate concentrations on the lower end of the range. For example, well MW38 has reported sulphate in the range of 8,000 ug/L to 18,000 ug/L (for GMEs conducted during the audit).

Wells BMW1 and BMW2 on Lot 4 have generally reported sulphate concentrations in the range of approximately 300,000 ug/L.

No elevated concentrations of sulphate were reported in soil on Lot 4, with a maximum concentration of 250 mg/kg reported on-site.

A review of the sulphate concentrations reported across the wider Nuplex site shows highly variable concentrations, with little to no discernible pattern. Concentrations reported across the site have ranged between <1,000 ug/L and 638,000 ug/L. Wells that have historically reported the highest concentrations (i.e. >500,000 ug/L) across the Nuplex site are MW3, MW13, MW16, MW24B, MW32 and MW42.

Wells MW20, MW27 and MW28, located on the northern site boundary of the wider Nuplex site and considered likely to be representative of concentrations extending on to the Nuplex site reported concentrations in the range of 162,000-492,000 ug/L.

Review of sulphate concentrations compared to surrounding audit sites (as shown in Table 9.3 of the ARC January 2019 DSI report), shows sulphate across the wider Nuplex site to be within or below concentrations at surrounding sites (with the highest concentrations listed as 2,300,000 ug/L at 1136 – 1138 Nepean Hwy, Highett).

Based on the above, it is considered that sulphate is not site derived pollution but is considered likely to be naturally occurring.

9.3.5 Summary

In summary, the following conclusions have been determined in regards to pollution observed on Lot 4 during the final groundwater sampling event:

- Trichloroethene pollution reported in well MW21 was considered to be sourced from offsite at the former TIT and associated drain on Lot 1, and to a lesser extent the former drum storage area, on Lot 1.
- TRH C_6-C_{10}, Trichloroethene, 1,1 dichloroethane, 1,1 dichloroethene, vinyl chloride, 1,2 dichlorobenzene, 1,4 dichlorobenzene and 1,1,2 trichloroethane in wells BMW1 and/or BMW2 are considered to be sourced from offsite at the SEC portion of Lot 2.

- Carbon tetrachloride reported in BMW1 and BMW2 is considered to be sourced from offsite from the poisons and flammables stores in Lot 2.
- Benzene identified in BMW2 was not considered to be sourced from Lot 4, but is considered to be a result of off-site upgradient sources on Lot 2.
- Arsenic, iron, cobalt, lead, nickel, ammonia and nitrate pollution reported in on-site wells are not considered to be site derived pollution, but are considered to be from an off-site source.
- Concentrations of benzene, xylenes, trichloroethene, tetrachloroethene, cis 1,2 dichloroethene, 1,1 dichloroethane, 1,1 dichloroethene, 1,2 dichloroethane, 1,1,2 trichloroethane, carbon tetrachloride, vinyl chloride, 1,2 dichlorobenzene, 1,4 dichlorobenzene, chloroform, dichloromethane, trihalomethanes and TRH C_6-C_{10} identified in MW50A, MW50B and MW50C are considered to be also present in the south-eastern corner of Lot 4. These contaminants are not considered to be sourced from the site, but are considered to be a result of off-site upgradient sources on Lot 2.
- Concentrations of copper, zinc, sodium, pH, chloride and sulphate are considered to be naturally occurring.

Delineation of these contaminants was not considered to be practicable as they were considered not to be site derived pollution but were sourced from off-site sources.

9.4 Groundwater Contaminant Trends

Based on the nature of the groundwater pollution observed in wells on Lot 4 (i.e. sourced from multiple off-site sources, which are subject to separate 53x Audits and understood to have recently undergone and/or are currently undergoing remediation), a detailed statistical analysis of groundwater contaminant trends was not considered to be within the scope of this audit report.

The Auditor has however reviewed the reported concentrations on Lot 4 to determine relative stability from which conclusions on risks to Lot 4 can be drawn. As indicated, pollution reported in wells MW21 and MW38 in the northern portion of Lot 4 were considered to be primarily sourced from Lot 1. It is understood that Lot 1 has recently completed remediation works, comprising demolition of historical infrastructure, excavations of the drum storage area, the former TIT and the associated TIT drain (as a minimum). To assess potential and likely future trends, a straightforward comparison of results from initial sampling rounds to the latest sampling rounds of the groundwater sampling results in the northern portion of Lot 4 (i.e. MW21 and MW38), and in wells assessing the predominant former source areas on Lot 1 (i.e. MW37, MW45A and MW45B), was undertaken by the Auditor. This appraisal shows results in the final GMEs from all relevant contaminants to be lower than (or relatively stable) when compared to results reported at the commencement of sampling, with a decrease over time. With recent completion of remediation works on Lot 1, the observed trends of stable or decreasing contaminant concentrations are expected to continue, with particular note that the Auditor therefore considers concentrations in upgradient wells to be sufficiently stable for determining risks to Lot 4.

Wells BMW1 and BMW2 (on Lot 4) and MW50A-C (on Lot 3) have been assessed to determine indicative groundwater contaminant trends sourced from Lot 2. As noted in Section 9.3.1 above, it is understood that remediation and/or assessment works were still on-going at the time of preparation of this Audit report. Remediation works to date on Lot 2 are understood to have comprised excavations to 5m, soil vapour extraction, air sparge and ISCO within the SEC area. Also, as noted in Section 9.3.1 above, the active

groundwater remediation works on in the SEC area appear to have resulted in an increase in chlorinated contaminant concentrations in periphery wells around the SEC area, including BMW1, BMW2, MW50A, MW50B and MW50C. Given the observed fluctuations, the Auditor has assessed potential risk to site users through assessment of the highest concentrations reported in BMW1, BMW2, MW50A over the course of sampling (noting the shallowest well MW50A (of the MW50 nested wells) was considered to present the representative concentrations relevant for potential risk to site users). Reported concentrations were well below the calculated RBCs and determined to be low and acceptable for a future commercial development (no basements). Further discussion of potential risks is provided in Section 11.3 and Appendix F of this report.

It is noted that wells MW24AR-CR, located in the centre of the SEC source area, have reported significantly lower concentrations of chlorinated hydrocarbons since commencement of the remediation works (with a notable examples being MW24CR which reported TCE of 39,800ug/L in August 2017 and <1ug/L in April 2019 and 1 ug/L in August 2019, and MW24AR which reported TCE of 17,200 ug/L in April 2019 and <1 ug/L in August 2019). Although, potential rebound of contaminant concentrations is likely, the extent to which this may occur is unknown. Based on the Auditor's review of potential risks to Lot 4, it is however considered that any such future re-bound is unlikely to result in altering the risk profile from that which has been concluded within this report for Lot 4.

The ongoing remediation works on Lot 2, have inhibited the Auditor's ability to comment on whether current site conditions (i.e. without the effects of active remediation) are likely to be conducive to reductive dichlorination. The need to draw such conclusions is however considered to be outside of the scope of this Audit, noting responsibility of the Audit being conducted on Lot 2 to draw such conclusions.

The Auditor does however note the reported presence of petroleum hydrocarbons on Lot 2, resulting in a co-mingling effect whereby the petroleum hydrocarbons may act as a source of organic carbon to in-situ microbial species facilitating the degradation of chlorinated hydrocarbons. This process however occurs under anaerobic conditions, with elevated dissolved oxygen (i.e. >1 mg/L) being toxic to anaerobic microbes. The dissolved oxygen has however been observed during both the 53V LanePiper Audit and more recent groundwater monitoring events to be primarily indicative of aerobic aquifer conditions (as discussed in Section 8.5.2 below). Sporadic evidence of anaerobic conditions has been observed, however does not appear to be sustained for any length of time to result in long term facilitation of anaerobic hydrocarbon degradation processes. It was noted in the LanePiper 53V report, that reductive chlorination was observed to be occurring to some extent across the wider Nuplex site (as evidenced through the production of degradation products, cis 1,2 DCE and vinyl chloride, primarily within the source zone). However, the rate at which it was occurring was likely to be inhibited given that ORP conditions were reported as generally oxidising (with DO concentrations generally greater than 0.5 mg/L). As noted above, however it is considered to be the responsibility of the Audit on Lot 2 to assess long term attenuation capacity of the Lot 2 sourced pollution, and not within the scope of the Lot 4 Audit.

As noted in Section 9.1 above, results from one additional GME conducted in March 2020 as part of the Lot 2 Audit have been received from Resolve. Groundwater sampling conducted as part of this GME included wells relevant for the Lot 4 Audit, including, BMW1, BMW2, MW38 and MW50A. As indicated in Section 9.1 above, a full review of the Resolve GME report was not completed as part of this Audit as it is understood this is being conducted as part of the Lot 2 Audit. However, results from the Lot 4 wells were reviewed to confirm any potential change in risk profile to Lot 4. This review confirmed that all results from the March 2020 GME for wells BMW1, BMW2, MW38 and MW50A were all either equal to or below those

reported during previous GMEs. A copy of the Resolve March 2020 GME report is provided within Appendix G of this report.

10 Vapour Assessment

No vapour bores were installed or sampled during the Audit, however historical vapour works were reviewed by the Auditor with the primary purpose of assessing whether the historical vapour data confirmed the conceptual understanding of the site or provided any indication of data gaps requiring further assessment. Historical, vapour works completed across the site are summarised as follows:

2001 – As noted in Section 6.1.1 above, ERM collected PID and FID samples at seven grid locations across the site (VP15, VP18, VP19, VP22, VP23, VP27 and VP28). No information was available in regards to this investigation with the exception of one figure showing sample locations and one table listing the results provided within the appendices of the LanePiper 53V report. PID results reported across all samples ranged from 1-13ppm, with FID results ranging from 1-95ppm, with the highest results in the south-east corner adjacent to Lot 2 (considered likely to be associated with the Lot 2 SEC source area). The vapour results table is presented as Table J (attached). The locations are presented on Figure 11.

2006/2007 – It is understood from the LanePiper 53V Audit Report that an air quality study was conducted by Hyder Consulting (engaged by SMEC) in 2006 or 2007 in select locations across the wider Nuplex site. The study included assessment within the administrative building located on Lot 4 and was conducted with the use of passive badges to assess potential exposure to VOCs. Details and results for this study were not provided, however conclusions within the LanePiper report indicated that no VOCs were detected during this study.

2012 – In March 2012 GHD completed passive soil vapour installation and sampling works. Across Lot 4, four passive soil samplers were installed and sampled (DS12 and DS13 in the northern portion of Lot 4, and NHS3 and NHS4 in the southern portion of Lot 4). It is also noted that three additional locations were attempted but were unsuccessful (CF3, NHS1 and NHS2). The locations of all bores are presented on Figure 11.

It is noted that the Auditor was not provided with a copy of the report summarising works and results from the GHD monitoring event. The following results were provided within the ARC (November 2018) DSI report.

ARC (November 2018) indicated that samples were analysed for VOCs, with locations within Lot 4 reporting concentrations of VOCs below the laboratory LOR with the exception of the following:

- Sample location DS12 reported PCE at a concentration of 3 ug/m3 (exceeding the US EPA Industrial air guideline for PCE of 2.1 ug/m3);
- Sample location NHS3 reported benzene at a concentration of 21 ug/m3 (exceeding the US EPA Industrial Air Guideline value of 1.6 ug/m3);
- Sample location NHS4 reported benzene at a concentration of 12 ug/m3 (exceeding the US EPA Industrial Air Guideline value of 1.6 ug/m3); and
- NHS3 and NHS4 reported detectable concentrations of ethylbenzene, 1,1-dichloroethene, hexane, toluene, xylenes and/or 1,2,4-trimethylbenzene which were well below the US EPA Industrial Air guidelines.

The above results were considered to be consistent with the presence of an off-site chlorinated hydrocarbon sources from Lots 1 and 2 (extending on to Lot 4). Further, the presence of benzene and low concentrations of petroleum hydrocarbons in the southern portion of the site was also considered to be consistent with petroleum hydrocarbons sourced from on Lots 2 and 3.

A subsequent health risk assessment undertaken by GHD (2013) indicated that health risks to existing indoor workers within Lot 4 were estimated to be within acceptable levels.

The Auditor has considered the above soil vapour data but notes that it was collected in 2001, 2006/7 and 2012, since which time the site-sourced groundwater plume has been observed to have attenuated significantly and a number of stages of remediation works have occurred on Lots 1, 2 and 3. As such, data presented by the above summarised on-site vapour sampling works is not considered to be representative of current site conditions.

Potential risks based on current site conditions have been evaluated, as per Section 11.3 below and Appendix F.

11 Risks to Beneficial Uses

11.1 Soil Contamination Risks to Beneficial Uses of Land

In accordance with the Land SEPP, the relevant beneficial uses of land to be protected for the proposed commercial development are:

- Maintenance of Ecosystems (Highly Modified);
- Human Health;
- Buildings and Structures; and
- Aesthetics.

However, in the context of unrestricted site use, the protection of all beneficial uses has been considered for the purposes of the Audit. Based on the analytical results in Tables E (attached), certain soil results at the site exceeded the adopted Audit criteria. Given the nature and extent of contamination in soils beneath the site, the following observations are made regarding impacts to protected Beneficial Uses of land.

11.1.1 Maintenance of Ecosystems

Concentrations of antimony, barium, cobalt, copper, manganese, mercury, TRH F3, bis(2-ethylhexyl) phthalate, di-n-butyl phthalate, TCE, CrVI and pH exceeding the adopted EILs/ESLs for land use settings 'A', 'B', 'C' and/or 'D' were reported within soils currently remaining at the site which may be potentially detrimental to the beneficial use of 'Maintenance of Ecosystems'.

In the context of unrestricted use, the beneficial use 'Maintenance of Ecosystems' is considered to be precluded by antimony, barium, cobalt, copper, manganese, mercury, TRH F3, bis(2-ethylhexyl) phthalate, di-n-butyl phthalate, TCE, CrVI and pH.

As noted in Section 8.2.1, the slightly acidic pH reported in natural soil across the site was considered to be naturally occurring, and as such does not preclude the beneficial use of 'Maintenance of Ecosystems'. It is noted that local natural plants and grasses are likely to be adapted to these pH conditions, however there may be some impact on the growth and development of some introduced plants, grasses and fauna. As a result, a comment to this effect is included within *Other Related Information* of the Statement of Environmental Audit (Appendix A).

In the context of the proposed commercial/industrial use, where it is developed with a minimum of 0.5 m of 'clean fill' placed below the finished surface in all landscaped areas or garden beds directly overlying existing site soils, the beneficial use 'Maintenance of Ecosystems' is considered to be protected.

As such a Statement Condition has been included (see Appendix A) to enable the protection of the beneficial use 'Maintenance of Ecosystems' requiring that the site be developed with a minimum of 0.5m clean fill placed below the finished surface in all landscaped areas or garden beds.

11.1.2 Human Health

Concentrations of antimony, cobalt, TCE and pH exceeding the adopted HILs/HSLs for land use settings 'A', 'B', 'C' and/or 'D' were reported within soils currently remaining at the site which may be potentially detrimental to the beneficial use of 'Human Health'.

In the context of unrestricted use, the beneficial use 'Human Health' is considered to be precluded by antimony, cobalt, TCE and pH. However, in the context of the proposed commercial development, the beneficial use 'Human Health' is considered to be precluded by TCE and pH only.

The Auditor (supported by verbal consultation with his expert in relation to risk assessment) considers that that the pH outside of the criteria range in fill and natural is unlikely to present a human health risk to site users, and therefore the pH does not preclude the beneficial use of 'Human Health'.

Potential risks to future site users in the context of the proposed development by the remaining concentrations of TCE in soil which exceeded the assessment criteria for a commercial/industrial land use setting were considered by the Auditor and his expert support in risk. The review concluded that all potential risks to site users of the proposed commercial use are considered to be low and acceptable. Further discussion of the human health risk assessment review is provided in Section 11.3 below.

Based on the above, the Auditor considers that, in the context of the proposed commercial development, the beneficial use 'Human Health' is considered protected.

11.1.3 Production of Food, Flora and Fibre

Concentrations of antimony, barium, cobalt, copper, manganese, mercury, TRH F3, bis(2-ethylhexyl) phthalate, di-n-butyl phthalate, TCE, CrVI and pH exceeding the adopted EILs/ESLs for land use settings 'A', 'B', 'C' and/or 'D' were reported within soils currently remaining at the site which may be potentially detrimental to the beneficial use of 'Production of Food, Flora and Fibre'.

In the context of unrestricted use, the beneficial use 'Production of Food, Flora and Fibre' is considered to be precluded by antimony, barium, cobalt, copper, manganese, mercury, TRH F3, bis(2-ethylhexyl) phthalate, di-n-butyl phthalate, TCE, CrVI and pH in soil at the site. However, it is noted that in the context of proposed commercial development, 'Production of Food, Flora and Fibre' is not a relevant beneficial use.

11.1.4 Buildings and Structures

Soil pH concentrations remaining at the site ranged from 5.5 to 9.8 pH units (considered to be mild to moderately aggressive in accordance with AS2159-2009). Sulphate concentrations ranged 40 – 250 mg/kg (i.e. <5,000 mg/kg as per AS2159-2009). As the acidic soils at the site are considered to be naturally occurring, the beneficial use of 'Buildings and Structures' is not considered to be precluded. However, it is noted that a suitably qualified engineers should consider these conditions in the design of all subsurface steel and concrete structures. A comment to this effect is noted within '*Other Related Information'* of the Statement of Environmental Audit included as Appendix A.

11.1.5 Aesthetics

Anthropogenic inclusions such as brick fragments and terra cotta piping were observed within fill material across the site which remained at the conclusion of the Audit.

As such, in the context of unrestricted use of the site, the beneficial use of Aesthetics is considered to be protected.

11.1.6 Potential for Off-Site Contamination

Residual TCE impact in the TIT backfill was delineated on-site and no soil impact was considered to extend off-site. Furthermore, the risk evaluation (Section 11.3 below) addressed vapour inhalation and direct contact issues at the site and concluded that all potential risks to site users of the proposed commercial were considered to be low and acceptable.

Given that the elevated metals are considered to be non-volatile and non-leachable, they are not considered to present a potential risk for off-site contamination or a potential risk to current and/or potential future off-site receptors.

The Auditor notes that, as summarised within Section 8.1.6 above, soil investigation works occurred over the northern boundary shared with the Lot 1 site, over the eastern site boundary shared with the Lot 2 site and over the southern site boundary shared with the Lot 3 site. As indicated in Section 8.1.6 above, based on the Auditor's review of results from Lot 1, 2 and 3, just over the boundaries, the following is summarised:

Lot 1: The validation samples collected from the trench running east west to the immediate north of the Lot1/Lot 4 boundary are considered be the closest soil samples collected on Lot 1 in proximity to Lot 4 and thus the most relevant for Lot 4. All validation samples collected from the trench reported concentrations of TRH and VOCs below the laboratory LOR.

Based on the Auditor's review of results from Lot 1, just over the boundary, it is concluded that no concentrations were identified which would be considered to potentially impact the beneficial uses of land on Lot 4.

Lot 2: Six validation samples were collected from the western wall of the excavation within the SEC area of Lot 2 (i.e. approximately 5.0 m east of the Lot 4 boundary). Analytical results reported concentrations of VOCs below the laboratory LOR with the exception of the following:

- 1,2-dichlorobenzene at a concentration of 0.03 mg/kg in a southern wall sample (VS01_S2_4.5) at a depth of 4.5 mbgl.
- Cis-1,2-DCE at a concentration of 0.02 mg/kg and 0.07 mg/kg in two western wall samples (VS01_W1_2.0 and VS01_W2_4.5 respectively) at a depths of 2.0 and 4.5 mbgl respectively (presented on Figure 8F).
- Cis-1,2-DCE at a concentration of 0.03 mg/kg and 0.04 mg/kg in two base samples (VS01_B1_5.0 and VS01_B2_5.0 respectively) at a depth of 5.0 mbgl (presented on Figure 8G).

The above reported detections were below the adopted assessment criteria, however the potential risks to the proposed commercial use of the Lot 4 site from the reported concentrations of chlorinated hydrocarbons reported in the SEC area were reviewed and discussed by the Auditor and his expert support in Section 11.3 below and within Appendix F.

Lot 3:

Soil sampling conducted over the southern boundary, identified one sample (BF_EEC_103) over the southern site boundary on Lot 3 which reported a concentration of carbon tetrachloride (0.41 mg/kg, below criteria) in fill at a depth of 0.1m. No other volatile contaminants were detected within close proximity to the southern site boundary of Lot 4. Although the result was below criteria, the Auditor considered the volatility of carbon tetrachloride to warrant further consideration. Review of the distribution of samples on Lots 3 and 4 showed sample NHS_EEC_SB105 positioned just over the Lot 3 / 4 boundary, in the immediate vicinity of BF_EEC_103 which was considered to delineate the carbon tetrachloride reported on Lot 3 in the direction of Lot 4. Fill at NHS_EEC_SB105 was sampled for analysis at depths of 0.2m and 0.5m, both of which reporting carbon tetrachloride <0.01 mg/kg. As such, the one fill sample result of carbon tetrachloride reported on Lot 3 was not considered to extend to Lot 4.

Based on the Auditor's review of results from Lot 3, just over the boundary, it is concluded that no concentrations were identified which would be considered to potentially impact the beneficial uses of land on Lot 3.

11.1.7 Summary of Soil Contamination Impact to Beneficial Uses of Land

In summary, the site in its current condition precludes or potentially precludes one or more beneficial uses of land in the context of unrestricted land use and therefore the Auditor is unable to issue a Certificate of Environmental Audit for the site.

Given the nature and extent of contaminants in soils beneath the site, the following observations are made regarding impacts to protected beneficial uses of land:

- 'Maintenance of Ecosystems' is precluded at the site by antimony, barium, cobalt, copper, manganese, mercury, TRH F3, bis(2-ethylhexyl) phthalate, di-n-butyl phthalate, TCE and CrVI.
- 'Human Health' is precluded at the site by antimony, cobalt and TCE.
- 'Buildings and Structures' is not precluded at the site, however naturally occurring acidic soils are present at the site. As the acidic soils at the site are considered to be naturally occurring, suitably qualified engineers should consider these conditions in the design of all subsurface steel and concrete structures.
- 'Aesthetics' is not precluded at the site.

In summary, the site in its current condition precludes one or more beneficial uses of land in the context of unrestricted land use and therefore the Auditor is unable to issue a Certificate of Environmental Audit for the site.

In the context of the proposed commercial/industrial use of the site, whereby it is constructed with a minimum of 0.5m clean fill placed below the finished surface in all landscaped areas or garden beds, all relevant beneficial uses are considered to be protected.

11.2 Groundwater Contamination Risks to Beneficial Uses of Groundwater

Groundwater is considered to be classified as Segment A2 in accordance with the SEPP (2018) *Waters*. Based on SEPP (2018) (Waters), the following beneficial uses would need to be protected for the TDS concentration reported at the site:

- Water dependent ecosystems and species;
- Potable water supply (desirable);
- Potable mineral water supply (not considered relevant as the site is not located in a mineral springs area);
- Agriculture and irrigation (irrigation);
- Agriculture and irrigation (stock watering);
- Industrial and commercial;
- Water-based recreation (primary contact recreation);
- Traditional Owner cultural values;
- Cultural and spiritual values;
- Buildings and Structures; and

- Geothermal properties. (not considered relevant as the site is not located within a designated geothermal area).

The likelihood of beneficial uses being realised, both on-site and off-site, are summarised in the following Table 11.1 below.

As mentioned previously it will be accepted, as a result of the wide and diverse potential for 'Industrial and commercial' use, that if any extractive beneficial use is precluded due to the presence of pollution, then it will be deemed that Industrial Use is also precluded by the same contaminants. In addition, as noted in Section 4.2, 'Potable mineral water supply' and 'Geothermal properties' are not considered relevant as the site is not located in a mineral springs area or designated geothermal area and have therefore not been considered further.

Table 11.1 Likelihood of Beneficial Uses being Realised (Potential or Existing Use Shaded)

Beneficial Use	On-Site	Off-site
Water Dependent Ecosystems and Species	NOT RELEVANT No on-site aquatic ecosystem.	EXISTING The nearest potential surface water point of discharge is considered to be Port Phillip Bay located approximately 2.7 km south west of the site at its nearest point.
Potable Water – Desirable	UNLIKELY Given the current proposed commercial land use scenario, and the presence of a reticulated water supply.	EXISTING Thirty-six bores registered for domestic or domestic & stock use were identified within 2 km of the site.
Agriculture and irrigation (irrigation)	UNLIKELY Given the current proposed commercial land use scenario, and the presence of a reticulated water supply.	EXISTING Twenty-six bores registered for irrigation use were identified within 2 km of the site.
Agriculture and irrigation (stock Watering)	UNLIKELY Given the current proposed commercial land use scenario, and the presence of a reticulated water supply.	EXISTING Twenty-five bores registered for domestic & stock use were identified within 2 km of the site.
Water-based recreation (primary contact recreation)	UNLIKELY Given the current proposed commercial land use scenario, and the presence of a reticulated water supply.	EXISTING Thirty-six bores registered for domestic or domestic & stock use were identified within 2 km of the site.
Industrial and commercial use	UNLIKELY Given the current proposed commercial land use scenario, and the presence of a reticulated water supply.	EXISTING Two bores registered for industrial use were identified within 2 km of the site.
Traditional Owners cultural values	NOT RELEVANT No on-site aquatic ecosystem.	EXISTING The nearest potential surface water point of discharge is considered to be Port Phillip Bay located approximately 2.7 km south west of the site.

Beneficial Use	On-Site	Off-site
Cultural and spiritual values	NOT RELEVANT No on-site aquatic ecosystem.	EXISTING The nearest potential surface water point of discharge is considered to be Port Phillip Bay located approximately 2.7 km south west of the site.
Building and Structures	UNLIKELY Groundwater is present at approximately 10 mbgl and as such is considered unlikely to come into contact with building footings/foundations.	UNLIKELY Groundwater is present at approximately 10 mbgl and as such is considered unlikely to come into contact with building footings/foundations.

Concentrations of copper, zinc, pH, sodium, chloride and sulphate were considered to be naturally occurring and as such are not considered pollution. Concentrations of nitrate, ammonia, arsenic, cobalt, iron, lead, nickel, benzene, xylenes, trihalomethanes and chlorinated hydrocarbons were considered exceeding the extractive beneficial uses 'Potable Water Supply – Desirable', 'Agriculture and Irrigation (irrigation)', 'Agriculture and Irrigation (stock watering)', 'Water-Based Recreation (primary contact recreation)' and/or 'Industrial and Commercial Use' were considered to be associated with off-site sources and thus not site derived pollution.

The Auditor considers that any on-site risk posed by the reported groundwater pollution could be managed via recommendation to the EPA that the site be declared a Groundwater Quality Restricted Use Zone (GQRUZ) and a Statement Condition preventing the extractive use of groundwater at the site. As such, the Auditor has recommended the precluded beneficial uses be managed through implementation of a Groundwater Quality Restricted Use Zone (GQRUZ) (as discussed below in Section 12.1).

The extractive beneficial uses 'Potable Water Supply – Desirable', 'Agriculture and Irrigation (irrigation)', 'Agriculture and Irrigation (stock watering)', 'Water-Based Recreation (primary contact recreation)' and 'Industrial and Commercial Use' have the potential to be realised off-site. Therefore, these protected beneficial uses of groundwater are potentially precluded off-site by the identified pollution.

Table 11.2 below, as provided within Appendix B of EPA Publication 840.2, provides a summary of precluded beneficial uses at the site.

It is noted that Table 11.2 below also includes contaminants (organics only) reported in MW50A, MW50B and MW50C as they were also considered to be pollution on Lot 4.

Table 11.2: Precluded Beneficial Use Summary Table

Beneficial Use	Contaminants On-Site
Water Dependent Ecosystems and Species	N: pH, copper and zinc B: arsenic, cobalt, lead, nitrate, trichloroethene, dichloromethane, tetrachloroethene

Beneficial Use	Contaminants On-Site
Potable Water – Desirable	N: pH, sodium, chloride, sulphate B: arsenic, cobalt, iron, nickel, ammonia, nitrate, trichloroethene, vinyl chloride, 1,1-dichloroethane, carbon tetrachloride, 1,2-dichlorobenzene, 1,4-dichlorobenzene, TRH C_6-C_{10}, benzene, 1,1,2-trichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, chloroform, cis-1,2-dichloroethene, dichloromethane, tetrachloroethene, trihalomethanes, xylenes
Potable Mineral Water	N/A
Agriculture and Irrigation (irrigation)	N: pH, sodium, chloride B: iron
Agriculture and Irrigation (stock watering)	N: pH B: ammonia, trichloroethene, vinyl chloride, 1,1-dichloroethane, carbon tetrachloride, 1,2-dichlorobenzene, 1,4-dichlorobenzene, benzene, 1,1,2-trichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, chloroform, cis-1,2-dichloroethene, dichloromethane, tetrachloroethene, trihalomethanes, xylenes
Water-based Recreation (primary contact recreation)	N: pH, sodium, chloride, sulphate B: iron, ammonia, trichloroethene, vinyl chloride, 1,1-dichloroethane, carbon tetrachloride, 1,2-dichlorobenzene, 1,4-dichlorobenzene, TRH C_6-C_{10}, benzene, 1,1,2-trichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, chloroform, cis-1,2-dichloroethene, dichloromethane, tetrachloroethene, trihalomethanes, xylenes
Traditional Owners cultural values	N: pH, copper and zinc B: arsenic, cobalt, lead, nitrate, trichloroethene, dichloromethane, tetrachloroethene
Cultural and spiritual values	N: pH, copper and zinc B: arsenic, cobalt, lead, nitrate, trichloroethene, dichloromethane, tetrachloroethene
Geothermal properties	N/A
Industrial and Commercial Use	N: pH, sodium, chloride, sulphate B: arsenic, cobalt, iron, nickel, ammonia, nitrate, trichloroethene, vinyl chloride, 1,1-dichloroethane, carbon tetrachloride, 1,2-dichlorobenzene, 1,4-dichlorobenzene, TRH C_6-C_{10}, benzene, 1,1,2-trichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, chloroform, cis-1,2-dichloroethene, dichloromethane, tetrachloroethene, trihalomethanes, xylenes
Buildings and Structures	None

Notes:

(N) – naturally occurring

(B) – background/regional pollution/off-site source

NA – Not applicable

11.3 Vapour Risks to Beneficial Uses of Land

As noted above, off-site sourced groundwater impacts from chlorinated hydrocarbons, trihalomethanes, petroleum hydrocarbons, metals and inorganics extend onto Lot 4.

Potential risks to future site users were assessed by ARC through comparison of soil and groundwater results to the risk-based criteria derived for the wider Nuplex site, as per the EnRisks (November 2018) *Risk-Based Criteria*; *Former Nuplex Chemical Storage Facility, Cheltenham, VIC;* dated 8 November 2018. (RBC report). A copy of the EnRisks RBC report is provided within Appendix N of the ARC (November 2018) DSI report. A copy of the EnRisks RBC report was provided to EPA and was reviewed by EPA's Environmental Public Health Unit. No further specific information was requested by Environmental Public Health Unit as part of their review.

The outcomes of ARC's assessment of potential risks to future site users is presented in Table 9.5 and Section 9.7 of the ARC (November 2018) DSI report, in which ARC concluded that potential human health risks to future users of the site as per the proposed commercial use of the site were considered to be low and acceptable.

The Auditor conducted a review of the EnRisks RBC report and the discussion and conclusions provided by ARC in their DSI report. The Auditor's review noted that the EnRisks RBC report was specifically completed for Lots 1 and 2 of the wider Nuplex site, with EnRisks not having specifically reviewed or assessed site conditions on Lot 4. The Auditor also identified some gaps in the assessment of risk to the site as RBCs had not been derived in the EnRisks RBC report for all contaminants of potential concern detected.

As such, the Auditor engaged his expert support in risk, Ms Karen Teague of Coffey Environments, to conduct a review of the EnRisks RBC report to determine the applicability of the RBCs to assess potential risks to Lot 4 and to address any gaps in risk evaluation that the RBC report did not cover. A copy of the Coffey Environments Pty Ltd risk review and evaluations letter report dated July 2019 is provided within Appendix F of this report.

The Coffey Environments risk evaluation considered a generic commercial development and addressed vapour inhalation and direct contact issues on site. Based on the conceptual site model and the proposed use, the following receptors were considered:

- Commercial workers.
- Maintenance workers within a subsurface utility trench.
- Construction workers associated with redevelopment of the site involving minimal subsurface disturbance.
- Other receptors such as visitors to the site may also be present at the site from time to time. Transient exposures to occasional visitors to the site are not considered as chronic daily exposures will generally represent more significant exposures. On the basis of exposure frequency and duration, and access to the soils in the subsurface, the above receptors are considered to have the greatest potential exposures.

It is noted basement structures have not been assessed as part of the risk review. If a basement is incorporated in any proposed future development of the site, further assessment and the potential design and installation of mitigation measures to manage vapour/odour risks is required. A Statement Condition will be included within the Statement of Environmental Audit to this effect.

The following exposure pathways were considered plausible based on the nature of the contaminants (such as volatility) and the current extent of contamination:

- Inhalation of volatiles in indoor air by future commercial workers on the ground floor of a building with slab on ground construction.
- Inhalation of volatiles in indoor air by future commercial workers on levels above the ground floor.
- Inhalation of volatiles by maintenance workers within a 1 m deep subsurface utility trench.
- The inhalation of volatiles by future construction workers is considered insignificant where construction activities are undertaken above ground and have not been considered further.
- Direct contact exposures by future commercial workers to backfilled soils associated with the former TIT.
- Direct contact exposures by future maintenance workers within a 1 m deep subsurface utility trench associated with the former TIT excavation.
- Direct contact exposures by future construction workers associated with backfilled soils in the former TIT area.

As summarised within the Coffey Environments risk evaluation letter, and in particular Tables 6-1 and 7-1, it was concluded that all potential risks to site users of the proposed commercial use (with no basement) are considered to be low and acceptable.

It is noted that the maximum concentration of TCE presented within Table 7-1 of the Coffey risk letter and assessed shows 916 ug/L. A concentration of 1,920 ug/L was however reported in MW50A in August 2019 (not shown as part of the Coffey risk review). It is however noted that this concentration remains well below the calculated RBC of 8,000 ug/L and is therefore not considered to affect the outcomes of the risk review.

Further, as indicated in Section 9.1 above, it is also noted that following submission of the CUTEP report, further groundwater sampling occurred on Lot 4, in March 2020 in wells BMW1, BMW2 and MW38 and MW50A (considered relevant for the assessment of potential risks on Lot 4). This work was completed as part of the Audit being conducted on Lot 2, in accordance with the Groundwater Quality Management Plan (GQMP) implemented for Lot 2. A copy of the Resolve March 2020 GME report (dated 20 May 2020) summarising the works conducted and the results reported during this GME was received and is provided within Appendix G of this report.

A review of the groundwater results reported for BMW1, BMW2, MW38 and MW50A was conducted as part of this Audit report to determine if the recent March 2020 GME result indicate a potential change in the risk profile to future site users of the Lot 4 Audit site.

It is specifically noted however that the review of the results conducted as part of this Audit Report has been limited to only a review of the results as reported. The Auditor did not included review of the sampling methodology employed or the QA/QC for the GME, as this was expected to have been completed by the Auditor for the Lot 2 site and that the results were issued to the Auditor of the Lot 4 site following verification of legitimacy and reliability of the results.

Review of the results to confirm any alteration in the risk profile was conducted through comparison of detected concentrations to those presented within Table 7-1 of the Coffey Environments risk evaluation

letter. A copy of Table 7-1 was extracted and reproduced with an amended column to include the maximum of the most recently reported concentration of each contaminant.

As noted within the attached table, all concentrations listed within the amended concentration column (i.e. those reported during either the March 2020 GMEs) are less than those assessed as part of the Lot 4 CUTEP risk review.

It is also noted that a review of the most recent groundwater gauging data was conducted to determine the absence or presence of any rise in groundwater levels that have the potential to affect the Lot 4 risk profile. Groundwater levels reported in BMW1, BMW2, MW38 and MW50A in July 2018 ranged from 10.46 to 10.52 mBTOC. On 2 April 2020, groundwater levels in the same four wells ranged from 10.835 to 10.958 mBTOC. Based on the above, the depth to groundwater appears to be approximately 0.5m deeper, and thus would not result in an appreciable change in the risk profile (if anything, the change in groundwater depth would potentially contribute to an improvement in the risk profile).

Based on the above, it is considered that the most recent groundwater results as reported within the Resolve (March 2020) GME Report do not indicate a change in the risk profile from those results assessed and summarised within the Coffey Environments July 2019 risk evaluation letter for the site.

The Auditor does note that given EIL exceedances reported in fill material across the site, a Statement Condition will be included requiring 0.5m of imported clean fill material in any landscaped garden beds.

The Auditor therefore considers the site to be conditionally suitable for a slab on ground Commercial and Industrial Use.

12 Clean Up To the Extent Practicable

In consideration of the above, the Auditor submitted a CUTEP Submission to EPA on 29 July 2019, with a revised CUTEP them subsequently submitted on 16 October 2019 (provided in Appendix C of this report).

In EPA's letter dated 18 August 2020, EPA advised that it had determined that groundwater has been cleaned up to the extent practicable and the site is a Groundwater Quality Restricted Use Zone (GQRUZ). A copy of EPA's determination letter and GQRUZ is provided in Appendix H of this report.

12.1 On-going Groundwater Monitoring Program

The Auditor considers that a Groundwater Quality Management Plan (GQMP) should be implemented at the site and off-site. The GQMP is required in order to monitor the magnitude and extent of petroleum hydrocarbon impacts in groundwater in the future. In addition, the GQMP is required to monitor the magnitude and extent of the chlorinated hydrocarbons extending from Lot 2 to Lot 4.

It is understood that an ongoing groundwater monitoring program is being implemented for Lot 2 (i.e. through the current 53X Audit and with commitment to post audit groundwater sampling work through a GQMP). Chandos Bay Pty Ltd is the responsible party for all current and future groundwater monitoring works for Lot 2 and committed to include monitoring of a selection of wells on Lot 3 as part of the Lot 2 GQMP. As such, on 12 September 2019, the Auditor sought advice from EPA regarding the potential for a single GQMP to be prepared for Lots 2, 3 and 4 of the former Nuplex site rather than separate GQMPs for each of the Lots which would likely to be utilising some of the same groundwater monitoring wells. Following discussions between EPA and Chandos Bay Pty Ltd, EPA confirmed on 1 October 2019 that they agreed that a single GQMP for Lot 2 covering monitoring wells in Lot 3 and Lot 4 would be appropriate.

A GQMP was prepared by Resolve Environmental Pty Ltd which states it specifically relates to Lot 2, 3 and 4 of the former Nuplex facility and identifies Chandos Bay Pty Ltd as the responsible party for implementation of the GQMP.

The GQMP states that groundwater monitoring will be implemented at the site over a three-year program (March 2020 to September 2022) with bi-annual monitoring. All wells within the monitoring network are to be analysed for the contaminants of potential concern as listed in Section 3.2 of the GQMP for each respective Lot. The monitoring wells for on-going monitoring for Lot 4 include on-site wells BMW1, BMW2 and MW38, as well as off-site well MW50A. Off-site wells MW50B and MW50C will be gauged only. Should the concentration of chlorinated hydrocarbons in MW50A exceed the trigger levels set in in the GQMP, additional monitoring may then be undertaken at MW50B and MW50C.

Further details of the monitoring program are within the GQMP which is provided within Appendix I of this report.

12.2 Groundwater Quality Restricted Use Zone

As discussed above, the extractive beneficial uses Potable Water Supply – Desirable', 'Agriculture and Irrigation (irrigation)', 'Agriculture and Irrigation (stock watering)', 'Water-Based Recreation (primary contact recreation)' and/or 'Industrial and Commercial Use' are precluded on-site as a result of off-site sourced pollution.

The EPA has declared the site to be a Groundwater Quality Restricted Use Zone (GQRUZ). The GQRUZ as determined by EPA is shown on Figure 13 (attached) and is attached to the Statement of Environmental Audit (Appendix A).

Based on the GQRUZ being limited to on-site only (i.e. extending no further than the site boundary), no GQRUZ communications were conducted.

13 Audit Conclusions

The Auditor acknowledges that this Environmental Audit was undertaken in accordance with Part IXD of the Environment Protection Act (1970) in order to assess the suitability of the land for all potential beneficial uses.

The Audit area covers approximately 2,448 square metres (m^2) and comprises all of the property known as Lot 4, 20 Hamlet Street, Cheltenham, Victoria, 3192, defined as Lot 4 on Plan of Subdivision PS802507 (Certificate of Title Volume 11973 and Folio 119).

The site was part of the larger former Nuplex site located at 322-328 Bay Road, Cheltenham. The former Nuplex site was subdivided into 4 lots (Lots 1-4) for the purposes of site divestment and Environmental Audit works. The subject site for this Audit report is Lot 4 of the former Nuplex site. For the purposes of this Audit the site is known as Lot 4.

Completion of the Environmental Audit is being conducted to meet requirements of CUN #90007753 dated 11 August 2017 and amended on 19 June 2018 and amended CUN #90010028 dated 17 March 2020. It is understood is proposed to be used for on-going commercial/industrial use.

The site history review identified that the site (and the remainder of the broader former Nuplex facility) was owned by a grazier until the area was subdivided in the 1940s. In 1949 Standard Laboratories Pty Ltd purchased the site (along with Lot 2). Ajax Chemicals acquired this same parcel of land in 1970.

In 1981 the site (and Lots 1 and 2 of the wider Nuplex site) was purchased by Searle Australia, then by Clyde Industries in 1983. Asia Pacific Specialty Chemicals (APS) then owned the site between 1997-2017. It is noted that APS was acquired by Nuplex in 2002, hence reference of the wider site as the 'former Nuplex facility'. It is noted that operations of the site (and the wider Nuplex site) under Searle Australia, Clyde Industries and APS Chemicals was for the manufacture of a variety of chemicals, including lubricants, resins and polymer stabilisers. The wider site was most recently operated by Nuplex as a chemical storage and distribution facility. Chandos Bay acquired the site in January 2017. The site has remained vacant since at least the commencement of January 2017.

13.1 Soil

Soils remaining on-site at the completion of the Audit reported elevated concentrations of antimony, barium, cobalt, copper, manganese, mercury, TRH F3, bis(2-ethylhexyl) phthalate, di-n-butyl phthalate, TCE, chromium VI and pH exceeding the adopted ecological assessment criteria, and concentrations of antimony, cobalt, TCE and pH exceeding the adopted health assessment criteria.

The reported pH values in soil remaining at the site were in the range of 5.5 – 9.8 units, slightly wider in range than the Auditor's adopted acceptable pH range of 6-8 units. Reported pH in fill ranged between 6.2 to 9.8 units. Reported pH in natural soil ranged between 5.5 and 8.0 units. No potential sources of pH impact were observed at the site, and it is noted that the pH range is generally consistent with that reported in soils at nearby Audit sites. The observed slightly acidic pH in the natural soil was considered to be associated with natural conditions of the Brighton Group. It is noted that local natural plants and grasses are likely to be adapted to these pH conditions, however there may be some impact on the growth and development of some introduced plants, grasses and fauna. As a result, a comment to this effect is included within *Other Related Information* of the Statement of Environmental Audit (Appendix A). The Auditor (supported by verbal consultation with his expert in relation to risk assessment) considers that that the pH outside of the criteria range in fill and natural is unlikely to present a human health risk to site users, and therefore the pH does not preclude the beneficial use of 'Human Health'.

Potential risks to future site users in the context of the proposed development by the remaining concentrations of TCE in soil which exceeded the assessment criteria for a commercial/industrial land use setting were considered by the Auditor and his expert support in risk. The review concluded that all potential risks to site users of the proposed commercial use are considered to be low and acceptable.

In summary, concentrations of antimony, barium, cobalt, copper, manganese, mercury, TRH F3, bis(2-ethylhexyl) phthalate, di-n-butyl phthalate, TCE and chromium VI in soils at the site preclude the beneficial uses 'Maintenance of Ecosystems' and 'Production of Food, Flora and Fibre' in the context of unrestricted use of the site. Concentrations of antimony, cobalt and TCE preclude the beneficial use 'Human Health' in the contect of unrestricted use of the site. As such the Auditor is unable to issue a Certificate for the site. However, in the context of the proposed commercial/industrial use of the site, where it is developed with a minimum of 0.5 m of 'clean fill' be placed below the finished surface in all landscaped areas or garden beds directly overlying existing site soils, all relevant beneficial uses would be protected.

A Statement of Environmental Audit allowing for the proposed development is provided in Appendix A.

13.2 Groundwater

Groundwater investigation works undertaken at the site comprised the installation of two on-site groundwater monitoring wells (BMW1 and BMW2 installed one week prior to audit commencement) as well as sampling of historically installed onsite wells (MW21 and MW38). Consideration was also given to historical onsite wells (MW09/1, MW09/2, MW09/3, MW10/1, MW10/2, MW10/3, MW12/1, MW12/2, MW12/3) which had been decommissioned prior to audit commencement

Seven groundwater monitoring events spanning from August 2017 to August 2019 were conducted during the Audit (with one additional GME conducted just prior to the Audit in January 2017). Eight groundwater sampling rounds were conducted between 2008 and 2014 (for which all supporting documentation was available for review and reliance). A number of groundwater sampling rounds were conducted prior to 2008 (exact number not known). Results from all GMEs have been used to delineate and characterise groundwater contamination.

It is also noted that an additional GME was completed in March 2020 by Resolve. This GME was completed as part of the works being conducted for Lot 2 (understood to have been done to satisfy GQMP requirements for Lot 2) and included sampling and analysis of wells MW38, BMW1, BMW2 and MW50A. Results from this GME were reviewed to confirm characterisation of the risk profile on Lot 4.

Groundwater monitoring wells installed as part of the Lot 4 Audit were drilled to varying depths with groundwater generally stabilising between 10.00 and 11.03 mbtoc (28.55 and 27.59 mAHD).

Historically installed nested wells (MW09/1-3, MW10/1-3 and MW12/1-3) had been decommissioned prior to the commencement of the audit. All three wells had generally been screened at three depth intervals (i.e. 7.0 to 8.0m, 11.0 to 12.0m and 14.0 to 15.0m). The depth to groundwater measured in the wells varied greatly between 0.46m and 8.86m and were not consistent with the groundwater levels measured during the audit.

Elevated concentrations of trichloroethene pollution reported in well MW21 was considered to be sourced from offsite at the former TIT and associated drain on Lot 1, and to a lesser extent the former drum storage area, on Lot 1, TRH C_6-C_{10}, Trichloroethene, 1,1 dichloroethane, 1,1 dichloroethene, vinyl chloride, 1,2 dichlorobenzene, 1,4 dichlorobenzene and 1,1,2 trichloroethane in wells BMW1 and/or BMW2 are considered to be sourced from offsite at the SEC portion of Lot 2. Carbon tetrachloride reported in BMW1 and BMW2 is considered to be sourced from offsite from the poisons and flammables stores in Lot 2. Benzene identified in BMW2 was not considered to be sourced from Lot 4, but is considered to be a result

of off-site upgradient sources on Lot 2. Arsenic, iron, cobalt, lead, nickel, ammonia and nitrate pollution reported in on-site wells are not considered to be site derived pollution, but are considered to be from an off-site source.

Concentrations of benzene, xylenes, trichloroethene, tetrachloroethene, cis 1,2 dichloroethene, 1,1 dichloroethane, 1,1 dichloroethene, 1,2 dichloroethane, 1,1,2 trichloroethane, carbon tetrachloride, vinyl chloride, 1,2 dichlorobenzene, 1,4 dichlorobenzene, chloroform, dichloromethane, trihalomethanes and TRH C_6-C_{10} identified in MW50A, MW50B and MW50C are considered to be also present in the south-eastern corner of Lot 4. These contaminants are not considered to be sourced from the site, but are considered to be a result of off-site upgradient sources on Lot 2.

Concentrations of copper, zinc, sodium, pH, chloride and sulphate are considered to be naturally occurring.

Delineation of these contaminants was not considered to be practicable as they were considered not to be site derived pollution but were sourced from off-site sources.

Under an unrestricted land use scenario, all protected beneficial uses of groundwater are considered likely to be realised on-site, with the exception of buildings and structures. However, under the proposed commercial/industrial use, all protected beneficial uses of groundwater are considered unlikely to be realised on-site.

All beneficial uses of groundwater, with the exception of buildings and structures, were considered to be existing or potentially existing off-site.

The extractive beneficial uses 'Potable Water Supply – Desirable', 'Agriculture and Irrigation (irrigation)', 'Agriculture and Irrigation (stock watering)', 'Water-Based Recreation (primary contact recreation)' and 'Industrial and Commercial Use' are considered to be precluded by off-site by pollution. As such, the Auditor has recommended the precluded beneficial uses be managed through implementation of a Groundwater Quality Restricted Use Zone (GQRUZ).

Based on the nature of the groundwater pollution observed in wells on Lot 4 (i.e. sourced from multiple off-site sources, which are subject to separate 53x Audits and understood to have recently undergone and/or are currently undergoing remediation), a detailed statistical analysis of groundwater contaminant trends was not considered to be within the scope of this audit report. The Auditor has however reviewed the reported concentrations on Lot 4 to determine relative stability from which conclusions on risks to Lot 4 can be drawn. Although, it was considered to be the responsibility of the Audit on Lot 2 to assess the long term attenuation capacity of the Lot 2 sourced pollution on the Lot 4 site, a qualitative review of the results over time by the Auditor did show that the likelihood of a rebound in concentrations within the source zone in Lot 2 was unlikely to occur to the extent that the risk profile would be altered on Lot 4

No measurable LNAPL, DNAPL or surface sheen was observed in any of these wells during gauging or sampling, however 'sweet' odours were noted in MW50B and MW50C in January 2018 (generally synonymous with the presence of chlorinated hydrocarbons). It is noted that based on the presence of groundwater concentrations (i.e. TCE) exceeding 1% of aqueous solubility reported within MW50B and MW50C, a NAPL notification was provided to EPA on 23 January 2019.

The EPA has declared the site to be a Groundwater Quality Restricted Use Zone (GQRUZ). The GQRUZ as determined by EPA is attached to the Statement of Environmental Audit (Appendix A). A Groundwater Quality Monitoring Plan (GQMP) is required to monitor the magnitude and extent of the chlorinated hydrocarbons extending from Lot 2 to Lot 4. Given that Chandos Bay Pty Ltd, the responsible party for all current and future groundwater monitoring works for Lot 2, committed to include monitoring of a selection

of wells on Lot 4 as part of the Lot 2 GQMP, with agreement from EPA and Chandos Bay Pty Ltd, a single GQMP was prepared for Lot 2, 3 and 4 of the former Nuplex facility.

13.3 Management of Human Health Risks

Residual TCE within the former TIT backfill material remains within on-site soil. In addition, off-site sourced groundwater impacts from chlorinated hydrocarbons, trihalomethanes, petroleum hydrocarbons, metals and inorganics extend onto Lot 4.

Potential risks to future site users were assessed by ARC through comparison of soil and groundwater results to the risk-based criteria derived for the wider Nuplex site, as per the EnRisks (November 2018) Risk-Based Criteria; Former Nuplex Chemical Storage Facility, Cheltenham, VIC; dated 8 November 2018. (RBC report). The Auditor's review of the assessment noted that the EnRisks RBC report was specifically completed for Lots 1 and 2 of the wider Nuplex site, with EnRisks not having specifically reviewed or assessed site conditions on Lot 4. As such, the Auditor engaged his expert support in risk to conduct a review of the EnRisks RBC report to determine the applicability of the RBCs to assess potential risks to Lot 4 and to address any gaps in risk evaluation that the RBC report did not cover. The outcomes of the review indicated that potential human health risks to future users of the site based on the proposed ongoing use of the site for commercial/industrial use were considered to be low and acceptable.

It is noted basement structures have not been assessed as part of the risk review. If a basement is incorporated in any proposed future development of the site, further assessment and the potential design and installation of mitigation measures to manage vapour/odour risks is required. A Statement Condition will be included within the Statement of Environmental Audit to this effect.

The Auditor submitted a request for CUTEP determination to EPA on 29 July 2019, with a revised CUTEP submitted on 16 October 2019. The EPA determined CUTEP on 18 August 2020 and declared the site to be a GQRUZ.

Based on the findings of this Environmental Audit, the Auditor is of the opinion that the site in its current condition precludes or potentially precludes one or more beneficial uses of land in the context of unrestricted land use and, therefore, the site is not unconditionally suitable for all potential land uses. Therefore, the Auditor is unable to issue a Certificate of Environmental Audit for this site. A Statement of Environmental Audit, allowing the proposed commercial/industrial use of the site has been issued and is provided in Appendix A. If a Certificate of Environmental Audit was required for this site, the Clean-up of polluted groundwater, such that all beneficial uses of groundwater are restored, and all chemically and aesthetically unsuitable soils and materials would need to be remediated such that all beneficial uses of land are restored.

13.4 Audit Outcome

In the Auditor's opinion, the quality and reliability of information generated from the investigations undertaken were sufficient for the purposes of this Environmental Audit.

The current soil condition is considered to preclude the beneficial uses 'Maintenance of Ecosystems', 'Human Health' and 'Production of Food, Flora and Fibre' in the context of unrestricted use of the site.

It is noted basement structures have not been assessed as part of the risk review. If a basement is incorporated in any proposed future development of the site, further assessment and the potential design and installation of mitigation measures to manage vapour/odour risks is required. A Statement Condition will be included within the Statement of Environmental Audit to this effect.

However, in the context of the proposed commercial/industrial use of the site, with a requirement of a minimum of 0.5 m of 'clean fill' be placed below the finished surface in all landscaped areas or garden beds directly overlying existing site soils, the relevant beneficial uses of 'Maintenance of Ecosystems' and 'Human Health' are considered to be protected.

The current groundwater condition precludes the all relevant beneficial uses with the exception of 'Buildings and Structures'. The EPA determined CUTEP on 18 August 2020 and declared the site to be within a GQRUZ.

Groundwater must not be used for any beneficial use without prior testing and review of results by a suitably qualified professional to confirm its suitability for the proposed use. It may be extracted for the purpose of environmental monitoring or remediation

The Statement of Environmental Audit is provided as Appendix A.

13.5 Auditor's Support Team

Ms Meredith Burgon acted as the Auditor's representative when conducting site inspections. Ms. Rebekah Fynnaart and Ms Meredith Burgon assisted in the preparation of the Audit report.

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15 Limitations

This Environmental Audit Report and Statement of Environmental Audit have been prepared under Part IXD Section 53W (1) of the Environment Protection Act 1970, and in accordance with relevant SEPPs and EPA Victoria guidelines. The Statement of Environmental Audit represents the auditor's opinion of the environmental condition of the site and its suitability for specified beneficial uses at the date that the Statement is signed.

In forming his opinion of the site, the Auditor has assessed the data and information supplied by the consultant as well as the undertaking of a number of independent verification activities. He has accepted that the information supplied represents a fair and reasonable assessment of site conditions, taking into account the limitations inherent to all site assessment processes.

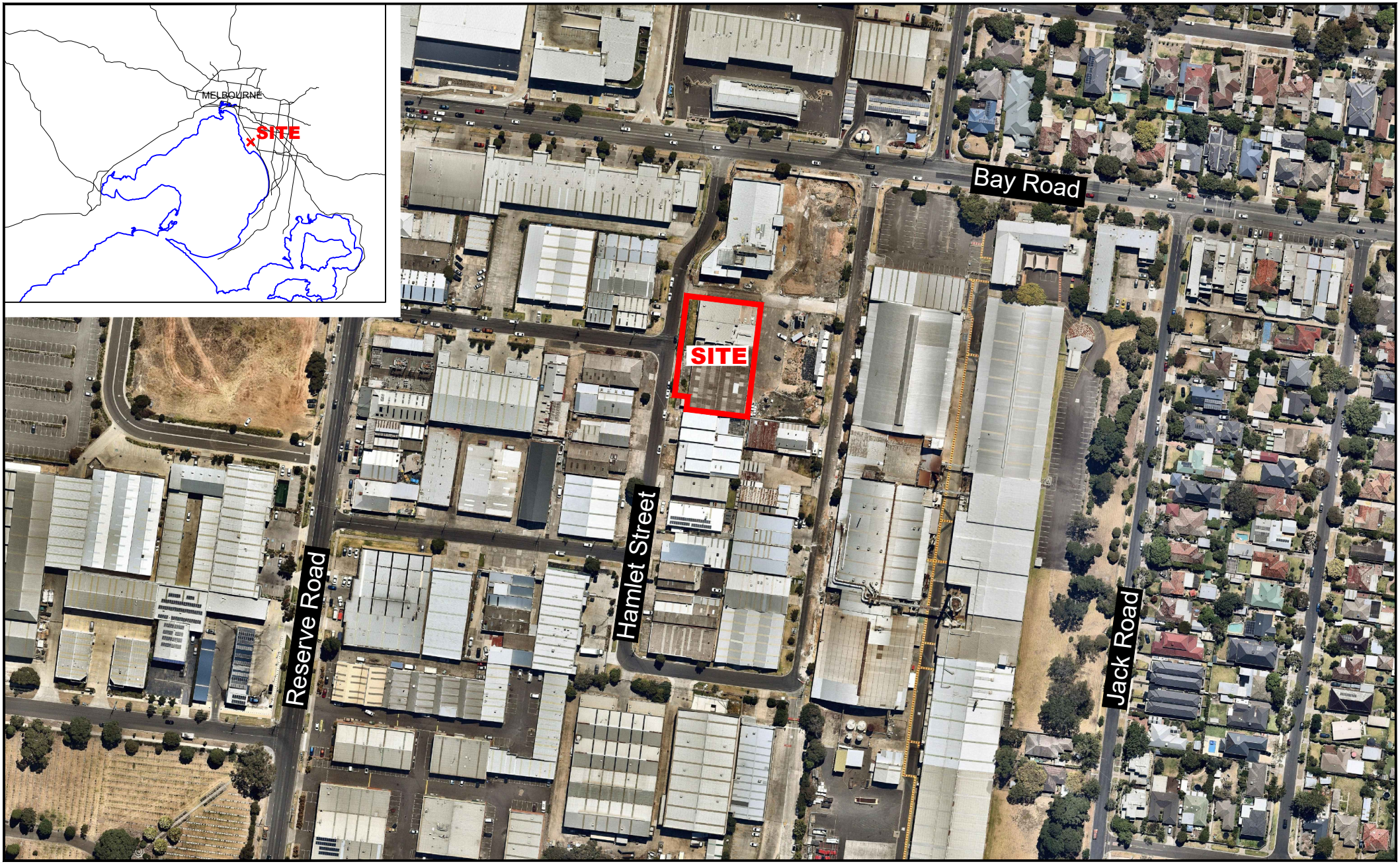
This report has been prepared specifically for use by EPA Victoria, Bayside City Council and Chandos Bay Pty Ltd (the current site owner). Should another party rely on the information and conclusions presented in this report, they do so at their own risk.

In the event that changes to the state or condition of the site and/or surrounding area occur after the date of signing of the Statement of Environmental Audit, the Environmental Audit Report may no longer be valid.

Figures

Environmental Audit Report

Lot 4, 20 Hamlet Street, Cheltenham, Victoria



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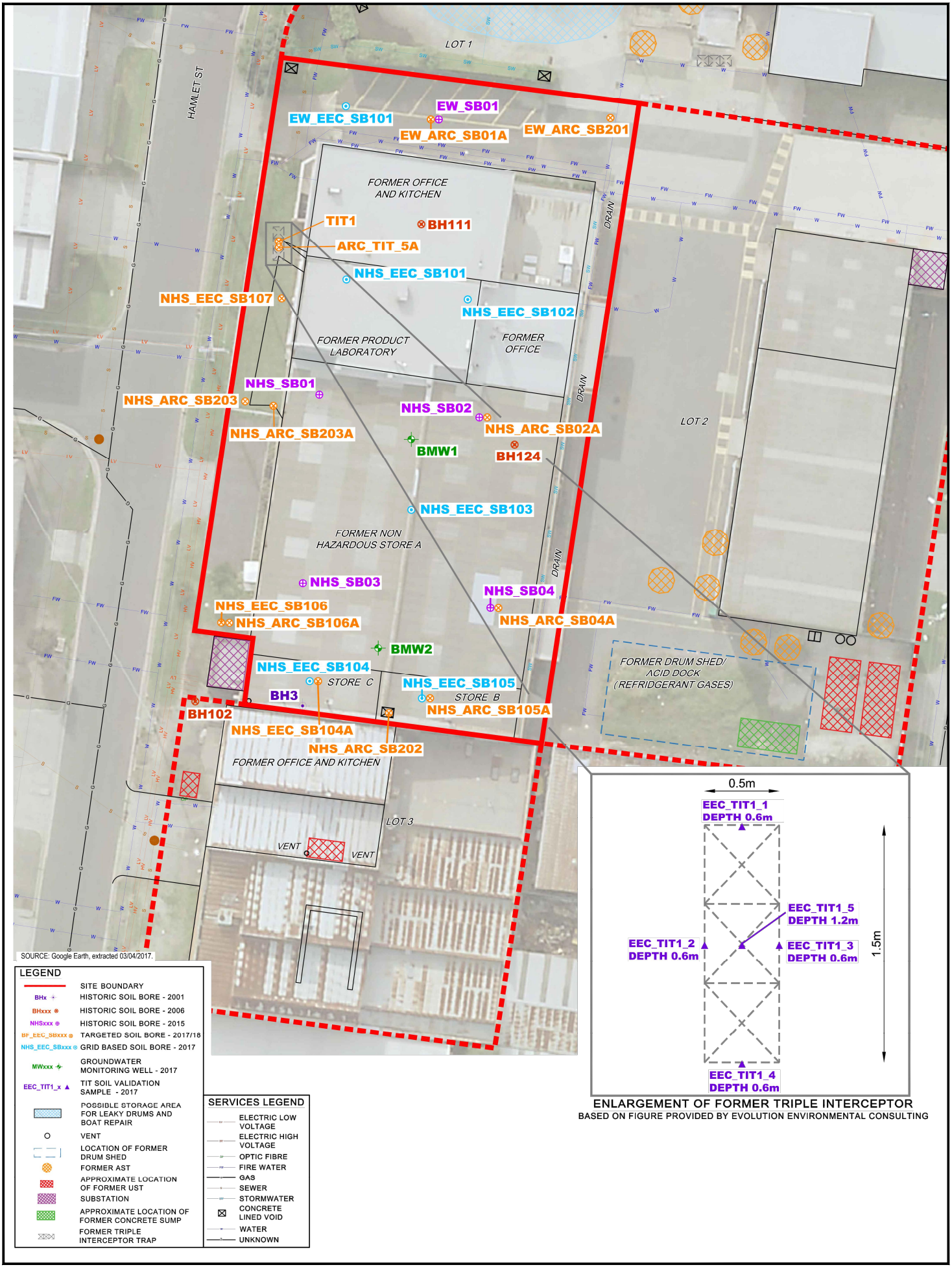
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Author: LZ	Checked by: MB
Data Source: nearmap.com, 22/02/19	

Chandos Bay Pty Ltd

Lot 4, 20 Hamlet Street, Cheltenham, VIC

Figure 1 - Site Location



ENLARGEMENT OF FORMER TRIPLE INTERCEPTOR
BASED ON FIGURE PROVIDED BY EVOLUTION ENVIRONMENTAL CONSULTING

LEGEND

- SITE BOUNDARY
- BHx — HISTORIC SOIL BORE - 2001
- BHxxx — HISTORIC SOIL BORE - 2006
- NHSxxx — HISTORIC SOIL BORE - 2015
- BF_EEC_SBxxx — TARGETED SOIL BORE - 2017/18
- NHS_EEC_SBxxx — GRID BASED SOIL BORE - 2017
- MWxxx — GROUNDWATER MONITORING WELL - 2017
- EEC_TIT1_x — TIT SOIL VALIDATION SAMPLE - 2017
- POSSIBLE STORAGE AREA FOR LEAKY DRUMS AND BOAT REPAIR
- VENT
- LOCATION OF FORMER DRUM SHED
- FORMER AST
- APPROXIMATE LOCATION OF FORMER UST
- SUBSTATION
- APPROXIMATE LOCATION OF FORMER CONCRETE SUMP
- FORMER TRIPLE INTERCEPTOR TRAP

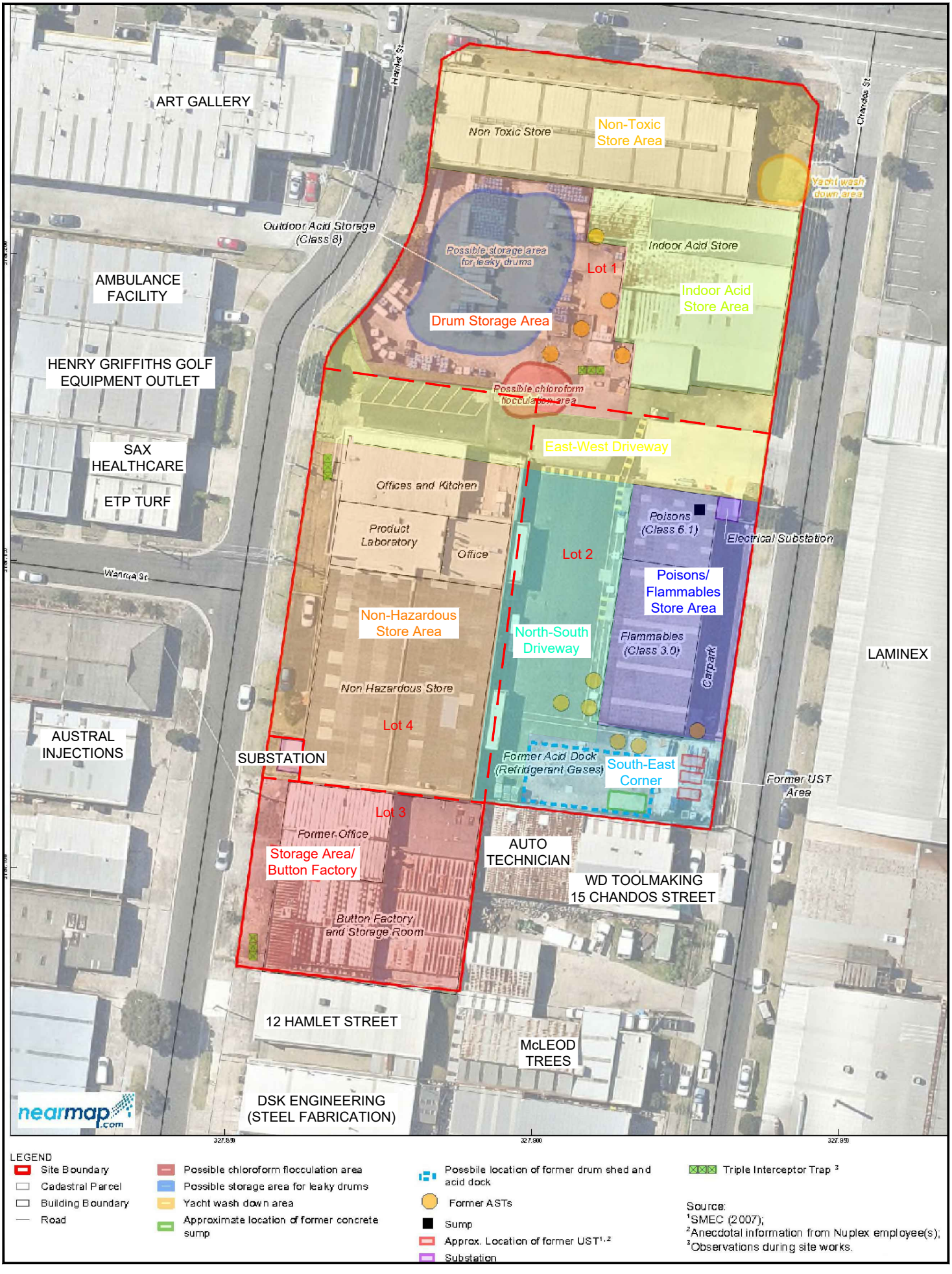
SERVICES LEGEND

- ELECTRIC LOW VOLTAGE
- ELECTRIC HIGH VOLTAGE
- OPTIC FIBRE
- FIRE WATER
- GAS
- SEWER
- STORMWATER
- CONCRETE LINED VOID
- WATER
- UNKNOWN

SCALE 0 5 10 15 — 1:500 (A4) METRES

MAPLE ENGINEERING

Drawing Number: MA115-2	Chandos Bay Pty Ltd
Revision: A	Lot 4, 20 Hamlet Street, Cheltenham
Date: 15/07/19	Figure 2 - Site Layout Plan
Author: LZ — Checked by: MB	
Data Source: ARC Environmental, 1707054, 31/10/18	



0 8 16 24
SCALE 1:800 (A4) METRES

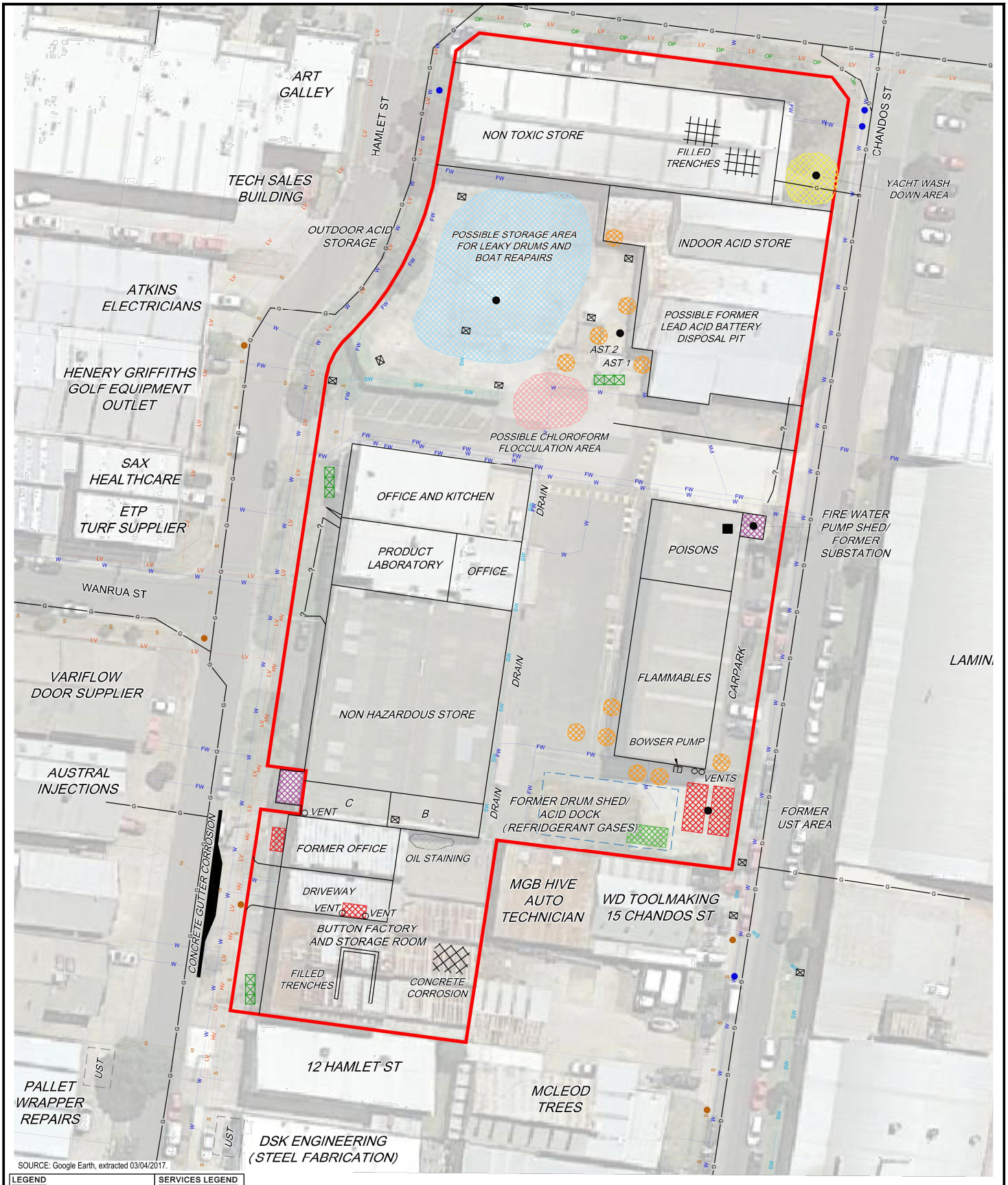
MAPLE ENVIRONMENTAL ENGINEERING

Drawing Number: MA115-2	
Revision: A	
Date: 15/07/19	
Author: LZ	Checked by: MB
Data Source: GHD, 31-2227011, 09/06/2015	

Chandos Bay Pty Ltd

Lot 4, 20 Hamlet Street, Cheltenham, VIC

Figure 3A - Surrounding Land Uses

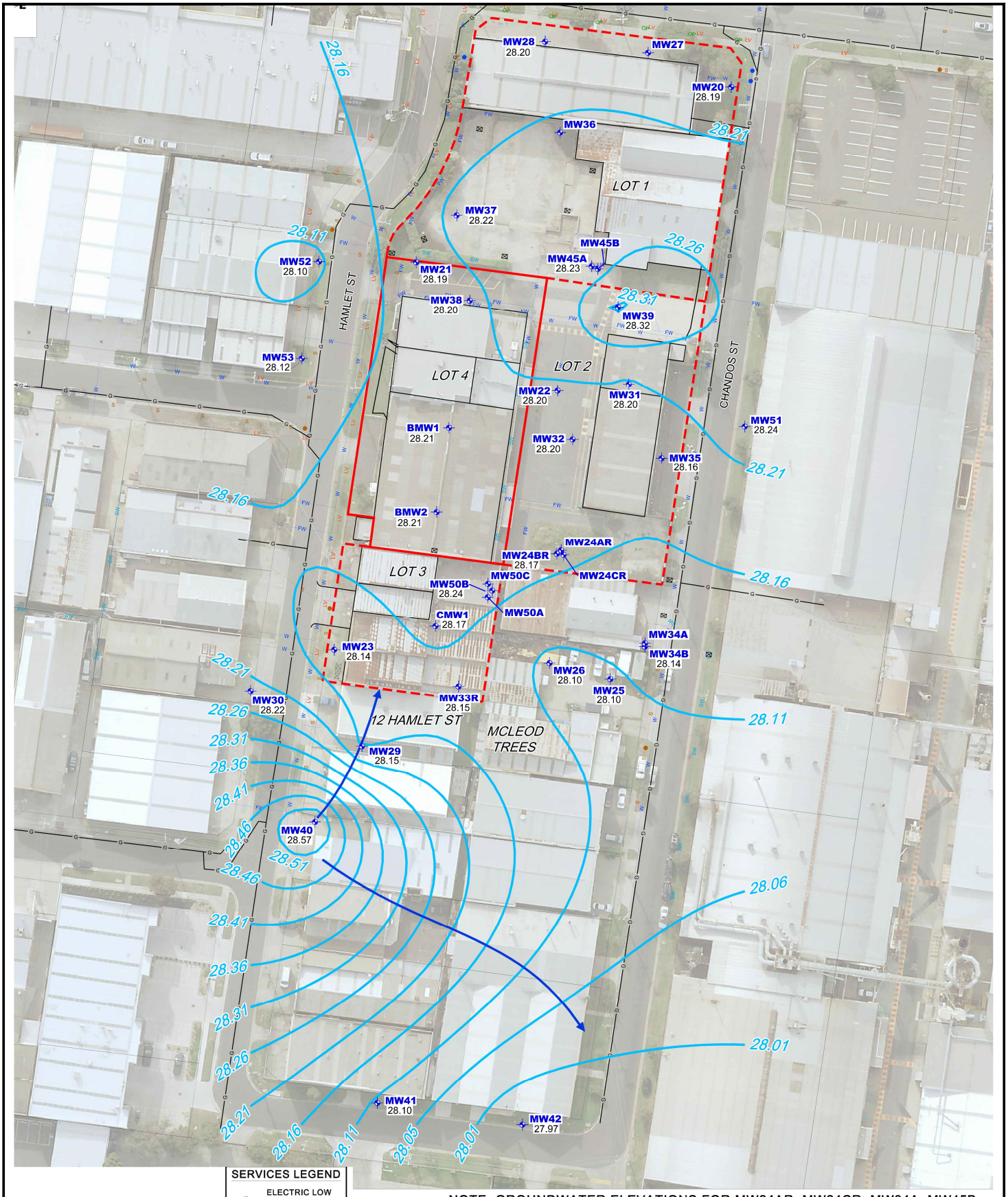


0 8 16 24
SCALE 1:800 (A4) METRES

Drawing Number: MA115-2	Chandos Bay Pty Ltd
Revision: A	Lot 4, 20 Hamlet Street, Cheltenham
Date: 15/07/19	Figure 3B - Historic and Current On and Off-site Features
Author: LZ / Checked by: MB	
Data Source: ARC Environmental, 1703044, 30/05/17	



SCALE 1:25000 @ A4 METRES (0, 250, 500, 750)		Drawing Number: MA115-2 Revision: A Date: 15/07/19 Author: LZ — Checked by: MB Data Source: vvg.org.au	Chandos Bay Pty Ltd Lot 4, 20 Hamlet Street, Cheltenham, VIC Figure 4 - Surrounding Registered Bores



NOTE: GROUNDWATER ELEVATIONS FOR MW24AR, MW24CR, MW34A, MW45B, MW50A AND MW50C WERE EXCLUDED FOR CONTOURING PURPOSES.

LEGEND

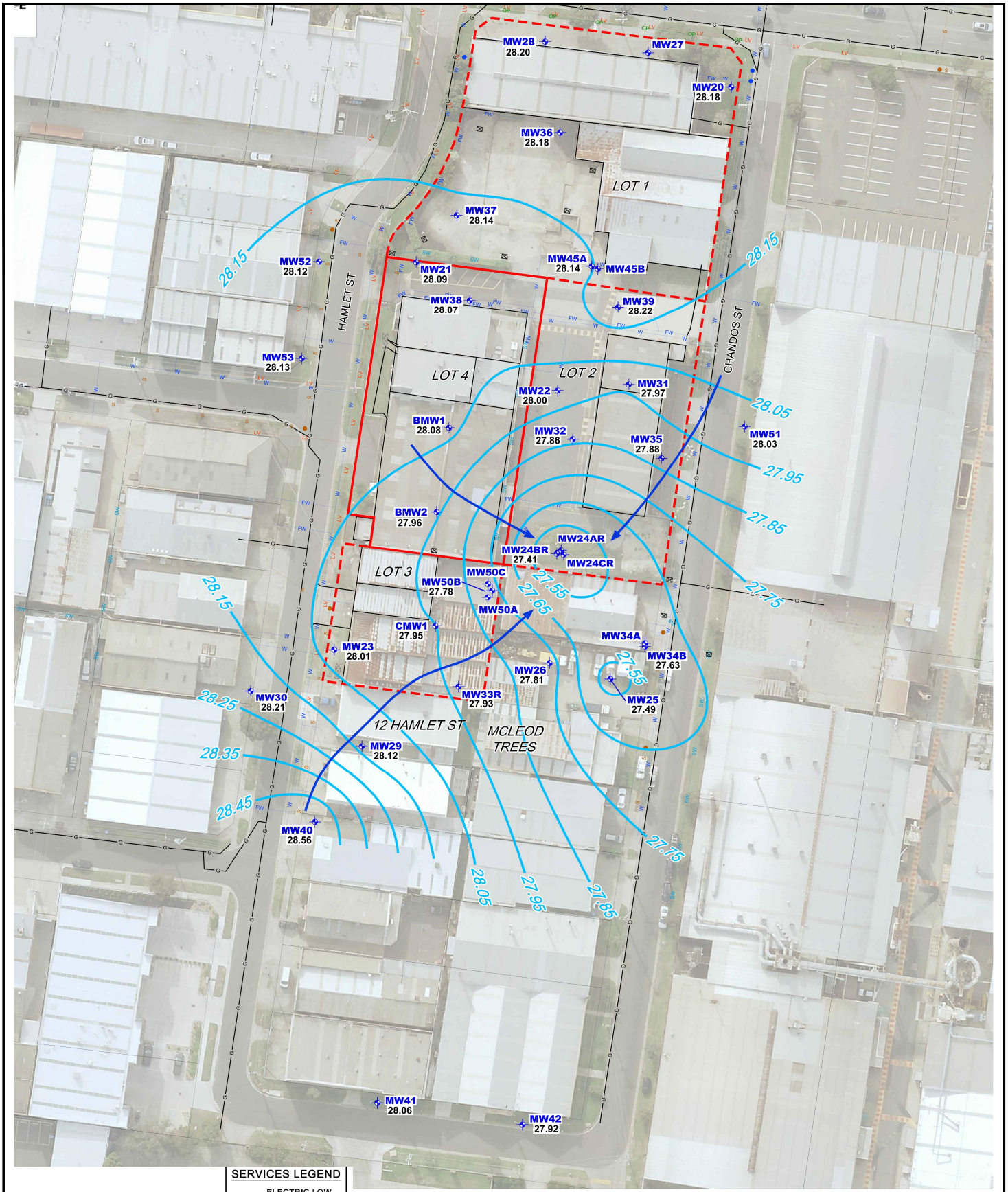
- SITE BOUNDARY
- MWxxx GROUNDWATER MONITORING WELL
- FORMER TRIPLE INTERCEPTOR TRAP
- 28.57 GROUNDWATER ELEVATION mAHD
- 28.51 GROUNDWATER CONTOUR mAHD
- GROUNDWATER FLOW DIRECTION

SERVICES LEGEND

- ELECTRIC LOW VOLTAGE
- ELECTRIC HIGH VOLTAGE
- OPTIC FIBRE
- FIRE WATER
- GAS
- SEWER
- STORMWATER
- DRAIN
- WATER
- UNKNOWN

0 12.5 25 37.5
SCALE 1:1250 (A4) METRES

Drawing Number: MA115-2	Chandos Bay Pty Ltd
Revision: A	Lot 4, 20 Hamlet Street, Cheltenham
Date: 15/07/19	Figure 5A - Groundwater Elevation Contours (August 2017)
Author: LZ / Checked by: MB	
Data Source: ARC Environmental, 1707054, 17/10/18	



NOTE: GROUNDWATER ELEVATIONS FOR MW24AR, MW24CR, MW34A, MW45B, MW50A AND MW50C WERE EXCLUDED FOR CONTOURING PURPOSES.

LEGEND

- SITE BOUNDARY
- MWxxx — GROUNDWATER MONITORING WELL
- FORMER TRIPLE INTERCEPTOR TRAP
- 28.56 — GROUNDWATER ELEVATION mAHD
- 28.45 — GROUNDWATER CONTOUR mAHD
- GROUNDWATER FLOW DIRECTION

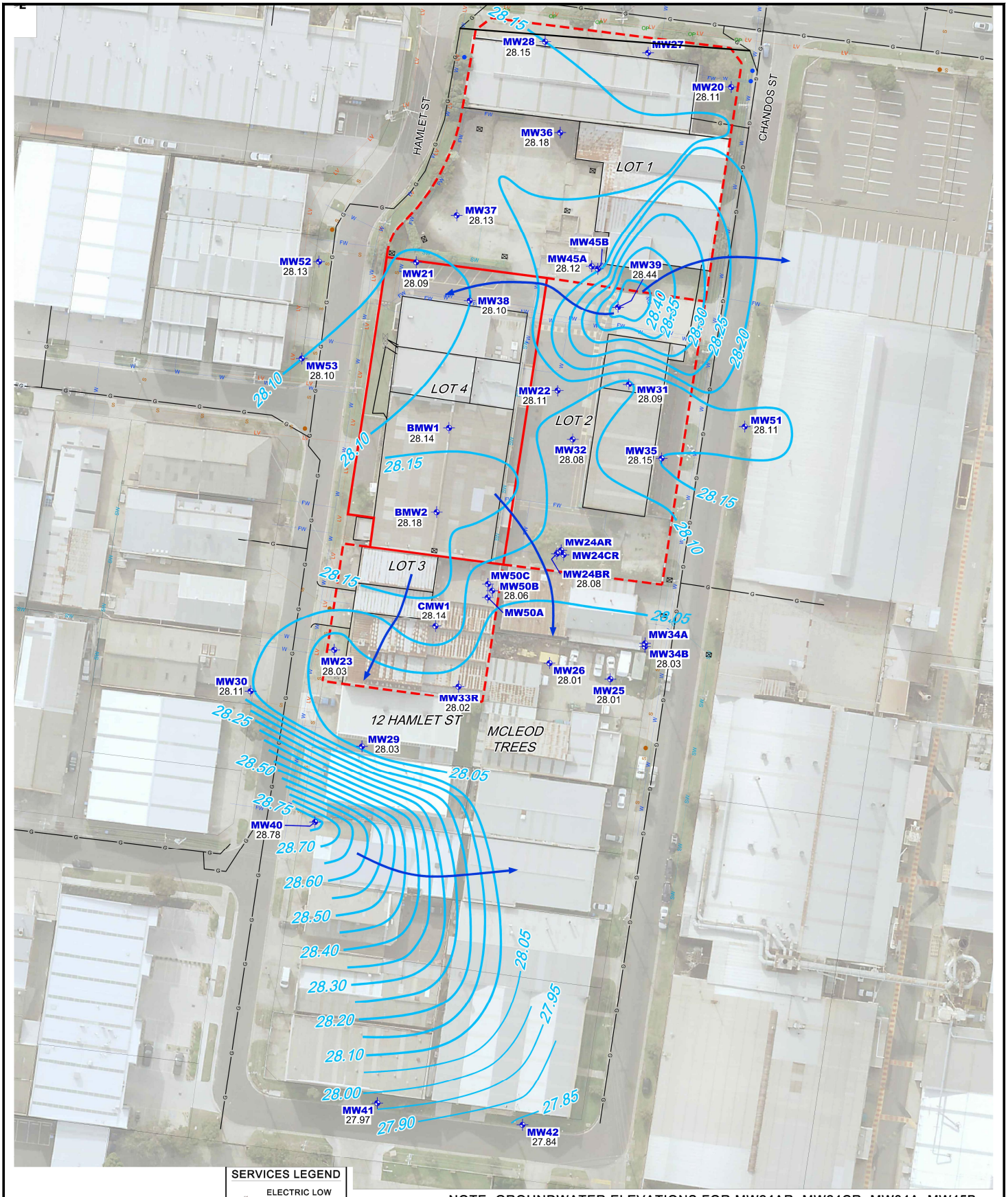
SERVICES LEGEND

- ELECTRIC LOW VOLTAGE
- ELECTRIC HIGH VOLTAGE
- OPTIC FIBRE
- FIRE WATER
- GAS
- SEWER
- STORMWATER
- DRAIN
- WATER
- UNKNOWN

0 12.5 25 37.5
SCALE 1:1250 (A4) METRES

MAPLE ENGINEERING

Drawing Number: MA115-2	Chandos Bay Pty Ltd
Revision: A	Lot 4, 20 Hamlet Street, Cheltenham
Date: 15/07/19	
Author: LZ / Checked by: MB	Figure 5B - Groundwater Elevation Contours (November 2017)
Data Source: ARC Environmental, 1707054, 17/10/18	



NOTE: GROUNDWATER ELEVATIONS FOR MW24AR, MW24CR, MW34A, MW45B, MW50A AND MW50C WERE EXCLUDED FOR CONTOURING PURPOSES.

LEGEND

- SITE BOUNDARY
- MWxxx GROUNDWATER MONITORING WELL
- FORMER TRIPLE INTERCEPTOR TRAP
- 28.78 GROUNDWATER ELEVATION mAHD
- 28.75 GROUNDWATER CONTOUR mAHD
- GROUNDWATER FLOW DIRECTION

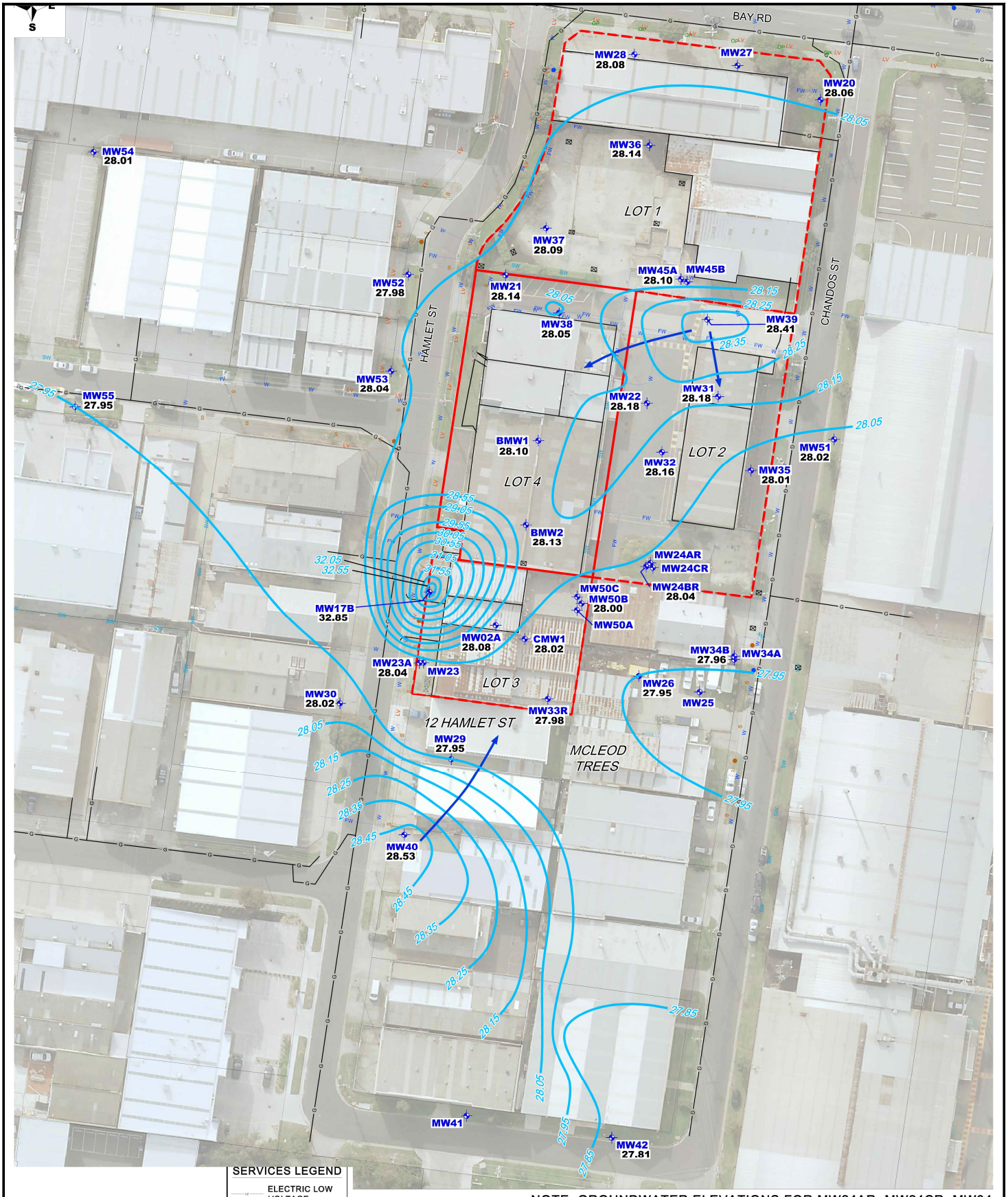
SERVICES LEGEND

- ELECTRIC LOW VOLTAGE
- ELECTRIC HIGH VOLTAGE
- OPTIC FIBRE
- FIRE WATER
- GAS
- SEWER
- STORMWATER
- DRAIN
- WATER
- UNKNOWN

0 12.5 25 37.5
SCALE 1:1250 (A4) METRES

MAPLE ENGINEERING

Drawing Number: MA115-2	Chandos Bay Pty Ltd
Revision: A	Lot 4, 20 Hamlet Street, Cheltenham
Date: 15/07/19	Figure 5C - Groundwater Elevation Contours (January 2018)
Author: LZ / Checked by: MB	
Data Source: ARC Environmental, 1707054, 17/10/18	



NOTE: GROUNDWATER ELEVATIONS FOR MW24AR, MW24CR, MW34, MW50A AND MW50C WERE EXCLUDED FOR CONTOURING PURPOSE

LEGEND

- SITE BOUNDARY
- MWxxx GROUNDWATER MONITORING WELL
- FORMER TRIPLE INTERCEPTOR TRAP
- 28.41 GROUNDWATER ELEVATION mAHD
- 28.35 GROUNDWATER CONTOUR mAHD
- GROUNDWATER FLOW DIRECTION

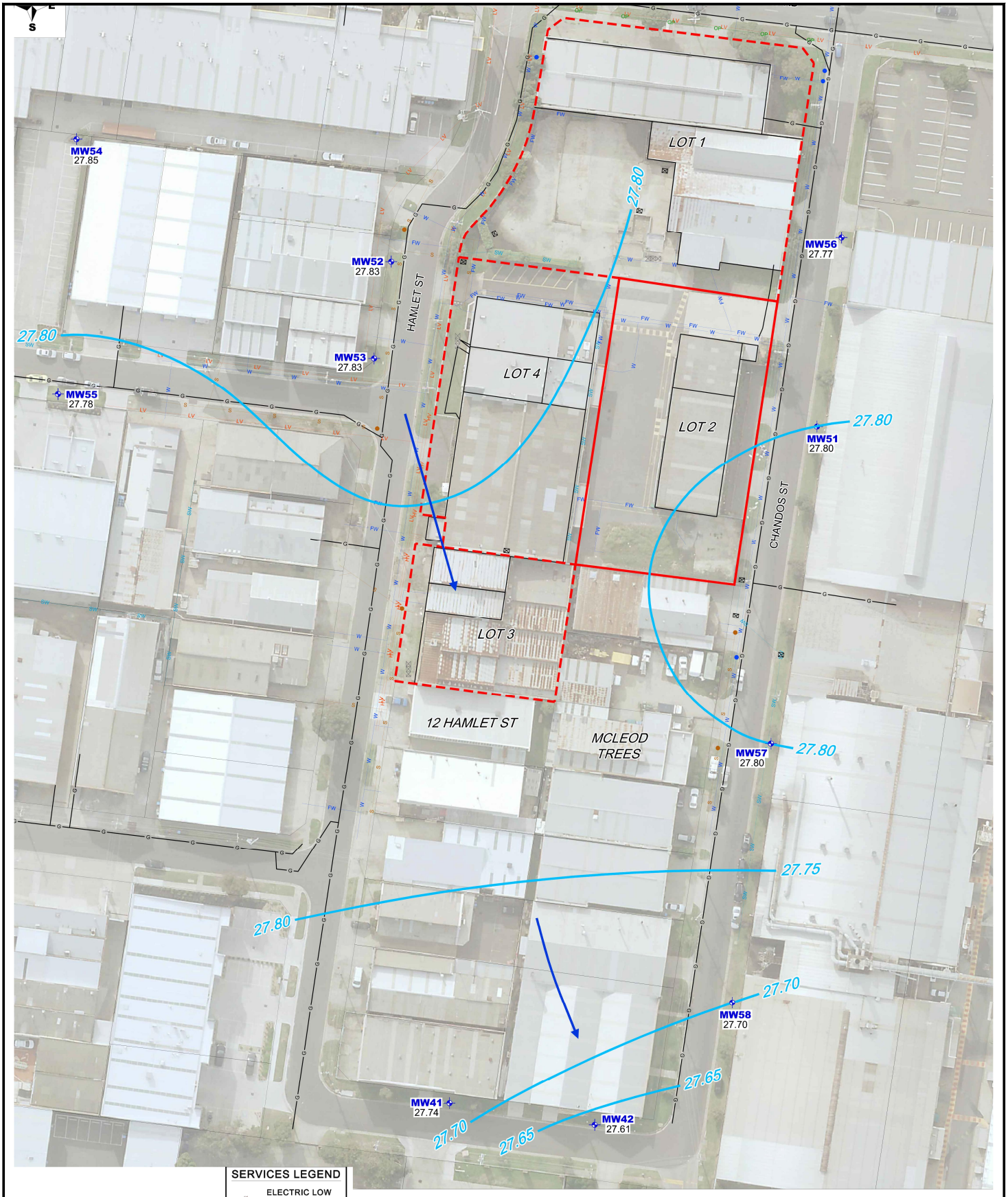
SERVICES LEGEND

- ELECTRIC LOW VOLTAGE
- ELECTRIC HIGH VOLTAGE
- OPTIC FIBRE
- FIRE WATER
- GAS
- SEWER
- STORMWATER
- DRAIN
- WATER
- UNKNOWN

0 12.5 25 37.5
SCALE 1:1250 (A4) METRES

MAPLE ENGINEERING

Drawing Number: MA115-2	Chandos Bay Pty Ltd
Revision: A	Lot 4, 20 Hamlet Street, Cheltenham
Date: 15/07/19	Figure 5D - Groundwater Elevation Contours (July 2018)
Author: LZ / Checked by: MB	
Data Source: ARC Environmental, 1707054, 17/10/18	



LEGEND

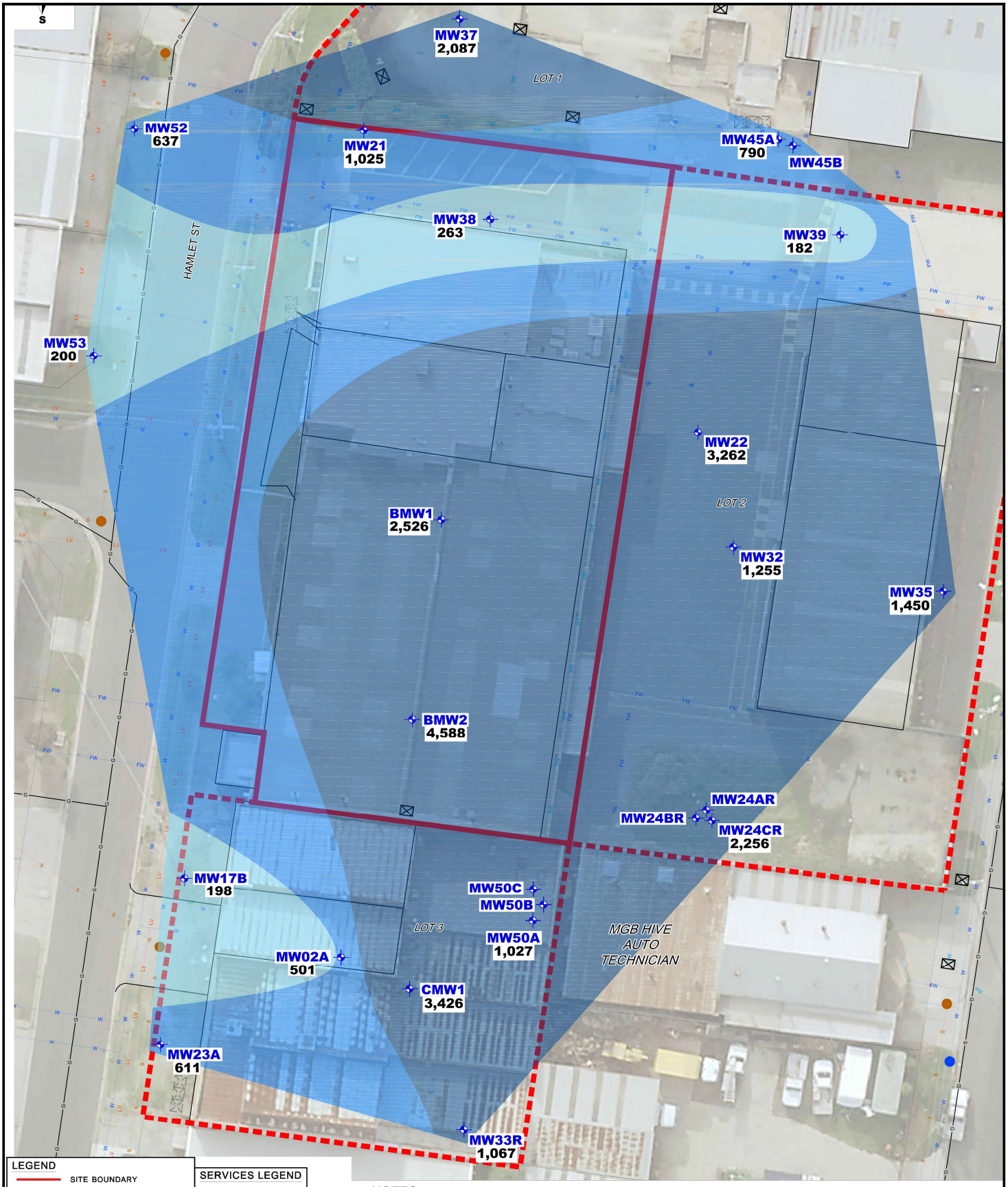
- SITE BOUNDARY
- MWxxx GROUNDWATER MONITORING WELL
- FORMER TRIPLE INTERCEPTOR TRAP
- 28.57 GROUNDWATER ELEVATION mAHD
- 27.80 GROUNDWATER CONTOUR mAHD
- GROUNDWATER FLOW DIRECTION

SERVICES LEGEND

- ELECTRIC LOW VOLTAGE
- ELECTRIC HIGH VOLTAGE
- OPTIC FIBRE
- FIRE WATER
- GAS
- SEWER
- STORMWATER
- DRAIN
- WATER
- UNKNOWN

0 12.5 25 37.5
SCALE 1:1250 (A4) METRES

Drawing Number: MA115-2	Chandos Bay Pty Ltd
Revision: A	Lot 4, 20 Hamlet Street, Cheltenham
Date: 15/07/19	
Author: LZ / Checked by: MB	Figure 5E - Groundwater Elevation Contours (January 2019)
Data Source: ARC Environmental, 1901105, 30/01/19	



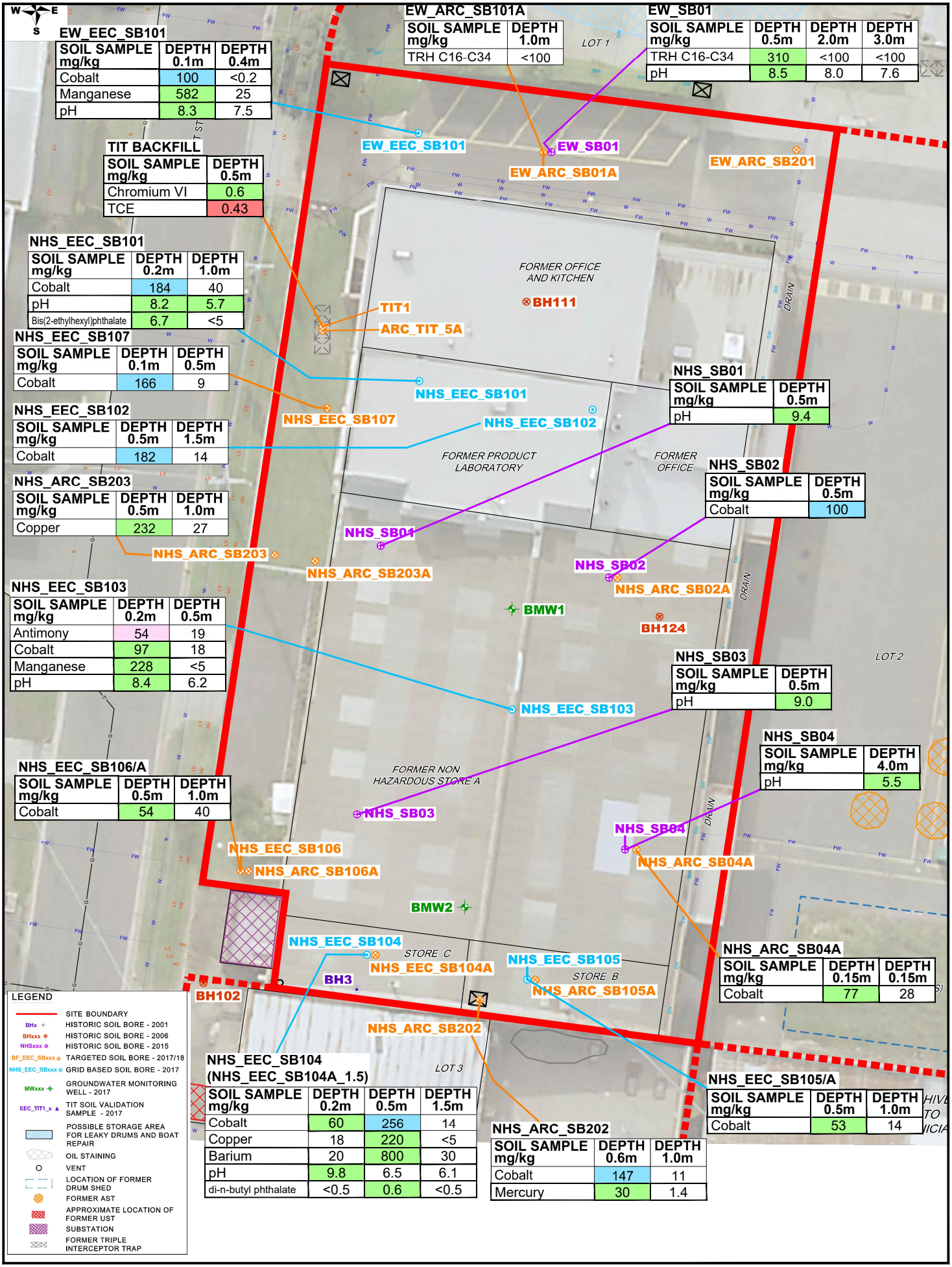
NOTES:

1. THE RESULTS FROM THE SHALLOW WELL WITHIN NESTED WELLS HAS BEEN ADOPTED FOR THE CONCENTRATIONS CONTOURS.
2. CONCENTRATIONS USED FOR MW02A, MW17B AND MW23A WERE FROM MAY/JUNE 2018 SAMPLING EVENTS.

0 5 10 15
SCALE 1:500 (A4) METRES

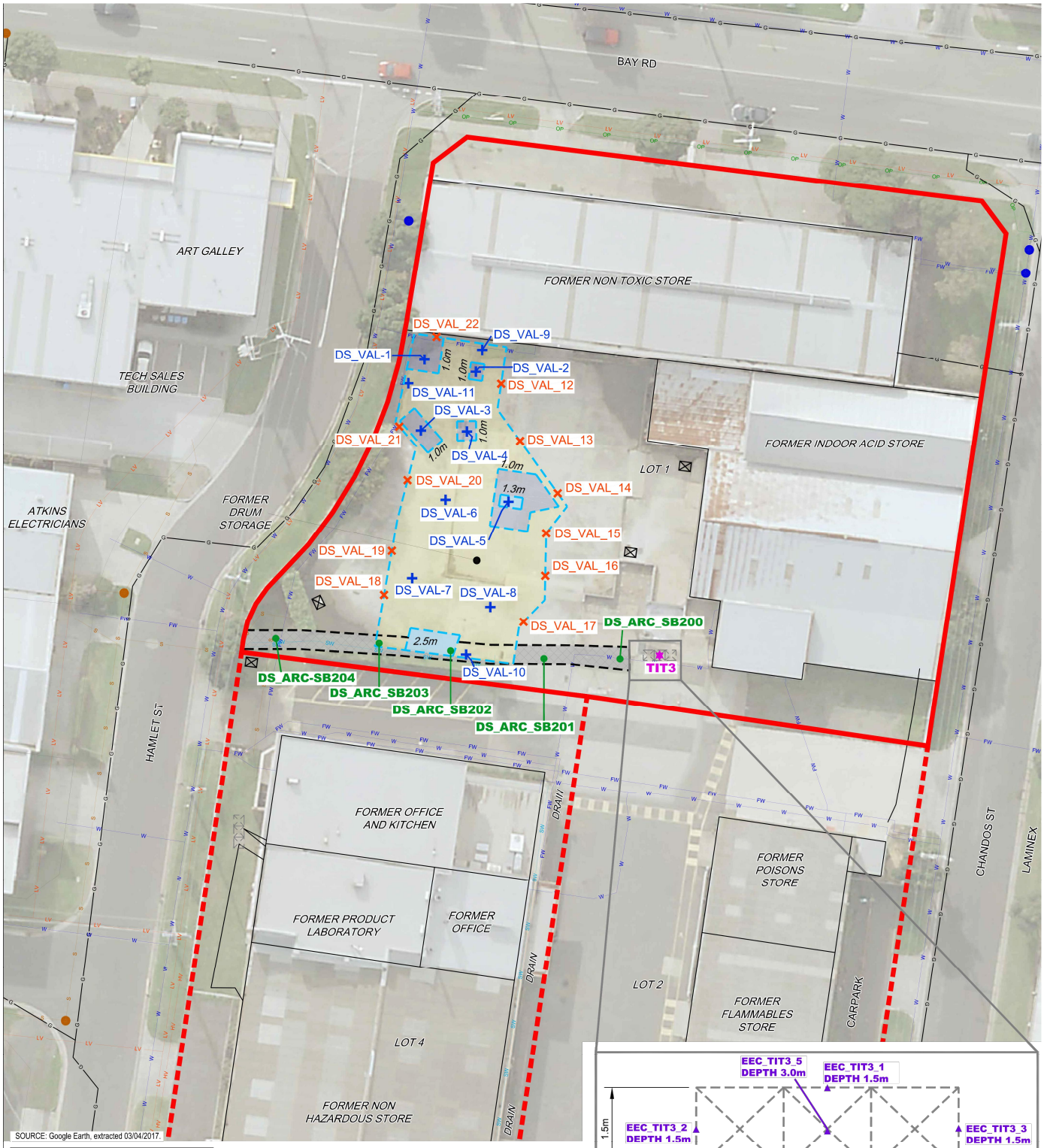
MAPLE ENGINEERING

Drawing Number: MA115-2	Chandos Bay Pty Ltd
Revision: A	Lot 4, 20 Hamlet Street, Cheltenham
Date: 15/07/19	Figure 6 - TDS Concentration Contours (January 2018)
Author: LZ / Checked by: MB	
Data Source: ARC Environmental, 1707054, 17/10/18	

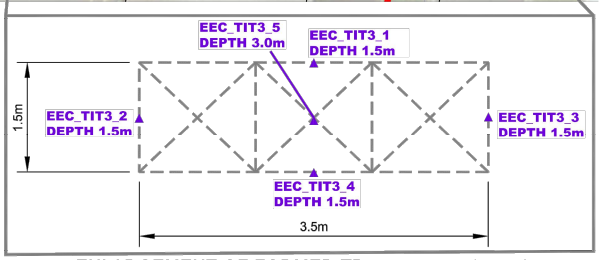


Drawing Number: MA115-2
Revision: A
Date: 15/07/19
Author: LZ
Checked by: MB
Data Source: ARC Environmental, 1707054, 31/10/18

Chandos Bay Pty Ltd
Lot 4, 20 Hamlet Street, Cheltenham
Figure 7 - Soil Exceedances



SOURCE: Google Earth, extracted 03/04/2017.



ENLARGEMENT OF FORMER TRIPLE INTERCEPTOR
BASED ON FIGURE PROVIDED BY EVOLUTION ENVIRONMENTAL CONSULTING

LEGEND

- SITE BOUNDARY
- DS_VAL-xx + SOIL VALIDATION SAMPLE BASE - 2018
- DS_VAL_xx ✕ SOIL VALIDATION SAMPLE WALL - 2018
- DS_ARC_SBxx ● TRENCH SOIL VALIDATION SAMPLE - 2018
- EEC_TITxxx ▲ TIT SOIL VALIDATION SAMPLE - 2017
- TITxxx ✱ SOIL BORE - TIT BACKFILL
- EXCAVATION EXTENT
- EXCAVATION DEPTH 0.0m
- EXCAVATION DEPTH >0.6-1.0m
- EXCAVATION DEPTH >1.0m
- TRENCH EXCAVATION 2.5m DEPTH
- FORMER TRIPLE INTERCEPTOR TRAP

SERVICES LEGEND

- ELECTRIC LOW VOLTAGE
- ELECTRIC HIGH VOLTAGE
- OPTIC FIBRE
- FIRE WATER
- GAS
- SEWER
- STORMWATER
- DRAIN
- WATER
- UNKNOWN

SCALE 0 6 12 18 — 1:600 (A4) METRES

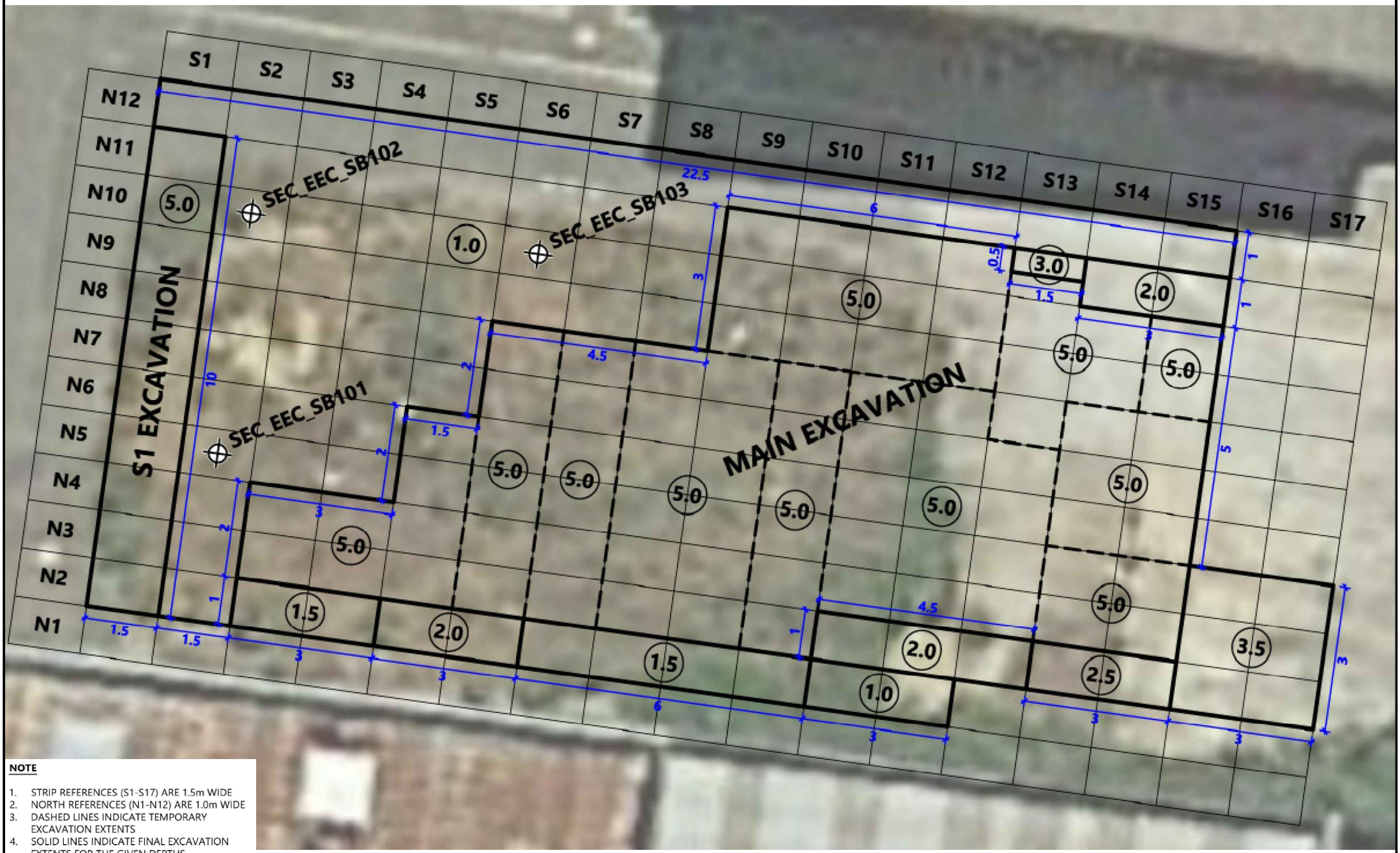
Drawing Number: MA115-2	Chandos Bay Pty Ltd
Revision: A	Lot 3, 14 Hamlet Street, Cheltenham, VIC
Date: 15/07/19	
Author: LZ / Checked by: MB	Figure 8A - Excavation and Soil Validation Locations
Data Source: Arc Environmental, 1707054, 18/02/2019	



0 7 14 21
SCALE 1:700 (A4) METRES

MAPLE ENGINEERING

Drawing Number: MA115-2	Chandos Bay Pty Ltd
Revision: A	Lot 3, 14 Hamlet Street, Cheltenham, VIC
Date: 15/07/19	
Author: LZ / Checked by: MB	Figure 8B - North-South Driveway (off-site) Sample Locations (GHD, 2015)
Data Source: GHD, 31-2227011, 09/06/15	



NOTE

1. STRIP REFERENCES (S1-S17) ARE 1.5m WIDE
2. NORTH REFERENCES (N1-N12) ARE 1.0m WIDE
3. DASHED LINES INDICATE TEMPORARY EXCAVATION EXTENTS
4. SOLID LINES INDICATE FINAL EXCAVATION EXTENTS FOR THE GIVEN DEPTHS
5. ALL DEPTHS (SHOWN CIRCLED) ARE METRES BELOW GROUND LEVEL

LEGEND

⌖ VALIDATION BOREHOLE LOCATION

SCALE 1:100 0 1 2 3 METRES

MAPLE AUDITING

Drawing Number: MA115-2	
Revision: A	
Date: 15/07/19	
Author: LZ	Checked by: MB
Data Source: Evolution Environmental Consulting, J000021-001-E, 19/07/17	

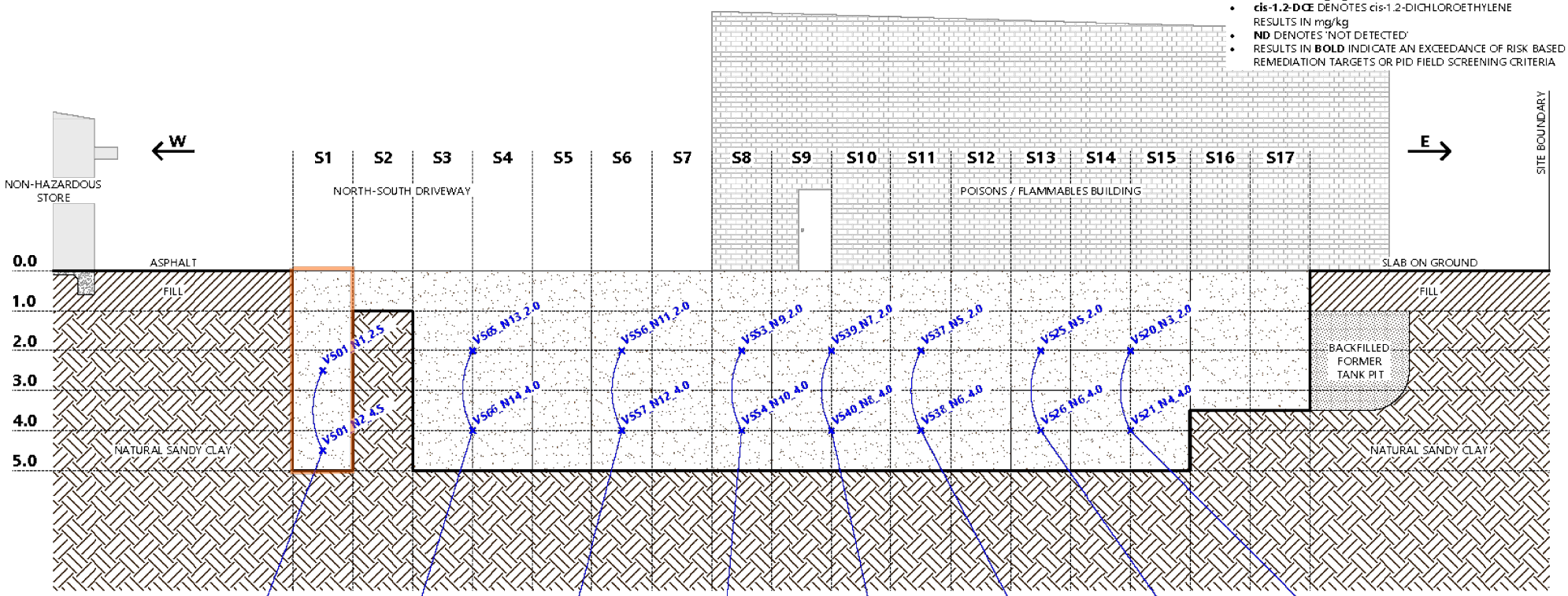
Chandos Bay Pty Ltd

Lot 3, 14 Hamlet Street, Cheltenham, VIC

Figure 8C - SEC Soil Excavation (Lot 2)

NOTE

- ALL DEPTHS ARE METRES BELOW GROUND LEVEL
- **PID** DENOTES PHOTO-IONISATION DETECTOR RESULTS IN PARTS PER MILLION
- **PCE** DENOTES TETRACHLOROETHYLENE RESULTS IN mg/kg
- **TCE** DENOTES TRICHLOROETHYLENE RESULTS IN mg/kg
- **cis-1.2-DCE** DENOTES cis-1.2-DICHLOROETHYLENE RESULTS IN mg/kg
- **ND** DENOTES 'NOT DETECTED'
- RESULTS IN **BOLD** INDICATE AN EXCEEDANCE OF RISK BASED REMEDIATION TARGETS OR PID FIELD SCREENING CRITERIA



SAMPLE	VS01_N1_2.5	VS01_N2_4.5	VS65_N13_2.0	VS66_N14_4.0	VS56_N11_2.0	VS57_N12_4.0	VS53_N9_2.0	VS54_N10_4.0	VS39_N7_2.0	VS40_N8_4.0	VS37_N5_2.0	VS38_N6_4.0	VS25_N5_2.0	VS26_N6_4.0	VS20_N3_2.0	VS21_N4_4.0
DEPTH	2.5	4.5	2.0	4.0	2.0	4.0	2.0	4.0	2.0	4.0	2.0	4.0	2.0	4.0	2.0	4.0
PID	0.0	0.0	23	61	96	34	22	21	95	16	56	73	85	63	16	155
PCE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TCE	ND	ND	0.03	0.16	0.15	0.07	0.13	0.04	0.22	0.13	0.15	0.16	0.14	0.06	ND	0.13
cis-1.2-DCE	ND	ND	0.08	0.25	0.08	0.01	0.02	ND	0.01	ND	0.02	ND	0.09	0.05	ND	0.04

S1 Excavation & Validation

MAPLE AUDITING

Drawing Number: **MA115-2**
Revision: **A**
Date: **15/07/19**
Author: **LZ** Checked by: **MB**
Data Source: **Evolution Environmental Consulting, J000021-001-E, 19/07/17**

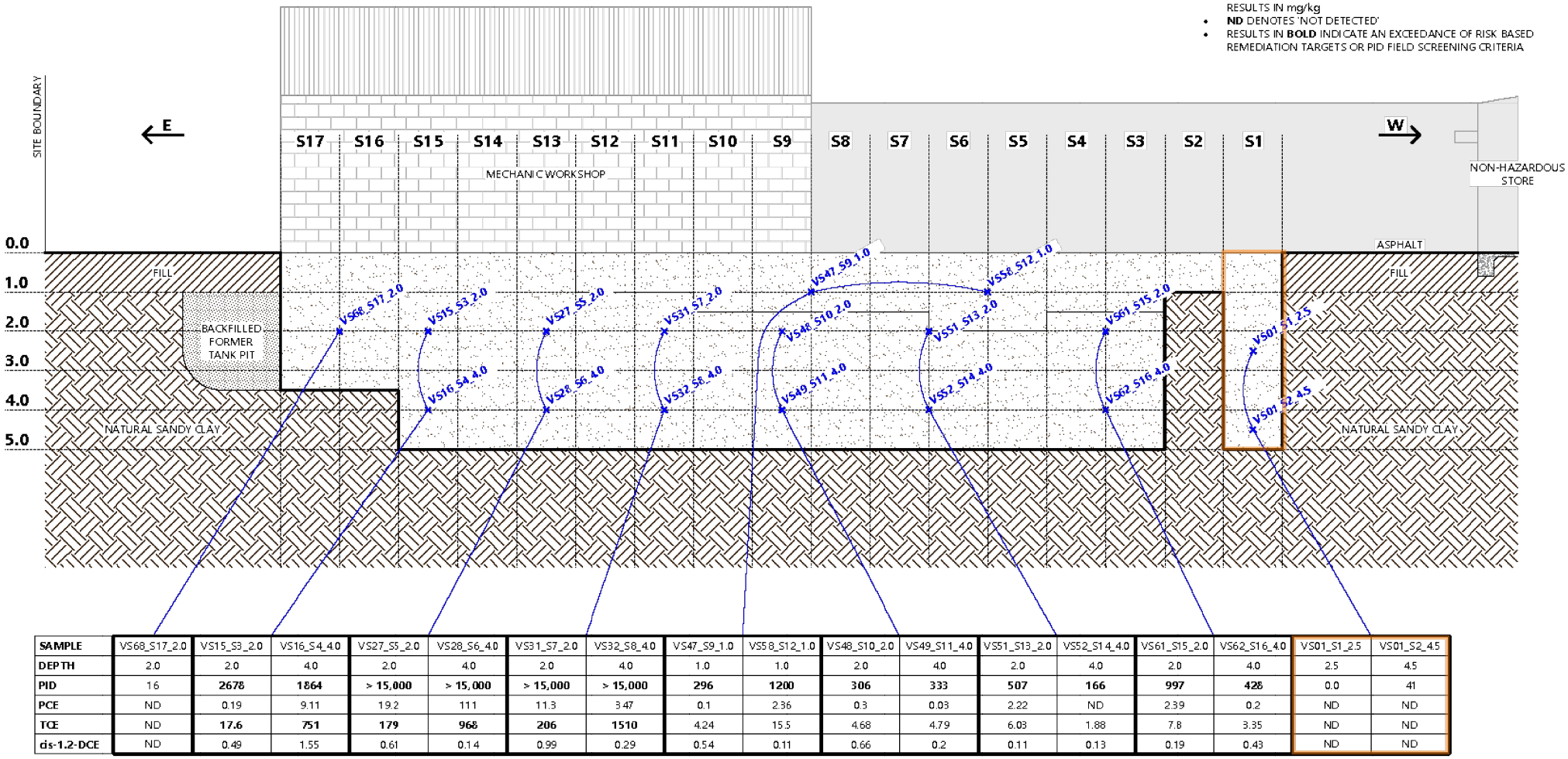
Chandos Bay Pty Ltd

Lot 3, 14 Hamlet Street, Cheltenham, VIC

Figure 8D - S1 Excavation Validation - North Wall (Lot 2)

NOTE

- ALL DEPTHS ARE METRES BELOW GROUND LEVEL
- **PID** DENOTES PHOTO-IONISATION DETECTOR RESULTS IN PARTS PER MILLION
- **PCE** DENOTES TETRACHLOROETHYLENE RESULTS IN mg/kg
- **TCE** DENOTES TRICHLOROETHYLENE RESULTS IN mg/kg
- **cis-1,2-DCE** DENOTES cis-1,2-DICHLOROETHYLENE RESULTS IN mg/kg
- **ND** DENOTES 'NOT DETECTED'
- RESULTS IN **BOLD** INDICATE AN EXCEEDANCE OF RISK BASED REMEDIATION TARGETS OR PID FIELD SCREENING CRITERIA



SAMPLE	VS68_S17_2.0	VS15_S3_2.0	VS16_S4_4.0	VS27_S5_2.0	VS28_S6_4.0	VS31_S7_2.0	VS32_S8_4.0	VS47_S9_1.0	VS58_S12_1.0	VS48_S10_2.0	VS49_S11_4.0	VS51_S13_2.0	VS52_S14_4.0	VS61_S15_2.0	VS62_S16_4.0	VS01_S1_2.5	VS01_S2_4.5
DEPTH	2.0	2.0	4.0	2.0	4.0	2.0	4.0	1.0	1.0	2.0	4.0	2.0	4.0	2.0	4.0	2.5	4.5
PID	16	**2678**	**1864**	**> 15,000**	**> 15,000**	**> 15,000**	**> 15,000**	**296**	**1200**	**306**	**333**	**507**	**166**	**997**	**428**	0.0	41
PCE	ND	0.19	9.11	19.2	111	11.3	3.47	0.1	2.36	0.3	0.03	2.22	ND	2.39	0.2	ND	ND
TCE	ND	**17.6**	**751**	**179**	**968**	**206**	**1510**	4.24	15.5	4.68	4.79	6.03	1.88	7.8	3.35	ND	ND
cis-1,2-DCE	ND	0.49	1.55	0.61	0.14	0.99	0.29	0.54	0.11	0.66	0.2	0.11	0.13	0.19	0.43	ND	ND

S1 Excavation & Validation

MAPLE AUDITING

Drawing Number: **MA115-2**	
Revision: **A**	
Date: **15/07/19**	
Author: **LZ**	Checked by: **MB**
Data Source: **Evolution Environmental Consulting, J000021-001-E, 19/07/17**	

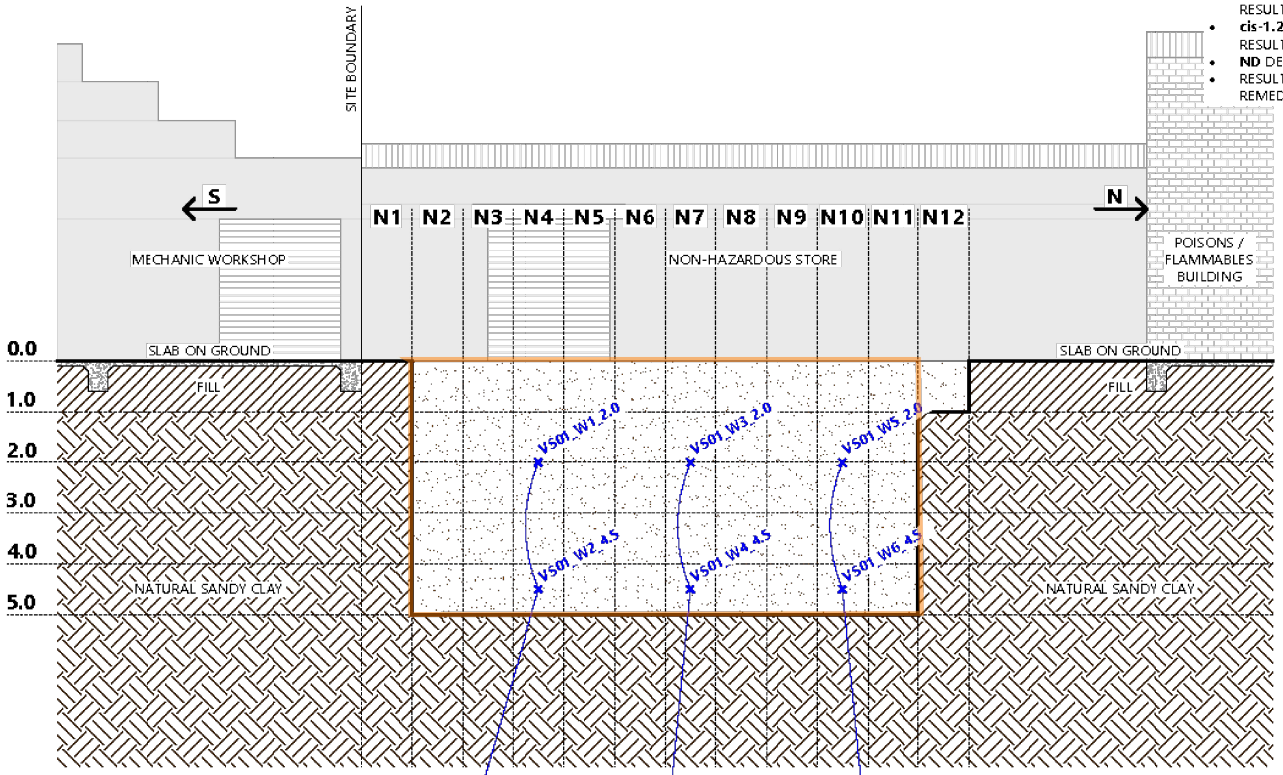
Chandos Bay Pty Ltd

Lot 3, 14 Hamlet Street, Cheltenham, VIC

Figure 8E - S1 Excavation Validation - South Wall (Lot 2)

NOTE

- ALL DEPTHS ARE METRES BELOW GROUND LEVEL
- **PID** DENOTES PHOTO-IONISATION DETECTOR RESULTS IN PARTS PER MILLION
- **PCE** DENOTES TETRACHLOROETHYLENE RESULTS IN mg/kg
- **TCE** DENOTES TRICHLOROETHYLENE RESULTS IN mg/kg
- **cis-1.2-DCE** DENOTES cis-1.2-DICHLOROETHYLENE RESULTS IN mg/kg
- **ND** DENOTES 'NOT DETECTED'
- RESULTS IN **BOLD** INDICATE AN EXCEEDANCE OF RISK BASED REMEDIATION TARGETS OR PID FIELD SCREENING CRITERIA



SAMPLE	VS01_W1_2.0	VS01_W2_4.5	VS01_W3_2.0	VS01_W4_4.5	VS01_W5_2.0	VS01_W6_4.5
DEPTH	2.0	4.5	2.0	4.5	2.0	4.5
PID	0.0	0.0	0.0	0.0	0.0	0.0
PCE	ND	ND	ND	ND	ND	ND
TCE	ND	ND	ND	ND	ND	ND
cis-1.2-DCE	0.02	0.07	ND	ND	ND	ND

S1 Excavation & Validation

MAPLE AUDITING

Drawing Number: **MA115-2**
Revision: **A**
Date: **15/07/19**
Author: **LZ** Checked by: **MB**
Data Source: **Evolution Environmental Consulting, J000021-001-E, 19/07/17**

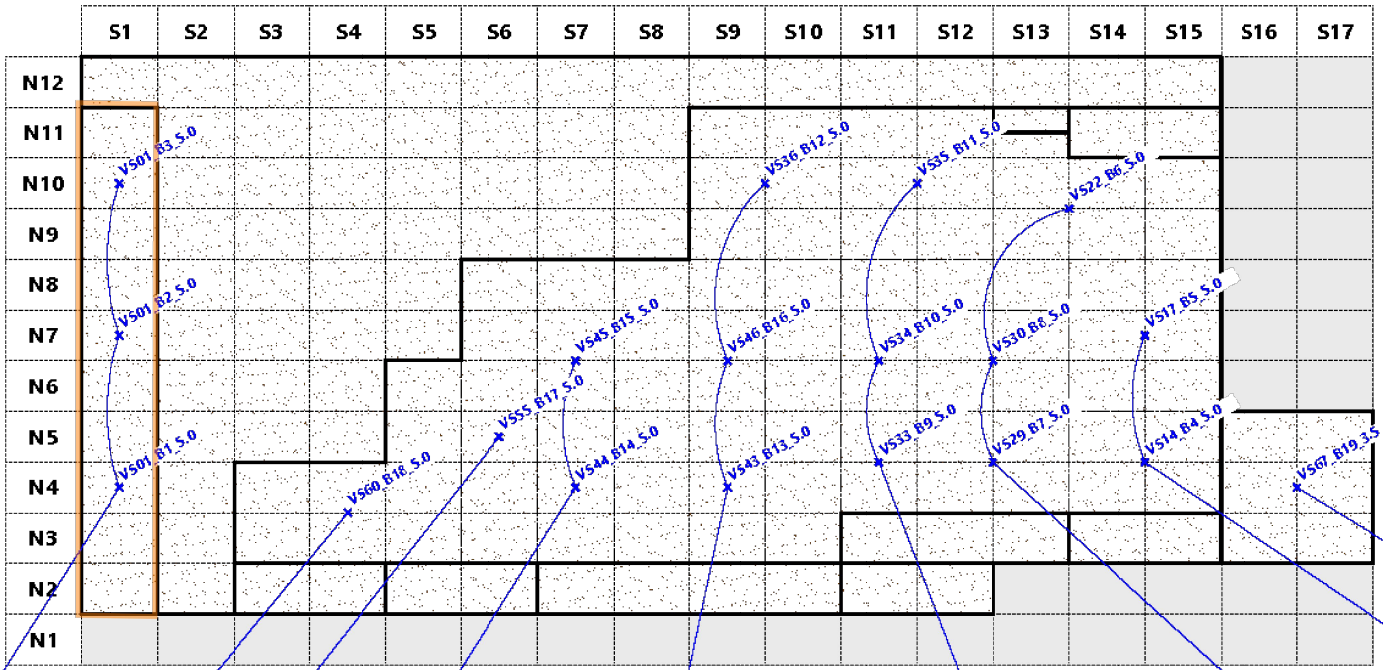
Chandos Bay Pty Ltd

Lot 3, 14 Hamlet Street, Cheltenham, VIC

Figure 8F - S1 Excavation Validation - West Wall (Lot 2)

NOTE

- ALL DEPTHS ARE METRES BELOW GROUND LEVEL
- **PID** DENOTES PHOTO-IONISATION DETECTOR RESULTS IN PARTS PER MILLION
- **PCE** DENOTES TETRACHLOROETHYLENE RESULTS IN mg/kg
- **TCE** DENOTES TRICHLOROETHYLENE RESULTS IN mg/kg
- **cis-1.2-DCE** DENOTES cis-1.2-DICHLOROETHYLENE RESULTS IN mg/kg
- **ND** DENOTES 'NOT DETECTED'
- RESULTS IN **BOLD** INDICATE AN EXCEEDANCE OF RISK BASED REMEDIATION TARGETS OR PID FIELD SCREENING CRITERIA



SAMPLE	VS01_B1_5.0	VS01_B2_5.0	VS01_B3_5.0	VS60_B18_5.0	VS55_B17_5.0	VS44_B14_5.0	VS45_B15_5.0	VS36_B12_5.0	VS43_B13_5.0	VS46_B16_5.0	VS33_B9_5.0	VS34_B10_5.0	VS35_B11_5.0	VS22_B6_5.0	VS29_B7_5.0	VS30_B8_5.0	VS14_B4_5.0	VS17_B5_5.0	VS67_B19_3.5
DEPTH	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	3.5
PID	0.0	0.0	0.0	**208**	**296**	142	**227**	122	**469**	76	**> 15,000**	**> 15,000**	147	**613**	**> 15,000**	**4930**	**1493**	**6500**	39
PCE	ND	ND	ND	0.06	0.07	ND	0.02	ND	0.05	ND	955	232	0.12	0.05	65.3	93.7	ND	0.04	ND
TCE	ND	ND	ND	1.75	4.18	0.78	3.47	0.77	6.71	0.26	**7060**	**664**	0.94	7.45	**3460**	**5300**	1.38	11.3	ND
cis-1.2-DCE	0.03	0.04	ND	1.88	0.44	0.09	0.27	0.08	0.33	0.04	0.96	0.89	0.05	0.88	0.23	1.18	0.05	1.67	ND

S1 Excavation & Validation

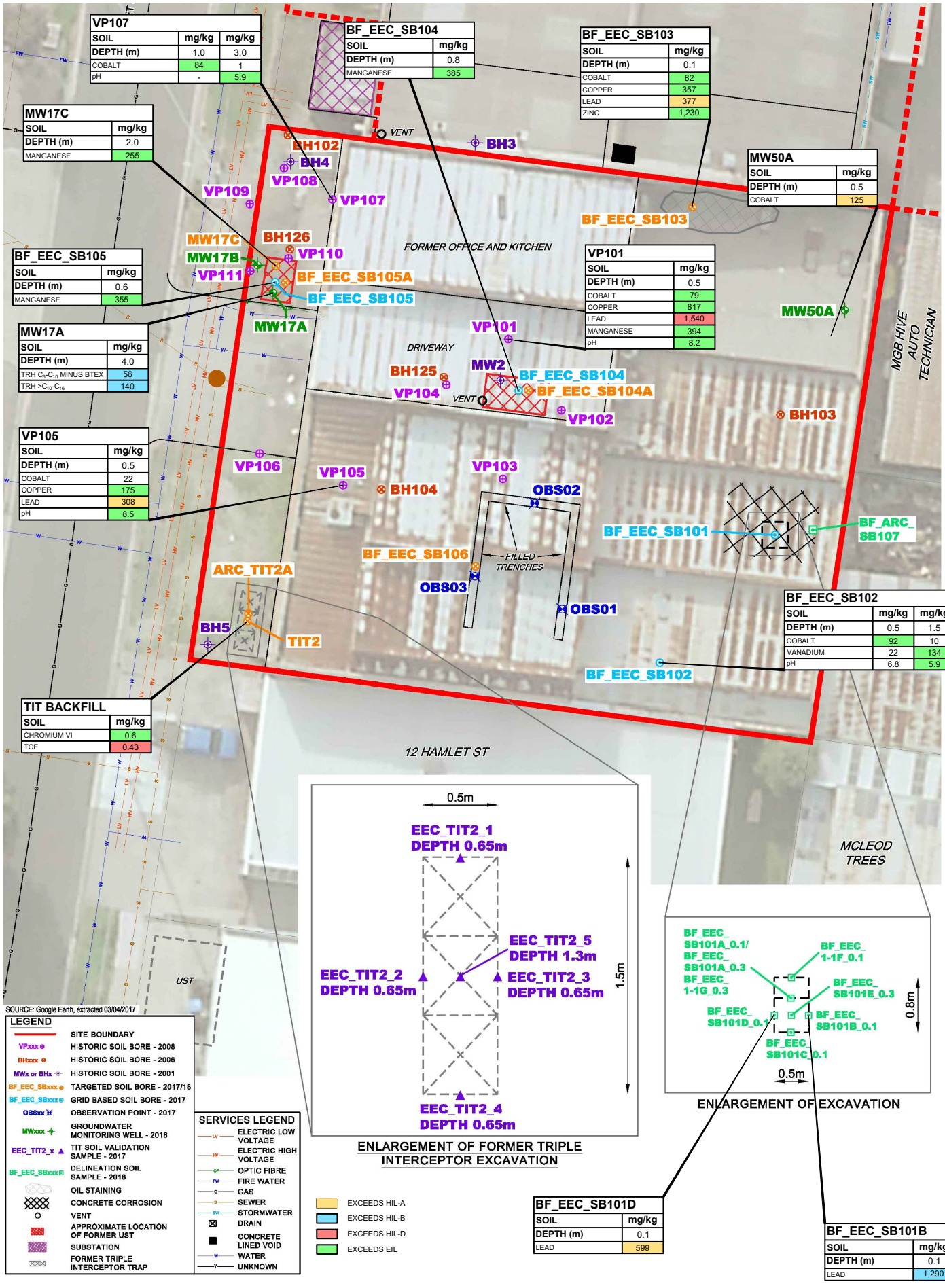
MAPLE AUDITING

Drawing Number: **MA115-2**
Revision: **A**
Date: **15/07/19**
Author: **LZ** Checked by: **MB**
Data Source: **Evolution Environmental Consulting, J000021-001-E, 19/07/17**

Chandos Bay Pty Ltd

Lot 3, 14 Hamlet Street, Cheltenham, VIC

Figure 8G - S1 Excavation Validation - Base (Lot 2)



0 3 6 9
SCALE 1:300 (A4) METRES

Drawing Number: MA115-2
Revision: A
Date: 15/07/19
Author: LZ
Checked by: MB
Data Source: Arc Environmental, 1707054, 09/10/2018

Chandos Bay Pty Ltd
Lot 3, 14 Hamlet Street, Cheltenham, VIC
Figure 8H - Lot 3 Soil Exceedances



0 10 20 30
SCALE 1:1000 (A4) METRES

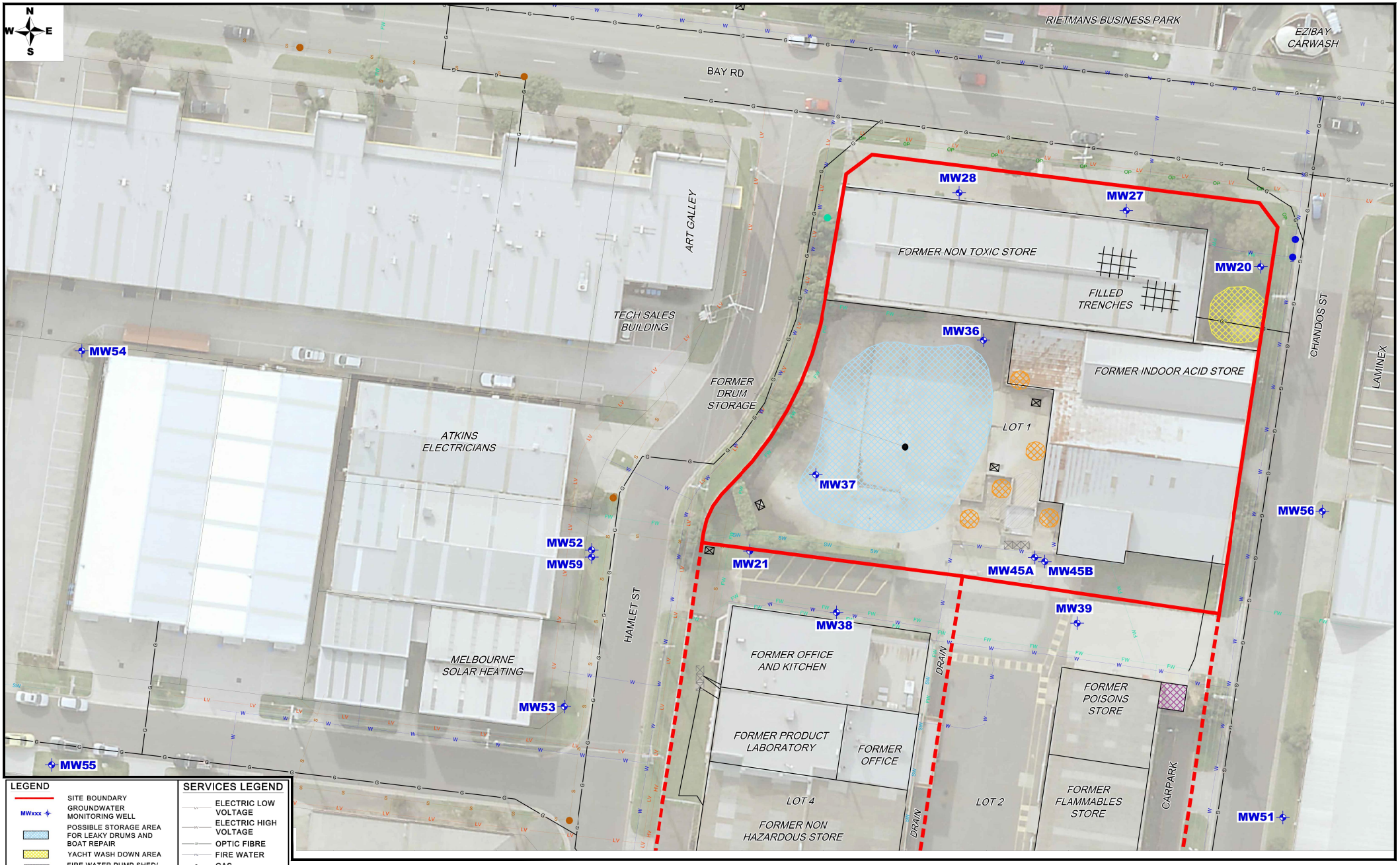
MAPLE

Drawing Number: MA115-2
Revision: A
Date: 15/07/19
Author: LZ
Checked by: MB
Data Source: GHD, 31-2227011, 09/06/15

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Lot 3, 14 Hamlet Street, Cheltenham, VIC

Figure 9A - Groundwater Monitoring Well Network (June 2015)



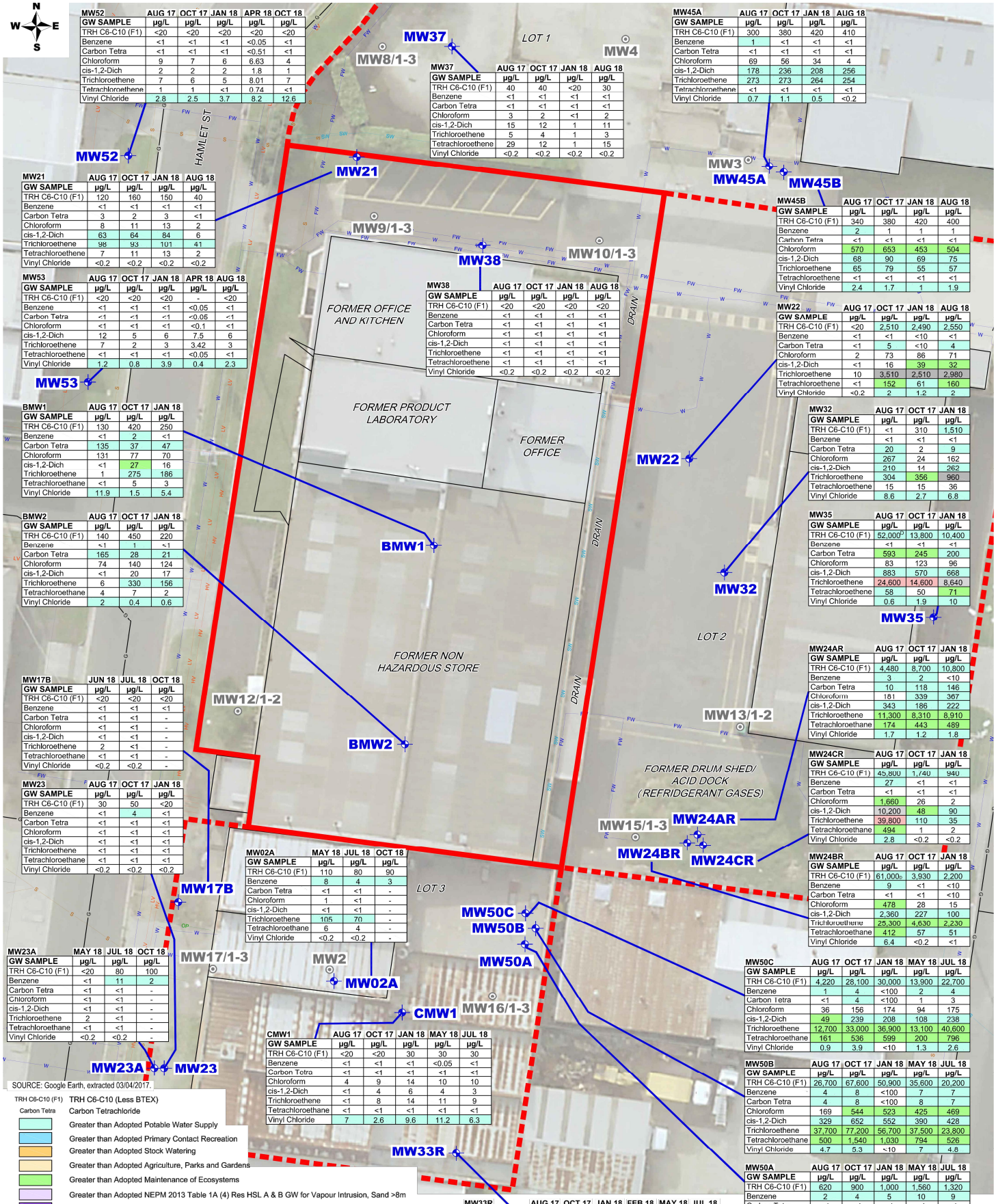
MAPLE AUDITING

Drawing Number: MA115-2	
Revision: A	
Date: 15/07/19	
Author: LZ	Checked by: MB
Data Source: ARC Environmental, 1707054, 19/05/19	

Chandos Bay Pty Ltd

Lot 3, 14 Hamlet Street, Cheltenham, VIC

Figure 9B - Lot 1 Groundwater Monitoring Well Network (June 2019) (includes MW59)



MW52	AUG 17	OCT 17	JAN 18	APR 18	OCT 18
GW SAMPLE	µg/L	µg/L	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	<20	<20	<20	<20	<20
Benzene	<1	<1	<1	<0.05	<1
Carbon Tetra	<1	<1	<1	<0.51	<1
Chloroform	9	7	6	6.63	4
cis-1,2-Dich	2	2	2	1.8	1
Trichloroethene	7	6	5	8.01	7
Tetrachloroethene	1	1	<1	0.74	<1
Vinyl Chloride	2.8	2.5	3.7	8.2	12.6

MW37	AUG 17	OCT 17	JAN 18	AUG 18
GW SAMPLE	µg/L	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	40	40	<20	30
Benzene	<1	<1	<1	<1
Carbon Tetra	<1	<1	<1	<1
Chloroform	3	2	<1	2
cis-1,2-Dich	15	12	1	11
Trichloroethene	5	4	1	3
Tetrachloroethene	29	12	1	15
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2

MW45A	AUG 17	OCT 17	JAN 18	AUG 18
GW SAMPLE	µg/L	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	300	380	420	410
Benzene	1	<1	<1	<1
Carbon Tetra	<1	<1	<1	<1
Chloroform	69	56	34	4
cis-1,2-Dich	178	236	208	256
Trichloroethene	273	273	264	254
Tetrachloroethene	<1	<1	<1	<1
Vinyl Chloride	0.7	1.1	0.5	<0.2

MW21	AUG 17	OCT 17	JAN 18	AUG 18
GW SAMPLE	µg/L	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	120	160	150	40
Benzene	<1	<1	<1	<1
Carbon Tetra	3	2	3	<1
Chloroform	8	11	13	2
cis-1,2-Dich	63	64	84	6
Trichloroethene	98	93	101	41
Tetrachloroethene	7	11	13	2
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2

MW53	AUG 17	OCT 17	JAN 18	APR 18	AUG 18
GW SAMPLE	µg/L	µg/L	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	<20	<20	<20	-	<20
Benzene	<1	<1	<1	<0.05	<1
Carbon Tetra	<1	<1	<1	<0.05	<1
Chloroform	<1	<1	<1	<0.1	<1
cis-1,2-Dich	12	5	6	7.5	6
Trichloroethene	7	2	3	3.42	3
Tetrachloroethene	<1	<1	<1	<0.05	<1
Vinyl Chloride	1.2	0.8	3.9	0.4	2.3

MW38	AUG 17	OCT 17	JAN 18	AUG 18
GW SAMPLE	µg/L	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	<20	<20	<20	<20
Benzene	<1	<1	<1	<1
Carbon Tetra	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1
cis-1,2-Dich	<1	<1	<1	<1
Trichloroethene	<1	<1	<1	<1
Tetrachloroethene	<1	<1	<1	<1
Vinyl Chloride	<0.2	<0.2	<0.2	<0.2

MW45B	AUG 17	OCT 17	JAN 18	AUG 18
GW SAMPLE	µg/L	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	340	380	420	400
Benzene	2	1	1	1
Carbon Tetra	<1	<1	<1	<1
Chloroform	570	653	453	504
cis-1,2-Dich	68	90	69	75
Trichloroethene	65	79	55	57
Tetrachloroethene	<1	<1	<1	<1
Vinyl Chloride	2.4	1.7	1	1.9

MW22	AUG 17	OCT 17	JAN 18	AUG 18
GW SAMPLE	µg/L	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	<20	2,510	2,490	2,550
Benzene	<1	<1	<10	<1
Carbon Tetra	<1	5	<10	4
Chloroform	2	73	86	71
cis-1,2-Dich	<1	16	39	32
Trichloroethene	10	3,510	2,510	2,980
Tetrachloroethene	<1	152	61	160
Vinyl Chloride	<0.2	2	1.2	2

BMW1	AUG 17	OCT 17	JAN 18
GW SAMPLE	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	130	420	250
Benzene	<1	2	<1
Carbon Tetra	135	37	47
Chloroform	131	77	70
cis-1,2-Dich	<1	27	16
Trichloroethene	1	275	186
Tetrachloroethane	<1	5	3
Vinyl Chloride	11.9	1.5	5.4

BMW2	AUG 17	OCT 17	JAN 18
GW SAMPLE	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	140	450	220
Benzene	<1	1	<1
Carbon Tetra	165	28	21
Chloroform	74	140	124
cis-1,2-Dich	<1	20	17
Trichloroethene	6	330	156
Tetrachloroethane	4	7	2
Vinyl Chloride	2	0.4	0.6

MW32	AUG 17	OCT 17	JAN 18
GW SAMPLE	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	<1	310	1,510
Benzene	<1	<1	<1
Carbon Tetra	20	2	9
Chloroform	267	24	162
cis-1,2-Dich	210	14	262
Trichloroethene	304	356	960
Tetrachloroethene	15	15	36
Vinyl Chloride	8.6	2.7	6.8

MW35	AUG 17	OCT 17	JAN 18
GW SAMPLE	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	52,000[D]	13,800	10,400
Benzene	<1	<1	<1
Carbon Tetra	593	245	200
Chloroform	83	123	96
cis-1,2-Dich	883	570	668
Trichloroethene	24,600	14,600	8,640
Tetrachloroethene	58	50	71
Vinyl Chloride	0.6	1.9	10

MW17B	JUN 18	JUL 18	OCT 18
GW SAMPLE	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	<20	<20	<20
Benzene	<1	<1	<1
Carbon Tetra	<1	<1	-
Chloroform	<1	<1	-
cis-1,2-Dich	<1	<1	-
Trichloroethene	2	<1	-
Tetrachloroethane	<1	<1	-
Vinyl Chloride	<0.2	<0.2	-

MW23	AUG 17	OCT 17	JAN 18
GW SAMPLE	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	30	50	<20
Benzene	<1	4	<1
Carbon Tetra	<1	<1	<1
Chloroform	<1	<1	<1
cis-1,2-Dich	<1	<1	<1
Trichloroethene	<1	<1	<1
Tetrachloroethene	<1	<1	<1
Vinyl Chloride	<0.2	<0.2	<0.2

MW02A	MAY 18	JUL 18	OCT 18
GW SAMPLE	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	110	80	90
Benzene	8	4	3
Carbon Tetra	<1	<1	-
Chloroform	1	<1	-
cis-1,2-Dich	<1	<1	-
Trichloroethene	105	70	-
Tetrachloroethane	6	4	-
Vinyl Chloride	<0.2	<0.2	-

MW23A	MAY 18	JUL 18	OCT 18
GW SAMPLE	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	<20	80	100
Benzene	<1	11	2
Carbon Tetra	<1	<1	-
Chloroform	<1	<1	-
cis-1,2-Dich	<1	<1	-
Trichloroethene	2	<1	-
Tetrachloroethane	<1	<1	-
Vinyl Chloride	<0.2	<0.2	-

CMW1	AUG 17	OCT 17	JAN 18	MAY 18	JUL 18
GW SAMPLE	µg/L	µg/L	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	<20	<20	30	30	30
Benzene	<1	<1	<1	<0.05	<1
Carbon Tetra	<1	<1	<1	<1	<1
Chloroform	4	9	14	10	10
cis-1,2-Dich	<1	4	6	4	3
Trichloroethene	<1	8	14	11	9
Tetrachloroethane	<1	<1	<1	<1	<1
Vinyl Chloride	7	2.6	9.6	11.2	6.3

MW24AR	AUG 17	OCT 17	JAN 18
GW SAMPLE	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	4,480	8,700	10,800
Benzene	3	2	<10
Carbon Tetra	10	118	146
Chloroform	181	339	367
cis-1,2-Dich	343	186	222
Trichloroethene	11,300	8,310	8,910
Tetrachloroethane	174	443	489
Vinyl Chloride	1.7	1.2	1.8

MW24CR	AUG 17	OCT 17	JAN 18
GW SAMPLE	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	45,800	1,740	940
Benzene	27	<1	<1
Carbon Tetra	<1	<1	<1
Chloroform	1,660	26	2
cis-1,2-Dich	10,200	48	90
Trichloroethene	39,800	110	35
Tetrachloroethane	494	1	2
Vinyl Chloride	2.8	<0.2	<0.2

MW24BR	AUG 17	OCT 17	JAN 18
GW SAMPLE	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	61,000[D]	3,930	2,200
Benzene	9	<1	<10
Carbon Tetra	<1	<1	<10
Chloroform	478	28	15
cis-1,2-Dich	2,360	227	100
Trichloroethene	25,300	4,630	2,230
Tetrachloroethane	412	57	51
Vinyl Chloride	6.4	<0.2	<1

MW50C	AUG 17	OCT 17	JAN 18	MAY 18	JUL 18
GW SAMPLE	µg/L	µg/L	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	4,220	28,100	30,000	13,900	22,700
Benzene	1	4	<100	2	4
Carbon Tetra	<1	4	<100	1	3
Chloroform	36	156	174	94	175
cis-1,2-Dich	49	239	208	108	238
Trichloroethene	12,700	33,000	36,900	13,100	40,600
Tetrachloroethane	161	536	599	200	796
Vinyl Chloride	0.9	3.9	<10	1.3	2.6

MW50B	AUG 17	OCT 17	JAN 18	MAY 18	JUL 18
GW SAMPLE	µg/L	µg/L	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	26,700	67,600	50,900	35,600	20,200
Benzene	4	8	<100	7	7
Carbon Tetra	4	8	<100	8	7
Chloroform	169	544	523	425	469
cis-1,2-Dich	329	652	552	390	428
Trichloroethene	37,700	77,200	56,700	37,500	23,800
Tetrachloroethane	500	1,540	1,030	794	526
Vinyl Chloride	4.7	5.3	<10	7	4.8

MW50A	AUG 17	OCT 17	JAN 18	MAY 18	JUL 18
GW SAMPLE	µg/L	µg/L	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	620	900	1,000	1,560	1,320
Benzene	2	4	5	10	9
Carbon Tetra	<1	<1	<1	<1	<1
Chloroform	68	181	330	343	356
cis-1,2-Dich	98	51	82	170	198
Trichloroethene	916	817	760	814	792
Tetrachloroethane	13	14	10	18	12
Vinyl Chloride	3.7	0.5	0.4	1.7	1.3

MW33R	AUG 17	OCT 17	JAN 18	FEB 18	MAY 18	JUL 18
GW SAMPLE	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TRH C6-C10 (F1)	190	260	330	-	360	360
Benzene	1	<1	1	<1	1	1[D]
Carbon Tetra	<1	<1	<1	<1	<1	<1
Chloroform	14	13	17	11	14	14
cis-1,2-Dich	185	255	351	253	311	376
Trichloroethene	85	75	120	91	123	115
Tetrachloroethane	<1	<1	<1	<1	<1	<1
Vinyl Chloride	0.7	0.6	0.8	1.6	0.9	0.6

TRH C6-C10 (F1) TRH C6-C10 (Less BTEX)
Carbon Tetra Carbon Tetrachloride

- Greater than Adopted Potable Water Supply
- Greater than Adopted Primary Contact Recreation
- Greater than Adopted Stock Watering
- Greater than Adopted Agriculture, Parks and Gardens
- Greater than Adopted Maintenance of Ecosystems
- Greater than Adopted NEPM 2013 Table 1A (4) Res HSL A & B GW for Vapour Intrusion, Sand >8m
- Greater than Adopted NEPM 2013 Table 1A (4) Res HSL D GW for Vapour Intrusion, Sand >8m
- Greater than Adopted Derived Groundwater Risk Based Contminant Screening Level - Residential
- Greater than Adopted Derived Groundwater Risk Based Contminant Screening Level - Commercial / Industrial

SERVICES LEGEND

- ELECTRIC LOW VOLTAGE
- ELECTRIC HIGH VOLTAGE
- OPTIC FIBRE
- FIRE WATER
- GAS
- SEWER
- STORMWATER
- DRAIN
- WATER
- UNKNOWN

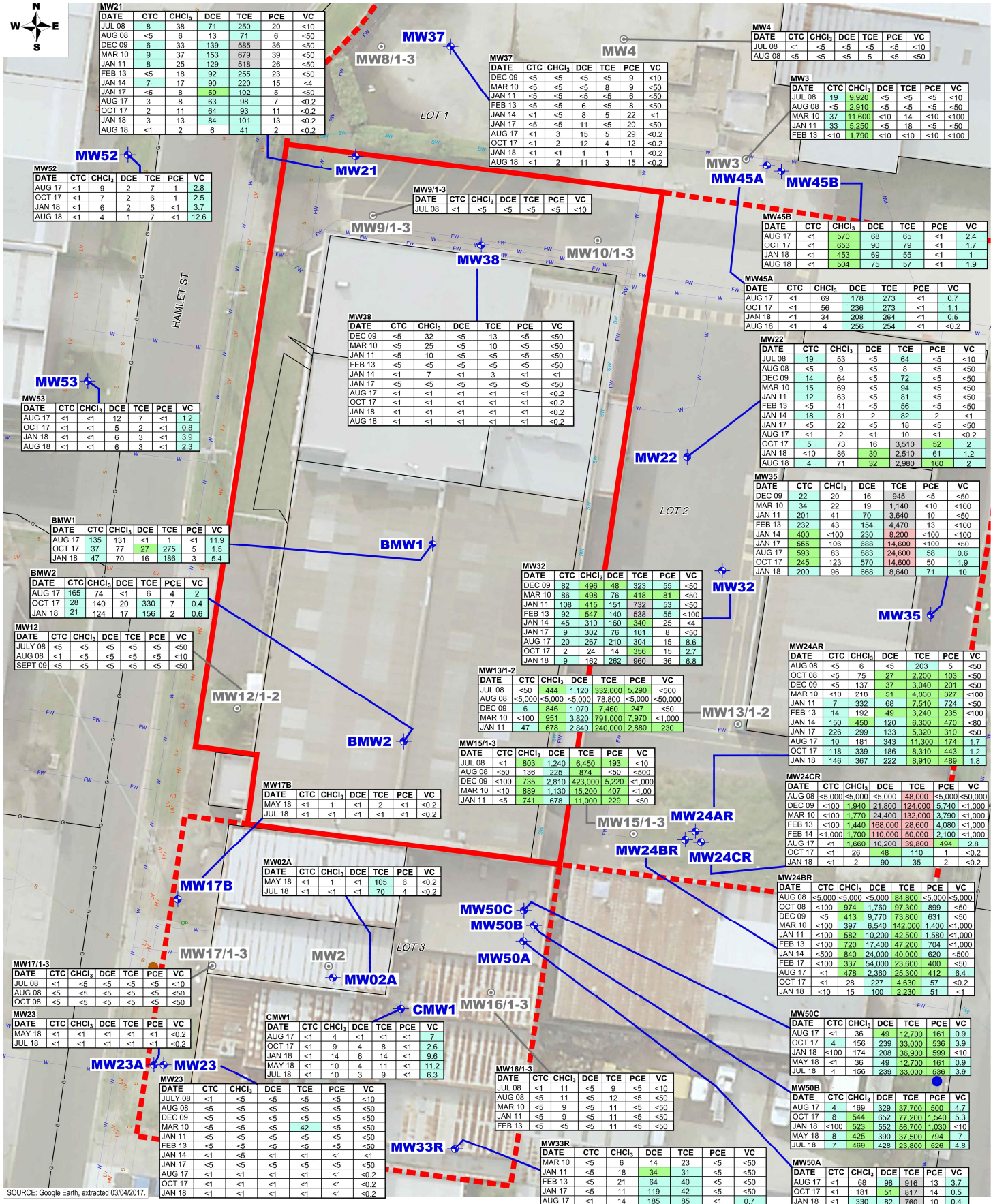
LEGEND

- SITE BOUNDARY
- MWxxx — GROUNDWATER MONITORING WELL
- MWxxx — GROUNDWATER MONITORING WELL - DECOMMISSIONED

Note: Tetrachloroethane should read Tetrachloroethane

SCALE 1:500 (A4) METRES (0, 5, 10, 15)

Drawing Number: MA115-2	Chandos Bay Pty Ltd
Revision: A	Lot 4, 20 Hamlet Street, Cheltenham
Date: 15/07/19	Figure 10A - Groundwater Results - Chlorinated Hydrocarbons (2017-2018)
Author: LZ — Checked by: MB	
Data Source: ARC Environmental, 1707054, 18/10/18	



MW21

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
JUL 08	8	38	71	250	20	<10
AUG 08	<5	6	13	71	6	<50
DEC 09	6	33	139	585	36	<50
MAR 10	9	37	153	679	39	<50
JAN 11	8	25	129	518	26	<50
FEB 13	<5	18	92	255	23	<50
JAN 14	7	17	90	220	15	<4
JAN 17	<5	8	59	102	5	<50
AUG 17	3	8	63	98	7	<0.2
OCT 17	2	11	64	93	11	<0.2
JAN 18	3	13	84	101	13	<0.2
AUG 18	<1	2	6	41	2	<0.2

MW37

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
DEC 09	<5	<5	<5	<5	9	<10
MAR 10	<5	<5	<5	8	9	<50
JAN 11	<5	<5	<5	<5	6	<50
FEB 13	<5	<5	6	<5	8	<50
JAN 14	<1	<5	8	5	22	<1
JAN 17	<5	<5	11	<5	20	<50
AUG 17	<1	3	15	5	29	<0.2
OCT 17	<1	2	12	4	12	<0.2
JAN 18	<1	<1	1	1	1	<0.2
AUG 18	<1	2	11	3	15	<0.2

MW4

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
JUL 08	<1	<5	<5	<5	<5	<10
AUG 08	<5	<5	<5	5	<5	<50

MW3

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
JUL 08	19	9,920	<5	<5	<5	<10
AUG 08	<5	2,910	<5	<5	<5	<50
MAR 10	37	11,600	<10	14	<10	<100
JAN 11	33	5,250	<5	18	<5	<50
FEB 13	<10	1,790	<10	<10	<10	<100

MW52

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
AUG 17	<1	9	2	7	1	2.8
OCT 17	<1	7	2	6	1	2.5
JAN 18	<1	6	2	5	<1	3.7
AUG 18	<1	4	1	7	<1	12.6

MW9/1-3

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
JUL 08	<1	<5	<5	<5	<5	<10

MW45B

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
AUG 17	<1	570	68	65	<1	2.4
OCT 17	<1	653	90	79	<1	1.7
JAN 18	<1	453	69	55	<1	1
AUG 18	<1	504	75	57	<1	1.9

MW38

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
DEC 09	<5	32	<5	13	<5	<50
MAR 10	<5	25	<5	10	<5	<50
JAN 11	<5	10	<5	<5	<5	<50
FEB 13	<5	<5	<5	<5	<5	<50
JAN 14	<1	7	<1	3	<1	<1
JAN 17	<5	<5	<5	<5	<5	<50
AUG 17	<1	<1	<1	<1	<1	<0.2
OCT 17	<1	<1	<1	<1	<1	<0.2
JAN 18	<1	<1	<1	<1	<1	<0.2
AUG 18	<1	<1	<1	<1	<1	<0.2

MW45A

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
AUG 17	<1	69	178	273	<1	0.7
OCT 17	<1	56	236	273	<1	1.1
JAN 18	<1	34	208	264	<1	0.5
AUG 18	<1	4	256	254	<1	<0.2

MW22

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
JUL 08	19	53	<5	64	<5	<10
AUG 08	<5	9	<5	8	<5	<50
DEC 09	14	64	<5	72	<5	<50
MAR 10	15	69	<5	94	<5	<50
JAN 11	12	63	<5	81	<5	<50
FEB 13	<5	41	<5	56	<5	<50
JAN 14	18	81	2	82	2	<1
JAN 17	<5	22	<5	18	<5	<50
AUG 17	<1	2	<1	10	<1	<0.2
OCT 17	5	73	16	3,510	52	2
JAN 18	<10	86	39	2,510	61	1.2
AUG 18	4	71	32	2,980	160	2

MW53

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
AUG 17	<1	<1	12	7	<1	1.2
OCT 17	<1	<1	5	2	<1	0.8
JAN 18	<1	<1	6	3	<1	3.9
AUG 18	<1	<1	6	3	<1	2.3

MW35

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
DEC 09	22	20	16	945	<5	<50
MAR 10	34	22	19	1,140	<10	<100
JAN 11	201	41	70	3,640	10	<50
FEB 13	232	43	154	4,470	13	<100
JAN 14	400	<100	230	8,200	<100	<100
JAN 17	556	106	688	14,600	<100	<50
AUG 17	593	83	883	24,600	58	0.6
OCT 17	245	123	570	14,600	50	1.9
JAN 18	200	96	668	8,640	71	10

BMW1

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
AUG 17	135	131	<1	1	<1	11.9
OCT 17	37	77	27	275	5	1.5
JAN 18	47	70	16	186	3	5.4

MW32

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
DEC 09	82	496	48	323	55	<50
MAR 10	86	498	76	418	81	<50
JAN 11	108	415	151	732	53	<50
FEB 13	92	547	140	538	55	<100
JAN 14	45	310	160	340	25	<4
JAN 17	9	302	76	101	8	<50
AUG 17	20	267	210	304	15	8.6
OCT 17	2	24	14	356	15	2.7
JAN 18	9	162	262	960	36	6.8

BMW2

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
AUG 17	165	74	<1	6	4	2
OCT 17	28	140	20	330	7	0.4
JAN 18	21	124	17	156	2	0.6

MW13/1-2

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
JUL 08	<50	444	1,120	332,000	5,290	<500
AUG 08	<5,000	<5,000	<5,000	78,800	<5,000	<50,000
DEC 09	6	846	1,070	7,460	247	<50
MAR 10	<100	951	3,820	791,000	7,970	<1,000
JAN 11	47	678	2,840	240,000	2,880	230

MW12

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
JULY 08	<5	<5	<5	<5	<5	<50
AUG 08	<1	<5	<5	<5	<5	<10
SEPT 09	<5	<5	<5	<5	<5	<50

MW15/1-3

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
JUL 08	<1	803	1,240	6,450	193	<10
AUG 08	<50	136	225	874	<50	<500
DEC 09	<100	735	2,810	423,000	5,220	<1,000
MAR 10	<10	889	1,130	15,200	407	<1,00
JAN 11	<5	741	678	11,000	229	<50

MW24AR

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
AUG 08	<5	6	<5	203	5	<50
OCT 08	<5	75	27	2,200	103	<50
DEC 09	<5	137	37	3,040	201	<50
MAR 10	<10	218	51	4,830	327	<100
JAN 11	7	332	68	7,510	724	<50
FEB 13	14	192	49	3,240	235	<100
JAN 14	150	450	120	6,300	470	<80
JAN 17	226	299	133	5,320	310	<50
AUG 17	10	181	343	11,300	174	1.7
OCT 17	118	339	186	8,310	443	1.2
JAN 18	146	367	222	8,910	489	1.8

MW17B

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
MAY 18	<1	1	<1	2	<1	<0.2
JUL 18	<1	<1	<1	<1	<1	<0.2

MW24CR

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
AUG 08	<5,000	<5,000	<5,000	48,000	<5,000	<50,000
DEC 09	<100	1,940	21,800	124,000	5,740	<1,000
MAR 10	<100	1,770	24,400	132,000	3,790	<1,000
FEB 13	<100	1,440	168,000	28,600	4,080	<1,000
FEB 14	<1,000	1,700	110,000	50,000	2,100	<1,000
AUG 17	<1	1,660	10,200	39,800	494	2.8
OCT 17	<1	26	48	110	1	<0.2
JAN 18	<1	2	90	35	2	<0.2

MW02A

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
MAY 18	<1	1	<1	105	6	<0.2
JUL 18	<1	<1	<1	70	4	<0.2

MW24BR

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
AUG 08	<5,000	<5,000	<5,000	84,800	<5,000	<5,000
OCT 08	<100	974	1,760	97,300	899	<50
DEC 09	<5	413	9,770	73,800	631	<50
MAR 10	<100	397	6,540	142,000	1,400	<1,000
JAN 11	<100	582	10,200	42,500	1,580	<1,000
FEB 13	<100	720	17,400	47,200	704	<1,000
JAN 14	<500	840	24,000	40,000	620	<500
FEB 17	<100	337	54,000	23,600	400	<50
AUG 17	<1	478	2,360	25,300	412	6.4
OCT 17	<1	28	227	4,630	57	<0.2
JAN 18	<10	15	100	2,230	51	<1

MW17/1-3

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
JUL 08	<1	<5	<5	<5	<5	<10
AUG 08	<5	<5	<5	<5	<5	<50
OCT 08	<5	<5	<5	<5	<5	<50

CMW1

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
AUG 17	<1	4	<1	<1	<1	7
OCT 17	<1	9	4	8	<1	2.6
JAN 18	<1	14	6	14	<1	9.6
MAY 18	<1	10	4	11	<1	11.2
JUL 18	<1	10	3	9	<1	6.3

MW50C

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
AUG 17	<1	36	49	12,700	161	0.9
OCT 17	4	156	239	33,000	536	3.9
JAN 18	<100	174	208	36,900	599	<10
MAY 18	<1	36	49	12,700	161	0.9
JUL 18	4	156	239	33,000	536	3.9

MW23

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
MAY 18	<1	<1	<1	<1	<1	<0.2
JUL 18	<1	<1	<1	<1	<1	<0.2

MW16/1-3

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
JUL 08	<1	11	<5	9	<5	<10
AUG 08	<5	11	<5	12	<5	<50
MAR 10	<5	9	<5	11	<5	<50
JAN 11	<5	9	<5	11	<5	<50
FEB 13	<5	<5	<5	11	<5	<50

MW50B

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
AUG 17	4	169	329	37,700	500	4.7
OCT 17	8	544	652	77,200	1,540	5.3
JAN 18	<100	523	552	56,700	1,030	<10
MAY 18	8	425	390	37,500	794	7
JUL 18	7	469	428	23,800	526	4.8

MW23

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
JULY 08	<1	<5	<5	<5	<5	<10
AUG 08	<5	<5	<5	<5	<5	<50
DEC 09	<5	<5	<5	<5	<5	<50
MAR 10	<5	<5	<5	42	<5	<50
JAN 11	<5	<5	<5	<5	<5	<50
FEB 13	<5	<5	<5	<5	<5	<50
JAN 14	<1	<5	<1	<1	<1	<1
JAN 17	<5	<5	<5	<5	<5	<50
AUG 17	<1	<1	<1	<1	<1	<0.2
OCT 17	<1	<1	<1	<1	<1	<0.2
JAN 18	<1	<1	<1	<1	<1	<0.2

MW33R

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
MAR 10	<5	6	14	23	<5	<50
JAN 11	<5	18	34	31	<5	<50
FEB 13	<5	21	64	40	<5	<50
JAN 17	<5	11	119	42	<5	<50
AUG 17	<1	14	185	85	<1	0.7
OCT 17	<1	13	255	75	<1	0.6
JAN 18	<1	17	351	120	<1	0.8
FEB 18	<1	11	253	91	<1	1.6
MAY 18	<1	14	311	123	<1	0.9
JUL 18	<1	14	376	115	<1	0.6

MW50A

DATE	CTC	$CHCl_3$	DCE	TCE	PCE	VC
AUG 17	<1	68	98	916	13	3.7
OCT 17	<1	181	51	817	14	0.5
JAN 18	<1	330	82	760	10	0.4
MAY 18	<1	343	170	814	18	1.7
JUL 18	<1	356	198	792	12	1.3

Greater than Adopted Potable Water Supply
Greater than Adopted Primary Contact Recreation
Greater than Adopted Stock Watering
Greater than Adopted Maintenance of Ecosystems
Greater than Adopted Derived Groundwater Risk Based Contminant Screening Level - Residential
Greater than Adopted Derived Groundwater Risk Based Contminant Screening Level - Commercial / Industrial

SERVICES LEGEND

- ELECTRIC LOW VOLTAGE
- ELECTRIC HIGH VOLTAGE
- OPTIC FIBRE
- FIRE WATER
- GAS
- SEWER
- STORMWATER
- DRAIN
- WATER
- UNKNOWN

LEGEND

- SITE BOUNDARY
- MWxxx — GROUNDWATER MONITORING WELL
- MWxxx — GROUNDWATER MONITORING WELL - DECOMMISSIONED

CTC CARBON TETRACHLORIDE (µg/L)
$CHCl_3$ CHLOROFORM (µg/L)
DCE cis-1,2-DICHLOROETHENE (µg/L)
TCE TRICHLOROETHENE (µg/L)
PCE TETRACHLOROETHENE (µg/L)
VC VINYL CHLORIDE (µg/L)

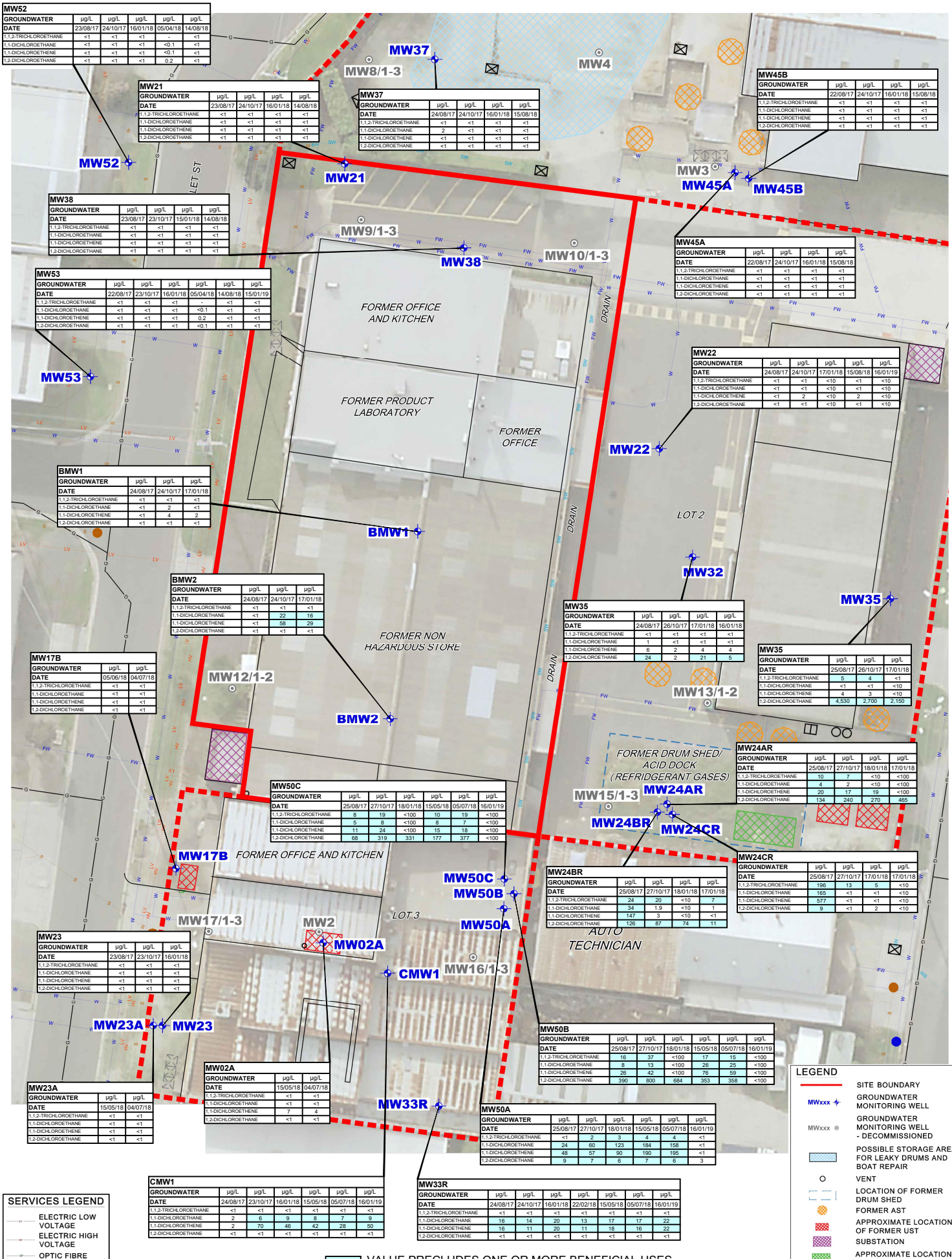
SCALE 1:500 (A4) METRES (0, 5, 10, 15)

Drawing Number: MA115-2
Revision: A
Date: 15/07/19
Author: LZ
Checked by: MB
Data Source: ARC Environmental, 1707054, 18/10/18

Chandos Bay Pty Ltd

Lot 4, 20 Hamlet Street, Cheltenham

Figure 10B - Groundwater Results - Chlorinated Hydrocarbons (2008-2018)



MW52

GROUNDWATER	µg/L	µg/L	µg/L	µg/L	µg/L
DATE	23/08/17	24/10/17	16/01/18	05/04/18	14/08/18
1,1,2-TRICHLOROETHANE	<1	<1	<1	-	<1
1,1-DICHLOROETHANE	<1	<1	<1	<0.1	<1
1,1-DICHLOROETHENE	<1	<1	<1	<0.1	<1
1,2-DICHLOROETHANE	<1	<1	<1	0.2	<1

MW21

GROUNDWATER	µg/L	µg/L	µg/L	µg/L
DATE	23/08/17	24/10/17	16/01/18	14/08/18
1,1,2-TRICHLOROETHANE	<1	<1	<1	<1
1,1-DICHLOROETHANE	<1	<1	<1	<1
1,1-DICHLOROETHENE	<1	<1	<1	<1
1,2-DICHLOROETHANE	<1	<1	<1	<1

MW37

GROUNDWATER	µg/L	µg/L	µg/L	µg/L
DATE	24/08/17	24/10/17	16/01/18	15/08/18
1,1,2-TRICHLOROETHANE	<1	<1	<1	<1
1,1-DICHLOROETHANE	2	<1	<1	<1
1,1-DICHLOROETHENE	<1	<1	<1	<1
1,2-DICHLOROETHANE	<1	<1	<1	<1

MW45B

GROUNDWATER	µg/L	µg/L	µg/L	µg/L
DATE	22/08/17	24/10/17	16/01/18	15/08/18
1,1,2-TRICHLOROETHANE	<1	<1	<1	<1
1,1-DICHLOROETHANE	<1	<1	<1	<1
1,1-DICHLOROETHENE	<1	<1	<1	<1
1,2-DICHLOROETHANE	<1	<1	<1	<1

MW38

GROUNDWATER	µg/L	µg/L	µg/L	µg/L
DATE	23/08/17	23/10/17	15/01/18	14/08/18
1,1,2-TRICHLOROETHANE	<1	<1	<1	<1
1,1-DICHLOROETHANE	<1	<1	<1	<1
1,1-DICHLOROETHENE	<1	<1	<1	<1
1,2-DICHLOROETHANE	<1	<1	<1	<1

MW45A

GROUNDWATER	µg/L	µg/L	µg/L	µg/L
DATE	22/08/17	24/10/17	16/01/18	15/08/18
1,1,2-TRICHLOROETHANE	<1	<1	<1	<1
1,1-DICHLOROETHANE	<1	<1	<1	<1
1,1-DICHLOROETHENE	<1	<1	<1	<1
1,2-DICHLOROETHANE	<1	<1	<1	<1

MW53

GROUNDWATER	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
DATE	22/08/17	23/10/17	16/01/18	05/04/18	14/08/18	15/01/19
1,1,2-TRICHLOROETHANE	<1	<1	<1		<1	<1
1,1-DICHLOROETHANE	<1	<1	<1	<0.1	<1	<1
1,1-DICHLOROETHENE	<1	<1	<1	0.2	<1	<1
1,2-DICHLOROETHANE	<1	<1	<1	<0.1	<1	<1

MW22

GROUNDWATER	µg/L	µg/L	µg/L	µg/L	µg/L
DATE	24/08/17	24/10/17	17/01/18	15/08/18	16/01/19
1,1,2-TRICHLOROETHANE	<1	<1	<10	<1	<10
1,1-DICHLOROETHANE	<1	<1	<10	<1	<10
1,1-DICHLOROETHENE	<1	2	<10	2	<10
1,2-DICHLOROETHANE	<1	<1	<10	<1	<10

BMW1

GROUNDWATER	µg/L	µg/L	µg/L
DATE	24/08/17	24/10/17	17/01/18
1,1,2-TRICHLOROETHANE	<1	<1	<1
1,1-DICHLOROETHANE	<1	2	<1
1,1-DICHLOROETHENE	<1	4	2
1,2-DICHLOROETHANE	<1	<1	<1

BMW2

GROUNDWATER	µg/L	µg/L	µg/L
DATE	24/08/17	24/10/17	17/01/18
1,1,2-TRICHLOROETHANE	<1	<1	<1
1,1-DICHLOROETHANE	<1	22	16
1,1-DICHLOROETHENE	<1	58	29
1,2-DICHLOROETHANE	<1	<1	<1

MW35

GROUNDWATER	µg/L	µg/L	µg/L	µg/L
DATE	24/08/17	26/10/17	17/01/18	16/01/18
1,1,2-TRICHLOROETHANE	<1	<1	<1	<1
1,1-DICHLOROETHANE	1	<1	<1	<1
1,1-DICHLOROETHENE	6	2	4	4
1,2-DICHLOROETHANE	24	2	21	5

MW35

GROUNDWATER	µg/L	µg/L	µg/L
DATE	25/08/17	26/10/17	17/01/18
1,1,2-TRICHLOROETHANE	5	4	<1
1,1-DICHLOROETHANE	<1	<1	<10
1,1-DICHLOROETHENE	4	3	<10
1,2-DICHLOROETHANE	4,530	2,700	2,150

MW17B

GROUNDWATER	µg/L	µg/L
DATE	05/06/18	04/07/18
1,1,2-TRICHLOROETHANE	<1	<1
1,1-DICHLOROETHANE	<1	<1
1,1-DICHLOROETHENE	<1	<1
1,2-DICHLOROETHANE	<1	<1

MW50C

GROUNDWATER	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
DATE	25/08/17	27/10/17	18/01/18	15/05/18	05/07/18	16/01/19
1,1,2-TRICHLOROETHANE	8	19	<100	10	19	<100
1,1-DICHLOROETHANE	5	8	<100	8	7	<100
1,1-DICHLOROETHENE	11	24	<100	15	18	<100
1,2-DICHLOROETHANE	68	319	331	177	377	<100

MW24AR

GROUNDWATER	µg/L	µg/L	µg/L	µg/L
DATE	25/08/17	27/10/17	18/01/18	17/01/18
1,1,2-TRICHLOROETHANE	10	7	<10	<100
1,1-DICHLOROETHANE	4	2	<10	<100
1,1-DICHLOROETHENE	20	17	19	<100
1,2-DICHLOROETHANE	134	240	270	465

MW24BR

GROUNDWATER	µg/L	µg/L	µg/L	µg/L
DATE	25/08/17	27/10/17	18/01/18	17/01/18
1,1,2-TRICHLOROETHANE	24	20	<10	7
1,1-DICHLOROETHANE	34	1.9	<10	1
1,1-DICHLOROETHENE	147	3	<10	<1
1,2-DICHLOROETHANE	126	87	74	11

MW24CR

GROUNDWATER	µg/L	µg/L	µg/L	µg/L
DATE	25/08/17	27/10/17	17/01/18	17/01/18
1,1,2-TRICHLOROETHANE	196	13	5	<10
1,1-DICHLOROETHANE	165	<1	<1	<10
1,1-DICHLOROETHENE	577	<1	<1	<10
1,2-DICHLOROETHANE	9	<1	2	<10

MW23

GROUNDWATER	µg/L	µg/L	µg/L
DATE	23/08/17	23/10/17	16/01/18
1,1,2-TRICHLOROETHANE	<1	<1	<1
1,1-DICHLOROETHANE	<1	<1	<1
1,1-DICHLOROETHENE	<1	<1	<1
1,2-DICHLOROETHANE	<1	<1	<1

MW02A

GROUNDWATER	µg/L	µg/L
DATE	15/05/18	04/07/18
1,1,2-TRICHLOROETHANE	<1	<1
1,1-DICHLOROETHANE	<1	<1
1,1-DICHLOROETHENE	7	4
1,2-DICHLOROETHANE	<1	<1

MW50B

GROUNDWATER	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
DATE	25/08/17	27/10/17	18/01/18	15/05/18	05/07/18	16/01/19
1,1,2-TRICHLOROETHANE	16	37	<100	17	15	<100
1,1-DICHLOROETHANE	8	13	<100	26	25	<100
1,1-DICHLOROETHENE	26	42	<100	76	59	<100
1,2-DICHLOROETHANE	390	800	684	353	358	<100

MW50A

GROUNDWATER	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
DATE	25/08/17	27/10/17	18/01/18	15/05/18	05/07/18	16/01/19
1,1,2-TRICHLOROETHANE	<1	2	3	4	4	<1
1,1-DICHLOROETHANE	24	60	123	184	158	<1
1,1-DICHLOROETHENE	48	57	90	190	195	<1
1,2-DICHLOROETHANE	9	7	6	7	6	3

CMW1

GROUNDWATER	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
DATE	24/08/17	23/10/17	16/01/18	15/05/18	05/07/18	16/01/19
1,1,2-TRICHLOROETHANE	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHANE	2	6	9	8	7	9
1,1-DICHLOROETHENE	2	70	46	42	28	50
1,2-DICHLOROETHANE	<1	<1	<1	<1	<1	<1

MW33R

GROUNDWATER	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
DATE	24/08/17	24/10/17	16/01/18	22/02/18	15/05/18	05/07/18	16/01/19
1,1,2-TRICHLOROETHANE	<1	<1	<1	<1	<1	<1	<1
1,1-DICHLOROETHANE	16	14	20	13	17	17	22
1,1-DICHLOROETHENE	16	11	20	11	18	16	22
1,2-DICHLOROETHANE	<1	<1	<1	<1	<1	<1	<1

VALUE PRECLUDES ONE OR MORE BENEFICIAL USES

LEGEND

- SITE BOUNDARY
- MWxxx GROUNDWATER MONITORING WELL
- MWxxx GROUNDWATER MONITORING WELL - DECOMMISSIONED
- POSSIBLE STORAGE AREA FOR LEAKY DRUMS AND BOAT REPAIR
- VENT
- LOCATION OF FORMER DRUM SHED
- FORMER AST
- APPROXIMATE LOCATION OF FORMER UST
- SUBSTATION
- APPROXIMATE LOCATION OF FORMER CONCRETE SUMP
- FORMER TRIPLE INTERCEPTOR TRAP

SERVICES LEGEND

- ELECTRIC LOW VOLTAGE
- ELECTRIC HIGH VOLTAGE
- OPTIC FIBRE
- FIRE WATER
- GAS
- SEWER
- STORMWATER
- DRAIN
- WATER
- UNKNOWN

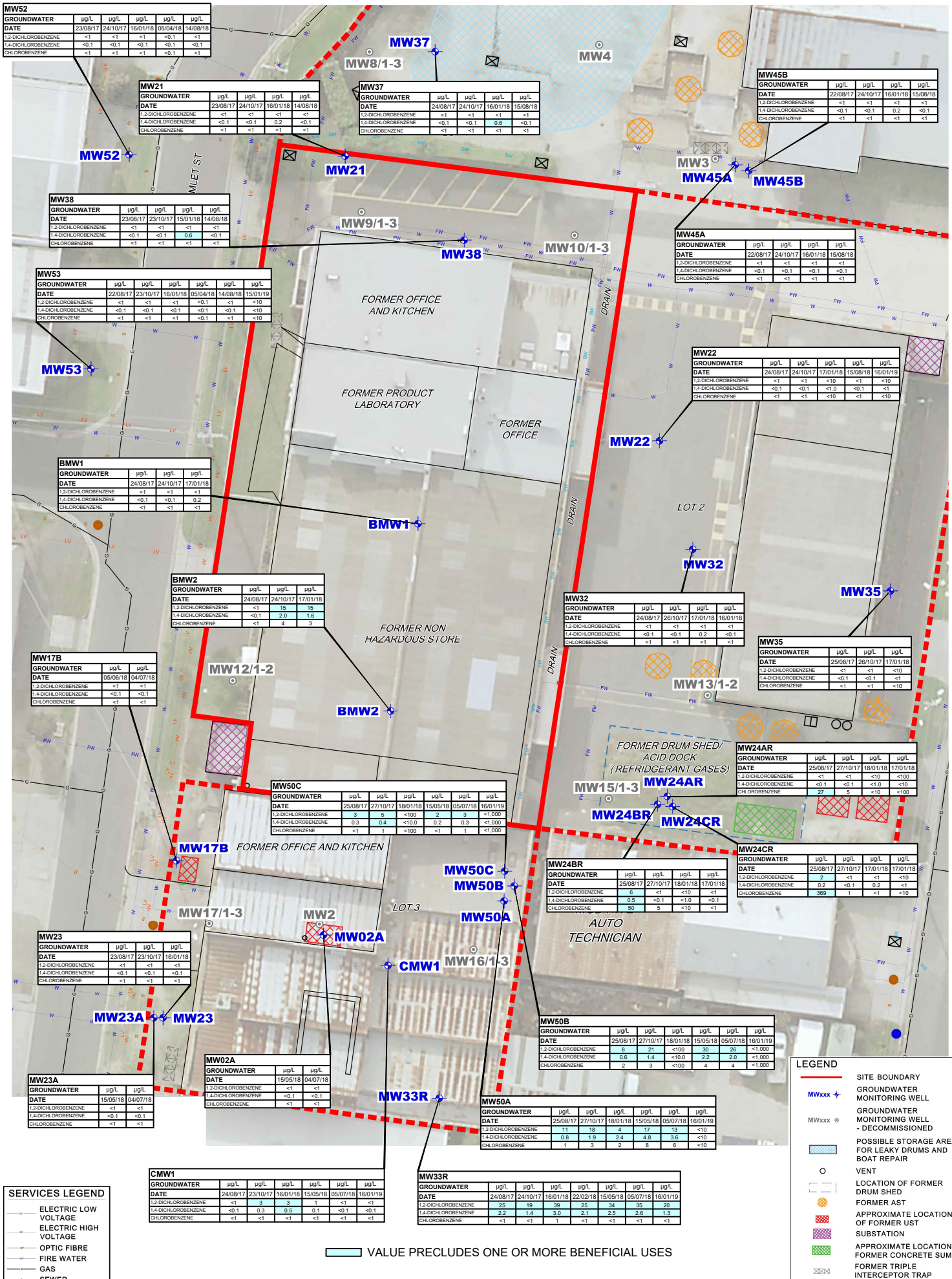
SCALE 1:500 (A4) METRES (0, 5, 10, 15)

Drawing Number: MA115-2
Revision: A
Date: 15/07/19
Author: LZ
Checked by: MB
Data Source: ARC Environmental, 1707054, 17/10/18

Chandos Bay Pty Ltd

Lot 4, 20 Hamlet Street, Cheltenham

Figure 10C - Groundwater Results - 1,1,2-TCA, 1,1-DCA, 1,1-DCE, 1,2-DCA (2017-2018)



MW52

GROUNDWATER	µg/L	µg/L	µg/L	µg/L	µg/L
DATE	23/08/17	24/10/17	16/01/18	05/04/18	14/08/18
1,2-DICHLOROBENZENE	<1	<1	<1	<0.1	<1
1,4-DICHLOROBENZENE	<0.1	<0.1	<0.1	<0.1	<0.1
CHLOROBENZENE	<1	<1	<1	<0.1	<1

MW21

GROUNDWATER	µg/L	µg/L	µg/L	µg/L
DATE	23/08/17	24/10/17	16/01/18	14/08/18
1,2-DICHLOROBENZENE	<1	<1	<1	<1
1,4-DICHLOROBENZENE	<0.1	<0.1	0.2	<0.1
CHLOROBENZENE	<1	<1	<1	<1

MW37

GROUNDWATER	µg/L	µg/L	µg/L	µg/L
DATE	24/08/17	24/10/17	16/01/18	15/08/18
1,2-DICHLOROBENZENE	<1	<1	<1	<1
1,4-DICHLOROBENZENE	<0.1	<0.1	0.6	<0.1
CHLOROBENZENE	<1	<1	<1	<1

MW45B

GROUNDWATER	µg/L	µg/L	µg/L	µg/L
DATE	22/08/17	24/10/17	16/01/18	15/08/18
1,2-DICHLOROBENZENE	<1	<1	<1	<1
1,4-DICHLOROBENZENE	<0.1	<0.1	0.2	<0.1
CHLOROBENZENE	<1	<1	<1	<1

MW38

GROUNDWATER	µg/L	µg/L	µg/L	µg/L
DATE	23/08/17	23/10/17	15/01/18	14/08/18
1,2-DICHLOROBENZENE	<1	<1	<1	<1
1,4-DICHLOROBENZENE	<0.1	<0.1	0.6	<0.1
CHLOROBENZENE	<1	<1	<1	<1

MW45A

GROUNDWATER	µg/L	µg/L	µg/L	µg/L
DATE	22/08/17	24/10/17	16/01/18	15/08/18
1,2-DICHLOROBENZENE	<1	<1	<1	<1
1,4-DICHLOROBENZENE	<0.1	<0.1	<0.1	<0.1
CHLOROBENZENE	<1	<1	<1	<1

MW53

GROUNDWATER	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
DATE	22/08/17	23/10/17	16/01/18	05/04/18	14/08/18	15/01/19
1,2-DICHLOROBENZENE	<1	<1	<0.1	<1	<1	<10
1,4-DICHLOROBENZENE	<0.1	<0.1	<0.1	<0.1	<0.1	<10
CHLOROBENZENE	<1	<1	<1	<0.1	<1	<10

MW22

GROUNDWATER	µg/L	µg/L	µg/L	µg/L	µg/L
DATE	24/08/17	24/10/17	17/01/18	15/08/18	16/01/19
1,2-DICHLOROBENZENE	<1	<1	<10	<1	<10
1,4-DICHLOROBENZENE	<0.1	<0.1	<1.0	<0.1	<1
CHLOROBENZENE	<1	<1	<10	<1	<10

BMW1

GROUNDWATER	µg/L	µg/L	µg/L
DATE	24/08/17	24/10/17	17/01/18
1,2-DICHLOROBENZENE	<1	<1	<1
1,4-DICHLOROBENZENE	<0.1	<0.1	0.2
CHLOROBENZENE	<1	<1	<1

BMW2

GROUNDWATER	µg/L	µg/L	µg/L
DATE	24/08/17	24/10/17	17/01/18
1,2-DICHLOROBENZENE	<1	15	15
1,4-DICHLOROBENZENE	<0.1	2.0	1.6
CHLOROBENZENE	<1	4	3

MW32

GROUNDWATER	µg/L	µg/L	µg/L	µg/L
DATE	24/08/17	26/10/17	17/01/18	16/01/18
1,2-DICHLOROBENZENE	<1	<1	<1	<1
1,4-DICHLOROBENZENE	<0.1	<0.1	0.2	<0.1
CHLOROBENZENE	<1	<1	<1	<1

MW35

GROUNDWATER	µg/L	µg/L	µg/L
DATE	25/08/17	26/10/17	17/01/18
1,2-DICHLOROBENZENE	<1	<1	<10
1,4-DICHLOROBENZENE	<0.1	<0.1	<1
CHLOROBENZENE	<1	<1	<10

MW17B

GROUNDWATER	µg/L	µg/L
DATE	05/06/18	04/07/18
1,2-DICHLOROBENZENE	<1	<1
1,4-DICHLOROBENZENE	<0.1	<0.1
CHLOROBENZENE	<1	<1

MW50C

GROUNDWATER	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
DATE	25/08/17	27/10/17	18/01/18	15/05/18	05/07/18	16/01/19
1,2-DICHLOROBENZENE	3	5	<100	2	3	<1,000
1,4-DICHLOROBENZENE	0.3	0.4	<10.0	0.2	0.3	<1,000
CHLOROBENZENE	<1	1	<100	<1	1	<1,000

MW24AR

GROUNDWATER	µg/L	µg/L	µg/L	µg/L
DATE	25/08/17	27/10/17	18/01/18	17/01/18
1,2-DICHLOROBENZENE	<1	<1	<10	<100
1,4-DICHLOROBENZENE	<0.1	<0.1	<1.0	<10
CHLOROBENZENE	27	5	<10	<100

MW24BR

GROUNDWATER	µg/L	µg/L	µg/L	µg/L
DATE	25/08/17	27/10/17	18/01/18	17/01/18
1,2-DICHLOROBENZENE	6	<1	<10	<1
1,4-DICHLOROBENZENE	0.5	<0.1	<1.0	<0.1
CHLOROBENZENE	50	5	<10	<1

MW24CR

GROUNDWATER	µg/L	µg/L	µg/L	µg/L
DATE	25/08/17	27/10/17	17/01/18	17/01/18
1,2-DICHLOROBENZENE	2	<1	<1	<10
1,4-DICHLOROBENZENE	0.2	<0.1	0.2	<1
CHLOROBENZENE	369	1	<1	<10

MW23

GROUNDWATER	µg/L	µg/L	µg/L
DATE	23/08/17	23/10/17	16/01/18
1,2-DICHLOROBENZENE	<1	<1	<1
1,4-DICHLOROBENZENE	<0.1	<0.1	<0.1
CHLOROBENZENE	<1	<1	<1

MW02A

GROUNDWATER	µg/L	µg/L
DATE	15/05/18	04/07/18
1,2-DICHLOROBENZENE	<1	<1
1,4-DICHLOROBENZENE	<0.1	<0.1
CHLOROBENZENE	<1	<1

MW50B

GROUNDWATER	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
DATE	25/08/17	27/10/17	18/01/18	15/05/18	05/07/18	16/01/19
1,2-DICHLOROBENZENE	8	21	<100	30	26	<1,000
1,4-DICHLOROBENZENE	0.6	1.4	<10.0	2.2	2.0	<1,000
CHLOROBENZENE	2	3	<100	4	4	<1,000

MW23A

GROUNDWATER	µg/L	µg/L
DATE	15/05/18	04/07/18
1,2-DICHLOROBENZENE	<1	<1
1,4-DICHLOROBENZENE	<0.1	<0.1
CHLOROBENZENE	<1	<1

MW50A

GROUNDWATER	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
DATE	25/08/17	27/10/17	18/01/18	15/05/18	05/07/18	16/01/19
1,2-DICHLOROBENZENE	11	18	4	17	13	<10
1,4-DICHLOROBENZENE	0.8	1.9	2.4	4.8	3.6	<10
CHLOROBENZENE	1	3	2	8	6	<10

CMW1

GROUNDWATER	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
DATE	24/08/17	23/10/17	16/01/18	15/05/18	05/07/18	16/01/19
1,2-DICHLOROBENZENE	<1	3	3	1	<1	<1
1,4-DICHLOROBENZENE	<0.1	0.3	0.5	0.1	<0.1	<0.1
CHLOROBENZENE	<1	<1	<1	<1	<1	<1

MW33R

GROUNDWATER	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
DATE	24/08/17	24/10/17	16/01/18	22/02/18	15/05/18	05/07/18	16/01/19
1,2-DICHLOROBENZENE	25	19	39	25	34	35	20
1,4-DICHLOROBENZENE	2.2	1.4	3.0	2.1	2.5	2.6	1.3
CHLOROBENZENE	<1	<1	1	<1	<1	<1	<1

VALUE PRECLUDES ONE OR MORE BENEFICIAL USES

SERVICES LEGEND
- ELECTRIC LOW VOLTAGE
- ELECTRIC HIGH VOLTAGE
- OPTIC FIBRE
- FIRE WATER
- GAS
- SEWER
- STORMWATER
- DRAIN
- WATER
- UNKNOWN

LEGEND
- SITE BOUNDARY
- MWxxx — GROUNDWATER MONITORING WELL
- MWxxx — GROUNDWATER MONITORING WELL - DECOMMISSIONED
- POSSIBLE STORAGE AREA FOR LEAKY DRUMS AND BOAT REPAIR
- VENT
- LOCATION OF FORMER DRUM SHED
- FORMER AST
- APPROXIMATE LOCATION OF FORMER UST
- SUBSTATION
- APPROXIMATE LOCATION OF FORMER CONCRETE SUMP
- FORMER TRIPLE INTERCEPTOR TRAP

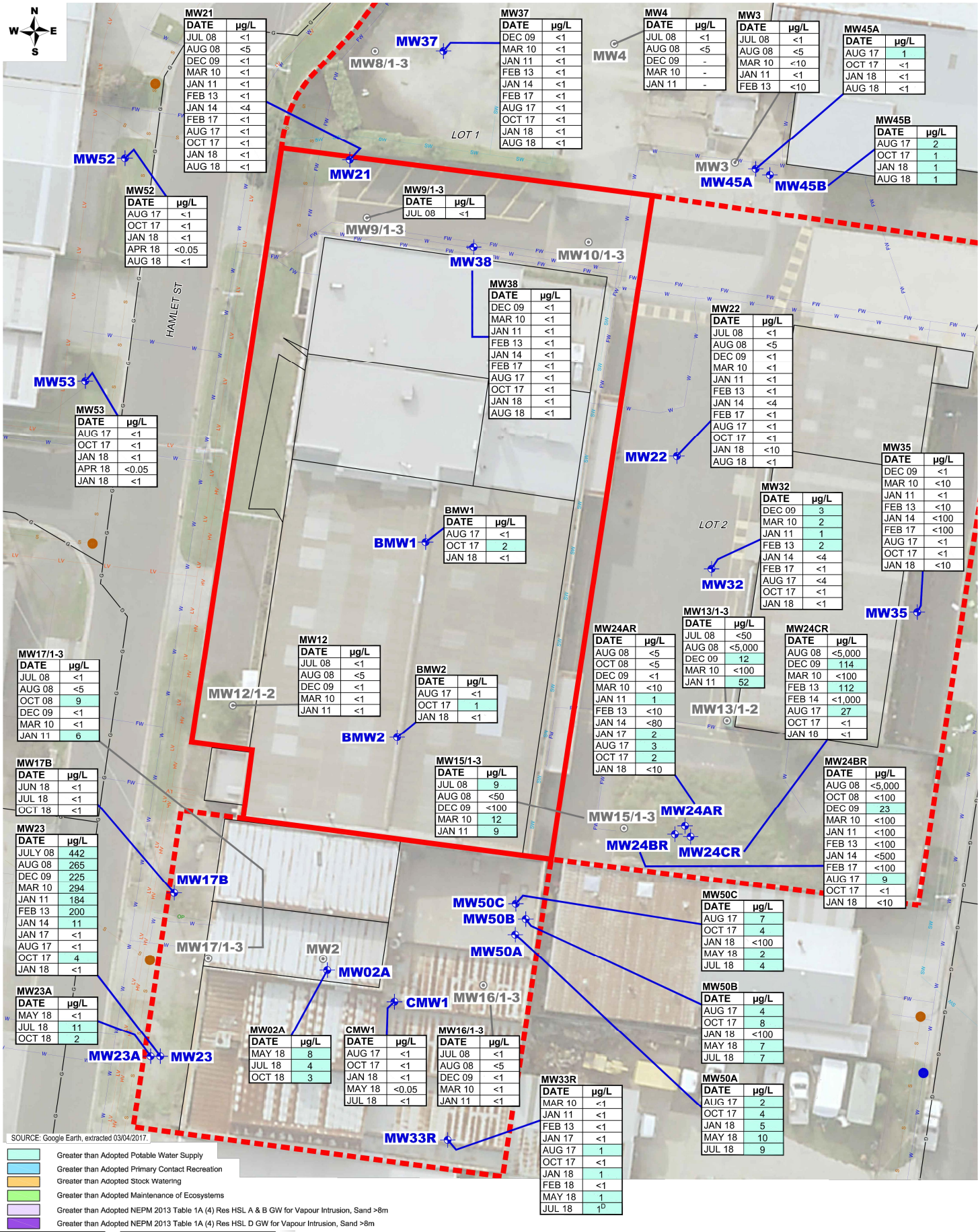
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Drawing Number: MA115-2
Revision: A
Date: 15/07/19
Author: LZ
Checked by: MB
Data Source: ARC Environmental, 1707054, 17/10/18

Chandos Bay Pty Ltd

Lot 4, 20 Hamlet Street, Cheltenham

Figure 10D - Groundwater Results - Chlorobenzenes (2017-2018)

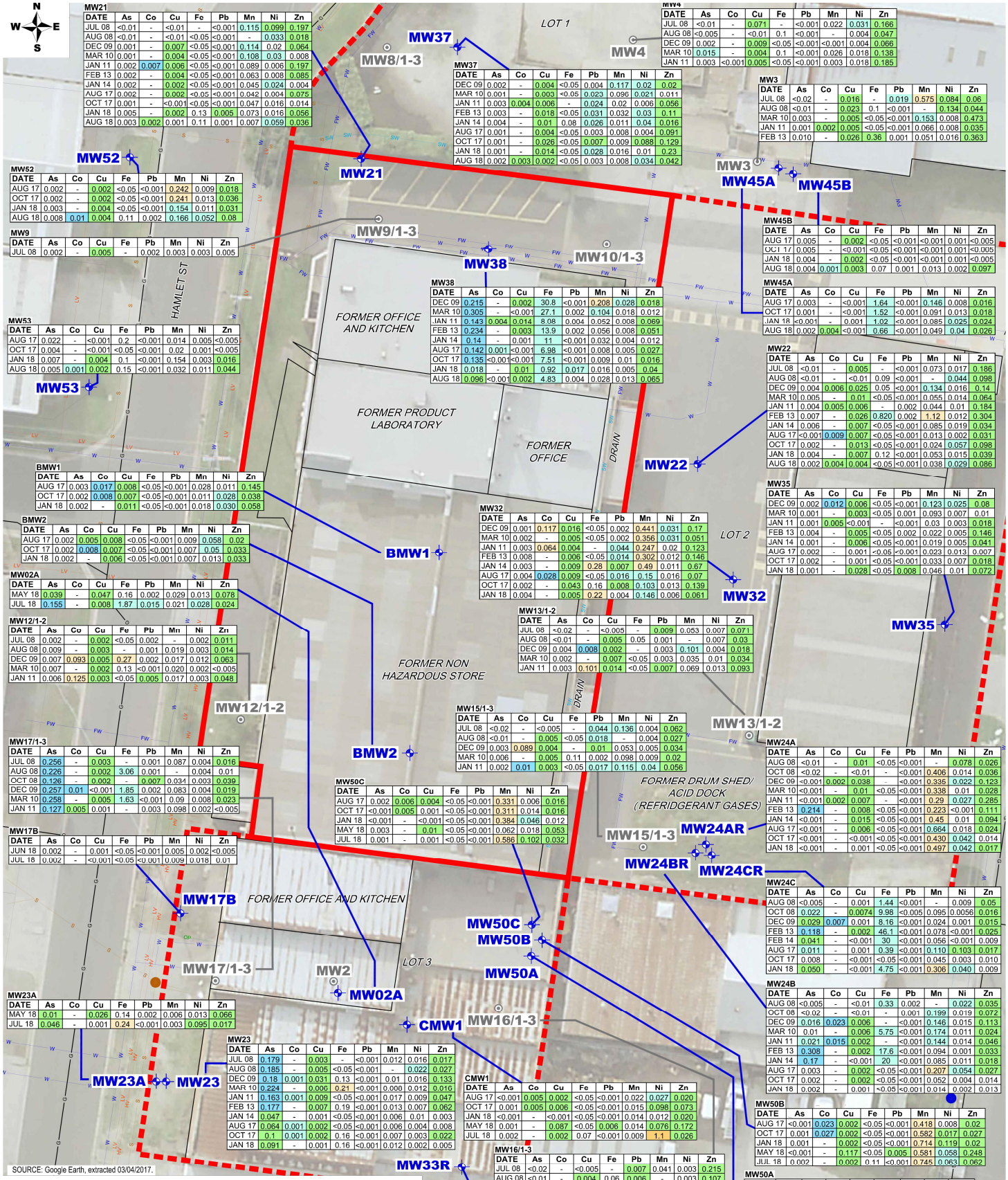


Drawing Number: MA115-2
Revision: A
Date: 15/07/19
Author: LZ
Checked by: MB
Data Source: ARC Environmental, 1707054, 17/10/18

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Lot 4, 20 Hamlet Street, Cheltenham

Figure 10E - Groundwater Results (2008-2018)

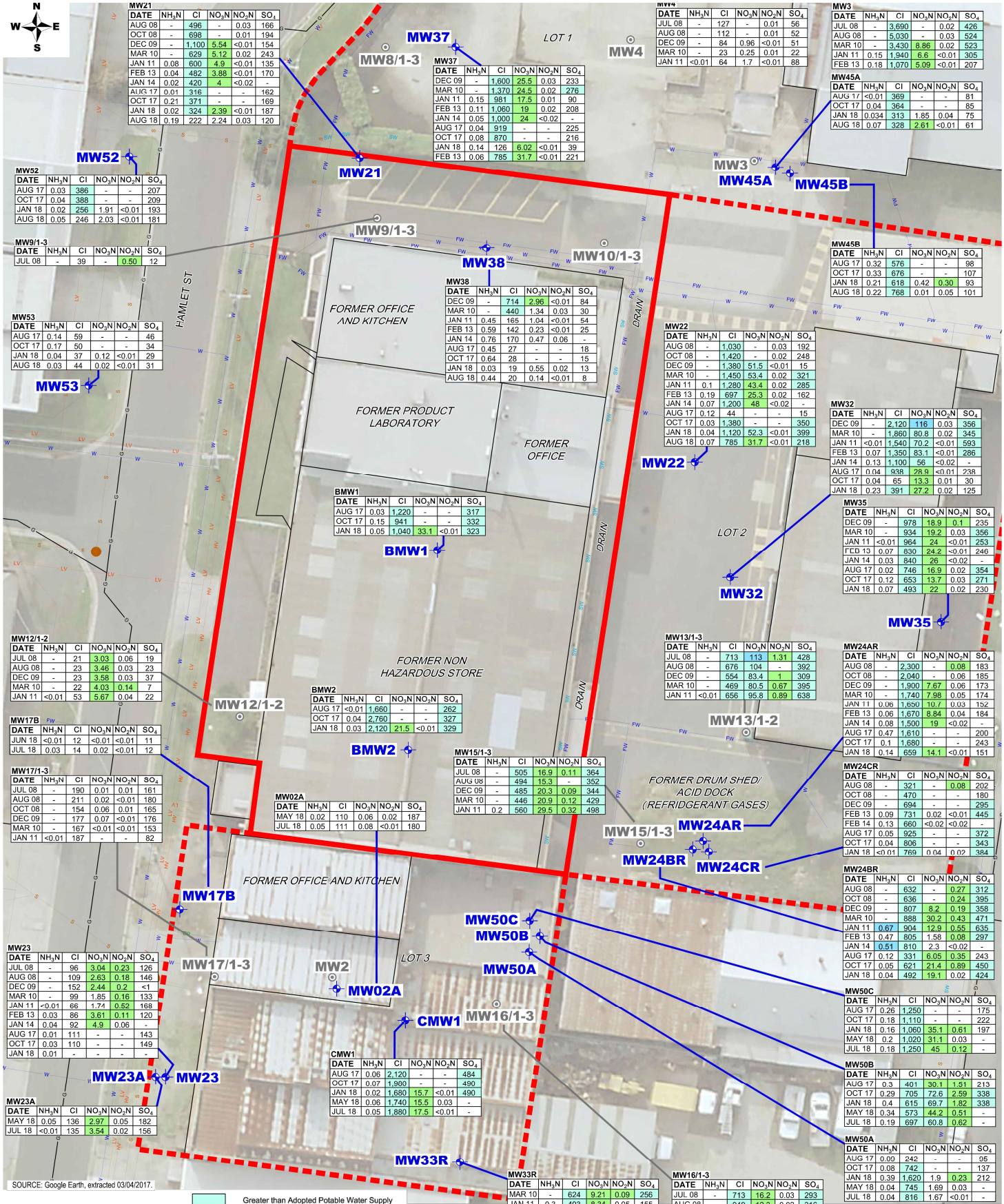


Drawing Number: MA115-2
Revision: A
Date: 15/07/19
Author: LZ
Checked by: MB
Data Source: ARC Environmental, 1707054, 18/10/18

Chandos Bay Pty Ltd

Lot 4, 20 Hamlet Street, Cheltenham

Figure 10F - Metal Concentrations (2008-2018)



MW21

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
AUG 08	-	496	-	0.03	166
OCT 08	-	698	-	0.01	194
DEC 09	-	1,100	5.54	<0.01	154
MAR 10	-	629	5.12	0.02	243
JAN 11	0.08	600	4.9	<0.01	135
FEB 13	0.04	482	3.88	<0.01	170
JAN 14	0.02	420	4	<0.02	-
AUG 17	0.01	316	-	-	162
OCT 17	0.21	371	-	-	169
JAN 18	0.02	324	2.39	<0.01	187
AUG 18	0.19	222	2.24	0.03	120

MW37

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
DEC 09	-	1,600	25.5	0.03	233
MAR 10	-	1,370	24.5	0.02	276
JAN 11	0.15	981	17.5	0.01	90
FEB 13	0.11	1,060	19	0.02	208
JAN 14	0.05	1,000	24	<0.02	-
AUG 17	0.04	919	-	-	225
OCT 17	0.08	870	-	-	216
JAN 18	0.14	126	6.02	<0.01	39
FEB 13	0.06	785	31.7	<0.01	221

MW4

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
JUL 08	-	127	-	0.01	56
AUG 08	-	112	-	0.01	52
DEC 09	-	84	0.96	<0.01	51
MAR 10	-	23	0.25	0.01	22
JAN 11	<0.01	64	1.7	<0.01	88

MW3

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
JUL 08	-	3,690	-	0.02	426
AUG 08	-	5,030	-	0.03	524
MAR 10	-	3,430	8.86	0.02	523
JAN 11	0.15	1,940	6.6	<0.01	305
FEB 13	0.18	1,070	5.09	<0.01	207

MW45A

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
AUG 17	<0.01	369	-	-	81
OCT 17	0.04	364	-	-	85
JAN 18	0.034	313	1.85	0.04	75
AUG 18	0.07	328	2.61	<0.01	61

MW52

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
AUG 17	0.03	386	-	-	207
OCT 17	0.04	388	-	-	209
JAN 18	0.02	256	1.91	<0.01	193
AUG 18	0.05	246	2.03	<0.01	181

MW9/1-3

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
JUL 08	-	39	-	0.50	12

MW38

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
DEC 09	-	714	2.96	<0.01	84
MAR 10	-	440	1.34	0.03	30
JAN 11	0.45	165	1.04	<0.01	54
FEB 13	0.59	142	0.23	<0.01	25
JAN 14	0.76	170	0.47	0.06	-
AUG 17	0.45	27	-	-	18
OCT 17	0.64	28	-	-	15
JAN 18	0.03	19	0.55	0.02	13
AUG 18	0.44	20	0.14	<0.01	8

MW45B

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
AUG 17	0.32	576	-	-	98
OCT 17	0.33	676	-	-	107
JAN 18	0.21	618	0.42	0.30	93
AUG 18	0.22	768	0.01	0.05	101

MW53

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
AUG 17	0.14	59	-	-	46
OCT 17	0.17	50	-	-	34
JAN 18	0.04	37	0.12	<0.01	29
AUG 18	0.03	44	0.02	<0.01	31

MW22

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
AUG 08	-	1,030	-	0.03	192
OCT 08	-	1,420	-	0.02	248
DEC 09	-	1,380	51.5	<0.01	15
MAR 10	-	1,450	53.4	0.02	321
JAN 11	0.1	1,280	43.4	0.02	285
FEB 13	0.19	697	25.3	0.02	162
JAN 14	0.07	1,200	48	<0.02	-
AUG 17	0.12	44	-	-	15
OCT 17	0.03	1,380	-	-	350
JAN 18	0.04	1,120	52.3	<0.01	399
AUG 18	0.07	785	31.7	<0.01	218

MW32

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
DEC 09	-	2,120	116	0.03	356
MAR 10	-	1,860	80.8	0.02	345
JAN 11	<0.01	1,540	70.2	<0.01	593
FEB 13	0.07	1,350	83.1	<0.01	286
JAN 14	0.13	1,100	56	<0.02	-
AUG 17	0.04	938	28.9	<0.01	238
OCT 17	0.04	65	13.3	0.01	30
JAN 18	0.23	391	27.2	0.02	125

BMW1

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
AUG 17	0.03	1,220	-	-	317
OCT 17	0.15	941	-	-	332
JAN 18	0.05	1,040	33.1	<0.01	323

MW35

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
DEC 09	-	978	18.9	0.1	235
MAR 10	-	934	19.2	0.03	356
JAN 11	<0.01	964	24	<0.01	253
FEB 13	0.07	830	24.2	<0.01	246
JAN 14	0.03	840	26	<0.02	-
AUG 17	0.02	746	16.9	0.02	354
OCT 17	0.12	653	13.7	0.03	271
JAN 18	0.07	493	22	0.02	230

MW12/1-2

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
JUL 08	-	21	3.03	0.06	19
AUG 08	-	23	3.46	0.03	23
DEC 09	-	23	3.58	0.03	37
MAR 10	-	22	4.03	0.14	7
JAN 11	<0.01	53	5.67	0.04	22

MW13/1-3

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
JUL 08	-	713	113	1.31	428
AUG 08	-	676	104	-	392
DEC 09	-	554	83.4	1	309
MAR 10	-	469	80.5	0.67	395
JAN 11	<0.01	656	95.8	0.89	638

MW24AR

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
AUG 08	-	2,300	-	0.08	183
OCT 08	-	2,040	-	0.06	185
DEC 09	-	1,900	7.67	0.06	173
MAR 10	-	1,740	7.98	0.05	174
JAN 11	0.06	1,690	10.7	0.03	152
FEB 13	0.06	1,670	8.84	0.04	184
JAN 14	0.08	1,500	19	<0.02	-
AUG 17	0.47	1,610	-	-	200
OCT 17	0.1	1,680	-	-	243
JAN 18	0.14	659	14.1	<0.01	151

MW17B

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
JUN 18	<0.01	12	<0.01	<0.01	11
JUL 18	0.03	14	0.02	<0.01	12

BMW2

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
AUG 17	<0.01	1,660	-	-	262
OCT 17	0.04	2,760	-	-	327
JAN 18	0.03	2,120	21.5	<0.01	329

MW15/1-3

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
JUL 08	-	505	16.9	0.11	364
AUG 08	-	494	15.3	-	352
DEC 09	-	485	20.3	0.09	344
MAR 10	-	446	20.9	0.12	429
JAN 11	0.2	560	29.5	0.32	498

MW24CR

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
AUG 08	-	321	-	0.08	202
OCT 08	-	470	-	-	180
DEC 09	-	694	-	-	295
FEB 13	0.09	731	0.02	<0.01	445
FEB 14	0.13	660	<0.02	<0.02	-
AUG 17	0.05	925	-	-	372
OCT 17	0.04	806	-	-	343
JAN 18	<0.01	769	0.04	0.02	384

MW02A

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
MAY 18	0.02	110	0.06	0.02	187
JUL 18	0.05	111	0.08	<0.01	180

MW17/1-3

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
JUL 08	-	190	0.01	0.01	161
AUG 08	-	211	0.02	<0.01	180
OCT 08	-	154	0.06	0.01	165
DEC 09	-	177	0.07	<0.01	176
MAR 10	-	167	<0.01	<0.01	153
JAN 11	<0.01	187	-	-	82

MW24BR

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
AUG 08	-	632	-	0.27	312
OCT 08	-	636	-	0.24	395
DEC 09	-	807	8.2	0.19	358
MAR 10	-	888	30.2	0.43	471
JAN 11	0.67	904	12.9	0.55	635
FEB 13	0.47	805	1.58	0.08	297
JAN 14	0.51	810	2.3	<0.02	-
AUG 17	0.12	331	6.05	0.35	243
OCT 17	0.05	621	21.4	0.89	450
JAN 18	0.04	492	19.1	0.02	424

MW23

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
JUL 08	-	96	3.04	0.23	126
AUG 08	-	109	2.63	0.18	146
DEC 09	-	152	2.44	0.2	<1
MAR 10	-	99	1.85	0.16	133
JAN 11	<0.01	66	1.74	0.52	168
FEB 13	0.03	86	3.61	0.11	120
JAN 14	0.04	92	4.9	0.06	-
AUG 17	0.01	111	-	-	143
OCT 17	0.03	110	-	-	149
JAN 18	0.01	-	-	-	-

MW50C

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
AUG 17	0.26	1,250	-	-	175
OCT 17	0.18	1,110	-	-	222
JAN 18	0.16	1,060	35.1	0.61	197
MAY 18	0.2	1,020	31.1	0.03	-
JUL 18	0.18	1,250	45	0.12	-

CMW1

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
AUG 17	0.06	2,120	-	-	484
OCT 17	0.07	1,900	-	-	490
JAN 18	0.02	1,680	15.7	<0.01	490
MAY 18	0.06	1,740	15.5	0.03	-
JUL 18	0.05	1,880	17.5	<0.01	-

MW50B

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
AUG 17	0.3	401	30.1	1.51	213
OCT 17	0.29	705	72.6	2.59	338
JAN 18	0.4	615	69.7	1.82	338
MAY 18	0.34	573	44.2	0.51	-
JUL 18	0.19	697	60.8	0.62	-

MW23A

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
MAY 18	0.05	136	2.97	0.05	182
JUL 18	<0.01	135	3.54	0.02	156

MW50A

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
AUG 17	0.09	242	-	-	95
OCT 17	0.08	742	-	-	137
JAN 18	0.39	1,620	1.9	0.23	212
MAY 18	0.04	745	1.69	0.03	-
JUL 18	0.04	816	1.67	<0.01	-

MW33R

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
MAR 10	-	624	9.21	0.09	256
JAN 11	0.3	493	8.34	0.05	155
FEB 13	0.03	497	7.78	0.05	245
AUG 17	<0.01	470	8.05	0.03	258
OCT 17	0.08	398	8.75	0.04	238
JAN 18	<0.01	331	8.93	0.04	230
FEB 18	0.02	363	10	0.06	-
JUL 18	0.03	381	11.8	0.05	-

MW16/1-3

DATE	NH_3N	Cl	NO_3N	NO_2N	SO_4
JUL 08	-	713	16.2	0.03	293
AUG 08	-	949	12.3	0.02	316
DEC 09	-	713	14.8	<0.01	309
MAR 10	-	742	13.8	0.02	284
JAN 11	<0.01	793	14.2	<0.01	566

Greater than Adopted Potable Water Supply
Greater than Adopted Primary Contact Recreation
Greater than Adopted Stock Watering
Greater than Adopted Maintenance of Ecosystems

SERVICES LEGEND

- ELECTRIC LOW VOLTAGE
- ELECTRIC HIGH VOLTAGE
- OPTIC FIBRE
- FIRE WATER
- GAS
- SEWER
- STORMWATER
- DRAIN
- WATER
- UNKNOWN

LEGEND

- SITE BOUNDARY
- MWxxx — GROUNDWATER MONITORING WELL
- MWxxx — GROUNDWATER MONITORING WELL - DECOMMISSIONED

NH_3N AMMONIA AS N (mg/L)
Cl CHLORIDE (mg/L)
NO_3N NITRATE (as N) (µg/L)
NO_2N NITRITE (as N) (µg/L)
SO_4 SULFATE AS SO_4 TURBIDIMETRIC (mg/L)

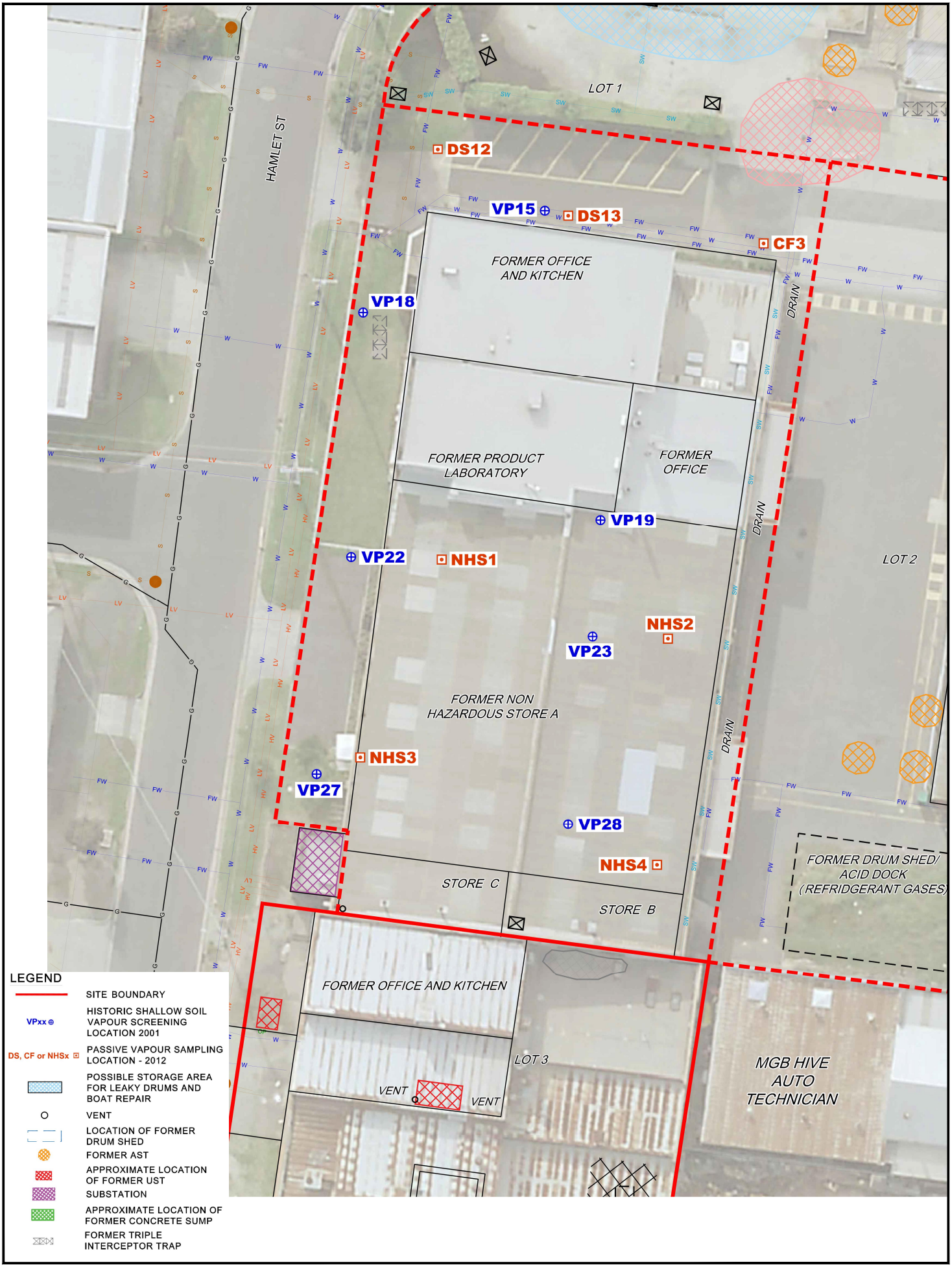
SCALE 1:500 (A4) METRES (0, 5, 10, 15)

Drawing Number: MA115-2
Revision: A
Date: 15/07/19
Author: LZ
Checked by: MB
Data Source: ARC Environmental, 1707054, 18/10/18

Chandos Bay Pty Ltd

Lot 4, 20 Hamlet Street, Cheltenham

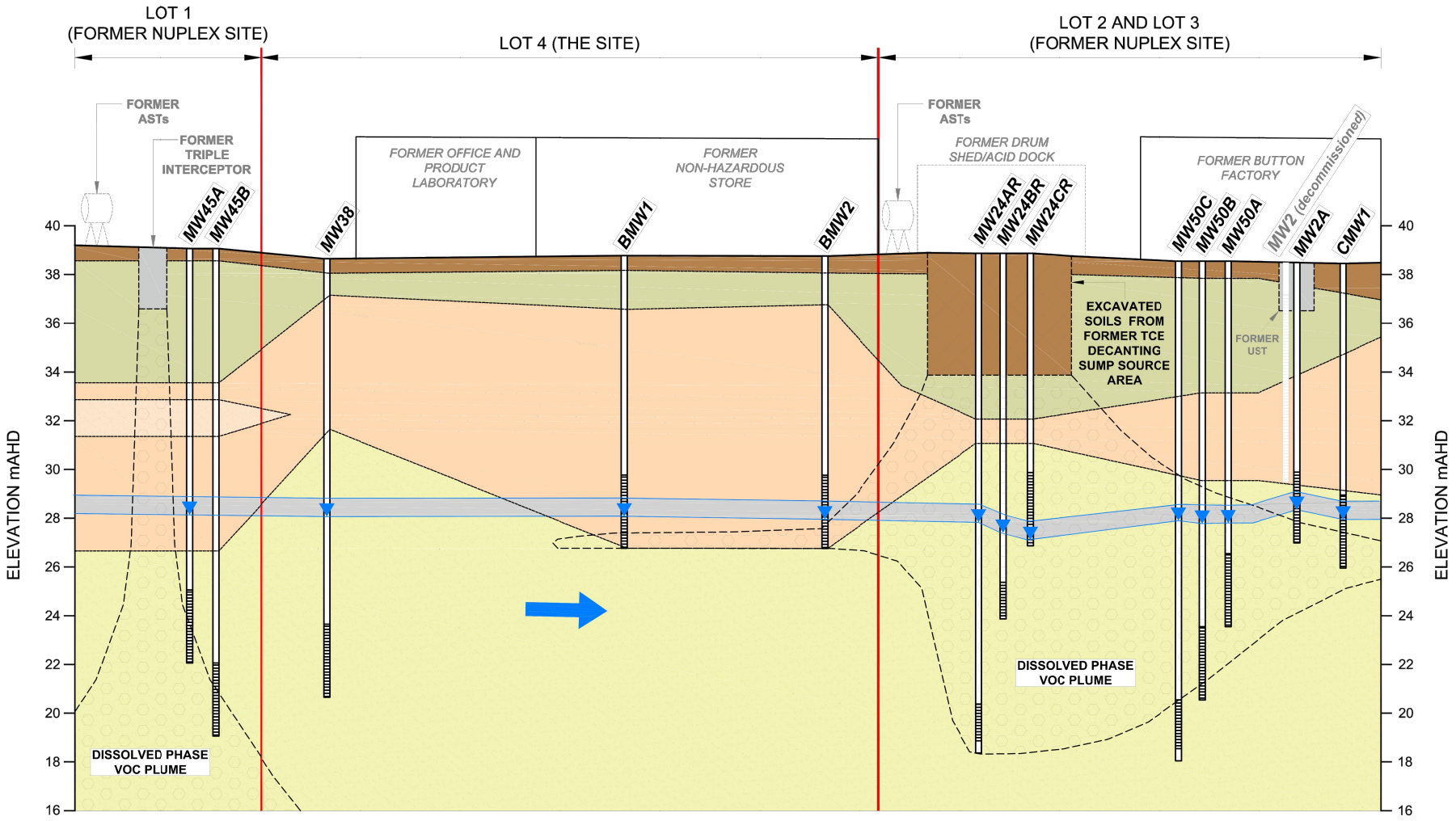
Figure 10G - Nitrate, Nitrite, Ammonia, Chloride & Sulfate Concentrations (2008-2018)

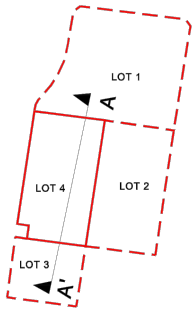


0 4 8 12
SCALE 1:400 (A4) METRES

MAPLE ENGINEERING

Drawing Number: MA115-2	Chandos Bay Pty Ltd
Revision: A	Lot 4, 20 Hamlet Street, Cheltenham
Date: 15/07/19	Figure 11 - Soil Vapour Locations
Author: LZ / Checked by: MB	
Data Source: ARC Environmental, 1707054, 17/10/18	





SITE

LEGEND

- FILL
- SANDY/SILTY CLAY
- CLAYEY SAND
- SANDY CLAY
- SAND
- SMEAR ZONE
- GROUNDWATER LEVEL - APPROX
- SCREEN
- GROUNDWATER FLOW DIRECTION
- *MW35* GROUNDWATER MONITORING WELL
- SITE BOUNDARY

MAPLE AUDITING

Drawing Number: MA115-2	
Revision: A	
Date: 15/07/19	
Author: LZ	Checked by: MB
Data Source: ARC Environmental, 1707054, 17/10/18	

Chandos Bay Pty Ltd

Lot 3, 14 Hamlet Street, Cheltenham, VIC

Figure 12 - Conceptual Site Model



0 10 20 30
SCALE 1:1000 (A4) METRES

MAPLE

Drawing Number: MA115-2
Revision: A
Date: 15/07/19
Author: LZ
Checked by: MB
Data Source: land.vic.gov.au

Chandos Bay Pty Ltd

Lot 4, 20 Hamlet Street, Cheltenham

Figure 13 - Groundwater Quality Restricted Use Zone (GQRUZ)

Tables

Environmental Audit Report

Lot 4, 20 Hamlet Street, Cheltenham, Victoria

Table A Summary of Potential Contaminants of Concern and Analytical Schedule for Soil and Groundwater

Potential Sources of Contamination	Potential contaminants of concern	On-site Location	Included in analytical schedule for soil? (Y/N, material)	Included in analytical schedule for groundwater? (Y/N)
On-Site				
Imported fill	Heavy metals	Potential for distribution throughout the site.	Y; 24 fill, 16 natural	Yes
	Polycyclic aromatic hydrocarbons (PAH)		Y; 23 fill, 10 natural	Yes
Chemical Handling/Manufacturing.	Heavy metals	Potential for distribution throughout most the site.	Y; 24 fill, 16 natural	Yes
	Acids/alkalis		Y; 15 fill, 13 natural samples analysed for pH.	Groundwater samples analysed for pH.
	Silanes		N. The Auditor considers that sufficient analysis of other contaminants associated with this potential source of contamination has been undertaken.	
	Sulphur		Y; 1 natural in addition to 2 fill, 3 natural samples analysed for sulphate.	No, however groundwater samples analysed for sulphate.
	Solvents		Y; 19 fill, 17 natural. Furthermore, 26 fill, 18 natural samples analysed for chlorinated hydrocarbons.	Yes
	Chloromethane		Y; 4 natural	Yes
	Dichloromethane		Y; 26 fill, 18 natural	Yes
	Phthalate esters		Y; 11 fill, 6 natural	Yes
	Amines		Y; 10 fill, 5 natural	Yes
	Polymers and resins		The Auditor considers that sufficient analysis of other contaminants this potential source of contamination which are associated with various polymers and resins has been undertaken.	
	PAHs		Y; 23 fill, 10 natural	Yes
	Polychlorinated biphenyls (PCBs)		Y; 10 fill, 5 natural	Yes
	Phenolic compounds		Y; 23 fill, 10 natural	Yes
	Chlorinated hydrocarbons		Y; 26 fill, 18 natural	Yes
	Cyanides		Y; 2 fill, 3 natural	Yes

Potential Sources of Contamination	Potential contaminants of concern	On-site Location	Included in analytical schedule for soil? (Y/N, material)	Included in analytical schedule for groundwater? (Y/N)
	Sodium salts		N. However sodium and chloride analysed in groundwater.	Groundwater samples analysed for sodium and chloride.
	Mineral acids		N. However, 15 fill, 13 natural samples analysed for pH.	Groundwater samples analysed for pH.
Metal Finishing Laboratory	Metals and metalloids	Northern-centre portion of the site.	Y; 24 fill, 16 natural	Yes
	Mineral acids		N. However, 15 fill, 13 natural samples analysed for pH.	Groundwater samples analysed for pH.
	Organic acids			Groundwater samples analysed for pH.
	Chlorinated solvents		Y; 26 fill, 18 natural	Yes
	Acetone		Y; 13 fill, 7 natural	Yes
	Toluene		Y; 28 fill, 19 natural	Yes
Chemical Store B	Inorganic peroxides	Southern portion of the site.	N. However, 15 fill, 13 natural samples analysed for pH.	Groundwater samples analysed for pH.
	Acids			
Triple Interceptor trap	Lead	North-western portion of the site.	Y; 24 fill, 16 natural	Yes
	TRH		Y; 28 fill, 19 natural	Yes

Potential Sources of Contamination	Potential contaminants of concern	On-site Location	Included in analytical schedule for soil? (Y/N, material)	Included in analytical schedule for groundwater? (Y/N)
	BTEXN		Y; 28 fill, 19 natural	Yes
	Grease oil		Y; 1 natural.	No, however groundwater analysed for petroleum hydrocarbons.
	Phenols		Y; 23 fill, 10 natural	Yes
	Methanol		The Auditor considers that sufficient analysis of other contaminants this potential source of contamination which are associated with various polymers and resins has been undertaken.	
	Ammonia		Y; 8 fill, 4 natural.	Yes
	Acetone		Y; 13 fill, 7 natural	Yes
	Acids/alkalis		N. However, 15 fill, 13 natural samples analysed for pH.	Groundwater samples analysed for pH.
	Chlorinated solvents		Y; 26 fill, 18 natural	Yes
Off-Site				
Former Nuplex chemical manufacturing facility located immediately north and north-east of the site, including underground bulk fuel and chemical storage	Heavy metals	Potential for distribution throughout regional groundwater.	Y; 24 fill, 16 natural	Yes
	Acids/alkalis		N. However, 15 fill, 13 natural samples analysed for pH.	Groundwater samples analysed for pH.
	Silanes		N. The Auditor considers that sufficient analysis of other contaminants associated with this potential source of contamination has been undertaken.	
	Sulphur		Y; 1 natural in addition to 2 fill, 3 natural samples analysed for sulphate.	No, however groundwater samples analysed for sulphate.
	Solvents		Y; 19 fill, 17 natural. Furthermore, 26 fill, 18 natural samples analysed for chlorinated hydrocarbons.	Yes
	Chloromethane		Y; 4 natural	Yes
	Dichloromethane		Y; 26 fill, 18 natural	Yes
	Phthalate esters		Y; 11 fill, 6 natural	Yes
	Amines		Y; 10 fill, 5 natural	Yes

Potential Sources of Contamination	Potential contaminants of concern	On-site Location	Included in analytical schedule for soil? (Y/N, material)	Included in analytical schedule for groundwater? (Y/N)
	Polymers and resins		The Auditor considers that sufficient analysis of other contaminants this potential source of contamination which are associated with various polymers and resins has been undertaken.	
	PAHs		Y; 23 fill, 10 natural	Yes
	PCBs		Y; 10 fill, 5 natural	Yes
	Phenolic compounds		Y; 23 fill, 10 natural	Yes
	Chlorinated hydrocarbons		Y; 26 fill, 18 natural	Yes
	Cyanides		Y; 2 fill, 3 natural	Yes
	Sodium salts		N. However sodium and chloride analysed in groundwater.	Groundwater samples analysed for sodium and chloride.
	TRH		Y; 28 fill, 19 natural	Yes
	BTEXN		Y; 28 fill, 19 natural	Yes
Electrical Substation located immediately south of the site (and to the east on Lot 2)	TRH	Potential for distribution throughout regional groundwater.	Y; 28 fill, 19 natural	Yes
	BTEXN		Y; 28 fill, 19 natural	Yes
	Phenols		Y; 23 fill, 10 natural	Yes
	Metals		Y; 24 fill, 16 natural	Yes
	PCBs		Y; 10 fill, 5 natural	Yes
Underground bulk fuel storage and use at 7 & 10 Hamlet Street, located approximately 50m to the south and south-west of the site	Lead	Potential for distribution throughout regional groundwater.	Y; 24 fill, 16 natural	Yes
	TRH		Y; 28 fill, 19 natural	Yes
	BTEXN		Y; 28 fill, 19 natural	Yes
	Phenols		Y; 23 fill, 10 natural	Yes
Oil storage and use at 15 Chandos Street, located approximately 20m south-east of the site	Lead	Potential for distribution throughout regional groundwater.	Y; 24 fill, 16 natural	Yes
	TRH		Y; 28 fill, 19 natural	Yes
	BTEXN		Y; 28 fill, 19 natural	Yes
	Phenols		Y; 23 fill, 10 natural	Yes

Potential Sources of Contamination	Potential contaminants of concern	On-site Location	Included in analytical schedule for soil? (Y/N, material)	Included in analytical schedule for groundwater? (Y/N)
Laminex manufacturing facility (adhesive resins, dyes and inks) located at 332 Bay Road located approximately 50 m east, northeast and southeast of the site.	Polyvinyl acetate	Potential for distribution throughout regional groundwater.	N. However 8 fill, 12 natural analysed for vinyl acetate.	Yes
	Phenols		Y; 23 fill, 10 natural	Yes
	Formaldehyde		Y; 2 fill	Yes
	Phthalate esters		Y; 11 fill, 6 natural	Yes
	PCBs		Y; 10 fill, 5 natural	Yes
	Solvents		Y; 19 fill, 17 natural. Furthermore, 26 fill, 18 natural samples analysed for chlorinated hydrocarbons.	Yes
	Metals		Y; 24 fill, 16 natural	Yes
	Cresols		Y; 12 fill, 9 natural	Yes
	Chlorinated hydrocarbons		Y; 26 fill, 18 natural	Yes
Former nursery on the north side of Bay Road located approximately 80 m north of the site.	Organochlorine pesticides	Potential for distribution throughout regional groundwater.	Y; 12 fill, 8 natural	Yes
	Organophosphate pesticides		Y; 15 fill, 12 natural	Yes
	Herbicides		Y; 12 fill, 8 natural	Yes
	Calcium salts		N. However calcium, sodium and chloride analysed in groundwater.	Groundwater samples analysed for calcium, sodium and chloride.
	Nitrates		Y; 4 fill, 4 natural	Yes
	Ammonium sulphate		N. However 8 fill and 4 natural samples analysed for ammonia. Ammonia and sulphate analysed in groundwater.	Groundwater samples analysed for ammonia and sulphate.
	Potassium, magnesium		Y; 1 fill	Yes
	Molybdenum		N. However other metals associated with this potential source of contamination were analysed.	
	Copper, boron, cadmium		Y; 24 fill, 16 natural	Yes

Table B1 Adopted Soil Assessment Criteria (mg/kg)

Analyte	Residential A (low density)[1]		Residential B (high density)[2]		Recreational/ Open space C[3]		Commercial/Industrial D[4]		Intrusive maint. Worker[5]	Mgt. Limits[6]
	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	Human Health – HILs/HSLs	
pH	6-8[15]	6-8[15]	6-8[15]	6-8[15]	6-8[15]	6-8[15]	6-8[15]	6-8[15]	NE	NA
Aluminium	NE	77,000[10]	NE	77,000[10]	NE	77,000[10]	NE	1,100,000[11]	1,100,000[11]	NA
Antimony	20[12]	31[10]	20[12]	31[10]	20[12]	31[10]	40[12]	470[11]	470[11]	NA
Arsenic	100	100	100	500	100	300	160	3,000	3,000	NA
Barium	500[12]	15,000[10]	500[12]	15,000[10]	500[12]	15,000[10]	2,000[12]	220,000[11]	220,000[11]	NA
Beryllium	4[14]	60	4[14]	90	4[14]	90	4[14]	500	500	NA
Boron	NE	4,500	NE	40,000	NE	20,000	NE	300,000	300,000	NA
Cadmium	10[12]	20	10[12]	150	10[12]	90	22[12]	900	900	NA
Chromium VI	0.4[12]	100	0.4[12]	500	0.4[12]	300	1.4[12]	3,600	3,600	NA
Chromium III	370[16]	NE	370[16]	NE	370[16]	NE	610[16]	NE	NE	NA
Cobalt	50[12]	100	50[12]	600	50[12]	300	300[12]	4,000	4,000	NA
Copper	75[16]	6,000	75[16]	30,000	75[16]	17,000	110[16]	240,000	240,000	NA
Iron	NE	55,000[10]	NE	55,000[10]	NE	55,000[10]	NE	820,000[11]	820,000[11]	NA
Lead	1,100	300	1,100	1,200	1,100	600	1,800	1,500	1,500	NA
Manganese	220[17]	3,800	220[17]	14,000	220[17]	19,000	220[17]	60,000	60,000	NA

Analyte	Residential A (low density)[1]		Residential B (high density)[2]		Recreational/ Open space C[3]		Commercial/Industrial D[4]		Intrusive maint. Worker[5]	Mgt. Limits[6]
	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	Human Health – HILs/HSLs	
Molybdenum	10[12]	390[10]	10[12]	390[10]	10[12]	390[10]	40[12]	5,800[11]	5,800[11]	NA
Mercury (inorganic)	6.6[12]	40	6.6[12]	120	6.6[12]	80	24[12]	730	730	NA
Nickel	270[16]	400	270[16]	1,200	270[16]	1,200	450[16]	6,000	6,000	NA
Selenium	10[18]	200	10[18]	1,400	10[18]	700	10[18]	10,000	10,000	NA
Silver	20[12]	390[10]	20[12]	390[10]	20[12]	390[10]	40[12]	5,800[11]	5,800[11]	N/A
Tin	50[12]	47,000[10]	50[12]	47,000[10]	50[12]	47,000[10]	300[12]	700,000[11]	700,000[11]	N/A
Vanadium	130[12]	390[10]	130[12]	390[10]	130[12]	390[10]	130[12]	5,800[11]	5,800[11]	NA
Zinc	690[16]	7,400	690[16]	60,000	690[16]	30,000	1,100[16]	400,000	400,000	NA
Cyanide (free)	0.9[12]	250	0.9[12]	300	0.9[12]	240	8[12]	1,500	1,500	NA
Sulphate	2,000[14]	NE	2,000[14]	NE	2,000[14]	NE	NE	NE	NE	NA
Sulfur as S	600[15]	NE	600[15]	NE	600[15]	NE	600[15]	NE	NE	NE
Phosphate (reactive phosphorous)	NE	3,800,000[10]	NE	3,800,000[10]	NE	3,800,000[10]		57,000,000[11]	57,000,000[11]	NE
Nitrate	NE	130,000[10]	NE	130,000[10]	NE	130,000[10]	NE	1,900,000[11]	1,900,000[11]	NA
Fluoride	200[12]	3,100[10]	200[12]	3,100[10]	200[12]	3,100[10]	NE	47,000[11]	47,000[11]	NA
Benzene	50	0.5/100	50	0.5/140	50	NL/120	75	3/430	77/1,100	NE

Analyte	Residential A (low density)[1]		Residential B (high density)[2]		Recreational/ Open space C[3]		Commercial/Industrial D[4]		Intrusive maint. Worker[5]	Mgt. Limits[6]
	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	Human Health – HILs/HSLs	
Toluene	85	160/14,000	85	160/21,000	85	NL/18,000	135	NL/99,000	NL/120,000	NE
Ethylbenzene	70	55/4,500	70	55/5,900	70	NL/5,300	165	NL/27,000	NL/85,000	NE
Total Xylenes	105	40/12,000	105	40/17,000	105	NL/15,000	180	230/81,000	NL/130,000	NE
Styrene	8.6[14]	6,000[14]	8.6[14]	6,000[14]	8.6[14]	6,000[14]	8.6[14]	6,000[11]	NE	NE
1,2,4-Trimethylbenzene	NE	300[14]	NE	300[14]	NE	300[14]	NE	1,800[11]	NE	NE
TRH C_6-C_{10} minus BTEX (F1)[6]	180	45/4,400	180	45/5,600	180	NL/5,100	215	260/26,000	NL/82,000	700
TRH >C_{10}-C_{16} minus naphthalene (F2)[6,8]	120	110/3,300	120	110/4,200	120	NL/3,800	170	NL/20,000	NL/62,000	1,000
TRH >C_{16}-C_{34} (F3)	300	-/4,500	300	-/5,800	300	-/5,300	1,700	-/27,000	-/85,000	3,500
TRH>C_{34} (F4)	2,800	-/6,300	2,800	-/8,100	2,800	-/7,400	3,300	-/38,000	-/120,000	10,000
Oil and Grease	1,000[13]	1,000[13]	1,000[13]	1,000[13]	1,000[13]	1,000[13]	1,000[13]	1,000[13]	1,000[13]	N/A
Acetophenone	300[19]	7,800[10]	300[19]	7,800[10]	300[19]	7,800[10]	300[19]	120,000[11]	120,000[11]	N/A
Bis(2-ethylhexyl) phthalate	0.925[19]	39[10]	0.925[19]	39[10]	0.925[19]	39[10]	0.925[19]	160[11]	160[11]	N/A

Analyte	Residential A (low density)[1]		Residential B (high density)[2]		Recreational/ Open space C[3]		Commercial/Industrial D[4]		Intrusive maint. Worker[5]	Mgt. Limits[6]
	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	Human Health – HILs/HSLs	
Di-n-butyl phthalate	0.15[19]	6,300[10]	0.15[19]	6,300[10]	0.15[19]	6,300[10]	0.15[19]	82,000[11]	82,000[11]	N/A
Naphthalene	170	3/1,400	170	3/2,200	170	NL/1,900	370	NL/11,000	NL/29,000	NE
Benzo(a)pyrene[9]	0.7	3	0.7	4	0.7	3	1.4	40	40	N/A
Total PAH	40[14]	300	40[14]	400	40[14]	300	NE	4,000	4,000	N/A
Phenol	0.05[14]	3,000	0.05[14]	45,000	0.05[14]	40,000	NE	240,000	240,000	N/A
Pentachloro-phenol	7.6[15]	100	7.6[15]	130	7.6[15]	120	7.6[15]	660	660	N/A
Carbon Tetrachloride	5[12]	0.65[10]	5[12]	0.65[10]	5[12]	0.65[10]	50[12]	2.9[11]	2.9[11]	N/A
Methanol	7.7[12]	120,000[10]	7.7[12]	120,000[10]	7.7[12]	120,000[10]	7.7[12]	1,200,000[11]	1,200,000[11]	N/A
Cresols	NE	400	NE	4,700	NE	4,000	NE	25,000	25,000	N/A
PCBs	1.3[15]	1	33[15]	1	1.3[15]	1	33[15]	7	7	N/A
Dibenzofuran	NE	73[10]	NE	73[10]	NE	73[10]	NE	1,000[11]	1,000[11]	N/A
DDT[7]	180	240	180	600	180	400	640	3,600	3,600	N/A

Notes:

1: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for urban residential/public open space, HIL/HSLfor residential with garden/accessible soil (A)– Unless otherwise specified.

2: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for urban residential/public open space, HIL/HSLfor residential with minimal opportunities for soil access (B)– Unless otherwise specified.

3: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for recreational/open space, HIL/HSL C– Unless otherwise specified.

4: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for commercial/industrial, HIL/HSLfor commercial/industrial (D)– Unless otherwise specified.

5: NEPM Schedule B(1) (NEPC 2013) and Friebel and Nadebaum (2011) HIL for commercial/industrial (D) and HSL for intrusive maintenance worker– Unless otherwise specified.
6: NEPM Schedule B(1) (NEPC 2013). Do not subtract BTEX or naphthalene prior to comparison of TRH C6-C10 or >C10-C16 results with management limits.
7: HIL for DDT+DDD+DDE
8: Do not subtract naphthalene prior to comparison of TRH >C10-C16 results with ESL.
9: HILs for BaP TEQ.
10: US EPA Regional Screening Levels May 2018 (Residential Use). For direct contact exposure pathways only.
11: US EPA Regional Screening Levels May 2018 (Industrial Use). For direct contact exposure pathways only.
12: CCME (2007) Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health
13: NSW EPA (1994) Guidelines for Assessing Service Station Sites. Threshold Concentrations for Sensitive Land Use (criteria for the protection of terrestrial organism adopted in the absence of NEPM EILs and criteria for the protection of human health adopted in the absence of NEPM HILs).
14: Dutch 2009 (Target value) adopted in the absence of NEPM EIL and ANZECC B levels.
15: ANZECC B levels.
16: Site-specific EIL derived in accordance with NEPC (2013) by ARC (2018), noting that the same EIL has been adopted for fill and natural material based on similar properties observed.
17: US EPA Eco-Tox SSL (June 2017).
18: EPA Victoria IWRG621 Clean Fill Criteria (June 2009).
19: US EPA Region 5 ESLs (August 2003).
HIL: Health Investigation Level
HSL: Health Screening Level. HSL for vapour intrusion quoted first followed by HSL for direct contact, "-" indicates analyte is not volatile, vapour intrusion HSL for 0m - <1m in sand adopted for HSL-A, HSL-B and HSL-D, HSL for 0m - <2m in sand adopted for HSL-intrusive maintenance worker .
EIL: Ecological Investigation Level
ESL: Ecological Screening Level, ESL for coarse grained soil adopted.
NE: Not Established.
N/A: Not applicable (not a petroleum hydrocarbon)
NL: Not Limiting. Denotes that a soil vapour source concentration for a petroleum mixture could not exceed a level that would result in the maximum allowable vapour risk for the given scenario.
All values in mg/kg unless otherwise specified.

Table B2 Adopted Groundwater Assessment Criteria (µg/L)

Analyte	Water dependent ecosystems and species[1]	Potable water supply[2]	Agriculture and irrigation (irrigation)[3]	Agriculture and irrigation (stock watering)[4]	Water based recreation (primary contact recreation)[5]	Traditional Owner cultural values[1]	Cultural and spiritual values[1]	Buildings and structures[6]	Human Health – Vapour Intrusion		
									On-site: HSL A/B[7]	On-site: Intrusive Maintenance Worker[8]	Off-site: HSL A/B[7]
pH	NE	6.5-8.5	6-8.5	6.5-8.5	6.5-8.5	NE	NE	>5.5	NE	NE	NE
Metals											
Aluminium	55^	200#	5,000	5,000	200#	55^	55^	NE	NE	NE	NE
Arsenic	13^[10] (AsV)	10	100	500	100	13^[10] (AsV)	13^[10] (AsV)	NE	NE	NE	NE
Barium	625[14]	2,000	NE	2,000[2]	20,000	625[14]	625[14]	NE	NE	NE	NE
Beryllium	3.6[12]	60	100	60[2]	600	0.13[10]	0.13[10]	NE	NE	NE	NE
Boron	370^	4,000	500	5,000	40,000	370^	370^	NE	NE	NE	NE
Cadmium	5.5	2	10	10	20	5.5	5.5	NE	NE	NE	NE
Total Chromium	27.4[10] (Cr III)	50[13]	100	1,000	500[13]	27.4[10] (Cr III)	27.4[10] (Cr III)	NE	NE	NE	NE
Chromium VI	4.4	50	NE	50[2]	500	4.4	4.4	NE	NE	NE	NE
Cobalt	1	6[9]	50	1,000	60[9]	1	1	NE	NE	NE	NE
Copper	1.3	2,000/1,000#	200	400	20,000/1,000#	1.3	1.3	NE	NE	NE	NE
Iron	NE	300#	200	Not toxic	300#	NE	NE	NE	NE	NE	NE
Lead	4.4	10	2,000	100	100	4.4	4.4	NE	NE	NE	NE
Manganese	1,900^	500/100#	200	NE	5,000/100#	1,900^	1,900^	NE	NE	NE	NE
Mercury	0.4	1	2	2	10	0.4	0.4	NE	NE	NE	NE
Molybdenum	300[14]	50	10	150	500	300[14]	300[14]	NE	NE	NE	NE

Analyte	Water dependent ecosystems and species[1]	Potable water supply[2]	Agriculture and irrigation (irrigation)[3]	Agriculture and irrigation (stock watering)[4]	Water based recreation (primary contact recreation)[5]	Traditional Owner cultural values[1]	Cultural and spiritual values[1]	Buildings and structures[6]	Human Health – Vapour Intrusion		
									On-site: HSL A/B[7]	On-site: Intrusive Maintenance Worker[8]	Off-site: HSL A/B[7]
Nickel	70	20	200	1,000	200	70	70	NE	NE	NE	NE
Selenium	11^[10]	10	20	20	100	11^[10]	11^[10]	NE	NE	NE	NE
Silver	1.4	100	NE	100[2]	1,000	1.4	1.4	NE	NE	NE	NE
Tin	180[12] (total Sn)	12,000[9]	NE	12,000[9]	120,000[9]	180[12] (total Sn)	180[12] (total Sn)	NE	NE	NE	NE
Vanadium	100	86[10]	100	100[18]	860[10]	100	100	NE	NE	NE	NE
Zinc	15	3,000	2,000	20,000	3,000#	15	15	NE	NE	NE	NE
Inorganics											
Cyanide	4[10]	80	NE	80[2]	800[2]	4[10]	4[10]	NE	NE	NE	NE
Ammonia (as N)	910	412	NE	412[2]	412	910	910	NE	NE	NE	NE
Nitrate (as N)	2,400[15]	11,286	NE	90,293	112,866	2,400[15]	2,400[15]	NE	NE	NE	NE
Nitrite (as N)	60[18]	912	3,040[18]	9,119	9,119	60[18]	60[18]	NE	NE	NE	NE
Total Nitrogen	600[23]	NE	NE	NE	NE	600[23]	600[23]	NE	NE	NE	NE
Fluoride	NE	1,500	1,000	2,000	15,000	NE	NE	NE	NE	NE	NE
Sulphate (as SO_4)	NE	500,000/ 250,000#	1,000,000	1,000,000	250,000#	NE	NE	1,000,000	NE	NE	NE
Chloride	NE	250,000#	25,000[20]	NE	250,000#	NE	NE	6,000,000	NE	NE	NE
Sodium	NE	180,000#	115,000[21]	NE	180,000#	NE	NE	NE	NE	NE	NE
PAHs											

Analyte	Water dependent ecosystems and species[1]	Potable water supply[2]	Agriculture and irrigation (irrigation)[3]	Agriculture and irrigation (stock watering)[4]	Water based recreation (primary contact recreation)[5]	Traditional Owner cultural values[1]	Cultural and spiritual values[1]	Buildings and structures[6]	Human Health – Vapour Intrusion		
									On-site: HSL A/B[7]	On-site: Intrusive Maintenance Worker[8]	Off-site: HSL A/B[7]
Anthracene	0.1[10]	1,800[9]	NE	1,800[9]	1,800[9]	0.1[10]	0.1[10]	NE	NE	NE	NE
Acenaphthene	5.8[10]	530[9]	NE	530[9]	530[9]	5.8[10]	5.8[10]	NE	NE	NE	NE
Benzo(a)pyrene	0.1[10]	0.01	NE	0.01[2]	0.01	0.1[10]	0.1[10]	NE	NE	NE	NE
Fluorene	3[10]	290[9]	NE	290[9]	290[9]	3[10]	3[10]	NE	NE	NE	NE
Fluoranthene	1[10]	800[9]	NE	800[9]	800[9]	1[10]	1[10]	NE	NE	NE	NE
Naphthalene	70	1.7[9]	NE	1.7[9]	1.7[9]	70	70	NE	NL	NL	NL
Phenanthrene	0.6[10]	NE	NE	NE	NE	0.6[10]	0.6[10]	NE	NE	NE	NE
MAHs											
Benzene	700	1	NE	1[2]	1	700	700	NE	800	NL	800
Toluene	180[10]	800/25[#]	NE	800/25[2#]	800/25[#]	180[10]	180[10]	NE	NL	NL	NL
Ethylbenzene	5[10]	300/3[#]	NE	300/3[2#]	300/3[#]	5[10]	5[10]	NE	NL	NL	NL
Xylene (m&p)	75[10] (m) / 200[10] (p)	190[9]	NE	190[9]	190[9]	75[10] (m) / 200[10] (p)	75[10] (m) / 200[10] (p)	NE	NE	NE	NE
Xylene (o)	350[10]	190[9]	NE	190[9]	190[9]	350[10]	350[10]	NE	NE	NE	NE
Xylene (sum)	NE	600/20[#]	NE	600/20[2#]	600/20[#]	NE	NE	NE	NL	NL	NL
Isopropylbenzene (cumene)	30[10]	450[9]	NE	450[9]	450[9]	30[10]	30[10]	NE	NE	NE	NE
Styrene	32[12]	30/4[#]	NE	30/4[2#]	30/4[#]	32[12]	32[12]	NE	NE	NE	NE

Analyte	Water dependent ecosystems and species[1]	Potable water supply[2]	Agriculture and irrigation (irrigation)[3]	Agriculture and irrigation (stock watering)[4]	Water based recreation (primary contact recreation)[5]	Traditional Owner cultural values[1]	Cultural and spiritual values[1]	Buildings and structures[6]	Human Health – Vapour Intrusion		
									On-site: HSL A/B[7]	On-site: Intrusive Maintenance Worker[8]	Off-site: HSL A/B[7]
1,2,3-Trimethylbenzene	NE	55[9]	NE	55[9]	55[9]	NE	NE	NE	NE	NE	NE
1,2,4-Trimethylbenzene	NE	56[9]	NE	56[9]	56[9]	NE	NE	NE	NE	NE	NE
1,3,5-Trimethylbenzene	NE	60[9]	NE	60[9]	60[9]	NE	NE	NE	NE	NE	NE
TPHs											
TRH C_6-C_{10}	NE	300[11]	NE	NE	300[11]	NE	NE	NE	1,000	NL	1,000
TRH >C_{10}-C_{40}	600[14]	600[14]	600[14]	600[14]	600[14]	600[14]	600[14]	NE	NE	NE	NE
Phenols											
2-methylphenol (o-cresol)	NE	930[9]	NE	930[9]	930[9]	NE	NE	NE	NE	NE	NE
3-&4-methylphenol (m-&p-cresol)	NE	930[9]	NE	930[9]	930[9]	NE	NE	NE	NE	NE	NE
2,4- dimethylphenol	2[10]	360[9]	NE	360[9]	360[9]	2[10]	2[10]	NE	NE	NE	NE
Phenol	400[10]	NE	NE	NE	NE	400[10]	400[10]	NE	NE	NE	NE
Pentachlorophenol	22[10]	10	NE	10[2]	10	22[10]	22[10]	NE	NE	NE	NE
2,4,6-Trichlorophenol	3[10]	41[9]	NE	41[9]	41[9]	3[10]	3[10]	NE	NE	NE	NE

Analyte	Water dependent ecosystems and species[1]	Potable water supply[2]	Agriculture and irrigation (irrigation)[3]	Agriculture and irrigation (stock watering)[4]	Water based recreation (primary contact recreation)[5]	Traditional Owner cultural values[1]	Cultural and spiritual values[1]	Buildings and structures[6]	Human Health – Vapour Intrusion		
									On-site: HSL A/B[7]	On-site: Intrusive Maintenance Worker[8]	Off-site: HSL A/B[7]
4-Chloro 3-Methylphenol	NE	1,400	NE	1,400[2]	1,400	NE	NE	NE	NE	NE	NE
Halogenated Aliphatics and Aromatics											
1,1-Dichloroethene	700[10]	30	NE	30[2]	30	700[10]	700[10]	NE	NE	NE	NE
Cis-1,2 Dichloroethene	NE	60	NE	60[2]	60	NE	NE	NE	NE	NE	NE
Trans-1,2 Dichloroethene	970 ('trans' only)[12]	60	NE	60[2]	60	970 ('trans' only)[12]	970 ('trans' only)[12]	NE	NE	NE	NE
1,1 Dichloroethane	250[10]	2.8[9]	NE	2.8[9]	2.8[9]	250[10]	250[10]	NE	NE	NE	NE
1,2–Dichloroethane	1,900[10]	3	NE	3[2]	3	1,900[10]	1,900[10]	NE	NE	NE	NE
Tetrachloroethene	70[10]	50	NE	50[2]	50	70[10]	70[10]	NE	NE	NE	NE
Trichloroethene	330[10]	30[18]/2.8[9]	NE	30[18]/2.8[10]	30[18]/2.8[10]	330[10]	330[10]	NE	NE	NE	NE
Vinyl Chloride	930[12]	0.3	NE	0.3[2]	0.3	930[12]	930[12]	NE	NE	NE	NE
1,1,2-trichloroethane	1,900[10]	0.41[9]	NE	0.41[9]	0.41[9]	1,900[10]	1,900[10]	NE	NE	NE	NE
n-Butylbenzene	NE	1,000[9]	NE	1,000[9]	1,000[10]	NE	NE	NE	NE	NE	NE
sec-Butylbenzene	NE	2,000[9]	NE	2,000[9]	2,000[10]	NE	NE	NE	NE	NE	NE
tert-Butylbenzene	NE	690[9]	NE	690[9]	690[10]	NE	NE	NE	NE	NE	NE
Chlorobenzene	55[10]	300/10[#]	NE	300/10[2#]	300/10[#]	55[10]	55[10]	NE	NE	NE	NE

Analyte	Water dependent ecosystems and species[1]	Potable water supply[2]	Agriculture and irrigation (irrigation)[3]	Agriculture and irrigation (stock watering)[4]	Water based recreation (primary contact recreation)[5]	Traditional Owner cultural values[1]	Cultural and spiritual values[1]	Buildings and structures[6]	Human Health – Vapour Intrusion		
									On-site: HSL A/B[7]	On-site: Intrusive Maintenance Worker[8]	Off-site: HSL A/B[7]
1,2 Dichlorobenzene	160[10]	1,500/1[#]	NE	1,500/1[2#]	1,500/1[#]	160[10]	160[10]	NE	NE	NE	NE
1,4 Dichlorobenzene	60[10]	40/0.3[#]	NE	40/0.3[2#]	40/0.3[#]	60[10]	60[10]	NE	NE	NE	NE
p-isopropyltoluene	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
n-propylbenzene	NE	660[9]	NE	660[9]	660[9]	NE	NE	NE	NE	NE	NE
2-methylnaphthalene	NE	36[9]	NE	36[9]	36[9]	NE	NE	NE	NE	NE	NE
2 nitrophenol	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Acetone	NE	14,000[9]	NE	14,000[9]	14,000[9]	NE	NE	NE	NE	NE	NE
Isophorone	NE	78[9]	NE	78[9]	78[9]	NE	NE	NE	NE	NE	NE
Chloroform	370[10]	250	NE	250[2]	250	370[10]	370[10]	NE	NE	NE	NE
Carbon Tetrachloride	240[12]	3	NE	5[18]	3	240[12]	240[12]	NE	NE	NE	NE
4-chlorotoluene	NE	250[9]	NE	250[9]	250[9]	NE	NE	NE	NE	NE	NE
Dichloromethane	98[18]	4	NE	4[2]	4	98[18]	98[18]	NE	NE	NE	NE
Bromochloromethane	NE	83[9]	NE	83[9]	83[9]	NE	NE	NE	NE	NE	NE
Bromodichloromethane	NE	1.3[9]	NE	1.3[9]	1.3[9]	NE	NE	NE	NE	NE	NE

Analyte	Water dependent ecosystems and species[1]	Potable water supply[2]	Agriculture and irrigation (irrigation)[3]	Agriculture and irrigation (stock watering)[4]	Water based recreation (primary contact recreation)[5]	Traditional Owner cultural values[1]	Cultural and spiritual values[1]	Buildings and structures[6]	Human Health – Vapour Intrusion		
									On-site: HSL A/B[7]	On-site: Intrusive Maintenance Worker[8]	Off-site: HSL A/B[7]
Carbon disulphide	20[10]	810	NE	810[2]	810	20[10]	20[10]	NE	NE	NE	NE
Methyl Bromide	16[12]	1	NE	1	1	16[12]	16[12]	NE	NE	NE	NE
Methyl ethyl ketone (MEK)	2,200[12]	5,600[9]	NE	5,600[9]	5,600[9]	2,200[12]	2,200[12]	NE	NE	NE	NE
Methyl tert-butyl ether (MTBE)	NE	140[9]/15[22]	NE	NE	140[9]/15[22]	NE	NE	NE	NE	NE	NE
Trihalomethanes	NE	250	NE	250[2]	250	NE	NE	NE	NE	NE	NE
Formaldehyde	NE	500	NE	500[2]	500	NE	NE	NE	NE	NE	NE

Notes:

1: ANZECC (2000 revised 2018) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. 95% trigger values for marine water.

2: NHMRC/NRMMC (2011 updated August 2018) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria).

3: ANZECC (2000 revised 2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Water Quality for Irrigation and General Water Use – Long-term Trigger Values. Unless otherwise specified.

4: ANZECC (2000 revised 2018) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Livestock Drinking Water" – Unless otherwise specified.

5: NHMRC/NRMMC (2008) Guidelines for Managing Risks in Recreational Water (Health / Aesthetic: # denotes aesthetic criteria). Unless otherwise specified. Adjusted by a factor of 10 in accordance with advice from NHMRC (2008). Adjustment was only applied to non-volatile chemicals.

6: Australian Standard AS2159-2009 Piling Design and Installation.

7: NEPC (2013) Health Screening Levels – Groundwater HSL-A (Low Density Residential) for Sand 2 to <4m.

8: NEPC (2013) Health Screening Levels – Groundwater HSL-A (Intrusive Maintenance Worker) for Sand 2 to <4m, adopted for information purposes only.

9: US EPA (November 2018) Regional Screening Levels for Tap Water. Adjusted to be consistent with Australian cancer risk policy. Adjusted by a factor of 10 in accordance with advice from NHMRC (2008) (adjustment was only applied to non-volatile chemicals).

10: ANZECC (2000 revised 2018) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Marine Low Reliability Trigger Levels.

11: WHO (2005a) Note the values are based on health effects via ingestion and do not include aesthetic effects.

12: US EPA (2003) Region 5 Ecological Screening Levels.
13: Guideline for chromium VI adopted.
14: Netherlands (2009) Circular on Target Values and Intervention Values for Soil Remediation. Ministry of Housing, Spatial Planning and the Environment, Netherlands Government (Groundwater Intervention Value).
15: NIWA (2013) Site-specific nitrate guidelines for Hawke's Bay, 95% protection.
16: NSW EPA (1994) Guidelines for Assessing Service Station Sites
17: ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters – Raw Water criteria.
18: CCME (2007) Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture - Freshwater or Livestock criteria.
19: ANZECC (2000 revised 2018) Long term trigger value for total nitrogen.
20: ANZECC (2000 revised 2018) Adopted range for chloride concentration is based on foliar injury to sensitive crops as detailed in Section 4.2.5.2 and Table 4.2.6.
21: ANZECC (2000 revised 2018) Adopted concentration range for sodium is based on Table 4.2.8 for the prevention of foliar injury to crops.
22: WHO (2005b). Odour threshold for MTBE in water.
23: ANZECC (2000 revised 2018) Long term trigger value for total nitrogen
#: Denotes Aesthetic number. NHMRC/NRMMC (2011 updated 2018) and NHMRC/NRMMC (2008).
NE: Not Established.
NL: Not Limiting. Denotes that a groundwater vapour source concentration for a petroleum mixture could not exceed a level that would result in the maximum allowable vapour risk for the given scenario.

Table C Auditor Review of the Adequacy of QA/QC Procedures Adopted by ARC

Consultant	Reports Reviewed ARC Environmental	
Assessment Report Name/Reference:	Detailed Site Investigation, Lot 4 on Plan of Subdivision PS802507T, 20 Hamlet Street, Cheltenham, Victoria (November 2018)	
Matrices sampled	Soil	Groundwater
Field QC samples:		
- Number of primary samples analysed:	24	49
- Number of duplicate samples analysed:	3	10
- Duplicate sample RPDs within recommended range? If No, list outliers	Yes.	Yes.
- Number of split samples analysed:	3	10
- Split sample RPDs within recommended range? If No, list outliers	Yes.	No. Outliers for TRH C_6-C_{10} (2), TRH F1 (2), chromium (1), chloride (1), chloroform (1) and vinyl chloride (1).
- Number of rinsate blank samples analysed:	2	26
- Number of trip blank samples analysed:	2	15
- Number of field blank samples analysed:	0	0
- All rinsate, trip and field blanks <LOR. If No, list outliers	No. Detection of m & p xylene (3 ug/L) in the trip blank for sampling on 21/11/17. As no xylene concentrations were reported within any soil samples it is considered that no cross contamination had occurred during sample transport.	No. Detection of ammonia (20 ug/L) in rinsate blank for sampling on 23/8/17. Detections of chloroform (1 ug/L), dichloromethane (4 ug/L) and trihalomethanes (1 ug/L) in the rinsate blank for sampling on 24/8/17. Detections of chloroform (1 ug/L), dichloromethane (5 ug/L), trichloroethene (13 ug/L) and trihalomethanes (1 ug/L) in the rinsate blank for sampling on 25/8/17. Detections of acetone (20 ug/L) in rinsate blank for sampling on 27/10/17. Detections of manganese (2 ug/L) in rinsate blank for

Consultant	Reports Reviewed ARC Environmental	
Assessment Report Name/Reference:	Detailed Site Investigation, Lot 4 on Plan of Subdivision PS802507T, 20 Hamlet Street, Cheltenham, Victoria (November 2018)	
Matrices sampled	Soil	Groundwater
		sampling on 18/1/18. Detections of chloride (15 mg/L) and copper (1 ug/L) in the rinsate blank for sampling on 15/5/18. Detections of copper (1 ug/L), iron (50 ug/L) and manganese (3 ug/L) in the rinsate blank for sampling on 4/7/18. Detections of copper (1 ug/L) and manganese (3 ug/L) in the rinsate blank for sampling on 5/7/18.
- No. QC samples analysed in accordance with AS4482.1?	Generally, yes. While it is noted that trip blanks were not analysed for each batch of samples, no volatile contaminants were detected in primary samples where trip blanks were not analysed, and therefore the lack of trip blank samples is not considered of concern with regard to acceptability of the results for interpretive use. It is noted that rinsate samples were not collected on sampling days where no re-usable sampling equipment was used (i.e. during Triple Interceptor Trap validation works).	Yes.
Laboratory QA/QC procedures:		
- NATA Accredited laboratories utilised?	Yes	Yes
- Samples analysed within recommended holding time? If No, list outliers	No. Analysis of MAHs, naphthalene, VHCs, and TRH in two samples (NHS_ARC_SB203_0.5 and NHS_ARC_SB203_1.0) was completed one day outside of holding time.	No. Analysis of glycols in MW34B, MW32 and MW35 collected on 27 October 2017 was completed 1 day outside of holding time. Analysis of ferrous iron in MW53 collected on 16 January 2018 was completed 2 days outside of holding time. Analysis of aldehydes in MW28, MW45A and MW45B collected on 17 January 2018 was completed 1 day outside of holding time.

Consultant	Reports Reviewed ARC Environmental	
Assessment Report Name/Reference:	Detailed Site Investigation, Lot 4 on Plan of Subdivision PS802507T, 20 Hamlet Street, Cheltenham, Victoria (November 2018)	
Matrices sampled	Soil	Groundwater
- Laboratory internal QC samples analysed:	Blanks, laboratory control samples, duplicates, sample surrogates and spikes	Blanks, laboratory control samples, duplicates, sample surrogates and spikes.
- Laboratory internal QC samples within recommended ranges? If No, list outliers	No. - Laboratory control spike recovery outliers for TRH C_6-C_{10} (EM1714937), di-n-octylphthalate (EM1716001 Amendment 1), methapyrilene (EM1716001 Amendment 1), and hexachlorobenzene (EM1716001 Amendment 1); - VOC surrogate recovery outliers (EM1714937); - Frequency of quality control samples (EM1716001 Amendment 1, EM1809218); and - Matrix spike recovery outliers for 1.2.4-trichlorobenzene (EM1716001 Amendment 1) and mercury (EM1809218).	No. - Laboratory control spike recovery outliers for dichlorodifluoromethane (EM1711267 Amendment 4), pentachlorophenol (EM1714676), methapyrilene (EM1714618, EM1714676), 3-methylcholanthrene (EM1711357 Amendment 4, EM1711441 Amendment 4, EM1711516 Amendment 3), dimethylaminoazobenzene (EM1714855 Amendment 1), tert-butylbenzene (EM1801513), iodomethane (EM1809115); - Matrix spike recovery outliers for sulphate (EM1711267 Amendment 4, EM1711357 Amendment 4, EM1711441 Amendment 4, EM1711516 Amendment 3 EM1714676, EM1714855 Amendment 1, EM1810788), manganese (EM1711267 Amendment 4, EM1714676), nitrite plus nitrate (EM1711267 Amendment 4, EM1714855 Amendment 1, EM1801513, EM1808074, EM1810788, EM1813024 Amendment 1), methane (EM1711267 Amendment 4, EM1711516 Amendment 3, EM1714676, EM1714855 Amendment 1, EM1808074), toluene (EM1711267 Amendment 4, EM1714855 Amendment 1), TRH C6-C9/C6-C10 (EM1711267 Amendment 4, EM1714855 Amendment 1), chloride (EM1711357 Amendment 4, EM1711441 Amendment 4, EM1711516 Amendment 3, EM1714855 Amendment 1, EM1801648 Amendment 4, EM1810788), nitrite (EM1711441

Consultant	Reports Reviewed ARC Environmental	
Assessment Report Name/Reference:	Detailed Site Investigation, Lot 4 on Plan of Subdivision PS802507T, 20 Hamlet Street, Cheltenham, Victoria (November 2018)	
Matrices sampled	Soil	Groundwater
		Amendment 4), ferrous iron (EM1714676), trichloroethene (EM1714855 Amendment 1, EM1801648 Amendment 4, EM1803519), chlorobenzene EM1714855), formaldehyde (EM1714855 Amendment 1), fluoride (EM1801513), mercury (EM1810788, EM1813024 Amendment 1), chloride (EM1714618); - Frequency of quality control samples (EM1711267 Amendment 4, EM1711357 Amendment 4, EM1711441 Amendment 4, EM1711516 Amendment 3, EM1714618, EM1714676, EM1714855 Amendment 1, EM1801513, EM1801648 Amendment 4, EM1808074, EM1809115, EM1810788, EM1815860); - Acid extractable surrogate recovery outliers (EM1711441 Amendment 4, EM1714618), base/neutral extractable surrogate recovery outliers (EM1711441 Amendment 4), VOC surrogate recovery outliers (EM1801513, EM1813024 Amendment 1); - Laboratory duplicate outliers for alkalinity (EM1714855 Amendment 1), ferrous iron (EM1801648 Amendment 4), 1,1,2-trichloroethane (EM1801648 Amendment 4).
Overall conclusion/s re QA/QC assessment	A sufficient number of QA/QC samples including duplicate, split samples and rinsate samples were collected and analysed. As noted above, trip blanks were not analysed for each batch of samples, no volatile contaminants were detected in primary samples where trip blanks were not analysed, and therefore the lack of trip blank samples is not considered of concern with regard to acceptability of	A sufficient number of QA/QC samples including duplicate, split duplicate, rinsate and trip blank samples were collected and analysed. Several RPD outliers were reported for split samples. Where elevated RPDs were reported, ARC adopted the highest concentrations for interpretive use as a

Consultant	Reports Reviewed ARC Environmental	
Assessment Report Name/Reference:	Detailed Site Investigation, Lot 4 on Plan of Subdivision PS802507T, 20 Hamlet Street, Cheltenham, Victoria (November 2018)	
Matrices sampled	Soil	Groundwater
	the results for interpretive use. It is noted that rinsate samples were not collected on sampling days where no re-usable sampling equipment was used (i.e. during Triple Interceptor Trap validation works). Duplicate and split sample RPDs were within the recommended range. Rinsate and trip blanks reported all contaminants below the laboratory LOR with the exception of a detection of m & p xylene (3 ug/L) in the trip blank for sampling on 21/11/17. As no xylene concentrations were reported within any soil samples it is considered that no cross contamination had occurred during sample transport. Sample analysis was completed within recommended holding times with the exception analysis of NHS_ARC_SB203_0.5 and NHS_ARC_SB203_1.0 for MAHs, naphthalene, VHCs and TRH which was completed one day outside of holding time. The reported results have been reviewed by the Auditor, and it is not considered that the breach in holding time has affected the overall acceptability of the data set for interpretive use. Several laboratory internal QC outliers were reported. Spike recovery outliers were attributed to sample matrix interference. Several laboratory duplicate outliers were also reported. Upon review of the laboratory internal QC reports, and consideration of all analytical results reported over the course of soil investigations at the site, the	conservative approach which the Auditor considers appropriate for the Audit. Several contaminants were reported at detectable concentrations in several rinsate samples. The Auditor has reviewed these detections and concentrations of contaminants reported on the associated sampling days and does not consider the detections reported affect the overall acceptability of the data set for interpretive use or the outcome of the Audit. Selected sample analysis was completed outside of holding time. Analysis of glycols in MW34B, MW32 and MW35 collected on 27 October 2017 was completed 1 day outside of holding time. Analysis of ferrous iron in MW53 collected on 16 January 2018 was completed 2 days outside of holding time. Analysis of aldehydes in MW28, MW45A and MW45B collected on 17 January 2018 was completed 1 day outside of holding time. The reported results have been reviewed by the Auditor, and it is not considered that the breach in holding time has affected the overall acceptability of the data set for interpretive use. Several laboratory internal QC outliers were reported. Spike recovery outliers were attributed to sample matrix interference. Several laboratory duplicate outliers were also reported. Upon review of the laboratory internal QC reports, and consideration of all analytical results reported over the course of groundwater investigations at the site,

Consultant	Reports Reviewed ARC Environmental	
Assessment Report Name/Reference:	Detailed Site Investigation, Lot 4 on Plan of Subdivision PS802507T, 20 Hamlet Street, Cheltenham, Victoria (November 2018)	
Matrices sampled	Soil	Groundwater
	Auditor does not consider the reported laboratory quality control outliers to have impacted on the acceptability of the quality of the data for interpretive use Overall, the Auditor considers the QA/QC program to be acceptable and that the analytical results reported by ARC are suitable for interpretive use.	the Auditor does not consider the reported laboratory quality control outliers to have impacted on the acceptability of the quality of the data for interpretive use Overall, the Auditor considers the QA/QC program to be acceptable and that the analytical results reported by ARC are suitable for interpretive use.

Table D Soil Results (2008 - 2018)

Table 1
Soil Analytical Results - October 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	TPH (NEPM 1999)					TRH (NEPM 2013)							BTEX							MAH										VOCs			Solvents						Halogenated Hydrocarbons				
	C6-C9	C10-C14	C15-C28	C29-C36	>C10-C36 (Sum of total)	F6-C10	F1 minus BTEX	C10-C16	F2 minus Naphthalene	C16-C34	C34-C40	>C10-C40 (Sum of total)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	Monocyclic aromatic hydrocarbons ENVIric	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	cis-1,4-Dichloro-2-butene	trans-1,4-Dichloro-2-butene	Pentachloroethane	Methyl Ethyl Ketone	2-Hexanone (MBK)	4-Methyl-2-pentanone	Carbon disulfide	Isophorone	Vinyl acetate	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	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	10	50	100	100	50	10	10	50	50	100	100	50	0.2	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	5	5	0.5	0.5	5	0.5	5	0.5	5	0.5	5
NEPM 2013 Table 1A(1) HILs Res A Soil																																											
NEPM 2013 Table 1A(1) HILs Res B Soil																																											
NEPM 2013 Table 1A(1) HILs Rec C Soil																																											
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																											
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 0-1m							45		110				0.5	160	55			40																									
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 1-2m							70		240				0.5	220	NL			60																									
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 2-4m							110		440				0.5	310	NL			95																									
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, >4m							200		NL				0.5	540	NL			170																									
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 0-1m							NL		NL				NL	NL	NL			NL																									
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 1-2m							NL		NL				NL	NL	NL			NL																									
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 2-4m							NL		NL				NL	NL	NL			NL																									
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, >4m							NL		NL				NL	NL	NL			NL																									
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m							260		NL				3	NL	NL			230																									
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m							370		NL				3	NL	NL			NL																									
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 2-4m							630		NL				3	NL	NL			NL																									
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, >4m							NL		NL				3	NL	NL			NL																									
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 0-2m						NL		NL					77	NL	NL			NL																									
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 2-4m						NL		NL					160	NL	NL			NL																									
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil, 0-2m						215		170		1,700	3,300		75	135	165			180																									
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil, 0-2m						180		120		300	2,800		50	85	70			105																									
NEPM 2013 Table 1B(5) EILs - Comm/Ind																																											
NEPM 2013 Table 1B(5) EILs - Urban Res & Public Open Space																																										
USEPA RSLs Industrial Soil THQ=1.0																					240	12,000	9,900	58,000	24,000		120,000	35,000	120,000	0.032	0.032	36	190,000	1,300	140,000	3,500	2,400	3,800	0.16	30	370		350,000
USEPA RSLs Resident Soil THQ=1.0																					58	780	1,900	3,900	3,800		7,800	6,000	7,800	0.0074	0.0074	7.7	27,000	200	33,000	770	570	910	0.036	6.8	87		23,000

Location	Field ID	Depth (m)	Matrix Description	Date	Sample Code																																								
TIT1	EEC_TIT1_1	0.6	Sandy CLAY	25-10-17	EM1714937-001	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	-	<5	<0.5	<5	<0.5	<5
	EEC_TIT1_2	0.6	Sandy CLAY	25-10-17	EM1714937-002	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	-	<5	<0.5	<5	<0.5	<5
	EEC_TIT1_3	0.6	Sandy CLAY	25-10-17	EM1714937-003	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	-	<5	<0.5	<5	<0.5	<5
	EEC_TIT1_4	0.6	Sandy CLAY	25-10-17	EM1714937-004	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	-	<5	<0.5	<5	<0.5	<5
	EEC_TIT1_5	1.2	Sandy CLAY	25-10-17	EM1714937-005	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	-	<5	<0.5	<5	<0.5	<5
TIT1 (Backfill)	TIT1_0.2	0.2	Fill	22-02-18	EM1803513-001	<10	-	-	-	-	<10	<10	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
	TIT1_0.5	0.5	Fill	22-02-18	EM1803513-002	<10	-	-	-	-	<10	<10	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
	TIT1_1.0	0.8	Fill	22-02-18	EM1803513-003	<10	-	-	-	-	<10	<10	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
ARC_TIT_SA	ARC_TIT_SA_1.5	1.5	Clayey SAND	05-06-18	EM1809218003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EW_ARC_SB01A	EW_ARC_SB01A_1.0	1.0	Clayey SAND	06-06-18	EM1809218029	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EW_ARC_SB201	EW_ARC_SB201_0.1	0.1	Fill	06-06-18	EM1809218011	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
	EW_ARC_SB201_0.5	0.5	Sandy CLAY	06-06-18	EM1809218012	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.02	-
	EW_ARC_SB201_1.0	1.0	Clayey SAND	06-06-18	EM1809218013	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.02	-
NHS_ARC_SB02A	NHS_ARC_SB02A_1.0	1.0	Fill	06-06-18	EM1809218005	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.02	-
NHS_ARC_SB04A	NHS_ARC_SB04A_0.15	0.15	Fill	06-06-18	EM1809218006	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.02	-
	NHS_ARC_SB04A_0.5	0.5	Fill	06-06-18	EM1809218007	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.02	-
NHS_EEC_SB104A	NHS_EEC_SB104A_0.5	0.5	Fill	21-11-17	EM1716001-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB104A_1.5	1.5	Sandy CLAY	21-11-17	EM1716001-004	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_ARC_SB105A	NHS_ARC_SB105A_1.0	1.0	Sandy CLAY	06-06-18	EM1809218008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_ARC_SB106A	NHS_ARC_SB106A_1.0	1.0	Clayey SAND	05-06-18	EM1809218004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_ARC_SB202	NHS_ARC_SB202_0.6	0.6	Fill	06-06-18	EM1809218009	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.02	-
	NHS_ARC_SB202_1.0	1.0	Sandy CLAY	06-06-18	EM1809218010	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.02	-
NHS_ARC_SB203	NHS_ARC_SB203_0.5	0.5	Fill	05-06-18	EM1809218001	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.02	-
	NHS_ARC_SB203 _1.0	1.0	Clayey SAND	05-06-18	EM1809218002	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.2	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.02	-

Table 1

Soil Analytical Results - October 2017 to July 2018

Detailed Site Investigation

Lot 4, 20 Hamlet Street, Cheltenham

1707054

	Chlorinated Hydrocarbons																																		Halogenated Benzenes										
	1,1,1,2-tetrachloroethane	Chlorinated hydrocarbons EPAVic	Other chlorinated hydrocarbons EPAVic	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	Dichloromethane	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Trichloroethene (TCE)	Tetrachloroethene (PCE)	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	Pentachlorobenzene
	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	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	0.01	0.01	0.01	0.01	0.02	0.04	0.5	0.01	0.5	0.5	0.5	0.02	0.5	0.5	0.5	0.5	0.5	0.01	0.5	5	0.02	5	0.01	0.5	0.5	0.4	0.02	2.5	0.5	0.02	0.02	0.02	0.5	0.02	0.5	0.01	0.02	0.5	0.02	0.5	0.5	0.5	0.02	0.05	0.5
NEPM 2013 Table 1A(1) HILs Res A Soil																																												10	
NEPM 2013 Table 1A(1) HILs Res B Soil																																												15	
NEPM 2013 Table 1A(1) HILs Rec C Soil																																												10	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																												80	
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 0-1m																																													
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 1-2m																																													
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 2-4m																																													
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, >4m																																													
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 0-1m																																													
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 1-2m																																													
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 2-4m																																													
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, >4m																																													
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																																													
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																																													
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 2-4m																																													
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, >4m																																													
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 0-2m																																													
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 2-4m																																													
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil, 0-2m																																													
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil, 0-2m																																													
NEPM 2013 Table 1B(5) EILs - Comm/Ind																																													
NEPM 2013 Table 1B(5) EILs - Urban Res & Public Open Space																																													
USEPA RSLs Industrial Soil THQ=1.0	8.8			36,000	2.7	5	16	1,000		0.11	0.064	2	4.4	23,000		1.3	86	2.9	39	57,000	1.4	460	2,300		99	1,000	5.3	7.5	8	6	100	23,000		1.7	930	110	9,300		11	23,000	23,000	1,800	1,300		930
USEPA RSLs Resident Soil THQ=1.0	2			8,100	0.6	1.1	3.6	230		0.0051	0.0053	0.46	1	1,600		0.29	19	0.65	8.3	14,000	0.32	110	160		24	57	1.2	1.8	1.8	0.94	24	1,600		0.059	63	24	1,800		2.6	1,600	1,600	290	280		63

Location	Field ID	Depth (m)	Matrix Description	Date	Sample Code	1,1,1,2-tetrachloroethane	Chlorinated hydrocarbons EPAVic	Other chlorinated hydrocarbons EPAVic	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	Dichloromethane	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Trichloroethene (TCE)	Tetrachloroethene (PCE)	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	Pentachlorobenzene
TIT1	EEC_TIT1_1	0.6	Sandy CLAY	25-10-17	EM1714937-001	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.5	<0.01	<0.5	<0.5	<0.5	<0.02	<0.5	<0.5	<0.5	<0.5	<0.5	<0.01	<0.5	<5	<0.02	<5	<0.01	<0.5	<0.5	<0.4	<0.02	-	-	<0.02	<0.02	<0.02	<0.5	<0.02	<0.5	<0.01	<0.02	<0.5	<0.02	<0.5	<0.5	<0.5	<0.02	-	-
	EEC_TIT1_2	0.6	Sandy CLAY	25-10-17	EM1714937-002	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.5	<0.01	<0.5	<0.5	<0.5	<0.02	<0.5	<0.5	<0.5	<0.5	<0.5	<0.01	<0.5	<5	<0.02	<5	<0.01	<0.5	<0.5	<0.4	<0.02	-	-	<0.02	<0.02	<0.02	<0.5	<0.02	<0.5	<0.01	<0.02	<0.5	<0.02	<0.5	<0.5	<0.5	<0.02	-	-
	EEC_TIT1_3	0.6	Sandy CLAY	25-10-17	EM1714937-003	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.5	<0.01	<0.5	<0.5	<0.5	<0.02	<0.5	<0.5	<0.5	<0.5	<0.5	<0.01	<0.5	<5	<0.02	<5	<0.01	<0.5	<0.5	<0.4	<0.02	-	-	<0.02	<0.02	<0.02	<0.5	<0.02	<0.5	<0.01	<0.02	<0.5	<0.02	<0.5	<0.5	<0.5	<0.02	-	-
	EEC_TIT1_4	0.6	Sandy CLAY	25-10-17	EM1714937-004	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.5	<0.01	<0.5	<0.5	<0.5	<0.02	<0.5	<0.5	<0.5	<0.5	<0.5	<0.01	<0.5	<5	<0.02	<5	<0.01	<0.5	<0.5	<0.4	<0.02	-	-	<0.02	<0.02	<0.02	<0.5	<0.02	<0.5	<0.01	<0.02	<0.5	<0.02	<0.5	<0.5	<0.5	<0.02	-	-
	EEC_TIT1_5	1.2	Sandy CLAY	25-10-17	EM1714937-005	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.5	<0.01	<0.5	<0.5	<0.5	<0.02	<0.5	<0.5	<0.5	<0.5	<0.5	<0.01	<0.5	<5	<0.02	<5	<0.01	<0.5	<0.5	<0.4	<0.02	-	-	<0.02	<0.02	<0.02	<0.5	<0.02	<0.5	<0.01	<0.02	<0.5	<0.02	<0.5	<0.5	<0.5	<0.02	-	-
TIT1 (Backfill)	TIT1_0.2	0.2	Fill	22-02-18	EM1803513-001	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	-	<0.01	-	-	-	<0.02	-	-	-	-	-	<0.01	-	-	<0.02	-	<0.01	-	-	<0.4	-	-	-	<0.02	<0.02	<0.02	-	<0.02	-	<0.01	<0.02	-	<0.02	-	-	-	<0.02	-	-
	TIT1_0.5	0.5	Fill	22-02-18	EM1803513-002	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	-	<0.01	-	-	-	<0.02	-	-	-	-	-	<0.01	-	-	<0.02	-	<0.01	-	-	<0.4	-	-	-	<0.02	<0.02	<0.02	-	<0.02	-	<0.01	<0.02	-	<0.02	-	-	-	<0.02	-	-
	TIT1_1.0	0.8	Fill	22-02-18	EM1803513-003	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	-	<0.01	-	-	-	<0.02	-	-	-	-	-	<0.01	-	-	<0.02	-	<0.01	-	-	<0.4	-	-	-	<0.02	<0.02	<0.02	-	<0.02	-	<0.01	<0.02	-	<0.02	-	-	-	<0.02	-	-
ARC_TIT_5A	ARC_TIT_5A_1.5	1.5	Clayey SAND	05-06-18	EM1809218003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EW_ARC_SB01A	EW_ARC_SB01A_1.0	1.0	Clayey SAND	06-06-18	EM1809218029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EW_ARC_SB201	EW_ARC_SB201_0.1	0.1	Fill	06-06-18	EM1809218011	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	-	-	-	<0.02	-	-	-	-	-	<0.01	-	-	<0.02	-	<0.01	-	-	<0.4	<0.02	-	-	<0.02	<0.02	<0.02	-	<0.02	-	<0.01	<0.02	-	<0.02	-	-	-	<0.02	-	-
	EW_ARC_SB201_0.5	0.5	Sandy CLAY	06-06-18	EM1809218012	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	-	-	-	<0.02	-	-	-	-	-	<0.01	-	-	<0.02	-	<0.01	-	-	<0.4	<0.02	-	-	<0.02	<0.02	<0.02	-	<0.02	-	<0.01	<0.02	-	<0.02	-	-	-	<0.02	-	-
	EW_ARC_SB201_1.0	1.0	Clayey SAND	06-06-18	EM1809218013	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	-	-	-	<0.02	-	-	-	-	-	<0.01	-	-	<0.02	-	<0.01	-	-	<0.4	<0.02	-	-	<0.02	<0.02	<0.02	-	<0.02	-	<0.01	<0.02	-	<0.02	-	-	-	<0.02	-	-
NHS_ARC_SB02A	NHS_ARC_SB02A_1.0	1.0	Fill	06-06-18	EM1809218005	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	-	-	-	<0.02	-	-	-	-	-	<0.01	-	-	<0.02	-	<0.01	-	-	<0.4	<0.02	-	-	<0.02	<0.02	<0.02	-	<0.02	-	<0.01	<0.02	-	<0.02	-	-	-	<0.02	-	-
NHS_ARC_SB04A	NHS_ARC_SB04A_0.15	0.15	Fill	06-06-18	EM1809218006	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	-	-	-	<0.02	-	-	-	-	-	<0.01	-	-	<0.02	-	<0.01	-	-	<0.4	<0.02	-	-	<0.02	<0.02	<0.02	-	<0.02	-	<0.01	<0.02	-	<0.02	-	-	-	<0.02	-	-
	NHS_ARC_SB04A_0.5	0.5	Fill	06-06-18	EM1809218007	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	-	-	-	<0.02	-	-	-	-	-	<0.01	-	-	<0.02	-	<0.01	-	-	<0.4	<0.02	-	-	<0.02	<0.02	<0.02	-	<0.02	-	<0.01	<0.02	-	<0.02	-	-	-	<0.02	-	-
NHS_EEC_SB104A	NHS_EEC_SB104A_0.5	0.5	Fill	21-11-17	EM1716001-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB104A_1.5	1.5	Sandy CLAY	21-11-17	EM1716001-004	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	-	<0.01	-	-	-	<0.02	-	-	-	-	-	<0.01	-	-	<0.02	-	<0.01	-	-	<0.4	<0.02	<2.5	<0.5	<0.02	<0.02	<0.02	-	<0.02	-	<0.01	<0.02	<0.5	<0.02	-	-	-	<0.02	<1	<0.5
NHS_ARC_SB105A	NHS_ARC_SB105A_1.0	1.0	Sandy CLAY	06-06-18	EM1809218008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_ARC_SB106A	NHS_ARC_SB106A_1.0	1.0	Clayey SAND	05-06-18	EM1809218004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_ARC_SB202	NHS_ARC_SB202_0.6	0.6	Fill	06-06-18	EM1809218009	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	-	-	-	<0.02	-	-	-	-	-	<0.01	-	-	<0.02	-	<0.01	-	-	<0.4	<0.02	<2.5	<0.5	<0.02	<0.02	<0.02	-	<0.02	-	<0.01	<0.02	<0.5	<0.02	-	-	-	<0.02	<1.0	<0.5
	NHS_ARC_SB202_1.0	1.0	Sandy CLAY	06-06-18	EM1809218010	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	-	-	-	<0.02	-	-	-	-	-	<0.01	-	-	<0.02	-	<0.01	-	-	<0.4	<0.02	<2.5	<0.5	<0.02	<0.02	<0.02	-	<0.02	-	<0.01	<0.02	<0.5	<0.02	-	-	-	<0.02	<1.0	<0.5
NHS_ARC_SB203	NHS_ARC_SB203 _0.5	0.5	Fill	05-06-18	EM1809218001	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	-	-	-	<0.02	-	-	-	-	-	<0.01	-	-	<0.02	-	<0.01	-	-	<0.4	<0.02	<2.5	<0.5	<0.02	<0.02	<0.02	-	<0.02	-	<0.01	<0.02	<0.5	<0.02	-	-	-	<0.02	<1.0	<0.5
	NHS_ARC_SB203 _1.0	1.0	Clayey SAND	05-06-18	EM1809218002	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	-	-	-	<0.02	-	-	-	-	-	<0.01	-	-	<0.02	-	<0.01	-	-	<0.4	<0.02	<2.5	<0.5	<0.02	<0.02	<0.02	-	<0.02	-	<0.01	<0.02	<0.5	<0.02	-	-	-	<0.02	<1.0	<0.5

Table 1
Soil Analytical Results - October 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	Metals																														Inorganics										Cyanides	
	Antimony	Antimony (filtered)	Arsenic	Arsenic (filtered)	Barium	Barium (filtered)	Beryllium	Beryllium (filtered)	Boron	Boron (filtered)	Cadmium	Cadmium (filtered)	Chromium (III+VI)	Chromium (III+VI) (filtered)	Cobalt	Cobalt (filtered)	Copper	Copper (filtered)	Lead	Lead (filtered)	Manganese	Manganese (filtered)	Mercury	Mercury (filtered)	Nickel	Nickel (filtered)	Selenium	Selenium (filtered)	Vanadium	Vanadium (filtered)	Zinc	Zinc (filtered)	Acidity	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Alkalinity (total) as CaCO3	pH (CaCl2)	pH (Final)	pH (initial)	pH (aqueous extract)	pH (after HCl)	Sulphate	Cyanide (free)	Cyanide Total
	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L		mg/kg	mg/kg	mg/kg	-	-	-	-	-	mg/kg	mg/kg	mg/kg
EQL	5	0.1	5	0.1	10	0.1	1	0.05	50	0.1	1	0.05	2	0.1	2	0.1	5	0.1	5	0.1	5	0.1	0.1	0.001	2	0.1	5	0.05	5	0.1	5	0.1		1	1	1	0.1	0.1	0.1	0.1	0.1	50	1	1
NEPM 2013 Table 1A(1) HILs Res A Soil			100				60		4,500		20		100		100		6,000		300		3,800		40		400		200				7,400											250
NEPM 2013 Table 1A(1) HILs Res B Soil			500				90		40,000		150		500		600		30,000		1,200		14,000		120		1,200		1,400				60,000											300
NEPM 2013 Table 1A(1) HILs Rec C Soil			300				90		20,000		90		300		300		17,000		600		19,000		80		1,200		700				30,000											240
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil			3,000				500		300,000		900		3,600		4,000		240,000		1,500		60,000		730		6,000		10,000				400,000											1,500
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 0-1m																																										
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 1-2m																																										
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 2-4m																																										
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, >4m																																										
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 0-1m																																										
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 1-2m																																										
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 2-4m																																										
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, >4m																																										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																																										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																																										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 2-4m																																										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, >4m																																										
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 0-2m																																										
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 2-4m																																										
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil, 0-2m																																										
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil, 0-2m																																										
NEPM 2013 Table 1B(5) EILs - Comm/Ind			160										610				110		1,800					6.6[c]	450						1,100											
NEPM 2013 Table 1B(5) EILs - Urban Res & Public Open Space			100										370				75		1,100					24[c]	270						690											
USEPA RSLs Industrial Soil THQ=1.0	470				220,000																								5,800												150
USEPA RSLs Resident Soil THQ=1.0	31				15,000																								390												23

Location	Field ID	Depth (m)	Matrix Description	Date	Sample Code																																							
TIT1	EEC_TIT1_1	0.6	Sandy CLAY	25-10-17	EM1714937-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EEC_TIT1_2	0.6	Sandy CLAY	25-10-17	EM1714937-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EEC_TIT1_3	0.6	Sandy CLAY	25-10-17	EM1714937-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EEC_TIT1_4	0.6	Sandy CLAY	25-10-17	EM1714937-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EEC_TIT1_5	1.2	Sandy CLAY	25-10-17	EM1714937-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TIT1 (Backfill)	TIT1_0.2	0.2	Fill	22-02-18	EM1803513-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TIT1_0.5	0.5	Fill	22-02-18	EM1803513-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TIT1_1.0	0.8	Fill	22-02-18	EM1803513-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ARC_TIT_SA	ARC_TIT_SA_1.5	1.5	Clayey SAND	05-06-18	EM1809218003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EW_ARC_SB01A	EW_ARC_SB01A_1.0	1.0	Clayey SAND	06-06-18	EM1809218029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EW_ARC_SB201	EW_ARC_SB201_0.1	0.1	Fill	06-06-18	EM1809218011	<5	-	<5	-	40	-	-	-	-	-	<1	-	27	-	29	-	31	-	8	-	368	-	0.1	-	63	-	-	-	-	45	-	-	-	-	-	-	-	-	-	-
	EW_ARC_SB201_0.5	0.5	Sandy CLAY	06-06-18	EM1809218012	<5	-	14	-	20	-	-	-	-	-	<1	-	54	-	18	-	16	-	15	-	156	-	0.1	-	34	-	-	-	-	29	-	-	-	-	-	-	-	-	-	-
	EW_ARC_SB201_1.0	1.0	Clayey SAND	06-06-18	EM1809218013	<5	-	12	-	20	-	-	-	-	-	<1	-	70	-	6	-	<5	-	19	-	14	-	<0.1	-	15	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
NHS_ARC_SB02A	NHS_ARC_SB02A_1.0	1.0	Fill	06-06-18	EM1809218005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_ARC_SB04A	NHS_ARC_SB04A_0.15	0.15	Fill	06-06-18	EM1809218006	<5	-	<5	-	<10	-	-	-	-	-	<1	-	4	-	77	-	<5	-	<5	-	8	-	<0.1	-	<2	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	NHS_ARC_SB04A_0.5	0.5	Fill	06-06-18	EM1809218007	<5	-	<5	-	20	-	-	-	-	-	<1	-	16	-	28	-	19	-	9	-	195	-	<0.1	-	33	-	-	-	-	23	-	-	-	-	-	-	-	-	-	-
NHS_EEC_SB104A	NHS_EEC_SB104A_0.5	0.5	Fill	21-11-17	EM1716001-002	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	<0.1	-	<0.05	-	<0.1	-	1.4	-	<0.1	-	<0.1	-	-	-	<0.1	-	<0.001	-	<0.1	-	<0.05	-	<0.1	-	0.2	-	-	-	-	-	4.9	7.8	5	1.2	-	-	-
	NHS_EEC_SB104A_1.5	1.5	Sandy CLAY	21-11-17	EM1716001-004	<5	-	21	-	30	-	2	-	<50	-	<1	-	67	-	14	-	<5	-	16	-	17	-	<0.1	-	17	-	<5	-	123	-	7	-	84	112	<1	112	6.1	-	-	-	-	70	<1	<1
NHS_ARC_SB105A	NHS_ARC_SB105A_1.0	1.0	Sandy CLAY	06-06-18	EM1809218008	<5	-	22	-	20	-	-	-	-	-	<1	-	84	-	14	<0.1	<5	-	29	-	14	-	0.4	-	16	-	-	-	-	6	-	-	-	-	-	-	4.9	8.5	5	1.4	-	-	-
NHS_ARC_SB106A	NHS_ARC_SB106A_1.0	1.0	Clayey SAND	05-06-18	EM1809218004	<5	-	9	-	10	-	-	-	-	-	<1	-	29	-	40	0.3	<5	-	10	-	8	-	0.6	-	4	-	-	-	-	12	-	-	-	-	-	-	4.9	7.8	5	1.5	-	-	-
NHS_ARC_SB202	NHS_ARC_SB202_0.6	0.6	Fill	06-06-18	EM1809218009	<5	-	<5	-	70	-	-	-	-	-	<1	-	37	-	147	-	15	-	28	-	45	-	30	-	6	-	-	-	-	69	-	-	-	-	-	-	-	-	-	-	<1
	NHS_ARC_SB202_1.0	1.0	Sandy CLAY	06-06-18	EM1809218010	<5	-	11	-	20	-	-	-	-	-	<1	-	57	-	11	-	6	-	13	-	19	-	1.4	-	15	-	-	-	-	23	-	-	-	-	-	-	-	-	-	-	<1
NHS_ARC_SB203	NHS_ARC_SB203 _0.5	0.5	Fill	05-06-18	EM1809218001	<5	-	14	-	20	-	-	-	-	-	<1	-	57	-	31	-	232	-	14	-	9	-	0.1	-	14	-	-	-	-	19	-	-	-	-	-	-	-	-	-	-	<1
	NHS_ARC_SB203 _1.0	1.0	Clayey SAND	05-06-18	EM1809218002	<5	-	11	-	20	-	-	-	-	-	<1	-	59	-	10	-	27	-	15	-	10	-	0.2	-	13	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	<1

Table 1
Soil Analytical Results - October 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

ARC ENVIRONMENTAL

	Amino Aliphatics				Amino Aromatics		Anilines						Glycols							PAH																								
	N-nitrosodiethylamine	N-nitrosodi-n-butylamine	N-nitrosodi-n-propylamine	N-Nitrosomethylethylamine	1-naphthylamine	N-Nitrosodiphenyl & Diphenylamine	2-nitroaniline	3-nitroaniline	4-chloroaniline	4-nitroaniline	2-methyl-5-nitroaniline	Aniline	2-butoxyethanol	2-Ethoxyethanol acetate	Diethylene glycol	Diethylene glycol, monobutyl ether	Ethylene glycol	Propylene glycol	Triethylene Glycol	2-chloronaphthalene	2-methylnaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(a)pyrene TEQ (zero LOR)	Benzo(a)pyrene TEQ (half LOR)	Benzo(a)pyrene TEQ (LOR)	Benzo(b+j)fluoranthene	Benzo(b+j+k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)
	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	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	1	1	1	0.5	0.5	0.5	0.5	2	2	2	2	2	2	2	0.5	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	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPM 2013 Table 1A(1) HILs Res A Soil																													3	3	3													300
NEPM 2013 Table 1A(1) HILs Res B Soil																													4	4	4													400
NEPM 2013 Table 1A(1) HILs Rec C Soil																													3	3	3													300
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																													40	40	40													4,000
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 0-1m																																									3			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 1-2m																																									NL			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 2-4m																																									NL			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, >4m																																									NL			
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 0-1m																																									NL			
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 1-2m																																									NL			
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 2-4m																																									NL			
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, >4m																																									NL			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																																									NL			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																																									NL			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 2-4m																																									NL			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, >4m																																									NL			
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 0-2m																																									NL			
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 2-4m																																									NL			
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil, 0-2m																																												
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil, 0-2m																																												
NEPM 2013 Table 1B(5) Generic EIL - Comm/Ind																												1.4																
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space																												0.7																
USEPA RSLs Industrial Soil THQ=1.0	0.015	0.46	0.33	0.091			8,000		11	110	260	400	82,000	14,000		24,000	1,600,000	16,000,000	1,600,000	60,000	3,000	0.1	0.0084	45,000		230,000	2.9									290	0.29	30,000	30,000	2.9			23,000	
USEPA RSLs Resident Soil THQ=1.0	0.00081	0.099	0.078	0.02			630		2.7	27	60	95	6,300	2,600		1,900	130,000	1,300,000	130,000	4,800	240	0.0055	0.00046	3,600		18,000	0.16									16	0.016	2,400	2,400	0.16			1,800	

Location	Field ID	Depth (m)	Matrix Description	Date	Sample Code	N-nitrosodiethylamine	N-nitrosodi-n-butylamine	N-nitrosodi-n-propylamine	N-Nitrosomethylethylamine	1-naphthylamine	N-Nitrosodiphenyl & Diphenylamine	2-nitroaniline	3-nitroaniline	4-chloroaniline	4-nitroaniline	2-methyl-5-nitroaniline	Aniline	2-butoxyethanol	2-Ethoxyethanol acetate	Diethylene glycol	Diethylene glycol, monobutyl ether	Ethylene glycol	Propylene glycol	Triethylene Glycol	2-chloronaphthalene	2-methylnaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(a)pyrene TEQ (zero LOR)	Benzo(a)pyrene TEQ (half LOR)	Benzo(a)pyrene TEQ (LOR)	Benzo(b+j)fluoranthene	Benzo(b+j+k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)
TIT1	EEC_TIT1_1	0.6	Sandy CLAY	25-10-17	EM1714937-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-
	EEC_TIT1_2	0.6	Sandy CLAY	25-10-17	EM1714937-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-
	EEC_TIT1_3	0.6	Sandy CLAY	25-10-17	EM1714937-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-
	EEC_TIT1_4	0.6	Sandy CLAY	25-10-17	EM1714937-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-
	EEC_TIT1_5	1.2	Sandy CLAY	25-10-17	EM1714937-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-
TIT1 (Backfill)	TIT1_0.2	0.2	Fill	22-02-18	EM1803513-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-
	TIT1_0.5	0.5	Fill	22-02-18	EM1803513-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-
	TIT1_1.0	0.8	Fill	22-02-18	EM1803513-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-
ARC_TIT_5A	ARC_TIT_5A_1.5	1.5	Clayey SAND	05-06-18	EM1809218003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EW_ARC_SB01A	EW_ARC_SB01A_1.0	1.0	Clayey SAND	06-06-18	EM1809218029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-
EW_ARC_SB201	EW_ARC_SB201_0.1	0.1	Fill	06-06-18	EM1809218011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-
	EW_ARC_SB201_0.5	0.5	Sandy CLAY	06-06-18	EM1809218012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-
	EW_ARC_SB201_1.0	1.0	Clayey SAND	06-06-18	EM1809218013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-
NHS_ARC_SB02A	NHS_ARC_SB02A_1.0	1.0	Fill	06-06-18	EM1809218005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-
NHS_ARC_SB04A	NHS_ARC_SB04A_0.15	0.15	Fill	06-06-18	EM1809218006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	NHS_ARC_SB04A_0.5	0.5	Fill	06-06-18	EM1809218007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NHS_EEC_SB104A	NHS_EEC_SB104A_0.5	0.5	Fill	21-11-17	EM1716001-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB104A_1.5	1.5	Sandy CLAY	21-11-17	EM1716001-004	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<3	<2	<2	<2	<2	<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<1	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NHS_ARC_SB105A	NHS_ARC_SB105A_1.0	1.0	Sandy CLAY	06-06-18	EM1809218008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_ARC_SB106A	NHS_ARC_SB106A_1.0	1.0	Clayey SAND	05-06-18	EM1809218004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_ARC_SB202	NHS_ARC_SB202_0.6	0.6	Fill	06-06-18	EM1809218009	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	NHS_ARC_SB202_1.0	1.0	Sandy CLAY	06-06-18	EM1809218010	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NHS_ARC_SB203	NHS_ARC_SB203 _0.5	0.5	Fill	05-06-18	EM1809218001	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	NHS_ARC_SB203 _1.0	1.0	Clayey SAND	05-06-18	EM1809218002	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 1
Soil Analytical Results - October 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	Organochlorine Pesticides																	Organochlorine Pesticides										Pesticides			Herbicides	Nitroaromatics			Other		PCB	Explosives			
	4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenthion	Malathion	Prothiofos	Chlorobenzilate	Carbazole	Pirimiphos-ethyl	Pronamide	2-Picoline	4-nitrobiphenyl	Pentachloronitrobenzene	Acetophenone	Oil and Grease	PCBs (Sum of total)	1,3,5-Trinitrobenzene	2,4-Dinitrotoluene	2,6-dinitrotoluene	Nitrobenzene
	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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.05	0.05	0.05	0.05	0.05	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	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	100	0.1	0.5	1	1	0.5
NEPM 2013 Table 1A(1) HILs Res A Soil				6					240					10		6			160																						
NEPM 2013 Table 1A(1) HILs Res B Soil				10					600					20		10			340																			1			
NEPM 2013 Table 1A(1) HILs Res C Soil				10					400					20		10			250																			1			
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil				45					3,600					100		50			2,000																			7			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 0-1m																																									
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 1-2m																																									
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 2-4m																																									
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, >4m																																									
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 0-1m																																									
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 1-2m																																									
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 2-4m																																									
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, >4m																																									
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																																									
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																																									
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 2-4m																																									
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, >4m																																									
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 0-2m																																									
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 2-4m																																									
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil, 0-2m																																									
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil, 0-2m																																									
NEPM 2013 Table 1B(5) Generic EIL - Comm/Ind								640																																	
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space								180																																	
USEPA RSLs Industrial Soil THQ=1.0	9.3	0.36	0.18		1.3		9.6	8.5		0.14					2.5		0.33	570		8,200	570	7.9	160	410		16,000					62,000		0.11	13	120,000			32,000	7.4	1.5	22
USEPA RSLs Resident Soil THQ=1.0	2	0.086	0.039		0.3		2.3	1.9		0.034					0.57		0.07	44		630	44	1.9	13	32		1,300					4,700		0.026	2.7	7,800			2,200	1.7	0.36	5.1
Location	**Field ID**	**Depth (m)**	**Matrix Description**	**Date**	**Sample Code**																																				
TIT1	EEC_TIT1_1	0.6	Sandy CLAY	25-10-17	EM1714937-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EEC_TIT1_2	0.6	Sandy CLAY	25-10-17	EM1714937-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EEC_TIT1_3	0.6	Sandy CLAY	25-10-17	EM1714937-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EEC_TIT1_4	0.6	Sandy CLAY	25-10-17	EM1714937-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EEC_TIT1_5	1.2	Sandy CLAY	25-10-17	EM1714937-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TIT1 (Backfill)	TIT1_0.2	0.2	Fill	22-02-18	EM1803513-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TIT1_0.5	0.5	Fill	22-02-18	EM1803513-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TIT1_1.0	0.8	Fill	22-02-18	EM1803513-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ARC_TIT_SA	ARC_TIT_SA_1.5	1.5	Clayey SAND	05-06-18	EM1809218003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120	-	-	-	-	-
EW_ARC_SB01A	EW_ARC_SB01A_1.0	1.0	Clayey SAND	06-06-18	EM1809218029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EW_ARC_SB201	EW_ARC_SB201_0.1	0.1	Fill	06-06-18	EM1809218011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EW_ARC_SB201_0.5	0.5	Sandy CLAY	06-06-18	EM1809218012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EW_ARC_SB201_1.0	1.0	Clayey SAND	06-06-18	EM1809218013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_ARC_SB02A	NHS_ARC_SB02A_1.0	1.0	Fill	06-06-18	EM1809218005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_ARC_SB04A	NHS_ARC_SB04A_0.15	0.15	Fill	06-06-18	EM1809218006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_ARC_SB04A_0.5	0.5	Fill	06-06-18	EM1809218007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_EEC_SB104A	NHS_EEC_SB104A_0.5	0.5	Fill	21-11-17	EM1716001-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB104A_1.5	1.5	Sandy CLAY	21-11-17	EM1716001-004	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.1	<0.5	<1	<1	<0.5
NHS_ARC_SB105A	NHS_ARC_SB105A_1.0	1.0	Sandy CLAY	06-06-18	EM1809218008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_ARC_SB106A	NHS_ARC_SB106A_1.0	1.0	Clayey SAND	05-06-18	EM1809218004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_ARC_SB202	NHS_ARC_SB202_0.6	0.6	Fill	06-06-18	EM1809218009	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<1.0	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<1.0	<0.5
	NHS_ARC_SB202_1.0	1.0	Sandy CLAY	06-06-18	EM1809218010	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<1.0	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<1.0	<0.5
NHS_ARC_SB203	NHS_ARC_SB203 _0.5	0.5	Fill	05-06-18	EM1809218001	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<1.0	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<1.0	<0.5	<0.5
	NHS_ARC_SB203 _1.0	1.0	Clayey SAND	05-06-18	EM1809218002	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<1.0	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<1.0	<0.5	<0.5

Table 1
Soil Analytical Results - October 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	Phthalates						Phenols													SVOCs															
	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Diethylphthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,6-Dichlorophenol	2-Chlorophenol	2-Methylphenol	2-Nitrophenol	3 & 4-methylphenol	3/4-Methylphenol (m/p-cresol)	4-chloro-3-methylphenol	Pentachlorophenol	Phenol	2-(acetylamino) fluorene	3,3-Dichlorobenzidine	4-(dimethylamino) azobenzene	4-bromophenyl phenyl ether	4-chlorophenyl phenyl ether	4-Nitroquinoline-N-oxide	Azobenzene	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl)ether	Dibenzofuran	Hexachloropropene	Methapyrilene	N-nitrosomorpholine	N-nitrosopiperidine	N-nitrosopyrrolidine	Phenacetin
	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	mg/kg	mg/kg
EQL	5	0.5	0.5	0.5	0.5	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	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	0.5
NEPM 2013 Table 1A(1) HILs Res A Soil																		100	3,000																
NEPM 2013 Table 1A(1) HILs Res B Soil																		130	45,000																
NEPM 2013 Table 1A(1) HILs Rec C Soil																		120	40,000																
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																		660	240,000																
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 0-1m																																			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 1-2m																																			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 2-4m																																			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, >4m																																			
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 0-1m																																			
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 1-2m																																			
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 2-4m																																			
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, >4m																																			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																																			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																																			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 2-4m																																			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, >4m																																			
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 0-2m																																			
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 2-4m																																			
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil, 0-2m																																			
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil, 0-2m																																			
NEPM 2013 Table 1B(5) Generic EIL - Comm/Ind																																			
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space																																			
USEPA RSLs Industrial Soil THQ=1.0	160	1,200	660,000		82,000	8,200	82,000	210	2,500	16,000		5,800	41,000				82,000			0.6	5.1	0.5				26	2,500	1	1,000			0.34	0.24	1.1	1,000
USEPA RSLs Resident Soil THQ=1.0	39	290	51,000		6,300	630	6,300	49	190	1,300		390	3,200				6,300			0.14	1.2	0.12				5.6	190	0.23	73			0.081	0.058	0.26	250

Location	Field ID	Depth (m)	Matrix Description	Date	Sample Code	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Diethylphthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,6-Dichlorophenol	2-Chlorophenol	2-Methylphenol	2-Nitrophenol	3 & 4-methylphenol	3/4-Methylphenol (m/p-cresol)	4-chloro-3-methylphenol	Pentachlorophenol	Phenol	2-(acetylamino) fluorene	3,3-Dichlorobenzidine	4-(dimethylamino) azobenzene	4-bromophenyl phenyl ether	4-chlorophenyl phenyl ether	4-Nitroquinoline-N-oxide	Azobenzene	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl)ether	Dibenzofuran	Hexachloropropene	Methapyrilene	N-nitrosomorpholine	N-nitrosopiperidine	N-nitrosopyrrolidine	Phenacetin
TIT1	EEC_TIT1_1	0.6	Sandy CLAY	25-10-17	EM1714937-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EEC_TIT1_2	0.6	Sandy CLAY	25-10-17	EM1714937-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EEC_TIT1_3	0.6	Sandy CLAY	25-10-17	EM1714937-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EEC_TIT1_4	0.6	Sandy CLAY	25-10-17	EM1714937-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EEC_TIT1_5	1.2	Sandy CLAY	25-10-17	EM1714937-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TIT1 (Backfill)	TIT1_0.2	0.2	Fill	22-02-18	EM1803513-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TIT1_0.5	0.5	Fill	22-02-18	EM1803513-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TIT1_1.0	0.8	Fill	22-02-18	EM1803513-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ARC_TIT_5A	ARC_TIT_5A_1.5	1.5	Clayey SAND	05-06-18	EM1809218003	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<1	<0.5	<2	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EW_ARC_SB01A	EW_ARC_SB01A_1.0	1.0	Clayey SAND	06-06-18	EM1809218029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EW_ARC_SB201	EW_ARC_SB201_0.1	0.1	Fill	06-06-18	EM1809218011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EW_ARC_SB201_0.5	0.5	Fill	06-06-18	EM1809218012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EW_ARC_SB201_1.0	1.0	Clayey SAND	06-06-18	EM1809218013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_ARC_SB02A	NHS_ARC_SB02A_1.0	1.0	Clayey SAND	06-06-18	EM1809218005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_ARC_SB04A	NHS_ARC_SB04A_0.15	0.15	Fill	06-06-18	EM1809218006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_ARC_SB04A_0.5	0.5	Fill	06-06-18	EM1809218007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_EEC_SB104A	NHS_EEC_SB104A_0.5	0.5	Fill	21-11-17	EM1716001-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB104A_1.5	1.5	Sandy CLAY	21-11-17	EM1716001-004	<5	<0.5	<0.5	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
NHS_ARC_SB105A	NHS_ARC_SB105A_1.0	1.0	Sandy CLAY	06-06-18	EM1809218008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_ARC_SB106A	NHS_ARC_SB106A_1.0	1.0	Clayey SAND	05-06-18	EM1809218004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_ARC_SB202	NHS_ARC_SB202_0.6	0.6	Fill	06-06-18	EM1809218009	<5.0	<0.5	<0.5	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
	NHS_ARC_SB202_1.0	1.0	Sandy CLAY	06-06-18	EM1809218010	<5.0	<0.5	<0.5	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
NHS_ARC_SB203	NHS_ARC_SB203 _0.5	0.5	Fill	05-06-18	EM1809218001	<5.0	<0.5	<0.5	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
	NHS_ARC_SB203 _1.0	1.0	Clayey SAND	05-06-18	EM1809218002	<5.0	<0.5	<0.5	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5

Table 2
Soil Analytical Results - 2015 to 2017
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	TPH (NEPM 1999)					TRH (NEPM 2013)							TPH (NEPM 2013 - Silica Gel Cleanup)			TPH (NEPM 1999 - Silica Gel Cleanup)				BTEX							MAH					Halogenated Hydrocarbons				
	C6-C9	C10-C14	C15-C28	C29-C36	>C10-C36 (Sum of total)	C6-C10	F1 minus BTEX	C10-C16	F2 minus Naphthalene	C16-C34	C34-C40	C10-C40 (Sum of total)	>C10-C16 Fraction (SG Cleanup)	>C16-C34 Fraction (SG Cleanup)	>C34-C40 Fraction (SG Cleanup)	C10-C14 Fraction (SG Cleanup)	C15-C28 Fraction (SG Cleanup)	C29-C36 Fraction (SG Cleanup)	C10-C36 Fraction (Sum) (SG Cleanup)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	Monocyclic aromatic hydrocarbons EPAVic	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	Styrene	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	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	10	50	100	100	50	10	10	50	50	100	100	50	50	100	100	20	50	50	50	0.2	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.5	0.5	0.5	0.5	0.5	5	5	0.5	5
NEPM 2013 Table 1A(1) HILs Res A Soil																																				
NEPM 2013 Table 1A(1) HILs Res B Soil																																				
NEPM 2013 Table 1A(1) HILs Rec C Soil																																				
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																				
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 0-1m							45		110											0.5	160	55			40											
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 1-2m							70		240											0.5	220	NL			60											
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 2-4m							110		440											0.5	310	NL			95											
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, >4m							200		NL											0.5	540	NL			170											
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 0-1m							NL		NL											NL	NL	NL			NL										
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 1-2m							NL		NL											NL	NL	NL			NL										
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 2-4m							NL		NL											NL	NL	NL			NL										
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, >4m							NL		NL											NL	NL	NL			NL										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m							260		NL											3	NL	NL			230										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m							370		NL											3	NL	NL			NL										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 2-4m							630		NL											3	NL	NL			NL										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, >4m							NL		NL											3	NL	NL			NL										
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 0-2m							NL		NL											77	NL	NL			NL										
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 2-4m							NL		NL											160	NL	NL			NL										
NEPM 2013 Table 1B(5) Generic EIL - Comm/Ind																																				
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space																																				
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil, 0-2m						215		170		1,700	3,300			1,700	3,300					75	135	165			180											
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil, 0-2m						180		120		300	2,800			300	2,800					50	85	70			105											
USEPA RSLs Industrial Soil THQ=1.0																												240	12,000	9,900	35,000	0.16	30	370		350,000
USEPA RSLs Resident Soil THQ=1.0																												58	780	1,900	6,000	0.036	6.8	87		23,000
Location	**Field ID**	**Depth**	**Matrix Description**	**Date**	**Sample Code**																																
EW SB01	EW_SB01_0.5	0.5	Fill	13-04-15	EM1706833056	<20	<20	62	420	480	<20	<20	<50	<50	310	420	-	<50	230	200	<20	82	220	300	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	-	<0.05	<0.05	<0.05	<0.05	<0.5	<5	<5	<0.5	<5
	EW_SB01_2.0	2	Clayey SAND	13-04-15	EM1706833057	<20	<20	<50	<50	<50	<20	<20	<50	<50	<100	<100	-	<50	<100	<100	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	-	<0.05	<0.05	<0.05	<0.05	<0.5	<5	<5	<0.5	<5
	EW_SB01_3.0	3	Clayey SAND	13-04-15	EM1709589001	<20	<20	<50	<50	<50	<20	<20	<50	<50	<100	<100	-	<50	<100	<100	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	-	<0.05	<0.05	<0.05	<0.05	<0.5	<5	<5	<0.5	<5
NHS SB01	NHS_SB01_0.5	0.5	Fill	16-04-15	EM1709589002	<20	<20	<50	<50	<50	<20	<20	<50	<50	<100	<100	-	<50	<100	<100	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	-	<0.05	<0.05	<0.05	<0.05	<0.5	<5	<5	<0.5	<5
	NHS_SB01_3.0	3	Clayey SAND	16-04-15	EM1709589003	<20	<20	<50	<50	<50	<20	<20	<50	<50	<100	<100	-	<50	<100	<100	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	-	<0.05	<0.05	<0.05	<0.05	<0.5	<5	<5	<0.5	<5
NHS SB02	NHS_SB02_0.5	0.5	Fill	16-04-15	EM1709589006	<20	<20	<50	<50	<50	<20	<20	<50	<50	<100	<100	-	<50	<100	<100	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	-	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-
	NHS_SB02_2.0	2	SAND	16-04-15	EM1709589008	<20	<20	<50	<50	<50	<20	<20	<50	<50	<100	<100	-	<50	<100	<100	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	-	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-
NHS SB03	NHS_SB03_0.5	0.5	Fill	16-04-15	EM1706833023	<20	<20	<50	<50	<50	<20	<20	<50	<50	<100	<100	-	<50	<100	<100	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	-	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-
	NHS_SB03_3.0	3	SAND	16-04-15	EM1706833024	<20	<20	<50	<50	<50	<20	<20	<50	<50	<100	<100	-	<50	<100	<100	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	-	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-
NHS SB04	NHS_SB04_1.0	1	Fill	16-04-15	EM1706833018	<20	<20	<50	<50	<50	<20	<20	<50	<50	<100	<100	-	<50	<100	<100	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	-	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-
	NHS_SB04_4.0	4	SAND	16-04-15	EM1706833019	<20	<20	<50	<50	<50	<20	<20	<50	<50	<100	<100	-	<50	<100	<100	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	-	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-
EW_EEC_SB101	EW_EEC_SB101_0.1	0.1	FILL	24-05-17	EM1706833056	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	<0.5	-	-	-	-	-
	EW_EEC_SB101_0.4	0.4	FILL	24-05-17	EM1706833057	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	<0.5	-	-	-	-	-
NHS_EEC_SB101	NHS_EEC_SB101_0.2	0.2	FILL	19-07-17	EM1709589001	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	<0.5	-	-	-	-	-
	NHS_EEC_SB101_0.5	0.5	FILL	19-07-17	EM1709589002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB101_1.0	1	Sandy CLAY	19-07-17	EM1709589003	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	<0.5	-	-	-	-	-
NHS_EEC_SB102	NHS_EEC_SB102_0.5	0.5	FILL	19-07-17	EM1709589006	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	<0.5	-	-	-	-	-
	NHS_EEC_SB102_1.5	1.5	Clayey SAND	19-07-17	EM1709589008	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	<0.5	-	-	-	-	-
NHS_EEC_SB103	NHS_EEC_SB103_0.2	0.2	FILL	24-05-17	EM1706833023	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	<0.5	-	-	-	-	-
	NHS_EEC_SB103_0.5	0.5	FILL	24-05-17	EM1706833024	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	<0.5	-	-	-	-	-
NHS_EEC_SB104	NHS_EEC_SB104_0.2	0.2	FILL	24-05-17	EM1706833027	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	<0.5	-	-	-	-	-
	NHS_EEC_SB104_0.5	0.5	FILL	24-05-17	EM1706833028	<10	<50	<100	<100	<50	<10	<10	<50	<50	120	<100	120	-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	<0.5	-	-	-	-	-
NHS_EEC_SB105	NHS_EEC_SB105_0.2	0.2	FILL	24-05-17	EM1706833031	<10	<50	<100	<100	<50	<10	<10	<50	<50	110	<100	110	-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	<0.5	-	-	-	-	-
	NHS_EEC_SB105_0.5	0.5	FILL	24-05-17	EM1706833032	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	<0.5	-	-	-	-	-
NHS_EEC_SB106	NHS_EEC_SB106_0.2	0.2	FILL	24-05-17	EM1706833035	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB106_0.5	0.5	FILL	24-05-17	EM1706833036	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-	-	-
NHS_EEC_SB107	NHS_EEC_SB107_0.1	0.1	FILL	23-05-17	EM1706833018	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	<0.5	-	-	-	-	-
	NHS_EEC_SB107_0.5	0.5	FILL	23-05-17	EM1706833019	<10	<50	<100	<100	<50	<10	<10	<50	<50	<100	<100	<50	-	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	-	-	-	<0.5	-	-	-	-	-

Table 2
Soil Analytical Results - 2015 to 2017
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	Chlorinated Hydrocarbons																			Halogenated Benzenes							VOCs			Solvents						Solvents	
	1,1,1,2-tetrachloroethane	Chlorinated hydrocarbons EPA Vic	Other chlorinated hydrocarbons EPA Vic	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethene	1,2-dichloroethane	Carbon tetrachloride	Chloroform	cis-1,2-dichloroethene	Dichloromethane	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Trichloroethene (TCE)	Tetrachloroethene (PCE)	trans-1,2-dichloroethene	Vinyl chloride	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene	Pentachlorobenzene	cis-1,4-Dichloro-2-butene	trans-1,4-Dichloro-2-butene	Pentachloroethane	Methyl Ethyl Ketone	2-hexanone (MBK)	4-Methyl-2-pentanone	Carbon disulfide	Isophorone	Vinyl acetate	Isophorone	Acetone
	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	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.01	0.01	0.01	0.01	0.02	0.04	0.01	0.02	0.01	0.02	0.01	0.4	0.02	2.5	0.5	0.02	0.02	0.02	0.02	0.01	0.02	0.5	0.02	0.02	0.05	0.5	0.5	0.5	0.5	5	5	5	0.5	0.5	5	0.5	0.05
NEPM 2013 Table 1A(1) HILs Res A Soil																									10												
NEPM 2013 Table 1A(1) HILs Res B Soil																									15												
NEPM 2013 Table 1A(1) HILs Rec C Soil																									10												
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																									80												
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 0-1m																																					
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 1-2m																																					
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 2-4m																																					
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, >4m																																					
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 0-1m																																					
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 1-2m																																					
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 2-4m																																					
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, >4m																																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 2-4m																																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, >4m																																					
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 0-2m																																					
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 2-4m																																					
NEPM 2013 Table 1B(5) Generic EIL - Comm/Ind																																					
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space																																					
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil, 0-2m																																					
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil, 0-2m																																					
USEPA RSLs Industrial Soil THQ=1.0	8.8			36,000	2.7	5	1,000	2	2.9	1.4	2,300	1,000	5.3	7.5	8	6	100	23,000	1.7	110	9,300		11	1,300		930	0.032	0.032	36	190,000	1,300	140,000	3,500	2,400	3,800	2,400	
USEPA RSLs Resident Soil THQ=1.0	2			8,100	0.6	1.1	230	0.46	0.65	0.32	160	57	1.2	1.8	1.8	0.94	24	1,600	0.059	24	1,800		2.6	280		63	0.0074	0.0074	7.7	27,000	200	33,000	770	570	910	570	

Location	Field ID	Depth	Matrix Description	Date	Sample Code																																	
EW SB01	EW_SB01_0.5	0.5	Fill	13-04-15	EM1706833056	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	-	-	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	-	<5	-	<0.05
	EW_SB01_2.0	2	Clayey SAND	13-04-15	EM1706833057	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	-	<5	-	<0.05
	EW_SB01_3.0	3	Clayey SAND	13-04-15	EM1709589001	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	-	-	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	-	<5	-	<0.05
NHS SB01	NHS_SB01_0.5	0.5	Fill	16-04-15	EM1709589002	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	-	<5	-	<0.05
	NHS_SB01_3.0	3	Clayey SAND	16-04-15	EM1709589003	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	-	-	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	-	<5	-	<0.05
NHS SB02	NHS_SB02_0.5	0.5	Fill	16-04-15	EM1709589006	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.05
	NHS_SB02_2.0	2	SAND	16-04-15	EM1709589008	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.05
NHS SB03	NHS_SB03_0.5	0.5	Fill	16-04-15	EM1706833023	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	<1
	NHS_SB03_3.0	3	SAND	16-04-15	EM1706833024	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	<1
NHS SB04	NHS_SB04_1.0	1	Fill	16-04-15	EM1706833018	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.5	-	-	-	<1
	NHS_SB04_4.0	4	SAND	16-04-15	EM1706833019	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
EW_EEC_SB101	EW_EEC_SB101_0.1	0.1	FILL	24-05-17	EM1706833056	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.4	<0.02	<2.5	<0.5	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	<0.5	<0.02	<0.02	<1	<0.5	-	-	-	-	-	-	-	-	<0.5	-
	EW_EEC_SB101_0.4	0.4	FILL	24-05-17	EM1706833057	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.4	<0.02	<2.5	<0.5	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	<0.5	<0.02	<0.02	<1	<0.5	-	-	-	-	-	-	-	-	<0.5	-
NHS_EEC_SB101	NHS_EEC_SB101_0.2	0.2	FILL	19-07-17	EM1709589001	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.4	<0.02	<2.5	<0.5	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	<0.5	<0.02	<0.02	<1	<0.5	-	-	-	-	-	-	-	-	<0.5	-
	NHS_EEC_SB101_0.5	0.5	FILL	19-07-17	EM1709589002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB101_1.0	1	Sandy CLAY	19-07-17	EM1709589003	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.4	<0.02	<2.5	<0.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.5	<0.02	<0.02	<1	<0.5	-	-	-	-	-	-	-	-	<0.5	-
NHS_EEC_SB102	NHS_EEC_SB102_0.5	0.5	FILL	19-07-17	EM1709589006	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.4	<0.02	<2.5	<0.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.5	<0.02	<0.02	<1	<0.5	-	-	-	-	-	-	-	-	<0.5	-
	NHS_EEC_SB102_1.5	1.5	Clayey SAND	19-07-17	EM1709589008	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.4	<0.02	<2.5	<0.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.5	<0.02	<0.02	<1	<0.5	-	-	-	-	-	-	-	-	<0.5	-
NHS_EEC_SB103	NHS_EEC_SB103_0.2	0.2	FILL	24-05-17	EM1706833023	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.4	<0.02	<2.5	<0.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.5	<0.02	<0.02	<1	<0.5	-	-	-	-	-	-	-	-	<0.5	-
	NHS_EEC_SB103_0.5	0.5	FILL	24-05-17	EM1706833024	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.4	<0.02	<2.5	<0.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.5	<0.02	<0.02	<1	<0.5	-	-	-	-	-	-	-	-	<0.5	-
NHS_EEC_SB104	NHS_EEC_SB104_0.2	0.2	FILL	24-05-17	EM1706833027	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.4	<0.02	<2.5	<0.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.5	<0.02	<0.02	<1	<0.5	-	-	-	-	-	-	-	-	<0.5	-
	NHS_EEC_SB104_0.5	0.5	FILL	24-05-17	EM1706833028	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.4	<0.02	<2.5	<0.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.5	<0.02	<0.02	<1	<0.5	-	-	-	-	-	-	-	-	<0.5	-
NHS_EEC_SB105	NHS_EEC_SB105_0.2	0.2	FILL	24-05-17	EM1706833031	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.4	<0.02	-	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	-	<0.02	<0.02	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB105_0.5	0.5	FILL	24-05-17	EM1706833032	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.4	<0.02	-	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	-	<0.02	<0.02	-	-	-	-	-	-	-	-	-	-	-	-
NHS_EEC_SB106	NHS_EEC_SB106_0.2	0.2	FILL	24-05-17	EM1706833035	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB106_0.5	0.5	FILL	24-05-17	EM1706833036	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_EEC_SB107	NHS_EEC_SB107_0.1	0.1	FILL	23-05-17	EM1706833018	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.4	<0.02	-	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	-	<0.02	<0.02	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB107_0.5	0.5	FILL	23-05-17	EM1706833019	<0.01	<0.01	<0.01	<0.01	<0.02	<0.04	<0.01	<0.02	<0.01	<0.02	<0.01	<0.4	<0.02	-	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	-	<0.02	<0.02	-	-	-	-	-	-	-	-	-	-	-	-

Table 2
Soil Analytical Results - 2015 to 2017
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	Metals																		Inorganics													Glycols						
	Aluminium	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (III+VI)	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium	Zinc	Acidity	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Alkalinity (total) as CaCO3	Ammonia as N	Total Kjeldahl Nitrogen	Nitrate (as N)	Nitrite (as N)	Nitrogen (organic)	Nitrogen (total)	Nitrogen (Total Dissolved)	Sulphate	Sulphate (filtered)	Sulphur (as S)	2-butoxyethanol	2-Ethoxyethanol acetate	Diethylene glycol	Diethylene glycol, monobutyl ether	Ethylene glycol	Propylene glycol	Triethylene Glycol
	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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	10	5	5	10	1	50	1	2	2	5	5	5	5	0.1	2	5	5	5	1	1		1	20	10	5	5	5	10	0.1	50	10	5	2	2	2	2	2	2	2
NEPM 2013 Table 1A(1) HILs Res A Soil			100		60	4,500	20		100	6,000		300	3,800	40	400	200		7,400																				
NEPM 2013 Table 1A(1) HILs Res B Soil			500		90	40,000	150		600	30,000		1,200	14,000	120	1,200	1,400		60,000																				
NEPM 2013 Table 1A(1) HILs Rec C Soil			300		90	20,000	90		300	17,000		600	19,000	80	1,200	700		30,000																				
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil			3,000		500	300,000	900		4,000	240,000		1,500	60,000	730	6,000	10,000		400,000																				
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 0-1m																																						
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 1-2m																																						
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 2-4m																																						
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, >4m																																						
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 0-1m																																						
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 1-2m																																						
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 2-4m																																						
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, >4m																																						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																																						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																																						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 2-4m																																						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, >4m																																						
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 0-2m																																						
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 2-4m																																						
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil			160																																			
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil			100																																			
NEPM 2013 Table 1B(5) Generic EIL - Comm/Ind								610		110		1,800		6.6[c]	450			1,100																				
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space								370		75		1,100		24[c]	270			690																				
USEPA RSLs Industrial Soil THQ=1.0		470		220,000													5,800																82,000	14,000		24,000	1,600,000	16,000,000	1,600,000
USEPA RSLs Resident Soil THQ=1.0		31		15,000													390																6,300	2,600		1,900	130,000	1,300,000	130,000

Location	Field ID	Depth	Matrix Description	Date	Sample Code																																			
EW SB01	EW_SB01_0.5	0.5	Fill	13-04-15	EM1706833056	13,000	<10	3.3	25	<2	<10	<0.4	<1	19	22	-	5.1	400	<0.1	71	<2	60	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EW_SB01_2.0	2	Clayey SAND	13-04-15	EM1706833057	18,000	<10	2.3	<10	<2	<10	<0.4	<1	<5	<5	-	<5	<5	<0.1	6.2	<2	<10	<5	-	-	-	-	<5	<10	<5	<5	<10	<10	-	-	-	150	-	-	-	-	-
	EW_SB01_3.0	3	Clayey SAND	13-04-15	EM1709589001	16,000	<10	4.5	45	<2	<10	<0.4	<1	<5	<5	17,000	<5	7.9	<0.1	5.3	<2	<10	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS SB01	NHS_SB01_0.5	0.5	Fill	16-04-15	EM1709589002	10,000	<10	<2	<10	<2	<10	<0.4	<1	6.6	<5	-	5.4	20	<0.1	6.4	<2	<10	6.2	-	-	-	-	<5	<10	<5	<5	<10	<10	-	-	-	-	-	-	-	-
	NHS_SB01_3.0	3	Clayey SAND	16-04-15	EM1709589003	18,000	<10	36	<10	<2	<10	<0.4	<1	<5	<5	-	5.3	<5	<0.1	8.3	<2	<10	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS SB02	NHS_SB02_0.5	0.5	Fill	16-04-15	EM1709589006	1500	<10	<2	<10	<2	<10	0.5	<1	100	<5	-	11	11	<0.1	<5	<2	<10	42	-	-	-	-	<5	150	<5	<5	150	150	-	-	-	-	-	-	-	-
	NHS_SB02_2.0	2	SAND	16-04-15	EM1709589008	17,000	<10	55	<10	<2	<10	<0.4	<1	<5	<5	-	10	<5	<0.1	6	<2	31	<5	-	-	-	-	<5	<10	<5	<5	<10	<10	-	-	-	-	-	-	-	-
NHS SB03	NHS_SB03_0.5	0.5	Fill	16-04-15	EM1706833023	1700	<10	<2	75	<2	<10	1.3	<1	38	44	-	6	110	<0.1	100	<2	18	47	-	-	-	-	<5	32	41	<5	32	73	-	-	-	-	-	-	-	-
	NHS_SB03_3.0	3	SAND	16-04-15	EM1706833024	24,000	<10	<2	<10	<2	<10	<0.4	<1	<5	<5	4200	<5	<5	<0.1	7.6	<2	13	<5	-	-	-	-	<5	27	<5	<5	27	27	-	-	-	-	-	-	-	-
NHS SB04	NHS_SB04_1.0	1	Fill	16-04-15	EM1706833018	81,000	<10	<2	28	<2	<10	1.2	<1	27	<5	-	7.8	12	<0.1	25	<2	16	7.4	-	-	-	-	11	320	<5	<5	310	320	-	-	-	-	-	-	-	-
	NHS_SB04_4.0	4	SAND	16-04-15	EM1706833019	14,000	<10	<2	11	<2	<10	<0.4	<1	<5	<5	-	<5	<5	<0.1	5.9	<2	41	<5	-	-	-	-	<5	<10	<5	<5	<10	<10	-	-	-	-	-	-	-	-
EW_EEC_SB101	EW_EEC_SB101_0.1	0.1	FILL	24-05-17	EM1706833056	-	<5	<5	70	<1	<50	<1	28	100	34	-	8	582	<0.1	112	<5	19	55	<1	73	18	90	<20	-	-	-	-	-	0.1	-	-	-	<2	<2	<2	<2	<2	<2	<2
	EW_EEC_SB101_0.4	0.4	FILL	24-05-17	EM1706833057	-	<5	10	10	<1	<50	<1	14	<2	<5	-	5	25	<0.1	<2	<5	65	<5	2	58	6	65	<20	-	-	-	-	-	1.4	-	-	-	<2	<2	<2	<2	<2	<2	<2
NHS_EEC_SB101	NHS_EEC_SB101_0.2	0.2	FILL	19-07-17	EM1709589001	-	14	<5	160	<1	<50	<1	26	184	44	-	9	214	0.3	30	<5	18	46	7	40	41	40	-	-	-	-	-	-	-	-	250	-	<2	<2	<2	<2	<2	<2	<2
	NHS_EEC_SB101_0.5	0.5	FILL	19-07-17	EM1709589002	-	-	-	-	-	-	-	-	-	-	0.491	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB101_1.0	1	Sandy CLAY	19-07-17	EM1709589003	-	<5	11	30	2	<50	<1	76	40	<5	-	14	13	0.1	22	<5	124	7	40	40	<1	12	-	-	-	-	-	-	-	-	130	-	<2	<2	<2	<2	<2	<2	<2
NHS_EEC_SB102	NHS_EEC_SB102_0.5	0.5	FILL	19-07-17	EM1709589006	-	<5	<5	60	<1	<50	<1	18	182	10	-	12	29	0.6	8	<5	28	22	8	12	<1	66	-	-	-	-	-	-	-	-	40	-	<2	<2	<2	<2	<2	<2	<2
	NHS_EEC_SB102_1.5	1.5	Clayey SAND	19-07-17	EM1709589008	-	<5	18	<10	<1	<50	<1	39	14	<5	-	11	<5	<0.1	7	<5	74	<5	4	66	<1	38	-	-	-	-	-	-	-	-	50	-	<2	<2	<2	<2	<2	<2	<2
NHS_EEC_SB103	NHS_EEC_SB103_0.2	0.2	FILL	24-05-17	EM1706833023	-	54	<5	40	<1	<50	<1	21	97	29	-	9	228	<0.1	52	<5	22	33	<1	65	24	89	-	-	-	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2
	NHS_EEC_SB103_0.5	0.5	FILL	24-05-17	EM1706833024	-	19	<5	<10	<1	<50	<1	8	18	<5	-	<5	<5	<0.1	<2	<5	<5	<5	3	6	<1	6	-	-	-	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2
NHS_EEC_SB104	NHS_EEC_SB104_0.2	0.2	FILL	24-05-17	EM1706833027	-	17	5	20	<1	<50	<1	15	60	18	-	11	45	0.2	9	<5	23	27	<1	57	45	102	-	-	-	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2
	NHS_EEC_SB104_0.5	0.5	FILL	24-05-17	EM1706833028	-	11	<5	800	<1	<50	<1	82	256	220	-	112	13	1.1	3	<5	<5	68	3	14	<1	14	-	-	-	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	<2	<2
NHS_EEC_SB105	NHS_EEC_SB105_0.2	0.2	FILL	24-05-17	EM1706833031	-	6	<5	20	<1	<50	<1	13	7	10	-	11	36	<0.1	9	<5	29	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB105_0.5	0.5	FILL	24-05-17	EM1706833032	-	<5	<5	<10	<1	<50	<1	2	53	<5	-	<5	6	0.4	<2	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_EEC_SB106	NHS_EEC_SB106_0.2	0.2	FILL	24-05-17	EM1706833035	-	<5	<5	20	<1	<50	<1	30	32	17	-	35	15	0.3	3	<5	35	84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB106_0.5	0.5	FILL	24-05-17	EM1706833036	-	<5	11	<10	<1	<50	<1	20	54	<5	-	8	8	0.2	<2	<5	67	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_EEC_SB107	NHS_EEC_SB107_0.1	0.1	FILL	23-05-17	EM1706833018	-	<5	9	70	<1	<50	<1	46	166	24	-	16	28	0.2	27	<5	61	83	27	80	<1	80	<20	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB107_0.5	0.5	FILL	23-05-17	EM1706833019	-	<5	<5	<10	<1	<50	<1	3	9	<5	-	<5	<5	<0.1	2	<5	<5	<5	2	7	<1	7	<20	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 2
Soil Analytical Results - 2015 to 2017
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	Amino Aliphatics				Amino Aromatics		Anilines						PAH																									
	N-nitrosodiethylamine	N-nitrosodi-n-butylamine	N-nitrosodi-n-propylamine	N-Nitrosomethylethylamine	1-naphthylamine	N-Nitrosodiphenyl & Diphenylamine	2-nitroaniline	3-nitroaniline	4-chloroaniline	4-nitroaniline	2-methyl-5-nitroaniline	Aniline	2-chloronaphthalene	2-methylnaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(a)pyrene TEQ (zero LOR)	Benzo(a)pyrene TEQ (half LOR)	Benzo(a)pyrene TEQ (LOR)	Benzo(b+j)fluoranthene	Benzo(b+j+k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)	PAHs (Vic EPA List)
	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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.5	0.5	0.5	0.5	0.5	1	1	1	0.5	0.5	0.5	0.5	0.5	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	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPM 2013 Table 1A(1) HILs Res A Soil																						3	3	3													300	300
NEPM 2013 Table 1A(1) HILs Res B Soil																						4	4	4													400	400
NEPM 2013 Table 1A(1) HILs Rec C Soil																						3	3	3													300	300
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																						40	40	40													4,000	4,000
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 0-1m																																		3				
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 1-2m																																		NL				
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 2-4m																																		NL				
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, >4m																																		NL				
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 0-1m																																		NL				
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 1-2m																																		NL				
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 2-4m																																		NL				
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, >4m																																		NL				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																																		NL				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																																		NL				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 2-4m																																		NL				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, >4m																																		NL				
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 0-2m																																		NL				
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 2-4m																																		NL				
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																		370				
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																		170				
NEPM 2013 Table 1B(5) Generic EIL - Comm/Ind																					1.4																	
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space																					0.7																	
USEPA RSLs Industrial Soil THQ=1.0	0.015	0.46	0.33	0.091			8,000		11	110	260	400	60,000	3,000	0.1	0.0084	45,000		230,000	2.9								29	290	0.29	30,000	30,000	2.9			23,000		
USEPA RSLs Resident Soil THQ=1.0	0.00081	0.099	0.078	0.02			630		2.7	27	60	95	4,800	240	0.0055	0.00046	3,600		18,000	0.16								1.6	16	0.016	2,400	2,400	0.16			1,800		

Location	Field ID	Depth	Matrix Description	Date	Sample Code	N-nitrosodiethylamine	N-nitrosodi-n-butylamine	N-nitrosodi-n-propylamine	N-Nitrosomethylethylamine	1-naphthylamine	N-Nitrosodiphenyl & Diphenylamine	2-nitroaniline	3-nitroaniline	4-chloroaniline	4-nitroaniline	2-methyl-5-nitroaniline	Aniline	2-chloronaphthalene	2-methylnaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene
EW SB01	EW_SB01_0.5	0.5	Fill	13-04-15	EM1706833056	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EW_SB01_2.0	2	Clayey SAND	13-04-15	EM1706833057	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EW_SB01_3.0	3	Clayey SAND	13-04-15	EM1709589001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS SB01	NHS_SB01_0.5	0.5	Fill	16-04-15	EM1709589002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_SB01_3.0	3	Clayey SAND	16-04-15	EM1709589003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS SB02	NHS_SB02_0.5	0.5	Fill	16-04-15	EM1709589006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_SB02_2.0	2	SAND	16-04-15	EM1709589008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS SB03	NHS_SB03_0.5	0.5	Fill	16-04-15	EM1706833023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_SB03_3.0	3	SAND	16-04-15	EM1706833024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS SB04	NHS_SB04_1.0	1	Fill	16-04-15	EM1706833018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_SB04_4.0	4	SAND	16-04-15	EM1706833019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EW_EEC_SB101	EW_EEC_SB101_0.1	0.1	FILL	24-05-17	EM1706833056	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	EW_EEC_SB101_0.4	0.4	FILL	24-05-17	EM1706833057	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NHS_EEC_SB101	NHS_EEC_SB101_0.2	0.2	FILL	19-07-17	EM1709589001	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	NHS_EEC_SB101_0.5	0.5	FILL	19-07-17	EM1709589002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB101_1.0	1	Sandy CLAY	19-07-17	EM1709589003	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NHS_EEC_SB102	NHS_EEC_SB102_0.5	0.5	FILL	19-07-17	EM1709589006	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	NHS_EEC_SB102_1.5	1.5	Clayey SAND	19-07-17	EM1709589008	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NHS_EEC_SB103	NHS_EEC_SB103_0.2	0.2	FILL	24-05-17	EM1706833023	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	NHS_EEC_SB103_0.5	0.5	FILL	24-05-17	EM1706833024	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NHS_EEC_SB104	NHS_EEC_SB104_0.2	0.2	FILL	24-05-17	EM1706833027	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	NHS_EEC_SB104_0.5	0.5	FILL	24-05-17	EM1706833028	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NHS_EEC_SB105	NHS_EEC_SB105_0.2	0.2	FILL	24-05-17	EM1706833031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB105_0.5	0.5	FILL	24-05-17	EM1706833032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_EEC_SB106	NHS_EEC_SB106_0.2	0.2	FILL	24-05-17	EM1706833035	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB106_0.5	0.5	FILL	24-05-17	EM1706833036	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_EEC_SB107	NHS_EEC_SB107_0.1	0.1	FILL	23-05-17	EM1706833018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB107_0.5	0.5	FILL	23-05-17	EM1706833019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Field ID	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(a)pyrene TEQ (zero LOR)	Benzo(a)pyrene TEQ (half LOR)	Benzo(a)pyrene TEQ (LOR)	Benzo(b+j)fluoranthene	Benzo(b+j+k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)	PAHs (Vic EPA List)
EW_SB01_0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
EW_SB01_2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
EW_SB01_3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
NHS_SB01_0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
NHS_SB01_3.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
NHS_SB02_0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
NHS_SB02_2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
NHS_SB03_0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
NHS_SB03_3.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
NHS_SB04_1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
NHS_SB04_4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
EW_EEC_SB101_0.1	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<1	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
EW_EEC_SB101_0.4	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<1	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
NHS_EEC_SB101_0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<1	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
NHS_EEC_SB101_0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_EEC_SB101_1.0	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<1	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
NHS_EEC_SB102_0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<1	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
NHS_EEC_SB102_1.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<1	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
NHS_EEC_SB103_0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<1	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
NHS_EEC_SB103_0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<1	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
NHS_EEC_SB104_0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<1	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
NHS_EEC_SB104_0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<1	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
NHS_EEC_SB105_0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5
NHS_EEC_SB105_0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5
NHS_EEC_SB106_0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5
NHS_EEC_SB106_0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5
NHS_EEC_SB107_0.1	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5
NHS_EEC_SB107_0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5

Table 2
Soil Analytical Results - 2015 to 2017
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	Explosives				Nitroaromatics			Other		PCB	Pesticides			Phthalates						Phenols											Pesticides		Herbicides			
	1,3,5-Trinitrobenzene	2,4-Dinitrotoluene	2,6-dinitrotoluene	Nitrobenzene	2-Picoline	4-aminobiphenyl	Pentachloronitrobenzene	Acetophenone	Formaldehyde	PCBs (Sum of total)	Chlorbenzilate	Carbazole	Pirimphos-ethyl	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Diethylphthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,6-Dichlorophenol	2-Chlorophenol	2-Methylphenol	2-Nitrophenol	3 & 4 -methylphenol	4-chloro-3-methylphenol	Pentachlorophenol	Phenol	Atrazine	Mirex	2,4-D	Mecoprop	Pidoram	Pronamide
	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	mg/kg	mg/kg	mg/kg
EQL	0.5	1	1	0.5	0.5	0.5	0.5	0.5	10	0.1	0.5	0.5	0.05	5	0.5	0.5	0.5	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	0.2	0.01	0.5	0.5	0.5	0.5
NEPM 2013 Table 1A(1) HILs Res A Soil																														100	3,000	320	10				
NEPM 2013 Table 1A(1) HILs Res B Soil										1																				130	45,000	470	20				
NEPM 2013 Table 1A(1) HILs Rec C Soil										1																				120	40,000	400	20				
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil										7																				660	240,000	2,500	100				
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 0-1m																																					
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 1-2m																																					
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 2-4m																																					
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, >4m																																					
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 0-1m																																					
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 1-2m																																					
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 2-4m																																					
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, >4m																																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 2-4m																																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, >4m																																					
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 0-2m																																					
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 2-4m																																					
NEPM 2013 Table 1B(5) Generic EIL - Comm/Ind																																					
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space																																					
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil, 0-2m																																					
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil, 0-2m																																					
USEPA RSLs Industrial Soil THQ=1.0	32,000	7.4	1.5	22		0.11	13	120,000	120,000		21			160	1,200	660,000		82,000	8,200	82,000	210	2,500	16,000		5,800	41,000			82,000								62,000
USEPA RSLs Resident Soil THQ=1.0	2,200	1.7	0.36	5.1		0.026	2.7	7,800	7,800		4.9			39	290	51,000		6,300	630	6,300	49	190	1,300		390	3,200			6,300								4,700
Location	**Field ID**	**Depth**	**Matrix Description**	**Date**	**Sample Code**																																
EW SB01	EW_SB01_0.5	0.5	Fill	13-04-15	EM1706833056	-	-	-	-	-	-	-	-	<10	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-
	EW_SB01_2.0	2	Clayey SAND	13-04-15	EM1706833057	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.1	-	<0.2	-	<0.4	-	<1	<0.5	<0.2	<0.01	<0.5	<0.5	<0.5	-
	EW_SB01_3.0	3	Clayey SAND	13-04-15	EM1709589001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS SB01	NHS_SB01_0.5	0.5	Fill	16-04-15	EM1709589002	-	-	-	-	-	-	-	-	<10	<0.1	-	-	-	-	-	-	-	-	-	<0.5	-	-	<10	<0.1	-	<0.2	-	<0.4	-	<1	<0.5	<0.2	<0.05	<0.5	<0.5	<0.5	-
	NHS_SB01_3.0	3	Clayey SAND	16-04-15	EM1709589003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS SB02	NHS_SB02_0.5	0.5	Fill	16-04-15	EM1709589006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_SB02_2.0	2	SAND	16-04-15	EM1709589008	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.1	-	<0.2	-	<0.4	-	<1	<0.5	<0.2	<0.05	<0.5	<0.5	<0.5	-
NHS SB03	NHS_SB03_0.5	0.5	Fill	16-04-15	EM1706833023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_SB03_3.0	3	SAND	16-04-15	EM1706833024	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.1	-	<0.2	-	<0.4	-	<1	<0.5	<0.2	<0.05	<0.5	<0.5	<0.5	-
NHS SB04	NHS_SB04_1.0	1	Fill	16-04-15	EM1706833018	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.1	-	<0.2	-	<0.4	-	<1	<0.5	<0.2	<0.05	<0.5	<0.5	<0.5	-
	NHS_SB04_4.0	4	SAND	16-04-15	EM1706833019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EW_EEC_SB101	EW_EEC_SB101_0.1	0.1	FILL	24-05-17	EM1706833056	<0.5	<1	<1	<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	<0.5	<0.5	<0.5	<1	<0.5	-	-	-	-	-	<0.5
	EW_EEC_SB101_0.4	0.4	FILL	24-05-17	EM1706833057	<0.5	<1	<1	<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	<0.5	<0.5	<0.5	<0.5	<1	<0.5	-	-	-	-	-	<0.5
NHS_EEC_SB101	NHS_EEC_SB101_0.2	0.2	FILL	19-07-17	EM1709589001	<0.5	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.1	<0.5	<0.5	<0.5	6.7	<0.5	<0.5	<0.5	<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
	NHS_EEC_SB101_0.5	0.5	FILL	19-07-17	EM1709589002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB101_1.0	1	Sandy CLAY	19-07-17	EM1709589003	<0.5	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.1	<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	<0.5	<0.5	<0.5	<0.5	<1	<0.5	-	-	-	-	-	<0.5
NHS_EEC_SB102	NHS_EEC_SB102_0.5	0.5	FILL	19-07-17	EM1709589006	<0.5	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.1	<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	<0.5	<0.5	<0.5	<0.5	<1	<0.5	-	-	-	-	-	<0.5
	NHS_EEC_SB102_1.5	1.5	Clayey SAND	19-07-17	EM1709589008	<0.5	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.1	<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	<0.5	<0.5	<0.5	<0.5	<1	<0.5	-	-	-	-	-	<0.5
NHS_EEC_SB103	NHS_EEC_SB103_0.2	0.2	FILL	24-05-17	EM1706833023	<0.5	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.1	<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	<0.5	<0.5	<0.5	<0.5	<1	<0.5	-	-	-	-	-	<0.5
	NHS_EEC_SB103_0.5	0.5	FILL	24-05-17	EM1706833024	<0.5	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.1	<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	<0.5	<0.5	<0.5	<0.5	<1	<0.5	-	-	-	-	-	<0.5
NHS_EEC_SB104	NHS_EEC_SB104_0.2	0.2	FILL	24-05-17	EM1706833027	<0.5	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.1	<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	<0.5	<0.5	<0.5	<0.5	<1	<0.5	-	-	-	-	-	<0.5
	NHS_EEC_SB104_0.5	0.5	FILL	24-05-17	EM1706833028	<0.5	<1	<1	<0.5	<0.5	<0.5	<0.5	0.8	-	<0.1	<0.5	<0.5	<0.5	<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	<0.5	<0.5	<1	<0.5	-	-	-	-	-	<0.5
NHS_EEC_SB105	NHS_EEC_SB105_0.2	0.2	FILL	24-05-17	EM1706833031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB105_0.5	0.5	FILL	24-05-17	EM1706833032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_EEC_SB106	NHS_EEC_SB106_0.2	0.2	FILL	24-05-17	EM1706833035	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB106_0.5	0.5	FILL	24-05-17	EM1706833036	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_EEC_SB107	NHS_EEC_SB107_0.1	0.1	FILL	23-05-17	EM1706833018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB107_0.5	0.5	FILL	23-05-17	EM1706833019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 2
Soil Analytical Results - 2015 to 2017
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	SVOCs																	Soil Properties										
	2-(acetylamino) fluorene	3,3-Dichlorobenzidine	4-(dimethylamino) azobenzene	4-bromophenyl phenyl ether	4-chlorophenyl phenyl ether	4-Nitroquinoline-N-oxide	Azobenzene	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl)ether	Dibenzofuran	Hexachloropropene	Methapyrilene	N-nitrosomorpholine	N-nitrosopiperidine	N-nitrosopyrrolidine	Phenacetin	pH (CaCl2)	Clay in soils <2um	Moisture Content	Organic Matter	CEC	DENSITY	Exchangeable Calcium	Exchangeable Magnesium	Exchangeable Potassium	Exchangeable Sodium	TOC
	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	-	%	%	%	meq/100g	g/cm3	meq/100g	meq/100g	meq/100g	meq/100g	%
EQL	0.5	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	0.5	0.1		1	0.5	0.2		0.2	0.2	0.2	0.2	
NEPM 2013 Table 1A(1) HILs Res A Soil																											
NEPM 2013 Table 1A(1) HILs Res B Soil																											
NEPM 2013 Table 1A(1) HILs Rec C Soil																											
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																											
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 0-1m																											
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 1-2m																											
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 2-4m																											
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, >4m																											
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 0-1m																											
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 1-2m																											
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 2-4m																											
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, >4m																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 2-4m																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, >4m																											
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 0-2m																											
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 2-4m																											
NEPM 2013 Table 1B(5) Generic EIL - Comm/Ind																											
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space																											
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil, 0-2m																											
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil, 0-2m																											
USEPA RSLs Industrial Soil THQ=1.0	0.6	5.1	0.5				26	2,500	1	1,000			0.34	0.24	1.1	1,000											
USEPA RSLs Resident Soil THQ=1.0	0.14	1.2	0.12				5.6	190	0.23	73			0.081	0.058	0.26	250											

Location	Field ID	Depth	Matrix Description	Date	Sample Code																								
EW SB01	EW_SB01_0.5	0.5	Fill	13-04-15	EM1706833056	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.5	-	10	-	-	-	-	-	-	-	-
	EW_SB01_2.0	2	Clayey SAND	13-04-15	EM1706833057	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	9.5	-	-	-	-	-	-	-	0.092
	EW_SB01_3.0	3	Clayey SAND	13-04-15	EM1709589001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.6	20	9.5	-	4.5	-	-	-	-	-	0.12
NHS SB01	NHS_SB01_0.5	0.5	Fill	16-04-15	EM1709589002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.4	-	6.2	-	-	-	-	-	-	-	-
	NHS_SB01_3.0	3	Clayey SAND	16-04-15	EM1709589003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.1	-	12	-	-	-	-	-	-	-	-
NHS SB02	NHS_SB02_0.5	0.5	Fill	16-04-15	EM1709589006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.8	-	8.9	-	-	-	-	-	-	-	-
	NHS_SB02_2.0	2	SAND	16-04-15	EM1709589008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.9	-	7.8	-	-	-	-	-	-	-	-
NHS SB03	NHS_SB03_0.5	0.5	Fill	16-04-15	EM1706833023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	22	-	-	-	-	-	-	-	-
	NHS_SB03_3.0	3	SAND	16-04-15	EM1706833024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4	33	15	-	5.2	-	-	-	-	-	0.12
NHS SB04	NHS_SB04_1.0	1	Fill	16-04-15	EM1706833018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.1	-	27	-	-	-	-	-	-	-	-
	NHS_SB04_4.0	4	SAND	16-04-15	EM1706833019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	-	10	-	-	-	-	-	-	-	-
EW_EEC_SB101	EW_EEC_SB101_0.1	0.1	FILL	24-05-17	EM1706833056	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	8.3	-	-	-	-	-	-	-	-	-	-
	EW_EEC_SB101_0.4	0.4	FILL	24-05-17	EM1706833057	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	7.5	-	-	-	-	-	-	-	-	-	-
NHS_EEC_SB101	NHS_EEC_SB101_0.2	0.2	FILL	19-07-17	EM1709589001	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	8.2	-	11.5	-	-	-	-	-	-	-	-
	NHS_EEC_SB101_0.5	0.5	FILL	19-07-17	EM1709589002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.9	8	5.8	<0.5	3.1	2.65	2.1	1	<0.2	<0.2	<0.5
	NHS_EEC_SB101_1.0	1	Sandy CLAY	19-07-17	EM1709589003	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	5.7	-	24.2	-	-	-	-	-	-	-	-
NHS_EEC_SB102	NHS_EEC_SB102_0.5	0.5	FILL	19-07-17	EM1709589006	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	7.8	-	8	-	-	-	-	-	-	-	-
	NHS_EEC_SB102_1.5	1.5	Clayey SAND	19-07-17	EM1709589008	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	7.2	-	8	-	-	-	-	-	-	-	-
NHS_EEC_SB103	NHS_EEC_SB103_0.2	0.2	FILL	24-05-17	EM1706833023	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	8.4	-	12.6	-	-	-	-	-	-	-	-
	NHS_EEC_SB103_0.5	0.5	FILL	24-05-17	EM1706833024	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	6.2	-	6.7	-	-	-	-	-	-	-	-
NHS_EEC_SB104	NHS_EEC_SB104_0.2	0.2	FILL	24-05-17	EM1706833027	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	9.8	-	10	-	-	-	-	-	-	-	-
	NHS_EEC_SB104_0.5	0.5	FILL	24-05-17	EM1706833028	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	6.5	-	11	-	-	-	-	-	-	-	-
NHS_EEC_SB105	NHS_EEC_SB105_0.2	0.2	FILL	24-05-17	EM1706833031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4	-	-	-	-	-	-	-	-
	NHS_EEC_SB105_0.5	0.5	FILL	24-05-17	EM1706833032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.2	-	-	-	-	-	-	-	-
NHS_EEC_SB106	NHS_EEC_SB106_0.2	0.2	FILL	24-05-17	EM1706833035	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.3	-	-	-	-	-	-	-	-
	NHS_EEC_SB106_0.5	0.5	FILL	24-05-17	EM1706833036	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.2	-	-	-	-	-	-	-	-
NHS_EEC_SB107	NHS_EEC_SB107_0.1	0.1	FILL	23-05-17	EM1706833018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.5	-	-	-	-	-	-	-	-
	NHS_EEC_SB107_0.5	0.5	FILL	23-05-17	EM1706833019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-

Table 2
Soil Analytical Results - 2015 to 2017
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				Organochlorine Pesticides																	Organophosphorous Pesticides									
				4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenthion	Malathion	Prothiofos
				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				0.05	0.05	0.05	0.05	0.05	0.05	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
NEPM 2013 Table 1A(1) HILs Res A Soil							6						240					10		6			160								
NEPM 2013 Table 1A(1) HILs Res B Soil							10						600					20		10			340								
NEPM 2013 Table 1A(1) HILs Rec C Soil							10						400					20		10			250								
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil							45						3,600					100		50			2,000								
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 0-1m																															
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 1-2m																															
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, 2-4m																															
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand, >4m																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 0-1m																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 1-2m																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, 2-4m																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand, >4m																															
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																															
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																															
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 2-4m																															
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, >4m																															
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 0-2m																															
CRC CARE Intrusive Maintenance Worker Soil HSL for Vapour Intrusion, Sand, 2-4m																															
NEPM 2013 Table 1B(5) Generic EIL - Comm/Ind												640																			
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space												180																			
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil, 0-2m																															
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil, 0-2m																															
USEPA RSLs Industrial Soil THQ=1.0				9.3	0.36	0.18		1.3			9.6	8.5		0.14					2.5		0.33	570		8,200	570	7.9	160	410		16,000	
USEPA RSLs Resident Soil THQ=1.0				2	0.086	0.039		0.3			2.3	1.9		0.034					0.57		0.07	44		630	44	1.9	13	32		1,300	
Location	**Field ID**	**Depth**	**Matrix Description**	**Date**	**Sample Code**																											
EW SB01	EW_SB01_0.5	0.5	Fill	13-04-15	EM1706833056	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-
	EW_SB01_2.0	2	Clayey SAND	13-04-15	EM1706833057	<0.05	-	<0.05	-	-	<0.1	-	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	<0.2	-	-	-	-	-	-	<0.05	-
	EW_SB01_3.0	3	Clayey SAND	13-04-15	EM1709589001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-
NHS SB01	NHS_SB01_0.5	0.5	Fill	16-04-15	EM1709589002	<0.05	-	<0.05	-	-	<0.1	-	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	<0.2	-	-	-	-	-	-	<0.05	-
	NHS_SB01_3.0	3	Clayey SAND	16-04-15	EM1709589003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-
NHS SB02	NHS_SB02_0.5	0.5	Fill	16-04-15	EM1709589006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-
	NHS_SB02_2.0	2	SAND	16-04-15	EM1709589008	<0.05	-	<0.05	-	-	<0.1	-	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	<0.2	-	-	-	-	-	-	<0.05	-
NHS SB03	NHS_SB03_0.5	0.5	Fill	16-04-15	EM1706833023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-
	NHS_SB03_3.0	3	SAND	16-04-15	EM1706833024	<0.05	-	<0.05	-	-	<0.1	-	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	<0.2	-	-	-	-	-	-	<0.05	-
NHS SB04	NHS_SB04_1.0	1	Fill	16-04-15	EM1706833018	<0.05	-	<0.05	-	-	<0.1	-	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	<0.2	-	-	-	-	-	-	<0.05	-
	NHS_SB04_4.0	4	SAND	16-04-15	EM1706833019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-
EW_EEC_SB101	EW_EEC_SB101_0.1	0.1	FILL	24-05-17	EM1706833056	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	EW_EEC_SB101_0.4	0.4	FILL	24-05-17	EM1706833057	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NHS_EEC_SB101	NHS_EEC_SB101_0.2	0.2	FILL	19-07-17	EM1709589001	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	NHS_EEC_SB101_0.5	0.5	FILL	19-07-17	EM1709589002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB101_1.0	1	Sandy CLAY	19-07-17	EM1709589003	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NHS_EEC_SB102	NHS_EEC_SB102_0.5	0.5	FILL	19-07-17	EM1709589006	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	NHS_EEC_SB102_1.5	1.5	Clayey SAND	19-07-17	EM1709589008	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NHS_EEC_SB103	NHS_EEC_SB103_0.2	0.2	FILL	24-05-17	EM1706833023	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	NHS_EEC_SB103_0.5	0.5	FILL	24-05-17	EM1706833024	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NHS_EEC_SB104	NHS_EEC_SB104_0.2	0.2	FILL	24-05-17	EM1706833027	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	NHS_EEC_SB104_0.5	0.5	FILL	24-05-17	EM1706833028	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NHS_EEC_SB105	NHS_EEC_SB105_0.2	0.2	FILL	24-05-17	EM1706833031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB105_0.5	0.5	FILL	24-05-17	EM1706833032	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_EEC_SB106	NHS_EEC_SB106_0.2	0.2	FILL	24-05-17	EM1706833035	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB106_0.5	0.5	FILL	24-05-17	EM1706833036	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NHS_EEC_SB107	NHS_EEC_SB107_0.1	0.1	FILL	23-05-17	EM1706833018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NHS_EEC_SB107_0.5	0.5	FILL	23-05-17	EM1706833019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table E Summary of Final On-Site Soil Conditions – Results Exceeding Investigation Levels (mg/kg)

Analyte	On-Site Range (mg/kg)	Samples Exceeding Criteria	Low Density Residential[1]		High Density Residential[2]		Recreational/Public Open Space[3]		Commercial/Industrial[4]	
			EIL/ESL	HIL/HSL	EIL/ESL	HIL/HSL	EIL/ESL	HIL/HSL	EIL/ESL	HIL/HSL
pH	5.5 - 9.8	Fill: EW_SB01_0.5, NHS_SB01_0.5, NHS_SB03_0.5, EW_EEC_SB101_0.1, NHS_EEC_SB101_0.2, NHS_EEC_SB103_0.2, NHS_EEC_SB104_0.2 Natural: NHS_SB04_4.0, NHS_EEC_SB101_1.0	6-8[5]	6-8[5]	6-8[5]	6-8[5]	6-8[5]	6-8[5]	6-8[5]	6-8[5]
Antimony	<5 - 54	Fill: NHS_EEC_SB103_0.2	20[6]	31[8]	20[6]	31[8]	20[6]	31[8]	40[7]	470[9]
Barium	<10 - 800	Fill: NHS_EEC_SB104_0.5	500[6]	15,000[8]	500[6]	15,000[8]	500[6]	15,000[8]	2,000[7]	220,000[9]
Cobalt	<2 - 256	Fill: NHS_SB02_0.5, EW_EEC_SB101_0.1, NHS_EEC_SB101_0.2, NHS_EEC_SB102_0.5, NHS_EEC_SB103_0.2, NHS_EEC_SB104_0.2, NHS_EEC_SB104_0.5, NHS_EEC_SB105_0.5, NHS_EEC_SB106_0.5, NHS_EEC_SB107_0.1, NHS_ARC_SB04A_0.15, NHS_ARC_SB202_0.6	50[6]	100	50[6]	600	50[6]	300	300[7]	4,000
Copper	<5 - 232	Fill: NHS_EEC_SB104_0.5, NHS_ARC_SB203_0.5	75[10]	6,000	75[10]	30,000	75[10]	17,000	110[10]	240,000

Analyte	On-Site Range (mg/kg)	Samples Exceeding Criteria	Low Density Residential[1]		High Density Residential[2]		Recreational/Public Open Space[3]		Commercial/Industrial[4]	
			EIL/ESL	HIL/HSL	EIL/ESL	HIL/HSL	EIL/ESL	HIL/HSL	EIL/ESL	HIL/HSL
Manganese	<5 – 582	Fill: EW_SB01_0.5, EW_EEC_SB101_0.1, NHS_EEC_SB103_0.2, EW_ARC_SB201_0.1	220[11]	3,800	220[11]	14,000	220[11]	19,000	220[11]	60,000
Mercury	<0.1 - 30	Fill: NHS_ARC_SB202_0.6	6.6[6]	40	6.6[6]	120	6.6[6]	80	24[7]	730
TRH >C_{16}-C_{34} (F3)	<100 - 310	Fill – EW_SB01_0.5	300	-/4,500	300	-/5,800	300	-/5,300	1,700	-/27,000
Bis(2-ethylhexyl) phthalate	<0.5 – 6.7	Fill: NHS_EEC_SB101_0.2	0.925[13]	39[8]	0.925[13]	39[8]	0.925[13]	39[8]	0.925[13]	160[9]
Di-n-butyl phthalate	<0.5 – 0.6	Fill: NHS_EEC_SB104_0.5	0.15[13]	6,300[8]	0.15[13]	6,300[8]	0.15[13]	6,300[8]	0.15[13]	82,000[9]
TCE	<0.02-0.43	Fill from Lot 1	0.01[6]	0.01[6]	0.01[6]	0.01[6]	0.01[6]	0.01[6]	0.01[6]	0.01[6]
Chromium VI	<0.5-0.6	Fill from Lot 1	0.4[6]	100	0.4[6]	500	0.4[6]	300	1.4	3,600

Notes:

1: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for urban residential/public open space, HIL/HSL for residential with garden/accessible soil (A) – Unless otherwise specified. For HSLs, HSL for vapour intrusion quoted first followed by HSL for direct contact.

2: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for urban residential/public open space, HIL/HSL for residential with minimal opportunities for soil access (B) – Unless otherwise specified. For HSLs, HSL for vapour intrusion quoted first followed by HSL for direct contact.

3: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for recreational/open space, HIL/HSL C – Unless otherwise specified. For HSLs, HSL for vapour intrusion quoted first followed by HSL for direct contact.

4: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for commercial/industrial, HIL/HSL for commercial/industrial (D) – Unless otherwise specified. For HSLs, HSL for vapour intrusion quoted first followed by HSL for direct contact.

5: ANZECC B levels.

6: Canadian Environmental Quality guidelines 2007 (Residential and Parkland Use).

7: Canadian Environmental Quality guidelines 2007 (Commercial Use).

8: US EPA Regional Screening Level (RSL) May 2018 - Residential Soil.

9: US EPA Regional Screening Level (RSL) May 2018 - Industrial Soil.
10: Site-specific EIL derived in accordance with NEPC (2013).
11: US EPA Eco-Tox SSL (June 2017).
12: Dutch 2009 (Target value) adopted in the absence of NEPM EIL and ANZECC B levels.
13: US EPA Region 5 ESLs (August 2003).
EIL: Ecological Investigation Level.
ESL: Ecological Screening Level, ESL for coarse grained soil adopted.
HIL: Health Investigation Level
HSL: Health Screening Level. HSL for vapour intrusion quoted first followed by HSL for direct contact, "-" indicates analyte is not volatile, vapour intrusion HSL for 0m - <1m in sand adopted for HSL-A, HSL-B and HSL-D for the purposes of assessing soil.
NE: Not Established.
All values in mg/kg

Table F Groundwater Monitoring Well Construction Details

Well ID	Total Depth (mbgl)	Screened Interval (mbgl)	Water Strike (mbgl)	Stabilised Groundwater Level (mBTOC / mAHD)										
				Prior to the Audit	During the Audit									
				May. 2008 – Jan. 2014	Jan/Feb 2017	Aug. 2017	Oct. 2017	Jan. 2018	May. 2018	Jun. 2018	Jul. 2018	Aug. 2018	Jan. 2019	Apr. 2019	Aug. 2019
On-Site Groundwater Monitoring Wells														
MW9/1 (ERM, May 2001)	15.3	15.0 - 15.3	Not noted	3.62 – 8.80 / 34.66 – 29.48	Well decommissioned prior to the Audit.									
MW9/2 (ERM, May 2001)	7.1	4.3 – 7.1	Not noted	0.46 – 5.52 / 37.71 – 32.65	Well decommissioned prior to the Audit.									
MW9/3 (ERM, May 2001)	11.7	11.3 – 11.7	Not noted	1.10 – 1.34 / 37.06 – 36.82	Well decommissioned prior to the Audit.									
MW10/1 (ERM, May 2001)	11.8	11.4 – 11.8	Not noted	1.04 – 6.75 / 37.63 – 31.92	Well decommissioned prior to the Audit.									
MW10/2 (ERM, May 2001)	15.1	14.6 – 15.1	Not noted	1.90 – 7.89 / 36.74 – 30.75	Well decommissioned prior to the Audit.									
MW10/3 (ERM, May 2001)	9.0	6.2 – 9.0	Not noted	8.86 - Dry / 29.74 - -	Well decommissioned prior to the Audit.									

Well ID	Total Depth (mbgl)	Screened Interval (mbgl)	Water Strike (mbgl)	Stabilised Groundwater Level (mBTOC / mAHD)										
				Prior to the Audit	During the Audit									
				May. 2008 – Jan. 2014	Jan/Feb 2017	Aug. 2017	Oct. 2017	Jan. 2018	May. 2018	Jun. 2018	Jul. 2018	Aug. 2018	Jan. 2019	Apr. 2019	Aug. 2019
MW12/1 (ERM, May 2001)	12.4	11.8 – 12.4	Not noted	4.86 – 7.05 / 33.10 – 30.92	Well decommissioned prior to the Audit.										
MW12/2 (ERM, May 2001)	7.8	5.2 – 7.8	Not noted	5.14 - Dry / 31.08 - -	Well decommissioned prior to the Audit.										
MW12/3 (ERM, May 2001)	15.0	14.5 – 15.0	Not noted	7.73 - Dry / 30.18 – -	Well decommissioned prior to the Audit.										
MW21 (SMEC, October 2006)	19.5	12.0 – 19.5	Not noted	9.18 – 10.05 / 29.30 – 28.42	10.21 / 28.26	10.28 / 28.19	10.38 / 28.09	10.38 / 28.09	-	-	10.33 / 28.14	10.57 / 27.90	-	-	-
MW38 (GHD, 24/11/2009)	18.0	15.0 – 18.0	11.0	9.30 – 10.12 / 29.25 - 28.43	10.00 / 28.55	10.35 / 28.20	10.49 / 28.07	10.45 / 28.10	-	-	10.50 / 28.05	10.64 / 27.91	-	-	11.00 / 27.55
BMW1 (EEC, 15/02/2017)	12.0	9.0 – 12.0	9.6	-	-	10.41 / 28.21	10.54 / 28.08	10.48 / 28.14	-	-	10.52 / 28.10	-	-	-	11.03 / 27.59
BMW2 (EEC, 15/02/2017)	12.0	9.0 – 12.0	9.5	-	-	10.46 / 28.21	10.70 / 27.96	10.49 / 28.18	10.60 / 28.07	-	10.54 / 28.13	-	10.68 / 27.99	-	10.99 / 27.68
Off-Site Groundwater Monitoring Wells - Upgradient (Nuplex Lot 1 and Lot 2)															

Well ID	Total Depth (mbgl)	Screened Interval (mbgl)	Water Strike (mbgl)	Stabilised Groundwater Level (mBTOC / mAHD)											
				Prior to the Audit	During the Audit										
				May. 2008 – Jan. 2014	Jan/Feb 2017	Aug. 2017	Oct. 2017	Jan. 2018	May. 2018	Jun. 2018	Jul. 2018	Aug. 2018	Jan. 2019	Apr. 2019	Aug. 2019
MW24A (GHD, 17/07/2008)	20.5	18.0 – 20.0	Not noted	9.88 – 10.70 / 29.20 – 28.39	10.88 / 28.21	-	-	-	-	-	-	-	-	-	-
MW24AR (EEC, 08/06/2017)	20.5	18.5 – 20.0	10.0	-	-	11.67 / 28.15	11.99 / 27.83	11.78 / 28.04	11.89 / 27.93	-	11.84 / 27.98	-	11.67 / 28.15	12.06 / 27.76	11.88 / 27.94
MW24B (GHD, 16/07/2008)	15.0	13.0 – 15.0	11.5	9.79 – 10.62 / 29.22 – 28.39	10.80 / 28.22	-	-	-	-	-	-	-	-	-	-
MW24BR (EEC, 09/06/2017)	15.0	13.5 – 15.0	10.0	-	-	11.65 / 28.17	12.41 / 27.41	11.74 / 28.08	11.84 / 27.98	-	11.78 / 28.04	-	11.83 / 27.99	12.07 / 27.76	12.14 / 27.68
MW24C (GHD, 15/07/2008)	11.0	8.2 – 10.6	Not noted	9.71 – 10.57 / 29.36 – 28.49	10.65 / 28.41	-	-	-	-	-	-	-	-	-	-
MW24CR (EEC, 09/06/2017)	12.0	9.0 – 12.0	10.5	-	-	11.69 / 28.09	12.67 / 27.11	11.57 / 28.21	11.71 / 28.07	-	11.68 / 28.10	-	11.62 / 28.15	11.31 / 28.47	11.41 / 28.36
MW13/1 (ERM, May 2001)	10.0	5.5 – 8.6	Not noted	9.00 - Dry	Well decommissioned prior to the Audit.										

Well ID	Total Depth (mbgl)	Screened Interval (mbgl)	Water Strike (mbgl)	Stabilised Groundwater Level (mBTOC / mAHD)										
				Prior to the Audit	During the Audit									
				May. 2008 – Jan. 2014	Jan/Feb 2017	Aug. 2017	Oct. 2017	Jan. 2018	May. 2018	Jun. 2018	Jul. 2018	Aug. 2018	Jan. 2019	Apr. 2019	Aug. 2019
MW13/2 (ERM, May 2001)	11.8	11.3 – 11.8	Not noted	8.91 – 10.42	Well decommissioned prior to the Audit.										
MW13/3 (ERM, May 2001)	15.3	14.8 – 15.3	Not noted	8.68 – 10.31	Well decommissioned prior to the Audit.										
MW15/1 (ERM, May 2001)	9.2	6.2 – 9.2	Not noted	6.85 - Dry	Well decommissioned prior to the Audit.										
MW15/2 (ERM, May 2001)	12.7	12.2 – 12.7	Not noted	9.88 – 10.17	Well decommissioned prior to the Audit.										
MW15/3 (ERM, May 2001)	15.5	15.0 – 15.5	Not noted	9.92 – 10.51	Well decommissioned prior to the Audit.										
MW22 (SMEC, October 2006)	15.1	12.0 – 15.1	Note noted	9.57 – 10.36 / 29.25 – 28.45	10.56 / 28.25	10.61 / 28.20	10.81 / 28.00	10.71 / 28.11	-	-	10.63 / 28.18	10.73 / 28.08	10.72 / 28.09	-	-
MW31 (GHD, 24/11/2009)	16.0	14.0 – 16.0	Not noted	10.44 – 10.55 / 28.56 – 28.45	-	-	-	-	-	-	-	-	-	-	-

Well ID	Total Depth (mbgl)	Screened Interval (mbgl)	Water Strike (mbgl)	Stabilised Groundwater Level (mBTOC / mAHD)											
				Prior to the Audit	During the Audit										
				May. 2008 – Jan. 2014	Jan/Feb 2017	Aug. 2017	Oct. 2017	Jan. 2018	May. 2018	Jun. 2018	Jul. 2018	Aug. 2018	Jan. 2019	Apr. 2019	Aug. 2019
MW32 (GHD, 26/11/2009)	17.0	15.0 – 17.0	Not noted	9.61 – 10.39 / 29.25 – 28.47	10.52 / 28.34	10.66 / 28.20	11.00 / 27.86	10.78 / 28.08	-	-	10.70 / 28.16	-	10.79 / 28.07	-	-
MW35 (GHD, 02/12/2009)	18.0	15.0 – 18.0	Not noted	9.57 – 10.26 / 29.16 – 28.47	10.48 / 28.25	10.57 / 28.16	10.85 / 27.88	10.58 / 28.15	-	-	10.72 / 28.01	-	-	-	11.13 / 27.60
MW36 (GHD, 23/11/2009)	18.0	15.0 – 18.0	Not noted	10.35 – 10.44 / 28.57 – 28.48	-	-	10.74 / 28.18	10.74 / 28.18	-	-	10.78 / 28.14	11.05 / 27.87	-	-	-
MW37 (GHD, 23/11/2009)	18.0	15.0 – 18.0	Not noted	9.49 – 10.31 / 29.28 – 28.47	10.49 / 28.28	10.55 / 28.22	10.63 / 28.14	10.64 / 28.13	-	10.68 / 28.09	-	10.84 / 27.93	-	-	-
MW39 (GHD, 25/11/2009)	18.0	15.0 – 18.0	Not noted	10.20 – 10.33 / 28.64 – 28.52	-	10.52 / 28.32	10.62 / 28.22	10.40 / 28.44	-	-	10.43 / 28.41	10.57 / 28.27	10.65 / 28.19	-	-
MW3 (ERM, 14/02/2001)	11.5	2.0 – 11.5	Not noted	7.62 – 8.80	Well decommissioned prior to the Audit.										
MW4 (ERM, 14/02/2001)	10.5	3.0 – 10.5	Not noted	7.34 – 9.97	Well decommissioned prior to the Audit.										

Well ID	Total Depth (mbgl)	Screened Interval (mbgl)	Water Strike (mbgl)	Stabilised Groundwater Level (mBTOC / mAHD)											
				Prior to the Audit	During the Audit										
				May. 2008 – Jan. 2014	Jan/Feb 2017	Aug. 2017	Oct. 2017	Jan. 2018	May. 2018	Jun. 2018	Jul. 2018	Aug. 2018	Jan. 2019	Apr. 2019	Aug. 2019
MW45A (EEC, 06/06/2017)	17.0	14.0 – 17.0	9.5	-	-	10.35 / 28.20	10.85 / 28.14	10.87 / 28.12	-	-	10.90 / 28.10	11.06 / 27.94	-	-	-
MW45B (EEC, 01/06/2017)	20.5	17.0 – 20.0	9.5	-	-	10.77 / 28.30	10.75 / 28.25	10.82 / 28.19	-	-	-	11.07 / 27.94	-	-	-
Off-Site Groundwater Monitoring Wells - Upgradient (Regional)															
MW20 (SMEC, 02/10/2006)	15.1	12.0 – 15.1	Not noted	9.87 – 10.37 / 28.03 – 28.52	-	10.70 / 28.19	10.71 / 28.18	10.78 / 28.11	-	-	10.83 / 28.06	11.00 / 27.89	-	-	-
MW27 (GHD, 28/04/2008)	12.0	8.0 – 12.1	Not noted	9.94 – 10.43 / 29.02 – 28.53	-	-	-	-	-	-	-	11.02 / 27.94	-	-	-
MW28 (GHD, 28/04/2008)	12.0	8.0 – 12.1	Not noted	9.76 – 10.23 / 28.99 – 28.53	-	10.55 / 28.20	10.56 / 28.20	10.60 / 28.15	-	-	10.67 / 28.08	10.77 / 27.98	-	-	-
Off-Site Groundwater Monitoring Wells - Downgradient															
MW2 (ERM, Feb 2001)	8.9	1.5 – 8.0	Not noted	8.89 / 29.25 (May 2008). Well dry Aug 2008 – Jan 2009. Decommissioned from April 2009.	Well decommissioned prior to the Audit.										

Well ID	Total Depth (mbgl)	Screened Interval (mbgl)	Water Strike (mbgl)	Stabilised Groundwater Level (mBTOC / mAHD)											
				Prior to the Audit	During the Audit										
				May. 2008 – Jan. 2014	Jan/Feb 2017	Aug. 2017	Oct. 2017	Jan. 2018	May. 2018	Jun. 2018	Jul. 2018	Aug. 2018	Jan. 2019	Apr. 2019	Aug. 2019
MW02A (ARC, 08/05/2018)	11.5	8.5 – 11.5	9.5	-	-	-	-	-	10.20 / 28.01	-	10.13 / 28.08	10.22 / 27.99	-	-	-
MW16/1 (ERM, May 2001)	14.7	13.7 – 14.3	Not noted	9.48 – 10.03 / 28.92 – 28.37	Well decommissioned prior to the Audit.										
MW16/2 (ERM, May 2001)	10.8	10.3 – 10.8	Not noted	9.43 – 9.74 / 28.96 – 28.65	Well decommissioned prior to the Audit.										
MW16/3 (ERM, May 2001)	8.6	5.3 – 8.6	Not noted	Dry	Well decommissioned prior to the Audit.										
MW17/1 (ERM, May 2001)	14.3	13.7 – 14.3	Not noted	8.74 – 9.42 / 29.03 – 28.35	Well decommissioned prior to the Audit.										
MW17/2 (ERM, May 2001)	11.1	10.6 – 11.1	Not noted	8.26 – 9.15 / 28.94 – 28.62	Well decommissioned prior to the Audit.										
MW17/3 (ERM, May 2001)	8.7	6.1 – 8.6	Not noted	8.70 - 8.72 / 29.06 - 29.05 Well dry Nov 2008 – Jul 2009.	Well decommissioned prior to the Audit.										

Well ID	Total Depth (mbgl)	Screened Interval (mbgl)	Water Strike (mbgl)	Stabilised Groundwater Level (mBTOC / mAHD)											
				Prior to the Audit	During the Audit										
				May. 2008 – Jan. 2014	Jan/Feb 2017	Aug. 2017	Oct. 2017	Jan. 2018	May. 2018	Jun. 2018	Jul. 2018	Aug. 2018	Jan. 2019	Apr. 2019	Aug. 2019
MW17A (ARC, 30/04/2018)	11.5	6.5 – 11.5	9.0	-	-	-	-	-	5.65 / NS	-	-	-	-	-	-
MW17B (ARC, 21/05/2018)	7.5	4.5 – 7.5	7.0	-	-	-	-	-	-	5.25 / 32.47	5.07 / 32.65	5.26 / 32.46	-	-	-
MW23 (GHD, 19/10/2006)	20.1	12.0 – 20.1	Not noted	8.38 – 9.25 / 29.22 – 28.35	9.37 / 28.23	9.47 / 28.14	9.59 / 28.01	9.58 / 28.03	-	-	-	-	-	-	-
MW23A (ARC, 30/04/2018)	11.5	8.5 – 11.5	9.5	-	-	-	-	-	9.48 / 28.09	-	9.53 / 28.04	9.63 / 27.94	-	-	-
MW33 (GHD, 11/03/2010)	17.0	15.0 – 17.0	Not noted	Not gauged/sampled. Well replaced by MW33R due to blockage and decommissioned March 2018.											
MW33R (GHD, 15/03/2010)	17.0	15.0 – 17.0	Not noted	9.11 – 9.97 / 29.23 / 28.38	10.12 / 28.22	10.19 / 28.15	10.41 / 27.93	10.32 / 28.02	10.42 / 27.92	-	10.36 / 27.98	-	10.37 / 27.97	-	-
CMW1 (EEC, 16/02/2017)	12.5	9.5 – 12.5	9.5	-	-	10.17 / 28.17	10.39 / 27.95	10.20 / 28.14	10.37 / 27.97	-	10.32 / 28.02	-	10.33 / 28.01	-	-

Well ID	Total Depth (mbgl)	Screened Interval (mbgl)	Water Strike (mbgl)	Stabilised Groundwater Level (mBTOC / mAHD)											
				Prior to the Audit	During the Audit										
				May. 2008 – Jan. 2014	Jan/Feb 2017	Aug. 2017	Oct. 2017	Jan. 2018	May. 2018	Jun. 2018	Jul. 2018	Aug. 2018	Jan. 2019	Apr. 2019	Aug. 2019
MW50A (ARC, 07/08/2017)	15.0	12.0 – 15.0	9.5	-	-	10.31 / 28.15	10.66 / 27.80	10.32 / 28.14	10.51 / 27.95	-	10.46 / 28.00	-	10.45 / 28.01	10.77 / 27.69	10.93 / 27.53
MW50B (ARC, 01/08/2017)	18.0	15.0 – 18.0	9.5	-	-	10.30 / 28.17	10.69 / 27.78	10.42 / 28.06	10.53 / 27.94	-	10.47 / 28.00	-	10.46 / 28.01	10.87 / 27.60	10.91 / 27.56
MW50C (ARC, 02/08/2017)	20.7	18.5 – 20.0	9.5	-	-	10.34 / 28.15	10.58 / 27.90	10.47 / 28.01	10.56 / 27.92	-	10.51 / 27.97	-	10.50 / 27.98	10.89 / 27.60	10.90 / 27.58
MW52 (EEC, 22/05/2017)	17.0	14.0 – 17.0	10.2	-	-	10.03 / 28.10	10.01 / 28.12	10.00 / 28.13	10.07 / 28.06	-	10.15 / 27.98	10.13 / 28.00	10.30 / 27.83	-	-
MW53 (EEC, 22/05/2017)	17.0	14.0 – 17.0	10.0	-	-	9.91 / 28.12	9.93 / 28.10	9.93 / 28.10	9.98 / 28.05	-	9.99 / 28.04	10.06 / 27.97	10.20 / 27.83	-	-
MW55 (ARC, 02/03/2018)	17.0	14.0 – 17.0	9.3	-	-	-	-	-	9.12 / 28.01	-	9.18 / 27.95	9.26 / 27.87	9.35 / 27.78	-	-
MW59 (Resolve, 26/04/2019)	25.5	23.5 – 25.5	12.7	-	Note well installed in 2019 following Lot 4 sampling works. SWLs gauged May-Jun 2019: 10.32 – 10.50 / 27.81 – 27.63 (May-Jun 2019)										

NA: No access to groundwater monitoring well

NS: Groundwater monitoring well not surveyed

Table G1 Groundwater Results (ARC 2017 - 2018)

Table 6
Groundwater Analytical Results - August 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				TPH					TRH							BTEX							MAH									Halogenated Hydrocarbons				
				C6-C9	C10-C14	C15-C28	C29-C36	>C10-C36 (sum of total)	C6-C10	C6-C10 (f1 minus BTEX)	C10-C16	C10-C16 (f2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (sum of total)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	1,2,3-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Iodomethane	Trichlorofluoromethane
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				20	50	100	50	50	20	20	100	100	100	100	100	1	1	1	1	1	1	0.001	1	1	1	1	1	1	1	1	1	10	10	1	10
Potable Water Supply				600[D]				600[D]								1	800 / 25[A]	300 / 3[A]			600 / 20[A]			6[US]	45[US]	100[US]	66[US]		200[US]	30 / 4[A]	69[US]	1	1			
Primary Contact Recreation				600[A]				600[A]								1	800 / 25[A]	300 / 3[A]			600 / 20[A]			6[US]	45[US]	100[US]	66[US]		200[US]	30 / 4[A]	69[US]	1	1			
Stock Watering				600[A]				600[A]								1	800 / 25[A]	300 / 3[A]			600 / 20[A]			6[US]	45[US]	100[US]	66[US]		200[US]	30 / 4[A]	69[US]	1	1			
Agriculture, Parks and Gardens				600[A]				600[A]																											
Maintenance of Ecosystems				600[A]				600[A]								700																				
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m										1,000		1,000				900	NL	NL			NL															
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m										NL		NL				NL	NL	NL			NL															
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m										7,000		NL				5000	NL	NL			NL															
Derived Groundwater Risk Based Contminant Screening Level - Residential																																				59,000
Derived Groundwater Risk Based Contminant Screening Level - Commercial/Industrial																																				940,000
Field ID	**Location**	**Date**	**Sample Code**																																	
BMW1	Lot 4 (On-site)	24-08-17	EM1711516002	130	<50	<100	<50	<50	120	120	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		24-10-17	EM1714676006	420	<50	<100	<50	<50	400	400	<100	<100	<100	<100	<100	2	<1	<1	<1	<1	<1	0.002	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		17-01-18	EM1801648004	250	<50	<100	<50	<50	250	250	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
BMW2	Lot 4 (On-site)	24-08-17	EM1711441008	140	<50	<100	<50	<50	130	130	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		24-10-17	EM1714676007	450	<50	<100	<50	<50	420	410	<100	<100	<100	<100	<100	1	5	<1	<1	<1	<1	0.006	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		17-01-18	EM1801648003	220	<50	<100	<50	<50	210	210	<100	<100	<100	<100	<100	<1	3	<1	<1	<1	<1	0.003	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
CMW1	Lot 3	24-08-17	EM1711516003	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		23-10-17	EM1714618003	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		16-01-18	EM1801513009	30	<50	<100	<50	<50	30	30	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		15-05-18	EM1808074003	30	<50	<100	<50	<50	30	30	<100	<100	<100	<100	<100	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.001	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		05-07-18	EM1810788004	30	<50	<100	<50	<50	40	40	<100	<100	<100	<100	<100	<1	1	<1	<1	<1	<1	<0.001	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
MW2A	Lot 3	15-05-18	EM1808074001	110	<50	<100	<50	<50	110	100	<100	<100	<100	<100	<100	8	<1	<1	<1	<1	<1	0.008	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		04-07-18	EM1810788003	80	<50	110	<50	110	90	90	<100	<100	110	<100	110	4	<1	<1	<1	<1	<1	0.004	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		03-10-18	EM1815860004	90	<50	<100	<50	<50	80	80	<100	<100	<100	<100	<100	3	<2	<2	<2	<2	<2	0.003	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW17B	Lot 3	05-06-18	EM1809115001	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<1	<1	2	3	5	0.005	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		04-07-18	EM1810788002	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		03-10-18	EM1815860002	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<2	<2	<2	<2	<2	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW21	Lot 4 (On-site)	23-08-17	EM1711357011	120	<50	<100	<50	<50	110	110	<100	<100	<100	<100	<100	<1	<2	<2	<2	<2	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		24-10-17	EM1714676003	160	<50	<100	<50	<50	160	160	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		16-01-18	EM1801513018	150	<50	<100	<50	<50	140	140	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		14-08-18	EM1813024005	40	<50	<100	<50	<50	40	40	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
MW22	Lot 2	24-08-17	EM1711441004	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		24-10-17	EM1714676001	2,620	<50	<100	<50	<50	2,510	2,510	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		17-01-18	EM1801648007	2,580	<50	<100	<50	<50	2,490	2,490	<100	<100	<100	<100	<100	<10	<10	<10	<10	<10	<10	<0.01	-	<10	-	<10	<10	<10	<10	<10	<10	<10	<100	<100	<10	<100
		15-08-18	EM1813024013	2,550	<50	<100	<50	<50	2,480	2,480	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
MW23	Lot 3	23-08-17	EM1711357005	30	80	<100	<50	80	30	30	<100	<100	<100	<100	<100	<1	<2	<2	<2	<2	<1	<0.001	-	<1	5	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		23-10-17	EM1714618005	50	190	<100	<50	190	60	50	150	140	<100	<100	150	4	<1	10	<1	<1	<1	0.012	-	<1	9	<1	4	<1	<1	<1	<1	<1	<10	<10	<1	<10
		16-01-18	EM1801513019	<20	80	120	<50	200	<20	<20	120	120	<100	<100	120	<1	<1	<1	<1	<1	<1	<0.001	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
MW23A	Lot 3	15-05-18	EM1808074002	40	<50	<100	<50	<50	40	30	<100	<100	<100	<100	<100	<1	<1	11	<1	<1	<1	0.011	<1	-	2	<1	2	<1	<1	<1	<1	<1	<10	<10	<1	<10
		04-07-18	EM1810788001	80	<50	<100	<50	<50	100	70	<100	<100	110	<100	110	11	<1	23	<1	<1	<1	0.034	-	<1	3	<1	3	<1	<1	<1	<1	<1	<10	<10	<1	<10
		03-10-18	EM1815860003	100	120	<100	<50	120	100	60	120	120	<100	<100	120	2	<2	38	<2	<2	<2	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24AR	Lot 2	25-08-17	EM1711516012	4,480	<50	<100	<50	<50	4,120	4,080	<100	<100	<100	<100	<100	3	30	<1	<1	3	3	0.036	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		27-10-17	EM1714855014	8,700	<50	<100	<50	<50	8,810	8,780	<100	<100	<100	<100	<100	2	1	<1	<1	28	28	0.030	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		18-01-18	EM1801648022	10,800	<50	<100	<50	<50	10,200	10,200	<100	<100	<100	<100	<100	<10	<10	<10	<10	28	28	0.028	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<100	<100	<10	<100
MW24BR	Lot 2	25-08-17	EM1711516011	61,000[C]	<50	<100	<50	<50	61,000[C]	61,000[C]	<100	<100	<100	<100	<100	9	71	<1	8	6	14	0.094	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		27-10-17	EM1714855015	3,930	<50	<100	<50	<50	4,140	4,140	<100	<100	<100	<100	<100	<1	2	<1	<1	<1	<1	0.002	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		18-01-18	EM1801648020	2,200	<50	<100	<50	<50	2,120	2,120	<100	<100	<100	<100	<100	<10	<10	<10	<10	<10	<10	<0.01	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<100	<100	<10	<100
MW24CR	Lot 2	25-08-17	EM1711516010	45,800	21,900	870	<50	22,800	42,400	38,200	5,850	5,850	690	<100	6,540	27	4,100	41	29	16	45	4.210	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		27-10-17	EM1714855016	1,740	4,670	390	<50	5,060	1,720	1,720	980	980	340	<100	1,320	<1	5	<1	<1	<1	<1	0.005	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		17-01-18	EM1801648008	940	6,490	650	<50	7,140	900	890	1,920	1,920	520	<100	2,440	<1	6	<1	<1	<1	<1	0.006	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
MW32	Lot 2	24-08-17	EM1711441005	380	<50	<100	<50	<50	360	360	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		26-10-17	EM1714855006	310	<50	210	70	280	300	300	<100	<100	260	<100	260	<1	<1	<1	<1	<1	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		17-01-18	EM1801648005	1,510	<50	140	<50	140	1,440	1,440	<100	<100	160	<100	160	<1	<1	<1	<1	<1	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
MW33R	Lot 3	24-08-17	EM1711441009	190	<50	<100	<50	<50	170	170	<100	<100	<100	<100	<100	1	<1	<1	<1	<1	<1	0.001	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		24-10-17	EM1714676004	260	<50	<100	<50	<50	250	250	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		16-01-18	EM1801513012	330	<50	<100	<50	<50	310	310	<100	<100	<100	<100	<100	1	<1	<1	<1	<1	<1	0.001	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		22-02-18	EM1803519001	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<0.001	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-
		15-05-18	EM1808074004	360	<50	<100	<50	<50	340	340	<100	<100	<100	<100	<100	1	<1	<1	<1	<1	<1	0.001	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		05-07-18	EM1810788005	360	<50	140	<50	140	330	350	<100	<100	150	<100	150	1[D]	<1	<1	<1	<1	<1	<0.001	-	-	-	-	-	-	-	-	-	-	<1	<10	<10	<1	<10

Table 6
Groundwater Analytical Results - August 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	TPH					TRH							BTEX							MAH									Halogenated Hydrocarbons				
	C6-C9	C10-C14	C15-C28	C29-C36	>C10-C36 (sum of total)	C6-C10	C6-C10 (FI minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (sum of total)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	1,2,3-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Iodomethane	Trichlorofluoromethane
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	20	50	100	50	50	20	20	100	100	100	100	100	1	1	1	1	1	1	0.001	1	1	1	1	1	1	1	1	1	1	10	10	1	10
Potable Water Supply	600[D]				600[D]								1	800 / 25[A]	300 / 3[A]			600 / 20[A]			6[US]	45[US]	100[US]	66[US]		200[US]	30 / 4[A]	69[US]	1	1			
Primary Contact Recreation	600[A]				600[A]								1	800 / 25[A]	300 / 3[A]			600 / 20[A]		55*	6[US]	45[US]	100[US]	66[US]		200[US]	30 / 4[A]	69[US]	1	1			
Stock Watering	600[A]				600[A]								1	800 / 25[A]	300 / 3[A]			600 / 20[A]			6[US]	45[US]	100[US]	66[US]		200[US]	30 / 4[A]	69[US]	1	1			
Agriculture, Parks and Gardens	600[A]				600[A]																												
Maintenance of Ecosystems	600[A]				600[A]								700																				
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m							1,000		1,000				900	NL	NL			NL															
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m							NL		NL				NL	NL	NL			NL															
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m							7,000		NL				5000	NL	NL			NL															
Derived Groundwater Risk Based Contminant Screening Level - Residential																																	59,000
Derived Groundwater Risk Based Contminant Screening Level - Commercial/Industrial																																	940,000

Field ID	Location	Date	Sample Code																															
MW35	Lot 2	25-08-17	EM1711516008	52,000[D]	<50	<100	<50	<50	52,000[D]	52,000[D]	<100	<100	<100	<100	<100	<1	<1	<1	<1	1	1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		26-10-17	EM1714855007	13,800	<50	<100	<50	<50	13,200	13,200	<100	<100	<100	<100	<100	<1	2	<1	<1	<1	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		17-01-18	EM1801648013	10,400	<50	<100	<50	<50	9,880	9,880	<100	<100	<100	<100	<100	<10	<10	<10	<10	<10	<10	<0.01	-	<10	-	<10	<10	<10	<10	<10	<10	<100	<100	<10	<100
MW37	Lot 1	24-08-17	EM1711441006	50	<50	<100	<50	<50	40	40	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		24-10-17	EM1714676002	30	<50	<100	<50	<50	40	40	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		16-01-18	EM1801513010	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		15-08-18	EM1813024012	30	<50	<100	<50	<50	40	40	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
MW38	Lot 4 (On-site)	23-08-17	EM1711357010	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<2	<2	<2	<2	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		23-10-17	EM1714618002	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		15-01-18	EM1801513002	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		14-08-18	EM1801513002	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
MW45A	Lot 1	22-08-17	EM1711267012	320	<50	<100	<50	<50	300	300	<100	<100	<100	<100	<100	<1	<2	<2	<2	<2	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		24-10-17	EM1714676014	390	<50	<100	<50	<50	380	380	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		16-01-18	EM1801513017	440	<50	<100	<50	<50	420	420	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		15-08-18	EM1813024014	410	<50	<100	<50	<50	400	400	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
MW45B	Lot 1	22-08-17	EM1711267012	360	100	<100	<50	100	340	340	110	110	<100	<100	110	1	<2	<2	<2	<2	<1	0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		24-10-17	EM1714676014	400	70	220	<50	290	380	380	<100	<100	210	<100	210	1	<1	<1	<1	<1	<1	0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		16-01-18	EM1801513017	440	<50	<100	<50	<50	420	420	<100	<100	<100	<100	<100	1	<1	<1	<1	<1	<1	0.001	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		15-08-18	EM1813024015	400	<50	<100	<50	<50	390	390	<100	<100	<100	<100	<100	1	<1	<1	<1	<1	<1	0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
MW50A	Lot 3	25-08-17	EM1711516006	620	<50	<100	<50	<50	570	570	<100	<100	<100	<100	<100	2	<1	<1	<1	<1	<1	0.002	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		27-10-17	EM1714855010	900	<50	<100	<50	<50	840	840	<100	<100	<100	<100	<100	4	<1	<1	<1	<1	<1	0.004	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		18-01-18	EM1801648021	1,000	<50	<100	<50	<50	900	900	<100	<100	<100	<100	<100	5	<1	<1	<1	<1	<1	0.005	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		15-05-18	EM1808074005	1,560	<50	<100	<50	<50	1,420	1,410	<100	<100	<100	<100	<100	10	<1	<1	<1	<1	<1	0.01	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		05-07-18	EM1810788007	1,320	<50	330	200	530	1,220	1,190	<100	<100	470	<100	470	9	<1	<1	<1	<1	<1	0.009	-	-	-	-	-	-	-	-	-	-	<10	<10	<1	<10
MW50B	Lot 3	25-08-17	EM1711516005	26,700	<50	<100	<50	<50	24,700	24,600	<100	<100	<100	<100	<100	4	30	3	13	8	21	0.058	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		27-10-17	EM1714855011	67,600	<50	<100	<50	<50	64,600	64,400	<100	<100	<100	<100	<100	8	70	8	37	23	60	0.145	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		18-01-18	EM1801648024	50,900	<50	<100	<50	<50	49,500	49,500	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<0.1	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<1,000	<1,000	<100	<1,000
		15-05-18	EM1808074006	35,600	<50	<100	<50	<50	34,000	34,000	<100	<100	<100	<100	<100	7	5	1	2	3	3	0.015	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		05-07-18	EM1810788008	20,200	<50	130	<50	130	19,800	4,510	<100	<100	140	<100	140	7	2	<1	3	4	7	0.016	-	-	-	-	-	-	-	-	-	-	<10	<10	<1	<10
MW50C	Lot 3	25-08-17	EM1711516004	4,220	<50	<100	<50	<50	3,870	3,870	<100	<100	<100	<100	<100	1	2	<1	<1	<1	<1	0.003	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		27-10-17	EM1714855012	28,100	<50	<100	<50	<50	26,700	26,700	<100	<100	<100	<100	<100	4	19	<1	5	7	12	0.035	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		18-01-18	EM1801648023	30,000	<50	<100	<50	<50	29,200	29,200	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<0.1	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<1,000	<1,000	<100	<1,000
		15-05-18	EM1808074007	13,900	<50	<100	<50	<50	13,200	13,200	<100	<100	<100	<100	<100	2	6	<1	<1	<1	<1	0.008	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		05-07-18	EM1810788006	22,700	<50	300	150	450	22,100	4,420	<100	<100	400	<100	400	4	4	<1	<1	<1	<1	0.008	-	-	-	-	-	-	-	-	-	-	<10	<10	<1	<10
MW52	Off Site (21 Hamlet Street)	23-08-17	EM1711357004	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<2	<2	<2	<2	<1	<0.001		<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		24-10-17	EM1714676011	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001		<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		16-01-18	EM1801513014	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001		<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		05-04-18	EM1805739001	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.5	<0.05	<0.10	<0.05	<0.05	-		<0.05	-	-	-	-	-	<0.05	-	<0.1	<0.5	<0.5	-	<0.5
		14-08-18	EM1813024004	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
MW53	Off Site (19 Hamlet Street)	22-08-17	EM1711357002	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<2	<2	<2	<2	<1	<0.001		<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		23-10-17	EM1714618007	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001		<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		16-01-18	EM1801513015	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001		<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
		05-04-18	EM1805739002	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.5	<0.05	<0.10	<0.05	<0.05	-		<0.05	-	-	-	-	-	<0.05	-	<0.1	<0.5	<0.5	-	<0.5
		14-08-18	EM1813024003	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<1	<1	<1	<1	<1	<0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10

Table 6
Groundwater Analytical Results - August 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				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-Dichloroethene	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Benzyl chloride	Bromochloromethane	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Dichloromethane	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				1	1	1	1	1	1	1	1	1	1	0.1	1	1	1	0.0002	1	1	1	1	1	10	1	10	1	2	1	1	0.04	10	2	0.05	0.05	0.1	0.1	0.2
Potable Water Supply				0.57[US]	800[US]	0.076[US]	0.041[US]	2.8[US]	30[A]			1[WH]	3	60	40[WH]	20[NZ]		0.2[WR]	40[WR]	250	250	3		2,100[US]	250	19[US]	60		0.83[US]	4	0.7	0.041[US]	0.33[US]	20[WH]	50	60[NZ]		0.3
Primary Contact Recreation				0.57[US]	800[US]	0.076[US]	0.041[US]	2.8[US]	30[A]			1[WH]	3	60	40[WH]	20[NZ]		0.2[WR]	40[WR]	250	250	3		2,100[US]	250	19[US]	60		0.83[US]	4	0.7	0.041[US]	0.33[US]	20[WH]	50	60[NZ]		0.3
Stock Watering				0.57[US]	800[US]	0.076[US]	0.041[US]	2.8[US]	30[A]			1[WH]	3	60	40[WH]	20[NZ]		0.2[WR]	40[WR]	250	250	3		2,100[US]	250	19[US]	60		0.83[US]	4	0.7	0.041[US]	0.33[US]	20[WH]	50	60[NZ]		0.3
Agriculture, Parks and Gardens																																								
Maintenance of Ecosystems					300[SI]		1,900	90[SI]	10[SI]				700[SI]									240[C]			400[SI]		20[SI]			1,000[SI]				330[SI]	70[SI]	20[SI]		100[SI]
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																																								
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																																								
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																																								
Derived Groundwater Risk Based Contminant Screening Level - Residential					########		10,000	53,000	27,000				2,000									600			26,000		2,000								500	45,000			200
Derived Groundwater Risk Based Contminant Screening Level - Commercial/Industrial					S		110,000	790,000	420,000				24,000									10,000			380,000		35,000							8,000	690,000			4,000
Field ID	**Location**	**Date**	**Sample Code**																																						
BMW1	Lot 4 (On-site)	24-08-17	EM1711516002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	135	<1	<10	131	<10	<1	<2	<1	<2	<0.5	-	-	1	<1	<1	<2	11.9
		24-10-17	EM1714676006	<1	<1	<1	<1	2	4	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	37	<1	<10	77	<10	27	<2	<1	6	<0.5	<10	<2	275	5	<1	<2	1.5
		17-01-18	EM1801648004	<1	<1	<1	<1	<1	2	<1	<1	<1	<1		<1	<1	<1	-	<1	<1	<1	47	<1	<10	70	<10	16	<2	<1	<2	<0.5	-	-	186	3	<1	<2	5.4
BMW2	Lot 4 (On-site)	24-08-17	EM1711441008	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	165	<1	<10	74	<10	<1	<2	<1	<2	<0.5	-	-	6	4	<1	<2	2.0
		24-10-17	EM1714676007	<1	<1	<1	<1	22	58	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	28	<1	<10	140	<10	20	<2	<1	4	<0.5	<10	<2	330	7	<1	<2	0.4
		17-01-18	EM1801648003	<1	<1	<1	<1	16	29	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	21	<1	<10	124	<10	17	<2	<1	4	<0.5	-	-	156	2	<1	<2	0.6
CMW1	Lot 3	24-08-17	EM1711516003	<1	<1	<1	<1	2	2	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	4	<10	<1	<2	<1	<2	<0.5	-	-	<1	<1	<1	<2	7.0
		23-10-17	EM1714618003	<1	<1	<1	<1	6	70	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	9	<10	4	<2	<1	<2	<0.5	<10	<2	8	<1	<1	<2	2.6
		16-01-18	EM1801513009	<1	<1	<1	<1	9	46	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	14	<10	6	<2	<1	<2	<0.5	-	-	14	<1	<1	<2	9.6
		15-05-18	EM1808074003	<1	<1	<1	<1	8	42	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	10	<10	4	<2	<1	<2	<0.5	-	-	11	<1	<1	<2	11.2
		05-07-18	EM1810788004	<1	<1	<1	<1	7	28	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	10	<10	3	<2	<1	<3	<0.5	-	-	9	<1	<1	<2	6.3
MW2A	Lot 3	15-05-18	EM1808074001	<1	<1	<1	<1	<1	7	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	1	<10	<1	<2	<1	<2	<0.5	-	-	105	6	<1	<2	<0.2
		04-07-18	EM1810788003	<1	<1	<1	<1	<1	4	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	-	-	70	4	<1	<2	<0.2
		03-10-18	EM1815860004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW17B	Lot 3	05-06-18	EM1809115001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	-	-	2	<1	<1	<2	<0.2
		04-07-18	EM1810788002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	-	-	<1	<1	<1	<2	<0.2
		03-10-18	EM1815860002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW21	Lot 4 (On-site)	23-08-17	EM1711357011	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	3	<1	<10	8	<10	63	<2	<1	<2	<0.5	-	-	98	7	<1	<2	<0.2
		24-10-17	EM1714676003	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	2	<1	<10	11	<10	64	<2	<1	<2	<0.5	-	-	93	11	<1	<2	<0.2
		16-01-18	EM1801513018	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	3	<1	<10	13	<10	84	<2	<1	<2	<0.5	-	-	101	13	<1	<2	<0.2
		14-08-18	EM1813024005	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	2	<10	6	<2	<1	<2	<0.5	-	-	41	2	<1	<2	<0.2
MW22	Lot 2	24-08-17	EM1711441004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	2	<10	<1	<2	<1	<2	<0.5	-	-	10	<1	<1	<2	<0.2
		24-10-17	EM1714676001	<1	1	<1	<1	<1	2	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	5	<1	<10	73	<10	16	<2	<1	5	<0.5	-	-	3,510	152	<1	<2	2.0
		17-01-18	EM1801648007	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	-	<10	<10	<10	<10	<10	<100	86	<100	39	<10	<10	<10	<1.0	-	-	2,510	61	<10	<10	1.2
		15-08-18	EM1813024013	<1	1	<1	<1	<1	2	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	4	<1	<10	71	<10	32	<2	<1	<2	<0.5	-	-	2,980	160	<1	<2	2
MW23	Lot 3	23-08-17	EM1711357005	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	-	-	<1	<1	<1	<2	<0.2
		23-10-17	EM1714618005	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	<10	<2	<1	<1	<1	<2	<0.2
		16-01-18	EM1801513019	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	-	-	<1	<1	<1	<2	<0.2
MW23A	Lot 3	15-05-18	EM1808074002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	-	-	<1	<1	<1	<2	<0.2
		04-07-18	EM1810788001	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	-	-	<1	<1	<1	<2	<0.2
		03-10-18	EM1815860003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24AR	Lot 2	25-08-17	EM1711516012	<1	2	<1	10	4	20	<1	<1	<1	134	-	<1	<1	<1	-	1	<1	<1	10	<1	<10	181	<10	343	<2	<1	589	<0.5	-	-	11,300	174	1	<2	1.7
		27-10-17	EM1714855014	<1	<1	<1	7	2	17	<1	<1	<1	240	-	<1	<1	<1	-	<1	<1	<1	118	<1	<10	339	<10	186	<2	<1	52	<0.5	-	-	8,310	443	2	<2	1.2
		18-01-18	EM1801648022	<10	<10	<10	<10	<10	19	<10	<10	<10	270	-	<10	<10	<10	-	<10	<10	<10	146	<10	<100	367	<100	222	<10	<10	31	<1.0	-	-	8,910	489	<10	<10	1.8
MW24BR	Lot 2	25-08-17	EM1711516011	<1	7	<1	24	34	147	<1	<1	<1	126	-	<1	<1	<1	-	2	<1	<1	<1	<1	<10	478	<10	2,360	<2	<1	830	<0.5	-	-	25,300	412	5	<2	6.4
		27-10-17	EM1714855015	<1	<1	<1	20	1.9[D]	3[D]	<1	<1	<1	87	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	28	<10	227	<2	<1	50	<0.5	-	-	4,630	57	<1	<2	<0.2
		18-01-18	EM1801648020	<10	<10	<10	<10	<10	<10	<10	<10	<10	74	-	<10	<10	<10	-	<10	<10	<10	<10	<10	<100	15	<100	100	<10	<10	<10	<1.0	-	-	2,230	51	<10	<10	<1.0
MW24CR	Lot 2	25-08-17	EM1711516010	<1	9	<1	196	165	577	<1	<1	<1	9	-	<1	<1	<1	-	12	<1	<1	<1	<1	<10	1,660	<10	10,200	<2	<1	4,100	<0.5	-	-	39,800	494	29	<2	2.8
		27-10-17	EM1714855016	<1	<1	<1	13	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	26	<10	48	<2	<1	10	<0.5	-	-	110	1	<1	<2	<0.2
		17-01-18	EM1801648008	<1	<1	<1	5	<1	<1	<1	<1	<1	2	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	2	<10	90	<2	<1	3	<0.5	-	-	35	2	<1	<2	<0.2
MW32	Lot 2	24-08-17	EM1711441005	<1	<1	<1	<1	1	6	<1	<1	<1	24	-	<1	<1	<1	-	<1	<1	<1	20	<1	<10	267	<10	210	<2	<1	9	<0.5	-	-	304	15	<1	<2	8.6
		26-10-17	EM1714855006	<1	1	<1	<1	<1	2	<1	<1	<1	2	-	<1	<1	<1	-	<1	<1	<1	2	<1	<10	24	<10	14	<2	<1	<2	<0.5	-	-	356	15	<1	<2	2.7
		17-01-18	EM1801648005	<1	<1	<1	<1	<1	4	<1	<1	<1	21	-	<1	<1	<1	-	<1	<1	<1	9	<1	<10	162	<10	262	<2	<1	11	<0.5	-	-	960	36	<1	<2	6.8
MW33R	Lot 3	24-08-17	EM1711441009	<1	<1	<1	<1	16	16	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	14	<10	185	<2	<1	<2	<0.5	-	-	85	<1	2	<2	0.7
		24-10-17	EM1714676004	<1	<1	<1	<1	14	11	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	13	<10	255	<2	<1	<2	<0.5	<10	<2	75	<1	2	<2	0.6
		16-01-18	EM1801513012	<1	<1	<1	<1	20	20	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	17	<10	351	<2	<1	<2	<0.5	-	-	120	<1	2	<2	0.8
		22-02-18	EM1803519001	<1	<1	<1	<1	13	11	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	11	<10	253	<2	<1	<2	<0.5	-	-	91	<1	2	<2	1.6
		15-05-18	EM1808074004	<1	<1	<1	<1	17	18	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	14	<10	311	<2	<1	<2	<0.5	-	-	123	<1	2	<2	0.9
		05-07-18	EM1810788005	<1	<1	<1	<1	17	16	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	14	<10	376	<2	<1	<2	<0.5	-	-	115	<1	2	<2	0.6

Table 6
Groundwater Analytical Results - August 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	Chlorinated Hydrocarbons																																						
	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethene	1,1-dichloroethene	1,1-dichloropropene	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-Dichloroethene	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Benzyl chloride	Bromochloromethane	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Dichloromethane	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	1	1	1	1	1	1	1	1	1	1	0.1	1	1	1	0.0002	1	1	1	1	1	10	1	10	1	2	1	1	0.04	10	2	0.05	0.05	0.1	0.1	0.2
Potable Water Supply	0.57[US]	800[US]	0.076[US]	0.041[US]	2.8[US]	30[A]			1[WH]	3	60	40[WH]	20[NZ]		0.2[WR]	40[WR]	250	250	3		2,100[US]	250	19[US]	60		0.83[US]	4	0.7	0.041[US]	0.33[US]	20[WH]	50	60[NZ]		0.3
Primary Contact Recreation	0.57[US]	800[US]	0.076[US]	0.041[US]	2.8[US]	30[A]			1[WH]	3	60	40[WH]	20[NZ]		0.2[WR]	40[WR]	250	250	3		2,100[US]	250	19[US]	60		0.83[US]	4	0.7	0.041[US]	0.33[US]	20[WH]	50	60[NZ]		0.3
Stock Watering	0.57[US]	800[US]	0.076[US]	0.041[US]	2.8[US]	30[A]			1[WH]	3	60	40[WH]	20[NZ]		0.2[WR]	40[WR]	250	250	3		2,100[US]	250	19[US]	60		0.83[US]	4	0.7	0.041[US]	0.33[US]	20[WH]	50	60[NZ]		0.3
Agriculture, Parks and Gardens																																						
Maintenance of Ecosystems		300[DI]		1,900	90[LR]	10[DI]				700[IR]									240[C]			400[IR]		20[DI]			1,000[DI]				330[IR]	70[LR]	20[DI]		100[LR]
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																																						
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																																						
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																																						
Derived Groundwater Risk Based Contminant Screening Level - Residential		########		10,000	53,000	27,000				2,000									600			26,000		2,000							500	45,000			200
Derived Groundwater Risk Based Contminant Screening Level - Commercial/Industrial		S		110,000	790,000	420,000				24,000									10,000			380,000		35,000							8,000	690,000			4,000
Field ID	**Location**	**Date**	**Sample Code**																																				
MW3S	Lot 2	25-08-17	EM1711516008	<1	<1	<1	5	<1	4	<1	<1	<1	4,530	-	<1	<1	<1	-	<1	<1	<1	593	<1	<10	83	<10	883	<2	<1	562	<0.5	-	-	24,600	58	35	<2	0.6
		26-10-17	EM1714855007	<1	<1	<1	4	<1	3	<1	<1	<1	2,700	-	<1	<1	<1	-	<1	<1	<1	245	<1	<10	123	<10	570	<2	<1	295	<0.5	-	-	14,600	50	21	<2	1.9
		17-01-18	EM1801648013	<10	<10	<10	<10	<10	<10	<10	<10	<10	2,150	-	<10	<10	<10	-	<10	<10	<10	200	<10	<100	96	<100	668	<10	<10	105	<1.0	-	-	8,640	71	13	<10	10.0
MW37	Lot 1	24-08-17	EM1711441006	<1	<1	<1	<1	2	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	3	<10	15	<2	<1	<2	<0.5	-	-	5	29	<1	<2	<0.2
		24-10-17	EM1714676002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	2	<10	12	<2	<1	<2	<0.5	-	-	4	12	<1	<2	<0.2
		16-01-18	EM1801513010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	<1	<10	1	<2	<1	<2	<0.5	-	-	1	1	<1	<2	<0.2
		15-08-18	EM1813024012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	2	<10	11	<2	<1	<2	<0.5	-	-	3	15	<1	<2	<0.2
MW38	Lot 4 (On-site)	23-08-17	EM1711357010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	-	-	<1	<1	<1	<2	<0.2
		23-10-17	EM1714618002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	<10	<2	<1	<1	<1	<2	<0.2
		15-01-18	EM1801513002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	-	-	<1	<1	<1	<2	<0.2
		14-08-18	EM1801513002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	-	-	<1	<1	<1	<2	<0.2
MW45A	Lot 1	22-08-17	EM1711267012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	69	<10	178	<2	<1	<2	<0.5	-	-	273	<1	<1	<2	0.7
		24-10-17	EM1714676014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	56	<10	236	<2	<1	<2	<0.5	-	-	273	<1	<1	<2	1.1
		16-01-18	EM1801513017	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	34	<10	208	<2	<1	<2	<0.5	-	-	264	<1	<1	<2	0.5
		15-08-18	EM1813024014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	4	<10	256	<2	<1	<2	<0.5	-	-	254	<1	<1	<2	<0.2
MW45B	Lot 1	22-08-17	EM1711267012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	570	<10	68	<2	<1	6	<0.5	-	-	65	<1	<1	<2	2.4
		24-10-17	EM1714676014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	653	<10	90	<2	<1	10	<0.5	-	-	79	<1	<1	<2	1.7
		16-01-18	EM1801513017	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	453	<10	69	<2	<1	9	<0.5	-	-	55	<1	<1	<2	1.0
		15-08-18	EM1813024015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	504	<10	75	<2	<1	9	<0.5	-	-	57	<1	<1	<2	1.9
MW50A	Lot 3	25-08-17	EM1711516006	<1	<1	<1	<1	24	48	<1	<1	<1	9	-	<1	<1	<1	-	<1	2	<1	<1	<1	<10	68	<10	98	<2	<1	32	<0.5	-	-	916	13	<1	<2	3.7
		27-10-17	EM1714855010	<1	<1	<1	2	60	57	<1	<1	<1	7	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	181	<10	51	<2	<1	18	<0.5	-	-	817	14	<1	<2	0.5
		18-01-18	EM1801648021	<1	<1	<1	3	123	90	<1	<1	<1	6	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	330	<10	82	<2	<1	14	<0.5	-	-	760	10	<1	<2	0.4
		15-05-18	EM1808074005	<1	<1	<1	4	184	190	<1	<1	<1	7	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	343	<10	170	<2	<1	15	<0.5	-	-	814	18	<1	<2	1.7
		05-07-18	EM1810788007	<1	<1	<1	4	158	195	<1	<1	<1	6	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	356	<10	198	<2	<1	9	<0.5	-	-	792	12	<1	<2	1.3
MW50B	Lot 3	25-08-17	EM1711516005	<1	<1	<1	16	8	26	<1	<1	<1	390	-	<1	<1	<1	-	8	<1	<1	4	<1	<10	169	<10	329	<2	<1	2,740	<0.5	-	-	37,700	500	2	<2	4.7
		27-10-17	EM1714855011	<1	<1	<1	37	13	42	<1	<1	<1	800	-	<1	<1	<1	-	16	<1	<1	8	<1	<10	544	<10	652	<2	<1	5,040	<0.5	-	-	77,200	1,540	4	<2	5.3
		18-01-18	EM1801648024	<100	<100	<100	<100	<100	<100	<100	<100	<100	684	-	<100	<100	<100	-	<100	<100	<100	<100	<100	<1,000	523	<1,000	552	<100	<100	4,120	<10.0	-	-	56,700	1,030	<100	<100	<10.0
		15-05-18	EM1808074006	<1	<1	<1	17	26	76	<1	<1	<1	353	-	<1	<1	<1	-	14	<1	<1	8	<1	<10	425	<10	390	<2	<1	2,050	<0.5	-	-	37,500	794	3	<2	7
		05-07-18	EM1810788008	<1	<1	<1	15	25	59	<1	<1	<1	358	-	<1	<1	<1	-	10	<1	<1	7	<1	<10	469	<10	428	<2	<1	1,930	<0.5	-	-	23,800	526	3	<2	4.8
MW50C	Lot 3	25-08-17	EM1711516004	<1	<1	<1	8	5	11	<1	<1	<1	68	-	<1	<1	<1	-	2	<1	<1	<1	<1	<10	36	<10	49	<2	<1	691	<0.5	-	-	12,700	161	1	<2	0.9
		27-10-17	EM1714855012	<1	<1	<1	19	8	24	<1	<1	<1	319	-	<1	<1	<1	-	4	<1	<1	4	<1	<10	156	<10	239	<2	<1	1,740	<0.5	-	-	33,000	536	3	<2	3.9
		18-01-18	EM1801648023	<100	<100	<100	<100	<100	<100	<100	<100	<100	331	-	<100	<100	<100	-	<100	<100	<100	<100	<100	<1,000	174	<1,000	208	<100	<100	1,450	<10.0	-	-	36,900	599	<100	<100	<10.0
		15-05-18	EM1808074007	<1	<1	<1	10	8	15	<1	<1	<1	177	-	<1	<1	<1	-	<1	<1	<1	1	<1	<10	94	<10	108	<2	<1	52	<0.5	-	-	13,100	200	1	<2	1.3
		05-07-18	EM1810788006	<1	<1	<1	19	7	18	<1	<1	<1	377	-	<1	<1	<1	-	<1	<1	<1	3	<1	<10	175	<10	238	<2	<1	52	<0.5	-	-	40,600	796	3	<2	2.6
MW52	Off Site (21 Hamlet Street)	23-08-17	EM1711357004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	9	<10	2	<2	<1	<2	<0.5	-	-	7	1	<1	<2	2.8
		24-10-17	EM1714676011	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	7	<10	2	<2	<1	<2	<0.5	-	-	6	1	<1	<2	2.5
		16-01-18	EM1801513014	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	6	<10	2	<2	<1	<2	<0.5	-	-	5	<1	<1	<2	3.7
		05-04-18	EM1805739001	-	<0.1	-	-	<0.1	<0.1	-	-	<0.10	0.2	1.8	<0.1	-	-	<0.0002	<0.5	<0.10	<0.10	<0.05	<0.10	<0.5	6.63	-	1.8	<0.1	-	<1.0	<0.04	-	-	8.01	0.74	<0.1	<0.1	8.2
		14-08-18	EM1813024004	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	4	<10	1	<2	<1	<2	<0.5	-	-	7	<1	<1	<2	12.6
MW53	Off Site (19 Hamlet Street)	22-08-17	EM1711357002	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	<1	<10	12	<2	<1	<2	<0.5	-	-	7	<1	<1	<2	1.2
		23-10-17	EM1714618007	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	<1	<10	5	<2	<1	<2	<0.5	-	-	2	<1	<1	<2	0.8
		16-01-18	EM1801513015	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	<1	<10	6	<2	<1	<2	<0.5	-	-	3	<1	<1	<2	3.9
		05-04-18	EM1805739002	-	<0.1	-	-	<0.1	0.2	-	-	<0.10	<0.1	7.5	<0.1	-	-	<0.0002	<0.5	<0.10	<0.10	<0.05	<0.10	<0.5	<0.10	-	7.5	<0.1	-	<1.0	<0.04	-	-	3.42	<0.05	<0.1	<0.1	0.4
		14-08-18	EM1813024003	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<10	<1	<10	6	<2	<1	<2	<0.5	-	-	3	<1	<1	<2	2.3

Table 6
Groundwater Analytical Results - August 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	Solvents															Halogenated Benzenes														VOCs					Aldehydes				
	1-Butanol	Methyl Ethyl Ketone	2-hexanone (MBK)	4-Methyl-2-pentanone	Acetone	Carbon disulfide	Ethanol	Isophorone	Methanol	MTBE	Isobutanol	2-Propanol	1-Propanol	Vinyl acetate	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-Chloronitrobenzene & 4-chloronitrobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	Pentachlorobenzene	Trichlorobenzene (total)	cis-1,4-Dichloro-2-Butene	trans-1,4-Dichloro-2-Butene	Acrolein	Pentachloroethane	Trihalomethanes	Acrolein	Acetaldehyde	Butanal	Formaldehyde	Propanal
	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L
EQL	50	10	10	10	0.01	1	50	2	1	1	50	50	0.05	10	1	1	1	1	0.1	1	1	1	1	1	4	2	0.001	1	1	2	1	0.001	2	2	0.002	0.002	0.002
Potable Water Supply					140					0.015[C]				410	10[N2]	5[N2]	1,500 / 1[A]	20[A]	40 / 0.3[A]		24[US]	25[US]	6.2[US]	300 / 10[A]	0.0098[US]	0.32[US]	0.03 / 0.005	0.0013[US]	0.0013[US]		0.65[US]	250				0.5	
Primary Contact Recreation					140					0.015[C]				410	10[N2]	5[N2]	1,500 / 1[A]	20[A]	40 / 0.3[A]		24[US]	25[US]	6.2[US]	300 / 10[A]	0.0098[US]	0.32[US]	0.03 / 0.005	0.0013[US]	0.0013[US]		0.65[US]	250				0.5	
Stock Watering					140					0.015[C]				410	10[N2]	5[N2]	1,500 / 1[A]	20[A]	40 / 0.3[A]		24[US]	25[US]	6.2[US]	300 / 10[A]	0.0098[US]	0.32[US]	0.03 / 0.005	0.0013[US]	0.0013[US]		0.65[US]	250				0.5	
Agriculture, Parks and Gardens																																					
Maintenance of Ecosystems					1.7[C]											80																						
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																																					
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																																					
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																																					
Derived Groundwater Risk Based Contminant Screening Level - Residential					70,000												S		S					220,000													
Derived Groundwater Risk Based Contminant Screening Level - Commercial/Industrial					520,000												S		S					########													

Field ID	Location	Date	Sample Code																																				
BMW1	Lot 4 (On-site)	24-08-17	EM1711516002	<50	<10	<10	<10	<0.01	<1	<50	<2	-	-	<50	<50	<0.05	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	131	-	-	-	-	-
		24-10-17	EM1714676006	<50	<10	<10	<10	<0.01	<1	<50	<2	-	-	<50	<50	<0.05	<10	<1	<1	<1	<1	<0.1	<2	<1	<1	<1	<1	<4	<2	<0.001	<1	<1	<2.0	<1	77	-	<2.0	-	<0.002	-
		17-01-18	EM1801648004	-	<10	<10	<10	<0.01	<1	<50	-	-	-	-	-	-	<10	<1	<1	<1	<1	0.2	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	70	-	-	-	-	-
BMW2	Lot 4 (On-site)	24-08-17	EM1711441008	<50	<10	<10	<10	<0.01	<1	<50	<2	-	-	<50	<50	<0.05	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	74	-	-	-	-	-
		24-10-17	EM1714676007	<50	<10	<10	<10	<0.01	<1	<50	<2	-	-	<50	<50	<0.05	<10	<1	<1	15	<1	2.0	<2	<1	<1	<1	4	<4	<2	<0.001	<1	<1	<2.0	<1	140	-	<2.0	-	<0.002	-
		17-01-18	EM1801648003	-	<10	<10	<10	<0.01	<1	<50	-	-	-	-	-	-	<10	<1	<1	15	<1	1.6	-	<1	<1	<1	3	-	-	<0.001	<1	<1	-	<1	124	-	-	-	-	-
CMW1	Lot 3	24-08-17	EM1711516003	<50	<10	<10	<10	<0.01	<1	<50	<2	<1	-	<50	<50	<0.05	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	4	-	-	-	-	-
		23-10-17	EM1714618003	<50	<10	<10	<10	<0.01	<1	<50	<2	<1	-	<50	<50	<0.05	<10	<1	<1	3	<1	0.3	<2	<1	<1	<1	<1	<4	<2	<0.001	<1	<1	<2.0	<1	9	-	<2.0	-	<0.002	-
		16-01-18	EM1801513009	-	<10	<10	<10	<0.01	<1	<50	-	-	-	-	-	-	<10	<1	<1	3	<1	0.5	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	14	-	-	-	-	-
		15-05-18	EM1808074003	-	<10	<10	<10	-	<1	-	-	-	-	-	-	-	<10	<1	<1	1	<1	0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	10	-	-	-	-	-
		05-07-18	EM1810788004	-	<10	<10	<10	-	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	10	-	-	-	-	-
MW2A	Lot 3	15-05-18	EM1808074001	-	<10	<10	<10	-	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	1	-	-	-	-	-
		04-07-18	EM1810788003	-	<10	<10	<10	-	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	<1	-	-	-	-	-
		03-10-18	EM1815860004	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW17B	Lot 3	05-06-18	EM1809115001	-	<10	<10	<10	-	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	<1	-	-	-	-	-
		04-07-18	EM1810788002	-	<10	<10	<10	-	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	<1	-	-	-	-	-
		03-10-18	EM1815860002	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW21	Lot 4 (On-site)	23-08-17	EM1711357011	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	8	-	-	-	-	-
		24-10-17	EM1714676003	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	<2.0	<1	11	<2.0	<2.0	<0.002	<0.002	<0.002
		16-01-18	EM1801513018	-	<10	<10	<10	<0.01	<1	<50	-	-	-	-	-	-	<10	<1	<1	<1	<1	0.2	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	13	-	-	-	<0.002	-
		14-08-18	EM1813024005	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	2	-	-	-	<0.002	-
MW22	Lot 2	24-08-17	EM1711441004	<50	<10	<10	<10	<0.01	<1	<50	<2	-	-	<50	<50	<0.05	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	2	-	-	-	-	-
		24-10-17	EM1714676001	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	73	-	-	-	-	-
		17-01-18	EM1801648007	-	<100	<100	<100	<0.1	<10	<50	-	-	-	-	-	-	<100	<10	<10	<10	<10	<1.0	-	<10	<10	<10	<10	-	-	<0.01	<10	<10	-	<10	86	-	-	-	-	-
		15-08-18	EM1813024013	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	71	-	-	-	<0.0020	-
MW23	Lot 3	23-08-17	EM1711357005	<50	<10	<10	<10	<0.01	<1	<50	<2	<1	-	<50	<50	<0.05	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	<1	-	-	-	-	-
		23-10-17	EM1714618005	<50	<10	<10	<10	<0.01	<1	<50	<2	<1	-	<50	<50	<0.05	<10	<1	<1	<1	<1	<0.1	<2	<1	<1	<1	<1	<4	<2	<0.001	<1	<1	<2.0	<1	<1	-	<2.0	-	<0.002	-
		16-01-18	EM1801513019	-	<10	<10	<10	<0.01	<1	<50	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	<1	-	-	-	<0.002	-
MW23A	Lot 3	15-05-18	EM1808074002	-	<10	<10	<10	-	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	<1	-	-	-	-	-
		04-07-18	EM1810788001	-	<10	<10	<10	-	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	<1	-	-	-	-	-
		03-10-18	EM1815860003	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24AR	Lot 2	25-08-17	EM1711516012	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	27	-	-	<0.001	<1	<1	-	<1	181	-	-	-	-	-
		27-10-17	EM1714855014	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	5	-	-	<0.001	<1	<1	-	<1	339	-	-	-	-	-
		18-01-18	EM1801648022	-	<100	<100	<100	<0.1	<10	<50	-	-	-	-	-	-	<100	<10	<10	<10	<10	<1.0	-	<10	<10	<10	<10	-	-	<0.01	<10	<10	-	<10	367	-	-	-	-	-
MW24BR	Lot 2	25-08-17	EM1711516011	-	<10	<10	<10	<0.06	<1	<50	-	-	-	-	-	-	<10	<1	<1	6	<1	0.5	-	<1	<1	<1	50	-	-	<0.001	<1	<1	-	<1	478	-	-	-	-	-
		27-10-17	EM1714855015	-	<10	<10	<10	0.01	<1	<50	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	5	-	-	<0.001	<1	<1	-	<1	28	-	-	-	-	-
		18-01-18	EM1801648020	-	<100	<100	<100	<0.1	<10	<50	-	-	-	-	-	-	<100	<10	<10	<10	<10	<1.0	-	<10	<10	<10	<10	-	-	<0.01	<10	<10	-	<10	15	-	-	-	-	-
MW24CR	Lot 2	25-08-17	EM1711516010	-	300	<10	490	66.00	2	-	-	-	-	-	-	-	<10	<1	<1	2	<1	0.2	-	<1	<1	<1	369	-	-	<0.001	<1	<1	-	<1	1,660	-	-	-	-	-
		27-10-17	EM1714855016	-	<10	<10	30	9.71	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	1	-	-	<0.001	<1	<1	-	<1	26	-	-	-	-	-
		17-01-18	EM1801648008	-	190	<10	140	17.80	2	131	-	-	-	-	-	-	<10	<1	<1	<1	<1	0.2	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	2	-	-	-	-	-
MW32	Lot 2	24-08-17	EM1711441005	<50	<10	<10	<10	<0.01	<1	<50	<2	-	-	<50	<50	<0.05	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	267	-	-	-	-	-
		26-10-17	EM1714855006	-	<10	<10	<10	0.01	<1	<50	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	24	-	-	-	-	-
		17-01-18	EM1801648005	-	<10	<10	<10	0.02	<1	<50	-	-	-	-	-	-	<10	<1	<1	<1	<1	0.2	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	162	-	-	-	-	-
MW33R	Lot 3	24-08-17	EM1711441009	<50	<10	<10	<10	<0.01	<1	<50	<2	-	-	<50	<50	<0.05	<10	<1	<1	25	<1	2.2	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	14	-	-	-	-	-
		24-10-17	EM1714676004	<50	<10	<10	<10	<0.01	<1	<50	<2	-	-	<50	<50	<0.05	<10	<1	<1	19	<1	1.4	<2	<1	<1	<1	<1	<4	<2	<0.001	<1	<1	<2.0	<1	13	-	<2.0	-	<0.002	-
		16-01-18	EM1801513012	-	<10	<10	<10	<0.01	<1	<50	-	-	-	-	-	-	<10	<1	<1	39	<1	3.0	-	<1	<1	<1	1	-	-	<0.001	<1	<1	-	<1	17	-	-	-	-	-
		22-02-18	EM1803519001	-	<10	<10	<10	-	<1	-	-	-	-	-	-	-	<10	<1	<1	25	<1	2.1	-	<1	<1	<1	<1	<1	<1	<0.001	-	-	-	-	11	-	-	-	-	-
		15-05-18	EM1808074004	-	<10	<10	<10	-	<1	-	-	-	-	-	-	-	<10	<1	<1	34	<1	2.5	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	14	-	-	-	-	-
		05-07-18	EM1810788005	-	<10	<10	<10	-	<1	-	-	-	-	-	-	-	<10	<1	<1	35	<1	2.6	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	14	-	-	-	-	-

Table 6
Groundwater Analytical Results - August 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	Solvents															Halogenated Benzenes													VOCs					Aldehydes				
	1-Butanol	Methyl Ethyl Ketone	2-hexanone (MBK)	4-Methyl-2-pentanone	Acetone	Carbon disulfide	Ethanol	Isophorone	Methanol	MTBE	Isobutanol	2-Propanol	1-Propanol	Vinyl acetate	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-Chloronitrobenzene & 4-chloronitrobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	Pentachlorobenzene	Trichlorobenzene (total)	cis-1,4-Dichloro-2-butene	trans-1,4-Dichloro-2-butene	Acrolein	Pentachloroethane	Trihalomethanes	Acrolein	Acetaldehyde	Butanal	Formaldehyde	Propanal
	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	mg/L	mg/L
EQL	50	10	10	10	0.01	1	50	2	1	1	50	50	0.05	10	1	1	1	1	0.1	1	1	1	1	1	4	2	0.001	1	1	2	1	0.001	2	2	0.002	0.002	0.002
Potable Water Supply					140					0.015[C]				410	10[N2]	5[N2]	1,500 / 1[A]	20[A]	40 / 0.3[A]		24[US]	25[US]	6.2[US]	300 / 10[A]	0.0098[US]	0.32[US]	0.03 / 0.005[A]				0.65[US]	250				0.5	
Primary Contact Recreation					140					0.015[C]				410	10[N2]	5[N2]	1,500 / 1[A]	20[A]	40 / 0.3[A]		24[US]	25[US]	6.2[US]	300 / 10[A]	0.0098[US]	0.32[US]	0.03 / 0.005[A]				0.65[US]	250				0.5	
Stock Watering					140					0.015[C]				410	10[N2]	5[N2]	1,500 / 1[A]	20[A]	40 / 0.3[A]		24[US]	25[US]	6.2[US]	300 / 10[A]	0.0098[US]	0.32[US]	0.03 / 0.005[A]				0.65[US]	250				0.5	
Agriculture, Parks and Gardens																																					
Maintenance of Ecosystems					1.7[C]											80																						
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																																					
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																																					
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																																					
Derived Groundwater Risk Based Contminant Screening Level - Residential																								220,000													
Derived Groundwater Risk Based Contminant Screening Level - Commercial/Industrial																								########													
Field ID	**Location**	**Date**	**Sample Code**																																			
MW3S	Lot 2	25-08-17	EM1711516008	-	<10	<10	<10	<0.01	<1	<50	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	83		-		-	
		26-10-17	EM1714855007	-	<10	<10	<10	<0.01	<1	<50	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	123		-		-	
		17-01-18	EM1801648013	-	<100	<100	<100	<0.1	<10	<50	-	-	-	-	-	-	<100	<10	<10	<10	<10	<1.0	-	<10	<10	<10	<10	-	-	<0.01	<10	<10	-	<10	96		-		-	
MW37	Lot 1	24-08-17	EM1711441006	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	3	-	-	-	-	-
		24-10-17	EM1714676002	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	2	-	-	-	-	-
		16-01-18	EM1801513010	-	<10	<10	<10	<0.01	<1	<50	-	-	-	-	-	-	<10	<1	<1	<1	<1	0.6	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	<0.001	-	-	-	-	-
		15-08-18	EM1813024012	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	2	-	-	-	<0.002	-
MW38	Lot 4 (On-site)	23-08-17	EM1711357010	<50	<10	<10	<10	<0.01	<1	<50	<2	-	-	<50	<50	<0.05	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	<0.001	-	-	-	-	-
		23-10-17	EM1714618002	<50	<10	<10	<10	<0.01	<1	<50	<2	-	-	<50	<50	<0.05	<10	<1	<1	<1	<1	<0.1	<2	<1	<1	<1	<1	<4	<2	<0.001	<1	<1	<2.0	<1	<0.001	<2.0	<2.0	<0.0020	0.006	<0.0020
		15-01-18	EM1801513002	-	<10	<10	<10	<0.01	<1	<50	-	-	-	-	-	-	<10	<1	<1	<1	<1	0.6	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	<0.001	-	-	-	-	-
		14-08-18	EM1801513002	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	<1	-	-	-	0.002	-
MW45A	Lot 1	22-08-17	EM1711267012	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	69	-	-	-	-	-
		24-10-17	EM1714676014	-	<10	<10	<10	0.03	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	56	-	-	-	-	-
		16-01-18	EM1801513017	-	<10	<10	<10	<0.01	<1	<50	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	34	-	-	-	<0.002	-
		15-08-18	EM1813024014	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	4	-	-	-	0.0022	-
MW45B	Lot 1	22-08-17	EM1711267012	-	<10	<10	<10	0.05	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	570	-	-	-	-	-
		24-10-17	EM1714676014	-	<10	<10	<10	0.03	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	653	-	-	-	-	-
		16-01-18	EM1801513017	-	<10	<10	<10	0.05	<1	<50	-	-	-	-	-	-	<10	<1	<1	<1	<1	0.2	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	453	-	-	-	<0.002	-
		15-08-18	EM1813024015	-	<10	<10	<10	0.04	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	504	-	-	-	<0.002	-
MW50A	Lot 3	25-08-17	EM1711516006	<50	<10	<10	<10	<0.01	<1	<50	<2	-	-	<50	<50	<0.05	<10	<1	<1	11	<1	0.8	-	<1	<1	<1	1	-	-	<0.001	<1	<1	-	<1	70	-	-	-	-	-
		27-10-17	EM1714855010	<50	<10	<10	<10	<0.01	<1	<50	<2	-	-	<50	<50	<0.05	<10	<1	<1	18	<1	1.9	<2	<1	<1	<1	3	-	-	<0.001	<1	<1	<2.0	<1	181	-	<2.0	-	<0.002	-
		18-01-18	EM1801648021	-	<10	<10	<10	<0.01	<1	<50	-	-	-	-	-	-	<10	<1	<1	4	<1	2.4	-	<1	<1	<1	2	-	-	<0.001	<1	<1	-	<1	330	-	-	-	-	-
		15-05-18	EM1808074005	-	<10	<10	<10	-	<1	-	-	-	-	-	-	-	<10	<1	<1	17	<1	4.8	-	<1	<1	<1	8	-	-	<0.001	<1	<1	-	<1	343	-	-	-	-	-
		05-07-18	EM1810788007	-	<10	<10	<10	-	<1	-	-	-	-	-	-	-	<10	<1	<1	13	<1	3.6	-	<1	<1	<1	6	-	-	<0.001	<1	<1	-	<1	356	-	-	-	-	-
MW50B	Lot 3	25-08-17	EM1711516005	<50	<10	<10	<10	<0.01	<1	<50	<2	-	-	<50	<50	<0.05	<10	<1	<1	8	<1	0.6	-	<1	<1	<1	<1	2	-	-	<0.001	<1	<1	-	<1	169	-	-	-	-	-
		27-10-17	EM1714855011	<50	<10	<10	<10	0.02	<1	<50	2	-	-	<50	<50	<0.05	<10	<1	<1	21	<1	1.4	<2	<1	<1	<1	3	-	-	<0.001	<1	<1	<2.0	<1	544	-	<2.0	-	<0.002	-
		18-01-18	EM1801648024	-	<1,000	<1,000	<1,000	<1	<100	<50	-	-	-	-	-	-	<1,000	<100	<100	<100	<100	<10.0	-	<100	<100	<100	<100	-	-	<0.1	<100	<100	-	<100	523	-	-	-	-	-
		15-05-18	EM1808074006	-	<10	<10	<10	-	<1	-	-	-	-	-	-	-	<10	<1	<1	30	<1	2.2	-	<1	<1	<1	4	-	-	<0.001	<1	<1	-	<1	425	-	-	-	-	-
		05-07-18	EM1810788008	-	<10	<10	<10	-	<1	-	-	-	-	-	-	-	<10	<1	<1	26	<1	2.0	-	<1	<1	<1	4	-	-	<0.001	<1	<1	-	<1	469	-	-	-	-	-
MW50C	Lot 3	25-08-17	EM1711516004	<50	<10	<10	<10	<0.01	<1	<50	<2	-	-	<50	<50	<0.05	<10	<1	<1	3	<1	0.3	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	36	-	-	-	-	-
		27-10-17	EM1714855012	<50	<10	<10	<10	<0.01	<1	<50	<2	-	-	<50	<50	<0.05	<10	<1	<1	5	<1	0.4	<2	<1	<1	<1	1	-	-	<0.001	<1	<1	<2.0	<1	156	-	<2.0	-	<0.002	-
		18-01-18	EM1801648023	-	<1,000	<1,000	<1,000	<1	<100	<50	-	-	-	-	-	-	<1,000	<100	<100	<100	<100	<10.0	-	<100	<100	<100	<100	-	-	<0.1	<100	<100	-	<100	174	-	-	-	-	-
		15-05-18	EM1808074007	-	<10	<10	<10	-	<1	-	-	-	-	-	-	-	<10	<1	<1	2	<1	0.2	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	94	-	-	-	-	-
		05-07-18	EM1810788006	-	<10	<10	<10	-	<1	-	-	-	-	-	-	-	<10	<1	<1	3	<1	0.3	-	<1	<1	<1	1	-	-	<0.001	<1	<1	-	<1	175	-	-	-	-	-
MW52	Off Site (21 Hamlet Street)	23-08-17	EM1711357004	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	9	-	-	-	-	-
		24-10-17	EM1714676011	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	7	<2.0	<2.0	<0.002	<0.002	<0.002
		16-01-18	EM1801513014	-	<10	<10	<10	<0.01	<1	<50	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	6	-	-	-	-	-
		05-04-18	EM1805739001	-	-	-	-	-	-	-	-	<0.0001	-	-	-	-	<0.1	<0.1	<0.10	<0.10	<0.10	-	<0.1	<0.1	<0.10	<0.10	-	-	<0.0001	-	-	-	-	6.63	-	-	-	-	-
		14-08-18	EM1813024004	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	4	-	-	-	<0.0020	-
MW53	Off Site (19 Hamlet Street)	22-08-17	EM1711357002	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	<1	-	-	-	-	-
		23-10-17	EM1714618007	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	<1	<2.0	<2.0	<0.002	<0.002	<0.002
		16-01-18	EM1801513015	-	<10	<10	<10	<0.01	<1	<50	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	<1	-	-	-	-	-
		05-04-18	EM1805739002	-	-	-	-	-	-	-	-	<0.0001	-	-	-	-	<0.1	<0.1	<0.10	<0.10	<0.10	-	<0.1	<0.1	<0.10	<0.10	-	-	<0.0001	-	-	-	-	<0.10	-	-	-	-	-
		14-08-18	EM1813024003	-	<10	<10	<10	<0.01	<1	-	-	-	-	-	-	-	<10	<1	<1	<1	<1	<0.1	-	<1	<1	<1	<1	-	-	<0.001	<1	<1	-	<1	<1	-	-	-	<0.002	-

Table 6
Groundwater Analytical Results - August 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	Metals																		Inorganics																								
	Antimony (filtered)	Arsenic (filtered)	Barium (filtered)	Beryllium (filtered)	Boron (filtered)	Cadmium (filtered)	Chromium (III+VI) (filtered)	Cobalt (filtered)	Copper (filtered)	Iron (filtered)	Lead (filtered)	Manganese (filtered)	Mercury (filtered)	Nickel (filtered)	Selenium (filtered)	Silver (filtered)	Vanadium (filtered)	Zinc (filtered)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Calcium (filtered)	Magnesium (filtered)	Potassium (filtered)	Sodium (filtered)	Cations Total	Anions Total	Ionic Balance	Nitrate (as N)	Nitrite (as N)	Nitrite + Nitrate as N	Ammonia as N	Chloride	Fluoride
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.001	0.001	0.001	0.001	0.05	0.0001	0.001	0.001	0.001	0.05	0.001	0.001	0.0001	0.001	0.01	0.001	0.01	0.005	1	1	1	1	1	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1	0.1
Potable Water Supply	0.003	0.01	2			0.002	0.05	0.0006[GS]	2 / 1[A]	0.3[A]	0.01	0.5 / 0.1[A]	0.001	0.02				3[A]								180[A]				50[WR]	3[WR]		0.5[A]	250[A]	
Primary Contact Recreation	0.03	0.1	20	0.6	40	0.02	0.5	0.006[GS]	20 / 1[A]	0.3[A]	0.1	5 / 0.1[A]	0.01	0.2	0.1	1	0.086*	3[A]								180[A]				112.87[A]	9.12[W]		0.5[A]	250[A]	15
Stock Watering	0.003	0.5	2		5	0.01	1	1	0.4	0.3[A]	0.1	0.5 / 0.1[A]	0.002	1	0.02			20								180[A]				50[WR]	3[WR]		0.5[WR]	250[A]	2
Agriculture, Parks and Gardens		0.1		0.1	0.5	0.01	0.1	0.05	0.2	0.2	2	0.2	0.002	0.2	0.02		0.1	2																	1
Maintenance of Ecosystems		0.024[E]				0.0055		0.001	0.0013		0.0044		0.0004	0.07		0.0014	0.1	0.015												2.4[N]	0.06[C]		0.91		
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																																					
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																																					
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																																					
Derived Groundwater Risk Based Contminant Screening Level - Residential																																					
Derived Groundwater Risk Based Contminant Screening Level - Commercial/Industrial																																					
Field ID	**Location**	**Date**	**Sample Code**																																							
BMW1	Lot 4 (On-site)	24-08-17	EM1711516002	<0.001	0.003	0.031	-	-	<0.0001	<0.001	0.017	0.008	<0.05	<0.001	0.028	<0.0001	0.011	-	-	-	0.145	45	<1	<1	45	11	46	1	872	42.30	41.90	0.45	-	-	-	0.03	1,220	-
		24-10-17	EM1714676006	<0.001	0.002	0.022	-	-	<0.0001	<0.001	0.008	0.007	<0.05	<0.001	0.011	<0.0001	0.028	-	-	-	0.038	20	<1	<1	20	3	30	<1	775	36.30	33.80	3.52	-	-	-	0.15	941	-
		17-01-18	EM1801648004	-	0.002	-	-	-	<0.0001	<0.001	-	0.011	<0.05	<0.001	0.018	<0.0001	0.030	-	-	-	0.058	16	<1	<1	16	4	37	<1	791	37.60	36.40	1.71	33.10	<0.01	-	0.05	1,040	0.2
BMW2	Lot 4 (On-site)	24-08-17	EM1711441008	<0.001	0.002	0.041	-	-	<0.0001	<0.001	0.005	0.008	<0.05	<0.001	0.009	<0.0001	0.058	-	-	-	0.020	41	<1	<1	41	14	70	<1	1,130	55.60	53.10	2.31	-	-	-	<0.01	1,660	-
		24-10-17	EM1714676007	<0.001	0.002	0.042	-	-	<0.0001	<0.001	0.008	0.007	<0.05	<0.001	0.007	<0.0001	0.050	-	-	-	0.033	22	<1	<1	22	21	132	<1	1,640	83.20	85.10	1.10	-	-	-	0.04	2,760	-
		17-01-18	EM1801648003	-	0.002	-	-	-	<0.0001	<0.001	-	0.006	<0.05	<0.001	0.007	<0.0001	0.013	-	-	-	0.033	<1	<1	<1	<1	18	102	<1	1,320	66.70	66.60	0.04	21.50	<0.01	-	0.03	2,120	0.1
CMW1	Lot 3	24-08-17	EM1711516003	-	<0.001	0.039	<0.001	<0.05	<0.0001	<0.001	0.005	0.002	<0.05	<0.001	0.022	<0.0001	0.027	<0.01	<0.001	<0.01	0.020	60	<1	<1	60	22	114	<1	1,360	69.60	71.10	1.02	-	-	-	0.06	2,120	-
		23-10-17	EM1714618003	-	0.001	0.031	<0.001	<0.05	<0.0001	<0.001	0.005	0.006	<0.05	<0.001	0.015	<0.0001	0.098	<0.01	0.001	<0.01	0.073	64	<1	<1	64	18	114	2	1,340	68.60	67.30	0.94	-	-	-	0.07	1,980	-
		16-01-18	EM1801513009	-	<0.001	-	-	-	<0.0001	0.002	-	<0.001	<0.05	<0.001	0.014	0.0001	0.012	-	-	-	0.020	59	<1	<1	59	18	100	<1	1,200	61.30	58.80	2.13	15.70	<0.01	-	0.02	1,680	<0.1
		15-05-18	EM1808074003	-	0.001	-	-	-	0.0001	<0.001	-	0.087	<0.05	0.006	0.014	<0.0001	0.076	-	-	-	0.172	-	-	-	-	13	90	<1	1,230	-	-	-	15.5	0.03	15.5	0.06	1,740	-
		05-07-18	EM1810788004	-	0.002	-	-	-	<0.0001	<0.001	-	0.002	0.07	<0.001	0.009	<0.0001	1.1	-	-	-	0.026	-	-	-	-	13	94	<1	1,160	-	-	-	17.5	<0.01	17.5	0.05	1,880	-
MW2A	Lot 3	15-05-18	EM1808074001	-	0.039	-	-	-	<0.0001	<0.001	-	0.047	0.16	0.002	0.029	<0.0001	0.013	-	-	-	0.078	-	-	-	-	2	7	<1	216	-	-	-	0.06	0.02	0.08	0.02	110	-
		04-07-18	EM1810788003	-	0.155	-	-	-	<0.0001	0.003	-	0.008	1.87	0.015	0.021	<0.0001	0.028	-	-	-	0.024	-	-	-	-	<1	4	<1	174	-	-	-	0.08	<0.01	0.08	0.05	111	-
		03-10-18	EM1815860004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW17B	Lot 3	05-06-18	EM1809115001	-	0.002	-	-	-	<0.0001	<0.001	-	0.001	<0.05	<0.001	0.005	<0.0001	0.002	-	-	-	<0.005	-	-	-	-	2	2	<1	74	-	-	-	<0.01	<0.01	-	<0.01	12	-
		04-07-18	EM1810788002	-	0.002	-	-	-	<0.0001	<0.001	-	<0.001	<0.05	<0.001	0.009	<0.0001	0.018	-	-	-	0.01	-	-	-	-	1	6	<1	63	-	-	-	0.02	<0.01	0.02	0.03	14	-
		03-10-18	EM1815860002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW21	Lot 4 (On-site)	23-08-17	EM1711357011	-	0.002	-	-	-	<0.0001	<0.001	-	0.002	<0.05	<0.001	0.042	<0.0001	0.004	-	-	-	0.075	172	<1	<1	172	<1	12	<1	312	14.60	15.70	3.84	-	-	-	0.01	316	-
		24-10-17	EM1714676003	-	0.001	-	-	-	<0.0001	<0.001	-	<0.001	<0.05	<0.001	0.047	<0.0001	0.016	-	-	-	0.014	169	<1	<1	169	<1	13	<1	337	15.70	17.40	4.93	-	-	-	0.21	371	-
		16-01-18	EM1801513018	-	0.005	-	-	-	<0.0001	0.001	-	0.002	0.13	0.005	0.073	0.0013	0.016	-	-	-	0.056	150	<1	<1	150	1	13	<1	330	15.50	16.00	1.76	2.39	<0.01	-	0.02	324	0.3
		14-08-18	EM1813024005	-	0.003	-	-	-	<0.0001	<0.001	0.002	0.001	0.11	0.001	0.007	<0.0001	0.059	-	-	-	0.036	-	-	-	-	-	-	-	220	-	-	-	2.24	0.03	2.27	0.19	222	-
MW22	Lot 2	24-08-17	EM1711441004	<0.001	<0.001	0.008	-	-	<0.0001	0.001	0.009	0.007	<0.05	<0.001	0.013	<0.0001	0.002	-	-	-	0.031	26	<1	<1	26	3	2	<1	37	1.92	2.07	3.73	-	-	-	0.12	44	-
		24-10-17	EM1714676001	-	0.002	-	-	-	<0.0001	<0.001	-	0.013	<0.05	<0.001	0.024	<0.0001	0.057	-	-	-	0.098	36	<1	<1	36	5	54	<1	1,030	49.50	46.90	2.66	-	-	-	0.03	1,380	-
		17-01-18	EM1801648007	-	0.004	-	-	-	0.0001	<0.001	-	0.007	0.12	<0.001	0.053	<0.0001	0.015	-	-	-	0.039	29	<1	<1	29	4	43	<1	912	43.40	40.50	3.49	52.30	<0.01	-	0.04	1,120	0.1
		15-08-18	EM1813024013	-	0.002	-	-	-	0.0001	<0.001	0.004	0.004	<0.05	<0.001	0.038	<0.0001	0.029	-	-	-	0.086	-	-	-	-	-	-	-	538	-	-	-	31.7	<0.01	31.7	0.07	785	-
MW23	Lot 3	23-08-17	EM1711357005	-	0.064	0.005	<0.001	<0.05	<0.0001	<0.001	0.001	0.002	<0.05	<0.001	0.006	<0.0001	0.004	<0.01	<0.001	<0.01	0.008	227	<1	<1	227	1	6	<1	251	11.50	10.60	3.70	-	-	-	0.01	111	-
		23-10-17	EM1714618005	-	0.100	0.004	<0.001	<0.05	<0.0001	<0.001	0.001	0.002	0.16	<0.001	0.007	<0.0001	0.003	<0.01	<0.001	<0.01	0.022	238	<1	<1	238	1	7	<1	228	10.50	11.00	1.94	-	-	-	0.03	110	-
		16-01-18	EM1801513019	-	0.091	-	-	-	<0.0001	0.001	-	0.001	0.16	<0.001	0.012	<0.0001	0.002	-	-	-	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	8.87	0.01	-	-
MW23A	Lot 3	15-05-18	EM1808074002	-	0.01	-	-	-	<0.0001	<0.001	-	0.026	0.14	0.002	0.006	<0.0001	0.013	-	-	-	0.066	-	-	-	-	2	6	<1	283	-	-	-	2.97	0.05	3.02	0.05	136	-
		04-07-18	EM1810788001	-	0.046	-	-	-	<0.0001	<0.001	-	0.001	0.24	<0.001	0.003	<0.0001	0.095	-	-	-	0.017	-	-	-	-	<1	4	<1	222	-	-	-	3.54	0.02	3.56	<0.01	135	-
		03-10-18	EM1815860003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24AR	Lot 2	25-08-17	EM1711516012	-	<0.001	-	-	-	0.0004	<0.001	-	0.006	<0.05	<0.001	0.664	<0.0001	0.018	-	-	-	0.024	146	<1	<1	146	144	89	3	823	50.40	52.50	2.05	-	-	-	0.47	1,610	-
		27-10-17	EM1714855014	-	<0.001	-	-	-	<0.0001	<0.001	-	<0.001	<0.05	<0.001	0.430	<0.0001	0.042	-	-	-	0.014	153	<1	<1	153	153	95	3	997	58.90	55.50	2.96	-	-	-	0.10	1,680	-
		18-01-18	EM1801648022	-	<0.001	-	-	-	0.0003	<0.001	-	0.001	<0.05	<0.001	0.497	<0.0001	0.042	-	-	-	0.017	119	<1	<1	119	24	37	<1	423	22.60	24.10	3.14	14.10	<0.01	-	0.14	659	0.2
MW24BR	Lot 2	25-08-17	EM1711516011	-	0.003	-	-	-	<0.0001	<0.001	-	0.002	<0.05	<0.001	0.207	<0.0001	0.054	-	-	-	0.027	126	<1	<1	126	8	16	<1	302	14.80	16.90	6.49	6.05	0.35	-	0.12	331	-
		27-10-17	EM1714855015	-	0.002	-	-	-	<0.0001	<0.001	-	0.002	<0.05	<0.001	0.052	<0.0001	0.004	-	-	-	0.014	12	<1	<1	12	5	29	<1	644	30.60	27.10	6.10	21.40	0.89	-	0.05	621	-
		18-01-18	EM1801648020	-	0.002	-	-	-	<0.0001	<0.001	-	0.001	<0.05	<0.001	0.014	<0.0001	0.002	-	-	-	0.013	25	<1	<1	25	4	20	<1	468	22.20	23.20	2.21	19.10	0.02	-	0.04	492	0.3
MW24CR	Lot 2	25-08-17	EM1711516010	-	0.011	-	-	-	<0.0001	<0.001	-	0.001	0.39	<0.001	0.110	<0.0001	0.103	-	-	-	0.017	174	<1	<1	174	12	33	<1	752	36.00	37.30	1.76	-	-	-	0.05	925	-
		27-10-17	EM1714855016	-	0.008	-	-	-	<0.0001	<0.001	-	<0.001	<0.05	<0.001	0.045	<0.0001	0.003	-	-	-	0.010	93	<1	<1	93	5	25	<1	748	34.80	31.70	4.67	-	-	-	0.04	806	-
		17-01-18	EM1801648008	-	0.050	-	-	-	<0.0001	<0.001	-	<0.001	4.75	<0.001	0.306	<0.0001	0.040	-	-	-	0.009	130	<1	<1	130	3	26	<1	624	29.40	32.30	4.62	0.04	0.02	-	<0.01	769	0.6
MW32	Lot 2	24-08-17	EM1711441005	<0.001	0.004	0.024	-	-	0.0005	<0.001	0.028	0.009	<0.05	0.016	0.150	<0.0001	0.016	-	-	-	0.070	48	<1	<1	48	4	49	<1	701	34.70	32.40	3.50	28.90	<0.01	28.90	0.04	938	-
		26-10-17	EM1714855006	-	0.002	-	-	-	0.0011	0.004	-	0.043	0.16	0.008	0.103	0.0003	0.013	-	-	-	0.139	61	<1	<1	61	13	6	26	36	3.37	3.68	4.30	13.30	0.01	13.30	0.04	65	-
		17-01-18	EM1801648005	-	0.004	-	-	-	0.0005	0.002	-	0.005	0.22	0.004	0.146	<0.0001	0.006	-	-	-	0.061	38	<1	<1	38	10	20	22	287	15.20	14.40	2.70	27.20	0.02	-	0.23	391	0.2
MW33R	Lot 3	24-08-17	EM1711441009	-	0.005	0.013	<0.001	<0.05	<0.0001	<0.001	0.004	0.002	<0.05	<0.001	0.068	<0.0001	0.021	<0.01	<0.001	<0.01	0.013	133	<1	<1	133	2	12	<1	422	19.40	21.30	4.53	8.05	0.03	8.08	<0.01	470	-
		24-10-17	EM1714676004	-	0.004	0.010	<0.001	<0.05	<0.0001	<0.001	0.003	0.001	<0.05	<0.001	0.054	<0.0001	0.035	<0.01	<0.001	<0.01	0.016	137	<1	<1	137	2	12	<1	387	17.90	18.90	2.71	8.75	0.04	-	0.08	398	-
		16-01-18	EM1801513012	-	0.004	-	-	-	<0.0001	<0.001	-	0.004	<0.05	<0.001	0.060	<0.0001	0.016	-	-	-	0.046	96	<1	<1	96	2	11	<1	349	16.20	16.00	0.44	8.93	0.04	-	<0.01	331	0.1
		22-02-18	EM1803519001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15-05-18	EM1808074004	-	0.004	-	-	-	0.0001	<0.001	-	0.03	<0.05	0.01	0.055	<0.0001	0.046	-	-	-	0.101	-	-	-	-	2	11	<1	404	-	-	-	10	0.06	10.1	0.02	363	-
		05-07-18	EM1810788005	-	0.005	-	-	-	<0.0001	<0.001	-	<0.001	0.06	0.001	0.052	<0.0001	0.014	-	-	-	0.009	-	-	-	-	2	11	<1	345	-	-	-	11.8	0.05	11.8	0.03	381	-

Table 6
Groundwater Analytical Results - August 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

ARC ENVIRONMENTAL

Metals

Field ID	Location	Date	Sample Code	Antimony (filtered)	Arsenic (filtered)	Barium (filtered)	Beryllium (filtered)	Boron (filtered)	Cadmium (filtered)	Chromium (III+VI) (filtered)	Cobalt (filtered)	Copper (filtered)	Iron (filtered)	Lead (filtered)	Manganese (filtered)	Mercury (filtered)	Nickel (filtered)	Selenium (filtered)	Silver (filtered)	Vanadium (filtered)	Zinc (filtered)
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL				0.001	0.001	0.001	0.001	0.05	0.0001	0.001	0.001	0.001	0.05	0.001	0.001	0.0001	0.001	0.01	0.001	0.01	0.005
Potable Water Supply				0.003	0.01	2			0.002	0.05	0.0006[US]	2 / 1[A]	0.3[A]	0.01	0.5 / 0.1[A]	0.001	0.02				3[A]
Primary Contact Recreation				0.03	0.1	20	0.6	40	0.02	0.5	0.006[US]	20 / 1[A]	0.3[A]	0.1	5 / 0.1[A]	0.01	0.2	0.1	1	0.086*	3[A]
Stock Watering				0.003	0.5	2		5	0.01	1	1	0.4	0.3[A]	0.1	0.5 / 0.1[A]	0.002	1	0.02			20
Agriculture, Parks and Gardens					0.1		0.1	0.5	0.01	0.1	0.05	0.2	0.2	2	0.2	0.002	0.2	0.02		0.1	2
Maintenance of Ecosystems					0.024[F]				0.0055		0.001	0.0013		0.0044		0.0004	0.07		0.0014	0.1	0.015
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																					
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																					
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																					
Derived Groundwater Risk Based Contminant Screening Level - Residential																					
Derived Groundwater Risk Based Contminant Screening Level - Commercial/Industrial																					
MW35	Lot 2	25-08-17	EM1711516008	<0.001	0.004	0.024	-	-	0.0005	<0.001	0.028	0.009	<0.05	0.016	0.150	<0.0001	0.016	-	-	-	0.070
		26-10-17	EM1714855007	-	0.002	-	-	-	0.0011	0.004	-	0.043	0.16	0.008	0.103	0.0003	0.013	-	-	-	0.139
		17-01-18	EM1801648013	-	0.004	-	-	-	0.0005	0.002	-	0.005	0.22	0.004	0.146	<0.0001	0.006	-	-	-	0.061
MW37	Lot 1	24-08-17	EM1711441006	-	0.001	-	-	-	<0.0001	<0.001	-	0.004	<0.05	0.003	0.008	<0.0001	0.004	-	-	-	0.091
		24-10-17	EM1714676002	-	0.001	-	-	-	<0.0001	<0.001	-	0.026	<0.05	0.007	0.009	<0.0001	0.088	-	-	-	0.129
		16-01-18	EM1801513010	-	0.001	-	-	-	0.0002	<0.001	-	0.014	<0.05	0.028	0.016	<0.0001	0.008	-	-	-	0.230
		15-08-18	EM1813024012	-	0.002	-	-	-	<0.0001	<0.001	0.003	0.002	<0.05	0.003	0.008	<0.0001	0.034	-	-	-	0.042
MW38	Lot 4 (On-site)	23-08-17	EM1711357010	<0.001	0.142	0.014	-	-	<0.0001	0.004	0.001	<0.001	6.98	<0.001	0.023	<0.0001	0.005	-	-	-	0.027
		23-10-17	EM1714618002	<0.001	0.135	0.014	-	-	<0.0001	0.004	<0.001	<0.001	7.51	<0.001	0.023	<0.0001	0.010	-	-	-	0.016
		15-01-18	EM1801513002	-	0.018	-	-	-	<0.0001	0.004	-	0.010	0.92	0.017	0.023	<0.0001	0.005	-	-	-	0.040
		14-08-18	EM1801513002	-	0.096	-	-	-	<0.0001	0.003	<0.001	0.002	4.83	0.004	0.028	<0.0001	0.013	-	-	-	0.065
MW45A	Lot 1	23-08-17	EM1711357009	-	0.003	-	-	-	<0.0001	<0.001	-	<0.001	1.64	<0.001	0.146	<0.0001	0.008	-	-	-	0.016
		26-10-17	EM1714855004	-	0.001	-	-	-	<0.0001	<0.001	-	<0.001	1.52	<0.001	0.091	<0.0001	0.013	-	-	-	0.018
		17-01-18	EM1801648002	-	<0.001	-	-	-	<0.0001	<0.001	-	0.001	1.02	<0.001	0.085	<0.0001	0.025	-	-	-	0.024
		15-08-18	EM1813024014	-	0.002	-	-	-	<0.0001	<0.001	0.004	<0.001	0.66	<0.001	0.049	<0.0001	0.04	-	-	-	0.026
MW45B	Lot 1	23-08-17	EM1711357008	-	0.005	-	-	-	<0.0001	0.002	-	0.002	<0.05	<0.001	<0.001	<0.0001	0.001	-	-	-	<0.005
		26-10-17	EM1714855005	-	0.005	-	-	-	<0.0001	<0.001	-	<0.001	<0.05	<0.001	<0.001	<0.0001	0.001	-	-	-	<0.005
		17-01-18	EM1801648001	-	0.004	-	-	-	<0.0001	<0.001	-	0.002	<0.05	<0.001	<0.001	<0.0001	0.001	-	-	-	<0.005
		15-08-18	EM1813024015	-	0.004	-	-	-	<0.0001	0.001	0.001	0.003	0.07	0.001	0.013	<0.0001	0.002	-	-	-	0.097
MW50A	Lot 3	25-08-17	EM1711516006	-	0.002	0.028	<0.001	0.06	<0.0001	<0.001	0.004	0.001	<0.05	<0.001	0.094	<0.0001	0.013	<0.01	<0.001	<0.01	0.008
		27-10-17	EM1714855010	-	<0.001	0.071	<0.001	<0.05	<0.0001	0.003	0.016	0.003	0.18	<0.001	0.160	<0.0001	0.106	<0.01	<0.001	<0.01	0.035
		18-01-18	EM1801648021	-	<0.001	-	-	-	0.0001	<0.001	-	0.003	<0.05	<0.001	0.067	<0.0001	0.066	-	-	-	0.044
		15-05-18	EM1808074005	-	<0.001	-	-	-	<0.0001	0.001	-	0.045	<0.05	0.003	0.04	<0.0001	0.09	-	-	-	0.098
		05-07-18	EM1810788007	-	0.002	-	-	-	<0.0001	0.008	-	0.002	0.16	<0.001	0.034	0.0006	0.175	-	-	-	0.028
MW50B	Lot 3	25-08-17	EM1711516005	-	<0.001	0.024	<0.001	0.07	<0.0001	<0.001	0.023	0.002	<0.05	<0.001	0.418	<0.0001	0.008	<0.01	<0.001	<0.01	0.020
		27-10-17	EM1714855011	-	0.001	0.041	<0.001	0.06	<0.0001	<0.001	0.027	0.002	<0.05	<0.001	0.582	<0.0001	0.017	<0.01	<0.001	<0.01	0.027
		18-01-18	EM1801648024	-	0.001	-	-	-	<0.0001	<0.001	-	0.002	<0.05	<0.001	0.714	<0.0001	0.119	-	-	-	0.020
		15-05-18	EM1808074006	-	<0.001	-	-	-	0.0002	<0.001	-	0.117	<0.05	0.005	0.581	<0.0001	0.058	-	-	-	0.248
		05-07-18	EM1810788008	-	0.002	-	-	-	<0.0001	0.001	-	0.002	0.11	<0.001	0.745	<0.0001	0.063	-	-	-	0.062
MW50C	Lot 3	25-08-17	EM1711516004	-	0.002	0.042	<0.001	<0.05	<0.0001	<0.001	0.006	0.004	<0.05	<0.001	0.331	<0.0001	0.006	<0.01	<0.001	<0.01	0.016
		27-10-17	EM1714855012	-	<0.001	0.032	<0.001	0.06	<0.0001	<0.001	0.005	0.001	<0.05	<0.001	0.311	<0.0001	0.014	<0.01	<0.001	<0.01	0.016
		18-01-18	EM1801648023	-	<0.001	-	-	-	<0.0001	<0.001	-	<0.001	<0.05	<0.001	0.384	<0.0001	0.046	-	-	-	0.012
		15-05-18	EM1808074007	-	0.003	-	-	-	<0.0001	0.006	-	0.01	<0.05	<0.001	0.062	<0.0001	0.018	-	-	-	0.053
		05-07-18	EM1810788006	-	0.001	-	-	-	<0.0001	<0.001	-	0.001	<0.05	<0.001	0.586	<0.0001	0.102	-	-	-	0.032
MW52	Off Site (21 Hamlet Street)	23-08-17	EM1711357004	-	0.002	-	-	-	<0.0001	<0.001	-	0.002	<0.05	<0.001	0.242	<0.0001	0.009	-	-	-	0.018
		24-10-17	EM1714676011	-	0.002	-	-	-	<0.0001	<0.001	-	0.002	<0.05	<0.001	0.241	<0.0001	0.013	-	-	-	0.036
		16-01-18	EM1801513014	-	0.003	-	-	-	<0.0001	0.001	-	0.004	<0.05	<0.001	0.154	<0.0001	0.011	-	-	-	0.031
		05-04-18	EM1805739001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14-08-18	EM1813024004	-	0.008	-	-	-	<0.0001	<0.001	0.01	0.004	0.11	0.002	0.166	<0.0001	0.052	-	-	-	0.08
MW53	Off Site (19 Hamlet Street)	22-08-17	EM1711357002	-	0.022	-	-	-	<0.0001	<0.001	-	<0.001	0.17	<0.001	0.014	<0.0001	0.005	-	-	-	<0.005
		23-10-17	EM1714618007	-	0.004	-	-	-	<0.0001	<0.001	-	<0.001	<0.05	<0.001	0.020	<0.0001	0.001	-	-	-	<0.005
		16-01-18	EM1801513015	-	0.007	-	-	-	<0.0001	0.001	-	0.004	0.09	<0.001	<0.001	<0.0001	0.003	-	-	-	0.016
		05-04-18	EM1805739002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14-08-18	EM1813024003	-	0.005	-	-	-	<0.0001	<0.001	0.001	0.002	0.15	<0.001	0.032	<0.0001	0.011	-	-	-	0.044

Inorganics

Field ID	Location	Date	Sample Code	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Calcium (filtered)	Magnesium (filtered)	Potassium (filtered)	Sodium (filtered)	Cations Total	Anions Total	Ionic Balance	Nitrate (as N)	Nitrite (as N)	Nitrite + Nitrate as N	Ammonia as N	Chloride	Fluoride
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL				1	1	1	1	1	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1	0.1
Potable Water Supply											180[A]				50[WR]	3[WR]		0.5[A]	250[A]	
Primary Contact Recreation											180[A]				112.87[N]	9.12[N]		0.5[A]	250[A]	15
Stock Watering											180[A]				50[WR]	3[WR]		0.5[WR]	250[A]	2
Agriculture, Parks and Gardens																				1
Maintenance of Ecosystems															2.4[N]	0.06[C]		0.91		
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																				
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																				
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																				
Derived Groundwater Risk Based Contminant Screening Level - Residential																				
Derived Groundwater Risk Based Contminant Screening Level - Commercial/Industrial																				
MW35	Lot 2	25-08-17	EM1711516008	131	<1	<1	131	8	43	<1	579	29.10	31.00	3.17	16.90	0.02	-	0.02	746	-
		26-10-17	EM1714855007	126	<1	<1	126	10	36	3	568	28.20	26.60	3.04	13.70	0.03	-	0.12	653	-
		17-01-18	EM1801648013	108	<1	<1	108	10	25	3	407	20.30	20.80	1.25	22.00	0.02	-	0.07	493	0.2
MW37	Lot 1	24-08-17	EM1711441006	166	<1	<1	166	5	42	<1	728	35.40	33.90	2.09	-	-	-	0.04	919	-
		24-10-17	EM1714676002	147	<1	<1	147	9	39	2	658	32.30	32.00	0.55	-	-	-	0.08	870	-
		16-01-18	EM1801513010	234	<1	<1	234	56	6	13	104	8.14	9.04	5.22	6.02	<0.01	-	0.14	126	<0.1
		15-08-18	EM1813024012	-	-	-	-	-	-	-	550	-	-	-	13.1	<0.01	13.1	0.06	786	-
MW38	Lot 4 (On-site)	23-08-17	EM1711357010	186	<1	<1	186	6	8	27	54	4.40	4.85	4.88	-	-	-	0.45	27	-
		23-10-17	EM1714618002	176	<1	<1	176	9	9	28	60	4.52	4.62	1.12	-	-	-	0.64	28	-
		15-01-18	EM1801513002	154	<1	<1	154	15	6	21	38	3.43	3.88	6.17	0.55	0.02	-	0.03	19	0.2
		14-08-18	EM1801513002	-	-	-	-	-	-	-	42	-	-	-	0.14	<0.01	0.14	0.44	20	-
MW45A	Lot 1	23-08-17	EM1711357009	98	<1	<1	98	8	25	<1	219	12.00	14.00	7.95	-	-	-	<0.01	369	-
		26-10-17	EM1714855004	108	<1	<1	108	12	31	<1	246	13.80	14.20	1.23	-	-	-	0.04	364	-
		17-01-18	EM1801648002	100	<1	<1	100	10	26	<1	199	11.30	12.40	4.62	1.85	0.04	-	0.04	313	0.2
		15-08-18	EM1813024014	-	-	-	-	-	-	-	177	-	-	-	2.61	<0.01	2.61	0.07	328	-
MW45B	Lot 1	23-08-17	EM1711357008	<1	50	19	69	42	<1	21	424	21.10	19.70	3.46	-	-	-	0.32	576	-
		26-10-17	EM1714855005	<1	56	11	67	21	<1	16	526	24.30	22.60	3.62	-	-	-	0.33	676	-
		17-01-18	EM1801648001	12	28	<1	40	26	<1	20	413	19.80	20.20	0.99	0.42	0.30	-	0.21	618	1.6
		15-08-18	EM1813024015	-	-	-	-	-	-	-	418	-	-	-	0.01	0.05	0.06	0.22	768	-
MW50A	Lot 3	25-08-17	EM1711516006	150	<1	<1	150	16	16	<1	189	10.30	11.80	6.62	-	-	-	0.09	242	-
		27-10-17	EM1714855010	98	<1	<1	98	21	40	<1	505	26.30	25.70	1.08	-	-	-	0.08	742	-
		18-01-18	EM1801648021	153	<1	<1	153	143	80	4	834	50.10	53.20	2.97	1.90	0.23	-	0.39	1,620	0.1
		15-05-18	EM1808074005	-	-	-	-	15	39	<1	531	-	-	-	1.69	0.03	1.72	0.04	745	-
		05-07-18	EM1810788007	-	-	-	-	13	42	<1	457	-	-	-	1.67	<0.01	1.67	0.04	816	-
MW50B	Lot 3	25-08-17	EM1711516005	96	<1	<1	96	13	21	1	345	17.40	17.70	0.73	30.10	1.51	-	0.30	401	-
		27-10-17	EM1714855011	131	<1	<1	131	28	43	2	720	36.30	34.70	2.22	72.60	2.59	-	0.29	705	-
		18-01-18	EM1801648024	118	<1	<1	118	28	38	2	556	28.80	26.70	3.63	69.70	1.82	-	0.40	615	0.2
		15-05-18	EM1808074006	-	-	-	-	24	35	9	579	-	-	-	44.2	0.51	44.7	0.34	573	-
		05-07-18	EM1810788008	-	-	-	-	23	40	6	553	-	-	-	60.8	0.62	61.4	0.19	697	-
MW50C	Lot 3	25-08-17	EM1711516004	208	<1	<1	208	119	80	3	708	43.40	43.10	0.39	-	-	-	0.26	1,250	-
		27-10-17	EM1714855012	182	<1	<1	182	98	76	2	748	43.70	39.60	5.00	-	-	-	0.18	1,110	-
		18-01-18	EM1801648023	124	<1	<1	124	108	71	3	635	38.90	36.50	3.25	35.10	0.61	-	0.16	1,060	0.2
		15-05-18	EM1808074007	-	-	-	-	111	64	8	684	-	-	-	31.1	0.03	31.1	0.2	1,020	-
		05-07-18	EM1810788006	-	-	-	-	107	83	4	687	-	-	-	45	0.12	45.1	0.18	1,250	-
MW52	Off Site (21 Hamlet Street)	23-08-17	EM1711357004	82	<1	<1	82	1	13	<1	371	17.20	16.80	1.23	-	-	-	0.03	386	-
		24-10-17	EM1714676011	79	<1	<1	79	1	12	<1	332	15.50	16.90	4.32	-	-	-	0.04	388	-
		16-01-18	EM1801513014	86	<1	<1	86	1	9	2	255	11.90	13.00	4.12	1.91	<0.01	-	0.02	256	0.2
		05-04-18	EM1805739001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14-08-18	EM1813024004	-	-	-	-	-	-	-	226	-	-	-	2.03	<0.01	2.03	0.05	246	-
MW53	Off Site (19 Hamlet Street)	22-08-17	EM1711357002	193	<1	<1	193	2	3	7	128	6.09	6.48	3.06	-	-	-	0.14	59	-
		23-10-17	EM1714618007	158	<1	<1	158	3	4	4	100	4.93	5.28	3.37	-	-	-	0.17	50	-
		16-01-18	EM1801513015	120	<1	<1	120	4	3	4	90	4.46	4.04	4.92	0.12	<0.01	-	0.04	37	0.2
		05-04-18	EM1805739002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14-08-18	EM1813024003	-	-	-	-	-	-	-	84	-	-	-	0.02	<0.01	0.02	0.03	44	-

Table 6
Groundwater Analytical Results - August 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				PAH																				Phenols												Cyanides	
				2-chloronaphthalene	2-methylnaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Benzo(a)pyrene TEQ calc (Zero)	PAHs (Sum of total)	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,6-Dichlorophenol	2-Chlorophenol	2-Methylphenol	2-Nitrophenol	3 & 4-methylphenol	4-chloro-3-methylphenol	Pentachlorophenol	Phenol	Cyanide (WAD)	Cyanide Total
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L
EQL				2	2	2	2	2	2	2	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4	2	4	2	0.004	0.004
Potable Water Supply												0.01	0.01	25US	0.025^US	80US	29US	0.25^US	70^WR	150^WR	150^WR			120US	20 / 2^A	200 / 0.3	36US	10^WR	300 / 0.1	93US			140US	10	150^WR		0.08
Primary Contact Recreation												0.01	0.01	25US	0.025^US	80US	29US	0.25^US	70^WR	150^WR	150^WR			120US	20 / 2^A	200 / 0.3	36US	10^WR	300 / 0.1	93US			140US	10	150^WR		0.8
Stock Watering												0.01	0.01	25US	0.025^US	80US	29US	0.25^US	70^WR	150^WR	150^WR			120US	20 / 2^A	200 / 0.3	36US	10^WR	300 / 0.1	93US			140US	10	150^WR		0.08
Agriculture, Parks and Gardens																																					
Maintenance of Ecosystems																			70															22	400		0.004
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																			NL																		
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																			NL																		
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																			NL																		
Derived Groundwater Risk Based Contminant Screening Level - Residential																																					
Derived Groundwater Risk Based Contminant Screening Level - Commercial/Industrial																																					
Field ID	**Location**	**Date**	**Sample Code**																																		
BMW1	Lot 4 (On-site)	24-08-17	EM1711516002	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<4	<2	-	-
		24-10-17	EM1714676006	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<4	<2	<0.004	<0.004
		17-01-18	EM1801648004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
BMW2	Lot 4 (On-site)	24-08-17	EM1711441008	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<4	<2	-	-
		24-10-17	EM1714676007	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<4	<2	<0.004	<0.004
		17-01-18	EM1801648003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
CMW1	Lot 3	24-08-17	EM1711516003	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<4	<2	-	-
		23-10-17	EM1714618003	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<4	<2	<0.004	<0.004
		16-01-18	EM1801513009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15-05-18	EM1808074003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
		05-07-18	EM1810788004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
MW2A	Lot 3	15-05-18	EM1808074001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
		04-07-18	EM1810788003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
		03-10-18	EM1815860004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW17B	Lot 3	05-06-18	EM1809115001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
		04-07-18	EM1810788002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
		03-10-18	EM1815860002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW21	Lot 4 (On-site)	23-08-17	EM1711357011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		24-10-17	EM1714676003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		16-01-18	EM1801513018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14-08-18	EM1813024005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW22	Lot 2	24-08-17	EM1711441004	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<4	<2	-	-
		24-10-17	EM1714676001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	EM1801648007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
		15-08-18	EM1813024013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23	Lot 3	23-08-17	EM1711357005	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<4	<2	-	-
		23-10-17	EM1714618005	<2	2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	15	<2	<2	<2	10	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<4	<2	<0.004	<0.004
		16-01-18	EM1801513019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23A	Lot 3	15-05-18	EM1808074002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
		04-07-18	EM1810788001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
		03-10-18	EM1815860003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24AR	Lot 2	25-08-17	EM1711516012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		27-10-17	EM1714855014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		18-01-18	EM1801648022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
MW24BR	Lot 2	25-08-17	EM1711516011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		27-10-17	EM1714855015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		18-01-18	EM1801648020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
MW24CR	Lot 2	25-08-17	EM1711516010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		27-10-17	EM1714855016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	EM1801648008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
MW32	Lot 2	24-08-17	EM1711441005	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<4	<2	-	-
		26-10-17	EM1714855006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	EM1801648005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
MW33R	Lot 3	24-08-17	EM1711441009	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<4	<2	-	-
		24-10-17	EM1714676004	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<4	<2	<0.004	0.006
		16-01-18	EM1801513012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		22-02-18	EM1803519001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15-05-18	EM1808074004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
		05-07-18	EM1810788005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004

Table 6
Groundwater Analytical Results - August 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				PAH																			Phenols												Cyanides	
				1-chloronaphthalene	2-methylnaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(j,k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Benzo(a)pyrene TEQ calc (zero)	PAHs (Sum of total)	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,6-Dichlorophenol	2-Chlorophenol	2-Methylphenol	2-Nitrophenol	3 & 4-methylphenol	4-chloro-3-methylphenol	Pentachlorophenol	Phenol	Cyanide (WAD)	Cyanide Total
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L
EQL				2	2	2	2	2	2	2	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4	2	4	2	0.004	0.004
Potable Water Supply												0.01	0.01	25[US]	0.025[US]	80[US]	29[US]	0.25[US]	70[WR]	150[WR]	150[WR]			120[US]	20 / 2[A]	200 / 0.3[J]	36[US]	10[WR]	300 / 0.1[J]	93[US]			140[US]	10	150[WR]		0.08
Primary Contact Recreation												0.01	0.01	25[US]	0.025[US]	80[US]	29[US]	0.25[US]	70[WR]	150[WR]	150[WR]			120[US]	20 / 2[A]	200 / 0.3[J]	36[US]	10[WR]	300 / 0.1[J]	93[US]			140[US]	10	150[WR]		0.8
Stock Watering												0.01	0.01	25[US]	0.025[US]	80[US]	29[US]	0.25[US]	70[WR]	150[WR]	150[WR]			120[US]	20 / 2[A]	200 / 0.3[J]	36[US]	10[WR]	300 / 0.1[J]	93[US]			140[US]	10	150[WR]		0.08
Agriculture, Parks and Gardens																																					
Maintenance of Ecosystems																			70														22	400		0.004
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																			NL																		
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																			NL																		
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																			NL																		
Derived Groundwater Risk Based Contminant Screening Level - Residential																																					
Derived Groundwater Risk Based Contminant Screening Level - Commercial/Industrial																																					
Field ID	**Location**	**Date**	**Sample Code**																																		
MW35	Lot 2	25-08-17	EM1711516008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		26-10-17	EM1714855007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	EM1801648013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
MW37	Lot 1	24-08-17	EM1711441006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		24-10-17	EM1714676002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		16-01-18	EM1801513010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15-08-18	EM1813024012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW38	Lot 4 (On-site)	23-08-17	EM1711357010	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<4	<2	-	-
		23-10-17	EM1714618002	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<4	<2	<0.004	<0.004
		15-01-18	EM1801513002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14-08-18	EM1801513002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW45A	Lot 1	23-08-17	EM1711357009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		26-10-17	EM1714855004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	EM1801648002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
		15-08-18	EM1813024014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW45B	Lot 1	23-08-17	EM1711357008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		26-10-17	EM1714855005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	EM1801648001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
		15-08-18	EM1813024015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW50A	Lot 3	25-08-17	EM1711516006	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<4	<2	-	-
		27-10-17	EM1714855010	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<0.004	<0.004
		18-01-18	EM1801648021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
		15-05-18	EM1808074005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
		05-07-18	EM1810788007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
MW50B	Lot 3	25-08-17	EM1711516005	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<4	<2	-	-
		27-10-17	EM1714855011	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	3	<2	<4	<2	<0.004	<0.004
		18-01-18	EM1801648024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
		15-05-18	EM1808074006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
		05-07-18	EM1810788008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
MW50C	Lot 3	25-08-17	EM1711516004	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<4	<2	-	-
		27-10-17	EM1714855012	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<0.004	<0.004
		18-01-18	EM1801648023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
		15-05-18	EM1808074007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
		05-07-18	EM1810788006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.004
MW52	Off Site (21 Hamlet Street)	23-08-17	EM1711357004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		24-10-17	EM1714676011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		16-01-18	EM1801513014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-04-18	EM1805739001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14-08-18	EM1813024004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW53	Off Site (19 Hamlet Street)	22-08-17	EM1711357002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		23-10-17	EM1714618007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		16-01-18	EM1801513015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-04-18	EM1805739002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14-08-18	EM1813024003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 6
Groundwater Analytical Results - August 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				Naural Attenuation						SVOCs																Explosives				Anilines					
				Ferric Iron (filtered)	Ferrous Iron	Sulfate as SO4 - Turbidimetric (filtered)	Sulphite as SO3-	Ethane	Ethene	Methane	2-(para-tolylamino) fluorene	3,3-Dichlorobenzidine	4-dimethylamino) azobenzene	4-bromophenyl phenyl ether	4-chlorophenyl phenyl ether	4-Nitroquinoline-N-oxide	Azobenzene	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl)ether	Dibenzofuran	Hexachloropropene	Methapyrilene	N-nitrosomorpholine	N-nitrosopiperidine	N-nitrosopyrrolidine	Phenacetin	1,3,5-Trinitrobenzene	2,4-Dinitrotoluene	2,6-dinitrotoluene	Nitrobenzene	2-nitroaniline	3-nitroaniline	4-chloroaniline	4-nitroaniline	2-methyl-5-nitroaniline	Aniline
				mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				0.05	0.05	1	2,000	10	10	0.01	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0.002	4	4	2	4	4	2	2	2	2
Potable Water Supply						500 / 250^																														
Primary Contact Recreation						5,000 / 250^																														
Stock Watering						1,000																														
Agriculture, Parks and Gardens																																				
Maintenance of Ecosystems																																				
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																																				
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																																				
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																																				
Derived Groundwater Risk Based Contminant Screening Level - Residential																																				
Derived Groundwater Risk Based Contminant Screening Level - Commercial/Industrial																																				
Field ID	**Location**	**Date**	**Sample Code**																																	
BMW1	Lot 4 (On-site)	24-08-17	EM1711516002	-	-	317	-	-	-	-	<2	-	<2	-	-	<2	<2	-	-	-	-	-	-	-	<2	<0.002	<4	<4	<2	-	-	-	-	<2	-
		24-10-17	EM1714676006	-	-	332	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.002	<4	<4	<2	<4	<4	<2	<2	<2	<2
		17-01-18	EM1801648004	<0.05	<0.05	323	<2,000	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BMW2	Lot 4 (On-site)	24-08-17	EM1711441008	-	-	262	-	-	-	-	<2	-	<2	-	-	<2	<2	-	-	-	-	-	-	-	<2	<0.002	<4	<4	<2	-	-	-	-	<2	-
		24-10-17	EM1714676007	-	-	327	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.002	<4	<4	<2	<4	<4	<2	<2	<2	<2
		17-01-18	EM1801648003	<0.05	<0.05	329	<2,000	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CMW1	Lot 3	24-08-17	EM1711516003	-	-	484	-	-	-	-	<2	-	<2	-	-	<2	<2	-	-	-	-	-	-	-	<2	<0.002	<4	<4	<2	-	-	-	-	<2	-
		23-10-17	EM1714618003	-	-	490	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.002	<4	<4	<2	<4	<4	<2	<2	<2	<2
		16-01-18	EM1801513009	<0.05	<0.05	490	-	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15-05-18	EM1808074003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-07-18	EM1810788004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW2A	Lot 3	15-05-18	EM1808074001	0.08	0.08	187	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		04-07-18	EM1810788003	1.69	0.18	180	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		03-10-18	EM1815860004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW17B	Lot 3	05-06-18	EM1809115001	-	<0.05	11	-	-	-	0.108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		04-07-18	EM1810788002	<0.05	<0.05	12	-	-	-	0.016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		03-10-18	EM1815860002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW21	Lot 4 (On-site)	23-08-17	EM1711357011	-	-	162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		24-10-17	EM1714676003	-	-	169	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		16-01-18	EM1801513018	0.13	<0.05	187	-	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14-08-18	EM1813024005	-	-	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW22	Lot 2	24-08-17	EM1711441004	-	-	15	-	-	-	-	<2	-	<2	-	-	<2	<2	-	-	-	-	-	-	-	<2	<0.002	<4	<4	<2	-	-	-	-	<2	-
		24-10-17	EM1714676001	-	-	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	EM1801648007	0.12	<0.05	399	<2,000	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15-08-18	EM1813024013	-	-	218	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23	Lot 3	23-08-17	EM1711357005	-	-	143	-	-	-	-	<2	-	<2	-	-	<2	<2	-	-	-	-	-	-	-	<2	<0.002	<4	<4	<2	-	-	-	-	<2	-
		23-10-17	EM1714618005	-	-	149	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.002	<4	<4	<2	<4	<4	<2	<2	<2	<2
		16-01-18	EM1801513019	0.16	<0.05	-	-	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23A	Lot 3	15-05-18	EM1808074002	0.14	<0.05	182	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		04-07-18	EM1810788001	0.24	<0.05	156	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		03-10-18	EM1815860003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24AR	Lot 2	25-08-17	EM1711516012	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		27-10-17	EM1714855014	-	-	243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		18-01-18	EM1801648022	<0.05	<0.05	151	<2,000	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24BR	Lot 2	25-08-17	EM1711516011	<0.05	<0.05	243	-	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		27-10-17	EM1714855015	<0.05	<0.05	450	-	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		18-01-18	EM1801648020	<0.05	<0.05	424	<2,000	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24CR	Lot 2	25-08-17	EM1711516010	-	-	372	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		27-10-17	EM1714855016	-	-	343	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	EM1801648008	2.26	2.49	384	<2,000	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW32	Lot 2	24-08-17	EM1711441005	<0.05	<0.05	238	-	<10	<10	<0.01	<2	-	<2	-	-	<2	<2	-	-	-	-	-	-	-	<2	<0.002	<4	<4	<2	-	-	-	-	<2	-
		26-10-17	EM1714855006	-	-	30	-	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	EM1801648005	<0.05	0.20	125	<2,000	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW33R	Lot 3	24-08-17	EM1711441009	<0.05	<0.05	258	-	<10	<10	<0.01	<2	-	<2	-	-	<2	<2	-	-	-	-	-	-	-	<2	<0.002	<4	<4	<2	-	-	-	-	<2	-
		24-10-17	EM1714676004	<0.05	<0.05	238	-	<10	<10	0.01	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.002	<4	<4	<2	<4	<4	<2	<2	<2	<2
		16-01-18	EM1801513012	<0.05	<0.05	230	-	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		22-02-18	EM1803519001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15-05-18	EM1808074004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-07-18	EM1810788005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 6
Groundwater Analytical Results - August 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				Natural Attenuation							SVOCs																Explosives				Anilines					
				Ferric Iron (filtered)	Ferrous Iron	Sulfate as SO4 - Turbidimetric (filtered)	Sulphite as SO3-	Ethane	Ethene	Methane	2-(acetylamino) fluorene	3,3-Dichlorobenzidine	4-dimethylamino) azobenzene	4-bromophenyl phenyl ether	4-chlorophenyl phenyl ether	4-Nitroquinoline-N-oxide	Azobenzene	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl)ether	Dibenzofuran	Hexachloropropene	Methapyrilene	N-nitrosomorpholine	N-nitrosopiperidine	N-nitrosopyrrolidine	Phenacetin	1,3,5-Trinitrobenzene	2,4-Dinitrotoluene	2,6-dinitrotoluene	Nitrobenzene	2-nitroaniline	3-nitroaniline	4-chloroaniline	4-nitroaniline	2-methyl-5-nitroaniline	Aniline
				mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				0.05	0.05	1	2,000	10	10	0.01	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0.002	4	4	2	4	4	2	2	2	2
Potable Water Supply						500 / 250^																														
Primary Contact Recreation						5,000 / 250^																														
Stock Watering						1,000																														
Agriculture, Parks and Gardens																																				
Maintenance of Ecosystems																																				
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																																				
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																																				
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																																				
Derived Groundwater Risk Based Contminant Screening Level - Residential																																				
Derived Groundwater Risk Based Contminant Screening Level - Commercial/Industrial																																				
Field ID	**Location**	**Date**	**Sample Code**																																	
MW3S	Lot 2	25-08-17	EM1711516008	<0.05	<0.05	354	-	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		26-10-17	EM1714855007	<0.05	<0.05	271	-	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	EM1801648013	<0.05	<0.05	230	<2,000	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW37	Lot 1	24-08-17	EM1711441006	-	-	225	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		24-10-17	EM1714676002	-	-	216	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		16-01-18	EM1801513010	<0.05	<0.05	39	-	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15-08-18	EM1813024012	-	-	221	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW38	Lot 4 (On-site)	23-08-17	EM1711357010	-	-	18	-	-	-	-	<2	-	<2	-	-	<2	<2	-	-	-	-	-	-	-	-	<2	<0.002	<4	<4	<2	-	-	-	-	<2	-
		23-10-17	EM1714618002	-	-	15	-	-	-	-	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<0.002	<4	<4	<2	<4	<4	<2	<2	<2	<2
		15-01-18	EM1801513002	0.82	0.10	13	-	<10	<10	0.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14-08-18	EM1801513002	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW45A	Lot 1	23-08-17	EM1711357009	-	-	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		26-10-17	EM1714855004	-	-	85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	EM1801648002	0.08	0.94	75	<2,000	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15-08-18	EM1813024014	-	-	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW45B	Lot 1	23-08-17	EM1711357008	-	-	98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		26-10-17	EM1714855005	-	-	107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	EM1801648001	<0.05	<0.05	93	<2,000	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15-08-18	EM1813024015	-	-	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW50A	Lot 3	25-08-17	EM1711516006	-	-	95	-	-	-	-	<2	-	<2	-	-	<2	<2	-	-	-	-	-	-	-	-	<2	<0.002	<4	<4	<2	-	-	-	-	<2	-
		27-10-17	EM1714855010	-	-	137	-	-	-	-	<2	-	<2	-	-	<2	<2	-	-	-	-	-	-	-	-	<2	<0.002	<4	<4	<2	-	-	-	-	<2	-
		18-01-18	EM1801648021	<0.05	<0.05	212	<2,000	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15-05-18	EM1808074005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-07-18	EM1810788007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW50B	Lot 3	25-08-17	EM1711516005	<0.05	<0.05	213	-	<10	<10	<0.01	<2	-	<2	-	-	<2	<2	-	-	-	-	-	-	-	-	<2	<0.002	<4	<4	<2	-	-	-	-	<2	-
		27-10-17	EM1714855011	<0.05	<0.05	338	-	<10	<10	<0.01	<2	-	<2	-	-	<2	<2	-	-	-	-	-	-	-	-	<2	<0.002	<4	<4	<2	-	-	-	-	<2	-
		18-01-18	EM1801648024	<0.05	<0.05	338	<2,000	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15-05-18	EM1808074006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-07-18	EM1810788008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW50C	Lot 3	25-08-17	EM1711516004	-	-	175	-	-	-	-	<2	-	<2	-	-	<2	<2	-	-	-	-	-	-	-	-	<2	<0.002	<4	<4	<2	-	-	-	-	<2	-
		27-10-17	EM1714855012	-	-	222	-	-	-	-	<2	-	<2	-	-	<2	<2	-	-	-	-	-	-	-	-	<2	<0.002	<4	<4	<2	-	-	-	-	<2	-
		18-01-18	EM1801648023	<0.05	<0.05	197	<2,000	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15-05-18	EM1808074007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-07-18	EM1810788006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW52	Off Site (21 Hamlet Street)	23-08-17	EM1711357004	-	-	207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		24-10-17	EM1714676011	-	-	209	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		16-01-18	EM1801513014	<0.05	<0.05	193	-	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-04-18	EM1805739001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14-08-18	EM1813024004	-	-	181	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW53	Off Site (19 Hamlet Street)	22-08-17	EM1711357002	-	-	46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		23-10-17	EM1714618007	-	-	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		16-01-18	EM1801513015	0.09	<0.05	29	-	<10	<10	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-04-18	EM1805739002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14-08-18	EM1813024003	-	-	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 6
Groundwater Analytical Results - August 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				PCB	Phthalates						Pesticides			Herbicides		Nitroaromatics				Amino Aromatics		Amino Aliphatics					Acids											Other		
				PCBs (Sum of total)	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Diethylphthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	Chlorobenzilate	Carbazole	Pirimiphos-ethyl	2,4,5-Trichlorophenoxy-propanoic acid	Pronamide	1-Picoline	3-Chloronitrobenzene	4-aminobiphenyl	Pentachloronitrobenzene	1-naphthylamine	N-Nitrosodiphenyl & Diphenylamine	N-Nitrosodiethylamine	N-nitrosodi-n-butylamine	N-nitrosodi-n-propylamine	N-Nitrosomethylethylamine	Acidity (as CaCO3)	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	Heptanoic Acid	Isobutyric Acid	Isocaproic Acid	Isovaleric Acid	Valeric Acid	Volatile Acids as Acetic Acid	Acetophenone	Butanal	Propanal
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				1	10	2	2	2	2	2			2	0.05	2	2	2	2	2	2	4	2	2	2	2	1	50	0.05	50	0.06	70	50	60	55	55	5	2	0.002	0.002
Potable Water Supply					10								0.5		70				30																				
Primary Contact Recreation					10								0.5		70				30																				
Stock Watering					10								0.5		70				30																				
Agriculture, Parks and Gardens																																							
Maintenance of Ecosystems																																							
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																																							
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																																							
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																																							
Derived Groundwater Risk Based Contminant Screening Level - Residential																																							
Derived Groundwater Risk Based Contminant Screening Level - Commercial/Industrial																																							
Field ID	**Location**	**Date**	**Sample Code**																																				
BMW1	Lot 4 (On-site)	24-08-17	EM1711516002	<1	<10	<2	<2	<2	<2	<2	<2	-	-	<0.05	<2	<2	-	<2	<2	<2	-	-	-	-	-	236	<50	<0.05	<0.06	<70	<50	<60	<55	<50	<55		<2	-	-
		24-10-17	EM1714676006	<1	<10	<2	<2	<2	<2	<2	<2	<2	<2	-	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	10	-	-	-	-	-	-	-	-	-	-	<2	<0.0020	<0.0020
		17-01-18	EM1801648004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	-	-	-
BMW2	Lot 4 (On-site)	24-08-17	EM1711441008	<1	<10	<2	<2	<2	<2	<2	<2	-	-	<0.05	<2	<2	-	<2	<2	<2	-	-	-	-	-	-	37	<50	<0.05	<0.06	<70	-	<60	<55	<50	<55	-	<2	-	-
		24-10-17	EM1714676007	<1	<10	<2	<2	<2	<2	<2	<2	<2	<2	-	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	17	-	-	-	-	-	-	-	-	-	-	<2	<0.0020	<0.0020
		17-01-18	EM1801648003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	-	-	-
CMW1	Lot 3	24-08-17	EM1711516003	<1	<10	<2	<2	<2	<2	<2	<2	-	-	-	<2	<2	-	<2	<2	<2	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	<2	-	-
		23-10-17	EM1714618003	<1	<10	<2	<2	<2	<2	<2	<2	<2	<2	-	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	80	-	-	-	-	-	-	-	-	-	-	<2	<0.0020	<0.0020
		16-01-18	EM1801513009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	-	-	-
		15-05-18	EM1808074003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-07-18	EM1810788004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW2A	Lot 3	15-05-18	EM1808074001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		04-07-18	EM1810788003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		03-10-18	EM1815860004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW17B	Lot 3	05-06-18	EM1809115001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		04-07-18	EM1810788002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		03-10-18	EM1815860002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW21	Lot 4 (On-site)	23-08-17	EM1711357011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		24-10-17	EM1714676003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0020	<0.0020
		16-01-18	EM1801513018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64	-	-	-
		14-08-18	EM1813024005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW22	Lot 2	24-08-17	EM1711441004	<1	<10	<2	<2	<2	<2	<2	<2	-	-	<0.05	<2	<2	-	<2	<2	<2	-	-	-	-	-	-	7	<50	<0.05	<0.06	<70	-	<60	<55	<50	<55	-	<2	-	-
		24-10-17	EM1714676001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	EM1801648007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-
		15-08-18	EM1813024013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23	Lot 3	23-08-17	EM1711357005	<1	<10	<2	<2	<2	<2	<2	<2	-	-	-	<2	<2	-	<2	<2	<2	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	<2	-	-
		23-10-17	EM1714618005	<1	<10	<2	<2	<2	<2	<2	<2	<2	<2	-	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	106	-	-	-	-	-	-	-	-	-	-	<2	<0.0020	<0.0020
		16-01-18	EM1801513019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23A	Lot 3	15-05-18	EM1808074002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		04-07-18	EM1810788001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		03-10-18	EM1815860003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24AR	Lot 2	25-08-17	EM1711516012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		27-10-17	EM1714855014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		18-01-18	EM1801648022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	-	-	-
MW24BR	Lot 2	25-08-17	EM1711516011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37	-	-	-
		27-10-17	EM1714855015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-
		18-01-18	EM1801648020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-
MW24CR	Lot 2	25-08-17	EM1711516010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		27-10-17	EM1714855016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	EM1801648008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	94	-	-	-
MW32	Lot 2	24-08-17	EM1711441005	<1	<10	<2	<2	<2	<2	<2	<2	-	-	<0.05	<2	<2	-	<2	<2	<2	-	-	-	-	-	-	77	<50	<0.05	<0.06	<70	-	<60	<55	84	<55	28	<2	-	-
		26-10-17	EM1714855006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-
		17-01-18	EM1801648005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	-	-	-
MW33R	Lot 3	24-08-17	EM1711441009	<1	<10	<2	<2	<2	<2	<2	<2	-	-	-	<2	<2	-	<2	<2	<2	-	-	-	-	-	-	104	-	-	-	-	-	-	-	-	-	37	<2	-	-
		24-10-17	EM1714676004	<1	<10	<2	<2	<2	<2	<2	<2	<2	<2	-	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	76	-	-	-	-	-	-	-	-	-	-	32	<2	<0.0020	<0.0020
		16-01-18	EM1801513012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	-	-
		22-02-18	EM1803519001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15-05-18	EM1808074004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-07-18	EM1810788005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 6
Groundwater Analytical Results - August 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				PCB	Phthalates						Pesticides			Herbicides		Nitroaromatics				Amino Aromatics		Amino Aliphatics				Acids												Other		
				PCBs (Sum of total)	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Diethylphthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	Chlorobenzilate	Carbazole	Primiphos-ethyl	2,4,5-Trichlorophenoxy-propanoic acid	Pronamide	1-Picoline	3-Chloronitrobenzene	4-aminobiphenyl	Pentachloronitrobenzene	1-naphthylamine	N-Nitrosodiphenyl & Diphenylamine	N-nitrosodiethylamine	N-nitrosodi-n-butylamine	N-nitrosodi-n-propylamine	N-Nitrosomethylethylamine	Acidity (as CaCO3)	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	Heptanoic Acid	Isobutyric Acid	Isocaproic Acid	Isovaleric Acid	Valeric Acid	Volatile Acids as Acetic Acid	Acetophenone	Butanal	Propanal
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				1	10	2	2	2	2	2			2	0.05	2	2	2	2	2	2	4	2	2	2	2	1	50	0.05	50	0.06	70	50	60	55	55	5	2	0.002	0.002
Potable Water Supply					10								0.5		70				30																				
Primary Contact Recreation					10								0.5		70				30																				
Stock Watering					10								0.5		70				30																				
Agriculture, Parks and Gardens																																							
Maintenance of Ecosystems																																							
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																																							
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																																							
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																																							
Derived Groundwater Risk Based Contminant Screening Level - Residential																																							
Derived Groundwater Risk Based Contminant Screening Level - Commercial/Industrial																																							
Field ID	**Location**	**Date**	**Sample Code**																																				
MW3S	Lot 2	25-08-17	EM1711516008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37	-	-	-
		26-10-17	EM1714855007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	-	-	-
		17-01-18	EM1801648013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	-	-	-
MW37	Lot 1	24-08-17	EM1711441006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		24-10-17	EM1714676002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		16-01-18	EM1801513010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60	-	-	-
		15-08-18	EM1813024012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW38	Lot 4 (On-site)	23-08-17	EM1711357010	<1	<10	<2	<2	<2	<2	<2	<2	-	-	<0.05	<2	<2	-	<2	<2	<2	-	-	-	-	-	64	<50	<0.05	<0.06	<70	<50	<60	<55	100	<55	-	<2	-	-
		23-10-17	EM1714618002	<1	<10	<2	<2	<2	<2	<2	<2	<2	<2	-	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	62	-	-	-	-	-	-	-	-	-	-	<2	<0.0020	<0.0020
		15-01-18	EM1801513002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	-	-	-
		14-08-18	EM1801513002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW45A	Lot 1	23-08-17	EM1711357009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		26-10-17	EM1714855004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	EM1801648002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-
		15-08-18	EM1813024014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW45B	Lot 1	23-08-17	EM1711357008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		26-10-17	EM1714855005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	EM1801648001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-
		15-08-18	EM1813024015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW50A	Lot 3	25-08-17	EM1711516006	<1	<10	<2	<2	<2	<2	<2	<2	-	-	-	<2	<2	-	<2	<2	<2	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	<2	-	-
		27-10-17	EM1714855010	<1	<10	<2	<2	<2	<2	<2	<2	-	-	-	<2	<2	<2	<2	<2	<2	-	-	-	-	-	108	-	-	-	-	-	-	-	-	-	-	<2	<0.0020	<0.0020
		18-01-18	EM1801648021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	-	-	-
		15-05-18	EM1808074005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-07-18	EM1810788007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW50B	Lot 3	25-08-17	EM1711516005	<1	<10	<2	<2	<2	<2	<2	<2	-	-	-	<2	<2	-	<2	<2	<2	-	-	-	-	-	28	-	-	-	-	-	-	-	-	-	26	<2	-	-
		27-10-17	EM1714855011	<1	<10	<2	<2	<2	<2	<2	<2	-	-	-	<2	<2	<2	<2	<2	<2	-	-	-	-	-	74	-	-	-	-	-	-	-	-	-	69	<2	<0.0020	<0.0020
		18-01-18	EM1801648024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	-	-	-
		15-05-18	EM1808074006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-07-18	EM1810788008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW50C	Lot 3	25-08-17	EM1711516004	<1	<10	<2	<2	<2	<2	<2	<2	-	-	-	<2	<2	-	<2	<2	<2	-	-	-	-	-	33	-	-	-	-	-	-	-	-	-	-	<2	-	-
		27-10-17	EM1714855012		<10	<2	<2	<2	<2	<2	<2	-	-	-	<2	<2	<2	<2	<2	<2	-	-	-	-	-	53	-	-	-	-	-	-	-	-	-	-	<2	<0.0020	<0.0020
		18-01-18	EM1801648023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43	-	-	-
		15-05-18	EM1808074007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-07-18	EM1810788006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW52	Off Site (21 Hamlet Street)	23-08-17	EM1711357004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		24-10-17	EM1714676011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0020	<0.0020
		16-01-18	EM1801513014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	-	-	-
		05-04-18	EM1805739001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14-08-18	EM1813024004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW53	Off Site (19 Hamlet Street)	22-08-17	EM1711357002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		23-10-17	EM1714618007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0020	<0.0020
		16-01-18	EM1801513015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	-	-	-
		05-04-18	EM1805739002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14-08-18	EM1813024003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 6
Groundwater Analytical Results - August 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				Organochlorine Pesticides																	Organophosphorous Pesticides										Glycols						
				4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenthion	Malathion	Pirimiphos	2-butoxyethanol	2-Ethoxyethanol acetate	Diethylene glycol	Diethylene glycol, monobutyl ether	Ethylene glycol	Propylene glycol	Triethylene Glycol
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				2	2	2	4	2	2	2	4	4	2	2	2	2	2	2	2	2	2	2	0.002	2	2	2	2	2	2	2	2,000	2,000	2,000	2,000	2,000	2,000	2
Potable Water Supply							0.3				9							10	0.3		2	10		4	5	7	4	7	70								
Primary Contact Recreation							0.3				9							10	0.3		2	10		4	5	7	4	7	70								
Stock Watering							0.3				9							10	0.3		2	10		4	5	7	4	7	70								
Agriculture, Parks and Gardens																																					
Maintenance of Ecosystems																	0.008					0.009															
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																																					
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																																					
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																																					
Derived Groundwater Risk Based Contminant Screening Level - Residential																																					
Derived Groundwater Risk Based Contminant Screening Level - Commercial/Industrial																																					
Field ID	**Location**	**Date**	**Sample Code**																																		
BMW1	Lot 4 (On-site)	24-08-17	EM1711516002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		24-10-17	EM1714676006	<2	<2	<2	<4	<2	<2	<2	<4	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<2	<2	<2	<2	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		17-01-18	EM1801648004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
BMW2	Lot 4 (On-site)	24-08-17	EM1711441008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		24-10-17	EM1714676007	<2	<2	<2	<4	<2	<2	<2	<4	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<2	<2	<2	<2	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		17-01-18	EM1801648003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
CMW1	Lot 3	24-08-17	EM1711516003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		23-10-17	EM1714618003	<2	<2	<2	<4	<2	<2	<2	<4	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<2	<2	<2	<2	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		16-01-18	EM1801513009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		15-05-18	EM1808074003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-07-18	EM1810788004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW2A	Lot 3	15-05-18	EM1808074001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		04-07-18	EM1810788003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		03-10-18	EM1815860004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW17B	Lot 3	05-06-18	EM1809115001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		04-07-18	EM1810788002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		03-10-18	EM1815860002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW21	Lot 4 (On-site)	23-08-17	EM1711357011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		24-10-17	EM1714676003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		16-01-18	EM1801513018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		14-08-18	EM1813024005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW22	Lot 2	24-08-17	EM1711441004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		24-10-17	EM1714676001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	EM1801648007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		15-08-18	EM1813024013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23	Lot 3	23-08-17	EM1711357005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		23-10-17	EM1714618005	<2	<2	<2	<4	<2	<2	0	<4	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<2	<2	<2	<2	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		16-01-18	EM1801513019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
MW23A	Lot 3	15-05-18	EM1808074002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		04-07-18	EM1810788001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		03-10-18	EM1815860003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24AR	Lot 2	25-08-17	EM1711516012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		27-10-17	EM1714855014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		18-01-18	EM1801648022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
MW24BR	Lot 2	25-08-17	EM1711516011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		27-10-17	EM1714855015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		18-01-18	EM1801648020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
MW24CR	Lot 2	25-08-17	EM1711516010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		27-10-17	EM1714855016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	EM1801648008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
MW32	Lot 2	24-08-17	EM1711441005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		26-10-17	EM1714855006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		17-01-18	EM1801648005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
MW33R	Lot 3	24-08-17	EM1711441009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		24-10-17	EM1714676004	<2	<2	<2	<4	<2	<2	<2	<4	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<2	<2	<2	<2	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		16-01-18	EM1801513012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		22-02-18	EM1803519001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15-05-18	EM1808074004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-07-18	EM1810788005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 6
Groundwater Analytical Results - August 2017 to July 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				Organochlorine Pesticides																		Organophosphorous Pesticides										Glycols						
				4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenthion	Malathion	Prothiofos	2-butoxyethanol	2-Ethoxyethanol acetate	Diethylene glycol	Diethylene glycol, monobutyl ether	Ethylene glycol	Propylene glycol	Triethylene Glycol
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				2	2	2	4	2	2	2	4	4	2	2	2	2	2	2	2	2	2	2	0.002	2	2	2	2	2	2	2	2	2,000	2,000	2,000	2,000	2,000	2
Potable Water Supply							0.3				9							10	0.3		2	10		4	5	7	4	7	70								
Primary Contact Recreation							0.3				9							10	0.3		2	10		4	5	7	4	7	70								
Stock Watering							0.3				9							10	0.3		2	10		4	5	7	4	7	70								
Agriculture, Parks and Gardens																																					
Maintenance of Ecosystems																	0.008					0.009															
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																																					
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																																					
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																																					
Derived Groundwater Risk Based Contminant Screening Level - Residential																																					
Derived Groundwater Risk Based Contminant Screening Level - Commercial/Industrial																																					
Field ID	**Location**	**Date**	**Sample Code**																																		
MW3S	**Lot 2**	**25-08-17**	**EM1711516008**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		26-10-17	**EM1714855007**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		17-01-18	**EM1801648013**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
MW37	**Lot 1**	**24-08-17**	**EM1711441006**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		24-10-17	**EM1714676002**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		16-01-18	**EM1801513010**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		15-08-18	**EM1813024012**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW38	**Lot 4 (On-site)**	**23-08-17**	**EM1711357010**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		23-10-17	**EM1714618002**	<2	<2	<2	<4	<2	<2	<2	<4	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<2	<2	<2	<2	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		15-01-18	**EM1801513002**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		14-08-18	**EM1801513002**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW45A	**Lot 1**	**23-08-17**	**EM1711357009**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		26-10-17	**EM1714855004**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	**EM1801648002**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		15-08-18	**EM1813024014**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW45B	**Lot 1**	**23-08-17**	**EM1711357008**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		26-10-17	**EM1714855005**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-01-18	**EM1801648001**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		15-08-18	**EM1813024015**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW50A	**Lot 3**	**25-08-17**	**EM1711516006**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		27-10-17	**EM1714855010**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		18-01-18	**EM1801648021**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		15-05-18	**EM1808074005**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-07-18	**EM1810788007**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW50B	**Lot 3**	**25-08-17**	**EM1711516005**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		27-10-17	**EM1714855011**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		18-01-18	**EM1801648024**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		15-05-18	**EM1808074006**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-07-18	**EM1810788008**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW50C	**Lot 3**	**25-08-17**	**EM1711516004**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		27-10-17	**EM1714855012**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		18-01-18	**EM1801648023**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		15-05-18	**EM1808074007**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		05-07-18	**EM1810788006**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW52	**Off Site (21 Hamlet Street)**	**23-08-17**	**EM1711357004**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		24-10-17	**EM1714676011**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		16-01-18	**EM1801513014**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		05-04-18	**EM1805739001**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14-08-18	**EM1813024004**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW53	**Off Site (19 Hamlet Street)**	**22-08-17**	**EM1711357002**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		23-10-17	**EM1714618007**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		16-01-18	**EM1801513015**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		05-04-18	**EM1805739002**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14-08-18	**EM1813024003**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES

Potable Water Supply / Primary Contact Recreation
Australian Drinking Water Guidelines 2015, Health

Stock Watering
ANZECC 2000 Livestock Drinking Water Low Risk Trigger Values
Potable Water Supply / Primary Contact Recreation guidance

Agriculture, Parks and Gardens
ANZECC 2000 Irrigation Long Term Trigger Values

Maintenance of Ecosystems
ANZECC 2000 Marine Water 95%
LR: ANZECC 2000 Low Reliability Guidelines
F : ANZECC 2000 Freshwater 95%

A: Australian Drinking Water Guidelines 2015, Aesthetics
C: CCME 2007 Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture – Freshwater
DI: Dutch 2000 Target and Intervention Values for Soil and Groundwater
N: NIWA 2014, Nitrate toxicity guidelines for the National Objectives Framework
NZ: New Zealand Ministry of Health 2008, Drinking Water Standards for New Zealand
US: USEPA 2018, Health Advisories for Drinking Water Contaminants
WH: World Health Organization 2011, WHO DWQG 4th Ed
WR: Environment Protection and Heritage Council 2008, Australian Guidelines for Water Recycling
Derived Groundwater Risk Based Contminant Screening Levels - EnRisks, 2018
S: Derived RBC significantly exceeds the solubility of the VOC
D: Concentration reported in duplicate sample

Table 7
COPC Groundwater Analytical Results - 2008 to 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				TPH	BTEX						Chlorinated Hydrocarbons								
				C6-C9	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	1,1-dichloroethene	Carbon tetrachloide	Chloroform	cis-1,2-dichloroethene	Dichloromethane	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	Vinyl chloride
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				20	1	1	1	1	1	1	1	1	1	1	2	1	1	1	0.2
Potable Water Supply				600[DI]	1	800 / 25[A]	300 / 3[A]			600 / 20[A]	30[A]	3	250	60	4	20[WH]	50	60[NZ]	0.3
Primary Contact Recreation				600[DI]	1	800 / 25[A]	300 / 3[A]			600 / 20[A]	30[A]	3	250	60	4	20[WH]	50	60[NZ]	0.3
Stock Watering				600[DI]	1	800 / 25[A]	300 / 3[A]			600 / 20[A]	30[A]	3	250	60	4	20[WH]	50	60[NZ]	0.3
Agriculture, Parks and Gardens				600[DI]															
Maintenance of Ecosystems				600[DI]	700						10[DI]	240[C]	400[DI]	20[DI]	1,000[DI]	330[LR]	70[LR]	20[DI]	100[LR]
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m					900	NL	NL			NL									
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m					NL	NL	NL			NL									
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m					5,000	NL	NL			NL									
Derived Groundwater Risk Based Contminant Screening Level - Residential											27,000	600	26,000	2,000		500	45,000		200
Derived Groundwater Risk Based Contminant Screening Level - Commercial / Industrial											420,000	10,000	380,000	35,000		8,000	690,000		4,000
Well ID	**Location**	**Field ID**	**Date**																
MW3 (decommissioned)	**Lot 1**	**MW3-1**	**15-07-08**	<50	<1	<1	<1	<1	<2	-	<5	19	9,920	<5	-	<5	<5	<5	<10
		MW3-2	**26-08-08**	<50	<5	<5	<5	<5	<10	-	<5	<5	2,910	<5	-	<5	<5	<5	<50
		MW3	**25-03-10**	12,000	<10	58	<10	<10	<20	-	<10	37	11,600	<10	101	14	<10	<10	<100
		MW3	**20-01-11**	5,400	<1	<2	<2	<2	<2	-	<5	33	5,250	<5	-	18	<5	<5	<50
		MW3	**27-02-13**	1,100	<10	<10	<10	<10	<20	<10	<10	<10	1,790	<10	<125	<10	<10	<10	<100
MW4 (decommissioned)	**Lot 1**	**MW4-1**	**15-07-08**	<50	<1	<1	<1	<1	<2	-	<5	<1	<5	<5	-	<5	<5	<5	<10
		MW4-2	**27-08-08**	<50	<5	<5	<5	<5	<10	-	<5	<5	<5	<5	-	5	<5	<5	<50
		MW4	**03-12-09**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW4	**18-03-10**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW4	**20-01-11**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW9 (decommissioned)	**Lot 4 (on-site)**	**MW9/2-1**	**17-07-08**	<50	<1	<1	<1	<1	<2	<2	<5	<1	<5	<5	-	<5	<5	<5	<10
MW12 (decommissioned)	**Lot 4 (on-site)**	**MW12/1-2**	**26-08-08**	<50	<5	<5	<5	<5	<10	<10	<5	<5	<5	<5	-	<5	<5	<5	<50
		MW12-1	**17-07-08**	<50	<1	5	<1	<1	<2	<2	<5	<1	<5	<5	-	<5	<5	<5	<10
		MW12/1	**09-12-09**	-	<1	<2	<2	<2	<2	<2	<5	<5	<5	<5	<5	<5	<5	<5	<50
		MW12/1	**25-03-10**	<20	<1	11	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-
		MW12/1	**21-01-11**	<20	<1	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-
MW13 (decommissioned)	**Lot 2**	**MW13/2-1**	**17-07-08**	<2500	<50	287	<50	<50	<100	-	<250	<50	444	1,120	-	332,000	5,290	<250	<500
		MW13/2-2	**25-08-08**	<50,000	<5000	<5000	<5000	<5000	<10,000	-	<5000	<5000	<5000	<5000	-	78,800	<5000	<5000	<50,000
		MW13/2	**10-12-09**	11,000	12	<14	<2	6	4	-	193	6	846	1,070	<110	7,460	247	5	<50
		MW13/2	**24-03-10**	810,000	<100	1,070	<100	<100	<200	-	<100	<100	951	3,820	22,900	791,000	7,970	<100	<1000
		MW13/2	**20-01-11**	250,000	52	382	20	39	66	-	80	47	678	2,840	-	240,000	2,880	49	230
MW15 (decommissioned)	**Lot 2**	**MW15/3-1**	**17-07-08**	<50	9	1	<1	3	<2	-	182	<1	803	1,240	-	6,450	193	6	<10
		MW15/3-2	**25-08-08**	<500	<50	<50	<50	<50	<100	-	<50	<50	136	225	-	874	<50	<50	<500
		MW15/3	**10-12-09**	440,000	<100	871	<100	<100	<200	-	<100	<100	735	2,810	179,000	423,000	5,220	<100	<1000
		MW15/3	**24-03-10**	18,000	12	22	<10	<10	<20	-	218	<10	889	1,130	195	15,200	407	<10	<100
		MW15/3	**21-01-11**	13,500	9	9	<2	3	2	-	143	<5	741	678	161	11,000	229	6	<50
MW16 (decommissioned)	**Lot 3**	**MW16/1-1**	**18-07-08**	<50	<1	2	<1	<1	<2	-	5	<1	11	<5	-	9	<5	<5	<10
		MW16/1-2	**27-08-08**	<50	<5	<5	<5	<5	<10	-	<5	<5	11	<5	-	12	<5	<5	<50
		MW16/1	**11-12-09**	60	<1	3	<2	<2	<2	-	8	<5	9	<5	12	11	<5	<5	<50
		MW16/1	**23-03-10**	50	<1	7	<2	<2	<2	-	8	<5	9	<5	<15	11	<5	<5	<50
		MW16/1	**21-01-11**	50	<1	<2	<2	<2	<2	-	9	<5	<5	<5	<5	11	<5	<5	<50
MW17 (decommissioned)	**Lot 3**	**MW17/1-1**	**18-07-08**	<50	<1	1	<1	<1	<2	-	<5	<1	<5	<5	-	<5	<5	<5	<10
		MW17/1-2	**27-08-08**	<50	<5	<5	<5	<5	<10	-	<5	<5	<5	<5	-	<5	<5	<5	<50
		MW17/2-3	**14-10-08**	<50	9	<5	<5	<5	<10	-	<5	<5	<5	<5	-	<5	<5	<5	<50
		MW17/1	**11-12-09**	<20	<1	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-
		MW17/1	**24-03-10**	110	<1	108	<2	<2	<2	-	-	-	-	-	-	-	-	-	-
		MW17/1	**24-01-11**	100	6	16	<2	8	15	-	-	-	-	-	-	-	-	-	-

Table 7
COPC Groundwater Analytical Results - 2008 to 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				TPH	BTEX						Chlorinated Hydrocarbons								
				C6-C9	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	1,1-dichloroethene	Carbon tetrachloride	Chloroform	cis-1,2-dichloroethene	Dichloromethane	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	Vinyl chloride
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				20	1	1	1	1	1	1	1	1	1	1	2	1	1	1	0.2
Potable Water Supply				600[DI]	1	800 / 25[A]	300 / 3[A]			600 / 20[A]	30[A]	3	250	60	4	20[WHO]	50	60[NZ]	0.3
Primary Contact Recreation				600[DI]	1	800 / 25[A]	300 / 3[A]			600 / 20[A]	30[A]	3	250	60	4	20[WHO]	50	60[NZ]	0.3
Stock Watering				600[DI]	1	800 / 25[A]	300 / 3[A]			600 / 20[A]	30[A]	3	250	60	4	20[WHO]	50	60[NZ]	0.3
Agriculture, Parks and Gardens				600[DI]															
Maintenance of Ecosystems				600[DI]	700						10[DI]	240[C]	400[DI]	20[DI]	1,000[DI]	330[LR]	70[LR]	20[DI]	100[LR]
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m					900	NL	NL			NL									
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m					NL	NL	NL			NL									
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m					5,000	NL	NL			NL									
Derived Groundwater Risk Based Contminant Screening Level - Residential											27,000	600	26,000	2,000		500	45,000		200
Derived Groundwater Risk Based Contminant Screening Level - Commercial / Industrial											420,000	10,000	380,000	35,000		8,000	690,000		4,000
Well ID	**Location**	**Field ID**	**Date**																
BMW1	Lot 4 (on-site)	BMW1	24-08-17	130	<1	<1	<1	<1	<1	<1	<1	135	131	<1	<2	1	<1	<1	11.9
		BMW1	24-10-17	420	2	<1	<1	<1	<1	<1	4	37	77	27	6	275	5	<1	1.5
		BMW1	17-01-18	250	<1	<1	<1	<1	<1	<1	2	47	70	16	<2	186	3	<1	5.4
BMW2	Lot 4 (on-site)	BMW2	24-08-17	140	<1	<1	<1	<1	<1	<1	<1	165	74	<1	<2	6	4	<1	2.0
		BMW2	24-10-17	450	1	5	<1	<1	<1	<1	58	28	140	20	4	330	7	<1	0.4
		BMW2	17-01-18	220	<1	3	<1	<1	<1	<1	29	21	124	17	4	156	2	<1	0.6
CMW1	Lot 3	CMW1	24-08-17	<20	<1	<1	<1	<1	<1	<1	2	<1	4	<1	<2	<1	<1	<1	7.0
		CMW1	23-10-17	<20	<1	<1	<1	<1	<1	<1	70	<1	9	4	<2	8	<1	<1	2.6
		CMW1	16-01-18	30	<1	<1	<1	<1	<1	<1	46	<1	14	6	<2	14	<1	<1	9.6
		CMW1	15-05-18	30	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	8	<1	10	4	<2	11	<1	<1	11.2
		CMW1	05-07-18	30	<1	1	<1	<1	<1	<1	28	<1	10	3	<3	9	<1	<1	6.3
MW2A	Lot 3 (On-site)	MW2A	15-05-18	110	8	<1	<1	<1	<1	<1	7	<1	1	<1	<2	105	6	<1	<0.2
		MW2A	04-07-18	80	4	<1	<1	<1	<1	<1	4	<1	<1	<1	<2	70	4	<1	<0.2
		MW2A	03-10-18	90	3	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-
MW17B	Lot 3 (On-site)	MW17B	05-06-18	<20	<1	<1	<1	2	3	5	<1	<1	<1	<1	<2	2	<1	<1	<0.2
		MW17B	04-07-18	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<0.2
		MW17B	03-10-18	<20	<1	<2	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-
MW21	Lot 1	MW21-1	15-07-08	<50	<1	<1	<1	<1	<2	<2	<5	8	38	71	-	250	20	<5	<10
		MW21-2	26-08-08	<50	<5	<5	<5	<5	<10	<10	<5	<5	6	13	-	71	6	<5	<50
		MW21	07-12-09	-	<1	<2	<2	<2	<2	<2	<5	6	33	139	12	585	36	<5	<50
		MW21	24-03-10	950	<1	<2	<2	<2	<2	<2	<5	9	37	153	22	679	39	<5	<50
		MW21	19-01-11	-	<1	<2	<2	<2	<2	<2	<5	8	25	129	<5	518	26	<5	<50
		MW21	26-02-13	-	<1	<2	<2	<2	<2	<2	<5	<5	18	92	<5	255	23	<5	<50
		MW21	31-01-14	-	<4	<4	<4	<4	<8	<12	<4	7	17	90	<4	220	15	<4	<4
		MW21	31-01-17	120	<1	<2	<2	<2	<2	<2	<5	<5	8	59	-	102	5	-	<50
		MW21	23-08-17	120	<1	<2	<2	<2	<2	<1	<1	3	8	63	<2	98	7	<1	<0.2
		MW21	24-10-17	160	<1	<1	<1	<1	<1	<1	<1	2	11	64	<2	93	11	<1	<0.2
		MW21	16-01-18	150	<1	<1	<1	<1	<1	<1	<1	3	13	84	<2	101	13	<1	<0.2
		MW21	14-08-18	40	<1	<1	<1	<1	<1	<1	<1	<1	2	6	<2	41	2	<1	<0.2
MW22	Lot 2	MW22-1	16-07-08	<50	<1	<1	<1	<1	<2	<2	<5	19	53	<5	-	64	<5	<5	<10
		MW22-2	26-08-08	<50	<5	<5	<5	<5	<10	<10	<5	<5	9	<5	-	8	<5	<5	<50
		MW22	09-12-09	-	<1	<2	<2	<2	<2	<2	<5	14	64	<5	<5	72	<5	<5	<50
		MW22	22-03-10	190	<1	<2	<2	<2	<2	<2	<5	15	69	<5	-	94	<5	<5	<50
		MW22	18-01-11	160	<1	<2	<2	<2	<2	<2	<5	12	63	<5	<5	81	<5	<5	<50
		MW22	28-02-13	60	<1	<2	<2	<2	<2	<2	<5	<5	41	<5	<5	56	<5	<5	<50
		MW22	30-01-14	210	<1	<1	<1	<1	<2	<3	2	18	81	2	<1	82	2	<1	<1
		MW22	30-01-17	30	<1	<2	<2	<2	<2	<2	<5	<5	22	<5	-	18	<5	<5	<50
		MW22	24-08-17	<20	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	<2	10	<1	<1	<0.2
		MW22	24-10-17	2,620	<1	<1	<1	<1	<1	<1	2	5	73	16	5	3,510	152	<1	2.0
		MW22	17-01-18	2,580	<10	<10	<10	<10	<10	<10	<10	<10	86	39	<10	2,510	61	<10	1.2
		MW22	15-08-18	2,550	<1	<1	<1	<1	<1	<1	2	4	71	32	<2	2,980	160	<1	2

Table 7
COPC Groundwater Analytical Results - 2008 to 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				TPH	BTEX						Chlorinated Hydrocarbons								
				C6-C9	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	1,1-dichloroethene	Carbon tetrachloride	Chloroform	cis-1,2-dichloroethene	Dichloromethane	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	Vinyl chloride
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				20	1	1	1	1	1	1	1	1	1	1	2	1	1	1	0.2
Potable Water Supply				600[DI]	1	800 / 25[A]	300 / 3[A]			600 / 20[A]	30[A]	3	250	60	4	20[WH]	50	60[NZ]	0.3
Primary Contact Recreation				600[DI]	1	800 / 25[A]	300 / 3[A]			600 / 20[A]	30[A]	3	250	60	4	20[WH]	50	60[NZ]	0.3
Stock Watering				600[DI]	1	800 / 25[A]	300 / 3[A]			600 / 20[A]	30[A]	3	250	60	4	20[WH]	50	60[NZ]	0.3
Agriculture, Parks and Gardens				600[DI]															
Maintenance of Ecosystems				600[DI]	700						10[DI]	240[C]	400[DI]	20[DI]	1,000[DI]	330[LR]	70[LR]	20[DI]	100[LR]
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m					900	NL	NL			NL									
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m					NL	NL	NL			NL									
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m					5,000	NL	NL			NL									
Derived Groundwater Risk Based Contminant Screening Level - Residential											27,000	600	26,000	2,000		500	45,000		200
Derived Groundwater Risk Based Contminant Screening Level - Commercial / Industrial											420,000	10,000	380,000	35,000		8,000	690,000		4,000
Well ID	**Location**	**Field ID**	**Date**																
MW23	Lot 3	MW23-1	17-07-08	500	442	1	51	<1	<2	-	<5	<1	<5	<5	-	<5	<5	<5	<10
		MW23-2	27-08-08	270	265	<5	27	<5	<10	-	<5	<5	<5	<5	-	<5	<5	<5	<50
		MW23	09-12-09	320	225	2	42	<2	<2	-	<5	<5	<5	<5	<5	<5	<5	<5	<50
		MW23	24-03-10	540	294	<2	59	<2	<2	-	<5	<5	<5	<5	<5	42	<5	<5	<50
		MW23	19-01-11	270	184	<2	22	<2	<2	-	<5	<5	<5	<5	<5	<5	<5	<5	<50
		MW23	27-02-13	340	200	<2	47	<2	<2	<2	<5	<5	<5	<5	<10	<5	<5	<5	<50
		MW23	31-01-14	50	11	<1	<1	<1	<2	<3	<1	<1	<5	<1	<1	<1	<1	<1	<1
		MW23	30-01-17	30	<1	<2	<2	<2	<2	<2	<5	<5	<5	<5	-	<5	<5	<5	<50
		MW23	23-08-17	30	<1	<2	<2	<2	<2	<1	<1	<1	<1	<1	<2	<1	<1	<1	<0.2
		MW23	23-10-17	50	4	<1	10	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<0.2
		MW23	16-01-18	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<0.2
		MW23A	15-05-18	40	<1	<1	11	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<0.2
		MW23A	04-07-18	80	11	<1	23	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<0.2
		MW23A	03-10-18	100	2	<2	38	<2	<2	<2	-	-	-	-	-	-	-	-	-
MW24A	Lot 2	MW24A-2	27-08-08	<50	<5	<5	<5	<5	<10	<10	<5	<5	6	<5	-	203	5	<5	<50
		MW24A-3	14-10-08	<50	<5	<5	<5	<5	<10	<10	<5	<5	75	27	-	2,200	103	<5	<50
		MW24A	10-12-09	3,500	<1	<2	<2	<2	<2	<2	<5	<5	137	37	<5	3,040	201	<5	<50
		MW24A	23-03-10	5,600	<10	<10	<10	<10	<20	<20	<10	<10	218	51	<150	4,830	327	<10	<100
		MW24A	18-01-11	8,850	1	<2	<2	6	<2	6	6	7	332	68	<10	7,510	724	<5	<50
		MW24A	28-02-13	2,620	<10	<10	<5	<10	<20	<10	<10	14	192	49	<10	3,240	235	<10	<100
		MW24A	29-01-14	10,000	<80	<80	<80	<80	<160	<240	<80	150	450	120	<80	6,300	470	<80	<80
		MW24A	31-01-17	5,660	2	<2	<2	20	<2	20	17	226	299	133	-	5,320	310	<5	<50
		MW24AR	25-08-17	4,480	3	30	<1	<1	3	3	20	10	181	343	589	11,300	174	1	1.7
		MW24AR	27-10-17	8,700	2	1	<1	<1	28	28	17	118	339	186	52	8,310	443	2	1.2
		MW24AR	18-01-18	10,800	<10	<10	<10	<10	28	28	19	146	367	222	31	8,910	489	<10	1.8
MW24B	Lot 2	MW24B-2	27-08-08	<50,000	<5000	<5000	<5000	<5000	<10,000	<10,001	<5000	<5000	<5000	<5000	-	84,800	<5000	<5000	<50,000
		MW24B-3	14-10-08	<150	<100	<100	<5	<5	<10	<11	<1500	<100	974	1,760	-	97,300	899	<100	<50
		MW24B	10-12-09	85,800	23	91	4	3	8	11	440	<5	413	9,770	2,600	73,800	631	20	<50
		MW24B	24-03-10	155,000	<100	<100	<100	<100	<200	<200	317	<100	397	6,540	5,940	142,000	1,400	<100	<1000
		MW24B	18-01-11	59,000	<100	140	<100	<100	<200	<200	487	<100	582	10,200	2,760	42,500	1,580	<100	<1000
		MW24B	28-02-13	46,600	<100	593	<50	<100	<200	<100	430	<100	720	17,400	<100	47,200	704	<100	<1000
		MW24B	29-01-14	84,000	<500	540	<500	<500	<1000	<1500	670	<500	840	24,000	<500	40,000	620	<500	<500
		MW24B	01-02-17	66,300	<100	925	<100	<100	<100	<100	576	<100	937	54,000	-	23,600	400	<100	<50
		MW24BR	25-08-17	61,000[D]	9	71	<1	8	6	14	147	<1	478	2,360	830	25,300	412	5	6.4
		MW24BR	27-10-17	3,930	<1	2	<1	<1	<1	<1	3[D]	<1	28	227	50	4,630	57	<1	<0.2
		MW24BR	18-01-18	2,200	<10	<10	<10	<10	<10	<10	<10	<10	15	100	<10	2,230	51	<10	<1.0

Table 7
COPC Groundwater Analytical Results - 2008 to 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				TPH	BTEX						Chlorinated Hydrocarbons								
				C6-C9	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	1,1-dichloroethene	Carbon tetrachloride	Chloroform	cis-1,2-dichloroethene	Dichloromethane	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	Vinyl chloride
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				20	1	1	1	1	1	1	1	1	1	1	2	1	1	1	0.2
Potable Water Supply				600[DI]	1	800 / 25[A]	300 / 3[A]			600 / 20[A]	30[A]	3	250	60	4	20[WH]	50	60[NZ]	0.3
Primary Contact Recreation				600[DI]	1	800 / 25[A]	300 / 3[A]			600 / 20[A]	30[A]	3	250	60	4	20[WH]	50	60[NZ]	0.3
Stock Watering				600[DI]	1	800 / 25[A]	300 / 3[A]			600 / 20[A]	30[A]	3	250	60	4	20[WH]	50	60[NZ]	0.3
Agriculture, Parks and Gardens				600[DI]															
Maintenance of Ecosystems				600[DI]	700						10[DI]	240[C]	400[DI]	20[DI]	1,000[DI]	330[LR]	70[LR]	20[DI]	100[LR]
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m					900	NL	NL			NL									
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m					NL	NL	NL			NL									
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m					5,000	NL	NL			NL									
Derived Groundwater Risk Based Contminant Screening Level - Residential											27,000	600	26,000	2,000		500	45,000		200
Derived Groundwater Risk Based Contminant Screening Level - Commercial / Industrial											420,000	10,000	380,000	35,000		8,000	690,000		4,000
Well ID	**Location**	**Field ID**	**Date**																
MW24C	Lot 2	MW24C-2	27-08-08	<50,000	<5000	<5000	<5000	<5000	<10,000	<10,001	<5000	<5000	<5000	<5000	-	48,000	<5000	<5000	<50,000
		MW24C-3	13-10-08	49,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW24C	10-12-09	156,000	114	12,200	138	101	206	307	2,720	<100	1,940	21,800	6,320	124,000	5,740	<100	<1000
		MW24C	25-03-10	-	<100	9,310	<100	<100	<200	<201	1,800	<100	1,770	24,400	6,030	132,000	3,790	<100	<1000
		MW24C	28-02-13	141,000	112	17,700	353	<100	208	208	2,620	<100	1,440	168,000	<100	28,600	4,080	<100	<1000
		MW24C	03-02-14	200,000	<1000	11,000	<1000	<1000	<2000	<3000	2,200	<1000	1,700	110,000	1,100	50,000	2,100	<1000	<1000
		MW24CR	25-08-17	45,800	27	4,100	41	29	16	45	577	<1	1,660	10,200	4,100	39,800	494	29	2.8
		MW24CR	27-10-17	1,740	<1	5	<1	<1	<1	<1	<1	<1	26	48	10	110	1	<1	<0.2
		MW24CR	17-01-18	940	<1	6	<1	<1	<1	<1	<1	<1	2	90	3	35	2	<1	<0.2
MW32	Lot 2	MW32	08-12-09	580	3	<5	<2	<2	<2	<2	18	82	496	48	74	323	55	<5	<50
		MW32	19-03-10	1,220	2	<2	<2	<2	<2	<2	20	86	498	76	38	418	81	<5	<50
		MW32	18-01-11	1,530	1	<2	<2	<2	<2	<2	16	108	415	151	24	732	53	<5	<50
		MW32	28-02-13	760	2	<2	<2	<2	<2	<2	15	92	547	140	<11	538	55	<5	<50
		MW32	29-01-14	1,000	<4	<4	<4	<4	<8	<12	8	45	310	160	7	340	25	<4	<4
		MW32	31-01-17	280	<1	<2	<2	<2	<2	<2	<5	9	302	76	-	101	8	<5	<50
		MW32	24-08-17	<1	<1	<1	<1	<1	<1	<1	6	20	267	210	9	304	15	-	8.6
		MW32	26-10-17	310	<1	<1	<1	<1	<1	<1	2	2	24	14	<2	356	15	-	2.7
		MW32	17-01-18	1,510	<1	<1	<1	<1	<1	<1	4	9	162	262	11	960	36	-	6.8
MW33	Lot 3	MW33R	23-03-10	60	<1	<2	<2	<2	<2	-	<5	<5	6	14	<15	23	<5	<5	<50
		MW33R	19-01-11	120	<1	<2	<2	<2	<2	-	6	<5	18	34	<5	31	<5	<5	<50
		MW33R	26-02-13	110	<1	<2	<2	<2	<2	<2	10	<5	21	64	<5	40	<5	<5	<50
		MW33R	31-01-17	130	<1	<2	<2	<2	<2	<2	6	<5	11	119	-	42	<5	<5	<50
		MW33R	24-08-17	190	1	<1	<1	<1	<1	<1	16	<1	14	185	<2	85	<1	2	0.7
		MW33R	24-10-17	260	<1	<1	<1	<1	<1	<1	11	<1	13	255	<2	75	<1	2	0.6
		MW33R	16-01-18	330	1	<1	<1	<1	<1	<1	20	<1	17	351	<2	120	<1	2	0.8
		MW33R	22-02-18	-	<1	<1	<1	<1	<1	<1	11	<1	11	253	<2	91	<1	2	1.6
		MW33R	22-02-18	360	1	<1	<1	<1	<1	<1	17	<1	14	311	<2	123	<1	2	0.9
		MW33R	05-07-18	360	1[D]	<1	<1	<1	<1	<1	16	<1	14	376	<2	115	<1	2	0.6
MW35	Lot 2	MW35	11-12-09	1,100	<1	<2	<2	<2	<2	-	<5	22	20	16	<10	945	<5	<5	<50
		MW35	17-03-10	1,300	<10	<10	<10	<10	<20	<20	<10	34	22	19	<35	1,140	<10	<10	<100
		MW35	18-01-11	4,450	<1	<2	<2	<2	<2	<2	<5	201	41	70	<15	3,640	10	5	<50
		MW35	27-02-13	3,830	<10	<10	<10	<10	<20	<10	<10	232	43	154	<100	4,470	13	<10	<100
		MW35	30-01-14	13,000	<100	<100	<100	<100	<200	<300	<100	400	<100	230	<100	8,200	<100	<100	<100
		MW35	31-01-17	12,600	<100	<100	<100	<100	<100	<100	<100	555	106	688	-	14,600	<100	<100	<50
		MW35	22-08-17	52,000[D]	<1	<1	<1	<1	1	1	<1	593	83	883	562	24,600	58	<1	0.6
		MW35	26-10-17	13,800	<1	2	<1	<1	<1	<1	3	245	123	570	295	14,600	50	<1	1.9
		MW35	17-01-18	10,400	<10	<10	<10	<10	<10	<10	<10	200	96	668	105	8,640	71	<1	10.0

Table 7
COPC Groundwater Analytical Results - 2008 to 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				TPH	BTEX						Chlorinated Hydrocarbons								
				C6-C9	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	1,1-dichloroethene	Carbon tetrachloride	Chloroform	cis-1,2-dichloroethene	Dichloromethane	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	Vinyl chloride
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				20	1	1	1	1	1	1	1	1	1	1	2	1	1	1	0.2
Potable Water Supply				600[DI]	1	800 / 25[A]	300 / 3[A]			600 / 20[A]	30[A]	3	250	60	4	20[WH]	50	60[NZ]	0.3
Primary Contact Recreation				600[DI]	1	800 / 25[A]	300 / 3[A]			600 / 20[A]	30[A]	3	250	60	4	20[WH]	50	60[NZ]	0.3
Stock Watering				600[DI]	1	800 / 25[A]	300 / 3[A]			600 / 20[A]	30[A]	3	250	60	4	20[WH]	50	60[NZ]	0.3
Agriculture, Parks and Gardens				600[DI]															
Maintenance of Ecosystems				600[DI]	700						10[DI]	240[C]	400[DI]	20[DI]	1,000[DI]	330[LR]	70[LR]	20[DI]	100[LR]
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m					900	NL	NL			NL									
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m					NL	NL	NL			NL									
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m					5,000	NL	NL			NL									
Derived Groundwater Risk Based Contminant Screening Level - Residential											27,000	600	26,000	2,000		500	45,000		200
Derived Groundwater Risk Based Contminant Screening Level - Commercial / Industrial											420,000	10,000	380,000	35,000		8,000	690,000		4,000
Well ID	**Location**	**Field ID**	**Date**																
MW37	Lot 1	MW37	04-12-09	-	<1	<5	<2	<2	<2	<2	<5	<5	<5	<5	<5	<5	9	<5	<50
		MW37	18-03-10	-	<1	<2	<2	<2	<2	<2	<5	<5	<5	<5	-	8	9	<5	<50
		MW37	19-01-11	-	<1	<2	<2	<2	<2	<2	<5	<5	<5	<5	<5	<5	6	<5	<50
		MW37	25-02-13	-	<1	<2	<2	<2	<2	<2	<5	<5	<5	6	<5	<5	8	<5	<50
		MW37	30-01-14	-	<1	<1	<1	<1	<2	<3	<1	<1	<5	8	<1	5	22	<1	<1
		MW37	31-01-17	30	<1	<2	<2	<2	<2	<2	<5	<5	<5	11	-	<5	20	<5	<50
		MW37	25-08-17	50	<1	<1	<1	<1	<1	<1	<1	<1	3	15	<2	5	29	<1	<0.2
		MW37	24-10-17	30	<1	<1	<1	<1	<1	<1	<1	<1	2	12	<2	4	12	<1	<0.2
		MW37	16-01-18	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<2	1	1	<1	<0.2
		MW37	15-08-18	30	<1	<1	<1	<1	<1	<1	<1	<1	2	11	<2	3	15	<1	<0.2
MW38	Lot 4 (on-site)	MW38	04-12-09	-	<1	<5	<2	<2	<2	<2	<5	<5	32	<5	<5	13	<5	<5	<50
		MW38	18-03-10	-	<1	<2	<2	<2	<2	<2	<5	<5	25	<5	-	10	<5	<5	<50
		MW38	19-01-11	-	<1	<2	<2	<2	<2	<2	<5	<5	10	<5	<5	<5	<5	<5	<50
		MW38	26-02-13	-	<1	<2	<2	<2	<2	<2	<5	<5	<5	<5	<5	<5	<5	<5	<50
		MW38	30-01-14	-	<1	<1	<1	<1	<2	<3	<1	<1	7	<1	<1	3	<1	<1	<1
		MW38	30-01-17	<20	<1	<2	<2	<2	<2	<2	<5	<5	<5	<5	-	<5	<5	<5	<50
		MW38	23-08-17	<20	<1	<2	<2	<2	<2	<1	<1	<1	<1	<1	<2	<1	<1	<1	<0.2
		MW38	23-10-17	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<0.2
		MW38	15-01-18	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<0.2
		MW38	14-08-18	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<0.2
MW45A	Lot 1 (On-site)	MW45A	23-08-17	320	1	<2	<2	<2	<2	<1	<1	<1	69	178	<2	273	<1	<1	0.7
		MW45A	26-10-17	390	<1	<1	<1	<1	<1	<1	<1	<1	56	236	<2	273	<1	<1	1.1
		MW45A	17-01-18	440	<1	<1	<1	<1	<1	<1	<1	<1	34	208	<2	264	<1	<1	0.5
		MW45a	15-08-18	410	<1	<1	<1	<1	<1	<1	<1	<1	4	256	<2	254	<1	<1	<0.2
MW45B	Lot 1 (On-site)	MW45B	23-08-17	360	1	<1	<1	<1	<1	<1	<1	<1	570	68	6	65	<1	<1	2.4
		MW45B	26-10-17	400	1	<1	<1	<1	<1	<1	<1	<1	653	90	10	79	<1	<1	1.7
		MW45B	17-01-18	440	1	<1	<1	<1	<1	<1	<1	<1	453	69	9	55	<1	<1	1.0
		MW45b	15-08-18	400	1	<1	<1	<1	<1	<1	<1	<1	504	75	9	57	<1	<1	1.9

Table 7
COPC Groundwater Analytical Results - 2008 to 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				TPH	BTEX						Chlorinated Hydrocarbons								
				C6-C9	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	1,1-dichloroethene	Carbon tetrachloride	Chloroform	cis-1,2-dichloroethene	Dichloromethane	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	Vinyl chloride
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				20	1	1	1	1	1	1	1	1	1	1	2	1	1	1	0.2
Potable Water Supply				600[DI]	1	800 / 25[A]	300 / 3[A]			600 / 20[A]	30[A]	3	250	60	4	20[WH]	50	60[NZ]	0.3
Primary Contact Recreation				600[DI]	1	800 / 25[A]	300 / 3[A]			600 / 20[A]	30[A]	3	250	60	4	20[WH]	50	60[NZ]	0.3
Stock Watering				600[DI]	1	800 / 25[A]	300 / 3[A]			600 / 20[A]	30[A]	3	250	60	4	20[WH]	50	60[NZ]	0.3
Agriculture, Parks and Gardens				600[DI]															
Maintenance of Ecosystems				600[DI]	700						10[DI]	240[C]	400[DI]	20[DI]	1,000[DI]	330[LR]	70[LR]	20[DI]	100[LR]
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m					900	NL	NL			NL									
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m					NL	NL	NL			NL									
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m					5,000	NL	NL			NL									
Derived Groundwater Risk Based Contminant Screening Level - Residential											27,000	600	26,000	2,000		500	45,000		200
Derived Groundwater Risk Based Contminant Screening Level - Commercial / Industrial											420,000	10,000	380,000	35,000		8,000	690,000		4,000
Well ID	**Location**	**Field ID**	**Date**																
MW50A	Lot 3	MW50A	25-08-17	620	2	<1	<1	<1	<1	<1	48	<1	68	98	32	916	13	<1	3.7
		MW50A	27-10-17	900	4	<1	<1	<1	<1	<1	57	<1	181	51	18	817	14	<1	0.5
		MW50A	18-01-18	1,000	5	<1	<1	<1	<1	<1	90	<1	330	82	14	760	10	<1	0.4
		MW50A	15-05-18	1,560	10	<1	<1	<1	<1	<1	190	<1	343	170	15	814	18	<1	1.7
		MW50A	05-07-18	1,320	9	<1	<1	<1	<1	<1	195	<1	356	198	9	792	12	<1	1.3
MW50B	Lot 3	MW50B	25-08-17	26,700	4	30	3	13	8	21	26	4	169	329	2,740	37,700	500	2	4.7
		MW50B	27-10-17	67,600	8	70	8	37	23	60	42	8	544	652	5,040	77,200	1,540	4	5.3
		MW50B	18-01-18	50,900	<100	<100	<100	<100	<100	<100	<100	<100	523	552	4,120	56,700	1,030	<100	<10.0
		MW50B	15-05-18	35,600	7	5	1	2	3	3	76	8	425	390	2,050	37,500	794	3	7
		MW50B	05-07-18	20,200	7	2	<1	3	4	7	59	7	469	428	1,930	23,800	526	3	4.8
MW50C	Lot 3	MW50C	25-08-17	4,220	7	2	<1	<1	<1	<1	11	<1	36	49	691	12,700	161	1	0.9
		MW50C	27-10-17	28,100	4	19	<1	5	7	12	24	4	156	239	1,740	33,000	536	3	3.9
		MW50C	18-01-18	30,000	<100	<100	<100	<100	<100	<100	<100	<100	174	208	1,450	36,900	599	<100	<10.0
		MW50C	15-05-18	13,900	2	6	<1	<1	<1	<1	15	1	94	108	52	13,100	200	1	1.3
		MW50C	05-07-18	22,700	4	4	<1	<1	<1	<1	18	3	175	238	52	40,600	796	3	2.6
MW52	Off Site (21 Hamlet Street)	MW52	25-08-17	<20	<1	<2	<2	<2	<2	<1	<1	<1	9	2	<2	7	1	<1	2.8
		MW52	24-10-17	<20	<1	<1	<1	<1	<1	<1	<1	<1	7	2	<2	6	1	<1	2.5
		MW52	16-01-18	<20	<1	<1	<1	<1	<1	<1	<1	<1	6	2	<2	5	<1	<1	3.7
		MW52	05-04-18	-	<0.05	<0.5	<0.05	<0.10	<0.05	<0.05	<0.1	<0.05	6.63	1.8	<1.0	8.01	0.74	<0.1	8.2
		MW52	14-08-18	<20	<1	<1	<1	<1	<1	<1	<1	<1	4	1	<2	7	<1	<1	12.6
MW53	Off Site (19 Hamlet Street)	MW53	25-08-17	<20	<1	<2	<2	<2	<2	<1	<1	<1	<1	12	<2	7	<1	<1	1.2
		MW53	23-10-17	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	5	<2	2	<1	<1	0.8
		MW53	16-01-18	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	6	<2	3	<1	<1	3.9
		MW53	05-04-18	-	<0.05	<0.5	<0.05	<0.10	<0.05	<0.05	0.2	<0.05	<0.10	7.5	<1.0	3.42	<0.05	<0.1	0.4
		MW53	14-08-18	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	6	<2	3	<1	<1	2.3

Table 7
COPC Groundwater Analytical Results - 2008 to 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	Metals												Inorganis and Ions													Water Quality	
	Arsenic (filtered)	Barium (filtered)	Cadmium (filtered)	Chromium (III+VI) (filtered)	Cobalt (filtered)	Copper (filtered)	Iron (filtered)	Lead (filtered)	Manganese (filtered)	Mercury (filtered)	Nickel (filtered)	Zinc (filtered)	Ammonia as N	Nitrate (as N)	Nitrite (as N)	Calcium (filtered)	Chloride	Fluoride	Magnesium	Potassium (filtered)	Sodium (filtered)	Sulfate as SO4 - Turbidimetric (filtered)	Anions Total	Cations Total	Ionic Balance	pH	Total Dissolved Solids
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	units	mg/L
EQL	0.001	0.001	0.0001	0.001	0.001	0.001	0.05	0.001	0.001	0.0001	0.001	0.005	0.01	0.01	0.01	1	1	0.1	0.1	1	1	1	0.01	0.01	0.01	0.01	1
Potable Water Supply	0.01	2	0.002	0.05	0.0006[US]	2 / 1[A]	0.3[A]	0.01	0.5 / 0.1[A]	0.001	0.02	3[A]	0.5[A]	50[WR]	3[WR]		250[A]	1.5			180[A]	500 / 250[A]					
Primary Contact Recreation	0.1	20	0.02	0.5	0.006[US]	20 / 1[A]	0.3[A]	0.1	5 / 0.1[A]	0.01	0.2	3[A]	0.5[A]	112.87[N]	9.12[N]		250[A]	1.5			180[A]	5,000 / 250[A]					
Stock Watering	0.5	2	0.01	1	1	0.4	0.3[A]	0.1	0.5 / 0.1[A]	0.002	1	20	0.5[WR]	50[WR]	3[WR]		250[A]	2			180[A]	1,000					
Agriculture, Parks and Gardens	0.1		0.01	0.1	0.05	0.2	0.2	2	0.2	0.002	0.2	2						1									
Maintenance of Ecosystems	0.024[F]		0.0055		0.001	0.0013		0.0044		0.0004	0.07	0.015	0.91	2.4[N]	0.06[C]												
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																											
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																											
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																											
Derived Groundwater Risk Based Contminant Screening Level - Residential																											
Derived Groundwater Risk Based Contminant Screening Level - Commercial / Industrial																											

Well ID	Location	Field ID	Date																									
MW3 (decommissioned)	Lot 1	MW3-1	15-07-08	<0.02	-	0.0366	0.020	-	0.016	-	0.019	0.575	0.0006	0.084	0.060	-	-	0.02	172	3,690	0.3	244	1	2,130	426	-	-	-	6.40	8,050
		MW3-2	26-08-08	<0.01	-	0.0267	<0.005	-	0.023	0.1	<0.001	-	0.0002	0.134	0.044	-	-	0.03	165	5,030	1.0	322	1	2,400	524	-	-	-	6.30	9,820
		MW3	25-03-10	0.003	-	0.0169	<0.001	-	0.005	<0.05	<0.001	0.153	0.0003	0.008	0.473	-	8.86	0.02	113	3,430	0.3	281	1	2,200	523	115	124	3.9	6.40	8,000
		MW3	20-01-11	0.001	0.030	0.0051	<0.001	0.002	0.005	<0.05	<0.001	0.066	<0.0001	0.008	0.035	0.15	6.6	<0.01	49	1,940	0.3	93	<1	1,450	305	67.4	73.3	4.2	6.22	3,700
		MW3	27-02-13	0.010	-	0.0064	<0.001	-	0.026	0.36	0.001	0.051	0.0002	0.016	0.363	0.18	5.09	<0.01	26	1,070	0.2	55	<1	748	207	39.6	38.4	1.55	5.70	2,740
MW4 (decommissioned)	Lot 1	MW4-1	15-07-08	<0.01	-	<0.0001	<0.005	-	0.071	-	<0.001	0.022	0.0001	0.031	0.166	-	-	0.01	7	127	0.3	12	2	217	56	-	-	-	6.80	670
		MW4-2	27-08-08	<0.005	-	<0.0001	<0.005	-	<0.01	0.1	<0.001	-	<0.0001	0.004	0.047	-	-	0.01	9	112	0.4	16	2	226	52	-	-	-	7.40	630
		MW4	03-12-09	0.002	-	<0.0001	<0.001	-	0.009	<0.05	<0.001	<0.001	<0.0001	0.004	0.066	-	0.96	<0.01	9	84	0.6	26	3	267	51	15.2	14.3	2.96	6.93	798
		MW4	18-03-10	0.015	-	0.0001	<0.001	-	0.004	0.1	<0.001	0.026	0.0001	0.018	0.138	-	0.25	0.01	9	23	0.4	6	6	74	22	4.63	4.36	3	7.35	254
		MW4	20-01-11	0.003	0.050	<0.0001	<0.001	<0.001	0.005	<0.05	<0.001	0.003	<0.0001	0.018	0.185	<0.01	1.70	<0.01	14	64	0.6	31	11	272	88	14.1	15.4	4.26	6.60	788
MW9 (decommissioned)	Lot 4 (on-site)	MW9/2-1	17-07-08	0.002	-	0.0003	<0.005	-	0.005	-	0.002	0.003	<0.0005	0.003	0.005	-	-	0.50	2	39	0.8	2.5	2.9	165	12	-	-	-	7.50	430
MW12 (decommissioned)	Lot 4 (on-site)	MW12/1-2	26-08-08	0.002	-	<0.0001	<0.005	-	0.002	<0.05	0.002	-	0.0001	0.002	0.011	-	3.03	0.06	10	21	<0.1	6.6	7.6	44	19	-	-	-	7.00	190
		MW12-1	17-07-08	0.009	-	<0.0001	<0.005	-	0.003	-	0.001	0.019	<0.0005	0.003	0.014	-	3.46	0.03	12	23	<0.1	8.3	8.0	48	23	-	-	-	6.60	220
		MW12/1	09-12-09	0.007	0.013	<0.0001	0.002	0.093	0.005	0.27	0.002	0.017	<0.0001	0.012	0.063	-	3.58	0.03	9	23	0.2	6.0	6.0	35	37	2.61	2.63	0.24	6.70	260
		MW12/1	25-03-10	0.007	-	0.0001	0.002	-	0.002	0.13	<0.001	0.020	<0.0001	0.002	<0.005	-	4.03	0.14	10	22	0.2	7.0	8.0	38	7	2.66	2.92	4.8	6.87	180
		MW12/1	21-01-11	0.006	0.014	<0.0001	0.004	0.125	0.003	<0.05	0.005	0.017	0.0001	0.003	0.048	<0.01	5.67	0.04	9	53	0.1	7.0	9.0	59	22	3.63	3.8	2.26	7.68	290
MW13 (decommissioned)	Lot 2	MW13/2-1	17-07-08	<0.02	-	0.0058	<0.005	-	<0.005	-	0.009	0.053	0.0937	0.007	0.071	-	113	1.31	8.3	713	<0.1	80.2	0.6	745	428	-	-	-	5.5	2,800
		MW13/2-2	25-08-08	<0.01	-	0.0059	<0.005	-	0.005	0.05	0.001	-	0.0938	0.007	0.03	-	104	-	6.6	676	0.3	72.4	0.4	717	392	-	-	-	6.0	2,710
		MW13/2	10-12-09	0.004	0.017	<0.0001	<0.001	0.008	0.002	-	0.003	0.101	<0.0001	0.004	0.018	-	83.4	1	6	554	<0.1	55	<1	550	309	28.8	28.8	0.19	5.75	2,480
		MW13/2	24-03-10	0.002	-	0.0056	<0.001	-	0.007	<0.05	0.003	0.035	0.0006	0.01	0.034	-	80.5	0.67	6	469	<0.1	53	<1	533	395	28.2	27.8	0.57	5.57	1,850
		MW13/2	20-01-11	0.003	0.064	0.0052	<0.001	0.101	0.014	<0.05	0.007	0.069	0.0017	0.013	0.093	<0.01	95.8	0.89	8	656	<0.1	64	<1	770	638	39.4	39.2	0.27	5.63	2,130
MW15 (decommissioned)	Lot 2	MW15/3-1	17-07-08	<0.02	-	<0.0001	<0.005	-	<0.005	-	0.044	0.136	<0.0005	0.004	0.062	-	16.9	0.11	4.6	505	<0.1	27.6	0.7	520	364	-	-	-	5.9	1,560
		MW15/3-2	25-08-08	<0.01	-	<0.0001	<0.005	-	0.005	<0.05	0.018	-	0.0001	0.004	0.027	-	15.3	-	3.3	494	<0.1	23.2	0.6	488	352	-	-	-	6.4	1,560
		MW15/3	10-12-09	0.003	0.03	0.0054	<0.001	0.089	0.004	-	0.01	0.053	0.098	0.005	0.034	-	20.3	0.09	3	485	<0.1	23	<1	491	344	22.6	23.4	1.76	6.04	1,500
		MW15/3	24-03-10	0.006	-	0.0004	<0.001	-	0.005	0.11	0.002	0.098	<0.0001	0.009	0.02	-	20.9	0.12	3	446	<0.1	25	<1	507	429	23.1	24.2	2.32	5.82	1,630
		MW15/3	21-01-11	0.002	0.024	0.0001	<0.001	0.01	0.003	<0.05	0.017	0.115	<0.0001	0.04	0.056	0.2	29.5	0.32	3	560	<0.1	27	<1	572	498	27.6	27.3	0.69	7.34	1,700
MW16 (decommissioned)	Lot 3	MW16/1-1	18-07-08	<0.02	-	0.0002	<0.005	-	<0.005	-	0.007	0.041	<0.0005	0.003	0.215	-	16.2	0.03	9.8	713	<0.1	14.1	1.2	655	293	-	-	-	-	1,920
		MW16/1-2	27-08-08	<0.01	-	<0.0001	<0.005	-	0.004	0.06	0.006	-	0.0001	0.003	0.107	-	12.3	0.02	8.4	949	<0.1	13.3	1.3	663	316	-	-	-	6.5	2,000
		MW16/1	11-12-09	0.006	0.025	<0.0001	<0.001	0.005	0.002	<0.05	0.015	0.038	<0.0001	0.002	0.11	-	14.8	<0.01	9	713	<0.1	12	2	588	309	28.9	28.8	0.19	6.2	2,060
		MW16/1	23-03-10	0.004	-	0.003	<0.001	-	0.002	<0.05	0.005	0.037	<0.0001	0.002	0.068	-	13.8	0.02	10	742	0.1	12	2	648	284	29.1	31.5	3.99	6.43	2,080
		MW16/1	21-01-11	0.004	0.026	0.0014	<0.001	0.005	0.003	<0.05	0.008	0.051	<0.0001	0.015	0.159	<0.01	14.2	<0.01	10	793	<0.1	13	<1	710	566	36.3	34.1	3.16	7.23	2,010
MW17 (decommissioned)	Lot 3	MW17/1-1	18-07-08	0.256	-	<0.0001	<0.005	-	0.003	-	0.001	0.087	<0.0005	0.004	0.016	-	0.01	0.01	3.9	190	0.2	14.1	0.4	230	161	-	-	-	-	750
		MW17/1-2	27-08-08	0.226	-	<0.0001	0.006	-	0.002	3.06	0.001	-	<0.0001	0.004	0.01	-	0.02	<0.01	3.2	211	0.2	13.3	0.5	244	180	-	-	-	6.7	740
		MW17/2-3	14-10-08	0.126	-	<0.0001	<0.005	-	0.002	-	0.007	0.034	<0.0005	0.003	0.039	-	0.06	0.01	5.3	154	-	10.4	0.3	212	165	10.3	10.6	-	6.8	754
		MW17/1	11-12-09	0.257	0.014	<0.0001	<0.001	0.01	<0.001	1.85	0.002	0.083	<0.0001	0.004	0.019	-	0.07	<0.01	4	177	0.3	12	<1	220	176	11.2	10.7	2.41	6.2	798
		MW17/1	24-03-10	0.258	-	<0.0001	<0.001	-	0.005	1.63	<0.001	0.09	<0.0001	0.008	0.023	-	<0.01	<0.01	3	167	0.3	12	<1	211	153	10.2	10.3	0.39	6.11	870
		MW17/1	24-01-11	0.127	0.015	<0.0001	0.001	0.005	0.001	-	0.003	0.095	<0.0001	0.002	<0.005	<0.01	-	-	4	187	0.1	13	<1	302	82	-	-	-	7.62	850

Table 7
COPC Groundwater Analytical Results - 2008 to 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				Metals												Inorganis and Ions												Water Quality	
				Arsenic (filtered)	Barium (filtered)	Cadmium (filtered)	Chromium (III+VI) (filtered)	Cobalt (filtered)	Copper (filtered)	Iron (filtered)	Lead (filtered)	Manganese (filtered)	Mercury (filtered)	Nickel (filtered)	Zinc (filtered)	Ammonia as N	Nitrate (as N)	Nitrite (as N)	Calcium (filtered)	Chloride	Fluoride	Magnesium	Potassium (filtered)	Sodium (filtered)	Sulfate as SO4 - Turbidimetric (filtered)	Anions Total	Cations Total	Ionic Balance	pH	Total Dissolved Solids
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	units	mg/L
EQL				0.001	0.001	0.0001	0.001	0.001	0.001	0.05	0.001	0.001	0.0001	0.001	0.005	0.01	0.01	0.01	1	1	0.1	0.1	1	1	1	0.01	0.01	0.01	0.01	1
Potable Water Supply				0.01	2	0.002	0.05	0.0006[US]	2 / 1[A]	0.3[A]	0.01	0.5 / 0.1[A]	0.001	0.02	3[A]	0.5[A]	50[WR]	3[WR]		250[A]	1.5			180[A]	500 / 250[A]					
Primary Contact Recreation				0.1	20	0.02	0.5	0.006[US]	20 / 1[A]	0.3[A]	0.1	5 / 0.1[A]	0.01	0.2	3[A]	0.5[A]	112.87[R]	9.12[R]		250[A]	1.5			180[A]	5,000 / 250[A]					
Stock Watering				0.5	2	0.01	1	1	0.4	0.3[A]	0.1	0.5 / 0.1[A]	0.002	1	20	0.5[WR]	50[WR]	3[WR]		250[A]	2			180[A]	1,000					
Agriculture, Parks and Gardens				0.1		0.01	0.1	0.05	0.2	0.2	2	0.2	0.002	0.2	2						1									
Maintenance of Ecosystems				0.024[F]		0.0055		0.001	0.0013		0.0044		0.0004	0.07	0.015	0.91	2.4[N]	0.06[C]											
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																													
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																													
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																													
Derived Groundwater Risk Based Contminant Screening Level - Residential																													
Derived Groundwater Risk Based Contminant Screening Level - Commercial / Industrial																													
Well ID	**Location**	**Field ID**	**Date**																										
BMW1	Lot 4 (on-site)	BMW1	24-08-17	0.003	0.031	<0.0001	<0.001	0.017	0.008	<0.05	<0.001	0.028	<0.0001	0.011	0.145	0.03	-	-	11	1,220	-	46.0	1.0	872	317	41.9	42.3	0.45	4.29	2,527
		BMW1	24-10-17	0.002	0.022	<0.0001	<0.001	0.008	0.007	<0.05	<0.001	0.011	<0.0001	0.028	0.038	0.15	-	-	3	941	-	30.0	<1	775	332	33.8	36.3	3.52	5.43	1,865
		BMW1	17-01-18	0.002	-	<0.0001	<0.001	-	0.011	<0.05	<0.001	0.018	<0.0001	0.030	0.058	0.05	33.1	<0.01	4	1,040	0.2	37.0	<1	791	323	36.4	37.6	1.71	5.64	2,526
BMW2	Lot 4 (on-site)	BMW2	24-08-17	0.002	0.041	<0.0001	<0.001	0.005	0.008	<0.05	<0.001	0.009	<0.0001	0.058	0.020	<0.01	-	-	14	1,660	-	70.0	<1	1,130	262	53.1	55.6	2.31	5.58	2,893
		BMW2	24-10-17	0.002	0.042	<0.0001	<0.001	0.008	0.007	<0.05	<0.001	0.007	<0.0001	0.050	0.033	0.04	-	-	21	2,760	-	132.0	<1	1,640	327	85.1	83.2	1.10	5.28	3,954
		BMW2	17-01-18	0.002	-	<0.0001	<0.001	-	0.006	<0.05	<0.001	0.007	<0.0001	0.013	0.033	0.03	21.5	<0.01	18	2,120	0.1	102.0	<1	1,320	329	66.6	66.7	0.04	6.00	4,588
CMW1	Lot 3	CMW1	24-08-17	<0.001	0.039	<0.0001	<0.001	0.005	0.002	<0.05	<0.001	0.022	<0.0001	0.027	0.020	0.06	-	-	22	2,120	-	114	<1	1,360	484	71.1	69.6	1.02	5.74	3,471
		CMW1	23-10-17	0.001	0.031	<0.0001	<0.001	0.005	0.006	<0.05	<0.001	0.015	<0.0001	0.098	0.073	0.07	-	-	18	1,980	-	114	2	1,340	490	67.3	68.6	0.94	5.38	3,405
		CMW1	16-01-18	<0.001	-	<0.0001	0.002	-	<0.001	<0.05	<0.001	0.014	0.0001	0.012	0.020	0.02	15.7	<0.01	18	1,680	<0.1	100	<1	1,200	490	58.8	61.3	2.13	5.55	3,853
		CMW1	15-05-18	0.001	-	0.0001	<0.001	-	0.087	<0.05	0.006	0.014	<0.0001	0.076	0.172	0.06	15.5	0.03	13	1,740	-	90	<1	1,230	-	-	-	-	5.62	3,294
		CMW1	05-07-18	0.002	-	<0.0001	<0.001	-	0.002	0.07	<0.001	0.009	<0.0001	1.1	0.026	0.05	17.5	<0.01	13	1,880	-	94	<1	1,160	-	-	-	-	5.57	3,426
MW2A	Lot 3 (On-site)	MW2A	15-05-18	0.039	-	<0.0001	<0.001	-	0.047	0.16	0.002	0.029	<0.0001	0.013	0.078	0.02	0.06	0.02	2	110	-	7	<1	216	187	-	-	-	6.39	539
		MW2A	04-07-18	0.155	-	<0.0001	0.003	-	0.008	1.87	0.015	0.021	<0.0001	0.028	0.024	0.05	0.08	<0.01	<1	111	-	4	<1	174	180	-	-	-	6.43	501
		MW2A	03-10-18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.19	540
MW17B	Lot 3 (On-site)	MW17B	05-06-18	0.002	-	<0.0001	<0.001	-	0.001	<0.05	<0.001	0.005	<0.0001	0.002	<0.005	<0.01	<0.01	<0.01	2	12	-	2	<1	74	11	-	-	-	6.67	184
		MW17B	04-07-18	0.002	-	<0.0001	<0.001	-	<0.001	<0.05	<0.001	0.009	<0.0001	0.018	0.01	0.03	0.02	<0.01	1	14	-	6	<1	63	12	-	-	-	6.66	198
		MW17B	03-10-18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.70	198
MW21	Lot 1	MW21-1	15-07-08	<0.01	-	<0.0001	<0.005	-	<0.01	-	<0.001	0.115	<0.0001	0.099	0.197	-	-	0.03	3	496	0.2	31.7	1.3	496	166	-	-	-	6.30	1,520
		MW21-2	26-08-08	<0.01	-	<0.0001	<0.005	-	<0.01	<0.05	<0.001	-	<0.0001	0.033	0.018	-	-	0.01	3	698	0.3	35.4	0.3	538	194	-	-	-	6.20	1,520
		MW21	07-12-09	0.001	-	0.0018	<0.001	-	0.007	<0.05	<0.001	0.114	<0.0001	0.020	0.064	-	5.54	<0.01	2	1,100	0.3	37.0	<1	729	154	37.2	34.9	3.13	6.30	1,730
		MW21	24-03-10	0.001	-	0.0001	<0.001	-	0.004	<0.05	<0.001	0.108	0.0002	0.030	0.008	-	5.12	0.02	3	629	0.3	35.0	1.0	515	243	25.5	25.4	0.14	5.99	1,700
		MW21	19-01-11	0.002	0.012	<0.0001	<0.001	0.007	0.006	<0.05	<0.001	0.089	<0.0001	0.006	0.197	0.08	4.9	<0.01	<1	600	0.2	26.0	<1	418	135	22.2	20.4	4.32	5.35	1,480
		MW21	26-02-13	0.002	-	<0.0001	<0.001	-	0.004	<0.05	<0.001	0.063	<0.0001	0.008	0.085	0.04	3.88	<0.01	2	482	0.4	21.0	<1	396	170	20.3	19.0	3.18	5.42	1,370
		MW21	31-01-14	0.002	-	<0.0002	<0.001	-	0.002	<0.05	<0.001	0.045	<0.0001	0.024	0.004	0.02	4	<0.02	2	420	<0.5	21.0	<0.5	340	-	-	-	-	6.30	1,200
		MW21	31-01-17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW21	23-08-17	0.002	-	<0.0001	<0.001	-	0.002	<0.05	<0.001	0.042	<0.0001	0.004	0.075	0.01	-	-	<1	316	-	12.0	<1	312	162	15.7	14.6	3.84	5.27	868
		MW21	24-10-17	0.001	-	<0.0001	<0.001	-	<0.001	<0.05	<0.001	0.047	<0.0001	0.016	0.014	0.21	-	-	<1	371	-	13.0	<1	337	169	17.4	15.7	4.93	5.77	890
		MW21	16-01-18	0.005	-	<0.0001	0.001	-	0.002	0.13	0.005	0.073	0.0013	0.016	0.056	0.02	2.39	<0.01	1	324	0.3	13.0	<1	330	187	16	15.5	1.76	5.86	1,025
		MW21	14-08-18	0.003	-	<0.0001	<0.001	0.002	0.001	0.11	0.001	0.007	<0.0001	0.059	0.036	0.19	2.24	0.03	-	222	-	-	-	220	120	-	-	-	6.08	689
MW22	Lot 2	MW22-1	16-07-08	<0.01	-	0.0002	<0.005	-	0.005	-	<0.001	0.073	0.0002	0.017	0.186	-	-	0.03	13	1,030	<0.1	40.6	4.8	789	192	-	-	-	5.90	2,500
		MW22-2	26-08-08	<0.01	-	0.0002	<0.005	-	<0.01	0.09	<0.001	-	<0.0001	0.044	0.098	-	-	0.02	14	1,420	<0.1	47.4	2.5	888	248	-	-	-	6.00	2,790
		MW22	09-12-09	0.004	0.032	<0.0001	<0.001	0.006	0.025	0.05	<0.001	0.134	<0.0001	0.016	0.140	-	51.5	<0.01	5	1,380	0.1	52.0	<1	1,000	15	44.5	48.1	3.86	5.90	3,170
		MW22	22-03-10	0.005	-	0.0445	<0.001	-	0.010	<0.05	<0.001	0.055	<0.0001	0.014	0.064	-	53.4	0.02	6	1,450	<0.1	56.0	<1	1,100	321	50	52.7	2.70	5.84	3,350
		MW22	18-01-11	0.004	0.053	<0.0001	<0.001	0.005	0.006	-	0.002	0.044	<0.0001	0.010	0.184	0.10	43.4	0.02	6	1,280	<0.1	48.0	<1	992	285	43	47.4	4.79	5.00	2,920
		MW22	28-02-13	0.007	-	0.0002	<0.001	-	0.026	0.82	0.002	1.120	<0.0001	0.012	0.304	0.19	25.3	0.02	4	697	<0.1	23.0	<1	491	162	23.6	23.5	0.17	4.88	1,500
		MW22	30-01-14	0.006	-	<0.0002	0.001	-	0.007	<0.05	<0.001	0.085	<0.0001	0.019	0.034	0.07	48	<0.02	5	1,200	<0.5	53.0	1.4	1,000	-	-	-	-	5.90	2,900
		MW22	30-01-17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW22	24-08-17	<0.001	0.008	<0.0001	0.001	0.009	0.007	<0.05	<0.001	0.013	<0.0001	0.002	0.031	0.12	-	-	3	44	-	2.0	<1	37	15	2.07	1.92	3.73	6.67	72
		MW22	24-10-17	0.002	-	<0.0001	<0.001	-	0.013	<0.05	<0.001	0.024	<0.0001	0.057	0.098	0.03	-	-	5	1,380	-	54.0	<1	1,030	350	46.9	49.5	2.66	5.29	2,695
		MW22	17-01-18	0.004	-	0.0001	<0.001	-	0.007	0.12	<0.001	0.053	<0.0001	0.015	0.039	0.04	52.3	<0.01	4	1,120	0.1	43.0	<1	912	399	40.5	43.4	3.49	5.75	3,262
		MW22	15-08-18	0.002	-	0.0001	<0.001	0.004	0.004	<0.05	<0.001	0.038	<0.0001	0.029	0.086	0.07	31.7	<0.01	-	785	-	-	-	538	218	-	-	-	5.64	1,170

Table 7
COPC Groundwater Analytical Results - 2008 to 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				Metals												Inorganis and Ions													Water Quality	
				Arsenic (filtered)	Barium (filtered)	Cadmium (filtered)	Chromium (III+VI) (filtered)	Cobalt (filtered)	Copper (filtered)	Iron (filtered)	Lead (filtered)	Manganese (filtered)	Mercury (filtered)	Nickel (filtered)	Zinc (filtered)	Ammonia as N	Nitrate (as N)	Nitrite (as N)	Calcium (filtered)	Chloride	Fluoride	Magnesium	Potassium (filtered)	Sodium (filtered)	Sulfate as SO4 - Turbidimetric (filtered)	Anions Total	Cations Total	Ionic Balance	pH	Total Dissolved Solids
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	units	mg/L
EQL				0.001	0.001	0.0001	0.001	0.001	0.001	0.05	0.001	0.001	0.0001	0.001	0.005	0.01	0.01	0.01	1	1	0.1	0.1	1	1	1	0.01	0.01	0.01	0.01	1
Potable Water Supply				0.01	2	0.002	0.05	0.0006[US]	2 / 1[A]	0.3[A]	0.01	0.5 / 0.1[A]	0.001	0.02	3[A]	0.5[A]	50[WR]	3[WR]		250[A]	1.5			180[A]	500 / 250[A]					
Primary Contact Recreation				0.1	20	0.02	0.5	0.006[US]	20 / 1[A]	0.3[A]	0.1	5 / 0.1[A]	0.01	0.2	3[A]	0.5[A]	112.87[N]	9.12[N]		250[A]	1.5			180[A]	5,000 / 250[A]					
Stock Watering				0.5	2	0.01	1	1	0.4	0.3[A]	0.1	0.5 / 0.1[A]	0.002	1	20	0.5[WR]	50[WR]	3[WR]		250[A]	2			180[A]	1,000					
Agriculture, Parks and Gardens				0.1		0.01	0.1	0.05	0.2	0.2	2	0.2	0.002	0.2	2						1									
Maintenance of Ecosystems				0.024[F]		0.0055		0.001	0.0013		0.0044		0.0004	0.07	0.015	0.91	2.4[N]	0.06[C]												
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																														
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																														
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																														
Derived Groundwater Risk Based Contminant Screening Level - Residential																														
Derived Groundwater Risk Based Contminant Screening Level - Commercial / Industrial																														
Well ID	**Location**	**Field ID**	**Date**																											
MW23	Lot 3	MW23-1	17-07-08	0.179	-	<0.0001	<0.005	-	0.003	-	<0.001	0.012	<0.0001	0.016	0.017	-	3.04	0.23	1.5	96	0.5	6.8	0.1	198	126	-	-	-	5.8	580
		MW23-2	27-08-08	0.165	-	<0.0001	<0.005	-	0.005	<0.05	<0.001	-	<0.0001	0.022	0.027	-	2.63	0.18	1.5	109	0.5	6.7	0.1	211	146		-	-	6.8	610
		MW23	09-12-09	0.18	0.005	<0.0001	<0.001	0.001	0.031	0.13	<0.001	0.01	<0.0001	0.016	0.133	-	2.44	0.2	1	152	1.3	6	<1	200	<1	8.5	9.31	4.21	6.6	612
		MW23	24-03-10	0.224	-	0.0001	<0.001	-	0.006	0.21	<0.001	0.008	<0.0001	0.012	0.016	-	1.85	0.16	1	99	0.7	7	<1	199	133	9.31	9.27	0.26	6.36	560
		MW23	19-01-11	0.163	0.004	<0.0001	<0.001	0.001	0.009	<0.05	<0.001	0.017	<0.0001	0.009	0.047	<0.01	1.74	0.52	<1	66	0.6	6	<1	173	168	8.95	8	5.64	5.36	596
		MW23	27-02-13	0.177	-	<0.0001	<0.001	-	0.007	0.19	<0.001	0.013	<0.0001	0.007	0.062	0.03	3.61	0.11	2	86	1	6	<1	176	120	8.52	8.25	1.67	5.84	584
		MW23	31-01-14	0.047	-	<0.0002	<0.001	-	0.001	<0.05	<0.001	0.006	<0.0001	0.01	0.003	0.04	4.9	0.06	1.9	92	0.5	7.4	<0.5	170	-	-	-	-	6.40	550
		MW23	30-01-17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW23	23-08-17	0.064	0.005	<0.0001	<0.001	0.001	0.002	<0.05	<0.001	0.006	<0.0001	0.004	0.008	0.01	-	-	1	111	-	6	<1	251	143	10.6	11.5	3.70	6.28	514
		MW23	23-10-17	0.100	0.004	<0.0001	<0.001	0.001	0.002	0.16	<0.001	0.007	<0.0001	0.003	0.022	0.03	-	-	1	110	-	7	<1	228	149	11.0	10.5	1.94	6.38	594
		MW23	16-01-18	0.091	-	<0.0001	0.001	-	0.001	0.16	<0.001	0.012	<0.0001	0.002	0.005	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW23A	15-05-18	0.010	-	<0.0001	<0.001	-	0.026	0.14	0.002	0.006	<0.0001	0.013	0.066	0.05	2.97	0.05	2	136	-	6	<1	283	182	-	-	-	6.45	634
		MW23A	04-07-18	0.046	-	<0.0001	<0.001	-	0.001	0.24	<0.001	0.003	<0.0001	0.095	0.017	<0.01	3.54	0.02	<1	135	-	4	<1	222	156	-	-	-	6.31	611
		MW23A	03-10-18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.57	663
MW24A	Lot 2	MW24A-2	27-08-08	<0.01	-	<0.0001	<0.005	-	0.010	<0.05	<0.001	-	<0.0001	0.078	0.026	-	-	0.08	186	2,300	<0.1	93.7	6.4	970	183	-	-	-	6.30	3,570
		MW24A-3	14-10-08	<0.02	-	<0.0001	<0.005	-	<0.01	-	<0.001	0.406	<0.0002	0.014	0.036	-	-	0.06	224	2,040	-	94.3	5.9	1,020	185	63.5	63.2	-	6.70	3,610
		MW24A	10-12-09	<0.001	0.081	0.0001	<0.001	0.002	0.038	-	0.001	0.335	<0.0001	0.022	0.123	-	7.67	0.06	188	1,900	<0.1	87.0	4.0	894	173	60.4	55.6	4.19	6.30	4,010
		MW24A	23-03-10	<0.001	-	0.0005	<0.001	-	0.010	<0.05	<0.001	0.338	<0.0001	0.010	0.028	-	7.98	0.05	176	1,740	<0.1	94.0	5.0	916	174	55.6	56.5	0.79	5.71	3,700
		MW24A	18-01-11	<0.001	0.070	<0.0001	<0.001	0.002	0.007	-	<0.001	0.290	<0.0001	0.027	0.285	0.06	10.7	0.03	157	1,650	<0.1	78.0	4.0	981	152	52.5	57.1	4.14	5.50	3,680
		MW24A	28-02-13	0.214	-	<0.0001	<0.001	-	0.008	<0.05	<0.001	0.223	<0.0001	<0.001	0.111	0.06	8.84	0.04	179	1,670	0.4	81.0	4.0	906	184	54.1	55.1	0.89	5.62	4,090
		MW24A	29-01-14	<0.001	-	<0.0002	<0.001	-	0.015	<0.05	<0.001	0.450	<0.0001	0.010	0.094	0.08	19	<0.02	120	1,500	<0.5	81.0	3.3	860	-	-	-	-	6.70	3,300
		MW24A	31-01-17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW24AR	25-08-17	<0.001	-	0.0004	<0.001	-	0.006	<0.05	<0.001	0.664	<0.0001	0.018	0.024	0.47	-	-	144	1,610	-	89.0	3.0	823	200	52.5	50.4	2.05	6.37	2,605
		MW24AR	27-10-17	<0.001	-	<0.0001	<0.001	-	<0.001	<0.05	<0.001	0.430	<0.0001	0.042	0.014	0.10	-	-	153	1,680	-	95.0	3.0	997	243	55.5	58.9	2.96	6.13	3,179
		MW24AR	18-01-18	<0.001	-	0.0003	<0.001	-	0.001	<0.05	<0.001	0.497	<0.0001	0.042	0.017	0.14	14.1	<0.01	24	659	0.2	37.0	<1	423	151	24.1	22.6	3.14	6.21	3,197
MW24B	Lot 2	MW24B-2	27-08-08	<0.005	-	0.0001	<0.005	-	<0.01	0.33	0.002	-	0.0001	0.022	0.035	-	-	0.27	11	632	0.5	24.1	1.5	523	312	-	-	-	6.00	1,600
		MW24B-3	14-10-08	<0.02	-	0.0001	<0.005	-	<0.01	-	0.001	0.199	<0.0002	0.019	0.072	-	-	0.24	15	636	-	23.8	1.6	551	395	27.2	26.7	-	6.20	1,720
		MW24B	10-12-09	0.016	0.036	0.0001	0.001	0.023	0.006	-	<0.001	0.146	<0.0001	0.015	0.113	-	8.2	0.19	15	807	<0.1	35.0	<1	676	358	33.7	33.0	1.01	6.20	2,180
		MW24B	24-03-10	0.010	-	0.0024	<0.001	-	0.006	5.75	<0.001	0.174	<0.0001	0.011	0.024	-	30.2	0.43	12	888	<0.1	44.0	<1	779	471	37.7	38.2	0.57	6.05	2,400
		MW24B	18-01-11	0.021	0.026	<0.0001	<0.001	0.015	0.002	-	<0.001	0.114	<0.0001	0.014	0.046	0.67	12.9	0.55	11	904	<0.1	37.0	<1	834	635	42	39.9	2.60	5.73	2,340
		MW24B	28-02-13	0.308	-	<0.0001	<0.001	-	0.002	17.6	<0.001	0.094	<0.0001	0.001	0.033	0.47	1.58	0.08	7	805	0.2	30.0	<1	647	297	34.5	31.9	3.95	5.93	2,180
		MW24B	29-01-14	0.170	-	<0.0002	0.001	-	<0.001	20	<0.001	0.085	<0.0001	0.011	0.018	0.51	2.30	<0.02	<5	810	<0.5	25.0	<5	540	-	-	-	-	6.40	2,200
		MW24B	01-02-17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW24BR	25-08-17	0.003	-	<0.0001	<0.001	-	0.002	<0.05	<0.001	0.207	<0.0001	0.054	0.027	0.12	6.05	0.35	8	331	-	16.0	<1	302	243	16.9	14.8	6.49	6.25	774
		MW24BR	27-10-17	0.002	-	<0.0001	<0.001	-	0.002	<0.05	<0.001	0.052	<0.0001	0.004	0.014	0.05	21.4	0.89	5	621	-	29.0	<1	644	450	27.1	30.6	6.10	6.54	1,735
		MW24BR	18-01-18	0.002	-	<0.0001	<0.001	-	0.001	<0.05	<0.001	0.014	<0.0001	0.002	0.013	0.04	19.1	0.02	4	492	0.3	20.0	<1	468	424	23.2	22.2	2.21	6.92	1,554

Table 7
COPC Groundwater Analytical Results - 2008 to 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	Metals												Inorganis and Ions													Water Quality	
	Arsenic (filtered)	Barium (filtered)	Cadmium (filtered)	Chromium (III+VI) (filtered)	Cobalt (filtered)	Copper (filtered)	Iron (filtered)	Lead (filtered)	Manganese (filtered)	Mercury (filtered)	Nickel (filtered)	Zinc (filtered)	Ammonia as N	Nitrate (as N)	Nitrite (as N)	Calcium (filtered)	Chloride	Fluoride	Magnesium	Potassium (filtered)	Sodium (filtered)	Sulfate as SO4 - Turbidimetric (filtered)	Anions Total	Cations Total	Ionic Balance	pH	Total Dissolved Solids
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	units	mg/L
EQL	0.001	0.001	0.0001	0.001	0.001	0.001	0.05	0.001	0.001	0.0001	0.001	0.005	0.01	0.01	0.01	1	1	0.1	0.1	1	1	1	0.01	0.01	0.01	0.01	1
Potable Water Supply	0.01	2	0.002	0.05	0.0006[US]	2 / 1[A]	0.3[A]	0.01	0.5 / 0.1[A]	0.001	0.02	3[A]	0.5[A]	50[WR]	3[WR]		250[A]	1.5			180[A]	500 / 250[A]					
Primary Contact Recreation	0.1	20	0.02	0.5	0.006[US]	20 / 1[A]	0.3[A]	0.1	5 / 0.1[A]	0.01	0.2	3[A]	0.5[A]	112.87[R]	9.12[R]		250[A]	1.5			180[A]	5,000 / 250[A]					
Stock Watering	0.5	2	0.01	1	1	0.4	0.3[A]	0.1	0.5 / 0.1[A]	0.002	1	20	0.5[WR]	50[WR]	3[WR]		250[A]	2			180[A]	1,000					
Agriculture, Parks and Gardens	0.1		0.01	0.1	0.05	0.2	0.2	2	0.2	0.002	0.2	2						1									
Maintenance of Ecosystems	0.024[F]		0.0055		0.001	0.0013		0.0044		0.0004	0.07	0.015	0.91	2.4[N]	0.06[C]												
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																											
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																											
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																											
Derived Groundwater Risk Based Contminant Screening Level - Residential																											
Derived Groundwater Risk Based Contminant Screening Level - Commercial / Industrial																											

Well ID	Location	Field ID	Date																									
MW24C	Lot 2	MW24C-2	27-08-08	<0.005	-	<0.0001	<0.005	-	0.001	1.44	<0.001	-	0.0002	0.009	0.050	-	-	0.08	22	321	0.2	12.3	1.4	259	202	-	-	-	6.40	880
		MW24C-3	13-10-08	0.022	-	<0.002	0.009	-	0.007	9.98	<0.005	0.095	0.0001	0.006	0.016	-	-	-	6	470	-	18.1	2.1	469	180	21	23.0	-	6.20	1,600
		MW24C	11-12-09	0.029	0.026	<0.0001	0.007	0.007	0.001	8.16	<0.001	0.024	<0.0001	0.001	0.015	-	-	-	2	694	-	34.0	<1	698	295	32.1	33.2	1.74	-	2,180
		MW24C	25-03-10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW24C	28-02-13	0.118	-	<0.0001	<0.001	-	0.002	46.1	<0.001	0.078	<0.0001	<0.001	0.025	0.09	0.02	<0.01	20	731	0.3	40	1.0	692	445	38	36.9	1.54	6.45	2,590
		MW24C	03-02-14	0.041	-	<0.0002	0.003	-	<0.001	30	<0.001	0.056	<0.0001	<0.001	0.009	0.13	<0.02	<0.02	28	660	0.4	47	2.4	720	-	-	-	-	6.50	2,200
		MW24CR	25-08-17	0.011	-	<0.0001	<0.001	-	0.001	0.39	<0.001	0.110	<0.0001	0.103	0.017	0.05	-	-	12	925	-	33	<1	752	372	37.3	36	1.76	6.41	1,892
		MW24CR	27-10-17	0.008	-	<0.0001	<0.001	-	<0.001	<0.05	<0.001	0.045	<0.0001	0.003	0.010	0.04	-	-	5	806	-	25	<1	748	343	31.7	34.8	4.67	6.57	2,019
		MW24CR	17-01-18	0.050	-	<0.0001	<0.001	-	<0.001	4.75	<0.001	0.306	<0.0001	0.040	0.009	<0.01	0.04	0.02	3	769	0.6	26	<1	624	384	32.3	29.4	4.62	6.70	2,256
MW32	Lot 2	MW32	08-12-09	0.001	0.052	0.0006	<0.001	0.117	0.016	<0.05	0.002	0.441	<0.0001	0.031	0.170	-	116	0.03	11	2,120	<0.1	136	<1	1,420	356	68.3	73.5	3.63	5.97	5,000
		MW32	19-03-10	0.002	-	0.0021	<0.001	-	0.005	<0.05	0.002	0.356	<0.0001	0.031	0.051	-	80.8	0.02	9	1,860	<0.1	121	<1	1,370	345	66.4	70.1	2.64	6.00	4,720
		MW32	18-01-11	0.003	0.028	<0.0001	<0.001	0.064	0.004	-	0.044	0.247	<0.0001	0.020	0.123	<0.01	70.2	<0.01	8	1,540	<0.1	87	1.0	1,080	593	56.9	54.8	1.86	5.19	3,450
		MW32	28-02-13	0.008	-	0.0003	<0.001	-	0.006	<0.05	0.014	0.302	<0.0001	0.012	0.148	0.07	83.1	<0.01	9	1,350	<0.1	86	<1	960	286	45.0	49.3	4.57	5.60	3,200
		MW32	29-01-14	0.003	-	0.0007	<0.001	-	0.009	0.28	0.007	0.490	<0.0001	0.011	0.670	0.13	56	<0.02	13	1,100	<0.5	68	<5	700	-	-	-	-	6.10	2,500
		MW32	31-01-17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW32	24-08-17	0.004	0.024	0.0005	<0.001	0.028	0.009	<0.05	0.016	0.150	<0.0001	0.016	0.070	0.04	28.9	<0.01	4	938	-	49	<1	701	238	32.4	34.7	3.5	5.43	1,840
		MW32	26-10-17	0.002	-	0.0011	0.004	-	0.043	0.16	0.008	0.103	0.0003	0.013	0.139	0.04	13.3	0.01	13	65	-	6	26	36	30	3.68	3.37	4.3	5.81	270
		MW32	17-01-18	0.004	-	0.0005	0.002	-	0.005	0.22	0.004	0.146	<0.0001	0.006	0.061	0.23	27.2	0.02	10	391	0.2	20	22	287	125	14.4	15.2	2.7	6.09	1,255
MW33	Lot 3	MW33R	23-03-10	0.006	-	0.0001	<0.001	-	0.001	<0.05	<0.001	0.1	<0.0001	0.011	0.011	-	9.21	0.09	7	624	0.1	21	<1	553	256	25.3	26.2	1.74	6.39	1,420
		MW33R	19-01-11	0.005	0.017	<0.0001	<0.001	0.005	0.012	<0.05	0.002	0.076	<0.0001	0.012	0.046	0.3	8.34	0.05	2	493	<0.1	12	<1	386	155	19.4	17.9	3.85	5.32	1,370
		MW33R	26-02-13	0.006	-	<0.0001	<0.001	-	0.001	<0.05	0.001	0.072	<0.0001	0.006	0.022	0.03	7.78	0.05	4	497	0.3	16	<1	445	245	21.6	20.9	1.65	6.1	1,780
		MW33R	31-01-17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW33R	24-08-17	0.005	0.013	<0.0001	<0.001	0.004	0.002	<0.05	<0.001	0.068	<0.0001	0.021	0.013	<0.01	8.05	0.03	2	470	-	12	<1	422	258	21.3	19.4	4.53	5.91	988
		MW33R	24-10-17	0.004	0.010	<0.0001	<0.001	0.003	0.001	<0.05	<0.001	0.054	<0.0001	0.035	0.016	0.08	8.75	0.04	2	398	-	12	<1	387	238	18.9	17.9	2.71	5.74	945
		MW33R	16-01-18	0.004	-	<0.0001	<0.001	-	0.004	<0.05	<0.001	0.060	<0.0001	0.016	0.046	<0.01	8.93	0.04	2	331	0.1	11	<1	349	230	16	16.2	0.44	5.95	1,067
		MW33R	22-02-18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW33R	22-02-18	0.004	-	0.0001	<0.001	-	0.03	<0.05	0.01	0.055	<0.0001	0.046	0.101	0.02	10	0.06	2	363	-	11	<1	404	-	-	-	-	6.07	852
		MW33R	05-07-18	0.005	-	<0.0001	<0.001	-	<0.001	0.06	0.001	0.052	<0.0001	0.014	0.009	0.03	11.8	0.05	2	381	-	11	<1	345	-	-	-	-	5.96	956
MW35	Lot 2	MW35	11-12-09	0.002	0.040	0.0001	<0.001	0.012	0.006	<0.05	<0.001	0.123	<0.0001	0.025	0.080	-	18.9	0.10	18	978	0.1	60	2	631	235	34.8	33.4	2.10	6.03	2,580
		MW35	17-03-10	0.001	-	0.0002	<0.001	-	0.003	<0.05	0.001	0.093	0.0001	0.007	0.010	-	19.2	0.03	14	934	0.1	59	2	674	356	36	34.9	1.51	-	2,270
		MW35	18-01-11	0.001	0.028	<0.0001	<0.001	0.005	<0.001	-	<0.001	0.030	<0.0001	0.003	0.018	<0.01	24.0	<0.01	13	964	0.1	55	1	732	253	34.6	37	3.28	5.89	2,350
		MW35	27-02-13	0.004	-	<0.0001	<0.001	-	0.005	<0.05	0.002	0.022	<0.0001	0.005	0.146	0.07	24.2	<0.01	12	830	0.1	52	1	589	246	30.8	30.5	0.43	5.21	2,480
		MW35	30-01-14	0.001	-	<0.0002	<0.001	-	0.006	<0.05	<0.001	0.019	<0.0001	0.005	0.041	0.03	26	<0.02	12	840	<0.5	58	<5	630	-	-	-	-	6.50	2,100
		MW35	31-01-17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW35	22-08-17	0.002	-	<0.0001	<0.001	-	0.001	<0.05	<0.001	0.023	<0.0001	0.013	0.007	0.02	16.9	0.02	8	746	-	43	<1	579	354	31	29.1	3.17	6.00	1,541
		MW35	26-10-17	0.002	-	<0.0001	<0.001	-	0.001	<0.05	<0.001	0.033	<0.0001	0.007	0.018	0.12	13.7	0.03	10	653	-	36	3	568	271	26.6	28.2	3.04	6.19	1,378
		MW35	17-01-18	0.001	-	<0.0001	<0.001	-	0.028	<0.05	0.008	0.046	<0.0001	0.010	0.072	0.07	22	0.02	10	493	0.2	25	3	407	230	20.8	20.3	1.25	6.15	1,450

Table 7
COPC Groundwater Analytical Results - 2008 to 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	Metals												Inorganis and Ions													Water Quality	
	Arsenic (filtered)	Barium (filtered)	Cadmium (filtered)	Chromium (III+VI) (filtered)	Cobalt (filtered)	Copper (filtered)	Iron (filtered)	Lead (filtered)	Manganese (filtered)	Mercury (filtered)	Nickel (filtered)	Zinc (filtered)	Ammonia as N	Nitrate (as N)	Nitrite (as N)	Calcium (filtered)	Chloride	Fluoride	Magnesium	Potassium (filtered)	Sodium (filtered)	Sulfate as SO4 - Turbidimetric (filtered)	Anions Total	Cations Total	Ionic Balance	pH	Total Dissolved Solids
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	units	mg/L
EQL	0.001	0.001	0.0001	0.001	0.001	0.001	0.05	0.001	0.001	0.0001	0.001	0.005	0.01	0.01	0.01	1	1	0.1	0.1	1	1	1	0.01	0.01	0.01	0.01	1
Potable Water Supply	0.01	2	0.002	0.05	0.0006[US]	2 / 1[A]	0.3[A]	0.01	0.5 / 0.1[A]	0.001	0.02	3[A]	0.5[A]	50[WR]	3[WR]		250[A]	1.5			180[A]	500 / 250[A]						
Primary Contact Recreation	0.1	20	0.02	0.5	0.006[US]	20 / 1[A]	0.3[A]	0.1	5 / 0.1[A]	0.01	0.2	3[A]	0.5[A]	112.87[R]	9.12[R]		250[A]	1.5			180[A]	5,000 / 250[A]						
Stock Watering	0.5	2	0.01	1	1	0.4	0.3[A]	0.1	0.5 / 0.1[A]	0.002	1	20	0.5[WR]	50[WR]	3[WR]		250[A]	2			180[A]	1,000						
Agriculture, Parks and Gardens	0.1		0.01	0.1	0.05	0.2	0.2	2	0.2	0.002	0.2	2						1									
Maintenance of Ecosystems	0.024[F]		0.0055		0.001	0.0013		0.0044		0.0004	0.07	0.015	0.91	2.4[N]	0.06[C]												
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																											
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																											
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																											
Derived Groundwater Risk Based Contminant Screening Level - Residential																											
Derived Groundwater Risk Based Contminant Screening Level - Commercial / Industrial																											
Well ID	**Location**	**Field ID**	**Date**																									
MW37	Lot 1	MW37	04-12-09	0.002	-	<0.0001	<0.001	-	0.004	<0.05	0.004	0.117	<0.0001	0.020	0.020	-	25.5	0.03	8	1,600	0.2	84	2	971	233	53.8	49.6	4.09	6.06	3,140
		MW37	18-03-10	0.001	-	0.0003	<0.001	-	0.003	<0.05	0.023	0.096	0.0001	0.021	0.011	-	24.5	0.02	7	1,370	0.2	82	2	934	276	47.2	47.8	0.63	7.50	3,040
		MW37	19-01-11	0.003	0.065	<0.0001	<0.001	0.004	0.006	<0.05	0.024	0.020	<0.0001	0.006	0.056	0.15	17.5	0.01	21	981	<0.1	50	3	553	90	32.2	29.3	4.72	5.49	2,140
		MW37	25-02-13	0.003	-	<0.0001	<0.001	-	0.018	<0.05	0.031	0.032	<0.0001	0.030	0.110	0.11	19	0.02	13	1,060	0.2	57	5	717	208	38.5	36.7	2.49	5.55	2,400
		MW37	30-01-14	0.004	-	<0.0002	0.001	-	0.010	0.080	0.026	0.011	<0.0001	0.040	0.016	0.05	24	<0.02	11	1,000	<0.5	63	2.9	770	-	-	-	-	6.20	2,400
		MW37	31-01-17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW37	25-08-17	0.001	-	<0.0001	<0.001	-	0.004	<0.05	0.003	0.008	<0.0001	0.004	0.091	0.04	-	-	5	919	-	42	<1	728	225	33.9	35.4	2.09	5.85	2,033
		MW37	24-10-17	0.001	-	<0.0001	<0.001	-	0.026	<0.05	0.007	0.009	<0.0001	0.088	0.129	0.08	-	-	9	870	-	39	2	658	216	32	32.3	0.55	5.38	1,642
		MW37	16-01-18	0.001	-	0.0002	<0.001	-	0.014	<0.05	0.028	0.016	<0.0001	0.008	0.230	0.14	6.02	<0.01	56	126	<0.1	6	13	104	39	9.04	8.14	5.22	5.85	2,087
		MW37	15-08-18	0.002	-	<0.0001	<0.001	0.003	0.002	<0.05	0.003	0.008	<0.0001	0.034	0.042	0.06	13.1	<0.01	-	786	-	-	-	550	221	-	-	-	5.62	514
MW38	Lot 4 (on-site)	MW38	04-12-09	0.215	-	<0.0001	<0.001	-	0.002	30.8	<0.001	0.208	<0.0001	0.028	0.018	-	2.96	<0.01	17	714	0.2	42	22	430	84	25.10	23.50	3.30	6.80	1,540
		MW38	18-03-10	0.305	-	0.0001	<0.001	-	<0.001	27.1	0.002	0.104	<0.0001	0.018	0.012	-	1.34	0.03	15	440	0.2	31	28	309	30	15.9	17.4	4.65	6.70	1,180
		MW38	19-01-11	0.143	0.034	<0.0001	0.002	0.004	0.014	8.08	0.004	0.052	<0.0001	0.008	0.069	0.45	1.04	<0.01	14	165	<0.1	14	20	123	54	8.54	7.72	5.07	5.14	662
		MW38	26-02-13	0.234	-	<0.0001	<0.001	-	0.003	13.9	0.002	0.056	<0.0001	0.008	0.051	0.59	0.23	<0.01	13	142	0.1	14	26	111	25	7.96	7.29	4.40	5.40	2,080
		MW38	30-01-14	0.140	-	<0.0002	0.004	-	0.001	11	<0.001	0.032	<0.0001	0.004	0.012	0.76	0.47	0.06	16	170	<0.5	16	23	100	-	-	-	-	6.50	1,000
		MW38	30-01-17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW38	23-08-17	0.142	0.014	<0.0001	0.004	0.001	<0.001	6.98	<0.001	0.023	<0.0001	0.005	0.027	0.45	-	-	6	27	-	8	27	54	18	4.85	4.40	4.88	6.29	269
		MW38	23-10-17	0.135	0.014	<0.0001	0.004	<0.001	<0.001	7.51	<0.001	0.023	<0.0001	0.010	0.016	0.64	-	-	9	28	-	9	28	60	15	4.62	4.52	1.12	6.32	256
		MW38	15-01-18	0.018	-	<0.0001	0.004	-	0.010	0.92	0.017	0.023	<0.0001	0.005	0.040	0.03	0.55	0.02	15	19	0.2	6	21	38	13	3.88	3.43	6.17	6.31	263
		MW38	14-08-18	0.096	-	<0.0001	0.003	<0.001	0.002	4.83	0.004	0.028	<0.0001	0.013	0.065	0.44	0.14	<0.01	-	20	-	-	-	42	8	-	-	-	6.80	174
MW45A	Lot 1 (On-site)	MW45A	23-08-17	0.003	-	<0.0001	<0.001	-	<0.001	1.6	<0.001	0.146	<0.0001	0.008	0.016	8	369	-	25	<1	219	14	12	8	-	-	<0.01	81	6.26	676
		MW45A	26-10-17	0.001	-	<0.0001	<0.001	-	<0.001	1.5	<0.001	0.091	<0.0001	0.013	0.018	12	364	-	31	<1	246	14.2	13.8	1	-	-	0.04	85	6.05	676
		MW45A	17-01-18	<0.001	-	<0.0001	<0.001	-	0.001	1.0	<0.001	0.085	<0.0001	0.025	0.024	10	313	0.2	26	<1	199	12.4	11.3	5	1.85	0.04	0.04	75	5.99	790
		MW45a	15-08-18	0.002	-	<0.0001	<0.001	0.004	<0.001	0.66	<0.001	0.049	<0.0001	0.04	0.026	0.07	2.61	<0.01	-	328	-	-	-	177	61	-	-	-	6.15	761
MW45B	Lot 1 (On-site)	MW45B	23-08-17	0.005	-	<0.0001	0.002	-	0.002	<0.05	<0.001	<0.001	<0.0001	0.001	<0.005	42	576	-	<1	21	424	19.7	21.1	3	-	-	0.32	98	11.42	1,222
		MW45B	26-10-17	0.005	-	<0.0001	<0.001	-	<0.001	<0.05	<0.001	<0.001	<0.0001	0.001	<0.005	21	676	-	<1	16	526	22.6	24.3	4	-	-	0.33	107	11.01	1,455
		MW45B	17-01-18	0.004	-	<0.0001	<0.001	-	0.002	<0.05	<0.001	<0.001	<0.0001	0.001	<0.005	26	618	1.6	<1	20	413	20.2	19.8	1	0.42	0.30	0.21	93	10.94	1,523
		MW45b	15-08-18	0.004	-	<0.0001	0.001	0.001	0.003	0.07	0.001	0.013	<0.0001	0.002	0.097	0.22	0.01	0.05	-	768	-	-	-	418	101	-	-	-	10.65	1,703

Table 7
COPC Groundwater Analytical Results - 2008 to 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				Metals												Inorganis and Ions													Water Quality	
				Arsenic (filtered)	Barium (filtered)	Cadmium (filtered)	Chromium (III+VI) (filtered)	Cobalt (filtered)	Copper (filtered)	Iron (filtered)	Lead (filtered)	Manganese (filtered)	Mercury (filtered)	Nickel (filtered)	Zinc (filtered)	Ammonia as N	Nitrate (as N)	Nitrite (as N)	Calcium (filtered)	Chloride	Fluoride	Magnesium	Potassium (filtered)	Sodium (filtered)	Sulfate as SO4 - Turbidimetric (filtered)	Anions Total	Cations Total	Ionic Balance	pH	Total Dissolved Solids
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	units	mg/L
EQL				0.001	0.001	0.0001	0.001	0.001	0.001	0.05	0.001	0.001	0.0001	0.001	0.005	0.01	0.01	0.01	1	1	0.1	0.1	1	1	1	0.01	0.01	0.01	0.01	1
Potable Water Supply				0.01	2	0.002	0.05	0.0006[US]	2 / 1[A]	0.3[A]	0.01	0.5 / 0.1[A]	0.001	0.02	3[A]	0.5[A]	50[WR]	3[WR]		250[A]	1.5			180[A]	500 / 250[A]					
Primary Contact Recreation				0.1	20	0.02	0.5	0.006[US]	20 / 1[A]	0.3[A]	0.1	5 / 0.1[A]	0.01	0.2	3[A]	0.5[A]	112.87[R]	9.12[R]		250[A]	1.5			180[A]	5,000 / 250[A]					
Stock Watering				0.5	2	0.01	1	1	0.4	0.3[A]	0.1	0.5 / 0.1[A]	0.002	1	20	0.5[WR]	50[WR]	3[WR]		250[A]	2			180[A]	1,000					
Agriculture, Parks and Gardens				0.1		0.01	0.1	0.05	0.2	0.2	2	0.2	0.002	0.2	2						1									
Maintenance of Ecosystems				0.024[F]		0.0055		0.001	0.0013		0.0044		0.0004	0.07	0.015	0.91	2.4[N]	0.06[C]												
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																														
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																														
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Derived Groundwater Risk Based Contminant Screening Level - Residential																														
Derived Groundwater Risk Based Contminant Screening Level - Commercial / Industrial																														
Well ID	**Location**	**Field ID**	**Date**																											
MW50A	Lot 3	MW50A	25-08-17	0.002	0.028	<0.0001	<0.001	0.004	0.001	<0.05	<0.001	0.094	<0.0001	0.013	0.008	0.09	-	-	16	242	-	16	<1	189	95	11.8	10.3	6.62	6.86	540
		MW50A	27-10-17	<0.001	0.071	<0.0001	0.003	0.016	0.003	0.18	<0.001	0.160	<0.0001	0.106	0.035	0.08	-	-	21	742	-	40	<1	505	137	25.7	26.3	1.08	5.99	1,405
		MW50A	18-01-18	<0.001	-	0.0001	<0.001	-	0.003	<0.05	<0.001	0.067	<0.0001	0.066	0.044	0.39	1.90	0.23	143	1,620	0.1	80	4	834	212	53.2	50.1	2.97	6.21	1,605
		MW50A	15-05-18	<0.001	-	<0.0001	0.001	-	0.045	<0.05	0.003	0.04	<0.0001	0.09	0.098	0.04	1.69	0.03	15	745	-	39	<1	531	-	-	-	-	5.82	1,539
		MW50A	05-07-18	0.002	-	<0.0001	0.008	-	0.002	0.16	<0.001	0.034	0.0006	0.175	0.028	0.04	1.67	<0.01	13	816	-	42	<1	457	-	-	-	-	5.55	1,027
MW50B	Lot 3	MW50B	25-08-17	<0.001	0.024	<0.0001	<0.001	0.023	0.002	<0.05	<0.001	0.418	<0.0001	0.008	0.020	0.30	30.1	1.51	13	401	-	21	1	345	213	17.7	17.4	0.73	6.49	891
		MW50B	27-10-17	0.001	0.041	<0.0001	<0.001	0.027	0.002	<0.05	<0.001	0.582	<0.0001	0.017	0.027	0.29	72.6	2.59	28	705	-	43	2	720	338	34.7	36.3	2.22	6.12	1,830
		MW50B	18-01-18	0.001	-	<0.0001	<0.001	-	0.002	<0.05	<0.001	0.714	<0.0001	0.119	0.020	0.40	69.7	1.82	28	615	0.2	38	2	556	338	26.7	28.8	3.63	6.21	1,990
		MW50B	15-05-18	<0.001	-	0.0002	<0.001	-	0.117	<0.05	0.005	0.581	<0.0001	0.058	0.248	0.34	44.2	0.51	24	573	-	35	9	579	-	-	-	-	6.32	1,504
		MW50B	05-07-18	0.002	-	<0.0001	0.001	-	0.002	0.11	<0.001	0.745	<0.0001	0.063	0.062	0.19	60.8	0.62	23	697	-	40	6	553	-	-	-	-	6.27	1,677
MW50C	Lot 3	MW50C	25-08-17	0.002	0.042	<0.0001	<0.001	0.006	0.004	<0.05	<0.001	0.331	<0.0001	0.006	0.016	0.26	-	-	119	1,250	-	80	3	708	175	43.1	43.4	0.39	6.84	2,100
		MW50C	27-10-17	<0.001	0.032	<0.0001	<0.001	0.005	0.001	<0.05	<0.001	0.311	<0.0001	0.014	0.016	0.18	-	-	98	1,110	-	76	2	748	222	39.6	43.7	5	6.45	2,243
		MW50C	18-01-18	<0.001	-	<0.0001	<0.001	-	<0.001	<0.05	<0.001	0.384	<0.0001	0.046	0.012	0.16	35.1	0.61	108	1,060	0.2	71	3	635	197	36.5	38.9	3.25	6.52	2,502
		MW50C	15-05-18	0.003	-	<0.0001	0.006	-	0.01	<0.05	<0.001	0.062	<0.0001	0.018	0.053	0.2	31.1	0.03	111	1,020	-	64	8	684	-	-	-	-	7.32	2,242
		MW50C	05-07-18	0.001	-	<0.0001	<0.001	-	0.001	<0.05	<0.001	0.586	<0.0001	0.102	0.032	0.18	45	0.12	107	1,250	-	83	4	687	-	-	-	-	6.49	2,366
MW52	Off Site (21 Hamlet Street)	MW52	25-08-17	0.002	-	<0.0001	<0.001	-	0.002	<0.05	<0.001	0.242	<0.0001	0.009	0.018	0.03	-	-	1	386	-	13	<1	371	207	16.8	17.2	1.23	5.81	845
		MW52	24-10-17	0.002	-	<0.0001	<0.001	-	0.002	<0.05	<0.001	0.241	<0.0001	0.013	0.036	0.04	-	-	1	388	-	12	<1	332	209	16.9	15.5	4.32	5.79	822
		MW52	16-01-18	0.003	-	<0.0001	0.001	-	0.004	<0.05	<0.001	0.154	<0.0001	0.011	0.031	0.02	1.91	<0.01	1	256	0.2	9	2	255	193	13	11.9	4.12	5.82	637
		MW52	05-04-18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.64	988
		MW52	14-08-18	0.008	-	<0.0001	<0.001	0.01	0.004	0.11	0.002	0.166	<0.0001	0.052	0.08	0.05	2.03	<0.01	-	246	-	-	-	226	181	-	-	-	5.89	592
MW53	Off Site (19 Hamlet Street)	MW53	25-08-17	0.022	-	<0.0001	<0.001	-	<0.001	0.2	<0.001	0.014	<0.0001	0.005	<0.005	0.14	-	-	2	59	-	3	7	128	46	6.48	6.09	3.06	6.91	306
		MW53	23-10-17	0.004	-	<0.0001	<0.001	-	<0.001	<0.05	<0.001	0.020	<0.0001	0.001	<0.005	0.17	-	-	3	50	-	4	4	100	34	5.28	4.93	3.37	6.68	216
		MW53	16-01-18	0.007	-	<0.0001	0.001	-	0.004	0.1	<0.001	<0.001	<0.0001	0.003	0.016	0.04	0.12	<0.01	4	37	0.2	3	4	90	29	4.04	4.46	4.92	6.59	200
		MW53	05-04-18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.47	312
		MW53	14-08-18	0.005	-	<0.0001	<0.001	0.001	0.002	0.15	<0.001	0.032	<0.0001	0.011	0.044	0.03	0.02	<0.01	-	44	-	-	-	84	31	-	-	-	6.46	259

Table 7
COPC Groundwater Analytical Results - 2008 to 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

	Metals												Inorganis and Ions													Water Quality	
	Arsenic (filtered)	Barium (filtered)	Cadmium (filtered)	Chromium (III+VI) (filtered)	Cobalt (filtered)	Copper (filtered)	Iron (filtered)	Lead (filtered)	Manganese (filtered)	Mercury (filtered)	Nickel (filtered)	Zinc (filtered)	Ammonia as N	Nitrate (as N)	Nitrite (as N)	Calcium (filtered)	Chloride	Fluoride	Magnesium	Potassium (filtered)	Sodium (filtered)	Sulfate as SO4 - Turbidimetric (filtered)	Anions Total	Cations Total	Ionic Balance	pH	Total Dissolved Solids
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	units	mg/L
EQL	0.001	0.001	0.0001	0.001	0.001	0.001	0.05	0.001	0.001	0.0001	0.001	0.005	0.01	0.01	0.01	1	1	0.1	0.1	1	1	1	0.01	0.01	0.01	0.01	1
Potable Water Supply	0.01	2	0.002	0.05	0.0006[US]	2 / 1[A]	0.3[A]	0.01	0.5 / 0.1[A]	0.001	0.02	3[A]	0.5[A]	50[WR]	3[WR]		250[A]	1.5			180[A]	500 / 250[A]						
Primary Contact Recreation	0.1	20	0.02	0.5	0.006[US]	20 / 1[A]	0.3[A]	0.1	5 / 0.1[A]	0.01	0.2	3[A]	0.5[A]	112.87[N]	9.12[N]		250[A]	1.5			180[A]	5,000 / 250[A]						
Stock Watering	0.5	2	0.01	1	1	0.4	0.3[A]	0.1	0.5 / 0.1[A]	0.002	1	20	0.5[WR]	50[WR]	3[WR]		250[A]	2			180[A]	1,000						
Agriculture, Parks and Gardens	0.1		0.01	0.1	0.05	0.2	0.2	2	0.2	0.002	0.2	2						1									
Maintenance of Ecosystems	0.024[F]		0.0055		0.001	0.0013		0.0044		0.0004	0.07	0.015	0.91	2.4[N]	0.06[C]												
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																											
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																											
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																											
Derived Groundwater Risk Based Contminant Screening Level - Residential																											
Derived Groundwater Risk Based Contminant Screening Level - Commercial / Industrial																											

NOTES

Potable Water Supply / Primary Contact Recreation
Australian Drinking Water Guidelines 2015, Health

Stock Watering
ANZECC 2000 Livestock Drinking Water Low Risk Trigger Values
Potable Water Supply / Primary Contact Recreation guidance

Agriculture, Parks and Gardens
ANZECC 2000 Irrigation Long Term Trigger Values

Maintenance of Ecosystems
ANZECC 2000 Marine Water 95%
LR: ANZECC 2000 Low Reliability Guidelines
F : ANZECC 2000 Freshwater 95%

A: Australian Drinking Water Guidelines 2015, Aesthetics
C: CCME 2007 Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture – Freshwater
DI: Dutch 2000 Target and Intervention Values for Soil and Groundwater
N: NIWA 2014, Nitrate toxicity guidelines for the National Objectives Framework
NZ: New Zealand Ministry of Health 2008, Drinking Water Standards for New Zealand
US: USEPA 2018, Health Advisories for Drinking Water Contaminants
WH: World Health Organization 2011, WHO DWQG 4th Ed
WR: Environment Protection and Heritage Council 2008, Australian Guidelines for Water Recycling
Derived Groundwater Risk Based Contminant Screening Levels - EnRisks, 2017
D: Concentration reported in duplicate sample

Table 8
Natural Attenuation Groundwater Analytical Results - 2008 to 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				TCE	Naural Attenuation											Glycols						
				Trichloroethene	Ethane	Ethene	Ethanol	Ferric iron (filtered)	Ferrous iron	Methane	Nitrate (as N)	Nitrite (as N)	Sulfate as SO4 - Turbidimetric (filtered)	Sulphite as SO3-	Volatile Acids as Acetic Acid	2-butoxyethanol	2-Ethoxyethanol acetate	Diethylene glycol	Diethylene glycol, monobutyl ether	Ethylene glycol	Propylene glycol	Triethylene Glycol
				µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
EQL				1	10	10	50	0.05	0.05	0.01	0.01	0.01	1	2,000	5	2	2,000	2,000	2,000	2,000	2,000	2
Well ID	**Location**	**Field ID**	**Date**																			
MW3 (decommissioned)	Lot 1	MW3-1	15-07-08	<5	-	-	-	-	<0.5	-	-	0.02	426	-	-	-	-	-	-	-	-	-
		MW3-2	26-08-08	<5	-	-	-	<0.5	<0.5	-	-	0.03	524	-	-	-	-	-	-	-	-	-
		MW3	25-03-10	14	<10	<10	-	<0.05	<0.05	<10	8.86	0.02	523	-	-	-	-	-	-	-	-	-
		MW3	20-01-11	18	<10	<10	-	<0.05	<0.05	<10	6.6	<0.01	305	-	-	-	-	-	-	-	-	-
		MW3	27-02-13	<10	-	-	-	0.36	<0.05	<10	5.09	<0.01	207	-	-	-	-	-	-	-	-	-
MW4 (decommissioned)	Lot 1	MW4-1	15-07-08	<5	-	-	-	-	<0.5	-	-	0.01	56	-	-	-	-	-	-	-	-	-
		MW4-2	27-08-08	5	-	-	-	<0.5	2.5	-	-	0.01	52	-	-	-	-	-	-	-	-	-
		MW4	03-12-09	-	-	-	-	<0.05	0.06	<10	0.96	<0.01	51	-	-	-	-	-	-	-	-	-
		MW4	18-03-10	-	<10	<10	-	<0.05	0.09	<10	0.25	0.01	22	-	-	-	-	-	-	-	-	-
		MW4	20-01-11	-	<10	<10	-	<0.05	<0.05	<10	1.7	<0.01	88	-	-	-	-	-	-	-	-	-
MW9 (decommissioned)	Lot 4 (On-site)	MW9/2-1	17-07-08	<50		-	-	-	9.50	-	-	0.50	12	-	-	-	-	-	-	-	-	-
MW12 (decommissioned)	Lot 4 (On-site)	MW12/1-2	26-08-08	<50	-	-	-	<0.5	1.40	-	-	0.06	19	-	-	-	-	-	-	-	-	-
		MW12-1	17-07-08	<50	-	-	-	-	1.10	-	-	0.03	23	-	-	-	-	-	-	-	-	-
		MW12/1	09-12-09	-	-	-	-	0.06	0.21	<10	3.58	0.03	37	-	-	-	-	-	-	-	-	-
		MW12/1	25-03-10	<20	<10	<10	-	<0.05	0.22	<10	4.03	0.14	7	-	-	-	-	-	-	-	-	-
		MW12/1	21-01-11	<20	-	-	-	<0.05	0.05	<10	5.67	0.04	22	-	-	-	-	-	-	-	-	-
MW13 (decommissioned)	Lot 2	MW13/2-1	17-07-08	<50	-	-	-	<0.5	1.40	-	-	0.06	19	-	-	-	-	-	-	-	-	-
		MW13/2-2	25-08-08	<50	-	-	-	-	1.10	-	-	0.03	23	-	-	-	-	-	-	-	-	-
		MW13/2	10-12-09	-	-	-	-	0.06	0.21	<10	3.58	0.03	37	-	-	-	-	-	-	-	-	-
		MW13/2	24-03-10	<20	<10	<10	-	<0.05	0.22	<10	4.03	0.14	7	-	-	-	-	-	-	-	-	-
		MW13/2	20-01-11	<20	-	-	-	<0.05	0.05	<10	5.67	0.04	22	-	-	-	-	-	-	-	-	-
MW15 (decommissioned)	Lot 2	MW15/3-1	17-07-08	6,450	-	-	-	-	0.5	-	-	0.11	364	-	-	-	-	-	-	-	-	-
		MW15/3-2	25-08-08	874	-	-	-	<0.5	<0.5	-	-	-	352	-	-	-	-	-	-	-	-	-
		MW15/3	10-12-09	423,000	-	-	-	<0.05	0.07	<10	20.3	0.09	344	-	-	-	-	-	-	-	-	-
		MW15/3	24-03-10	15,200	<10	<10	-	0.11	<0.05	<10	20.9	0.12	429	-	-	-	-	-	-	-	-	-
		MW15/3	21-01-11	11,000	-	-	-	<0.05	<0.05	<10	29.5	0.32	498	-	-	-	-	-	-	-	-	-
MW16 (decommissioned)	Lot 3	MW16/1-1	18-07-08	9	-	-	-	-	<0.5	-	-	0.03	293	-	-	-	-	-	-	-	-	-
		MW16/1-2	27-08-08	12	-	-	-	<0.5	<0.5	-	-	0.02	316	-	-	-	-	-	-	-	-	-
		MW16/1	11-12-09	11	-	-	-	<0.05	<0.05	<10	14.8	<0.01	309	-	-	-	-	-	-	-	-	-
		MW16/1	23-03-10	11	<10	<10	-	<0.05	<0.05	<10	13.8	0.02	284	-	-	-	-	-	-	-	-	-
		MW16/1	21-01-11	11	-	-	-	<0.05	<0.05	<10	14.2	<0.01	566	-	-	-	-	-	-	-	-	-
MW17 (decommissioned)	Lot 3	MW17/1-1	18-07-08	<5	-	-	-	-	2.9	-	-	0.01	161	-	-	-	-	-	-	-	-	-
		MW17/1-2	27-08-08	<5	-	-	-	<0.5	2.8	-	-	<0.01	180	-	-	-	-	-	-	-	-	-
		MW17/2-3	14-10-08	<5	-	-	-	4.3	1.9	-	-	0.01	165	-	-	-	-	-	-	-	-	-
		MW17/1	11-12-09	-	-	-	-	<0.05	1.84	27	0.07	<0.01	176	-	-	-	-	-	-	-	-	-
		MW17/1	24-03-10	-	<10	<10	-	<0.05	1.98	28	<0.01	<0.01	153	-	-	-	-	-	-	-	-	-
		MW17/1	24-01-11	-	-	-	-	<0.05	3.29	39	-	-	82	-	-	-	-	-	-	-	-	-
BMW1	Lot 4 (On-site)	BMW1	24-08-17	1	-	-	<50	-	-	-	-	-	317	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		BMW1	24-10-17	275	-	-	<50	-	-	-	-	-	332	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		BMW1	17-01-18	186	<10	<10	<50	<0.05	<0.05	<0.01	33.10	<0.01	323	<2,000	24	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
BMW2	Lot 4 (On-site)	BMW2	24-08-17	6	-	-	<50	-	-	-	-	-	262	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		BMW2	24-10-17	330	-	-	<50	-	-	-	-	-	327	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		BMW2	17-01-18	156	<10	<10	<50	<0.05	<0.05	<0.01	21.50	<0.01	329	<2,000	19	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2

Table 8
Natural Attenuation Groundwater Analytical Results - 2008 to 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				TCE	Naural Attenuation											Glycols						
				Trichloroethene	Ethane	Ethene	Ethanol	Ferric iron (filtered)	Ferrous iron	Methane	Nitrate (as N)	Nitrite (as N)	Sulfate as SO4 - Turbidimetric (filtered)	Sulphite as SO3-	Volatile Acids as Acetic Acid	2-butoxyethanol	2-Ethoxyethanol acetate	Diethylene glycol	Diethylene glycol, monobutyl ether	Ethylene glycol	Propylene glycol	Triethylene Glycol
				µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
EQL				1	10	10	50	0.05	0.05	0.01	0.01	0.01	1	2,000	5	2	2,000	2,000	2,000	2,000	2,000	2
Well ID	**Location**	**Field ID**	**Date**																			
CMW1	Lot 3	CMW1	24-08-17	<1	-	-	<50	-	-	-	-	-	484	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		CMW1	23-10-17	8	-	-	<50	-	-	-	-	-	490	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		CMW1	16-01-18	14	<10	<10	<50	<0.05	<0.05	<0.01	15.70	<0.01	490	-	32	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		CMW1	15-05-18	11	-	-	-	-	-	-	15.50	0.03	-	-	-	-	-	-	-	-	-	-
		CMW1	05-07-18	9	-	-	-	-	-	-	17.50	<0.01	-	-	-	-	-	-	-	-	-	-
MW2A	Lot 3	MW2A	15-05-18	105	-	-	-	0.08	0.08	<0.01	0.06	0.02	187	-	-	-	-	-	-	-	-	-
		MW2A	04-07-18	70	-	-	-	1.69	0.18	<0.01	0.08	<0.01	180	-	-	-	-	-	-	-	-	-
		MW2A	03-10-18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW17B	Lot 3	MW17B	05-06-18	2	-	-	-	-	<0.05	0.108	<0.01	<0.01	11	-	-	-	-	-	-	-	-	-
		MW17B	04-07-18	<1	-	-	-	<0.05	<0.05	0.016	0.02	<0.01	12	-	-	-	-	-	-	-	-	-
		MW17B	03-10-18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW21	Lot 1	MW21-1	15-07-08	250	-	-	-	-	<0.5	-	-	0.03	166	-	-	-	-	-	-	-	-	-
		MW21-2	26-08-08	71	-	-	-	<0.5	<0.5	-	-	0.01	194	-	-	-	-	-	-	-	-	-
		MW21	07-12-09	585	-	-	-	<0.05	<0.05	<10	5.54	<0.01	154	-	-	-	-	-	-	-	-	-
		MW21	24-03-10	679	<10	<10	-	<0.05	<0.05	<10	5.12	0.02	243	-	-	-	-	-	-	-	-	-
		MW21	19-01-11	518	-	-	-	<0.05	<0.05	<10	4.90	<0.01	135	-	-	-	-	-	-	-	-	-
		MW21	26-02-13	255	-	-	-	<0.05	<0.05	<10	3.88	<0.01	170	-	-	-	-	-	-	-	-	-
		MW21	31-01-14	220	-	-	-	<0.05	<0.05	<50	4.00	<0.02	-	-	-	-	-	-	-	-	-	-
		MW21	31-01-17	102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW21	23-08-17	98	-	-	-	-	-	-	-	-	162	-	-	-	-	-	-	-	-	-
		MW21	24-10-17	93	-	-	-	-	-	-	-	-	169	-	-	-	-	-	-	-	-	-
		MW21	16-01-18	101	<10	<10	<50	0.13	<0.05	<0.01	2.39	<0.01	187	-	64	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW21	15-08-18	41	-	-	-	-	-	0.55	2.24	0.03	120	-	-	-	-	-	-	-	-	-
MW22	Lot 2	MW22-1	16-07-08	64	-	-	-	-	<0.5	-	-	0.03	192	-	-	-	-	-	-	-	-	-
		MW22-2	26-08-08	8	-	-	-	<0.5	<0.5	-	-	0.02	248	-	-	-	-	-	-	-	-	-
		MW22	09-12-09	72	-	-	-	0.05	<0.1	<10	51.5	<0.01	15	-	-	-	-	-	-	-	-	-
		MW22	22-03-10	94	<10	<10	-	<0.05	<0.05	<10	53.4	0.02	321	-	-	-	-	-	-	-	-	-
		MW22	18-01-11	81	-	-	-	<0.05	0.05	<10	43.4	0.02	285	-	-	-	-	-	-	-	-	-
		MW22	28-02-13	56	-	-	-	0.64	0.18	<10	25.3	0.02	162	-	-	-	-	-	-	-	-	-
		MW22	30-01-14	82	-	-	-	<0.05	<0.05	<50	48.0	<0.02	-	-	110	-	-	-	-	-	-	-
		MW22	30-01-17	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW22	24-08-17	10	-	-	<50	-	-	-	-	-	15	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW22	24-10-17	3,510	-	-	-	-	-	-	-	-	350	-	-	-	-	-	-	-	-	-
		MW22	17-01-18	2,510	<10	<10	<50	0.12	<0.05	<0.01	52.3	<0.01	399	<2,000	14	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW22	15-08-18	2980	-	-	-	-	-	0.55	31.7	<0.01	218	-	-	-	-	-	-	-	-	-

Table 8
Natural Attenuation Groundwater Analytical Results - 2008 to 2018
Detailed Site Investigation
Lot 4, 20 Hamlet Street, Cheltenham
1707054

				TCE	Naural Attenuation											Glycols						
				Trichloroethene	Ethane	Ethene	Ethanol	Ferric iron (filtered)	Ferrous iron	Methane	Nitrate (as N)	Nitrite (as N)	Sulfate as SO4 - Turbidimetric (filtered)	Sulphite as SO3-	Volatile Acids as Acetic Acid	2-butoxyethanol	2-Ethoxyethanol acetate	Diethylene glycol	Diethylene glycol, monobutyl ether	Ethylene glycol	Propylene glycol	Triethylene Glycol
				µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
EQL				1	10	10	50	0.05	0.05	0.01	0.01	0.01	1	2,000	5	2	2,000	2,000	2,000	2,000	2,000	2
Well ID	**Location**	**Field ID**	**Date**																			
MW23	Lot 3	MW23-1	17-07-08	<5	-	-	-	-	<0.5	-	-	0.23	126	-	-	-	-	-	-	-	-	-
		MW23-2	27-08-08	<5	-	-	-	<0.5	<0.5	-	-	0.18	146	-	-	-	-	-	-	-	-	-
		MW23	09-12-09	<5	-	-	-	0.13	<0.1	51	2.44	0.2	<1	-	-	-	-	-	-	-	-	-
		MW23	24-03-10	42	<10	<10	-	0.21	<0.05	69	1.85	0.16	133	-	-	-	-	-	-	-	-	-
		MW23	19-01-11	<5	-	-	-	<0.05	<0.05	<10	1.74	0.52	168	-	-	-	-	-	-	-	-	-
		MW23	27-02-13	<5	-	-	-	0.19	<0.05	34	3.61	0.11	120	-	-	-	-	-	-	-	-	-
		MW23	31-01-14	<1	-	-	-	<0.05	<0.05	<50	4.9	0.06	-	-	-	-	-	-	-	-	-	-
		MW23	30-01-17	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW23	23-08-17	<1	-	-	<50	-	-	-	-	-	143	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW23	23-10-17	<1	-	-	<50	-	-	-	-	-	149	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW23	16-01-18	<1	<10	<10	<50	0.16	<0.05	<0.01	-	-	-	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW23A	15-05-18	<1	-	-	-	0.14	<0.05	<0.01	2.97	0.05	182	-	-	-	-	-	-	-	-	-
		MW23A	15-05-18	<1	-	-	-	0.24	<0.05	0.02	3.54	0.02	156	-	-	-	-	-	-	-	-	-
		MW23A	03-10-18			-	-		-	-	-		-	-	-		-	-	-	-	-	-
MW24A	Lot 2	MW24A-2	27-08-08	203	-	-	-	<0.5	<0.5	-	-	0.08	183	-	-	-	-	-	-	-	-	-
		MW24A-3	14-10-08	2,200	-	-	-	<0.5	<0.5	-	-	0.06	185	-	-	-	-	-	-	-	-	-
		MW24A	10-12-09	3,040	-	-	-	<0.05	<0.05	<10	7.67	0.06	173	-	-	-	-	-	-	-	-	-
		MW24A	23-03-10	4,830	<10	<10	-	<0.05	<0.05	<10	7.98	0.05	174	-	-	-	-	-	-	-	-	-
		MW24A	18-01-11	7,510	-	-	-	<0.05	<0.05	<10	10.70	0.03	152	-	-	-	-	-	-	-	-	-
		MW24A	28-02-13	3,240	-	-	-	<0.05	<0.05	<10	8.84	0.04	184	-	-	-	-	-	-	-	-	-
		MW24A	29-01-14	6,300	-	-	-	<0.05	<0.05	<50	19.00	<0.02	-	-	-	-	-	-	-	-	-	-
		MW24A	31-01-17	5,320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW24AR	25-08-17	11,300	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-
		MW24AR	27-10-17	8,310	-	-	-	-	-	-	-	-	243	-	-	-	-	-	-	-	-	-
		MW24AR	18-01-18	8,910	<10	<10	<50	<0.05	<0.05	<0.01	14.10	<0.01	151	<2,000	39	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
MW24B	Lot 2	MW24B-2	27-08-08	84,800	-	-	-	<0.5	<0.5	-	-	0.27	312	-	-	-	-	-	-	-	-	-
		MW24B-3	14-10-08	97,300	-	-	-	<0.5	<0.5	-	-	0.24	395	-	-	-	-	-	-	-	-	-
		MW24B	10-12-09	73,800	-	-	-	6.24	2.07	<10	8.2	0.19	358	-	-	-	-	-	-	-	-	-
		MW24B	24-03-10	142,000	<10	<10	-	5.52	0.23	<10	30.2	0.43	471	-	-	-	-	-	-	-	-	-
		MW24B	18-01-11	42,500	-	-	-	5.46	0.13	<10	12.9	0.55	635	-	-	-	-	-	-	-	-	-
		MW24B	28-02-13	47,200	-	-	-	<0.05	23.40	<10	1.58	0.08	297	-	-	-	-	-	-	-	-	-
		MW24B	29-01-14	40,000	-	-	-	1.00	19.00	<50	2.3	<0.02	-	-	-	-	-	-	-	-	-	-
		MW24B	01-02-17	23,600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW24BR	25-08-17	25,300	<10	<10	<50	<0.05	<0.05	<0.01	6.05	0.35	243	-	37	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW24BR	27-10-17	4,630	<10	<10	<50	<0.05	<0.05	<0.01	21.4	0.89	450	-	15	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW24BR	18-01-18	2,230	<10	<10	<50	<0.05	<0.05	<0.01	19.1	0.02	424	<2,000	15	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
MW24C	Lot 2	MW24C-2	27-08-08	48,000	-	-	-	<0.5	36.30	-	-	0.08	202	-	-	-	-	-	-	-	-	-
		MW24C-3	13-10-08	-	-	-	-	0.30	9.60	3	-	-	180	-	-	-	-	-	-	-	-	-
		MW24C	10-12-09	124,000	-	-	-	6.56	1.60	<10	-	-	295	-	-	-	-	-	-	-	-	-
		MW24C	25-03-10	132,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW24C	28-02-13	28,600	-	-	-	<0.05	57.90	<10	0.02	<0.01	445	-	-	-	-	-	-	-	-	-
		MW24C	03-02-14	50,000	-	-	-	5.00	25.00	<50	<0.02	<0.02	-	-	220	-	-	-	-	-	-	-
		MW24CR	25-08-17	39,800	-	-	-	-	-	-	-	-	372	-	-	-	-	-	-	-	-	-
		MW24CR	27-10-17	110	-	-	-	-	-	-	-	-	343	-	-	-	-	-	-	-	-	-
		MW24CR	17-01-18	35	<10	<10	131	2.26	2.49	<0.01	0.04	0.02	384	<2,000	94	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2

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Lot 4, 20 Hamlet Street, Cheltenham
1707054

				TCE	Naural Attenuation											Glycols						
				Trichloroethene	Ethane	Ethene	Ethanol	Ferric iron (filtered)	Ferrous iron	Methane	Nitrate (as N)	Nitrite (as N)	Sulfate as SO4 - Turbidimetric (Filtered)	Sulphite as SO3-	Volatile Acids as Acetic Acid	2-butoxyethanol	2-Ethoxyethanol acetate	Diethylene glycol	Diethylene glycol, monobutyl ether	Ethylene glycol	Propylene glycol	Triethylene Glycol
				µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
EQL				1	10	10	50	0.05	0.05	0.01	0.01	0.01	1	2,000	5	2	2,000	2,000	2,000	2,000	2,000	2
Well ID	**Location**	**Field ID**	**Date**																			
MW32	Lot 2	MW32	08-12-09	323	-	-	-	<0.05	0.10	<10	116.0	0.03	356	-	-	-	-	-	-	-	-	-
		MW32	19-03-10	418	<10	<10	-	<0.05	0.05	12	80.8	0.02	345	-	-	-	-	-	-	-	-	-
		MW32	18-01-11	732	-	-	-	<0.05	<0.05	<10	70.2	<0.01	593	-	-	-	-	-	-	-	-	-
		MW32	28-02-13	538	-	-	-	<0.05	0.10	11	83.1	<0.01	286	-	-	-	-	-	-	-	-	-
		MW32	29-01-14	340	-	-	-	<0.05	0.28	<50	56.0	<0.02	-	-	9	-	-	-	-	-	-	-
		MW32	31-01-17	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW32	24-08-17	304	<10	<10	<50	<0.05	<0.05	<0.01	28.9	<0.01	238	-	28	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW32	26-10-17	356	<10	<10	<50	-	-	<0.01	13.3	0.01	30	-	12	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW32	17-01-18	960	<10	<10	<50	<0.05	0.20	<0.01	27.2	0.02	125	<2,000	24	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
MW33	Lot 3	MW33	23-03-10	23	<10	<10	-	<0.05	<0.05	<10	9.21	0.09	256	-	-	-	-	-	-	-	-	-
		MW33	19-01-11	31	-	-	-	<0.05	<0.05	<10	8.34	0.05	155	-	-	-	-	-	-	-	-	-
		MW33	26-02-13	40	-	-	-	<0.05	<0.05	<10	7.78	0.05	245	-	-	-	-	-	-	-	-	-
		MW33	31-01-17	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW33R	24-08-17	85	<10	<10	<50	<0.05	<0.05	<0.01	8.05	0.03	258	-	37	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW33R	24-10-17	75	<10	<10	<50	<0.05	<0.05	0.01	8.75	0.04	238	-	32	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW33R	16-01-18	120	<10	<10	<50	<0.05	<0.05	<0.01	8.93	0.04	230	-	50	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW33R	22-02-18	91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW33R	15-05-18	123	-	-	-	-	-	-	10.00	0.06	-	-	-	-	-	-	-	-	-	-
		MW33R	05-07-18	115	-	-	-	-	-	-	11.80	0.05	-	-	-	-	-	-	-	-	-	-
MW35	Lot 2	MW35	11-12-09	945	-	-	-	<0.05	<0.05	<10	18.9	0.10	235	-	-	-	-	-	-	-	-	-
		MW35	17-03-10	1,140	<10	<10	-	<0.05	<0.05	<10	19.2	0.03	356	-	-	-	-	-	-	-	-	-
		MW35	18-01-11	3,640	-	-	-	<0.05	<0.05	<10	24.0	<0.01	253	-	-	-	-	-	-	-	-	-
		MW35	27-02-13	4,470	-	-	-	<0.05	<0.05	<10	24.2	<0.01	246	-	-	-	-	-	-	-	-	-
		MW35	30-01-14	8,200	-	-	-	<0.05	<0.05	<50	26.0	<0.02	-	-	18	-	-	-	-	-	-	-
		MW35	31-01-17	14,600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW35	22-08-17	24,600	<10	<10	<50	<0.05	<0.05	<0.01	16.9	0.02	354	-	37	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW35	26-10-17	14,600	<10	<10	<50	<0.05	<0.05	<0.01	13.7	0.03	271	-	34	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW35	17-01-18	8,640	<10	<10	<50	<0.05	<0.05	<0.01	22.0	0.02	230	<2,000	24	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
MW37	Lot 1 (On-site)	MW37	04-12-09	<5	-	-	-	<0.05	<0.05	<10	25.5	0.03	233	-	-	-	-	-	-	-	-	-
		MW37	18-03-10	8	<10	<10	-	<0.05	<0.05	<10	24.5	0.02	276	-	-	-	-	-	-	-	-	-
		MW37	19-01-11	<5	-	-	-	<0.05	<0.05	<10	17.5	0.01	90	-	-	-	-	-	-	-	-	-
		MW37	25-02-13	<5	-	-	-	<0.05	<0.05	<10	19.0	0.02	208	-	-	-	-	-	-	-	-	-
		MW37	30-01-14	5	-	-	-	<0.05	0.07	<50	24.0	<0.02	-	-	-	-	-	-	-	-	-	-
		MW37	31-01-17	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW37	25-08-17	5	-	-	-	-	-	-	-	-	225	-	-	-	-	-	-	-	-	-
		MW37	24-10-17	4	-	-	-	-	-	-	-	-	216	-	-	-	-	-	-	-	-	-
		MW37	16-01-18	1	<10	<10	<50	<0.05	<0.05	<0.01	6.02	<0.01	39	-	60	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW37	15-08-18	3	-	-	-	-	-	0.55	13.1	<0.01	221	-	-	-	-	-	-	-	-	-

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1707054

				TCE	Naural Attenuation											Glycols						
				Trichloroethene	Ethane	Ethene	Ethanol	Ferric iron (filtered)	Ferrous iron	Methane	Nitrate (as N)	Nitrite (as N)	Sulfate as SO4 - Turbidimetric (filtered)	Sulphite as SO3-	Volatile Acids as Acetic Acid	2-butoxyethanol	2-Ethoxyethanol acetate	Diethylene glycol	Diethylene glycol, monobutyl ether	Ethylene glycol	Propylene glycol	Triethylene Glycol
				µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
EQL				1	10	10	50	0.05	0.05	0.01	0.01	0.01	1	2,000	5	2	2,000	2,000	2,000	2,000	2,000	2
Well ID	**Location**	**Field ID**	**Date**																			
MW38	Lot 4	MW38	04-12-09	13	-	-	-	0.22	30.6	150	2.96	<0.01	84	-	-	-	-	-	-	-	-	-
		MW38	18-03-10	10	<10	<10	-	<0.05	27.3	168	1.34	0.03	30	-	-	-	-	-	-	-	-	-
		MW38	19-01-11	<5	-	-	-	<0.05	8.08	<10	1.04	<0.01	54	-	-	-	-	-	-	-	-	-
		MW38	26-02-13	<5	-	-	-	<0.05	14.0	71	0.23	<0.01	25	-	-	-	-	-	-	-	-	-
		MW38	30-01-14	3	-	-	-	<0.05	11.0	220	0.47	0.06	-	-	-	-	-	-	-	-	-	-
		MW38	30-01-17	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW38	23-08-17	<1	-	-	<50	-	-	-	-	-	18	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW38	23-10-17	<1	-	-	<50	-	-	-	-	-	15	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW38	15-01-18	<1	<10	<10	<50	0.82	0.10	0.09	0.55	0.02	13	-	32	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW38	15-08-18	<1	-	-	-	-	-	0.55	0.14	<0.01	8	-	-	-	-	-	-	-	-	-
MW45A	Lot 1 (On-site)	MW45A	23-08-17	273	-	-	-	-	-	-	-	-	81	-	-	-	-	-	-	-	-	-
		MW45A	26-10-17	273	-	-	-	-	-	-	-	-	85	-	-	-	-	-	-	-	-	-
		MW45A	17-01-18	264	<10	<10	<50	0.08	0.94	<0.01	1.85	0.04	75	<2,000	27	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW45A	15-08-18	254	-	-	-	-	-	0.55	2.61	<0.01	61	-	-	-	-	-	-	-	-	-
MW45B	Lot 1 (On-site)	MW45B	23-08-17	65	-	-	-	-	-	-	-	-	98	-	-	-	-	-	-	-	-	-
		MW45B	26-10-17	79	-	-	-	-	-	-	-	-	107	-	-	-	-	-	-	-	-	-
		MW45B	17-01-18	55	<10	<10	<50	<0.05	<0.05	<0.01	0.42	0.30	93	<2,000	12	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW45B	15-08-18	57	-	-	-	-	-	0.55	0.01	0.05	101	-	-	-	-	-	-	-	-	-
MW50A	Lot 3	MW50A	25-08-17	916	-	-	<50	-	-	-	-	-	95	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW50A	27-10-17	817	-	-	<50	-	-	-	-	-	137	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW50A	18-01-18	760	<10	<10	<50	<0.05	<0.05	<0.01	1.90	0.23	212	<2,000	44	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW50A	15-05-18	814	-	-	-	-	-	-	1.69	0.03	-	-	-	-	-	-	-	-	-	-
		MW50A	05-07-18	792	-	-	-	-	-	-	1.67	<0.01	-	-	-	-	-	-	-	-	-	-
MW50B	Lot 3	MW50B	25-08-17	37,700	<10	<10	<50	<0.05	<0.05	<0.01	30.10	1.51	213	-	26	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW50B	27-10-17	77,200	<10	<10	<50	<0.05	<0.05	<0.01	72.60	2.59	338	-	69	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW50B	18-01-18	56,700	<10	<10	<50	<0.05	<0.05	<0.01	69.70	1.82	338	<2,000	34	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW50B	15-05-18	37,500	-	-	-	-	-	-	44.20	0.51	-	-	-	-	-	-	-	-	-	-
		MW50B	05-07-18	23,800	-	-	-	-	-	-	60.80	0.62	-	-	-	-	-	-	-	-	-	-
MW50C	Lot 3	MW50C	25-08-17	12,700	-	-	<50	-	-	-	-	-	175	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW50C	27-10-17	33,000	-	-	<50	-	-	-	-	-	222	-	-	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW50C	18-01-18	36,900	<10	<10	<50	<0.05	<0.05	<0.01	35.10	0.61	197	<2,000	43	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW50C	15-05-18	13,100	-	-	-	-	-	-	31.10	0.03	-	-	-	-	-	-	-	-	-	-
		MW50C	05-07-18	40,600	-	-	-	-	-	-	45.00	0.12	-	-	-	-	-	-	-	-	-	-
MW52	Off Site (21 Hamlet Street)	MW52	23-08-17	7	-	-	-	-	-	-	-	-	207	-	-	-	-	-	-	-	-	-
		MW52	24-10-17	6	-	-	-	-	-	-	-	-	209	-	-	-	-	-	-	-	-	-
		MW52	16-01-18	5	<10	<10	<50	<0.05	<0.05	<0.01	1.91	<0.01	193	-	28	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW52	05-04-18	8.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW52	15-08-18	7	-	-	-	-	-	0.55	2.03	<0.01	181	-	-	-	-	-	-	-	-	-
MW53	Off Site (19 Hamlet Street)	MW53	22-08-17	7	-	-	-	-	-	-	-	-	46	-	-	-	-	-	-	-	-	-
		MW53	23-10-17	2	-	-	-	-	-	-	-	-	34	-	-	-	-	-	-	-	-	-
		MW53	16-01-18	3	<10	<10	<50	0.09	<0.05	<0.01	0.12	<0.01	29	-	36	<2	<2,000	<2,000	<2,000	<2,000	<2,000	<2
		MW53	05-04-18	3.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MW53	15-08-18	3	-	-	-	-	-	0.55	0.02	<0.01	31	-	-	-	-	-	-	-	-	-

Table G2 Groundwater Results (GHD 2008-2014)

Appendix A -
Table 2
Groundwater Analytical Results

			Inorganics				Water Quality				Metals																		
			Alkyl chloride	Volatile Fatty Acids	Bromide	Cyanide (Total)	pH (Lab)	Electrical conductivity (lab)	Hardness	Total Dissolved Solids	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (III+VI)	Cobalt	Copper	Ferric Iron	Ferrous Iron	Iron	Lead	Manganese	Mercury	Nickel	Vanadium	Zinc
			µg/L	µg/L	mg/L	µg/L	pH Units	µS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL			1	5000	0.5	4	0.01	1	1	1	0.001	0.001	0.001	0.001	0.05	0.0001	0.001	0.001	0.001	0.05	0.05	0.01	0.001	0.001	0.0001	0.001	0.01	0.001
ANZECC 2000 FW 95%						**7**						**0.013**			**0.37**	**0.0002**	**0.001**		**0.0014**				**0.0034**	**1.9**	**0.0006**	**0.011**		**0.008**
ANZECC 2000 Irrigation - Short-term Trigger Values												**2**		**0.5**	**0.5**	**0.05**	**1**	**0.1**	**5**			**10**	**10**	**10**	**0.002**	**2**	**0.5**	**5**
ANZECC 2000 Stock Watering										**4000**		**0.5**			**5**	**0.01**	**1**	**1**	**0.5**				**0.1**		**0.002**	**1**		**20**
NEPM 2013 Table 1C GILs, Drinking Water						**80**					**0.003**	**0.01**	**2**	**0.06**	**4**	**0.002**			**2**				**0.01**	**0.5**	**0.001**	**0.02**		
Location Code	**Field ID**	**Sampled Date**																											
MW3	MW3-1	15/07/2008	-	-	<0.5	-	6.4	12,480	1430	**8050**	-	<0.02	-	-	-	**0.0366**	**0.02**	-	**0.016**	-	<0.5	-	**0.019**	**0.575**	0.0006	**0.084**	-	**0.06**
	MW3-2	26/08/2008	-	-	<0.5	-	6.3	-	1740	**9820**	-	<0.01	-	-	-	**0.0267**	<0.005	-	**0.023**	<0.5	<0.5	0.09	<0.001	-	0.0002	**0.134**	-	**0.044**
	MW3	25/03/2010	-	-	-	<4	6.4	-	-	**8000**	-	0.003			<0.05	**0.0169**	<0.001		**0.005**	<0.05	<0.05	<0.05	<0.001	0.153	0.0003	0.008	-	**0.473**
	MW3	20/01/2011	-	-	-	<4	6.22	-	-	3700	-	0.001	0.03	<0.001	<0.05	**0.0051**	<0.001	0.002	**0.005**	<0.05	<0.05	<0.05	<0.001	0.066	<0.0001	0.008	<0.01	**0.035**
	MW3	27/02/2013	-	-	-	<4	5.7	-	-	2740	-	0.01	-	-	0.09	**0.0064**	<0.001	-	**0.026**	0.36	<0.05	0.36	0.001	0.051	0.0002	**0.016**		**0.363**
MW4	MW4-1	15/07/2008	-	-	1.1	-	6.8	1111	68	670	-	<0.01	-	-	-	<0.0001	<0.005	-	**0.071**	-	<0.5	-	<0.001	0.022	0.0001	**0.031**	-	**0.166**
	MW4-2	27/08/2008	-	-	1.2	-	7.4	-	86	630	-	<0.005	-	-	-	<0.0001	<0.005	-	<0.01	<0.5	2.5	0.09	<0.001	-	<0.0001	0.004	-	**0.047**
	MW4	3/12/2009	-	-	-	-	6.93	-	-	798	-	0.002	-	-	0.05	<0.0001	<0.001	-	**0.009**	<0.05	0.06	<0.05	<0.001	<0.001	<0.0001	0.004	-	**0.066**
	MW4	18/03/2010	-	-	-	-	7.35	-	-	254	-	**0.015**	-	-	<0.05	0.0001	<0.001	-	**0.004**	<0.05	0.09	0.05	<0.001	0.026	0.0001	**0.018**	-	**0.138**
	MW4	20/01/2011	-	-	-	-	6.6	-	-	788	-	0.003	0.05	<0.001	0.1	<0.0001	<0.001	<0.001	**0.005**	<0.05	<0.05	<0.05	<0.001	0.003	<0.0001	**0.018**	<0.01	**0.185**
MW5	MW5-1	16/07/2008	-	-	5.4	-	4.9	5490	316	3320	-	<0.01	-	-	-	<0.0001	<0.005	-	<0.01	-	0.5		**0.005**	0.008	**0.0069**	**0.031**	-	**0.031**
	MW5-2	27/08/2008	-	-	5.8	-	5	-	366	3280	-	<0.01	-	-	-	<0.0001	<0.005	-	<0.01	<0.5	<0.5	0.05	**0.006**	-	**0.0067**	**0.015**	-	**0.03**
MW6/3	MW6/3-1	17/07/2008	-	-	1.4	-	6.6	1230	31	750	-	0.003	-	-	-	<0.0001	<0.005	-	0.001	-	<0.5	-	<0.001	0.051	<0.0005	0.002	-	**0.554**
	MW6/3-2	28/08/2008	-	-	1.5	-	6.9	-	28	710	-	<0.01	-	-	-	<0.0001	<0.005	-	**0.003**	<0.5	<0.5	-	<0.001	-	<0.0001	<0.001	-	**0.166**
MW6/4	MW6/4	7/12/2009	-	-	-	-	6.58	-	-	688	-	0.003	-	-	<0.05	0.0002	<0.001	-	**0.004**	<0.05	<0.05	<0.05	**0.004**	0.014	<0.0001	0.006	-	**0.088**
	MW6/4	22/03/2010	-	-	-	-	6.6	-	-	640	-	0.002			<0.05	0.0002	<0.001		0.001	<0.05	<0.05	<0.05	<0.001	0.036	<0.0001	0.001	-	**0.061**
	MW6/4	24/01/2011	-	-	-	-	7.7	-	-	580	-	0.002	0.017	<0.001	-	<0.0001	**0.003**	<0.001	<0.001	<0.05	0.4	-	**0.02**	0.018	<0.0001	<0.001	<0.01	**0.091**
MW7/3	MW7/3-1	18/07/2008	-	-	2.7	-	-	2530	124	1420	-	<0.02	-	-	-	**0.0001**	<0.005	-	<0.005	-	<0.5	-	<0.001	0.046	<0.0005	0.001	-	**0.023**
	MW7/3-2	28/08/2008	-	-	2.2	-	6.9	-	168	1130	-	<0.01	-	-	-	<0.0001	<0.005	-	**0.003**	<0.5	<0.5	-	<0.001	-	<0.0001	0.001	-	**0.062**
	MW7/3	7/12/2009	-	-	-	-	6.64	-	-	924	-	0.002	-	-	<0.05	<0.0001	<0.001	-	**0.002**	<0.05	<0.05	<0.05	<0.001	0.011	<0.0001	0.001	-	**0.118**
	MW7/3	22/03/2010	-	-	-	-	6.42	-	-	1190	-	0.002	-	-	<0.05	0.0001	<0.001	-	**0.003**	<0.05	<0.05	<0.05	<0.001	0.02	<0.0001	<0.001	-	**0.066**
	MW7/3	21/01/2011	-	-	-	-	7.35	-	-	1350	-	**0.019**	0.023	<0.001	-	0.0002	**0.002**	0.003	**0.006**	0.35	0.2	0.55	**1.07**	0.055	<0.0001	0.002	0.07	**0.261**
MW9/2	MW9/2-1	17/07/2008	-	-	<0.5	-	7.5	708	15	430	-	0.002	-	-	-	**0.0003**	<0.005	-	**0.005**	-	9.5	-	0.002	0.003	<0.0005	0.003	-	0.005
MW11/2	MW11/2-1	17/07/2008	-	-	2.3	-	6.8	3320	477	1870	-	<0.02	-	-	-	<0.0001	<0.005	-	**0.003**	-	<0.5	-	**0.009**	0.138	<0.0005	0.004	-	**0.017**
	MW11/2-2	28/08/2008	-	-	2.7	-	7	-	477	2000	-	<0.01	-	-	-	<0.0001	<0.005	-	<0.005	<0.5	<0.5	-	**0.007**	-	<0.0001	0.004	-	**0.023**
	MW11/2	4/12/2009	-	-	-	-	6.75	-	-	1820	-	0.001	-	-	0.07	0.0001	<0.001	-	**0.004**	<0.05	<0.05	<0.05	<0.001	0.13	<0.0001	0.005	-	**0.045**
	MW11/2	22/03/2010	-	-	-	-	6.69	-	-	1690	-	<0.001	-	-	0.08	0.0001	<0.001	-	**0.004**	<0.05	0.08	<0.05	**0.004**	0.152	<0.0001	0.002	-	**0.03**
	MW11/2	21/01/2011	-	-	-	-	7.51	-	-	1180	-	0.003	0.016	<0.001	-	<0.0001	<0.001	<0.001	**0.009**	0.05	0.05	0.1	**0.385**	0.022	<0.0001	0.002	<0.01	**0.047**
MW12/1	MW12/1-2	26/08/2008	-	-	<0.5	-	7	-	53	190	-	0.002	-	-	-	<0.0001	<0.005	-	**0.002**	<0.5	1.4	<0.05	0.002	-	0.0001	0.002	-	**0.011**
	MW12-1	17/07/2008	-	-	<0.5	-	6.6	358	64	220	-	0.009	-	-	-	<0.0001	<0.005	-	**0.003**	-	1.1	-	0.001	0.019	<0.0005	0.003	-	**0.014**
	MW12/1	9/12/2009	-	-	-	-	6.7	-	-	260	-	0.007	0.013	<0.001	0.14	<0.0001	**0.002**	0.093	**0.005**	0.06	0.21	0.27	0.002	0.017	<0.0001	**0.012**	<0.05	**0.063**
	MW12/1	25/03/2010	-	-	-	-	6.87	-	-	180	-	0.007	-	-	0.14	0.0001	**0.002**	-	**0.002**	<0.05	0.22	0.13	<0.001	0.02	<0.0001	0.002	-	<0.005
	MW12/1	21/01/2011	-	-	-	-	7.68	-	-	290	-	0.006	0.014	<0.001	-	<0.0001	**0.004**	**0.125**	**0.003**	<0.05	0.05	<0.05	**0.005**	0.017	**0.0001**	0.003	0.01	**0.048**
MW13/2	MW13/2-1	17/07/2008	-	-	1.6	-	5.5	4320	351	2800	-	<0.02	-	-	-	**0.0058**	<0.005	-	<0.005	-	<0.5	-	**0.009**	0.053	**0.0937**	0.007	-	**0.071**
	MW13/2-2	25/08/2008	-	-	1.5	-	6	-	315	2710	-	<0.01				**0.0059**	<0.005		**0.005**	<0.5	<0.5	0.05	0.001		**0.0938**	0.007		**0.03**
	MW13/2	10/12/2009	-	-	-	4	5.75	-	-	2480	-	0.004	0.017	<0.001	<0.05	<0.0001	<0.001	0.008	**0.002**	<0.05	<0.05	-	0.003	0.101	<0.0001	0.004	<0.01	**0.018**
	MW13/2	24/03/2010	-	-	-	**5**	1 - 5.57	-	-	1850	-	0.002	-	-	<0.05	**0.0056**	<0.001	-	**0.007**	<0.05	0.09	<0.05	0.003	0.035	**0.0006**	0.01	-	**0.034**
	MW13/2	20/01/2011	-	-	-	**74**	5.63	-	-	2130	-	0.003	0.064	<0.001	<0.05	**0.0052**	<0.001	**0.101**	**0.014**	<0.05	0.07	<0.05	**0.007**	0.069	**0.0017**	**0.013**	<0.01	**0.093**
MW15/3	MW15/3-1	17/07/2008	-	-	2.4	-	5.9	2680	125	1560	-	<0.02	-	-	-	<0.0001	<0.005	-	<0.005	-	0.5	-	**0.044**	0.136	<0.0005	0.004	-	**0.062**
	MW15/3-2	25/08/2008	-	-	2	-	6.4	-	104	1560	-	<0.01	-	-	-	<0.0001	<0.005	-	**0.005**	<0.5	<0.5	<0.05	**0.018**	-	**0.0001**	0.004	-	**0.027**
	MW15/3	10/12/2009	-	-	-	<4	6.04	-	-	1500	-	0.003	0.03	<0.001	<0.05	**0.0054**	<0.001	0.089	**0.004**	<0.05	0.07		**0.01**	0.053	**0.098**	0.005	<0.01	**0.034**
	MW15/3	24/03/2010	-	-	-	<4	1 - 5.82	-	-	1630	-	0.006			<0.05	**0.0004**	<0.001		**0.005**	0.11	<0.05	0.11	0.002	0.098	<0.0001	0.009	-	**0.02**
	MW15/3	21/01/2011	-	-	-	<4	7.34	-	-	1700	-	0.002	0.024	<0.001	-	0.0001	<0.001	0.01	**0.003**	<0.05	<0.05	<0.05	**0.017**	0.115	<0.0001	**0.04**	<0.01	**0.056**
MW16/1	MW16/1-1	18/07/2008	-	-	2.3	-	-	3440	172	1920	-	<0.02	-	-	-	0.0002	<0.005	-	<0.005	-	<0.5	-	**0.007**	0.041	<0.0005	0.003	-	**0.215**
	MW16/1-2	27/08/2008	-	-	2.4	-	6.5	-	159	2000	-	<0.01	-	-	-	<0.0001	<0.005	-	**0.004**	<0.5	<0.5	0.06	**0.006**	-	0.0001	0.003	-	**0.107**
	MW16/1	11/12/2009	-	-	-	<4	6.2	-	-	2060	-	0.006	0.025	<0.001	<0.05	<0.0001	<0.001	0.005	**0.002**	<0.05	<0.05	<0.05	**0.015**	0.038	<0.0001	0.002	<0.01	**0.11**
	MW16/1	23/03/2010	-	-	-	<4	6.43	-	-	2080	-	0.004			<0.05	**0.003**	<0.001		**0.002**	<0.05	<0.05	<0.05	**0.005**	0.037	<0.0001	0.002	-	**0.068**
	MW16/1	21/01/2011	-	-	-	<4	7.23	-	-	2010	-	0.004	0.026	<0.001	-	**0.0014**	<0.001	0.005	**0.003**	<0.05	<0.05	<0.05	**0.008**	0.051	<0.0001	**0.015**	<0.01	**0.159**
MW17/1	MW17/1-1	18/07/2008	-	-	1.4	-	-	1213	68	750	-	**0.256**				<0.0001	<0.005		**0.003**	-	2.9	-	0.001	0.087	<0.0005	0.004	-	**0.016**
	MW17/1-2	27/08/2008	-	-	1.5	-	6.7	-	63	740	-	**0.226**	-	-	-	<0.0001	**0.006**	-	**0.002**	<0.5	2.8	3.06	0.001	-	<0.0001	0.004	-	**0.01**
	MW17/1	11/12/2009	-	-	-	-	6.2	-	-	798	-	**0.257**	0.014	<0.001	<0.05	<0.0001	<0.001	0.01	<0.001	<0.05	1.84	1.85	0.002	0.083	<0.0001	0.004	<0.01	**0.019**
	MW17/1	24/03/2010	-	-	-	-	1 - 6.11	-	-	870	-	**0.258**	-	-	<0.05	<0.0001	<0.001	-	**0.005**	<0.05	1.98	1.63	<0.001	0.09	<0.0001	0.008	-	**0.023**
	MW17/1	24/01/2011	-	-	-	-	7.62	-	-	850	-	**0.127**	0.015	<0.001	-	<0.0001	0.001	0.005	0.001	<0.05	3.29	-	0.003	0.095	<0.0001	0.002	<0.01	<0.005
MW17/2	MW17/2-3	14/10/2008	-	-	-	-	6.8	1058	-	754	-	**0.126**	-	-	-	<0.0001	<0.005	-	**0.002**	4.3	1.9	-	**0.007**	0.034	<0.0005	0.003	-	**0.039**
MW18	MW18-1	17/07/2008	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	<0.0001	<0.005	-	0.001	-	<0.5	-	<0.001	0.009	<0.0001	0.002	-	**0.042**
	MW18-2	27/08/2008	-	-	<0.5	-	6.7	-	25	110	-	<0.001	-	-	-	<0.0001	<0.005	-	<0.01	<0.5	0.7	<0.05	<0.001	-	<0.0001	<0.001	-	**0.092**
	MW18	9/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW18	10/12/2009	-	-	-	<4	6.5	-	-	208	-	<0.001	0.025	<0.001	<0.05	**0.0007**	<0.001	0.003	**0.007**	<0.05	<0.05	-	**0.004**	0.007	<0.0001	0.001	<0.01	**0.053**
	MW18	24/03/2010	-	-	-	<4	1 - 6.03	-	-	110	-	<0.001	-	-	<0.05	**0.0088**	<0.001	-	**0.007**	<0.05	<0.05	<0.05	<0.001	0.005	<0.0001	0.008	-	**0.031**
	MW18	20/01/2011	-	-	-	<4	6.29	-	-	128	-	<0.001	0.027	<0.001	<0.05	<0.0001	<0.001	0.002	**0.007**	<0.05	0.08	0.06	<0.001	0.014	<0.0001	<0.001	<0.01	**0.022**

Appendix A -
Table 2
Groundwater Analytical Results

			Inorganics				Water Quality				Metals																		
			Alkyl chloride	Volatile Fatty Acids	Bromide	Cyanide (Total)	pH (Lab)	Electrical conductivity (lab)	Hardness	Total Dissolved Solids	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (III+VI)	Cobalt	Copper	Ferric Iron	Ferrous Iron	Iron	Lead	Manganese	Mercury	Nickel	Vanadium	Zinc
			µg/L	µg/L	mg/L	µg/L	pH Units	µS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL			1	5000	0.5	4	0.01	1	1	1	0.001	0.001	0.001	0.001	0.05	0.0001	0.001	0.001	0.001	0.05	0.05	0.01	0.001	0.001	0.0001	0.001	0.01	0.001
ANZECC 2000 FW 95%						**7**						**0.013**			**0.37**	**0.0002**	**0.001**		**0.0014**				**0.0034**	**1.9**	**0.0006**	**0.011**		**0.008**
ANZECC 2000 Irrigation - Short-term Trigger Values												**2**		**0.5**	**0.5**	**0.05**	**1**	**0.1**	**5**			**10**	**10**	**10**	**0.002**	**2**	**0.5**	**5**
ANZECC 2000 Stock Watering										**4000**		**0.5**			**5**	**0.01**	**1**	**1**	**0.5**				**0.1**		**0.002**	**1**		**20**
NEPM 2013 Table 1C GILs, Drinking Water						**80**					**0.003**	**0.01**	**2**	**0.06**	**4**	**0.002**			**2**				**0.01**	**0.5**	**0.001**	**0.02**		
Location Code	**Field ID**	**Sampled Date**																											
MW19	MW19-1	16/07/2008	-	-	0.5	-	6.4	1891	269	1070	-	**0.019**	-	-	-	<0.0001	<0.005	-	<0.005	-	<0.5	-	<0.001	0.078	0.0002	**0.018**	-	**0.023**
	MW19-2	27/08/2008	-	-	0.6	-	6.9	-	309	1140	-	<0.005	-	-	-	**0.0003**	<0.005	-	<0.01	<0.5	<0.5	0.08	<0.001	-	0.0001	**0.022**	-	**0.028**
	MW19	8/12/2009	-	-	-	-	6.87	-	-	1210	-	0.004	0.061	<0.001	0.08	0.0002	0.001	0.019	**0.006**	<0.05	<0.05	<0.05	<0.001	0.034	<0.0001	**0.016**	<0.01	**0.044**
	MW19	23/03/2010	-	-	-	-	6.03	-	-	1310	-	0.007	-	-	0.08	0.0002	<0.001	-	**0.01**	<0.05	<0.05	<0.05	<0.001	0.057	<0.0001	**0.045**	-	**0.033**
	MW19	19/01/2011	-	-	-	-	6.2	-	-	962	-	0.004	0.04	<0.001	-	<0.0001	**0.006**	0.004	**0.005**	<0.05	<0.05	<0.05	<0.001	0.003	<0.0001	0.007	<0.01	**0.021**
MW20	MW20-1	16/07/2008	-	-	1	-	7.1	1379	31	900	-	<0.01	-	-	-	<0.0001	<0.005	-	<0.005	-	<0.5	-	<0.001	<0.001	<0.0001	0.005	-	**0.025**
	MW20-2	25/08/2008	-	-	1.1	-	7.5	-	31	800	-	0.002	-	-	-	<0.0001	<0.005	-	**0.004**	<0.5	<0.5	<0.05	<0.001	-	<0.0001	0.008	-	**0.021**
	MW20	3/12/2009	-	-	-	-	7.2	-	-	812	-	0.002	-	-	<0.05	<0.0001	0.001	-	**0.002**	<0.05	0.05	<0.05	<0.001	<0.001	<0.0001	0.002	-	**0.011**
	MW20	16/03/2010	-	-	-	-	7.31	-	-	760	-	0.001	-	-	<0.05	<0.0001	<0.001	-	**0.002**	<0.05	<0.05	<0.05	<0.001	<0.001	<0.0001	0.002	-	<0.005
	MW20	20/01/2011	-	-	-	-	6.63	-	-	820	-	0.002	0.003	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.05	<0.05	<0.05	<0.001	<0.001	<0.0001	0.002	<0.01	**0.011**
	MW20	26/02/2013	-	-	-	-	6.82	-	-	957	-	0.002	-	-	<0.05	<0.0001	<0.001	-	0.001	<0.05	<0.05	<0.05	<0.001	0.003	<0.0001	0.001	-	0.008
	MW20	31/01/2014	<1	-	-	-	7.1	-	-	800	<0.005	0.003	-	-	-	<0.0002	<0.001	-	**0.002**	<0.05	<0.05	<0.05	**0.001**	<0.005	<0.0001	0.002	-	**0.011**
MW21	MW21-1	15/07/2008	-	-	<0.5	-	6.3	2650	138	1520	-	<0.01	-	-	-	<0.0001	<0.005	-	<0.01	-	<0.5	-	<0.001	0.115	<0.0001	**0.099**	-	**0.197**
	MW21-2	26/08/2008	-	-	0.9	-	6.2	-	152	1520	-	<0.01	-	-	-	<0.0001	<0.005	-	<0.01	<0.5	<0.5	<0.05	<0.001	-	<0.0001	**0.033**	-	**0.018**
	MW21	7/12/2009	-	-	-	-	6.3	-	-	1730	-	0.001	-	-	<0.05	**0.0018**	<0.001	-	**0.007**	<0.05	<0.05	<0.05	<0.001	0.114	<0.0001	**0.02**	-	**0.064**
	MW21	24/03/2010	-	-	-	-	1 - 5.99	-	-	1700	-	0.001	-	-	<0.05	0.0001	<0.001	-	**0.004**	<0.05	<0.05	<0.05	<0.001	0.108	0.0002	**0.03**	-	0.008
	MW21	19/01/2011	-	-	-	-	5.35	-	-	1480	-	0.002	0.012	<0.001	-	<0.0001	<0.001	0.007	**0.006**	<0.05	<0.05	<0.05	<0.001	0.089	<0.0001	0.006	<0.01	**0.197**
	MW21	26/02/2013	-	-	-	-	5.42	-	-	1370	-	0.002	-	-	<0.05	<0.0001	<0.001	-	**0.004**	<0.05	<0.05	<0.05	<0.001	0.063	<0.0001	**0.008**	-	**0.085**
	MW21	31/01/2014	<4	-	-	-	6.3	-	-	1200	<0.005	0.002	-	-	-	<0.0002	<0.001	-	**0.002**	<0.05	<0.05	<0.05	<0.001	0.045	<0.0001	**0.024**	-	0.004
MW22	MW22-1	16/07/2008	-	-	3.5	-	5.9	4380	199	2500	-	<0.01	-	-	-	0.0002	<0.005	-	**0.005**	-	<0.5	-	<0.001	0.073	0.0002	**0.017**	-	**0.186**
	MW22-2	26/08/2008	-	-	4.5	-	6	-	230	2790	-	<0.01	-	-	-	0.0002	<0.005	-	<0.01	<0.5	<0.5	0.09	<0.001	-	<0.0001	**0.044**	-	**0.098**
	MW22	9/12/2009	-	-	-	-	5.9	-	-	3170	-	0.004	0.032	<0.001	<0.05	<0.0001	<0.001	0.006	**0.025**	0.05	<0.1	0.05	<0.001	0.134	<0.0001	**0.016**	<0.05	**0.14**
	MW22	22/03/2010	-	-	-	<4	5.84	-	-	3350	-	0.005	-	-	<0.05	**0.0445**	<0.001	-	**0.01**	<0.05	<0.05	<0.05	<0.001	0.055	<0.0001	**0.014**	-	**0.064**
	MW22	18/01/2011	-	-	-	**153**	5	-	-	2920	-	0.004	0.053	<0.001	-	<0.0001	<0.001	0.005	**0.006**	<0.05	0.05	0.002	0.044	<0.0001	0.01	<0.01	**0.184**
	MW22	28/02/2013	-	-	-	<4	4.88	-	-	1500	-	0.007	-	-	<0.05	0.0002	<0.001	-	**0.026**	0.64	0.18	0.82	0.002	**1.12**	<0.0001	**0.012**	-	**0.304**
	MW22	30/01/2014	<1	110,000	-	<5	5.9	-	-	2900	<0.005	0.006	-	-	-	<0.0002	0.001	-	**0.007**	<0.05	<0.05	<0.05	<0.001	0.085	<0.0001	**0.019**	-	**0.034**
MW23	MW23-1	17/07/2008	-	-	1.5	-	5.8	943	32	580	-	**0.179**	-	-	-	<0.0001	<0.005	-	**0.003**	-	<0.5	-	<0.001	0.012	<0.0001	**0.016**	-	**0.017**
	MW23-2	27/08/2008	-	-	1.5	-	6.8	-	31	610	-	**0.165**	-	-	-	<0.0001	<0.005	-	**0.005**	<0.5	<0.5	<0.05	<0.001	-	<0.0001	**0.022**	-	**0.027**
	MW23	9/12/2009	-	-	-	-	6.6	-	-	612	-	**0.18**	0.005	<0.001	<0.05	<0.0001	<0.001	0.001	**0.031**	0.13	<0.1	0.13	<0.001	0.01	<0.0001	**0.016**	<0.05	**0.133**
	MW23	24/03/2010	-	-	-	-	1 - 6.36	-	-	560	-	**0.224**	-	-	<0.05	0.0001	<0.001	-	**0.006**	0.21	<0.05	0.21	<0.001	0.008	<0.0001	**0.012**	-	**0.016**
	MW23	19/01/2011	-	-	-	-	5.36	-	-	596	-	**0.163**	0.004	<0.001	-	<0.0001	<0.001	0.001	**0.009**	<0.05	<0.05	<0.05	<0.001	0.017	<0.0001	0.009	<0.01	**0.047**
	MW23	27/02/2013	-	-	-	-	5.84	-	-	584	-	**0.177**	-	-	0.09	<0.0001	<0.001	-	**0.007**	0.19	<0.05	0.19	<0.001	0.013	<0.0001	0.007	-	**0.062**
	MW23	31/01/2014	<1	-	-	-	6.4	-	-	550	<0.005	**0.047**	-	-	-	<0.0002	<0.001	-	0.001	<0.05	<0.05	<0.05	<0.001	0.006	<0.0001	0.01	-	0.003
MW24A	MW24A-2	27/08/2008	-	-	5.1	-	6.3	-	850	3570	-	<0.01	-	-	-	<0.0001	<0.005	-	**0.01**	<0.5	<0.5	<0.05	<0.001	-	<0.0001	**0.078**	-	**0.026**
	MW24A-3	14/10/2008	-	-	-	-	6.7	6170	-	3610	-	<0.02	-	-	-	0.0001	<0.005	-	<0.01	<0.5	<0.5	-	<0.001	0.406	<0.0002	**0.014**	-	**0.036**
	MW24A	10/12/2009	-	-	-	<4	6.3	-	-	**4010**	-	<0.001	0.081	<0.001	<0.05	0.0001	<0.001	0.002	**0.038**	<0.05	<0.05	0.001	0.335	<0.0001	**0.022**	<0.01	**0.123**
	MW24A	23/03/2010	-	-	-	<4	5.71	-	-	3700	-	<0.001	-	-	<0.05	**0.0095**	<0.001	-	**0.01**	<0.05	<0.05	<0.05	<0.001	0.338	<0.0001	0.01	-	**0.028**
	MW24A	18/01/2011	-	-	-	<4	5.5	-	-	3680	-	<0.001	0.07	<0.001	-	<0.0001	<0.001	0.002	**0.007**	<0.05	<0.05	-	<0.001	0.29	<0.0001	**0.027**	<0.01	**0.285**
	MW24A	28/02/2013	-	-	-	<4	5.62	-	-	**4090**	-	**0.214**	-	-	0.08	<0.0001	<0.001	-	**0.008**	<0.05	<0.05	<0.05	<0.001	0.223	<0.0001	<0.001	-	**0.111**
	MW24A	29/01/2014	<80	-	-	<5	6.7	-	-	3300	<0.005	<0.001	-	-	-	<0.0002	<0.001	-	**0.015**	<0.05	<0.05	<0.05	<0.001	0.45	<0.0001	0.01	-	**0.094**
MW24B	MW24B-2	27/08/2008	-	-	1.4	-	6	-	126	1600	-	<0.005	-	-	-	0.0001	<0.005	-	<0.01	<0.5	<0.5	0.33	0.002	-	0.0001	**0.022**	-	**0.035**
	MW24B-3	14/10/2008	-	-	-	-	6.2	2840	-	1720	-	<0.02	-	-	-	0.0001	<0.005	-	<0.01	<0.5	<0.5	-	0.001	0.199	<0.0002	**0.019**	-	**0.072**
	MW24B	10/12/2009	-	-	-	**7**	6.2	-	-	2180	-	**0.016**	0.036	<0.001	<0.05	0.0001	0.001	0.023	**0.006**	6.24	2.07	-	<0.001	0.146	<0.0001	**0.015**	<0.01	**0.113**
	MW24B	24/03/2010	-	-	-	<4	1 - 6.05	-	-	2400	-	0.01	-	-	<0.05	**0.0024**	<0.001	-	**0.006**	5.52	0.23	5.75	<0.001	0.174	<0.0001	0.011	-	**0.024**
	MW24B	18/01/2011	-	-	-	**26**	5.73	-	-	2340	-	**0.021**	0.026	<0.001	-	<0.0001	<0.001	0.015	**0.002**	5.46	0.13	-	<0.001	0.114	<0.0001	**0.014**	<0.01	**0.046**
	MW24B	28/02/2013	-	-	-	<4	5.93	-	-	2180	-	**0.308**	-	-	<0.05	<0.0001	<0.001	-	**0.002**	<0.05	23.4	**17.6**	<0.001	0.094	<0.0001	0.001	-	**0.033**
	MW24B	29/01/2014	<500	-	-	**220**	6.4	-	-	2200	<0.005	**0.17**	-	-	-	<0.0002	0.001	-	<0.001	1	19	**20**	<0.001	0.085	<0.0001	**0.011**	-	**0.018**
MW24C	MW24C-2	27/08/2008	-	-	1.1	-	6.4	-	104	880	-	<0.005	-	-	-	<0.0001	<0.005	-	0.001	<0.5	36.3	1.44	<0.001	-	0.0002	**0.009**	-	**0.05**
	MW24C-3	13/10/2008	-	-	-	-	6.2	2040	-	1600	-	**0.022**	-	-	-	<0.002	**0.0085**	-	**0.0074**	0.3	9.6	9.98	<0.005	0.095	0.0001	0.0056	-	**0.016**
	MW24C	10/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW24C	11/12/2009	-	-	-	-	-	-	-	2180	-	**0.029**	0.026	<0.001	<0.05	<0.0001	**0.007**	0.007	0.001	6.56	1.6	8.16	<0.001	0.024	<0.0001	0.001	<0.01	**0.015**
	MW24C	25/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW24C	28/02/2013	-	-	-	<4	6.45	-	-	2590	-	**0.118**	-	-	0.05	<0.0001	<0.001	-	**0.002**	<0.05	57.9	**46.1**	<0.001	0.078	<0.0001	<0.001	-	**0.025**
	MW24C	3/02/2014	<1000	220,000	-	**820**	6.5	-	-	2200	<0.005	**0.041**	-	-	-	<0.0002	**0.003**	-	<0.001	5	25	**30**	<0.001	0.056	<0.0001	<0.001	-	**0.009**
MW25	MW25-2	25/08/2008	-	-	1.1	-	6.8	-	77	1130	-	**0.149**	-	-	-	<0.0001	<0.005	-	**0.003**	<0.5	4	4.02	<0.001	-	0.0002	**0.018**	-	**0.016**
	MW25-3	13/10/2008	-	-	-	-	6.2	1220	-	990	-	**0.11**	-	-	-	<0.002	<0.005	-	<0.005	0.2	2.6	2.81	<0.005	0.06	<0.0001	**0.023**	-	**0.064**
	MW25	9/12/2009	-	-	-	**7**	6.2	-	-	980	-	**0.033**	0.009	<0.001	<0.05	<0.0001	<0.001	0.003	**0.005**	<0.05	0.38	0.41	0.001	0.031	<0.0001	0.007	<0.05	**0.066**
	MW25	22/03/2010	-	-	-	<4	6.47	-	-	1220	-	**0.12**	-	-	<0.05	**0.0006**	<0.001	-	**0.005**	<0.05	2.65	2.58	<0.001	0.06	<0.0001	0.008	-	**0.015**
	MW25	18/01/2011	-	-	-	-	5.99	-	-	1050	-	**0.185**	0.009	<0.001	-	<0.0001	<0.001	0.007	<0.001	<0.05	4.12	-	<0.001	0.06	<0.0001	0.004	<0.01	**0.013**
	MW25	1/03/2013	-	-	-	<4	5.39	-	-	925	-	**0.055**	-	-	<0.05	<0.0001	<0.001	-	**0.004**	0.16	0.06	0.22	0.002	0.026	<0.0001	0.006	-	**0.089**
	MW25	29/01/2014	<1	-	-	<5	5.9	-	-	860	<0.005	**0.016**	-	-	-	<0.0002	<0.001	-	0.001	<0.05	0.1	0.1	<0.001	0.022	<0.0001	0.004	-	**0.016**
MW26	MW26-3	13/10/2008	-	-	-	-	6.6	2780	-	1900	-	<0.005	-	-	-	<0.002	<0.005	-	**0.0097**	<0.05	<0.05	<0.1	<0.005	**0.79**	<0.0001	**0.028**	-	**0.078**
	MW26	8/12/2009	-	-	-	-	6.3	-	-	3440	-	<0.001	0.131	<0.001	0.06	0.0002	<0.001	0.007	**0.004**	<0.05	<0.05	<0.05	<0.001	**1.19**	<0.0001	**0.052**	<0.01	**0.061**
	MW26	17/03/2010	-	-	-	**6**	-	-	-	2560	-	<0.001	-	-	0.07	**0.0003**	<0.001	-	**0.004**	<0.05	<0.05	0.05	<0.001	**1.05**	0.0002	**0.042**	-	**0.026**
	MW26	18/01/2011	-	-	-	**8**	5.84	-	-	2460	-	0.001	0.08	<0.001	-	0.0001	<0.001	0.007	**0.012**	<0.05	<0.05	-	<0.001	**0.918**	<0.0001	**0.017**	<0.01	**0.051**
	MW26	1/03/2013	-	-	-	<4	5.88	-	-	2040	-	0.003	-	-	0.08	<0.0001	<0.001	-	**0.004**	<0.05	<0.05	<0.05	<0.001	**0.542**	<0.0001	0.004	-	**0.038**
	MW26	29/01/2014	<2000	-	-	<5	6.3	-	-	1900	<0.005	<0.001	-	-	-	<0.0002	<0.001	-	<0.001	<0.05	<0.05	<0.05	<0.001	**0.78**	<0.0001	0.011	-	**0.053**
MW27	MW27-1	15/07/2008	-	-	0.5	-	6.2	1044	20	640	-	0.001	-	-	-	<0.0001	<0.005	-	**0.005**	-	<0.5	-	<0.001	0.027	<0.0001	**0.064**	-	**0.034**
	MW27-2	25/08/2008	-	-	0.7	-	6.4	-	17	660	-	0.001	-	-	-	<0.0001	<0.005	-	**0.009**	<0.5	<0.5	<0.05	<0.001	-	<0.0001	**0.045**	-	**0.029**
	MW27	3/12/2009	-	-	-	-	6	-	-	670	-	0.001	-	-	<0.05	<0.0001	<0.001	-	**0.004**	<0.05	<0.05	<0.05	<0.001	0.004	<0.0001	**0.014**	-	**0.053**
	MW27	16/03/2010	-	-	-	-	6.07	-	-	756	-	<0.001	-	-	<0.05	<0.0001	<0.001	-	**0.002**	<0.05	<0.05	<0.05	<0.001	0.004	0.0001	0.011	-	**0.012**
	MW27	20/01/2011	-	-	-	-	5.8	-	-	816	-	0.001	0.002	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.05	<0.05	<0.05	<0.001	0.004	<0.0001	0.003	<0.01	**0.014**
	MW27	25/02/2013	-	-	-	-	5.16	-	-	922	-	0.004	-	-	**0.7**	<0.0001	<0.001	-	**0.012**	<0.05	0.23	0.25	0.002	0.014	<0.0001	**0.013**	-	**0.098**
	MW27	31/01/2014	<1	-	-	-	5.8	-	-	790	<0.005	0.002	-	-	-	<0.0002	<0.001	-	**0.002**	<0.05	0.6	0.62	<0.001	<0.005	<0.0001	**0.013**	-	0.006

Appendix A -
Table 2
Groundwater Analytical Results

			Inorganics				Water Quality				Metals																		
			Allyl chloride	Volatile Fatty Acids	Bromide	Cyanide (Total)	pH (Lab)	Electrical conductivity (lab)	Hardness	Total Dissolved Solids	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (III+VI)	Cobalt	Copper	Ferric Iron	Ferrous Iron	Iron	Lead	Manganese	Mercury	Nickel	Vanadium	Zinc
			µg/L	µg/L	mg/L	µg/L	pH Units	µS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL			1	5000	0.5	4	0.01	1	1	1	0.001	0.001	0.001	0.001	0.05	0.0001	0.001	0.001	0.001	0.05	0.05	0.01	0.001	0.001	0.0001	0.001	0.01	0.001
ANZECC 2000 FW 95%						**7**						**0.013**			**0.37**	**0.0002**	**0.001**		**0.0014**				**0.0034**	**1.9**	**0.0006**	**0.011**		**0.008**
ANZECC 2000 Irrigation - Short-term Trigger Values												**2**		**0.5**	**0.5**	**0.05**	**1**	**0.1**	**5**			**10**	**10**	**10**	**0.002**	**2**	**0.5**	**5**
ANZECC 2000 Stock Watering										**4000**		**0.5**			**5**	**0.01**	**1**	**1**	**0.5**				**0.1**		**0.002**	**1**		**20**
NEPM 2013 Table 1C GILs, Drinking Water						**80**					**0.003**	**0.01**	**2**	**0.06**	**4**	**0.002**			**2**				**0.01**	**0.5**	**0.001**	**0.02**		
Location Code	**Field ID**	**Sampled Date**																											
MW28	MW28-1	15/07/2008	-	-	0.7	-	6.1	1846	84	1190	-	<0.01	-	-	-	<0.0001	<0.005	-	**0.005**	-	<0.5	-	<0.001	0.11	<0.0001	**0.036**	-	**0.043**
	MW28-2	26/08/2008	-	-	1.3	-	6.2	-	113	1470	-	<0.01	-	-	-	<0.0001	<0.005	-	<0.01	<0.5	<0.5	<0.05	0.001	-	<0.0001	0.003	-	**0.019**
	MW28	3/12/2009	-	-	-	-	5.77	-	-	924	-	0.001	-	-	<0.05	<0.0001	<0.001	-	**0.003**	<0.05	<0.05	<0.05	<0.001	0.042	<0.0001	**0.013**	-	**0.038**
	MW28	16/03/2010	-	-	-	-	5.81	-	-	832	-	<0.001	-	-	<0.05	0.0002	<0.001	-	**0.002**	<0.05	<0.05	<0.05	<0.001	0.039	0.0001	**0.023**	-	**0.018**
	MW28	20/01/2011	-	-	-	-	5.5	-	-	798	-	<0.001	0.009	<0.001	<0.05	<0.0001	<0.001	0.002	**0.012**	<0.05	<0.05	<0.05	<0.001	0.021	<0.0001	**0.009**	<0.01	**0.037**
	MW28	25/02/2013	-	-	-	-	5.34	-	-	544	-	0.002	-	-	**0.53**	<0.0001	<0.001	-	**0.008**	<0.05	<0.05	<0.05	0.001	0.003	<0.0001	**0.014**	-	**0.114**
	MW28	31/01/2014	<1	-	-	-	6.2	-	-	400	<0.005	<0.001	-	-	-	<0.0002	<0.001	-	**0.003**	<0.05	0.05	0.05	<0.001	<0.005	<0.0001	**0.02**	-	**0.009**
MW29	MW29-3	20/10/2008	-	-	-	-	6.5	1099	-	801	-	<0.02	-	-	-	<0.0001	<0.005	-	**0.021**	<0.5	<0.5	-	0.001	0.016	<0.0001	0.004	-	**0.109**
	MW29	19/01/2011	-	-	-	-	5.43	-	-	488	-	0.007	0.015	<0.001	-	<0.0001	<0.001	<0.001	**0.006**	<0.05	<0.05	<0.05	<0.001	0.007	<0.0001	0.004	<0.01	**0.049**
MW30	MW30-3	14/10/2008	-	-	-	-	6.9	953	-	646	-	0.003	-	-	-	<0.0001	<0.005	-	**0.009**	<0.5	<0.5	-	0.002	0.009	<0.0002	0.008	-	**0.05**
	MW30	9/12/2009	-	-	-	-	6.73	-	-	478	-	0.004	0.005	<0.001	<0.05	**0.0004**	<0.001	<0.001	**0.002**	<0.05	<0.1	<0.05	<0.001	0.003	<0.0001	0.004	<0.05	**0.038**
	MW30	22/03/2010	-	-	-	-	6.63	-	-	430	-	0.004	-	-	<0.05	**0.0007**	<0.001	-	0.001	<0.05	0.07	0.11	<0.001	0.003	<0.0001	**0.018**	-	0.005
	MW30	19/01/2011	-	-	-	-	5.58	-	-	456	-	0.003	0.003	<0.001	-	<0.0001	<0.001	<0.001	**0.007**	<0.05	<0.05	<0.05	<0.001	0.001	<0.0001	0.005	<0.01	**0.073**
	MW30	26/02/2013	-	-	-	-	5.52	-	-	575	-	**0.013**	-	-	<0.05	<0.0001	<0.001	-	**0.006**	0.38	0.14	0.52	<0.001	0.01	<0.0001	0.01	-	**0.032**
	MW30	31/01/2014	<1	-	-	-	6.5	-	-	460	<0.005	0.003	-	-	-	<0.0002	<0.001	-	<0.001	<0.05	<0.05	<0.05	<0.001	<0.005	<0.0001	**0.02**	-	0.005
MW31	MW31	7/12/2009	-	-	-	<4	6.2	-	-	2050	-	0.003	-	-	<0.05	0.0002	<0.001	-	**0.008**	<0.05	<0.05	<0.05	0.001	0.058	<0.0001	**0.04**	-	**0.104**
	MW31	22/03/2010	-	-	-	<4	6.18	-	-	1670	-	0.002	-	-	<0.05	**0.0017**	<0.001	-	**0.004**	<0.05	<0.05	<0.05	**0.008**	0.058	<0.0001	**0.029**	-	**0.021**
	MW31	18/01/2011	-	-	-	<4	5.05	-	-	1660	-	0.002	0.012	<0.001	-	<0.0001	<0.001	0.006	**0.005**	<0.05	<0.05	<0.05	**0.089**	0.028	<0.0001	**0.02**	<0.01	**0.169**
	MW31	26/02/2013	-	-	-	<4	5.35	-	-	1740	-	0.003	-	-	<0.05	<0.0001	<0.001	-	**0.007**	<0.05	<0.05	<0.05	0.003	0.012	<0.0001	0.007	-	**0.055**
	MW31	29/01/2014	<4	15,000	-	<5	5.9	-	-	1600	<0.005	0.002	-	-	-	<0.0002	<0.001	-	**0.002**	<0.05	<0.05	<0.05	<0.001	0.011	<0.0001	0.003	-	**0.021**
MW32	MW32	8/12/2009	-	-	-	<4	5.97	-	-	**5000**	-	0.001	0.052	<0.001	<0.05	**0.0006**	<0.001	**0.117**	**0.016**	<0.05	0.1	<0.05	0.002	0.441	<0.0001	**0.031**	<0.01	**0.17**
	MW32	19/03/2010	-	-	-	<4	6	-	-	**4720**	-	0.002	-	-	<0.05	**0.0021**	<0.001	-	**0.005**	<0.05	0.05	<0.05	0.002	0.356	<0.0001	**0.031**	-	**0.051**
	MW32	18/01/2011	-	-	-	**198**	5.19	-	-	3450	-	0.003	0.028	<0.001	-	<0.0001	<0.001	0.064	**0.004**	<0.05	<0.05	-	**0.044**	0.247	<0.0001	**0.02**	<0.01	**0.123**
	MW32	28/02/2013	-	-	-	<4	5.6	-	-	3200	-	0.008	-	-	<0.05	**0.0003**	<0.001	-	**0.006**	<0.05	0.1	<0.05	**0.014**	0.302	<0.0001	**0.012**	-	**0.148**
	MW32	29/01/2014	<4	9100	-	**8**	6.1	-	-	2500	<0.005	0.003	-	-	-	**0.0007**	<0.001	-	**0.009**	<0.05	0.28	0.28	**0.007**	0.49	<0.0001	0.011	-	**0.67**
MW33	MW33	23/03/2010	-	-	-	<4	6.39	-	-	1420	-	0.006	-	-	<0.05	0.0001	<0.001	-	0.001	<0.05	<0.05	<0.05	<0.001	0.1	<0.0001	0.011	-	**0.011**
	MW33	19/01/2011	-	-	-	**116**	5.32	-	-	1370	-	0.005	0.017	<0.001	-	<0.0001	<0.001	0.005	**0.012**	<0.05	<0.05	<0.05	0.002	0.076	<0.0001	**0.012**	<0.01	**0.046**
	MW33	26/02/2013	-	-	-	<4	6.1	-	-	1780	-	0.006	-	-	<0.05	<0.0001	<0.001	-	0.001	<0.05	<0.05	<0.05	0.001	0.072	<0.0001	0.006	-	**0.022**
MW34A	MW34A	7/12/2009	-	-	-	<4	6.03	-	-	3740	-	0.001	-	-	<0.05	<0.0001	<0.001	-	**0.003**	<0.05	<0.05	<0.05	<0.001	0.089	<0.0001	**0.041**	-	**0.064**
	MW34A	17/03/2010	-	-	-	<4	-	-	-	3210	-	<0.001	-	-	<0.05	**0.0003**	<0.001	-	**0.004**	<0.05	<0.05	<0.05	<0.001	0.028	0.0002	**0.041**	-	**0.024**
	MW34A	18/01/2011	-	-	-	<4	5.09	-	-	3260	-	0.002	0.019	<0.001	-	**0.001**	<0.001	0.008	**0.02**	<0.05	<0.05	-	0.002	0.01	<0.0001	0.01	<0.01	**0.058**
	MW34A	28/02/2013	-	-	-	<4	5.45	-	-	2600	-	0.002	-	-	<0.05	<0.0001	<0.001	-	**0.02**	<0.05	<0.05	<0.05	**0.004**	0.017	<0.0001	0.007	-	**0.094**
	MW34A	30/01/2014	<100	-	-	<5	6.3	-	-	2900	<0.005	0.001	-	-	-	<0.0002	<0.001	-	**0.004**	<0.05	0.11	0.11	0.001	<0.005	<0.0001	**0.14**	-	**0.034**
MW34B	MW34B	8/12/2009	-	-	-	-	5.4	-	-	2150	-	**0.025**	0.037	<0.001	0.07	<0.0001	<0.001	0.056	**0.02**	0.05	0.95	1	**0.006**	0.169	<0.0001	**0.028**	<0.01	**0.046**
	MW34B	17/03/2010	-	-	-	4	7.8	-	-	1480	-	**0.012**	-	-	0.06	**0.0003**	<0.001	-	**0.005**	<0.05	1.11	0.94	<0.001	0.171	<0.0001	**0.026**	-	**0.021**
	MW34B	18/01/2011	-	-	-	<4	5.83	-	-	1400	-	**0.035**	0.025	<0.001	-	<0.0001	<0.001	0.074	**0.006**	<0.05	1.65	-	<0.001	0.151	<0.0001	**0.013**	<0.01	**0.026**
	MW34B	28/02/2013	-	-	-	<4	5.36	-	-	1210	-	**0.032**	-	-	0.1	0.0001	<0.001	-	**0.01**	<0.05	1.22	1.03	**0.004**	0.114	<0.0001	0.011	-	**0.105**
	MW34B	30/01/2014	<8	-	-	<5	6.3	-	-	1500	<0.005	**0.017**	-	-	-	<0.0002	<0.001	-	**0.003**	<0.05	1.1	1.1	<0.001	0.12	<0.0001	**0.018**	-	**0.015**
MW35	MW35	11/12/2009	-	-	-	<4	6.03	-	-	2580	-	0.002	0.04	<0.001	<0.05	0.0001	<0.001	0.012	**0.006**	<0.05	<0.05	<0.05	<0.001	0.123	<0.0001	**0.025**	<0.01	**0.08**
	MW35	17/03/2010	-	-	-	<4	-	-	-	2270	-	0.001	-	-	<0.05	0.0002	<0.001	-	**0.003**	<0.05	<0.05	<0.05	0.001	0.093	0.0001	0.007	-	**0.01**
	MW35	18/01/2011	-	-	-	<4	5.89	-	-	2350	-	0.001	0.028	<0.001	-	<0.0001	<0.001	0.005	<0.001	<0.05	<0.05	-	<0.001	0.03	<0.0001	0.003	<0.01	**0.018**
	MW35	27/02/2013	-	-	-	<4	5.21	-	-	2480	-	0.004	-	-	0.1	<0.0001	<0.001	-	**0.005**	<0.05	<0.05	<0.05	0.002	0.022	<0.0001	0.005	-	**0.146**
	MW35	30/01/2014	<100	18,000	-	<5	6.5	-	-	2100	<0.005	0.001	-	-	-	<0.0002	<0.001	-	**0.006**	<0.05	<0.05	<0.05	<0.001	0.019	<0.0001	0.005	-	**0.041**
MW36	MW36	7/12/2009	-	-	-	<4	7.08	-	-	2650	-	-	<0.001	-	<0.05	**0.0002**	<0.001	-	**0.002**	<0.05	<0.05	<0.05	<0.001	0.149	<0.0001	**0.018**	-	**0.038**
	MW36	18/03/2010	-	-	-	-	7.1	-	-	1760	-	<0.001	-	-	<0.05	0.0001	<0.001	-	**0.005**	<0.05	<0.05	<0.05	<0.001	0.17	0.0002	0.01	-	**0.021**
	MW36	19/01/2011	-	-	-	-	5.48	-	-	1080	-	0.002	0.046	<0.001	-	<0.0001	<0.001	0.006	<0.001	<0.05	<0.05	<0.05	0.001	0.301	<0.0001	0.006	<0.01	**0.111**
	MW36	25/02/2013	-	-	-	-	6	-	-	1270	-	**0.012**	-	-	**4.5**	<0.0001	<0.001	-	**0.004**	<0.05	<0.05	<0.05	<0.001	**1.48**	<0.0001	0.005	-	**0.125**
	MW36	31/01/2014	<1	-	-	-	6.2	-	-	1400	<0.005	0.004	-	-	-	<0.0002	<0.001	-	**0.007**	<0.05	<0.05	<0.05	<0.001	0.34	<0.0001	0.007	-	**0.072**
MW37	MW37	4/12/2009	-	-	-	-	6.06	-	-	3140	-	0.002	-	-	<0.05	<0.0001	<0.001	-	**0.004**	<0.05	<0.05	<0.05	**0.004**	0.117	<0.0001	**0.02**	-	**0.02**
	MW37	18/03/2010	-	-	-	-	7.5	-	-	3040	-	0.001	-	-	<0.05	**0.0003**	<0.001	-	**0.003**	<0.05	<0.05	<0.05	**0.023**	0.096	0.0001	**0.021**	-	**0.011**
	MW37	19/01/2011	-	-	-	-	5.49	-	-	2140	-	0.003	0.065	<0.001	-	<0.0001	<0.001	0.004	**0.006**	<0.05	<0.05	<0.05	**0.024**	0.02	<0.0001	0.006	<0.01	**0.056**
	MW37	25/02/2013	-	-	-	-	5.55	-	-	2400	-	0.003	-	-	**0.95**	<0.0001	<0.001	-	**0.018**	<0.05	<0.05	<0.05	**0.031**	0.032	<0.0001	**0.03**	-	**0.11**
	MW37	30/01/2014	<1	-	-	-	6.2	-	-	2400	<0.005	0.004	-	-	-	<0.0002	0.001	-	**0.01**	<0.05	0.07	0.08	**0.026**	0.011	<0.0001	**0.04**	-	**0.016**
MW38	MW38	4/12/2009	-	-	-	-	6.8	-	-	1540	-	**0.215**	-	-	0.07	<0.0001	<0.001	-	**0.002**	0.22	30.6	**30.8**	<0.001	0.208	<0.0001	**0.028**	-	**0.018**
	MW38	18/03/2010	-	-	-	-	6.7	-	-	1180	-	**0.305**	-	-	0.1	0.0001	<0.001	-	<0.001	<0.05	27.3	**27.1**	0.002	0.104	<0.0001	**0.018**	-	**0.012**
	MW38	19/01/2011	-	-	-	-	5.14	-	-	662	-	**0.143**	0.034	<0.001	-	-	**0.002**	0.004	**0.014**	<0.05	8.08	8.08	**0.004**	0.052	<0.0001	0.008	0.01	**0.069**
	MW38	26/02/2013	-	-	-	-	5.4	-	-	2080	-	**0.234**	-	-	0.12	<0.0001	<0.001	-	**0.003**	<0.05	14	**13.9**	0.002	0.056	<0.0001	0.008	-	**0.051**
	MW38	30/01/2014	<1	-	-	-	6.5	-	-	1000	<0.005	**0.14**	-	-	-	<0.0002	**0.004**	-	0.001	<0.05	11	**11**	<0.001	0.032	<0.0001	0.004	-	**0.012**
MW39	MW39	4/12/2009	-	-	-	-	6.42	-	-	784	-	0.002	-	-	0.1	<0.0001	<0.001	-	<0.001	<0.05	<0.05	<0.05	<0.001	0.066	<0.0001	**0.022**	-	0.008
	MW39	18/03/2010	-	-	-	-	6.2	-	-	266	-	0.003	-	-	0.11	**0.0003**	<0.001	-	**0.005**	<0.05	<0.05	0.04	0.002	0.011	<0.0001	**0.036**	-	**0.024**
	MW39	21/01/2011	-	-	-	-	7.68	-	-	230	-	0.003	0.011	<0.001	-	<0.0001	<0.001	<0.001	**0.013**	<0.05	<0.05	<0.05	0.003	0.003	<0.0001	0.006	<0.01	**0.051**
	MW39	27/02/2013	-	-	-	-	5.58	-	-	978	-	0.004	-	-	0.18	0.0002	<0.001	-	**0.006**	0.11	<0.05	0.11	**0.004**	0.01	<0.0001	0.007	-	**0.132**
	MW39	31/01/2014	<1	-	-	-	6.4	-	-	650	<0.005	0.002	-	-	-	<0.0002	<0.001	-	**0.004**	0.17	<0.05	0.17	<0.001	<0.005	<0.0001	0.006	-	**0.02**

Appendix A -
Table 2
Groundwater Analytical Results

			Inorganics				Water Quality				Metals																		
			Alkyl chloride	Volatile Fatty Acids	Bromide	Cyanide (Total)	pH (Lab)	Electrical conductivity (lab)	Hardness	Total Dissolved Solids	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (III+VI)	Cobalt	Copper	Ferric Iron	Ferrous Iron	Iron	Lead	Manganese	Mercury	Nickel	Vanadium	Zinc
			µg/L	µg/L	mg/L	µg/L	pH Units	µS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL			1	5000	0.5	4	0.01	1	1	1	0.001	0.001	0.001	0.001	0.05	0.0001	0.001	0.001	0.001	0.05	0.05	0.01	0.001	0.001	0.0001	0.001	0.01	0.001
ANZECC 2000 FW 95%						**7**						**0.013**			**0.37**	**0.0002**	**0.001**		**0.0014**				**0.0034**	**1.9**	**0.0006**	**0.011**		**0.008**
ANZECC 2000 Irrigation - Short-term Trigger Values												**2**		**0.5**	**0.5**	**0.05**	**1**	**0.1**	**5**			**10**	**10**	**10**	**0.002**	**2**	**0.5**	**5**
ANZECC 2000 Stock Watering										**4000**		**0.5**			**5**	**0.01**	**1**	**1**	**0.5**				**0.1**		**0.002**	**1**		**20**
NEPM 2013 Table 1C GILs, Drinking Water						**80**					**0.003**	**0.01**	**2**	**0.06**	**4**	**0.002**			**2**				**0.01**	**0.5**	**0.001**	**0.02**		
Location Code	**Field ID**	**Sampled Date**																										
MW40	MW40	25/03/2010	-	-	-	-	6.63	-	-	252	-	**0.239**	-	-	0.2	<0.0001	<0.001	-	**0.002**	<0.05	11.5	9.52	<0.001	0.136	<0.0001	**0.02**	-	**0.021**
	MW40	19/01/2011	-	-	-	-	6.09	-	-	276	-	**0.251**	0.028	<0.001	-	<0.0001	**0.002**	**0.279**	<0.001	<0.05	13.1	**13.1**	<0.001	0.15	<0.0001	0.005	<0.01	**0.014**
	MW40	27/02/2013	-	-	-	-	5.67	-	-	2110	-	**0.392**	-	-	0.22	<0.0001	<0.001	-	**0.002**	<0.05	14.2	**12.2**	<0.001	0.116	<0.0001	0.003	-	**0.077**
	MW40	3/02/2014	<1	-	-	-	6.3	-	-	530	<0.005	**0.2**	-	-	-	<0.0002	**0.002**	-	<0.001	<0.05	11	**11**	<0.001	0.12	<0.0001	0.009	-	**0.014**
MW41	MW41	25/03/2010	-	-	-	-	6.3	-	-	380	-	0.002	-	-	<0.05	<0.0001	<0.001	-	**0.006**	<0.05	<0.05	<0.05	<0.001	0.133	<0.0001	**0.014**	-	**0.026**
	MW41	19/01/2011	-	-	-	-	6	-	-	438	-	0.002	0.004	<0.001	-	<0.0001	<0.001	0.003	**0.002**	<0.05	<0.05	<0.05	<0.001	0.148	<0.0001	0.006	<0.01	**0.025**
	MW41	27/02/2013	-	-	-	-	5.7	-	-	586	-	0.003	-	-	0.08	<0.0001	<0.001	-	**0.003**	<0.05	<0.05	<0.05	0.002	0.151	<0.0001	0.005	-	**0.024**
	MW41	3/02/2014	<1	-	-	-	6.5	-	-	440	<0.005	0.003	-	-	-	<0.0002	<0.001	-	**0.002**	<0.05	<0.05	<0.05	<0.001	0.12	<0.0001	<0.001	-	**0.01**
MW42	MW42	25/03/2010	-	-	-	-	6.16	-	-	1910	-	0.005	-	-	<0.05	0.0001	<0.001	-	**0.002**	<0.05	<0.05	<0.05	0.002	**0.664**	<0.0001	**0.016**	-	**0.012**
	MW42	20/01/2011	-	-	-	-	6.02	-	-	2020	-	0.004	0.059	<0.001	<0.05	<0.0001	<0.001	0.012	**0.004**	<0.05	<0.05	<0.05	**0.011**	**0.67**	<0.0001	0.009	<0.01	**0.027**
	MW42	27/02/2013	-	-	-	-	5.41	-	-	2100	-	0.006	-	-	0.09	<0.0001	<0.001	-	**0.011**	<0.05	<0.05	<0.05	0.003	0.415	<0.0001	0.011	-	**0.18**
	MW42	3/02/2014	<1	-	-	-	6.4	-	-	2100	<0.005	0.005	-	-	-	<0.0002	<0.001	-	**0.005**	<0.05	0.07	0.07	<0.001	**0.65**	<0.0001	0.011	-	**0.018**

Appendix A -
Table 2
Groundwater Analytical Results

			TPH - NEPM 1999					TRH - NEPM 2013							BTEX						
			C6 - C9 Fraction	C10 - C14 Fraction	C15 - C28 Fraction	C29 - C36 Fraction	C10 - C36 (Sum of Total)	C6-C10 minus BTEX (F1)	>C10-C16 minus Naphthalene (F2)	C6 - C10 Fraction	>C10 - C16 Fraction	>C16 - C34 Fraction (F3)	>C34 - C40 Fraction (F4)	>C10 - C40 (Sum of Total)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	BTEX (Sum of Total)
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			20	50	100	50	50	20	50	20	50	100	100	100	0.5	1	1	1	2	2	1
ANZECC 2000 FW 95%															**950**			**350**			
ANZECC 2000 Irrigation - Short-term Trigger Values																					
ANZECC 2000 Stock Watering																					
NEPM 2013 Table 1C GILs, Drinking Water															**1**	**800**	**300**			**600**	
Location Code	**Field ID**	**Sampled Date**																			
MW3	MW3-1	15/07/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	-	-
	MW3-2	26/08/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<5	<5	<5	<5	<10		-
	MW3	25/03/2010	12,000	70	170	<50	240	-	-	-	-	-	-	-	<10	58	<10	<10	<20	-	-
	MW3	20/01/2011	5400	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW3	27/02/2013	1100	<50	<100	<50	<50	1120	-	1120	<100	<100	<100	<100	<10	<10	<10	<10	<20	<10	<10
MW4	MW4-1	15/07/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	-	-
	MW4-2	27/08/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<5	<5	<5	<5	<10		-
	MW4	3/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW4	18/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW4	20/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW5	MW5-1	16/07/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	-	-
	MW5-2	27/08/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<5	<5	<5	<5	<10		-
MW6/3	MW6/3-1	17/07/2008	<50	<50	<200	870	870	-	-	-	-	-	-	-	<1	7	<1	<1	<2	-	-
	MW6/3-2	28/08/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<5	<5	<5	<5	<10		-
MW6/4	MW6/4	7/12/2009	<20	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW6/4	22/03/2010	60	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	49	<2	<2	<2	-	-
	MW6/4	24/01/2011	<20	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
MW7/3	MW7/3-1	18/07/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<1	2	<1	<1	<2	-	-
	MW7/3-2	28/08/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<5	<5	<5	<5	<10		-
	MW7/3	7/12/2009	<20	<50	270	<50	270	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW7/3	22/03/2010	<20	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	10	<2	<2	<2	-	-
	MW7/3	21/01/2011	<20	<50	<100	80	80	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
MW9/2	MW9/2-1	17/07/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	-	-
MW11/2	MW11/2-1	17/07/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<1	2	<1	<1	<2	-	-
	MW11/2-2	28/08/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<5	<5	<5	<5	<10		-
	MW11/2	4/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	<1	<5	<2	<2	<2	-	-
	MW11/2	22/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW11/2	21/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
MW12/1	MW12/1-2	26/08/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<5	<5	<5	<5	<10	-	-
	MW12-1	17/07/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<1	5	<1	<1	<2	-	-
	MW12/1	9/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW12/1	25/03/2010	<20	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	11	<2	<2	<2	-	-
	MW12/1	21/01/2011	<20	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
MW13/2	MW13/2-1	17/07/2008	<2500	260	<200	<50	260	-	-	-	-	-	-	-	<50	287	<50	<50	<100	-	-
	MW13/2-2	25/08/2008	<50,000	490	<200	<50	490	-	-	-	-	-	-	-	<5000	<5000	<5000	<5000	<10,000	-	-
	MW13/2	10/12/2009	11,000	290	170	<50	460	-	-	-	-	-	-	-	**11 - 12**	<14	<2	6	4	-	-
	MW13/2	24/03/2010	810,000	720	420	80	1220	-	-	-	-	-	-	-	<100	**1070**	<100	<100	<200	-	-
	MW13/2	20/01/2011	250,000	1170	110	<50	1280	-	-	-	-	-	-	-	**52**	382	20	39	66	-	-
MW15/3	MW15/3-1	17/07/2008	<50	140	<200	780	920	-	-	-	-	-	-	-	**9**	1	<1	3	<2	-	-
	MW15/3-2	25/08/2008	<500	<50	<200	<50	0	-	-	-	-	-	-	-	<50	<50	<50	<50	<100	-	-
	MW15/3	10/12/2009	440,000	<50	140	<80	140	-	-	-	-	-	-	-	<100	**822 - 871**	<100	<100	<200	-	-
	MW15/3	24/03/2010	18,000	<50	<100	<50	<50	-	-	-	-	-	-	-	**12**	22	<10	<10	<20	-	-
	MW15/3	21/01/2011	13,500	<50	<100	60	60	-	-	-	-	-	-	-	**9**	9	<2	**3**	**2**	-	-
MW16/1	MW16/1-1	18/07/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<1	2	<1	<1	<2	-	-
	MW16/1-2	27/08/2008	<50	200	<200	<50	200	-	-	-	-	-	-	-	<5	<5	<5	<5	<10	-	-
	MW16/1	11/12/2009	60	<50	380	470	850	-	-	-	-	-	-	-	<1	3	<2	<2	<2	-	-
	MW16/1	23/03/2010	50	<50	220	170	390	-	-	-	-	-	-	-	<1	7	<2	<2	<2	-	-
	MW16/1	21/01/2011	50	<50	<100	170	170	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
MW17/1	MW17/1-1	18/07/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<1	1	<1	<1	<2	-	-
	MW17/1-2	27/08/2008	<50	70	<200	<50	70	-	-	-	-	-	-	-	<5	<5	<5	<5	<10	-	-
	MW17/1	11/12/2009	<20	<50	160	<50	160	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW17/1	24/03/2010	110	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	108	<2	<2	<2	-	-
	MW17/1	24/01/2011	100	<50	<100	<50	<50	-	-	-	-	-	-	-	**6**	16	<2	8	15	-	-
MW17/2	MW17/2-3	14/10/2008	<50	140	<200	<50	140	-	-	-	-	-	-	-	**9**	<5	<5	<5	<10	-	-
MW18	MW18-1	17/07/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<1	2	1	1	2	-	-
	MW18-2	27/08/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<5	<5	<5	<5	<10	-	-
	MW18	9/12/2009	1740	<50	<100	<50	<50	-	-	-	-	-	-	-	1	4	2	4	5	-	-
	MW18	10/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW18	24/03/2010	8600	<50	<100	<50	<50	-	-	-	-	-	-	-	<10	<10	<10	<10	<20	-	-
	MW18	20/01/2011	450	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-

Appendix A -
Table 2
Groundwater Analytical Results

			TPH - NEPM 1999					TRH - NEPM 2013							BTEX						
			C6 - C9 Fraction	C10 - C14 Fraction	C15 - C28 Fraction	C29 - C36 Fraction	C10 - C36 (Sum of Total)	C6-C10 minus BTEX (F1)	>C10-C16 minus Naphthalene (F2)	C6 - C10 Fraction	>C10 - C16 Fraction	>C16 - C34 Fraction (F3)	>C34 - C40 Fraction (F4)	>C10 - C40 (Sum of Total)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	BTEX (Sum of Total)
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			20	50	100	50	50	20	50	20	50	100	100	100	0.5	1	1	1	2	2	1
ANZECC 2000 FW 95%															**950**			**350**			
ANZECC 2000 Irrigation - Short-term Trigger Values																					
ANZECC 2000 Stock Watering																					
NEPM 2013 Table 1C GILs, Drinking Water															**1**	**800**	**300**			**600**	
Location Code	**Field ID**	**Sampled Date**																			
MW19	MW19-1	16/07/2008	1510	630	310	<50	940	-	-	-	-	-	-	-	<1	619	99	202	323	-	-
	MW19-2	27/08/2008	<50,000	60	<200	<50	60	-	-	-	-	-	-	-	<5000	<5000	<5000	<5000	<10,000	-	-
	MW19	8/12/2009	6000	<50	200	100	300	-	-	-	-	-	-	-	<20	<20	<20	<20	<40	-	-
	MW19	23/03/2010	38,000	270	<100	<50	270	-	-	-	-	-	-	-	<10	177	20	42	60	-	-
	MW19	19/01/2011	6500	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
MW20	MW20-1	16/07/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	-	-
	MW20-2	25/08/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<5	<5	<5	<5	<10	-	-
	MW20	3/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20	16/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20	20/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20	26/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20	31/01/2014	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	<3	-
MW21	MW21-1	15/07/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	-	-
	MW21-2	26/08/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<5	<5	<5	<5	<10	-	-
	MW21	7/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW21	24/03/2010	950	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW21	19/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW21	26/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW21	31/01/2014	-	-	-	-	-	-	-	-	-	-	-	-	<4	<4	<4	<4	<8	<12	-
MW22	MW22-1	16/07/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	-	-
	MW22-2	26/08/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<5	<5	<5	<5	<10	-	-
	MW22	9/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW22	22/03/2010	190	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW22	18/01/2011	160	<50	220	250	470	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW22	28/02/2013	60	<50	130	70	200	60	-	60	<100	170	<100	170	<1	<2	<2	<2	<2	<2	<1
	MW22	30/01/2014	210	<50	<100	<100	<100	210	<50	210	<50	<100	<100	-	<1	<1	<1	<1	<2	<3	-
MW23	MW23-1	17/07/2008	500	160	<200	<50	160	-	-	-	-	-	-	-	**442**	1	51	<1	<2	-	-
	MW23-2	27/08/2008	270	180	<200	<50	180	-	-	-	-	-	-	-	**265**	<5	27	<5	<10	-	-
	MW23	9/12/2009	320	<50	<100	<50	<50	-	-	-	-	-	-	-	**225**	2	40 - 42	<2	<2	-	-
	MW23	24/03/2010	540	110	<100	<50	110	-	-	-	-	-	-	-	**294**	<2	59	<2	<2	-	-
	MW23	19/01/2011	270	60	<100	<50	60	-	-	-	-	-	-	-	**184**	<2	22	<2	<2	-	-
	MW23	27/02/2013	340	70	<100	<50	70	100	-	350	<100	<100	<100	<100	**200**	<2	47	<2	<2	<2	247
	MW23	31/01/2014	50	80	<100	<100	<100	40	80	50	80	<100	<100	-	**11**	<1	<1	<1	<2	<3	-
MW24A	MW24A-2	27/08/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<5	<5	<5	<5	<10	-	-
	MW24A-3	14/10/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<5	<5	<5	<5	<10	-	-
	MW24A	10/12/2009	3500	<50	<100	<60	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW24A	23/03/2010	5600	<50	<100	70	70	-	-	-	-	-	-	-	<10	<10	<10	<10	<20	-	-
	MW24A	18/01/2011	8850	<50	<100	<50	<50	-	-	-	-	-	-	-	1	<2	<2	6	<2	-	-
	MW24A	28/02/2013	2620	<50	<100	<50	<50	2580	-	2580	<100	<100	<100	<100	<10	<10	<5	<10	<20	<10	<10
	MW24A	29/01/2014	10,000	<50	<100	<100	<100	10,000	<50	10,000	<50	<100	<100	-	<80	<80	<80	<80	<160	<240	-
MW24B	MW24B-2	27/08/2008	<50,000	280	<200	<50	280	-	-	-	-	-	-	-	<5000	<5000	<5000	<5000	<10,000	-	-
	MW24B-3	14/10/2008	<150	230	<200	<50	230	-	-	-	-	-	-	-	<100	<100	<5	<5	<10	-	-
	MW24B	10/12/2009	85,800	100	130	<50	230	-	-	-	-	-	-	-	**22 - 23**	89 - 91	4	3	8	-	-
	MW24B	24/03/2010	155,000	200	180	<50	380	-	-	-	-	-	-	-	<100	<100	<100	<100	<200	-	-
	MW24B	18/01/2011	59,000	<50	<100	<50	<50	-	-	-	-	-	-	-	<100	140	<100	<100	<200	-	-
	MW24B	28/02/2013	46,600	80	<100	<50	80	44,600	-	45,200	<100	<100	<100	<100	<100	593	<50	<100	<200	<100	593
	MW24B	29/01/2014	84,000	190	<100	<100	200	84,000	150	84,000	150	<100	<100	-	<500	540	<500	<500	<1000	<1500	-
MW24C	MW24C-2	27/08/2008	<50,000	6220	<200	<50	6220	-	-	-	-	-	-	-	<5000	<5000	<5000	<5000	<10,000	-	-
	MW24C-3	13/10/2008	49,000	15,000	501	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW24C	10/12/2009	156,000	134,000	5260	<250	139,000	-	-	-	-	-	-	-	**112 - 114**	**1,900 - 12,20**	137 - 138	<100 - 101	204 - 206	-	-
	MW24C	11/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW24C	25/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	<100	**9310**	<100	<100	<200	-	-
	MW24C	28/02/2013	141,000	11,100	1030	<50	12,100	120,000	-	138,000	3050	810	<100	3860	**112**	**17,700**	**353**	<100	208	208	18,400
	MW24C	3/02/2014	200,000	9400	600	<100	10,000	190,000	1700	200,000	1700	500	<100	-	<1000	**11,000**	<1000	<1000	<2000	<3000	-
MW25	MW25-2	25/08/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<5	<5	<5	<5	<10	-	-
	MW25-3	13/10/2008	330	<40	<100	<100	-	-	-	-	-	-	-	-	<0.5	<1	<1	<1	<2	<3	-
	MW25	9/12/2009	40	<50	250	<70	250	-	-	-	-	-	-	-	<1	3	<2	<2	<2	-	-
	MW25	22/03/2010	850	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	3	<2	<2	<2	-	-
	MW25	18/01/2011	370	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW25	1/03/2013	<20	<50	<100	<50	<50	<20	-	<20	<100	<100	<100	<100	<1	<2	<2	<2	<2	<2	<1
	MW25	29/01/2014	<20	<50	<100	<100	<100	<20	<50	<20	<50	<100	<100	-	<1	<1	<1	<1	<2	<3	-
MW26	MW26-3	13/10/2008	10,000	<40	<100	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW26	8/12/2009	91,300	<50	<100	<50	<50	-	-	-	-	-	-	-	<50	<50	<50	<50	<100	-	-
	MW26	17/03/2010	97,000	<50	<100	<50	<50	-	-	-	-	-	-	-	<100	<100	<100	<100	<200	-	-
	MW26	18/01/2011	285,000	<50	<100	<50	<50	-	-	-	-	-	-	-	<100	<100	<100	<100	<200	-	-
	MW26	1/03/2013	117,000	<50	<100	<50	<50	110,000	-	110,000	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	MW26	29/01/2014	160,000	<50	<100	<100	<100	160,000	<50	160,000	<50	<100	<100	-	<2000	<2000	<2000	<2000	<4000	<6000	-
MW27	MW27-1	15/07/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	-	-
	MW27-2	25/08/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<5	<5	<5	<5	<10	-	-
	MW27	3/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW27	16/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW27	20/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW27	25/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW27	31/01/2014	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	<3	-

Appendix A -
Table 2
Groundwater Analytical Results

			TPH - NEPM 1999					TRH - NEPM 2013							BTEX						
			C6 - C9 Fraction	C10 - C14 Fraction	C15 - C28 Fraction	C29 - C36 Fraction	C10 - C36 (Sum of Total)	C6-C10 minus BTEX (F1)	>C10-C16 minus Naphthalene (F2)	C6 - C10 Fraction	>C10 - C16 Fraction	>C16 - C34 Fraction (F3)	>C34 - C40 Fraction (F4)	>C10 - C40 (Sum of Total)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	BTEX (Sum of Total)
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EOL			20	50	100	50	50	20	50	20	50	100	100	100	0.5	1	1	1	2	2	1
ANZECC 2000 FW 95%															**950**			**350**			
ANZECC 2000 Irrigation - Short-term Trigger Values																					
ANZECC 2000 Stock Watering																					
NEPM 2013 Table 1C GILs, Drinking Water															**1**	**800**	**300**			**600**	
Location Code	**Field ID**	**Sampled Date**																			
MW28	MW28-1	15/07/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	-	-
	MW28-2	26/08/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<5	<5	<5	<5	<10	-	-
	MW28	3/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW28	16/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW28	20/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW28	25/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW28	31/01/2014	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	<3	-
MW29	MW29-3	20/10/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<5	<5	<5	<5	<10	-	-
	MW29	19/01/2011	<20	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
MW30	MW30-3	14/10/2008	<50	<50	<200	<50	0	-	-	-	-	-	-	-	<5	<5	<5	<5	<10	-	-
	MW30	9/12/2009	<20	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW30	22/03/2010	<20	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW30	19/01/2011	<20	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW30	26/02/2013	<20	<50	<100	<50	<50	<20	-	<20	<100	<100	<100	<100	<1	<2	<2	<2	<2	<2	<1
	MW30	31/01/2014	<20	<50	<100	<100	<100	<20	<50	<20	<50	<100	<100	-	<1	<1	<1	<1	<2	<3	-
MW31	MW31	7/12/2009	3300	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW31	22/03/2010	3900	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW31	18/01/2011	4150	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW31	26/02/2013	500	<50	<100	<50	<50	490	-	490	<100	<100	<100	<100	<1	<2	<2	<2	<2	<2	<1
	MW31	29/01/2014	910	<50	<100	<100	<100	910	<50	910	<50	<100	<100	-	<4	<4	<4	<4	<8	<12	-
MW32	MW32	8/12/2009	580	<50	<100	<50	<50	-	-	-	-	-	-	-	**3**	<5	<2	<2	<2	-	-
	MW32	19/03/2010	1220	<50	<100	<50	<50	-	-	-	-	-	-	-	**2**	<2	<2	<2	<2	-	-
	MW32	18/01/2011	1530	<50	<100	<50	<50	-	-	-	-	-	-	-	**1**	<2	<2	<2	<2	-	-
	MW32	28/02/2013	760	<50	<100	110	110	740	-	740	<100	170	<100	170	**2**	<2	<2	<2	<2	<2	2
	MW32	29/01/2014	1000	<50	<100	<100	<100	1000	<50	1000	<50	<100	<100	-	<4	<4	<4	<4	<8	<12	-
MW33	MW33	23/03/2010	60	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW33	19/01/2011	120	70	420	170	660	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW33	26/02/2013	110	<50	<100	<50	<50	100	-	100	<100	<100	<100	<100	<1	<2	<2	<2	<2	<2	<1
MW34A	MW34A	7/12/2009	7200	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	3	5	-	-
	MW34A	17/03/2010	12,000	<50	<100	<50	<50	-	-	-	-	-	-	-	<100	<100	<100	<100	<200	-	-
	MW34A	18/01/2011	9460	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW34A	28/02/2013	6060	<50	<100	<50	<50	5920	-	5950	<100	<100	<100	<100	<10	21	6	<10	<20	<10	27
	MW34A	30/01/2014	19,000	<50	<100	<100	<100	19,000	<50	19,000	<50	<100	<100	-	<100	<100	<100	<100	<200	<300	-
MW34B	MW34B	8/12/2009	980	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<5	<2	<2	<2	-	-
	MW34B	17/03/2010	290	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW34B	18/01/2011	200	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW34B	28/02/2013	270	<50	<100	<50	<50	260	-	260	<100	<100	<100	<100	<1	<2	<2	<2	<2	<2	<1
	MW34B	30/01/2014	1000	<50	<100	<100	<100	1000	<50	1000	<50	<100	<100	-	<8	<8	<8	<8	<16	<24	-
MW35	MW35	11/12/2009	1100	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW35	17/03/2010	1300	<50	<100	<50	<50	-	-	-	-	-	-	-	<10	<10	<10	<10	<20	-	-
	MW35	18/01/2011	4450	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW35	27/02/2013	3830	<50	<100	<50	<50	3290	-	3290	<100	<100	<100	<100	<10	<10	<10	<10	<20	<10	<10
	MW35	30/01/2014	13,000	<50	<100	<100	<100	13,000	<50	13,000	<50	<100	<100	-	<100	<100	<100	<100	<200	<300	-
MW36	MW36	7/12/2009	<20	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW36	18/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW36	19/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW36	25/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW36	31/01/2014	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	<3	-
MW37	MW37	4/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	<1	<5	<2	<2	<2	-	-
	MW37	18/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW37	19/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW37	25/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW37	30/01/2014	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	<3	-
MW38	MW38	4/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	<1	<5	<2	<2	<2	-	-
	MW38	18/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW38	19/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW38	26/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW38	30/01/2014	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	<3	-
MW39	MW39	4/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	<1	<5	<2	<2	<2	-	-
	MW39	18/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW39	21/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW39	27/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW39	31/01/2014	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	<3	-

Appendix A -
Table 2
Groundwater Analytical Results

			TPH - NEPM 1999					TRH - NEPM 2013							BTEX						
			C6 - C9 Fraction	C10 - C14 Fraction	C15 - C28 Fraction	C29 - C36 Fraction	C10 - C36 (Sum of Total)	C6-C10 minus BTEX (F1)	>C10-C16 minus Naphthalene (F2)	C6 - C10 Fraction	>C10 - C16 Fraction	>C16 - C34 Fraction (F3)	>C34 - C40 Fraction (F4)	>C10 - C40 (Sum of Total)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	BTEX (Sum of Total)
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			20	50	100	50	50	20	50	20	50	100	100	100	0.5	1	1	1	2	2	1
ANZECC 2000 FW 95%															**950**			**350**			
ANZECC 2000 Irrigation - Short-term Trigger Values																					
ANZECC 2000 Stock Watering																					
NEPM 2013 Table 1C GILs, Drinking Water															**1**	**800**	**300**			**600**	
Location Code	**Field ID**	**Sampled Date**																			
MW40	MW40	25/03/2010	40	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW40	19/01/2011	<20	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW40	27/02/2013	<20	<50	<100	<50	<50	<20	-	<20	<100	<100	<100	<100	<1	<2	<2	<2	<2	<2	<1
	MW40	3/02/2014	<20	<50	<100	<100	<100	<20	<50	<20	<50	<100	<100	-	<1	<1	<1	<1	<2	<3	-
MW41	MW41	25/03/2010	<20	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW41	19/01/2011	<20	<50	120	50	170	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW41	27/02/2013	<20	<50	<100	<50	<50	<20	-	<20	<100	<100	<100	<100	<1	<2	<2	<2	<2	<2	<1
	MW41	3/02/2014	<20	<50	<100	<100	<100	<20	<50	<20	<50	<100	<100	-	<1	<1	<1	<1	<2	<3	-
MW42	MW42	25/03/2010	30	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW42	20/01/2011	40	<50	<100	<50	<50	-	-	-	-	-	-	-	<1	<2	<2	<2	<2	-	-
	MW42	27/02/2013	<20	<50	<100	<50	<50	<20	-	<20	<100	<100	<100	<100	<1	<2	<2	<2	<2	<2	<1
	MW42	3/02/2014	<20	<50	<100	<100	<100	<20	<50	<20	<50	<100	<100	-	<1	<1	<1	<1	<2	<3	-

Appendix A -
Table 2
Groundwater Analytical Results

			MAH			PAHs																		
			1,2,4-trimethylbenzene	Isopropylbenzene	Styrene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo[b+j]fluoranthene	Benzo(k)fluoranthene	Benzo(b)&(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Polycyclic Aromatic Hydrocarbons
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EOL			1	1	1	1	1	1	1	0.5	1	1	1	2	1	1	1	1	1	1	1	1	1	1
ANZECC 2000 FW 95%																					16			
ANZECC 2000 Irrigation - Short-term Trigger Values																								
ANZECC 2000 Stock Watering																								
NEPM 2013 Table 1C GILs, Drinking Water					30					0.01														
Location Code	Field ID	Sampled Date																						
MW3	MW3-1	15/07/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW3-2	26/08/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW3	25/03/2010	<10	<10	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	-	-	-
	MW3	20/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW3	27/02/2013	<10	<10	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<25	-	-	-
MW4	MW4-1	15/07/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW4-2	27/08/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	1	1
	MW4	3/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW4	18/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW4	20/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW5	MW5-1	16/07/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW5-2	27/08/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
MW6/3	MW6/3-1	17/07/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW6/3-2	28/08/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
MW6/4	MW6/4	7/12/2009	<5	<5	<5	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW6/4	22/03/2010	<5	<5	<5	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW6/4	24/01/2011	<5	<5	<5	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
MW7/3	MW7/3-1	18/07/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW7/3-2	28/08/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW7/3	7/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW7/3	22/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW7/3	21/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW9/2	MW9/2-1	17/07/2008	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-
MW11/2	MW11/2-1	17/07/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW11/2-2	28/08/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW11/2	4/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW11/2	22/03/2010	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW11/2	21/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
MW12/1	MW12/1-2	26/08/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW12-1	17/07/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW12/1	9/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW12/1	25/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW12/1	21/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW13/2	MW13/2-1	17/07/2008	<250	<250	<250	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW13/2-2	25/08/2008	<5000	<5000	<5000	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW13/2	10/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW13/2	24/03/2010	<100	<100	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<500	-	-	-
	MW13/2	20/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
MW15/3	MW15/3-1	17/07/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW15/3-2	25/08/2008	<50	<50	<50	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW15/3	10/12/2009	<100	<100	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<500	-	-	-
	MW15/3	24/03/2010	<10	<10	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	-	-	-
	MW15/3	21/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
MW16/1	MW16/1-1	18/07/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW16/1-2	27/08/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW16/1	11/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW16/1	23/03/2010	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW16/1	21/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
MW17/1	MW17/1-1	18/07/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW17/1-2	27/08/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW17/1	11/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW17/1	24/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW17/1	24/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW17/2	MW17/2-3	14/10/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
MW18	MW18-1	17/07/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW18-2	27/08/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW18	9/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW18	10/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW18	24/03/2010	<10	<10	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	-	-	-
	MW18	20/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-

Appendix A -
Table 2
Groundwater Analytical Results

			MAH			PAHs																		
			1,2,4-trimethylbenzene	Isopropylbenzene	Styrene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo[b+j]fluoranthene	Benzo(k)fluoranthene	Benzo(b)&(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Polycyclic Aromatic Hydrocarbons
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			1	1	1	1	1	1	1	0.5	1	1	1	2	1	1	1	1	1	1	1	1	1	1
ANZECC 2000 FW 95%																					16			
ANZECC 2000 Irrigation - Short-term Trigger Values																								
ANZECC 2000 Stock Watering																								
NEPM 2013 Table 1C GILs, Drinking Water					30					0.01														
Location Code	Field ID	Sampled Date																						
MW19	MW19-1	16/07/2008	<5	<5	<5	4	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	27 - 38	<1	<1	31
	MW19-2	27/08/2008	<5000	<5000	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<5000 - 2	<1	<1	2
	MW19	8/12/2009	<20	<20	<20	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW19	23/03/2010	<10	<10	<10	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<50 - 8.9	<1	<1	-
	MW19	19/01/2011	<5	<5	<5	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
MW20	MW20-1	16/07/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW20-2	25/08/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW20	3/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20	16/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20	20/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20	26/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20	31/01/2014	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW21	MW21-1	15/07/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW21-2	26/08/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW21	7/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW21	24/03/2010	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW21	19/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW21	26/02/2013	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW21	31/01/2014	<4	<4	<4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW22	MW22-1	16/07/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW22-2	26/08/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW22	9/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW22	22/03/2010	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW22	18/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW22	28/02/2013	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-
	MW22	30/01/2014	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-
MW23	MW23-1	17/07/2008	<5	9	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	29 - 30	<1	<1	29
	MW23-2	27/08/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<5 - 21	<1	<1	21
	MW23	9/12/2009	<5	10	<5	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	8 - 17	<1	<1	-
	MW23	24/03/2010	<5	14	<5	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	16.6	<1	<1	-
	MW23	19/01/2011	<5	11	<5	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	11.5	<1	<1	-
	MW23	27/02/2013	<5	11	<5	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	22 - 24.6	<1	<1	24.6
	MW23	31/01/2014	<1	6	<1	<1	<1	<1	<1	<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW24A	MW24A-2	27/08/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW24A-3	14/10/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW24A	10/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW24A	23/03/2010	<10	<10	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	-	-	-
	MW24A	18/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW24A	28/02/2013	<10	<10	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-	-
	MW24A	29/01/2014	<80	<80	<80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<80	-	-	-
MW24B	MW24B-2	27/08/2008	<5000	<5000	<5000	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW24B-3	14/10/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW24B	10/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW24B	24/03/2010	<100	<100	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<500	-	-	-
	MW24B	18/01/2011	<100	<100	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<500	-	-	-
	MW24B	28/02/2013	<100	<100	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	-	-	-
	MW24B	29/01/2014	<500	<500	<500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<500	-	-	-
MW24C	MW24C-2	27/08/2008	<5000	<5000	<5000	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW24C-3	13/10/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	MW24C	10/12/2009	<100	<100	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<500	-	-	-
	MW24C	11/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW24C	25/03/2010	<100	<100	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<500	-	-	-
	MW24C	28/02/2013	<100	<100	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	-	-	-
	MW24C	3/02/2014	<1000	<1000	<1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1000	-	-	-
MW25	MW25-2	25/08/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW25-3	13/10/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	MW25	9/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW25	22/03/2010	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW25	18/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW25	1/03/2013	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-
	MW25	29/01/2014	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-
MW26	MW26-3	13/10/2008				<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	MW26	8/12/2009	<50	<50	<50	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW26	17/03/2010	<100	<100	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<500	-	-	-
	MW26	18/01/2011	<100	<100	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<500	-	-	-
	MW26	1/03/2013	<100	<100	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	-	-	-
	MW26	29/01/2014	<2000	<2000	<2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2000	-	-	-
MW27	MW27-1	15/07/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW27-2	25/08/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW27	3/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW27	16/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW27	20/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW27	25/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW27	31/01/2014	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Appendix A -
Table 2
Groundwater Analytical Results

			MAH			PAHs																		
			1,2,4-trimethylbenzene	Isopropylbenzene	Styrene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo[b+j]fluoranthene	Benzo(k)fluoranthene	Benzo(b)&(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Polycyclic Aromatic Hydrocarbons
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			1	1	1	1	1	1	1	0.5	1	1	1	2	1	1	1	1	1	1	1	1	1	1
ANZECC 2000 FW 95%									1												16			
ANZECC 2000 Irrigation - Short-term Trigger Values																								
ANZECC 2000 Stock Watering																								
NEPM 2013 Table 1C GILs, Drinking Water					30					0.01														
Location Code	**Field ID**	**Sampled Date**																						
MW28	MW28-1	15/07/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW28-2	26/08/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW28	3/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW28	16/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW28	20/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW28	25/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW28	31/01/2014	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW29	MW29-3	20/10/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW29	19/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW30	MW30-3	14/10/2008	<5	<5	<5	<1	<1	<1	<1	<1	-	-	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW30	9/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW30	22/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW30	19/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW30	26/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-
	MW30	31/01/2014	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-
MW31	MW31	7/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW31	22/03/2010	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW31	18/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW31	26/02/2013	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-
	MW31	29/01/2014	<4	<4	<4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-
MW32	MW32	8/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW32	19/03/2010	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW32	18/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW32	28/02/2013	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-
	MW32	29/01/2014	<4	<4	<4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-
MW33	MW33	23/03/2010	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW33	19/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW33	26/02/2013	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-
MW34A	MW34A	7/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW34A	17/03/2010	<100	<100	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<500	-	-	-
	MW34A	18/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW34A	28/02/2013	<10	<10	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-	-
	MW34A	30/01/2014	<100	<100	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	-	-	-
MW34B	MW34B	8/12/2009	<5	<5	<5	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW34B	17/03/2010	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW34B	18/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW34B	28/02/2013	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-
	MW34B	30/01/2014	<8	<8	<8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-
MW35	MW35	11/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW35	17/03/2010	<10	<10	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	-	-	-
	MW35	18/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW35	27/02/2013	<10	<10	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<25	-	-	-
	MW35	30/01/2014	<100	<100	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	-	-	-
MW36	MW36	7/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW36	18/03/2010	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW36	19/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW36	25/02/2013	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW36	31/01/2014	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW37	MW37	4/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW37	18/03/2010	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW37	19/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW37	25/02/2013	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW37	30/01/2014	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW38	MW38	4/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW38	18/03/2010	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW38	19/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW38	26/02/2013	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW38	30/01/2014	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW39	MW39	4/12/2009	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW39	18/03/2010	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW39	21/01/2011	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW39	27/02/2013	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7	-	-	-
	MW39	31/01/2014	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Appendix A -
Table 2
Groundwater Analytical Results

			MAH			PAHs																		
			1,2,4-trimethylbenzene	Isopropylbenzene	Styrene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo[b+j]fluoranthene	Benzo(k)fluoranthene	Benzo(b)&(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Polycyclic Aromatic Hydrocarbons
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			1	1	1	1	1	1	1	0.5	1	1	1	2	1	1	1	1	1	1	1	1	1	1
ANZECC 2000 FW 95%																					16			
ANZECC 2000 Irrigation - Short-term Trigger Values																								
ANZECC 2000 Stock Watering																								
NEPM 2013 Table 1C GILs, Drinking Water					30					0.01														
Location Code	**Field ID**	**Sampled Date**																						
MW40	MW40	25/03/2010	<5	<5	<5	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW40	19/01/2011	<5	<5	<5	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW40	27/02/2013	<5	<5	<5	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5
	MW40	3/02/2014	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW41	MW41	25/03/2010	<5	<5	<5	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW41	19/01/2011	<5	<5	<5	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW41	27/02/2013	<5	<5	<5	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5
	MW41	3/02/2014	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW42	MW42	25/03/2010	<5	<5	<5	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	1.3	-
	MW42	20/01/2011	<5	<5	<5	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
	MW42	27/02/2013	<5	<5	<5	<1	<1	<1	<1	<0.5	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5
	MW42	3/02/2014	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

			TEQ	VOCs																																
			Benzo(a)pyrene TEQ - Calc	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,2,3-trichlorobenzene	1,2,3-trichloropropane	1,2,4-trichlorobenzene	1,2-dibromoethane	1,2-dichlorobenzene	1,2-dichloroethane	1,3,5-trimethylbenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-butanone (MEK)	2-hexanone (MBK)	2-pentanone	4-methyl-2-pentanone (MIBK)	Acetone	Bromodichloromethane	Bromoform	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chlorodibromomethane	Chloroethane	Chloroform	cis-1,2-dichloroethene	cis-1,3-dichloropropene
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			0.5	1	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1	1	1	5	5	1	1	1	1	1	1	1	1	1	1	1	5	1	1
ANZECC 2000 FW 95%							6500			10		170	1	160				260	60																		
ANZECC 2000 Irrigation - Short-term Trigger Values																																				
ANZECC 2000 Stock Watering																																				
NEPM 2013 Table 1C GILs, Drinking Water									30	30		30		1500	3			40									3	300								
Location Code	**Field ID**	**Sampled Date**																																		
MW3	MW3-1	15/07/2008	-	<5	<5	<5	<5	5	<5	<5	<5	<5	<5	<1	3	<5	<5	<1	<5	<5	<5	<5	-	96	<5	<5	19	<5	5	<10	9920	<5	<5
	MW3-2	26/08/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	18	<5	<5	<5	<5	<5	<50	2910	<5	<5
	MW3	25/03/2010	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<10	<10	<100	<100	-	<100	<100	77	<10	<10	37	<10	<10	<100	11,600	<10	<10
	MW3	20/01/2011	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	-	36	<5	<5	33	<5	<5	<50	5250	<5	<5
	MW3	27/02/2013	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<100	<100	-	<100	<200	14	<10	<10	<10	<10	<10	<100	1790	<10	<10
MW4	MW4-1	15/07/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<5	<5	<1	<5	<5	<5	<5	-	<5	<5	<5	<1	<5	<5	<10	<5	<5	<5
	MW4-2	27/08/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW4	3/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW4	18/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW4	20/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW5	MW5-1	16/07/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<5	<5	<1	<5	<5	<5	<5	-	<5	<5	<5	<1	<5	<5	<10	<5	<5	<5
	MW5-2	27/08/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
MW6/3	MW6/3-1	17/07/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<5	<5	<1	<5	<5	<5	<5	-	<5	<5	<5	<1	<5	<5	<10	<5	<5	<5
	MW6/3-2	28/08/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
MW6/4	MW6/4	7/12/2009	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW6/4	22/03/2010	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW6/4	24/01/2011	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
MW7/3	MW7/3-1	18/07/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<5	<5	<1	<5	<5	<5	<5	-	<5	<5	<5	<1	<5	<5	<10	<5	<5	<5
	MW7/3-2	28/08/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW7/3	7/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW7/3	22/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW7/3	21/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW9/2	MW9/2-1	17/07/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<5	<5	<1	<5	<5	<5	<5	-	<5	<5	<5	<1	<5	<5	<10	<5	<5	<5
MW11/2	MW11/2-1	17/07/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<5	<5	<1	<5	<5	<5	<5	-	<5	<5	<5	<1	<5	<5	<10	<5	<5	<5
	MW11/2-2	28/08/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW11/2	4/12/2009	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW11/2	22/03/2010	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW11/2	21/01/2011	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
MW12/1	MW12/1-2	26/08/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW12-1	17/07/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<5	<5	<1	<5	<5	<5	<5	-	<5	<5	<5	<1	<5	<5	<10	<5	<5	<5
	MW12/1	9/12/2009	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW12/1	25/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW12/1	21/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW13/2	MW13/2-1	17/07/2008	-	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<50	1960	<250	<250	<50	<250	<250	<250	<250	-	<250	<250	<250	<50	<250	<250	<500	444	1120	<250
	MW13/2-2	25/08/2008	-	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	-	<5000	<5000	<5000	<5000	<5000	<5000	<50,000	<5000	<5000	<5000
	MW13/2	10/12/2009	-	<5	<5	<5	12	58	193	<5	<5	<5	<5	73	100	<5	<5	6	<50	<50	-	<50	110	<5	<5	<5	6	15	<5	<50	846	1070	<5
	MW13/2	24/03/2010	-	<100	<100	<100	198	<100	<100	<100	<100	<100	-	<100	3480	<100	<100	<100	<1000	<1000	-	<1000	27,000	<100	<100	<100	<100	<100	<100	<1000	951	3820	<100
	MW13/2	20/01/2011	-	<5	116	<5	97	9	80	<5	<5	<5	<5	<5	2930	<5	<5	<5	<50	<50	-	<50	-	<5	<5	<5	47	<5	<5	<50	678	2840	<5
MW15/3	MW15/3-1	17/07/2008	-	<5	<5	<5	7	46	182	<5	<5	<5	<5	22	67	<5	<5	<1	<5	<5	<5	<5	-	<5	<5	<5	<1	10	<5	<10	803	1240	<5
	MW15/3-2	25/08/2008	-	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	-	<50	<50	<50	<50	<50	<50	<500	136	225	<50
	MW15/3	10/12/2009	-	<100	<100	<100	207	<100	<100	<100	<100	<100	<100	<100	2760	<100	<100	<100	<1000	<1000	-	<1000	12,900	<100	<100	<100	<100	<100	<100	<1000	735	2810	<100
	MW15/3	24/03/2010	-	<10	<10	<10	13	58	218	<10	<10	<10	-	94	135	<10	<10	<10	<100	<100	-	<100	<100	<10	<10	<10	<10	14	<10	<100	889	1130	<10
	MW15/3	21/01/2011	-	<5	<5	<5	8	50	143	<5	<5	<5	<5	68	129	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	8	<5	<50	741	678	<5
MW16/1	MW16/1-1	18/07/2008	-	<5	<5	<5	<5	10	5	<5	<5	<5	<5	3	<1	<5	<5	<1	<5	<5	<5	<5	-	<5	<5	<5	<1	<5	<5	<10	11	<5	<5
	MW16/1-2	27/08/2008	-	<5	<5	<5	<5	11	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<50	11	<5	<5
	MW16/1	11/12/2009	-	<5	<5	<5	<5	13	8	<5	<5	<5	-	11	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	9	<5	<5
	MW16/1	23/03/2010	-	<5	<5	<5	<5	15	8	<5	<5	<5	<5	16	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	9	<5	<5
	MW16/1	21/01/2011	-	<5	<5	<5	<5	13	9	<5	<5	<5	<5	12	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
MW17/1	MW17/1-1	18/07/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<5	<5	<1	<5	<5	<5	<5	-	<5	<5	<5	<1	<5	<5	<10	<5	<5	<5
	MW17/1-2	27/08/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW17/1	11/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW17/1	24/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW17/1	24/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW17/2	MW17/2-3	14/10/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
MW18	MW18-1	17/07/2008	-	<5	<5	<5	<5	<5	7	<5	<5	<5	<5	<1	<1	<5	<5	<1	<5	<5	<5	<5	-	<5	<5	<5	<1	<5	<5	<10	2540	<5	
	MW18-2	27/08/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	324	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<50	1250	<5	
	MW18	9/12/2009	-	<5	5	<5	<5	<5	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	9	2370	<5
	MW18	10/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW18	24/03/2010	-	<10	19	<10	<10	<10	10	<10	<10	<10	-	<10	<10	<10	<10	<10	<100	<100	-	<100	<100	<10	<10	<10	<10	<10	<10	<100	16	5410	<10	
	MW18	20/01/2011	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	-	<5	<5	<5	<5	<5	<5	<50	<5	195	<5		

			TEQ	VOCs																																	
			Benzo(a)pyrene TEQ - Calc	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,2,3-trichlorobenzene	1,2,3-trichloropropane	1,2,4-trichlorobenzene	1,2-dibromoethane	1,2-dichlorobenzene	1,2-dichloroethane	1,3,5-trimethylbenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-butanone (MEK)	2-hexanone (MBK)	2-pentanone	4-methyl-2-pentanone (MIBK)	Acetone	Bromodichloromethane	Bromoform	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chlorodibromomethane	Chloroethane	Chloroform	cis-1,2-dichloroethene	cis-1,3-dichloropropene
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			0.5	1	1	1	1	1	1	1	5	1	5	1	1	1	1	1	1	1	5	5	1	1	1	1	1	1	1	1	1	1	1	5	1	1
ANZECC 2000 FW 95%							6500		1	10		170		160	1	1	260	60																			
ANZECC 2000 Irrigation - Short-term Trigger Values																																					
ANZECC 2000 Stock Watering																																					
NEPM 2013 Table 1C GILs, Drinking Water									30	30		30		1500	3			40									3	300								
Location Code	**Field ID**	**Sampled Date**																																			
MW19	MW19-1	16/07/2008	-	<5	<5	<5	79	10	47	<5	<5	<5	<5	<1	581	<5	<5	<1	<5	<5	<5	<5	<5	-	<5	<5	<5	<1	<5	<5	<10	1580	14,200	<5
	MW19-2	27/08/2008	-	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	-	<5000	<5000	<5000	<5000	<5000	<5000	<50,000	<5000	<5000	<5000
	MW19	8/12/2009	-	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	55	<20	<20	<20	<200	<200	-	<200	<200	<20	<20	<20	<20	<20	<20	<200	64	3100	<20
	MW19	23/03/2010	-	<10	<10	<10	42	<10	<10	<10	<10	<10	<10	<10	266	<10	<10	<10	<100	<100	-	<100	8010	<10	<10	<10	<10	<10	<10	<100	345	2880	<10
	MW19	19/01/2011	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	14	3010	<5
MW20	MW20-1	16/07/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<5	<5	<1	<5	<5	<5	<5	<5	-	<5	<5	<5	<1	<5	<5	<10	<5	<5	<5
	MW20-2	25/08/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW20	3/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20	16/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20	20/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20	26/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20	31/01/2014	-	<1	<1	<1	<1	<1	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
MW21	MW21-1	15/07/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<5	<5	<1	<5	<5	<5	<5	<5	-	<5	<5	<5	8	<5	<5	<10	38	71	<5
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	MW24A	23/03/2010	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	109	<10	<10	<10	<100	<100	-	<100	<500	<10	<10	<10	<10	<10	<10	<100	218	51	<10
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	MW24A	29/01/2014	-	<80	<80	<80	<80	<80	<80	-	<80	-	<80	<80	270	<80	<80	<80	<80	<80	-	-	<80	<80	<80	<80	<80	150	<80	<80	<80	450	120	<80
MW24B	MW24B-2	27/08/2008	-	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	-	<5000	<5000	<5000	<5000	<5000	<5000	<50,000	<5000	<5000	<5000
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	MW24B	24/03/2010	-	<100	<100	<100	<100	<100	317	<100	<100	<100	-	<100	934	<100	<100	<100	<100	<1000	<1000	-	<1000	<2500	<100	<100	<100	<100	<100	<100	<1000	397	6540	<100
	MW24B	18/01/2011	-	<100	<100	<100	113	108	487	<100	<100	<100	<100	<100	674	<100	<100	<100	<100	<1000	<1000	-	<1000	<1000	<100	<100	<100	<100	196	<100	<1000	582	10,200	<100
	MW24B	28/02/2013	-	<100	<100	<100	<100	113	430	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<1000	<1000	-	<1000	<1000	<100	<100	<100	<100	175	<100	<1000	720	17,400	<100
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	MW24C-3	13/10/2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW24C	10/12/2009	-	<100	216	<100	360	622	2720	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<1000	<1000	-	<1000	61,400	<100	<100	<100	<100	1460	<100	<1000	1940	21,800	<100
	MW24C	11/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW24C	25/03/2010	-	<100	169	<100	298	508	1800	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<1000	<1000	-	<1000	55,900	<100	<100	<100	<100	1150	<100	<1000	1770	24,400	<100
	MW24C	28/02/2013	-	<100	159	<100	287	582	2620	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<1000	<1000	-	<1000	28,800	<100	<100	<100	<100	2110	<100	<1000	1440	168,000	<100
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MW25	MW25-2	25/08/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW25-3	13/10/2008	-	<5	<5	<5	<5	<30	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	-	-	<50	-	<5	<5	<5	-	<5	<5	<5	<10	7.7	<5
	MW25	9/12/2009	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
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	MW25	29/01/2014	-	<1	<1	<1	<1	<1	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	3	<1
MW26	MW26-3	13/10/2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW26	8/12/2009	-	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	474	<50	<50	<50	<500	<500	-	<500	<500	<50	<50	<50	<50	<50	<50	<500	212	204	<50
	MW26	17/03/2010	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	247	<100	<100	<100	<1000	<1000	-	<1000	<1000	<100	<100	<100	<100	<100	<100	<1000	204	197	<100
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MW27	MW27-1	15/07/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<5	<5	<1	<5	<5	<5	<5	<5	-	<5	<5	<5	<1	<5	<5	<10	5	<5	<5
	MW27-2	25/08/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
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	MW27	16/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW27	20/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW27	25/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW27	31/01/2014	-	<1	<1	<1	<1	<1	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1

		TEQ	VOCs																															
		Benzo(a)pyrene TEQ - Calc	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,2,3-trichlorobenzene	1,2,3-trichloropropane	1,2,4-trichlorobenzene	1,2-dibromoethane	1,2-dichlorobenzene	1,2-dichloroethane	1,3,5-trimethylbenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-butanone (MEK)	2-hexanone (MBK)	2-pentanone	4-methyl-2-pentanone (MIBK)	Acetone	Bromodichloromethane	Bromoform	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chlorodibromomethane	Chloroethane	Chloroform	cis-1,2-dichloroethene	cis-1,3-dichloropropene
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL		0.5	1	1	1	1	1	1	1	5	1	5	1	1	1	1	1	1	1	5	5	1	1	1	1	1	1	1	1	1	5	1	1	1
ANZECC 2000 FW 95%						6500			10		170		160			260	60																	
ANZECC 2000 Irrigation - Short-term Trigger Values																																		
ANZECC 2000 Stock Watering																																		
NEPM 2013 Table 1C GILs, Drinking Water								30	30		30		1500	3			40									3	300							
Location Code	**Field ID**	**Sampled Date**																																
MW28	MW28-1	15/07/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<5	<5	<1	<5	<5	<5	<5	-	<5	<5	<5	<1	<5	<5	<10	<5	<5	<5
	MW28-2	26/08/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
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	MW28	16/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW28	20/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW28	25/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW28	31/01/2014	-	<1	<1	<1	<1	<1	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
MW29	MW29-3	20/10/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW29	19/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW30	MW30-3	14/10/2008	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW30	9/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW30	22/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW30	19/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW30	26/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW30	31/01/2014	-	<1	<1	<1	<1	<1	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
MW31	MW31	7/12/2009	-	<5	8	<5	<5	5	67	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	32	345	<5
	MW31	22/03/2010	-	<5	12	<5	<5	7	87	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	41	361	<5
	MW31	18/01/2011	-	<5	5	<5	<5	6	40	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	36	523	<5
	MW31	26/02/2013	-	<5	<5	<5	<5	7	43	<5	<5	<5	<5	<5	<5	13	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	33	130	<5
	MW31	29/01/2014	-	<4	<4	<4	<4	<4	56	-	<4	-	<4	<4	13	<4	<4	<4	<4	-	-	<4	<4	<4	<4	<4	6	<4	<4	<4	38	150	<4
MW32	MW32	8/12/2009	-	<5	<5	<5	<5	<5	18	<5	<5	<5	<5	<5	58	<5	<5	<5	<50	<50	-	<50	<50	7	<5	<5	82	<5	<5	<50	496	48	<5
	MW32	19/03/2010	-	<5	<5	<5	<5	<5	20	<5	<5	<5	<5	<5	46	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	86	<5	<5	<50	498	76	<5
	MW32	18/01/2011	-	<5	<5	<5	<5	<5	16	<5	<5	<5	<5	<5	47	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	108	<5	<5	<50	415	151	<5
	MW32	28/02/2013	-	<5	<5	<5	<5	<5	15	<5	<5	<5	<5	<5	52	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	92	<5	<5	<50	547	140	<5
	MW32	29/01/2014	-	<4	<4	<4	<4	<4	8	-	<4	-	<4	<4	33	<4	<4	<4	<4	-	-	<4	<4	<4	<4	<4	45	<4	<4	<4	310	160	<4
MW33	MW33	23/03/2010	-	<5	<5	<5	<5	7	<5	<5	<5	<5	<5	6	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<50	6	14	<5
	MW33	19/01/2011	-	<5	<5	<5	<5	10	6	<5	<5	<5	<5	13	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<50	18	34	<5
	MW33	26/02/2013	-	<5	<5	<5	<5	15	10	<5	<5	<5	<5	18	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<50	21	64	<5
MW34A	MW34A	7/12/2009	-	<5	<5	<5	26	<5	<5	<5	<5	<5	<5	<5	34	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	221	62	<5
	MW34A	17/03/2010	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<1000	<1000	-	<1000	<1000	<100	<100	<100	<100	<100	<100	<1000	208	<100	<100
	MW34A	18/01/2011	-	<5	<5	<5	22	<5	<5	<5	<5	<5	<5	<5	26	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	120	62	<5
	MW34A	28/02/2013	-	<10	<10	<10	17	<10	<10	<10	<10	<10	<10	<10	26	<10	<10	<10	<100	<100	-	<100	<100	<10	<10	<10	<10	<10	<10	<100	97	61	<10
	MW34A	30/01/2014	-	<100	<100	<100	<100	<100	<100	-	<100	-	<100	<100	<100	<100	<100	<100	<100	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	180	110	<100
MW34B	MW34B	8/12/2009	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	7	<5	<5	<5	<50	<50	-	<50	<50	16	<5	<5	<5	<5	<5	<50	46	41	<5
	MW34B	17/03/2010	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW34B	18/01/2011	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	6	<5
	MW34B	28/02/2013	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	8	<5
	MW34B	30/01/2014	-	<8	<8	<8	<8	<8	<8	-	<8	-	<8	<8	<8	<8	<8	<8	<8	-	-	<8	<8	<8	<8	<8	<8	<8	<8	<8	12	9	<8
MW35	MW35	11/12/2009	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	55	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	22	<5	<5	<50	20	16	<5
	MW35	17/03/2010	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	86	<10	<10	<10	<100	<100	-	<100	<100	<10	<10	<10	34	<10	<10	<100	22	19	<10
	MW35	18/01/2011	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	449	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	201	<5	<5	<50	41	70	<5
	MW35	27/02/2013	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	844	<10	<10	<10	<100	<100	-	<100	<100	<10	<10	<10	232	<10	<10	<100	43	154	<10
	MW35	30/01/2014	-	<100	<100	<100	<100	<100	<100	-	<100	-	<100	<100	1600	<100	<100	<100	<100	-	-	<100	<100	<100	<100	<100	400	<100	<100	<100	<100	230	<100
MW36	MW36	7/12/2009	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW36	18/03/2010	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW36	19/01/2011	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW36	25/02/2013	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW36	31/01/2014	-	<1	<1	<1	<1	<1	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
MW37	MW37	4/12/2009	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW37	18/03/2010	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW37	19/01/2011	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW37	25/02/2013	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	6	<5
	MW37	30/01/2014	-	<1	<1	<1	<1	2	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	8	<1
MW38	MW38	4/12/2009	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	32	<5	<5
	MW38	18/03/2010	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	-	<5	<5	<5	<5	<5	<5	<50	25	<5	<5
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	MW38	26/02/2013	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW38	30/01/2014	-	<1	<1	<1	<1	<1	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	7	<1	<1
MW39	MW39	4/12/2009	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	9	179	<5
	MW39	18/03/2010	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	-	<5	<5	<5	<5	<5	<5	<50	9	<5	<5
	MW39	21/01/2011	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW39	27/02/2013	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	6	<5
	MW39	31/01/2014	-	<1	<1	<1	<1	<1	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	5	<1

Appendix A -
Table 2
Groundwater Analytical Results

			TEQ	VOCs																																
			Benzo(a)pyrene TEQ - Calc	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,2,3-trichlorobenzene	1,2,3-trichloropropane	1,2,4-trichlorobenzene	1,2-dibromoethane	1,2-dichlorobenzene	1,2-dichloroethane	1,3,5-trimethylbenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-butanone (MEK)	2-hexanone (MBK)	2-pentanone	4-methyl-2-pentanone (MIBK)	Acetone	Bromodichloromethane	Bromoform	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chlorodibromomethane	Chloroethane	Chloroform	cis-1,2-dichloroethene	cis-1,3-dichloropropene
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			0.5	1	1	1	1	1	1	5	1	5	1	1	1	1	1	1	1	1	5	5	1	1	1	1	1	1	1	1	1	1	5	1	1	1	1
ANZECC 2000 FW 95%							6500			10		170		160			260	60																			
ANZECC 2000 Irrigation - Short-term Trigger Values																																				
ANZECC 2000 Stock Watering																																				
NEPM 2013 Table 1C GILs, Drinking Water									30	30		30		1500	3			40									3	300								
Location Code	**Field ID**	**Sampled Date**																																		
MW40	MW40	25/03/2010	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	-	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW40	19/01/2011	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<80	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW40	27/02/2013	<0.5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW40	3/02/2014	-	<1	<1	<1	<1	<1	<1	-	<1	-	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
MW41	MW41	25/03/2010	-	<5	<5	<5	<5	<5	10	<5	<5	<5	-	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW41	19/01/2011	-	<5	<5	<5	<5	<5	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW41	27/02/2013	<0.5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW41	3/02/2014	-	<1	<1	<1	<1	2	2	-	<1	-	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
MW42	MW42	25/03/2010	-	<5	<5	<5	9	<5	<5	<5	<5	<5	-	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW42	20/01/2011	-	<5	<5	<5	8	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	-	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW42	27/02/2013	<0.5	<5	<5	<5	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50	<50	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5
	MW42	3/02/2014	-	<1	<1	<1	6	<1	<1	-	<1	-	<1	<1	4	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1

Appendix A -
Table 2
Groundwater Analytical Results

			VOCs																				Halogenated Hydrocarbons		Alkalinity				Alkalinity (as CaCO3)			
			cis-1,4-Dichloro-2-butene	Dibromomethane	Dichloromethane	Ethyl acetate	Hexachlorobutadiene	Iodomethane	MTBE	n-butylbenzene	n-propylbenzene	Pentachloroethane	p-isopropyltoluene	sec-butylbenzene	TCE	tert-butylbenzene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	trans-1,4-Dichloro-2-butene	Trichlorofluoromethane	Vinyl acetate	Vinyl chloride	Bromomethane	Dichlorodifluoromethane	Bicarbonate	Carbonate	Hydroxide	Alkalinity (total)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Hydroxide as CaCO3)	Alkalinity (total as CaCO3)
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL			5	1	1	5	1	1	5	5	5	5	5	5	1	5	1	1	1	5	1	5	1	1	1	1	1	5	5	1	1	1	1
ANZECC 2000 FW 95%																																	
ANZECC 2000 Irrigation - Short-term Trigger Values																																	
ANZECC 2000 Stock Watering																																	
NEPM 2013 Table 1C GILs, Drinking Water					4		0.7										50						0.3	1									
Location Code	**Field ID**	**Sampled Date**																															
MW3	MW3-1	15/07/2008	-	<5	-	<5	<1	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	<5	<10	<10	<10	-	-	-	336	-	-	-	-
	MW3-2	26/08/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<5	<50	<50	<50	-	-	-	-	-	-	-	-
	MW3	25/03/2010	<10	<10	101	-	<10	<10	-	<10	<10	<10	<10	<10	14	<10	<10	<10	<10	<10	<10	<100	<100	<100	<100	<100	-	<1	-	-	359	-	<1	359
	MW3	20/01/2011	<5	<5	-	-	<5	<5	-	<5	<5	<5	<5	<5	18	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	318	<1	<1	318
	MW3	27/02/2013	<10	<10	<125	-	<10	<10	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<100	<100	<100	<100	<100	-	-	-	-	253	<1	<1	253
MW4	MW4-1	15/07/2008	-	<5	-	<5	<1	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	<5	<10	<10	<10	-	-	-	283	-	-	-	-
	MW4-2	27/08/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	5	<5	<5	<5	<5	<5	-	<50	<5	<50	<50	<50	-	-	-	-	-	-	-	-
	MW4	3/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	586	-	<1	586
	MW4	18/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	176	-	<1	176
	MW4	20/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	523	<1	<1	523
MW5	MW5-1	16/07/2008	-	<5	-	<5	<1	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	<5	<10	<10	<10	-	-	-	<5	-	-	-	-
	MW5-2	27/08/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<5	<50	<50	<50	-	-	-	-	-	-	-	-
MW6/3	MW6/3-1	17/07/2008	-	<5	-	<5	<1	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	<5	<10	<10	<10	-	-	-	-	-	-	-	-
	MW6/3-2	28/08/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<5	<50	<50	<50	-	-	-	-	-	-	-	-
MW6/4	MW6/4	7/12/2009	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	233	-	<1	233
	MW6/4	22/03/2010	<5	<5	-	-	<5	<5	-	<5	<5	<5	<5	<5	10	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	181	-	<1	181
	MW6/4	24/01/2011	<5	<5	-	-	<5	<5	-	<5	<5	<5	<5	<5	13	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	117	<1	<1	117
MW7/3	MW7/3-1	18/07/2008	-	<5	-	<5	<1	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	<5	<10	<10	<10	-	-	-	-	-	-	-	-
	MW7/3-2	28/08/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<5	<50	<50	<50	-	-	-	-	-	-	-	-
	MW7/3	7/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	182	-	<1	182
	MW7/3	22/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	131	-	<1	131
	MW7/3	21/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	113	<1	<1	113
MW9/2	MW9/2-1	17/07/2008	-	<5	-	<5	<1	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	<5	<10	<10	<10	-	-	-	-	-	-	-	-
MW11/2	MW11/2-1	17/07/2008	-	<5	-	<5	<1	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	<5	<10	<10	<10	-	-	-	-	-	-	-	-
	MW11/2-2	28/08/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<5	<50	<50	<50	-	-	-	-	-	-	-	-
	MW11/2	4/12/2009	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	215	-	<1	215
	MW11/2	22/03/2010	<5	<5	-	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	182	-	<1	182
	MW11/2	21/01/2011	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	144	<1	<1	144
MW12/1	MW12/1-2	26/08/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<5	<50	<50	<50	-	-	-	-	-	-	-	-
	MW12-1	17/07/2008	-	<5	-	<5	<1	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	<5	<10	<10	<10	-	-	-	-	-	-	-	-
	MW12/1	9/12/2009	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	59	-	<1	59
	MW12/1	25/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	80	-	<1	80
	MW12/1	21/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	<1	<1	84
MW13/2	MW13/2-1	17/07/2008	-	<250	-	<250	<50	-	<250	<250	<250	-	<250	<250	332,000	<250	5290	<250	<250	-	<500	<250	<500	<500	<500	-	-	-	-	-	-	-	-
	MW13/2-2	25/08/2008	-	<5000	-	<5000	<5000	-	<5000	<5000	<5000	-	<5000	<5000	78,800	<5000	<5000	<5000	<5000	-	<50,000	<5000	<50,000	<50,000	<50,000	-	-	-	29	-	-	-	-
	MW13/2	10/12/2009	<5	<5	<110	-	<5	<5	-	<5	<5	<5	<5	<5	7460	<5	247	5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	42	-	<1	42
	MW13/2	24/03/2010	<100	<100	22,900	-	<100	<100	-	<100	<100	<100	<100	<100	791,000	<100	7970	<100	<100	<100	<1000	<1000	<1000	<1000	<1000	-	<1	-	-	46	-	<1	46
	MW13/2	20/01/2011	<5	<5	-	-	<5	<5	-	<5	<5	<5	<5	<5	240,000	<5	2880	49	<5	<5	<50	<50	<50	230	<50	-	<1	-	-	34	<1	<1	34
MW15/3	MW15/3-1	17/07/2008	-	<5	-	<5	<1	-	<5	<5	<5	-	<5	<5	6450	<5	193	6	<5	-	<10	<5	<10	<10	<10	-	-	-	-	-	-	-	-
	MW15/3-2	25/08/2008	-	<50	-	<50	<50	-	<50	<50	<50	-	<50	<50	874	<50	<50	<50	<50	-	<500	<50	<500	<500	<500	-	-	-	70	-	-	-	-
	MW15/3	10/12/2009	<100	<100	179,000	-	<100	<100	-	<100	<100	<100	<100	<100	423,000	<100	5220	<100	<100	<100	<1000	<1000	<1000	<1000	<1000	-	<1	-	-	86	-	<1	86
	MW15/3	24/03/2010	<10	<10	195	-	<10	<10	-	<10	<10	<10	<10	<10	15,200	<10	407	<10	<10	<10	<100	<100	<100	<100	<100	-	<1	-	-	82	-	<1	82
	MW15/3	21/01/2011	<5	<5	161	-	<5	<5	-	<5	<5	<5	<5	<5	11,000	<5	229	6	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	73	<1	<1	73
MW16/1	MW16/1-1	18/07/2008	-	<5	-	<5	<1	-	<5	<5	<5	-	<5	<5	9	<5	<5	<5	<5	-	<10	<5	<10	<10	<10	-	-	-	-	-	-	-	-
	MW16/1-2	27/08/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	12	<5	<5	<5	<5	-	<50	<5	<50	<50	<50	-	-	-	-	-	-	-	-	-
	MW16/1	11/12/2009	<5	<5	12	-	<5	<5	-	<5	<5	<5	<5	<5	11	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	117	-	<1	117
	MW16/1	23/03/2010	<5	<5	<15	-	<5	<5	-	<5	<5	<5	<5	<5	11	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	111	-	<1	111
	MW16/1	21/01/2011	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	11	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	108	<1	<1	108
MW17/1	MW17/1-1	18/07/2008	-	<5	-	<5	<1	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	-	<10	<5	<10	<10	<10	-	-	-	-	-	-	-	-
	MW17/1-2	27/08/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	-	<50	<5	<50	<50	<50	-	-	-	-	-	-	-	-	-
	MW17/1	11/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	128	-	<1	128
	MW17/1	24/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	116	-	<1	116
	MW17/1	24/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	102	<1	<1	102
MW17/2	MW17/2-3	14/10/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	-	<50	<5	<50	<50	<50	152	<5	<5	152	-	-	-	-
MW18	MW18-1	17/07/2008	-	<5	-	<5	<1	-	<5	<5	<5	-	<5	<5	1130	<5	26	<5	<5	-	<10	<5	20	<10	<10	-	-	-	-	-	-	-	-	-
	MW18-2	27/08/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	436	<5	10	<5	<5	-	<50	<5	<50	<50	<50	-	-	-	-	-	-	-	-	-
	MW18	9/12/2009	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	1320	<5	23	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	-	-	-	-
	MW18	10/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	56	-	<1	56
	MW18	24/03/2010	<10	<10	<50	-	<10	<10	-	<10	<10	<10	<10	<10	3050	<10	41	<10	<10	<10	<100	<100	<100	<100	<100	-	<1	-	-	43	-	<1	43
	MW18	20/01/2011	<5	<5	-	-	<5	<5	-	<5	<5	<5	<5	<5	205	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	37	<1	<1	37

			VOCs																					Halogenated Hydrocarbons		Alkalinity				Alkalinity (as CaCO3)			
			cis-1,4-Dichloro-2-butene	Dibromomethane	Dichloromethane	Ethyl acetate	Hexachlorobutadiene	Iodomethane	MTBE	n-butylbenzene	n-propylbenzene	Pentachloroethane	p-isopropyltoluene	sec-butylbenzene	TCE	tert-butylbenzene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	trans-1,4-Dichloro-2-butene	Trichlorofluoromethane	Vinyl acetate	Vinyl chloride	Bromomethane	Dichlorodifluoromethane	Bicarbonate	Carbonate	Hydroxide	Alkalinity (total)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Hydroxide as CaCO3)	Alkalinity (total as CaCO3)
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EOL			5	1	1	5	1	1	5	5	5	5	5	5	1	5	1	1	1	5	1	5	1	1	1	1	1	5	5	1	1	1	1
ANZECC 2000 FW 95%																																	
ANZECC 2000 Irrigation - Short-term Trigger Values																																	
ANZECC 2000 Stock Watering																																	
NEPM 2013 Table 1C GILs, Drinking Water					4		0.7										50						0.3	1									
Location Code	**Field ID**	**Sampled Date**																															
MW19	MW19-1	16/07/2008	-	<5	-	<5	<1	-	<5	<5	<5	-	<5	<5	143,000	<5	506	67	<5	-	<10	<5	440	<10	<10	-	-	-	205	-	-	-	-
	MW19-2	27/08/2008	-	<5000	-	<5000	<5000	-	<5000	<5000	<5000	-	<5000	<5000	21,900	<5000	<5000	<5000	<5000	-	<50,000	<5000	<50,000	<50,000	<50,000	-	-	-	-	-	-	-	-
	MW19	8/12/2009	<20	<20	<20	-	<20	<20	-	<20	<20	<20	<20	<20	4860	<20	28	<20	<20	<20	<200	<200	<200	<200	<200	-	<1	-	-	428	-	<1	428
	MW19	23/03/2010	<10	<10	466	-	<10	<10	-	<10	<10	<10	<10	<10	33,600	<10	83	<10	<10	<10	<100	<100	<100	<100	<100	-	<1	-	-	375	-	<1	375
	MW19	19/01/2011	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	3250	<5	27	25	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	435	<1	<1	435
MW20	MW20-1	16/07/2008	-	<5	-	<5	<1	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	-	<10	<5	<10	<10	<10	-	-	-	286	-	-	-	-
	MW20-2	25/08/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	-	<50	<5	<50	<50	<50	-	-	-	280	-	-	-	-
	MW20	3/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	359	-	<1	359
	MW20	16/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	334	-	<1	334
	MW20	20/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	316	<1	<1	316
	MW20	26/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	334	<1	<1	334
	MW20	31/01/2014	-	<1	<1	-	-	<1	-	-	-	-	-	-	<1	-	<1	<1	<1	-	<1	-	<1	<1	<1	-	-	-	-	350	<10	<10	350
MW21	MW21-1	15/07/2008	-	<5	-	<5	<1	-	<5	<5	<5	-	<5	<5	250	<5	20	<5	<5	-	<10	<5	<10	<10	<10	-	-	-	153	-	-	-	-
	MW21-2	26/08/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	71	<5	6	<5	<5	-	<50	<5	<50	<50	<50	-	-	-	-	-	-	-	-
	MW21	7/12/2009	<5	<5	12	-	<5	<5	-	<5	<5	<5	<5	<5	585	<5	36	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	146	-	<1	146
	MW21	24/03/2010	<5	<5	22	-	<5	<5	-	<5	<5	<5	<5	<5	679	<5	39	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	134	-	<1	134
	MW21	19/01/2011	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	518	<5	26	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	123	<1	<1	123
	MW21	26/02/2013	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	255	<5	23	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	158	<1	<1	158
	MW21	31/01/2014	-	<4	<4	-	-	<4	-	-	-	-	-	-	220	-	15	<4	<4	-	<4	-	<4	18	<4	-	-	-	-	160	<10	<10	160
MW22	MW22-1	16/07/2008	-	<5	-	<5	<1	-	<5	<5	<5	-	<5	<5	64	<5	<5	<5	<5	-	<10	<5	<10	<10	<10	-	-	-	44	-	-	-	-
	MW22-2	26/08/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	8	<5	<5	<5	<5	-	<50	<5	<50	<50	<50	-	-	-	-	-	-	-	-
	MW22	9/12/2009	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	72	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	77	-	<1	77
	MW22	22/03/2010	<5	<5	-	-	<5	<5	-	<5	<5	<5	<5	<5	94	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	70	-	<1	70
	MW22	18/01/2011	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	81	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	46	<1	<1	46
	MW22	28/02/2013	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	56	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	27	<1	<1	27
	MW22	30/01/2014	-	<1	<1	-	-	<1	-	-	-	-	-	-	82	-	2	<1	<1	-	<1	-	<1	<1	<1	-	-	-	-	150	<10	<10	150
MW23	MW23-1	17/07/2008	-	<5	-	<5	<1	-	<5	<5	8	-	<5	<5	<5	<5	<5	<5	<5	-	<10	<5	<10	<10	<10	-	-	-	-	-	-	-	-
	MW23-2	27/08/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	-	<50	<5	<50	<50	<50	-	-	-	-	-	-	-	-
	MW23	9/12/2009	<5	<5	<5	-	<5	<5	-	<5	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	201	-	<1	201
	MW23	24/03/2010	<5	<5	<5	-	<5	<5	-	<5	12	<5	<5	<5	42	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	187	-	<1	187
	MW23	19/01/2011	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	180	<1	<1	180
	MW23	27/02/2013	<5	<5	<10	-	<5	<5	-	<5	8	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	180	<1	<1	180
	MW23	31/01/2014	-	<1	<1	-	-	<1	-	-	-	-	-	-	<1	-	<1	<1	<1	-	<1	-	<1	<1	<1	-	-	-	-	170	<10	<10	170
MW24A	MW24A-2	27/08/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	203	<5	5	<5	<5	-	<50	<5	<50	<50	<50	-	-	-	-	-	-	-	-
	MW24A-3	14/10/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	2200	<5	103	<5	<5	-	<50	<5	<50	<50	<50	125	<5	<5	125	-	-	-	-
	MW24A	10/12/2009	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	3040	<5	201	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	166	-	<1	166
	MW24A	23/03/2010	<10	<10	<150	-	<10	<10	-	<10	<10	<10	<10	<10	4830	<10	327	<10	<10	<10	<100	<100	<100	<100	<100	-	<1	-	-	150	-	<1	150
	MW24A	18/01/2011	<5	<5	<10	-	<5	<5	-	<5	<5	<5	<5	<5	7510	<5	724	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	146	<1	<1	146
	MW24A	28/02/2013	<10	<10	<10	-	<10	<10	-	<10	<10	<10	<10	<10	3240	<10	235	<10	<10	<10	<100	<100	<100	<100	<100	-	-	-	-	160	<1	<1	160
	MW24A	29/01/2014	-	<80	<80	-	-	<80	-	-	-	-	-	-	6300	-	470	<80	<80	-	<80	-	<80	<80	<80	-	-	-	-	140	<10	<10	140
MW24B	MW24B-2	27/08/2008	-	<5000	-	<5000	<5000	-	<5000	<5000	<5000	-	<5000	<5000	84,800	<5000	<5000	<5000	<5000	-	<50,000	<5000	<50,000	<50,000	<50,000	-	-	-	-	-	-	-	-
	MW24B-3	14/10/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	97,300	<5	899	<100	<5	-	<50	<5	<50	<50	<50	56	<5	<5	56	-	-	-	-
	MW24B	10/12/2009	<5	<5	2600	-	<5	<5	-	<5	<5	<5	<5	<5	73,800	<5	631	20	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	173	-	<1	173
	MW24B	24/03/2010	<100	<100	5940	-	<100	<100	-	<100	<100	<100	<100	<100	142,000	<100	1400	<100	<100	<100	<1000	<1000	<1000	<1000	<1000	-	<1	-	-	142	-	<1	142
	MW24B	18/01/2011	<100	<100	2760	-	<100	<100	-	<100	<100	<100	<100	<100	42,500	<100	1580	<100	<100	<100	<1000	<1000	<1000	<1000	<1000	-	-	-	-	165	<1	<1	165
	MW24B	28/02/2013	<100	<100	<100	-	<100	<100	-	<100	<100	<100	<100	<100	47,200	<100	704	<100	<100	<100	<1000	<1000	<1000	<1000	<1000	-	-	-	-	282	<1	<1	282
	MW24B	29/01/2014	-	<500	<500	-	-	<500	-	-	-	-	-	-	40,000	-	620	<500	<500	-	<500	-	<500	<500	<500	-	-	-	-	310	<10	<10	310
MW24C	MW24C-2	27/08/2008	-	<5000	-	<5000	<5000	-	<5000	<5000	<5000	-	<5000	<5000	48,000	<5000	<5000	<5000	<5000	-	<50,000	<5000	<50,000	<50,000	<50,000	-	-	-	-	-	-	-	-
	MW24C-3	13/10/2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	184	-	-	184
	MW24C	10/12/2009	<100	<100	6320	-	<100	<100	-	<100	<100	<100	<100	<100	124,000	<100	5740	<100	<100	<100	<1000	<1000	<1000	<1000	<1000	-	-	-	-	-	-	-	-
	MW24C	11/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	319	-	<1	319
	MW24C	25/03/2010	<100	<100	6030	-	<100	<100	-	<100	<100	<100	<100	<100	132,000	<100	3790	<100	<100	<100	<1000	<1000	<1000	<1000	<1000	-	-	-	-	-	-	-	-
	MW24C	28/02/2013	<100	<100	<100	-	<100	<100	-	<100	<100	<100	<100	<100	28,600	<100	4080	<100	<100	<100	<1000	<1000	<1000	<1000	<1000	-	-	-	-	408	<1	<1	408
	MW24C	3/02/2014	-	<1000	1100	-	-	<1000	-	-	-	-	-	-	50,000	-	2100	<1000	<1000	-	<1000	-	<1000	<1000	<1000	-	-	-	-	320	<10	<10	320
MW25	MW25-2	25/08/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	139	<5	<5	<5	<5	-	<50	<5	<50	<50	<50	-	-	-	80	-	-	-	-
	MW25-3	13/10/2008	-	<5	<10	-	<5	-	-	<5	<5	<5	<5	<5	180	<5	<5	<5	<5	-	<5	-	<5	<5	<5	-	-	-	-	96	-	-	96
	MW25	9/12/2009	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	54	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	82	-	<1	82
	MW25	22/03/2010	<5	<5	-	-	<5	<5	-	<5	<5	<5	<5	<5	795	<5	10	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	81	-	<1	81
	MW25	18/01/2011	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	348	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	80	<1	<1	80
	MW25	1/03/2013	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	10	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	62	<1	<1	62
	MW25	29/01/2014	-	<1	<1	-	-	<1	-	-	-	-	-	-	12	-	<1	<1	<1	-	<1	-	<1	<1	<1	-	-	-	-	80	<10	<10	79
MW26	MW26-3	13/10/2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	155	-	-	155
	MW26	8/12/2009	<50	<50	582	-	<50	<50	-	<50	<50	<50	<50	<50	78,400	<50	1360	<50	<50	<50	<500	<500	<500	<500	<500	-	<1	-	-	150	-	<1	150
	MW26	17/03/2010	<100	<100	1000	-	<100	<100	-	<100	<100	<100	<100	<100	94,500	<100	1690	<100	<100	<100	<1000	<1000	<1000	<1000	<1000	-	<1	-	-	127	-	<1	127
	MW26	18/01/2011	<100	<100	1850	-	<100	<100	-	<100	<100	<100	<100	<100	278,000	<100	2590	<100	<100	<100	<1000	<1000	<1000	<1000	<1000	-	-	-	-	117	<1	<1	117
	MW26	1/03/2013	<100	<100	5290	-	<100	<100	-	<100	<100	<100	<100	<100	143,000	<100	1540	<100	<100	<100	<1000	<1000	<1000	<1000	<1000	-	-	-	-	107	<1	<1	107
	MW26	29/01/2014	-	<2000	6500	-	-	<2000	-	-	-	-	-	-	110,000	-	<2000	<2000	<2000	-	<2000	-	<2000	<2000	<2000	-	-	-	-	120	<10	<10	120
MW27	MW27-1	15/07/2008	-	<5	-	<5	<1	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	-	<10	<5	<10	<10	<10	-	-	-	70	-	-	-	-
	MW27-2	25/08/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	-	<50	<5	<50	<50	<50	-	-	-	70	-	-	-	-
	MW27	3/12/2009	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	99	-	<1	99
	MW27	16/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	78	-	<1	78
	MW27	20/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	76	<1	<1	76
	MW27	25/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49	<1	<1	49
	MW27	31/01/2014	-	<1	<1	-	-	<1	-	-	-	-	-	-	<1	-	<1	<1	<1	-	<1	-	<1	<1	<1	-	-	-	-	42	<10	<10	42

			VOCs																				Halogenated Hydrocarbons		Alkalinity				Alkalinity (as CaCO3)			
			cis-1,4-Dichloro-2-butene	Dibromomethane	Dichloromethane	Ethyl acetate	Hexachlorobutadiene	Iodomethane	MTBE	n-butylbenzene	n-propylbenzene	Pentachloroethane	p-isopropyltoluene	sec-butylbenzene	TCE	tert-butylbenzene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	trans-1,4-Dichloro-2-butene	Trichlorofluoromethane	Vinyl acetate	Vinyl chloride	Bromomethane	Dichlorodifluoromethane	Bicarbonate	Carbonate	Hydroxide	Alkalinity (total)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Hydroxide as CaCO3)	Alkalinity (total as CaCO3)
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL			5	1	1	5	1	1	5	5	5	5	5	5	1	5	1	1	1	5	1	5	1	1	1	1	1	5	5	1	1	1	1
ANZECC 2000 FW 95%																																	
ANZECC 2000 Irrigation - Short-term Trigger Values																																	
ANZECC 2000 Stock Watering																																	
NEPM 2013 Table 1C GILs, Drinking Water					4		0.7										50						0.3	1									
Location Code	**Field ID**	**Sampled Date**																															
	MW28-1	15/07/2008	-	<5	-	<5	<1	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	-	<10	<5	<10	<10	<10	-	-	-	51	-	-	-	-
	MW28-2	26/08/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	-	<50	<5	<50	<50	<50	-	-	-	-	-	-	-	-
MW28	MW28	3/12/2009	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	40	-	<1	40
	MW28	16/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	35	-	<1	35
	MW28	20/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	<1	<1	42
	MW28	25/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	58	<1	<1	58
	MW28	31/01/2014	-	<1	<1	-	-	<1	-	-	-	-	-	-	<1	-	<1	<1	<1	-	<1	-	<1	<1	<1	-	-	-	-	72	<10	<10	72
MW29	MW29-3	20/10/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	-	<50	<5	<50	<50	<50	104	<5	<5	-	-	-	-	-
	MW29	19/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69	<1	<1	69
	MW30-3	14/10/2008	-	<5	-	<5	<5	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	-	<50	<5	<50	<50	<50	250	<5	<5	250	-	-	-	-
	MW30	9/12/2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	250	-	<1	250
MW30	MW30	22/03/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	198	-	<1	198
	MW30	19/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	175	<1	<1	175
	MW30	26/02/2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	191	<1	<1	191
	MW30	31/01/2014	-	<1	<1	-	-	<1	-	-	-	-	-	-	<1	-	<1	<1	<1	-	<1	-	<1	<1	<1	-	-	-	-	200	<10	<10	200
	MW31	7/12/2009	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	2780	<5	14	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	108	-	<1	108
	MW31	22/03/2010	<5	<5	-	-	<5	<5	-	<5	<5	<5	<5	<5	3380	<5	25	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	67	-	<1	67
MW31	MW31	18/01/2011	<5	<5	<10	-	<5	<5	-	<5	<5	<5	<5	<5	3530	<5	16	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	69	<1	<1	69
	MW31	26/02/2013	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	446	<5	44	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	54	<1	<1	54
	MW31	29/01/2014	-	<4	<4	-	-	<4	-	-	-	-	-	-	450	-	54	<4	<4	<4	<4	-	<4	<4	<4	-	-	-	-	60	<10	<10	60
	MW32	8/12/2009	<5	<5	74	-	<5	<5	-	<5	<5	<5	<5	<5	323	<5	55	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	56	-	<1	56
	MW32	19/03/2010	<5	<5	38	-	<5	<5	-	<5	<5	<5	<5	<5	418	<5	81	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	49	-	<1	49
MW32	MW32	18/01/2011	<5	<5	24	-	<5	<5	-	<5	<5	<5	<5	<5	732	<5	53	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	54	<1	<1	54
	MW32	28/02/2013	<5	<5	<11	-	<5	<5	-	<5	<5	<5	<5	<5	538	<5	55	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	47	<1	<1	47
	MW32	29/01/2014	-	<4	7	-	-	<4	-	-	-	-	-	-	340	-	25	<4	<4	-	<4	-	<4	<4	<4	-	-	-	-	51	<10	<10	51
	MW33	23/03/2010	<5	<5	<15	-	<5	<5	-	<5	<5	<5	<5	<5	23	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	117	-	<1	117
MW33	MW33	19/01/2011	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	31	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	111	<1	<1	111
	MW33	26/02/2013	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	40	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	122	<1	<1	122
	MW34A	7/12/2009	<5	<5	95	-	<5	<5	-	<5	<5	<5	<5	<5	6740	<5	69	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	88	-	<1	88
	MW34A	17/03/2010	<100	<100	<400	-	<100	<100	-	<100	<100	<100	<100	<100	11,500	<100	111	<100	<100	<100	<1000	<1000	<1000	<1000	<1000	-	<1	-	-	34	-	<1	34
MW34A	MW34A	18/01/2011	<5	<5	61	-	<5	<5	-	<5	<5	<5	<5	<5	9180	<5	64	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	27	<1	<1	27
	MW34A	28/02/2013	<10	<10	<10	-	<10	<10	-	<10	<10	<10	<10	<10	8960	<10	72	<10	<10	<10	<100	<100	<100	<100	<100	-	-	-	-	34	<1	<1	34
	MW34A	30/01/2014	-	<100	110	-	-	<100	-	-	-	-	-	-	13,000	-	<100	<100	<100	-	<100	-	<100	<100	<100	-	-	-	-	69	<10	<10	69
	MW34B	8/12/2009	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	998	<5	13	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	120	-	<1	120
	MW34B	17/03/2010	<5	<5	-	-	<5	<5	-	<5	<5	<5	<5	<5	270	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	105	-	<1	105
MW34B	MW34B	18/01/2011	<5	<5	<10	-	<5	<5	-	<5	<5	<5	<5	<5	167	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	105	<1	<1	105
	MW34B	28/02/2013	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	429	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	102	<1	<1	102
	MW34B	30/01/2014	-	<8	<8	-	-	<8	-	-	-	-	-	-	690	-	<8	<8	<8	-	<8	-	<8	<8	<8	-	-	-	-	110	<10	<10	110
	MW35	11/12/2009	<5	<5	<10	-	<5	<5	-	<5	<5	<5	<5	<5	945	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	117	-	<1	117
	MW35	17/03/2010	<10	<10	<35	-	<10	<10	-	<10	<10	<10	<10	<10	1140	<10	<10	<10	<10	<10	<100	<100	<100	<100	<100	-	<1	-	-	110	-	<1	110
MW35	MW35	18/01/2011	<5	<5	<15	-	<5	<5	-	<5	<5	<5	<5	<5	3640	<5	10	5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	109	<1	<1	109
	MW35	27/02/2013	<10	<10	<100	-	<10	<10	-	<10	<10	<10	<10	<10	4470	<10	13	<10	<10	<10	<100	<100	<100	<100	<100	-	-	-	-	112	<1	<1	112
	MW35	30/01/2014	-	<100	<100	-	-	<100	-	-	-	-	-	-	8200	-	<100	<100	<100	-	<100	-	<100	<100	<100	-	-	-	-	130	<10	<10	130
	MW36	7/12/2009	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	192	-	<1	192
	MW36	18/03/2010	<5	<5	-	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	173	-	<1	173
MW36	MW36	19/01/2011	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	132	<1	<1	132
	MW36	25/02/2013	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	118	<1	<1	118
	MW36	31/01/2014	-	<1	<1	-	-	<1	-	-	-	-	-	-	<1	-	<1	<1	<1	-	<1	-	<1	<1	<1	-	-	-	-	120	<10	<10	120
	MW37	4/12/2009	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	9	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	194	-	<1	194
	MW37	18/03/2010	<5	<5	-	-	<5	<5	-	<5	<5	<5	<5	<5	8	<5	9	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	139	-	<1	139
MW37	MW37	19/01/2011	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	6	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	133	<1	<1	133
	MW37	25/02/2013	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	8	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	147	<1	<1	147
	MW37	30/01/2014	-	<1	<1	-	-	<1	-	-	-	-	-	-	5	-	22	<1	<1	-	<1	-	<1	<1	<1	-	-	-	-	170	<10	<10	170
	MW38	4/12/2009	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	13	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	164	-	<1	164
	MW38	18/03/2010	<5	<5	-	-	<5	<5	-	<5	<5	<5	<5	<5	10	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	143	-	<1	143
MW38	MW38	19/01/2011	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	138	<1	<1	138
	MW38	26/02/2013	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	172	<1	<1	172
	MW38	30/01/2014	-	<1	<1	-	-	<1	-	-	-	-	-	-	3	-	<1	<1	<1	-	<1	-	<1	<1	<1	-	-	-	-	170	<10	<10	170
	MW39	4/12/2009	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	2020	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	119	-	<1	119
	MW39	18/03/2010	<5	<5	-	-	<5	<5	-	<5	<5	<5	<5	<5	19	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	75	-	<1	75
MW39	MW39	21/01/2011	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	9	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	55	<1	<1	55
	MW39	27/02/2013	<5	<5	<15	-	<5	<5	-	<5	<5	<5	<5	<5	7	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	131	<1	<1	131
	MW39	31/01/2014	-	<1	<1	-	-	<1	-	-	-	-	-	-	7	-	<1	<1	<1	-	<1	-	<1	<1	<1	-	-	-	-	110	<10	<10	110

Appendix A -
Table 2
Groundwater Analytical Results

			VOCs																					Halogenated Hydrocarbons		Alkalinity				Alkalinity (as CaCO3)			
			cis-1,4-Dichloro-2-butene	Dibromomethane	Dichloromethane	Ethyl acetate	Hexachlorobutadiene	Iodomethane	MTBE	n-butylbenzene	n-propylbenzene	Pentachloroethane	p-isopropyltoluene	sec-butylbenzene	TCE	tert-butylbenzene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	trans-1,4-Dichloro-2-butene	Trichlorofluoromethane	Vinyl acetate	Vinyl chloride	Bromomethane	Dichlorodifluoromethane	Bicarbonate	Carbonate	Hydroxide	Alkalinity (total)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Hydroxide as CaCO3)	Alkalinity (total as CaCO3)
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL			5	1	1	5	1	1	5	5	5	5	5	5	1	5	1	1	1	5	1	5	1	1	1	1	1	5	5	1	1	1	1
ANZECC 2000 FW 95%																																	
ANZECC 2000 Irrigation - Short-term Trigger Values																																	
ANZECC 2000 Stock Watering																																	
NEPM 2013 Table 1C GILs, Drinking Water					4		0.7										50						0.3	1									
Location Code	**Field ID**	**Sampled Date**																															
MW40	MW40	25/03/2010	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	37	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	130	-	<1	130
	MW40	19/01/2011	<5	<5	31	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	106	<1	<1	106
	MW40	27/02/2013	<5	<5	<10	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	132	<1	<1	132
	MW40	3/02/2014	-	<1	<1	-	-	<1	-	-	-	-	-	-	<1	-	<1	<1	<1	-	<1	-	<1	<1	<1	-	-	-	-	120	<10	<10	120
MW41	MW41	25/03/2010	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	12	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	102	-	<1	102
	MW41	19/01/2011	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	94	<1	<1	94
	MW41	27/02/2013	<5	<5	<15	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	113	<1	<1	113
	MW41	3/02/2014	-	<1	<1	-	-	<1	-	-	-	-	-	-	<1	-	<1	<1	<1	-	<1	-	<1	<1	<1	-	-	-	-	110	<10	<10	110
MW42	MW42	25/03/2010	<5	<5	<5	-	<5	<5	-	<5	<5	<5	<5	<5	8	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	<1	-	-	96	-	<1	96
	MW42	20/01/2011	<5	<5	-	-	<5	<5	-	<5	<5	<5	<5	<5	24	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	100	<1	<1	100
	MW42	27/02/2013	<5	<5	<10	-	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50	<50	-	-	-	-	107	<1	<1	107
	MW42	3/02/2014	-	<1	<1	-	-	<1	-	-	-	-	-	-	<1	-	<1	<1	<1	-	<1	-	<1	<1	<1	-	-	-	-	110	<10	<10	110

Appendix A -
Table 2
Groundwater Analytical Results

			Chlorinated Hydrocarbons										Major Ions						Anion-Cation Balance			Organics		
			1,1-dichloropropene	1,2-dibromo-3-chloropropane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Bromochloromethane	Chloromethane	Fluoride	Calcium	Chloride	Magnesium	Potassium	Sodium	Anions Total	Cations Total	Ionic Balance	Methane	Ethane	Ethene
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	µg/L	µg/L	µg/L
EQL			5	5	1	1	5	5	1	1	1	1	0.1	0.1	1	0.1	0.1	0.1	0.01	0.01	0.01	10	10	10
ANZECC 2000 FW 95%																								
ANZECC 2000 Irrigation - Short-term Trigger Values													**2**											
ANZECC 2000 Stock Watering													**2**	**1000**										
NEPM 2013 Table 1C GILs, Drinking Water													**1.5**											
Location Code	**Field ID**	**Sampled Date**																						
MW3	MW3-1	15/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	0.3	172	3690	244	1	2130	-	-	-	-	-	-
	MW3-2	26/08/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	1	165	5030	322	1.1	2400	-	-	-	-	-	-
	MW3	25/03/2010	<10	<10	<10	<10	<10	<10	<10	<10	-	<100	0.3	113	3430	281	1	2200	115	124	3.9	<10	<10	<10
	MW3	20/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.3	49	1940	93	<1	1450	67.4	73.3	4.2	<10	<10	<10
	MW3	27/02/2013	<10	<10	<10	<10	<10	<10	<10	<10	-	<100	0.2	26	1070	55	<1	748	39.6	38.4	1.55	<10	-	-
MW4	MW4-1	15/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	0.3	7.3	127	12	1.8	217	-	-	-	-	-	-
	MW4-2	27/08/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.4	8.7	112	15.6	2.2	226	-	-	-	-	-	-
	MW4	3/12/2009	-	-	-	-	-	-	-	-	-	-	0.6	9	84	26	3	267	15.2	14.3	2.96	<10	-	-
	MW4	18/03/2010	-	-	-	-	-	-	-	-	-	-	0.4	9	23	6	6	74	4.63	4.36	3	<10	<10	<10
	MW4	20/01/2011	-	-	-	-	-	-	-	-	-	-	0.6	14	64	31	11	272	14.1	15.4	4.26	<10	<10	<10
MW5	MW5-1	16/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	0.3	6.6	1480	72.6	0.4	1030	-	-	-	-	-	-
	MW5-2	27/08/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.3	6.6	2120	84.8	0.4	1130	-	-	-	-	-	-
MW6/3	MW6/3-1	17/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	0.3	2.5	172	5.9	0.3	254	-	-	-	-	-	-
	MW6/3-2	28/08/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.4	2.2	183	5.5	0.3	272	-	-	-	-	-	-
MW6/4	MW6/4	7/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	2	295	5	<1	290	13.5	13.1	1.37	<10	-	-
	MW6/4	22/03/2010	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	2	200	5	1	241	10.9	11	0.26	<10	<10	<10
	MW6/4	24/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	4	106	3	6	205	-	-	-	<10	-	-
MW7/3	MW7/3-1	18/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	<0.1	6.4	545	26.3	0.9	464	-	-	-	-	-	-
	MW7/3-2	28/08/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	27.7	418	24	1.3	366	-	-	-	-	-	-
	MW7/3	7/12/2009	-	-	-	-	-	-	-	-	-	-	0.1	15	350	12	<1	318	15.6	15.6	0.08	<10	-	-
	MW7/3	22/03/2010	-	-	-	-	-	-	-	-	-	-	0.1	14	246	16	2	280	12.9	14.2	4.8	<10	<10	<10
	MW7/3	21/01/2011	-	-	-	-	-	-	-	-	-	-	0.3	9	457	17	1	418	20.4	20	0.85	<10	-	-
MW9/2	MW9/2-1	17/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	0.8	1.8	39	2.5	2.9	165	-	-	-	-	-	-
MW11/2	MW11/2-1	17/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	0.1	109	801	49.8	3.1	480	-	-	-	-	-	-
	MW11/2-2	28/08/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	109	1020	49.8	3.2	523	-	-	-	-	-	-
	MW11/2	4/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	92	835	43	3	455	29.7	28	2.84	<10	-	-
	MW11/2	22/03/2010	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	97	709	42	4	400	24.2	25.8	3.2	<10	<10	<10
	MW11/2	21/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.3	65	524	23	4	290	18.9	17.9	2.82	<10	-	-
MW12/1	MW12/1-2	26/08/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	10.4	21	6.6	7.6	43.8	-	-	-	-	-	-
	MW12-1	17/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	<0.1	12	23	8.3	8	48.1	-	-	-	-	-	-
	MW12/1	9/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	9	23	6	6	35	2.61	2.63	0.24	<10	-	-
	MW12/1	25/03/2010	-	-	-	-	-	-	-	-	-	-	0.2	10	22	7	8	38	2.66	2.92	4.8	<10	<10	<10
	MW12/1	21/01/2011	-	-	-	-	-	-	-	-	-	-	0.1	9	53	7	9	59	3.63	3.8	2.26	<10	-	-
MW13/2	MW13/2-1	17/07/2008	<250	<250	<250	<250	<250	<250	<250	<250	-	<500	<0.1	8.3	713	80.2	0.6	745	-	-	-	-	-	-
	MW13/2-2	25/08/2008	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	-	<50,000	0.3	6.6	676	72.4	0.4	717	-	-	-	-	-	-
	MW13/2	10/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	6	554	55	<1	550	28.8	28.8	0.19	<10	-	-
	MW13/2	24/03/2010	<100	<100	<100	<100	<100	<100	<100	<100	-	<1000	<0.1	6	469	53	<1	533	28.2	27.8	0.57	<10	<10	<10
	MW13/2	20/01/2011	<5	<5	<5	11	<5	<5	<5	<5	-	<50	<0.1	8	656	64	<1	770	39.4	39.2	0.27	<10	<10	<10
MW15/3	MW15/3-1	17/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	<0.1	4.6	505	27.6	0.7	520	-	-	-	-	-	-
	MW15/3-2	25/08/2008	<50	<50	<50	<50	<50	<50	<50	<50	-	<500	<0.1	3.3	494	23.2	0.6	488	-	-	-	-	-	-
	MW15/3	10/12/2009	<100	<100	<100	<100	<100	<100	<100	<100	-	<1000	<0.1	3	485	23	<1	491	22.6	23.4	1.76	<10	-	-
	MW15/3	24/03/2010	<10	<10	<10	<10	<10	<10	<10	<10	-	<100	<0.1	3	446	25	<1	507	23.1	24.2	2.32	<10	<10	<10
	MW15/3	21/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	3	560	27	<1	572	27.6	27.3	0.69	<10	-	-
MW16/1	MW16/1-1	18/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	<0.1	9.8	713	35.8	1.2	655	-	-	-	-	-	-
	MW16/1-2	27/08/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	8.4	949	33.6	1.3	663	-	-	-	-	-	-
	MW16/1	11/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	9	713	33	2	588	28.9	28.8	0.19	<10	-	-
	MW16/1	23/03/2010	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	10	742	34	2	648	29.1	31.5	3.99	<10	<10	<10
	MW16/1	21/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	10	793	33	<1	710	36.3	34.1	3.16	<10	-	-
MW17/1	MW17/1-1	18/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	0.2	3.9	190	14.1	0.4	230	-	-	-	-	-	-
	MW17/1-2	27/08/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	3.2	211	13.3	0.5	244	-	-	-	-	-	-
	MW17/1	11/12/2009	-	-	-	-	-	-	-	-	-	-	0.3	4	177	12	<1	220	11.2	10.7	2.41	27	-	-
	MW17/1	24/03/2010	-	-	-	-	-	-	-	-	-	-	0.3	3	167	12	<1	211	10.2	10.3	0.39	28	<10	<10
	MW17/1	24/01/2011	-	-	-	-	-	-	-	-	-	-	0.1	4	187	13	<1	302	-	-	-	39	-	-
MW17/2	MW17/2-3	14/10/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	-	5.3	154	10.4	0.3	212	10.3	10.6	-	-	-	-
MW18	MW18-1	17/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	-	-	-	-	-	-	-	-	-	-	-	-
	MW18-2	27/08/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	5	11	3	1.5	26.5	-	-	-	-	-	-
	MW18	9/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	-	-	-	-	-	-	-	-	-	<10	-	-
	MW18	10/12/2009	-	-	-	-	-	-	-	-	-	-	<0.1	5	20	8	1	36	2.95	2.67	4.99	-	-	-
	MW18	24/03/2010	<10	<10	<10	<10	<10	<10	<10	<10	-	<100	0.1	2	3	3	1	33	1.95	1.82	3.68	<10	<10	<10
	MW18	20/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	7	7	1	2	34	1.86	2	3.51	98	<10	<10

Appendix A -
Table 2
Groundwater Analytical Results

			Chlorinated Hydrocarbons										Major Ions						Anion-Cation Balance			Organics		
			1,1-dichloropropene	1,2-dibromo-3-chloropropane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Bromochloromethane	Chloromethane	Fluoride	Calcium	Chloride	Magnesium	Potassium	Sodium	Anions Total	Cations Total	Ionic Balance	Methane	Ethane	Ethene
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	µg/L	µg/L	µg/L
EQL			5	5	1	1	5	5	1	1	1	1	0.1	0.1	1	0.1	0.1	0.1	0.01	0.01	0.01	10	10	10
ANZECC 2000 FW 95%																								
ANZECC 2000 Irrigation - Short-term Trigger Values													**2**											
ANZECC 2000 Stock Watering													**2**	**1000**										
NEPM 2013 Table 1C GILs, Drinking Water													**1.5**											
Location Code	**Field ID**	**Sampled Date**																						
MW19	MW19-1	16/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	0.3	37.7	278	42.4	10.7	298	-	-	-	-	-	-
	MW19-2	27/08/2008	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	-	<50,000	0.3	63.2	338	36.7	17.1	265	-	-	-	-	-	-
	MW19	8/12/2009	<20	<20	<20	<20	<20	<20	<20	<20	-	<200	0.3	109	200	40	20	250	17.9	20.1	5.89	29	-	-
	MW19	23/03/2010	<10	<10	<10	<10	<10	<10	<10	<10	-	<100	0.3	82	300	46	13	298	20.6	21.2	1.46	<10	<10	<10
	MW19	19/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	94	150	33	14	169	16.4	15.1	3.95	<10	-	-
MW20	MW20-1	16/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	1.1	1.8	47	6.4	0.2	315	-	-	-	-	-	-
	MW20-2	25/08/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	1	1.8	45	6.4	0.2	305	-	-	-	-	-	-
	MW20	3/12/2009	-	-	-	-	-	-	-	-	-	-	1.3	1	51	6	<1	302	13.4	13.7	0.9	<10	-	-
	MW20	16/03/2010	-	-	-	-	-	-	-	-	-	-	1.3	1	49	6	<1	310	13.4	14	2.36	<10	<10	<10
	MW20	20/01/2011	-	-	-	-	-	-	-	-	-	-	0.8	<1	44	5	<1	373	15.2	16.6	4.65	<10	<10	<10
	MW20	26/02/2013	-	-	-	-	-	-	-	-	-	-	1.5	<1	28	4	<1	258	11.4	11.6	0.52	<10	-	-
	MW20	31/01/2014	-	-	<1	<1	-	-	<1	<1	<1	<1	1.1	2.2	31	5.9	<0.5	230	-	-	-	<50	-	-
MW21	MW21-1	15/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	0.2	3	496	31.7	1.3	496	-	-	-	-	-	-
	MW21-2	26/08/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.3	2.5	698	35.4	0.3	538	-	-	-	-	-	-
	MW21	7/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.3	2	1100	37	<1	729	37.2	34.9	3.13	<10	-	-
	MW21	24/03/2010	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.3	3	629	35	1	515	25.5	25.4	0.14	<10	<10	<10
	MW21	19/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	<1	600	26	<1	418	22.2	20.4	4.32	<10	-	-
	MW21	26/02/2013	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.4	2	482	21	<1	396	20.3	19	3.18	<10	-	-
	MW21	31/01/2014	-	-	<4	<4	-	-	<4	<4	<4	<4	<0.5	2.2	420	21	<0.5	340	-	-	-	<50	-	-
MW22	MW22-1	16/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	<0.1	12.9	1030	40.6	4.8	789	-	-	-	-	-	-
	MW22-2	26/08/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	14.1	1420	47.4	2.5	888	-	-	-	-	-	-
	MW22	9/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	5	1380	52	<1	1000	44.5	48.1	3.86	<10	-	-
	MW22	22/03/2010	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	6	1450	56	<1	1100	50	52.7	2.7	<10	<10	<10
	MW22	18/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	6	1280	48	<1	992	43	47.4	4.79	<10	-	-
	MW22	28/02/2013	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	4	697	23	<1	491	23.6	23.5	0.17	<10	-	-
	MW22	30/01/2014	-	-	<1	<1	-	-	<1	<1	<1	<1	<0.5	5.4	1200	53	1.4	1000	-	-	-	<50	-	-
MW23	MW23-1	17/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	0.5	1.5	96	6.8	0.1	198	-	-	-	-	-	-
	MW23-2	27/08/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.5	1.5	109	6.7	0.1	211	-	-	-	-	-	-
	MW23	9/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	1.3	1	152	6	<1	200	8.5	9.31	4.21	51	-	-
	MW23	24/03/2010	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.7	1	99	7	<1	199	9.31	9.27	0.26	69	<10	<10
	MW23	19/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.6	<1	66	6	<1	173	8.95	8	5.64	<10	-	-
	MW23	27/02/2013	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	1	2	86	6	<1	176	8.52	8.25	1.67	34	-	-
	MW23	31/01/2014	-	-	<1	<1	-	-	<1	<1	<1	<1	0.5	1.9	92	7.4	<0.5	170	-	-	-	<50	-	-
MW24A	MW24A-2	27/08/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	186	2300	93.7	6.4	970	-	-	-	-	-	-
	MW24A-3	14/10/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	-	224	2040	94.3	5.9	1020	63.5	63.2			-	-
	MW24A	10/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	188	1900	87	4	894	60.4	55.6	4.19	<10	-	-
	MW24A	23/03/2010	<10	<10	<10	<10	<10	<10	<10	<10	-	<100	<0.1	176	1740	94	5	916	55.6	56.5	0.79	<10	<10	<10
	MW24A	18/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	157	1650	78	4	981	52.5	57.1	4.14	<10	-	-
	MW24A	28/02/2013	<10	<10	<10	<10	<10	<10	<10	<10	-	<100	0.4	179	1670	81	4	906	54.1	55.1	0.89	<10	-	-
	MW24A	29/01/2014	-	-	<80	<80	-	-	<80	<80	<80	<80	<0.5	120	1500	81	3.3	860	-	-	-	<50	-	-
MW24B	MW24B-2	27/08/2008	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	-	<50,000	0.5	10.6	632	24.1	1.5	523	-	-	-	-	-	-
	MW24B-3	14/10/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	-	14.5	636	23.8	1.6	551	27.2	26.7			-	-
	MW24B	10/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	15	807	35	<1	676	33.7	33	1.01	<10	-	-
	MW24B	24/03/2010	<100	<100	<100	<100	<100	<100	<100	<100	-	<1000	<0.1	12	888	44	<1	779	37.7	38.2	0.57	<10	<10	<10
	MW24B	18/01/2011	<100	<100	<100	<100	<100	<100	<100	<100	-	<1000	<0.1	11	904	37	<1	834	42	39.9	2.6	<10	-	-
	MW24B	28/02/2013	<100	<100	<100	<100	<100	<100	<100	<100	-	<1000	0.2	7	805	30	<1	647	34.5	31.9	3.95	<10	-	-
	MW24B	29/01/2014	-	-	<500	<500	-	-	<500	<500	<500	<500	<0.5	<5	810	25	<5	540	-	-	-	<50	-	-
MW24C	MW24C-2	27/08/2008	<5000	<5000	<5000	<5000	<5000	<5000	<5000	<5000	-	<50,000	0.2	21.5	321	12.3	1.4	259	-	-	-	-	-	-
	MW24C-3	13/10/2008	-	-	-	-	-	-	-	-	-	-	-	6.03	470	18.1	2.11	469	21	23	-	3	-	-
	MW24C	10/12/2009	<100	<100	<100	<100	<100	<100	<100	<100	-	<1000	-	-	-	-	-	-	-	-	-	<10	-	-
	MW24C	11/12/2009	-	-	-	-	-	-	-	-	-	-	-	2	694	34	<1	698	32.1	33.2	1.74		-	-
	MW24C	25/03/2010	<100	<100	<100	<100	<100	<100	<100	<100	-	<1000	-	-	-	-	-	-	-	-	-	-	-	-
	MW24C	28/02/2013	<100	<100	<100	<100	<100	<100	<100	<100	-	<1000	0.3	20	731	40	1	692	38	36.9	1.54	<10	-	-
	MW24C	3/02/2014	-	-	<1000	<1000	-	-	<1000	<1000	<1000	<1000	0.4	28	660	47	2.4	720	-	-	-	<50	-	-
MW25	MW25-2	25/08/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	5.2	395	15.5	0.5	342	-	-	-	-	-	-
	MW25-3	13/10/2008	<5	<5	<5	<5	<30	<5	<5	<5	<5	<5	-	3.57	200	11.2	1.1	250	11	12	-	2	-	-
	MW25	9/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	3	314	9	<1	251	10.9	11.8	3.9	<10	-	-
	MW25	22/03/2010	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	4	351	12	<1	306	14.5	14.5	0.1	<10	<10	<10
	MW25	18/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	4	340	11	<1	317	15.1	14.9	0.73	<10	-	-
	MW25	1/03/2013	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	2	254	8	<1	229	11.5	10.7	3.39	<10	-	-
	MW25	29/01/2014	-	-	<1	<1	-	-	<1	<1	<1	<1	<0.5	2.6	250	9.3	<0.5	230	-	-	-	<50	-	-
MW26	MW26-3	13/10/2008	-	-	-	-	-	-	-	-	-	-	-	52.8	900	53.1	6.17	574	33	32		14	-	-
	MW26	8/12/2009	<50	<50	<50	<50	<50	<50	<50	<50	-	<500	0.1	57	1270	72	3	790	43.1	43.2	0.14	<10	-	-
	MW26	17/03/2010	<100	<100	<100	<100	<100	<100	<100	<100	-	<1000	<0.1	53	1180	68	4	803	43	43.3	0.32	21	<10	<10
	MW26	18/01/2011	<100	<100	<100	<100	<100	<100	<100	<100	-	<1000	<0.1	41	1100	56	5	792	38.4	41.2	3.46	<10	-	-
	MW26	1/03/2013	<100	<100	<100	<100	<100	<100	<100	<100	-	<1000	<0.1	29	959	46	3	633	33.4	32.8	0.92	<10	-	-
	MW26	29/01/2014	-	-	<2000	<2000	-	-	<2000	<2000	<2000	<2000	<0.5	30	820	47	3	620	-	-	-	<50	-	-
MW27	MW27-1	15/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	0.1	3.2	27	2.9	0.1	213	-	-	-	-	-	-
	MW27-2	25/08/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	2.4	29	2.8	0.5	214	-	-	-	-	-	-
	MW27	3/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.3	<1	43	3	<1	243	10.3	10.8	2.21	<10	-	-
	MW27	16/03/2010	-	-	-	-	-	-	-	-	-	-	0.4	<1	80	3	<1	253	10.4	11.2	3.7	<10	<10	<10
	MW27	20/01/2011	-	-	-	-	-	-	-	-	-	-	0.3	<1	56	2	<1	319	13.3	14	2.69	<10	<10	<10
	MW27	25/02/2013	-	-	-	-	-	-	-	-	-	-	0.5	2	122	6	<1	286	13.1	13	0.16	-	-	-
	MW27	31/01/2014	-	-	<1	<1	-	-	<1	<1	<1	<1	<0.5	1.4	62	5.1	<0.5	230	-	-	-	<50	-	-

Appendix A -
Table 2
Groundwater Analytical Results

			Chlorinated Hydrocarbons										Major Ions						Anion-Cation Balance			Organics		
			1,1-dichloropropene	1,2-dibromo-3-chloropropane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Bromochloromethane	Chloromethane	Fluoride	Calcium	Chloride	Magnesium	Potassium	Sodium	Anions Total	Cations Total	Ionic Balance	Methane	Ethane	Ethene
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	µg/L	µg/L	µg/L
EQL			5	5	1	1	5	5	1	1	1	1	0.1	0.1	1	0.1	0.1	0.1	0.01	0.01	0.01	10	10	10
ANZECC 2000 FW 95%																								
ANZECC 2000 Irrigation - Short-term Trigger Values													**2**											
ANZECC 2000 Stock Watering													**2**	**1000**										
NEPM 2013 Table 1C GILs, Drinking Water													**1.5**											
Location Code	**Field ID**	**Sampled Date**																						
MW28	MW28-1	15/07/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<10	<0.1	8	205	15.5	0.3	365	-	-	-	-	-	-
	MW28-2	26/08/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	8.8	359	22.2	0.4	447	-	-	-	-	-	-
	MW28	3/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	4	150	20	<1	298	14.2	14.9	2.1	<10	-	-
	MW28	16/03/2010	-	-	-	-	-	-	-	-	-	-	<0.1	4	133	22	<1	274	12	13.9	7.56	<10	<10	<10
	MW28	20/01/2011	-	-	-	-	-	-	-	-	-	-	<0.1	5	76	26	<1	257	12.6	13.6	3.81	<10	<10	<10
	MW28	25/02/2013	-	-	-	-	-	-	-	-	-	-	0.2	4	23	16	<1	116	6.49	6.56	<0.01	-	-	-
	MW28	31/01/2014	-	-	<1	<1	-	-	<1	<1	<1	<1	<0.5	6.3	21	20	<0.5	82	-	-	-	<50	-	-
MW29	MW29-3	20/10/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	-	3.9	155	6.6	0.6	214	9.9	10.1	-	-	-	-
	MW29	19/01/2011	-	-	-	-	-	-	-	-	-	-	0.4	<1	76	3	<1	134	5.67	6.06	3.31	<10	-	-
MW30	MW30-3	14/10/2008	<5	<5	<5	<5	<5	<5	<5	<5	-	<50		5.9	67	8	1	206	9.2	9.9		-	-	-
	MW30	9/12/2009	-	-	-	-	-	-	-	-	-	-	**2.8**	1	105	5	<1	178	7.94	8.26	1.9	<10		
	MW30	22/03/2010	-	-	-	-	-	-	-	-	-	-	1.1	1	101	5	<1	159	7.55	7.37	1.24	<10	<10	<10
	MW30	19/01/2011	-	-	-	-	-	-	-	-	-	-	0.9	<1	51	3	<1	127	6.4	5.79	5.07	<10	-	-
	MW30	26/02/2013	-	-	-	-	-	-	-	-	-	-	1.1	<1	49	3	<1	150	7.03	6.77	1.93	<10	-	-
	MW30	31/01/2014	-	-	<1	<1	-	-	<1	<1	<1	<1	1	1.5	50	4.4	<0.5	130	-	-	-	<50	-	-
MW31	MW31	7/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	5	950	31	<1	796	34.2	37.4	4.56	57		
	MW31	22/03/2010	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	2	602	25	<1	500	22.7	23.9	2.58	88	23	<10
	MW31	18/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	3	676	22	1	602	25.9	28.2	4.29	32	-	-
	MW31	26/02/2013	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	1	712	23	<1	558	25.8	26.2	0.84	<10	-	-
	MW31	29/01/2014	-	-	<4	<4	-	-	<4	<4	<4	<4	<0.5	<5	630	25	<5	540	-	-	-	<50	-	-
MW32	MW32	8/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	11	2120	136	<1	1420	68.3	73.5	3.63	<10	-	-
	MW32	19/03/2010	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	9	1860	121	<1	1370	66.4	70.1	2.64	12	<10	<10
	MW32	18/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	8	1540	87	1	1080	56.9	54.8	1.86	<10	-	-
	MW32	28/02/2013	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	9	1350	86	<1	960	45	49.3	4.57	11	-	-
	MW32	29/01/2014	-	-	<4	<4	-	-	<4	<4	<4	<4	<0.5	13	1100	68	<5	700	-	-	-	<50	-	-
MW33	MW33	23/03/2010	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	7	624	21	<1	553	25.3	26.2	1.74	<10	<10	<10
	MW33	19/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	2	493	12	<1	386	19.4	17.9	3.85	<10	-	-
	MW33	26/02/2013	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.3	4	497	16	<1	445	21.6	20.9	1.65	<10	-	-
MW34A	MW34A	7/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	14	1950	70	<1	1340	62.3	64.6	1.73	<10	-	-
	MW34A	17/03/2010	<100	<100	<100	<100	<100	<100	<100	<100	-	<1000	<0.1	10	1490	72	<1	1010	50.9	50.5	0.44	<10	<10	<10
	MW34A	18/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	8	1480	60	<1	1150	51.2	55.2	3.73	<10	-	-
	MW34A	28/02/2013	<10	<10	<10	<10	<10	<10	<10	<10	-	<100	<0.1	6	1210	47	<1	837	42.3	40.6	2.09	<10	-	-
	MW34A	30/01/2014	-	-	<100	<100	-	-	<100	<100	<100	<100	<0.5	8.5	1500	64	<5	1000	-	-	-	<50	-	-
MW34B	MW34B	8/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	11	664	32	<1	454	24.9	23	4.01	<10	-	-
	MW34B	17/03/2010	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	9	528	28	1	434	21.3	21.6	0.67	<10	<10	<10
	MW34B	18/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	9	622	30	<1	565	25	27.5	4.69	<10	-	-
	MW34B	28/02/2013	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	10	522	23	<1	364	20.2	18.3	4.94	<10	-	-
	MW34B	30/01/2014	-	-	<8	<8	-	-	<8	<8	<8	<8	<0.5	9.6	600	31	<5	430	-	-	-	<50	-	-
MW35	MW35	11/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	18	978	60	2	631	34.8	33.4	2.1	<10	-	-
	MW35	17/03/2010	<10	<10	<10	<10	<10	<10	<10	<10	-	<100	0.1	14	934	59	2	674	36	34.9	1.51	<10	<10	<10
	MW35	18/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	13	964	55	1	732	34.6	37	3.28	<10	-	-
	MW35	27/02/2013	<10	<10	<10	<10	<10	<10	<10	<10		<100	0.1	12	830	52	1	589	30.8	30.5	0.43	<10	-	-
	MW35	30/01/2014	-	-	<100	<100	-	-	<100	<100	<100	<100	<0.5	12	840	58	<5	630	-	-	-	<50	-	-
MW36	MW36	7/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	38	950	36	<1	792	37.5	39.3	2.35	<10	-	-
	MW36	18/03/2010	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	38	604	32	2	517	26.7	27	0.63	<10	<10	<10
	MW36	19/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	30	376	15	<1	266	15.1	14.3	2.77	<10	-	-
	MW36	25/02/2013	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	24	465	20	2	447	22.5	22.3	0.32	<10	-	-
	MW36	31/01/2014	-	-	<1	<1	-	-	<1	<1	<1	<1	<0.5	16	460	21	1.3	450	-	-	-	<50	-	-
MW37	MW37	4/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	8	1600	84	2	971	53.8	49.6	4.09	<10	-	-
	MW37	18/03/2010	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	7	1370	82	2	934	47.2	47.8	0.63	<10	<10	<10
	MW37	19/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	21	981	50	3	553	32.2	29.3	4.72	<10	-	-
	MW37	25/02/2013	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	13	1060	57	5	717	38.5	36.7	2.49	<10	-	-
	MW37	30/01/2014	-	-	<1	<1	-	-	<1	<1	<1	<1	<0.5	11	1000	63	2.9	770	-	-	-	<50	-	-
MW38	MW38	4/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	17	714	42	22	430	25.1	23.5	3.3	150		
	MW38	18/03/2010	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	15	440	31	28	309	15.9	17.4	4.65	168	<10	<10
	MW38	19/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	14	165	14	20	123	8.54	7.72	5.07	<10	-	-
	MW38	26/02/2013	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	13	142	14	26	111	7.96	7.29	4.4	71	-	-
	MW38	30/01/2014	-	-	<1	<1	-	-	<1	<1	<1	<1	<0.5	16	170	16	23	100	-	-	-	220	-	-
MW39	MW39	4/12/2009	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	6	311	13	3	234	11.3	11.6	1.45	<10	-	-
	MW39	18/03/2010	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	8	68	5	6	74	3.82	4.18	4.5	<10	<10	<10
	MW39	21/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	6	24	2	5	42	2.62	2.44	3.6	<10	-	-
	MW39	27/02/2013	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	13	33	5	7	76	4.28	4.55	3.01	<10	-	-
	MW39	31/01/2014	-	-	<1	<1	-	-	<1	<1	<1	<1	<0.5	9.8	29	4.1	5.9	54	-	-	-	<50	-	-

Appendix A -
Table 2
Groundwater Analytical Results

			Chlorinated Hydrocarbons										Major Ions						Anion-Cation Balance			Organics		
			1,1-dichloropropene	1,2-dibromo-3-chloropropane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Bromochloromethane	Chloromethane	Fluoride	Calcium	Chloride	Magnesium	Potassium	Sodium	Anions Total	Cations Total	Ionic Balance	Methane	Ethane	Ethene
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	µg/L	µg/L	µg/L
EQL			5	5	1	1	5	5	1	1	1	1	0.1	0.1	1	0.1	0.1	0.1	0.01	0.01	0.01	10	10	10
ANZECC 2000 FW 95%																								
ANZECC 2000 Irrigation - Short-term Trigger Values													**2**											
ANZECC 2000 Stock Watering													**2**	**1000**										
NEPM 2013 Table 1C GILs, Drinking Water													**1.5**											
Location Code	**Field ID**	**Sampled Date**																						
MW40	MW40	25/03/2010	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.2	19	29	13	8	35	3.41	3.75	4.56	176	25	<10
	MW40	19/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	25	37	11	6	31	3.5	3.7	2.8	104	-	-
	MW40	27/02/2013	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	30	17	12	8	27	4.05	3.86	2.4	75	-	-
	MW40	3/02/2014	-	-	<1	<1	-	-	<1	<1	<1	<1	0.1	31	20	13	5.8	19				100	-	-
MW41	MW41	25/03/2010	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	2	63	4	<1	136	5.76	6.35	4.85	<10	<10	<10
	MW41	19/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	<1	68	3	<1	126	5.43	5.73	2.61	<10	-	-
	MW41	27/02/2013	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.3	2	65	4	<1	130	6.34	6.08	2.11	<10	-	-
	MW41	3/02/2014	-	-	<1	<1	-	-	<1	<1	<1	<1	0.2	2	59	4	<0.5	110	-	-	-	<50	-	-
MW42	MW42	25/03/2010	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	24	707	50	1	607	29	31.8	4.47	<10	<10	<10
	MW42	20/01/2011	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	<0.1	22	869	49	<1	768	37.8	38.6	1.01	<10	<10	<10
	MW42	27/02/2013	<5	<5	<5	<5	<5	<5	<5	<5	-	<50	0.1	20	842	43	1	555	31.4	28.7	4.45	<10	-	-
	MW42	3/02/2014	-	-	<1	<1	-	-	<1	<1	<1	<1	0.2	20	840	48	1.4	680				<50	-	-

			Nutrients									
			Ammonia as N	Nitrate (as N)	Nitrate (as NO_3)	Nitrite (as N)	Nitrite (as NO_2) (Filtered)	Nitrogen (Total Oxidised)	Sulphate	Sulphate as S	Sulphite as S
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL			0.01	0.01	0.01	0.01	0.5	0.01	1	5	0.5
ANZECC 2000 FW 95%			**0.9**	**0.158**	**0.7**						
ANZECC 2000 Irrigation - Short-term Trigger Values											
ANZECC 2000 Stock Watering				**90**	**400**	**9.1**	**30**		**1000**	**333**	
NEPM 2013 Table 1C GILs, Drinking Water					**50**		**3**		**500**		
Location Code	**Field ID**	**Sampled Date**									
MW3	MW3-1	15/07/2008	-	-	**1.86**	0.02	-	-	426	-	-
	MW3-2	26/08/2008	-	-	**4.87**	0.03	-	-	**524**	-	-
	MW3	25/03/2010		**8.86**	-	0.02	-	8.88	**523**	-	-
	MW3	20/01/2011	0.15	**6.6**	-	<0.01	-	6.6	305	-	-
	MW3	27/02/2013	0.18	**5.09**	-	<0.01	-	5.09	207	-	-
MW4	MW4-1	15/07/2008	-	-	0.5	0.01	-	-	56	-	-
	MW4-2	27/08/2008	-	-	0.41	0.01	-	-	52	-	-
	MW4	3/12/2009	-	**0.96**	-	<0.01	-	0.96	51	-	-
	MW4	18/03/2010	-	**0.25**	-	0.01	-	0.26	22	-	-
	MW4	20/01/2011	<0.01	**1.7**	-	<0.01	-	1.7	88	-	-
MW5	MW5-1	16/07/2008	-	-	**2.27**	0.03	-	-	285	-	-
	MW5-2	27/08/2008	-	-	**2.2**	0.02	-	-	333	-	-
MW6/3	MW6/3-1	17/07/2008	-	-	**1.72**	<0.01	-	-	120	-	-
	MW6/3-2	28/08/2008	-	-	**1.85**	0.02	-	-	127	-	-
MW6/4	MW6/4	7/12/2009	-	**2.66**	-	<0.01	-	2.66	24	-	-
	MW6/4	22/03/2010	-	**2.61**	-	<0.01	-	2.61	81	-	-
	MW6/4	24/01/2011	<0.01	-	-	-	-	-	65	-	-
MW7/3	MW7/3-1	18/07/2008	-	-	**6.02**	<0.01	-	-	217	-	-
	MW7/3-2	28/08/2008	-	-	**3.23**	0.02	-	-	172	-	-
	MW7/3	7/12/2009	-	**6.29**	-	<0.01	-	6.29	99	-	-
	MW7/3	22/03/2010	-	**5**	-	<0.01	-	5	162	-	-
	MW7/3	21/01/2011	<0.01	**6.53**	-	<0.01	-	6.53	251	-	-
MW9/2	MW9/2-1	17/07/2008	-	-	-	<0.01	-	-	12	-	-
MW11/2	MW11/2-1	17/07/2008	-	-	**2.79**	<0.01	-	-	90	-	-
	MW11/2-2	28/08/2008	-	-	**2.47**	0.02	-	-	97	-	-
	MW11/2	4/12/2009	-	**2.4**	-	<0.01	-	2.4	88	-	-
	MW11/2	22/03/2010	-	**1.49**	-	0.02	-	1.51	26	-	-
	MW11/2	21/01/2011	0.04	**1.58**	-	<0.01	-	1.58	59	-	-
MW12/1	MW12/1-2	26/08/2008	-	-	**3.03**	0.06	-	-	19	-	-
	MW12-1	17/07/2008	-	-	**3.46**	0.03	-	-	23	-	-
	MW12/1	9/12/2009	-	**3.58**	-	0.03	-	3.61	37	-	-
	MW12/1	25/03/2010	-	**4.03**	-	0.14	-	4.17	7	-	-
	MW12/1	21/01/2011	<0.01	**5.67**	-	0.04	-	5.72	22	-	-
MW13/2	MW13/2-1	17/07/2008	-	-	**113**	1.31	-	-	428	-	-
	MW13/2-2	25/08/2008	-	-	**104**	-	-	-	392	-	-
	MW13/2	10/12/2009	-	**83.4**	-	1	-	84.4	309	-	-
	MW13/2	24/03/2010	-	**80.5**	-	0.67	-	81.1	395	-	-
	MW13/2	20/01/2011	0.18	**95.8**	-	0.89	-	96.7	**638**	-	-
MW15/3	MW15/3-1	17/07/2008	-	-	**16.9**	0.11	-	-	364	-	-
	MW15/3-2	25/08/2008	-	-	**15.3**	-	-	-	352	-	-
	MW15/3	10/12/2009	-	**20.3**	-	0.09	-	20.4	344	-	-
	MW15/3	24/03/2010	-	**20.9**	-	0.12	-	21.1	429	-	-
	MW15/3	21/01/2011	0.2	**29.5**	-	0.32	-	29.9	498	-	-
MW16/1	MW16/1-1	18/07/2008	-	-	**16.2**	0.03	-	-	293	-	-
	MW16/1-2	27/08/2008	-	-	**12.3**	0.02	-	-	316	-	-
	MW16/1	11/12/2009	-	**14.8**	-	<0.01	-	14.8	309	-	-
	MW16/1	23/03/2010	-	**13.8**	-	0.02	-	13.8	284	-	-
	MW16/1	21/01/2011	<0.01	**14.2**	-	<0.01	-	14.2	**566**	-	-
MW17/1	MW17/1-1	18/07/2008	-	-	0.01	0.01	-	-	161	-	-
	MW17/1-2	27/08/2008	-	-	0.02	<0.01	-	-	180	-	-
	MW17/1	11/12/2009	-	0.07	-	<0.01	-	0.07	176	-	-
	MW17/1	24/03/2010	-	<0.01	-	<0.01	-	<0.1	153	-	-
	MW17/1	24/01/2011	<0.01	-	-	-	-	-	82	-	-
MW17/2	MW17/2-3	14/10/2008	-	-	0.06	0.01	-	-	165	-	-
MW18	MW18-1	17/07/2008	-	-			-	-		-	-
	MW18-2	27/08/2008	-	-	0.13	0.02	-	-	16	-	-
	MW18	9/12/2009	-	-	-		-	-	-	-	-
	MW18	10/12/2009	-	**0.87**	-	<0.01	-	0.87	61	-	-
	MW18	24/03/2010	-	**0.4**	-	<0.01	-	0.4	48	-	-
	MW18	20/01/2011	0.17	**0.38**	-	<0.01	-	0.38	45	-	-

			Nutrients									
			Ammonia as N	Nitrate (as N)	Nitrate (as NO_3)	Nitrite (as N)	Nitrite (as NO_2) (Filtered)	Nitrogen (Total Oxidised)	Sulphate	Sulphate as S	Sulphite as S
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL			0.01	0.01	0.01	0.01	0.5	0.01	1	5	0.5
ANZECC 2000 FW 95%			**0.9**	**0.158**	**0.7**						
ANZECC 2000 Irrigation - Short-term Trigger Values											
ANZECC 2000 Stock Watering				**90**	**400**	**9.1**	**30**		**1000**	**333**	
NEPM 2013 Table 1C GILs, Drinking Water					**50**		**3**		**500**		
Location Code	**Field ID**	**Sampled Date**									
MW19	MW19-1	16/07/2008	-	-	**4.78**	0.17	-	-	253	-	-
	MW19-2	27/08/2008	-	-	**21.4**	0.09	-	-	156	-	-
	MW19	8/12/2009	-	**33.9**	-	0.03	-	34	60	-	-
	MW19	23/03/2010	-	**9.27**	-	0.79	-	10	224	-	-
	MW19	19/01/2011	<0.01	**16.7**	-	<0.01	-	16.7	166	-	-
MW20	MW20-1	16/07/2008	-	-	**0.71**	<0.01	-	-	270	-	-
	MW20-2	25/08/2008	-	-	**0.73**	-	-	-	315	-	-
	MW20	3/12/2009	-	**0.99**	-	<0.01	-	0.99	231	-	-
	MW20	16/03/2010	-	**1.03**	-	<0.01	-	1.03	255	-	-
	MW20	20/01/2011	<0.01	**0.84**	-	<0.01	-	0.84	332	-	-
	MW20	26/02/2013	0.06	**0.82**	-	<0.01	-	0.82	190	-	-
	MW20	31/01/2014	0.02	**1**	-	<0.02	-	-	-	75	<10
MW21	MW21-1	15/07/2008	-	-	**3.27**	0.03	-	-	166	-	-
	MW21-2	26/08/2008	-	-	**3.08**	0.01	-	-	194	-	-
	MW21	7/12/2009	-	**5.54**	-	<0.01	-	5.54	154	-	-
	MW21	24/03/2010	-	**5.12**	-	0.02	-	5.14	243	-	-
	MW21	19/01/2011	0.08	**4.9**	-	<0.01	-	4.9	135	-	-
	MW21	26/02/2013	0.04	**3.88**	-	<0.01	-	3.88	170	-	-
	MW21	31/01/2014	0.02	**4**	-	<0.02	-	-	-	68	<2.5
MW22	MW22-1	16/07/2008	-	-	**28.5**	0.03	-	-	192	-	-
	MW22-2	26/08/2008	-	-	**30**	0.02	-	-	248	-	-
	MW22	9/12/2009	-	**51.5**	-	<0.01	-	51.5	15	-	-
	MW22	22/03/2010	-	**53.4**	-	0.02	-	53.5	321	-	-
	MW22	18/01/2011	0.1	**43.4**	-	0.02	-	43.4	285	-	-
	MW22	28/02/2013	0.19	**25.3**	-	0.02	-	25.3	162	-	-
	MW22	30/01/2014	0.07	**48**	-	<0.02	-	-	-	120	<1
MW23	MW23-1	17/07/2008	-	-	**3.04**	0.23	-	-	126	-	-
	MW23-2	27/08/2008	-	-	**2.63**	0.18	-	-	146	-	-
	MW23	9/12/2009	-	**2.44**	-	0.2	-	2.64	<1	-	-
	MW23	24/03/2010	-	**1.85**	-	0.16	-	2.01	133	-	-
	MW23	19/01/2011	<0.01	**1.74**	-	0.52	-	2.26	168	-	-
	MW23	27/02/2013	0.03	**3.61**	-	0.11	-	3.72	120	-	-
	MW23	31/01/2014	0.04	**4.9**	-	0.06	-	-	-	45	<1
MW24A	MW24A-2	27/08/2008	-	-	**3.95**	0.08	-	-	183	-	-
	MW24A-3	14/10/2008	-	-	**5.91**	0.06	-	-	185	-	-
	MW24A	10/12/2009	-	**7.67**	-	0.06	-	7.73	173	-	-
	MW24A	23/03/2010	-	**7.98**	-	0.05	-	8.03	174	-	-
	MW24A	18/01/2011	0.06	**10.7**	-	0.03	-	10.8	152	-	-
	MW24A	28/02/2013	0.06	**8.84**	-	0.04	-	8.88	184	-	-
	MW24A	29/01/2014	0.08	**19**	-	<0.02	-	-	-	84	<2.5
MW24B	MW24B-2	27/08/2008	-	-	**18.3**	0.27	-	-	312	-	-
	MW24B-3	14/10/2008	-	-	**8.15**	0.24	-	-	395	-	-
	MW24B	10/12/2009	-	**8.2**	-	0.19	-	8.39	358	-	-
	MW24B	24/03/2010	-	**30.2**	-	0.43	-	30.7	471	-	-
	MW24B	18/01/2011	0.67	**12.9**	-	0.55	-	13.5	**635**	-	-
	MW24B	28/02/2013	0.47	**1.58**	-	0.08	-	1.66	297	-	-
	MW24B	29/01/2014	0.51	**2.3**	-	<0.02	-	-	-	110	<5
MW24C	MW24C-2	27/08/2008	-	-	0.09	0.08	-	-	202	-	-
	MW24C-3	13/10/2008	-	-	<0.5	-	<0.5	-	180	-	-
	MW24C	10/12/2009	-	-	-	-	-	-	-	-	-
	MW24C	11/12/2009	-	-	-	-	-	-	295	-	-
	MW24C	25/03/2010	-	-	-	-	-	-	-	-	-
	MW24C	28/02/2013	0.09	0.02	-	<0.01	-	0.02	445	-	-
	MW24C	3/02/2014	0.13	<0.02		<0.02	-	-		160	<2.5
MW25	MW25-2	25/08/2008	-	-	0.04	-	-	-	153	-	-
	MW25-3	13/10/2008	-	-	<0.5	-	<0.5	-	120	-	-
	MW25	9/12/2009	-	0.09	-	<0.01	-	0.09	21	-	-
	MW25	22/03/2010	-	**0.17**	-	0.02	-	0.2	142	-	-
	MW25	18/01/2011	<0.01	0.03	-	<0.01	-	0.03	186	-	-
	MW25	1/03/2013	0.04	<0.01	-	<0.01	-	<0.01	147	-	-
	MW25	29/01/2014	0.05	0.03	-	<0.02	-	-	-	53	<10
MW26	MW26-3	13/10/2008	-	-	**23**	-	<0.5	-	150	-	-
	MW26	8/12/2009	-	**13.5**	-	0.11	-	13.6	199	-	-
	MW26	17/03/2010	-	**13.9**	-	0.11	-	14	347	-	-
	MW26	18/01/2011	0.2	**14.5**	-	0.06	-	14.6	248	-	-
	MW26	1/03/2013	0.16	**19**	-	0.05	-	19.1	204	-	-
	MW26	29/01/2014	<0.01	**18**	-	<0.02	-	-	-	69	<5
MW27	MW27-1	15/07/2008	-	-	**13**	0.02	-	-	279	-	-
	MW27-2	25/08/2008	-	-	**13**	-	-	-	332	-	-
	MW27	3/12/2009	-	**13.9**	-	<0.01	-	13.9	296	-	-
	MW27	16/03/2010	-	**14.7**	-	<0.01	-	14.7	317	-	-
	MW27	20/01/2011	<0.01	**9.38**	-	<0.01	-	9.38	458	-	-
	MW27	25/02/2013	0.05	**10.7**	-	<0.01	-	10.7	379	-	-
	MW27	31/01/2014	0.03	**8.2**	-	<0.02	-	-	-	150	<1

			Nutrients									
			Ammonia as N	Nitrate (as N)	Nitrate (as NO3-)	Nitrite (as N)	Nitrite (as NO2-) (Filtered)	Nitrogen (Total Oxidised)	Sulphate	Sulphate as S	Sulphite as S
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EOL			0.01	0.01	0.01	0.01	0.5	0.01	1	5	0.5
ANZECC 2000 FW 95%			**0.9**	**0.158**	**0.7**						
ANZECC 2000 Irrigation - Short-term Trigger Values											
ANZECC 2000 Stock Watering				**90**	**400**	**9.1**	**30**		**1000**	**333**	
NEPM 2013 Table 1C GILs, Drinking Water					**50**		**3**		**500**		
Location Code	**Field ID**	**Sampled Date**									
MW28	MW28-1	15/07/2008	-	-	**24.4**	0.07	-	-	374	-	-
	MW28-2	26/08/2008	-	-	**24.5**	0.02	-	-	494	-	-
	MW28	3/12/2009	-	**30.4**	-	<0.01	-	30.4	336	-	-
	MW28	16/03/2010	-	**29**	-	<0.01	-	29	338	-	-
	MW28	20/01/2011	<0.01	**26.1**	-	<0.01	-	26.1	371	-	-
	MW28	25/02/2013	0.04	**18.3**	-	<0.01	-	18.3	162	-	-
	MW28	31/01/2014	0.05	**17**	-	<0.02	-	-	-	62	<1
MW29	MW29-3	20/10/2008	-	-	**9.78**	0.04	-	-	176	-	-
	MW29	19/01/2011	<0.01	**15.9**	-	<0.01	-	15.9	103	-	-
MW30	MW30-3	14/10/2008	-	-	0.03	0.01	-	-	152	-	-
	MW30	9/12/2009	-	0.08	-	<0.01	-	0.08	<1	-	-
	MW30	22/03/2010	-	<0.01	-	<0.01	-	<0.1	36	-	-
	MW30	19/01/2011	<0.01	0.04	-	<0.01	-	0.04	70	-	-
	MW30	26/02/2013	0.04	**0.2**	-	0.02	-	0.22	88	-	-
	MW30	31/01/2014	0.03	0.11	-	<0.02	-	-	-	31	<1
MW31	MW31	7/12/2009	-	**16.2**	-	0.06	-	16.3	194	-	-
	MW31	22/03/2010	-	**11.8**	-	0.02	-	11.8	211	-	-
	MW31	18/01/2011	<0.01	**14.1**	-	<0.01	-	14.1	261	-	-
	MW31	26/02/2013	0.03	**16.3**	-	0.01	-	16.3	221	-	-
	MW31	29/01/2014	0.03	**16**	-	<0.02	-	-	-	90	<1
MW32	MW32	8/12/2009	-	**116**	-	0.03	-	116	356	-	-
	MW32	19/03/2010	-	**80.8**	-	0.02	-	80.8	345	-	-
	MW32	18/01/2011	<0.01	**70.2**	-	<0.01	-	70.2	**593**	-	-
	MW32	28/02/2013	0.07	**83.1**	-	<0.01	-	83.1	286	-	-
	MW32	29/01/2014	0.13	**56**	-	<0.02	-	-	-	93	<10
MW33	MW33	23/03/2010	-	**9.21**	-	0.09	-	9.3	256	-	-
	MW33	19/01/2011	0.3	**8.34**	-	0.05	-	8.39	155	-	-
	MW33	26/02/2013	0.03	**7.78**	-	0.05	-	7.83	245	-	-
MW34A	MW34A	7/12/2009	-	**3.2**	-	0.06	-	3.26	268	-	-
	MW34A	17/03/2010	-	**2.77**	-	0.04	-	2.82	394	-	-
	MW34A	18/01/2011	0.02	**1.57**	-	<0.01	-	1.57	427	-	-
	MW34A	28/02/2013	0.04	**1.45**	-	<0.01	-	1.45	360	-	-
	MW34A	30/01/2014	0.03	**1.6**	-	<0.02	-	-	-	130	<2.5
MW34B	MW34B	8/12/2009	-	**0.79**	-	0.08	-	0.87	180	-	-
	MW34B	17/03/2010	-	<0.01	-	<0.01	-	<0.1	207	-	-
	MW34B	18/01/2011	0.08	0.04	-	<0.01	-	0.04	257	-	-
	MW34B	28/02/2013	0.1	**0.34**	-	<0.01	-	0.34	165	-	-
	MW34B	30/01/2014	0.05	**0.26**	-	<0.02	-	-	-	79	<10
MW35	MW35	11/12/2009	-	**18.9**	-	0.1	-	19	235	-	-
	MW35	17/03/2010	-	**19.2**	-	0.03	-	19.2	356	-	-
	MW35	18/01/2011	<0.01	**24**	-	<0.01	-	24	253	-	-
	MW35	27/02/2013	0.07	**24.2**	-	<0.01	-	24.2	246	-	-
	MW35	30/01/2014	0.03	**26**	-	<0.02	-	-	-	110	<2.5
MW36	MW36	7/12/2009	-	**27**	-	1.22	-	28.2	330	-	-
	MW36	18/03/2010	-	**16.1**	-	0.1	-	16.2	299	-	-
	MW36	19/01/2011	0.28	**8.25**	-	0.09	-	8.34	89	-	-
	MW36	25/02/2013	0.06	**9.2**	-	0.02	-	-	305	-	-
	MW36	31/01/2014	0.07	**9.6**	-	<0.02	-	-	-	120	<5
MW37	MW37	4/12/2009	-	**25.5**	-	0.03	-	25.5	233	-	-
	MW37	18/03/2010	-	**24.5**	-	0.02	-	24.5	276	-	-
	MW37	19/01/2011	0.15	**17.5**	-	0.01	-	17.5	90	-	-
	MW37	25/02/2013	0.11	**19**	-	0.02	-	-	208	-	-
	MW37	30/01/2014	0.05	**24**	-	<0.02	-	-	-	87	<1
MW38	MW38	4/12/2009	-	**2.96**	-	<0.01	-	2.96	84	-	-
	MW38	18/03/2010	-	**1.34**	-	0.03	-	1.37	30	-	-
	MW38	19/01/2011	0.45	**1.04**	-	<0.01	-	1.04	54	-	-
	MW38	26/02/2013	0.59	**0.23**	-	<0.01	-	0.23	25	-	-
	MW38	30/01/2014	0.76	**0.47**	-	0.06	-	-	-	13	<10
MW39	MW39	4/12/2009	-	**7.79**	-	0.08	-	7.87	6	-	-
	MW39	18/03/2010	-	**5.37**	-	<0.01	-	5.37	1	-	-
	MW39	21/01/2011	<0.01	**3.52**	-	0.02	-	3.55	40	-	-
	MW39	27/02/2013	0.05	**4.2**	-	<0.01	-	4.2	35	-	-
	MW39	31/01/2014	0.07	**5.1**	-	0.06	-	-	-	19	<5

Appendix A -
Table 2
Groundwater Analytical Results

			Nutrients								
			Ammonia as N	Nitrate (as N)	Nitrate (as NO_3)	Nitrite (as N)	Nitrite (as NO_2) (Filtered)	Nitrogen (Total Oxidised)	Sulphate	Sulphate as S	Sulphite as S
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL			0.01	0.01	0.01	0.01	0.5	0.01	1	5	0.5
ANZECC 2000 FW 95%			**0.9**	**0.158**	**0.7**						
ANZECC 2000 Irrigation - Short-term Trigger Values											
ANZECC 2000 Stock Watering				**90**	**400**	**9.1**	**30**		**1000**	**333**	
NEPM 2013 Table 1C GILs, Drinking Water					**50**		**3**		**500**		
Location Code	**Field ID**	**Sampled Date**									
MW40	MW40	25/03/2010	-	<0.01	-	<0.01	-	<0.1	<1	-	-
	MW40	19/01/2011	**2.18**	<0.01	-	<0.01	-	<0.01	16	-	-
	MW40	27/02/2013	**1.56**	<0.01	-	<0.01	-	<0.01	45	-	-
	MW40	3/02/2014	**1.6**	0.03	-	<0.02	-			18	<10
MW41	MW41	25/03/2010	-	**2.03**	-	0.08	-	2.11	86	-	-
	MW41	19/01/2011	0.03	**1.81**	-	0.02	-	1.83	79	-	-
	MW41	27/02/2013	0.03	**1.63**	-	0.01	-	1.64	108	-	-
	MW41	3/02/2014	0.03	**2.3**	-	0.03	-	-	-	36	<10
MW42	MW42	25/03/2010	-	**7.4**	-	0.15	-	7.55	318	-	-
	MW42	20/01/2011	0.02	**7.78**	-	0.02	-	7.79	**540**	-	-
	MW42	27/02/2013	0.04	**6.67**	-	0.02	-	6.69	263	-	-
	MW42	3/02/2014	<0.01	**8.1**	-	0.03	-	-	-	130	<1

Table G3 Groundwater Results (Resolve 2019-2020)

Table 3
Groundwater Analytical Results (Chandos Lot 2)
Chandos St, Cheltenham, VIC

Resolve Environmental

ANALYTE					Alkalinity by PC Titrator	Carboxylic Acids	Inorganic	TRH							Volatile Organic Compounds WF		BTEX								
				Volatile Acids as Acetic Acid	Carbonate Alkalinity as CaCO3	Acetic Acid	Sulfate as SO4 - Turbidimetric (Filtered)	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	Sum of Trichlorobenzenes	1,3-Dichloropropylene (cis & trans)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	Other chlorinated hydrocarbons EPAVic	1,1,1,2-tetrachloroethane
				mg/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				5	1	50	1	20	20	50	50	100	100	100	1	2	1	1	1	1	1	1	1	5	1
EnRiskS RBC:	Slab on grade: warehouses			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Slab on grade: multistory offices			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Commercial with 1 level basement car park			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Commercial with 2 levels basement car park			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Commercial with 3 levels basement car park			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Open space RBC			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field_ID	Location	Applicable RBC for Location	Sampled_Date-Time																						
BMW1			29/08/2019	-	-	-	-	380	380	<100	<100	150	<100	150	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
BMW2			16/01/2019	-	<1	-	323	290	290	<100	<100	<100	<100	<100	<1	<2	1	<1	<1	<1	<1	<1	1	-	<1
BMW2			29/08/2019	-	-	-	-	260	260	<100	<100	<100	<100	<100	<1	<2	1	<1	<1	<1	<1	<1	1	-	<1
CMW1			16/01/2019	-	<1	-	485	320	160	<100	<100	<100	<100	<100	<1	<2	15 - 16	23	21 - 22	71 - 73	26 - 27	97 - 100	161	-	<1
MW22			16/01/2019	-	<1	-	413	5540	5540	<100	<100	<100	<100	<100	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10
MW24AR	Lot 2 (Source)	Open space RBC	17/01/2019	-	<1	-	237	14,800	14,800	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100
MW24AR	Lot 2 (Source)	Open space RBC	11/04/2019	39	<1	-	262	17,400	17,400	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100
MW24AR	Lot 2 (Source)	Open space RBC	29/08/2019	-	-	-	-	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW24BR	Lot 2 (Source)	Open space RBC	17/01/2019	-	<1	<50	195	1510	1510	<100	<100	160	<100	160	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW24BR	Lot 2 (Source)	Open space RBC	10/04/2019	54	<1	-	364	1370	1370	<100	<100	140	<100	140	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW24BR	Lot 2 (Source)	Open space RBC	30/08/2019	-	-	-	-	780	780	140	140	120	<100	260	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW24CR	Lot 2 (Source)	Open space RBC	17/01/2019	-	<1	-	88	4580	4580	160	160	290	<100	450	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10
MW24CR	Lot 2 (Source)	Open space RBC	11/04/2019	105	<1	-	12,800	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW24CR	Lot 2 (Source)	Open space RBC	29/08/2019	-	-	-	-	280	280	190	190	130	<100	320	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW25	Off Site (Down Gradient)	Open space RBC	16/01/2019	-	<1	-	167	13,200	13,200	<100	<100	120	<100	120	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100
MW25	Off Site (Down Gradient)	Open space RBC	10/04/2019	44	<1	-	192	13,900	13,900	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100
MW26	Off Site (Down Gradient)	Open space RBC	16/01/2019	-	<1	<50	282	118,000	118,000	<100	<100	110	<100	110	<100	<100	<100	143 - 183	<100	<100	<100	<100	183	-	<100
MW26	Off Site (Down Gradient)	Open space RBC	11/04/2019	44	<1	-	289	133,000	133,000	<100	<100	<100	<100	<100	<100	<100	<100	114 - 119	<100	<100	<100	<100	119	-	<100
MW32	Lot 2 (Up Gradient)	Open space RBC	16/01/2019	-	<1	-	87	490	490	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW33R			16/01/2019	-	<1	-	197	400	400	<100	<100	140	<100	140	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW34a	Off Site (Down Gradient)	Open space RBC	17/01/2019	-	<1	-	376	57,300	57,100	<100	<100	<100	<100	<100	<100	<100	<100	142 - 156	<100	<100	<100	<100	156	-	<100
MW34A	Off Site (Down Gradient)	Open space RBC	10/04/2019	28	<1	-	381	52,000	52,000	<100	<100	<100	<100	<100	<100	<100	<100	<100 - 102	<100	<100	<100	<100	<100	-	<100
MW34A	Off Site (Down Gradient)	Open space RBC	19/09/2019					820	820	140	200	<100	340	140	<1	<2	<1	<1	<1	<1	<1	<1	<1		<1
MW34b	Off Site (Down Gradient)	Open space RBC	16/01/2019	-	<1	-	237	24,500	24,500	<100	<100	130	<100	130	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100
MW34b	Off Site (Down Gradient)	Open space RBC	17/01/2019	-	-	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW34B	Off Site (Down Gradient)	Open space RBC	10/04/2019	43	<1	-	251	27,300	27,300	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100
MW34B	Off Site (Down Gradient)	Open space RBC	19/09/2019					640	640	<100	140	<100	140	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1		<1
MW35	Lot 2 (Up Gradient)	Open space RBC	28/08/2019	-	-	-	-	14,800	14,800	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW38			29/08/2019	-	-	-	-	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW39			15/01/2019	-	<1	-	26	<20	<20	<100	<100	540	<100	540	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW41			15/01/2019	-	<1	-	93	<20	<20	<100	<100	120	<100	120	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW42			15/01/2019	-	<1	<50	393	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW42			29/08/2019	-	-	-	-	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW50A	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	-	<1	-	163	760	750	<100	<100	<100	<100	<100	<1	<2	5 - 6	<1	<1	<1	<1	<1	6	-	<1
MW50A	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	36	<1	-	156	1080	1070	<100	<100	<100	<100	<100	<1	<2	7	<1	<1	<1	<1	<1	7	-	<1
MW50A	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	-	-	-	-	1610	1600	<100	<100	130	<100	130	<1	<2	5	2	<1	<1	<1	<1	7	-	<1
MW50B	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	-	<1	<50	380	28,500	28,500	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100
MW50B	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	69	<1	-	293	8730	8730	<100	<100	100	<100	100	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10
MW50B	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	-	-	-	-	39,800	39,800	<100	<100	<100	<100	<100	<1	<2	5	2	<1	12	12	24	31	-	<1
MW50C	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	-	<1	-	224	28,300	28,300	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100
MW50C	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	41	<1	-	288	39,100	39,100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100
MW50C	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	-	-	-	-	53,700	53,700	<100	<100	<100	<100	<100	<1	<2	5	6	<1	7	9	16	27	-	<1
MW51	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	-	<1	<50	147	270	270	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW51	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	-	-	-	-	60	60	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW53			15/01/2019	-	<1	-	36	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW56			14/01/2019	-	<1	-	386	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW57			15/01/2019	-	<1	<50	123	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1
MW58			15/01/2019	-	<1	-	160	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1

Notes
Derived Groundwater Risk Based (RBC) Contaminant Screening Levels - EnRiskS 2018
S' Denotes derived RBC significantly exceeds the solubility of the VOC
* Groundwater monitoring well screen is below the water table and as such comparison to RBC is not applicable

Table 3
Groundwater Analytical Results (Chandos Lot 2)
Chandos St, Cheltenham, VIC

Resolve Environmental

ANALYTE				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	Bromochloromethane	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Dichloromethane	Hexachlorobutadiene	Trichloroethene	Tetrachloroethene
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				1	1	1	0.01	1	1	1	1	0.01	1	1	1	1	1	1	1	1	1	1	1	1	0.01	1	1	0.02	0.5	0.01	0.02
EnRiskS RBC:	Slab on grade: warehouses			S	-	1,100,000	2,100,000	750,000	-	-	-	160,000	-	-	-	-	-	-	19,000	-	-	1,300,000	-	110,000	-	-	-	-	18,000	1,500,000
	Slab on grade: multistory offices			S	-	150,000	830,000	420,000	-	-	-	30,000	-	-	-	-	-	-	10,000	-	-	420,000	-	37,000	-	-	-	-	8,000	720,000
	Commercial with 1 level basement car park			S	-	160,000	940,000	490,000	-	-	-	32,000	-	-	-	-	-	-	12,000	-	-	470,000	-	42,000	-	-	-	-	9,000	820,000
	Commercial with 2 levels basement car park			S	-	140,000	870,000	460,000	-	-	-	28,000	-	-	-	-	-	-	11,000	-	-	430,000	-	39,000	-	-	-	-	8,000	760,000
	Commercial with 3 levels basement car park			S	-	110,000	790,000	420,000	-	-	-	24,000	-	-	-	-	-	-	10,000	-	-	380,000	-	35,000	-	-	-	-	8,000	690,000
	Open space RBC			S	-	S	S	S	-	-	-	S	-	-	-	-	-	-	S	-	-	S	-	7,600,000	-	-	-	-	S	S
Field_ID	Location	Applicable RBC for Location	Sampled_Date-Time																											
BMW1			29/08/2019	<1	<1	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	36	<1	<10	48	<10	21	<2	<1	<2	<0.5	352	8
BMW2			16/01/2019	<1	<1	2	29	52	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	20	<1	<10	160	<10	21	<2	<1	<2	<0.5	179	3
BMW2			29/08/2019	<1	<1	4	29	31	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	14	<1	<10	152	<10	21	<2	<1	<2	<0.5	130	2
CMW1			16/01/2019	<1	<1	<1	9	50	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	12	<10	4	<2	<1	<2	<0.5	14	<1
MW22			16/01/2019	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<100	95	<100	43	<20	<10	<10	<1	5030	228
MW24AR	Lot 2 (Source)	Open space RBC	17/01/2019	<100	<100	<100	<100	<100	<100	<100	<100	465	<100	<100	<100	<100	<100	<100	184	<100	<1000	331	<1000	357	<200	<100	<100	<10	14,000	361
MW24AR	Lot 2 (Source)	Open space RBC	11/04/2019	<100	<100	<100	<100	<100	<100	<100	<100	453	<100	<100	<100	<100	<100	<100	212	<100	<1000	359	<1000	404	<200	<100	<100	<10	17,200	474
MW24AR	Lot 2 (Source)	Open space RBC	29/08/2019	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	1	<1	<1	<1	<10	6	<10	<1	<2	<1	2	<0.5	<1	<1
MW24BR	Lot 2 (Source)	Open space RBC	17/01/2019	<1	<1	7	1	<1	<1	<1	<1	11	<1	<1	<1	<1	<1	<1	<1	<1	<10	14	<10	442	<2	<1	15	<0.5	655	18
MW24BR	Lot 2 (Source)	Open space RBC	10/04/2019	<1	<1	6	1	<1	<1	<1	<1	7	<1	<1	<1	<1	<1	<1	<1	<1	<10	18	<10	408	<2	<1	25	<0.5	824	17
MW24BR	Lot 2 (Source)	Open space RBC	30/08/2019	<1	<1	8	2	<1	<1	<1	<1	3	<1	<1	<1	<1	<1	<1	<1	<1	<10	21	<10	646	<2	<1	4	<0.5	363	8
MW24CR	Lot 2 (Source)	Open space RBC	17/01/2019	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<100	<10	<100	322	<20	<10	<10	<1	103	<10
MW24CR	Lot 2 (Source)	Open space RBC	11/04/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	3	<1	<1	1	<10	9	<10	<1	<2	<1	<2	<0.5	<1	<1
MW24CR	Lot 2 (Source)	Open space RBC	29/08/2019	<1	<1	5	1	<1	<1	<1	<1	3	<1	<1	<1	<1	13	28	<1	11	<10	37	<10	26	<2	<1	4	<0.5	1	<1
MW25	Off Site (Down Gradient)	Open space RBC	16/01/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	210	<100	<100	<100	<100	<100	<100	<1000	<100	<1000	254	<100	<100	<100	<10	23,300	216
MW25	Off Site (Down Gradient)	Open space RBC	10/04/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<1000	<100	<1000	165	<200	<100	<100	<10	14,100	108
MW26	Off Site (Down Gradient)	Open space RBC	16/01/2019	<100	<100	124	<100	<100	<100	<100	<100	1280	<100	247	<100	<100	<100	<100	<100	<100	<1000	452	<1000	869	<100	<100	10,900	<10	136,000	1580
MW26	Off Site (Down Gradient)	Open space RBC	11/04/2019	<100	<100	<100	<100	<100	<100	<100	<100	1280	<100	<100	<100	<100	<100	<100	<100	<100	<1000	415	<1000	739	<200	<100	8280	<10	145,000	1660
MW32	Lot 2 (Up Gradient)	Open space RBC	16/01/2019	<1	<1	<1	<1	4	<1	<1	<1	5	<1	<1	<1	<1	<1	<1	7	<1	<10	47	<10	174	<2	<1	<2	<0.5	303	18
MW33R			16/01/2019	<1	<1	<1	22	22	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	14	<10	443	<2	<1	<2	<0.5	108	<1
MW34a	Off Site (Down Gradient)	Open space RBC	17/01/2019	<100	<100	244	<100	<100	<100	<100	<100	298	<100	<100	<100	<100	<100	<100	<100	<100	<1000	525	<1000	2130	<200	<100	1310	<10	73,800	676
MW34A	Off Site (Down Gradient)	Open space RBC	10/04/2019	<100	<100	223	<100	<100	<100	<100	<100	290	<100	<100	<100	<100	<100	<100	<100	<100	<1000	602	<1000	2480	<200	<100	1300	<10	61,000	402
MW34A	Off Site (Down Gradient)	Open space RBC	19/09/2019	2		197	2	<1	<1	<1		191	<1	<1	<1	12	13	3	1		<10	419	20	<1	<2	<1	15	<0.5	44	24
MW34b	Off Site (Down Gradient)	Open space RBC	16/01/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	236	<100	<100	<100	<100	<100	<100	<1000	272	<1000	1390	<100	<100	<100	<10	35,500	429
MW34b	Off Site (Down Gradient)	Open space RBC	17/01/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW34B	Off Site (Down Gradient)	Open space RBC	10/04/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<1000	210	<1000	956	<200	<100	<100	<10	27,700	265
MW34B	Off Site (Down Gradient)	Open space RBC	19/09/2019	2		39	2	<1	<1	<1		51	<1	<1	<1	1	2	<1	<1		<10	203	10	15	<2	<1	1	<0.5	645	41
MW35	Lot 2 (Up Gradient)	Open space RBC	28/08/2019	<1	<1	4	<1	7	<1	<1	<1	3380	<1	<1	<1	<1	<1	<1	226	<1	<10	87	<10	950	<2	<1	30	<0.5	14,700	78
MW38			29/08/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	<1	<1
MW39			15/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	4	<10	7	<2	<1	<2	<0.5	8	<1
MW41			15/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	3	<1
MW42			15/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	<1	<1
MW42			29/08/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	2	<10	<1	<2	<1	<2	<0.5	<1	<1
MW50A	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	<1	<1	3	105	83	<1	<1	<1	4	<1	<1	<1	<1	<1	<1	<1	<1	<10	253	<10	137	<2	<1	3	<0.5	564	5
MW50A	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	<1	<1	3	130	124	<1	<1	<1	4	<1	<1	<1	<1	<1	<1	<1	<1	<10	263	<10	168	<2	<1	4	<0.5	726	10
MW50A	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	<1	<1	3	78	92	<1	<1	<1	6	<1	<1	<1	<1	<1	<1	3	<1	<10	321	<10	180	<2	<1	7	<0.5	1920	30
MW50B	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	<100	<100	<100	<100	<100	<100	<100	<100	276	<100	<100	<100	<100	<100	<100	<100	<100	<1000	401	<1000	381	<200	<100	194	<10	32,600	590
MW50B	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	<10	<10	<10	26	37	<10	<10	<10	149	<10	<10	<10	<10	<10	<10	<10	<10	<100	279	<100	221	<20	<10	49	<1	8100	119
MW50B	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	<1	<1	18	14	43	<1	<1	<1	368	<1	<1	<1	1	<1	<1	9	<1	<10	336	<10	399	<2	<1	192	<0.5	42,200	1080
MW50C	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	<100	<100	<100	<100	<100	<100	<100	<100	300	<100	<100	<100	<100	<100	<100	<100	<100	<1000	149	<1000	183	<200	<100	<100	<10	35,600	434
MW50C	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	<100	<100	<100	<100	<100	<100	<100	<100	403	<100	<100	<100	<100	<100	<100	<100	<100	<1000	210	<1000	254	<200	<100	<100	<10	43,000	599
MW50C	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	<1	<1	29	6	34	<1	<1	<1	599	<1	<1	<1	3	<1	<1	10	<1	<10	242	<10	295	<2	<1	520	<0.5	56,500	1090
MW51	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	3	<1	<10	<1	<10	19	<2	<1	<2	<0.5	307	<1
MW51	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	8	<2	<1	<2	<0.5	63	<1
MW53			15/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	9	<2	<1	<2	<0.5	5	<1
MW56			14/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	<1	<1
MW57			15/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	<1	<1
MW58			15/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	<1	<1

Notes
Derived Groundwater Risk Based (RBC) Contaminant Screening Levels - EnRiskS 2018
S' Denotes derived RBC significantly exceeds the solubility of the VOC
* Groundwater monitoring well screen is below the water table and as such comparison to RBC is not applicable

Table 3
Groundwater Analytical Results (Chandos Lot 2)
Chandos St, Cheltenham, VIC

Resolve Environmental

ANALYTE							Glycols	Halogenated Benzenes									Halogenated Hydrocarbons														
				trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride	Ethylene glycol	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Iodomethane	Trichlorofluoromethane	Nitrite + Nitrate as N	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Ammonia as N	Anions Total	Bromide	Cations Total	Chloride
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	µg/L	meq/L	mg/L
EQL				1	1	0.05	2000	1	1	1	1	0.01	1	1	1	0.01	1	1	1	1	1	0.01	1	10	1	1	0.01	0.01	10	0.01	1
EnRiskS RBC:	Slab on grade: warehouses			580,000	-	7,000	-	-	-	-	-	-	-	-	-	S	-	-	-	-	1,500,000	-	-	-	-	-	-	-	-	-	-
	Slab on grade: multistory offices			270,000	-	4,000	-	-	-	-	-	-	-	-	-	3,500,000	-	-	-	-	940,000	-	-	-	-	-	-	-	-	-	-
	Commercial with 1 level basement car park			310,000	-	4,000	-	-	-	-	-	-	-	-	-	3,900,000	-	-	-	-	1,100,000	-	-	-	-	-	-	-	-	-	-
	Commercial with 2 levels basement car park			286,000	-	4,000	-	-	-	-	-	-	-	-	-	3,600,000	-	-	-	-	1,000,000	-	-	-	-	-	-	-	-	-	-
	Commercial with 3 levels basement car park			260,000	-	4,000	-	-	-	-	-	-	-	-	-	3,200,000	-	-	-	-	940,000	-	-	-	-	-	-	-	-	-	-
	Open space RBC			S	-	790,000	-	-	-	-	-	-	-	-	-	S	-	-	-	-	S	-	-	-	-	-	-	-	-	-	-
Field_ID	Location	Applicable RBC for Location	Sampled_Date-Time																												
BMW1			29/08/2019	<1	<2	0.6	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	-	-	-	-	-	0.02	-	-	-	-
BMW2			16/01/2019	<1	<2	0.6	-	<1	<1	30	<1	4.8	<1	<1	<1	4	<1	<10	<10	<1	<10	19.5	11	-	<1	11	0.05	82.5	-	68.4	2680
BMW2			29/08/2019	<1	<2	<0.2	-	<1	<1	71	<1	5.5	<1	<1	<1	6	<1	<10	<10	<1	<10	-	-	-	-	-	0.03	-	-	-	-
CMW1			16/01/2019	<1	<2	11.6	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	13.8	51	-	<1	51	0.19	58.2	-	55.5	1670
MW22			16/01/2019	<10	<20	<2	-	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<100	<100	<10	<10	40.8	31	-	<1	31	0.03	42.8	-	39.8	1190
MW24AR	Lot 2 (Source)	Open space RBC	17/01/2019	<100	<200	<20	-	<100	<100	<100	<100	<10	<100	<100	<100	<100	<100	<1000	<1000	<100	<100	23	128	-	<1	128	0.06	43.3	-	39.7	1270
MW24AR	Lot 2 (Source)	Open space RBC	11/04/2019	<100	<200	<20	<2000	<100	<100	<100	<100	<10	<100	<100	<100	<100	<100	<1000	<1000	<100	<100	23.3	138	-	<1	138	0.06	48.8	-	43.8	1440
MW24AR	Lot 2 (Source)	Open space RBC	29/08/2019	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	-	-	-	-	-	<0.01	-	-	-	-
MW24BR	Lot 2 (Source)	Open space RBC	17/01/2019	<1	<2	0.3	<2000	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	4.36	164	-	<1	164	0.81	17.8	1220	15	373
MW24BR	Lot 2 (Source)	Open space RBC	10/04/2019	5	<2	0.3	<2000	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	3.95	135	-	<1	135	0.38	25.2	-	20.5	528
MW24BR	Lot 2 (Source)	Open space RBC	30/08/2019	9	<2	0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	-	-	-	-	-	0.47	-	-	-	-
MW24CR	Lot 2 (Source)	Open space RBC	17/01/2019	<10	<20	<2	-	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<100	<100	<10	<10	0.02	190	-	<1	190	0.33	10.6	-	8.69	178
MW24CR	Lot 2 (Source)	Open space RBC	11/04/2019	<1	<2	<0.2	<2000	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	7.01	<1	-	<1	<1	0.27	267	-	236	31
MW24CR	Lot 2 (Source)	Open space RBC	29/08/2019	4	<2	<0.2	-	<1	<1	<1	<1	0.1	<1	<1	<1	<1	<1	20	<10	1	<10	-	-	-	-	-	0.26	-	-	-	-
MW25	Off Site (Down Gradient)	Open space RBC	16/01/2019	<100	<100	<10	-	<100	<100	<100	<100	<10	<100	<100	<100	<100	<100	<1000	<1000	<100	<1000	1.52	66	-	<1	66	0.03	15.5	-	12.8	379
MW25	Off Site (Down Gradient)	Open space RBC	10/04/2019	<100	<200	<20	<2000	<100	<100	<100	<100	<10	<100	<100	<100	<100	<100	<1000	<1000	<100	<100	1.63	58	-	<1	58	0.83	15.6	-	11.8	371
MW26	Off Site (Down Gradient)	Open space RBC	16/01/2019	<100	<100	<10	<2000	<100	<100	<100	<100	<10	<100	<100	<100	<100	<100	<1000	<1000	<100	<1000	27.6	105	-	<1	105	0.07	34.3	2510	29.4	934
MW26	Off Site (Down Gradient)	Open space RBC	11/04/2019	<100	<200	<20	<2000	<100	<100	<100	<100	<10	<100	<100	<100	<100	<100	<1000	<1000	<100	<100	30.6	107	-	<1	107	0.04	33.7	-	28.8	907
MW32	Lot 2 (Up Gradient)	Open space RBC	16/01/2019	<1	<2	9.6	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	13.5	87	-	<1	87	0.4	14.7	-	11.7	394
MW33R			16/01/2019	2	<2	1.8	-	<1	<1	20	<1	1.3	<1	<1	<1	<1	<1	<10	<10	<1	<10	12.2	142	-	<1	142	0.38	17.8	-	14.8	387
MW34a	Off Site (Down Gradient)	Open space RBC	17/01/2019	<100	<200	<20	-	<100	<100	<100	<100	<10	<100	<100	<100	<100	<100	<1000	<1000	<100	<100	1.39	33	-	<1	33	0.02	50.8	-	46	1500
MW34A	Off Site (Down Gradient)	Open space RBC	10/04/2019	<100	<200	<20	<2000	<100	<100	<100	<100	<10	<100	<100	<100	<100	<100	<1000	<1000	<100	<100	1.46	34	-	<1	34	0.02	50.9	-	44.6	1500
MW34A	Off Site (Down Gradient)	Open space RBC	19/09/2019	<1	<2	<0.2		<1	<1	<1	<1	<1	<1	<1	<1	<1		20	<10	5	<10						0.19				
MW34b	Off Site (Down Gradient)	Open space RBC	16/01/2019	<100	<100	<10	-	<100	<100	<100	<100	<10	<100	<100	<100	<100	<100	<1000	<1000	<100	<1000	0.52	85	-	<1	85	0.32	27.4	-	22.8	735
MW34b	Off Site (Down Gradient)	Open space RBC	17/01/2019	-	-	-	<2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1880	-	-
MW34B	Off Site (Down Gradient)	Open space RBC	10/04/2019	<100	<200	<20	<2000	<100	<100	<100	<100	<10	<100	<100	<100	<100	<100	<1000	<1000	<100	<100	0.51	86	-	<1	86	0.36	28.5	-	21.6	763
MW34B	Off Site (Down Gradient)	Open space RBC	19/09/2019	3	<2	<0.2		<1	<1	<1	<1	<1	<1	<1	<1	<1		10	<10	2	<10						0.15				
MW35	Lot 2 (Up Gradient)	Open space RBC	28/08/2019	20	<2	5	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	-	-	-	-	-	0.08	-	-	-	-
MW38			29/08/2019	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	-	-	-	-	-	0.28	-	-	-	-
MW39			15/01/2019	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	5.07	83	-	<1	83	0.02	2.9	-	3.09	25
MW41			15/01/2019	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	0.9	121	-	<1	121	0.04	5.45	-	4.95	39
MW42			15/01/2019	<1	<2	<0.2	<2000	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	3.69	112	-	<1	112	0.08	19.7	3240	16.1	328
MW42			29/08/2019	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	-	-	-	-	-	0.02	-	-	-	-
MW50A	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	<1	<2	0.6	-	<1	<1	7	<1	1.9	<1	<1	<1	3	<1	<10	<10	1	<10	1.47	79	-	<1	79	0.03	29.3	-	24.2	862
MW50A	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	<1	<2	0.9	<2000	<1	<1	6	<1	2.5	<1	<1	<1	4	<1	<10	<10	<1	<10	1.38	72	-	<1	72	0.05	28.6	-	26.4	846
MW50A	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	<1	<2	1.1	-	<1	<1	5	<1	2.8	<1	<1	<1	4	<1	<10	<10	<1	<10	-	-	-	-	-	0.03	-	-	-	-
MW50B	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	<100	<200	<20	<2000	<100	<100	<100	<100	<10	<100	<100	<100	<100	<100	<1000	<1000	<100	<100	45.2	132	-	<1	132	0.34	30.3	3800	27.5	700
MW50B	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	<10	<20	<2	<2000	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<100	<100	<10	<10	36.4	176	-	<1	176	0.57	27.6	-	23.8	638
MW50B	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	3	<2	6.1	-	<1	<1	15	<1	1.7	<1	<1	<1	3	<1	<10	<10	<1	<10	-	-	-	-	-	0.34	-	-	-	-
MW50C	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	<100	<200	<20	-	<100	<100	<100	<100	<10	<100	<100	<100	<100	<100	<1000	<1000	<100	<100	38.4	175	-	<1	175	0.19	47.1	-	43.7	1380
MW50C	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	<100	<200	<20	<2000	<100	<100	<100	<100	<10	<100	<100	<100	<100	<100	<1000	<1000	<100	<100	45.7	186	-	<1	186	0.22	39.9	-	35.8	1070
MW50C	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	6	<2	3.5	-	<1	<1	4	<1	0.3	<1	<1	<1	1	<1	<10	<10	<1	<10	-	-	-	-	-	0.16	-	-	-	-
MW51	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	3	<2	2.7	<2000	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	1.12	165	-	<1	165	0.06	13.8	1400	11.1	263
MW51	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	1	<2	1.9	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	-	-	-	-	-	0.03	-	-	-	-
MW53			15/01/2019	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	0.02	139	-	<1	139	0.04	5.16	-	4.42	58
MW56			14/01/2019	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	2.05	22	-	<1	22	0.09	19.2	-	15.6	381
MW57			15/01/2019	<1	<2	<0.2	<2000	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	0.9	94	-	<1	94	0.08	6.64	510	5.88	78
MW58			15/01/2019	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<10	<10	<1	<10	1.39	370	-	<1	370	0.05	19.8	-	16.2	322

Notes
Derived Groundwater Risk Based (RBC) Contaminant Screening Levels - EnRiskS 2018
S' Denotes derived RBC significantly exceeds the solubility of the VOC
* Groundwater monitoring well screen is below the water table and as such comparison to RBC is not applicable

Table 3
Groundwater Analytical Results (Chandos Lot 2)
Chandos St, Cheltenham, VIC

Resolve Environmental

ANALYTE				Inorganics												MAH																	
				Ferrous Iron	Fluoride	Ionic Balance	Nitrate (as N)	Nitrite (as N)	Reactive Phosphorus as P	Sodium	Sodium (Filtered)	Sulphate	TDS	ORTHOPHOSPHATE (PO4-P)	Total MAH	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Aluminium	Aluminium (Filtered)	Arsenic	Arsenic (Filtered)	Cadmium	Cadmium (Filtered)	Calcium
				mg/L	mg/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL				0.05	0.1	0.01	0.01	0.01	0.01	0.5	1	5	10	0.01	0.003	1	1	1	1	1	1	1	1	1	0.01	0.01	0.001	0.001	0.0001	0.0001	0.5
EnRiskS RBC:	Slab on grade: warehouses			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Slab on grade: multistory offices			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Commercial with 1 level basement car park			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Commercial with 2 levels basement car park			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Commercial with 3 levels basement car park			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Open space RBC			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field_ID	Location	Applicable RBC for Location	Sampled_Date-Time																														
BMW1			29/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-
BMW2			16/01/2019	-	<0.1	9.36	19.5	<0.01	<0.01	-	1350	-	4340	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	1.17	-	0.031	-	0.0002	-
BMW2			29/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-
CMW1			16/01/2019	-	<0.1	2.37	13.8	<0.01	0.04	-	1100	-	3630	-	-	18	6	2	<1	3	<1	<1	<1	<1	-	0.58	-	0.004	-	<0.0001	-
MW22			16/01/2019	-	0.1	3.57	40.8	<0.01	<0.01	-	833	-	2710	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	0.49	-	0.003	-	<0.0001	-
MW24AR	Lot 2 (Source)	Open space RBC	17/01/2019	-	0.1	4.37	23	0.01	0.06	-	698	-	2600	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	0.63	-	0.002	-	<0.0001	-
MW24AR	Lot 2 (Source)	Open space RBC	11/04/2019	0.09	-	5.37	23.2	0.07	-	-	758	-	-	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	-	-	<0.001	-	0.0001	-
MW24AR	Lot 2 (Source)	Open space RBC	29/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-
MW24BR	Lot 2 (Source)	Open space RBC	17/01/2019	<0.05	0.5	8.65	4.35	0.01	8.3	-	306	-	1060	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0.52	-	0.032	-	<0.0001	-
MW24BR	Lot 2 (Source)	Open space RBC	10/04/2019	0.07	-	10.2	3.84	0.11	-	-	423	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	0.017	-	<0.0001	-
MW24BR	Lot 2 (Source)	Open space RBC	30/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-
MW24CR	Lot 2 (Source)	Open space RBC	17/01/2019	-	0.7	10.1	0.02	<0.01	10.1	-	166	-	670	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	0.13	-	0.036	-	<0.0001	-
MW24CR	Lot 2 (Source)	Open space RBC	11/04/2019	1.09	-	6.33	6.45	0.56	-	-	4580	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	0.386	-	0.006	-
MW24CR	Lot 2 (Source)	Open space RBC	29/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-
MW25	Off Site (Down Gradient)	Open space RBC	16/01/2019	-	0.2	9.44	1.52	<0.01	0.02	-	265	-	941	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	0.17	-	0.008	-	0.0002	-
MW25	Off Site (Down Gradient)	Open space RBC	10/04/2019	0.07	-	14	1.62	0.01	-	-	235	-	-	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	-	-	0.008	-	<0.0001	-
MW26	Off Site (Down Gradient)	Open space RBC	16/01/2019	<0.05	0.2	7.74	27.2	0.38	<0.01	-	578	-	2000	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	0.49	-	0.009	-	0.0001	-
MW26	Off Site (Down Gradient)	Open space RBC	11/04/2019	0.05	-	7.95	30.3	0.33	-	-	567	-	-	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	-	-	0.001	-	<0.0001	-
MW32	Lot 2 (Up Gradient)	Open space RBC	16/01/2019	-	0.1	11.3	13.5	0.02	0.01	-	220	-	893	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0.48	-	0.002	-	0.0024	-
MW33R			16/01/2019	-	0.1	9.5	12.2	0.03	<0.01	-	323	-	1000	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0.1	-	0.004	-	<0.0001	-
MW34a	Off Site (Down Gradient)	Open space RBC	17/01/2019	-	0.4	4.99	1.32	0.07	<0.01	-	933	-	3490	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	0.5	-	0.004	-	<0.0001	-
MW34A	Off Site (Down Gradient)	Open space RBC	10/04/2019	0.06	-	6.57	1.37	0.09	-	-	898	-	-	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	-	-	0.002	-	<0.0001	-
MW34A	Off Site (Down Gradient)	Open space RBC	19/09/2019													<1	<1	<1	<1	<1	<1	<1	<1	<1							
MW34b	Off Site (Down Gradient)	Open space RBC	16/01/2019	-	0.2	8.98	0.52	<0.01	<0.01	-	464	-	2090	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	0.23	-	0.012	-	<0.0001	-
MW34b	Off Site (Down Gradient)	Open space RBC	17/01/2019	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW34B	Off Site (Down Gradient)	Open space RBC	10/04/2019	0.09	-	13.7	0.51	<0.01	-	-	428	-	-	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	-	-	0.005	-	<0.0001	-
MW34B	Off Site (Down Gradient)	Open space RBC	19/09/2019													<1	<1	<1	<1	<1	<1	<1	<1	<1							
MW35	Lot 2 (Up Gradient)	Open space RBC	28/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-
MW38			29/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-
MW39			15/01/2019	-	0.1	3.09	5.07	<0.01	0.02	-	49	-	316	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0.44	-	0.001	-	0.0001	-
MW41			15/01/2019	-	0.1	4.85	0.9	<0.01	<0.01	-	110	-	560	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0.08	-	0.004	-	<0.0001	-
MW42			15/01/2019	<0.05	0.1	10	3.67	0.02	0.02	-	334	-	1260	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0.02	-	0.004	-	<0.0001	-
MW42			29/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-
MW50A	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	-	0.1	9.47	1.47	<0.01	<0.01	-	471	-	1560	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0.48	-	0.002	-	<0.0001	-
MW50A	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	0.08	-	3.8	1.38	<0.01	-	-	507	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	<0.001	-	<0.0001	-
MW50A	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-
MW50B	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	<0.05	0.2	4.78	44.8	0.42	<0.01	-	536	-	1990	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	0.2	-	0.002	-	<0.0001	-
MW50B	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	0.05	-	7.29	36.4	<0.01	-	-	450	-	-	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	-	-	0.001	-	<0.0001	-
MW50B	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-
MW50C	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	-	0.1	3.74	38	0.39	<0.01	-	707	-	2840	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<0.01	-	<0.001	-	<0.0001	-
MW50C	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	0.05	-	5.36	45	0.71	-	-	615	-	-	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	-	-	0.001	-	<0.0001	-
MW50C	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-
MW51	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	<0.05	0.1	10.6	1.12	<0.01	<0.01	-	218	-	1010	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0.33	-	0.008	-	<0.0001	-
MW51	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-
MW53			15/01/2019	-	0.1	7.69	0.02	<0.01	<0.01	-	89	-	427	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0.27	-	0.004	-	<0.0001	-
MW56			14/01/2019	-	0.2	10.5	2.05	<0.01	<0.01	-	338	-	1530	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0.53	-	0.014	-	<0.0001	-
MW57			15/01/2019	<0.05	0.2	6.08	0.9	<0.01	<0.01	-	115	-	462	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0.14	-	0.001	-	<0.0001	-
MW58			15/01/2019	-	1.6	10.1	1.39	<0.01	<0.01	-	356	-	1450	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0.12	-	0.01	-	<0.0001	-

Notes
Derived Groundwater Risk Based (RBC) Contaminant Screening Levels - EnRiskS 2018
S' Denotes derived RBC significantly exceeds the solubility of the VOC
* Groundwater monitoring well screen is below the water table and as such comparison to RBC is not applicable

Table 3
Groundwater Analytical Results (Chandos Lot 2)
Chandos St, Cheltenham, VIC

Resolve Environmental

ANALYTE				Metals																											Organic		
				Calcium (Filtered)	Chromium (III+VI)	Chromium (III+VI) (Filtered)	Cobalt	Cobalt (Filtered)	Copper	Copper (Filtered)	Ferric Iron	Ferric Iron (Filtered)	Iron	Iron (Filtered)	Lead	Lead (Filtered)	Magnesium	Magnesium (Filtered)	Manganese	Manganese (Filtered)	Mercury	Mercury (Filtered)	Nickel	Nickel (Filtered)	Potassium	Potassium (Filtered)	Zinc	Zinc (Filtered)	Ethane	Ethene	Methane
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	mg/L
EQL				1	0.001	0.001	0.001	0.001	0.001	0.001	0.05	0.05	0.05	0.05	0.001	0.001	0.5	1	0.001	0.001	0.0001	0.0001	0.001	0.001	0.5	1	0.005	0.005	10	10	0.01
EnRiskS RBC:	Slab on grade: warehouses			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Slab on grade: multistory offices			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Commercial with 1 level basement car park			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Commercial with 2 levels basement car park			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Commercial with 3 levels basement car park			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Open space RBC			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field_ID	Location	Applicable RBC for Location	Sampled_Date-Time																														
BMW1			29/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BMW2			16/01/2019	16	-	0.002	-	0.007	-	0.004	-	-	-	0.33	-	0.007	-	108	-	0.005	-	<0.0001	-	0.017	-	<1	-	0.044	-	-	-	-	-
BMW2			29/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CMW1			16/01/2019	11	-	0.001	-	0.004	-	0.012	-	-	-	0.2	-	0.001	-	86	-	0.008	-	0.0002	-	0.038	-	2	-	0.199	-	-	-	-	-
MW22			16/01/2019	3	-	0.001	-	0.004	-	0.004	-	-	-	0.2	-	<0.001	-	42	-	0.023	-	<0.0001	-	0.033	-	<1	-	0.043	-	-	-	-	-
MW24AR	Lot 2 (Source)	Open space RBC	17/01/2019	70	-	0.001	-	0.018	-	0.002	-	-	-	0.33	-	<0.001	-	70	-	0.693	-	<0.0001	-	0.041	-	3	-	0.027	-	-	-	-	-
MW24AR	Lot 2 (Source)	Open space RBC	11/04/2019	89	-	<0.001	-	-	-	0.002	-	<0.05	-	<0.05	-	<0.001	-	77	-	0.558	-	<0.0001	-	0.042	-	4	-	0.012	<10	<10	<0.01	-	-
MW24AR	Lot 2 (Source)	Open space RBC	29/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24BR	Lot 2 (Source)	Open space RBC	17/01/2019	9	-	0.001	-	0.005	-	0.003	-	0.22	-	0.22	-	<0.001	-	14	-	0.029	-	0.0001	-	0.021	-	4	-	0.006	<10	<10	<0.01	-	-
MW24BR	Lot 2 (Source)	Open space RBC	10/04/2019	8	-	0.002	-	-	-	0.004	-	<0.05	-	<0.05	-	<0.001	-	20	-	0.012	-	0.0008	-	0.15	-	2	-	0.022	<10	<10	<0.01	-	-
MW24BR	Lot 2 (Source)	Open space RBC	30/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24CR	Lot 2 (Source)	Open space RBC	17/01/2019	11	-	<0.001	-	0.001	-	<0.001	-	-	-	1.21	-	<0.001	-	10	-	0.276	-	<0.0001	-	0.009	-	4	-	<0.005	-	-	-	-	-
MW24CR	Lot 2 (Source)	Open space RBC	11/04/2019	282	-	0.555	-	-	-	2.36	-	2.14	-	3.23	-	0.028	-	245	-	14.1	-	0.0095	-	4.73	-	82	-	2.29	<10	<10	<0.01	-	-
MW24CR	Lot 2 (Source)	Open space RBC	29/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW25	Off Site (Down Gradient)	Open space RBC	16/01/2019	6	-	0.001	-	<0.001	-	0.005	-	-	-	0.09	-	0.001	-	12	-	0.013	-	<0.0001	-	0.009	-	<1	-	0.112	-	-	-	-	-
MW25	Off Site (Down Gradient)	Open space RBC	10/04/2019	8	-	<0.001	-	-	-	0.005	-	<0.05	-	<0.05	-	<0.001	-	14	-	0.01	-	0.0001	-	0.244	-	<1	-	0.056	<10	<10	<0.01	-	-
MW26	Off Site (Down Gradient)	Open space RBC	16/01/2019	18	-	0.001	-	0.011	-	0.001	-	0.27	-	0.27	-	0.001	-	40	-	0.702	-	<0.0001	-	0.017	-	2	-	0.026	<10	<10	<0.01	-	-
MW26	Off Site (Down Gradient)	Open space RBC	11/04/2019	17	-	<0.001	-	-	-	0.001	-	<0.05	-	<0.05	-	<0.001	-	39	-	0.56	-	<0.0001	-	0.043	-	2	-	0.014	<10	<10	<0.01	-	-
MW32	Lot 2 (Up Gradient)	Open space RBC	16/01/2019	20	-	0.001	-	0.052	-	0.008	-	-	-	0.4	-	0.002	-	12	-	0.224	-	<0.0001	-	0.008	-	5	-	0.622	-	-	-	-	-
MW33R			16/01/2019	1	-	<0.001	-	0.003	-	0.008	-	-	-	0.06	-	0.001	-	8	-	0.048	-	<0.0001	-	0.052	-	<1	-	0.148	-	-	-	-	-
MW34a	Off Site (Down Gradient)	Open space RBC	17/01/2019	9	-	<0.001	-	0.005	-	0.003	-	-	-	0.12	-	0.003	-	60	-	0.006	-	<0.0001	-	0.017	-	<1	-	0.04	-	-	-	-	-
MW34A	Off Site (Down Gradient)	Open space RBC	10/04/2019	8	-	<0.001	-	-	-	0.003	-	<0.05	-	<0.05	-	<0.001	-	63	-	0.005	-	<0.0001	-	0.03	-	<1	-	0.074	<10	<10	<0.01	-	-
MW34A	Off Site (Down Gradient)	Open space RBC	19/09/2019																														
MW34b	Off Site (Down Gradient)	Open space RBC	16/01/2019	8	-	<0.001	-	0.029	-	0.004	-	-	-	0.24	-	0.005	-	27	-	0.055	-	<0.0001	-	0.044	-	2	-	0.038	-	-	-	-	-
MW34b	Off Site (Down Gradient)	Open space RBC	17/01/2019	-	-	-	-	-	-	-	-	0.15	-	0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<10	<0.01	-	-
MW34B	Off Site (Down Gradient)	Open space RBC	10/04/2019	9	-	<0.001	-	-	-	0.004	-	<0.05	-	0.05	-	<0.001	-	30	-	0.048	-	<0.0001	-	0.052	-	2	-	0.029	<10	<10	<0.01	-	-
MW34B	Off Site (Down Gradient)	Open space RBC	19/09/2019																														
MW35	Lot 2 (Up Gradient)	Open space RBC	28/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW38			29/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW39			15/01/2019	8	-	<0.001	-	<0.001	-	0.003	-	-	-	0.2	-	0.005	-	4	-	0.003	-	<0.0001	-	0.006	-	9	-	0.06	-	-	-	-	-
MW41			15/01/2019	<1	-	<0.001	-	0.001	-	0.001	-	-	-	0.07	-	0.001	-	2	-	0.084	-	<0.0001	-	0.006	-	<1	-	0.018	-	-	-	-	-
MW42			15/01/2019	6	-	<0.001	-	0.005	-	<0.001	-	<0.05	-	<0.05	-	<0.001	-	15	-	0.279	-	<0.0001	-	0.017	-	1	-	0.065	<10	<10	<0.01	-	-
MW42			29/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW50A	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	10	-	0.005	-	0.011	-	0.007	-	-	-	0.1	-	<0.001	-	39	-	0.034	-	0.0006	-	0.052	-	1	-	0.108	-	-	-	-	-
MW50A	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	12	-	<0.001	-	-	-	0.002	-	<0.05	-	<0.05	-	<0.001	-	45	-	0.029	-	0.0015	-	0.104	-	4	-	0.058	<10	<10	<0.01	-	-
MW50A	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW50B	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	22	-	0.001	-	0.022	-	0.005	-	0.08	-	0.08	-	0.001	-	36	-	0.652	-	<0.0001	-	0.063	-	6	-	0.134	<10	<10	<0.01	-	-
MW50B	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	20	-	0.001	-	-	-	0.007	-	<0.05	-	<0.05	-	<0.001	-	30	-	0.174	-	<0.0001	-	0.196	-	32	-	0.197	<10	<10	<0.01	-	-
MW50B	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW50C	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	117	-	<0.001	-	0.01	-	0.007	-	-	-	<0.05	-	<0.001	-	85	-	0.703	-	<0.0001	-	0.07	-	4	-	0.095	-	-	-	-	-
MW50C	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	81	-	<0.001	-	-	-	0.001	-	<0.05	-	<0.05	-	<0.001	-	60	-	0.517	-	<0.0001	-	0.058	-	4	-	0.042	<10	<10	<0.01	-	-
MW50C	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW51	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	4	-	<0.001	-	0.001	-	0.002	-	0.24	-	0.24	-	<0.001	-	17	-	0.018	-	<0.0001	-	0.004	-	2	-	0.024	<10	<10	<0.01	-	-
MW51	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW53			15/01/2019	4	-	<0.001	-	<0.001	-	0.001	-	-	-	0.19	-	<0.001	-	4	-	0.027	-	<0.0001	-	0.003	-	1	-	0.014	-	-	-	-	-
MW56			14/01/2019	1	-	<0.001	-	0.009	-	0.003	-	-	-	-	-	0.002	-	10	-	0.046	-	<0.0001	-	0.034	-	<1	-	0.056	-	-	-	-	-
MW57			15/01/2019	6	-	<0.001	-	<0.001	-	0.002	-	0.05	-	0.05	-	<0.001	-	7	-	0.009	-	<0.0001	-	0.004	-	<1	-	0.034	<10	<10	<0.01	-	-
MW58			15/01/2019	2	-	<0.001	-	<0.001	-	0.001	-	-	-	-	-	<0.001	-	7	-	0.001	-	<0.0001	-	0.003	-	<1	-	0.009	-	-	-	-	-

Notes
Derived Groundwater Risk Based (RBC) Contaminant Screening Levels - EnRiskS 2018
S' Denotes derived RBC significantly exceeds the solubility of the VOC
* Groundwater monitoring well screen is below the water table and as such comparison to RBC is not applicable

Table 3
Groundwater Analytical Results (Chandos Lot 2)
Chandos St, Cheltenham, VIC

ANALYTE				PAH	Solvents									TPH					VOCs			
				Naphthalene	Methyl Ethyl Ketone	2-hexanone (MBK)	4-Methyl-2-pentanone	Acetone	Allyl chloride	Carbon disulfide	Ethanol	Vinyl acetate	C6-C9	C10-C14	C15-C28	C29-C36	C10-C36	cis-1,4-Dichloro-2-butene	trans-1,4-Dichloro-2-butene	Pentachloroethane	Trihalomethanes
				µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
EQL				5	1	10	1	0.001	0.001	1	50	10	20	50	100	50	50	1	1	1	0.001
EnRiskS RBC:	Slab on grade: warehouses			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Slab on grade: multistory offices			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Commercial with 1 level basement car park			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Commercial with 2 levels basement car park			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Commercial with 3 levels basement car park			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Open space RBC			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field_ID	Location	Applicable RBC for Location	Sampled_Date-Time																		
BMW1			29/08/2019	<5	<10	<10	<10	-	-	<1	-	<10	380	<50	140	<50	140	<1	<1	<1	0.048
BMW2			16/01/2019	<5	<10	<10	<10	<0.01	-	<1	-	<10	310	<50	<100	<50	<50	<1	<1	<1	0.16
BMW2			29/08/2019	<5	<10	<10	<10	-	-	<1	-	<10	280	<50	<100	<50	<50	<1	<1	<1	0.152
CMW1			16/01/2019	<5	<10	<10	<10	<0.01	-	<1	-	<10	280	<50	<100	<50	<50	<1	<1	<1	0.012
MW22			16/01/2019	<10	<100	<100	<100	<0.1	-	<10	-	<100	5650	<50	<100	<50	<50	<10	<10	<10	0.095
MW24AR	Lot 2 (Source)	Open space RBC	17/01/2019	<100	<1000	<1000	<1000	<1	-	<100	-	<1000	15,100	<50	<100	<50	<50	<100	<100	<100	0.331
MW24AR	Lot 2 (Source)	Open space RBC	11/04/2019	<100	<1000	<1000	<1000	<1	-	<100	<50	<1000	18,000	<50	<100	<50	<50	<100	<100	<100	0.359
MW24AR	Lot 2 (Source)	Open space RBC	29/08/2019	<5	<10	<10	<10	-	-	<1	-	<10	<20	<50	<100	<50	<50	<1	<1	<1	0.007
MW24BR	Lot 2 (Source)	Open space RBC	17/01/2019	<5	<10	<10	<10	<0.01	-	<1	<50	<10	1540	<50	170	<50	170	<1	<1	<1	0.014
MW24BR	Lot 2 (Source)	Open space RBC	10/04/2019	<5	<10	<10	<10	<0.01	-	<1	<50	<10	1380	<50	130	<50	130	<1	<1	<1	0.018
MW24BR	Lot 2 (Source)	Open space RBC	30/08/2019	<5	<10	<10	<10	-	-	<1	-	<10	800	130	140	<50	270	<1	<1	<1	0.021
MW24CR	Lot 2 (Source)	Open space RBC	17/01/2019	<10	44,400	<100	<100	<0.1	-	<10	-	<100	4670	130	300	<50	430	<10	<10	<10	<0.01
MW24CR	Lot 2 (Source)	Open space RBC	11/04/2019	<5	20	<10	<10	1.12	-	<1	<50	<10	<20	<50	<100	<50	<50	<1	<1	<1	0.013
MW24CR	Lot 2 (Source)	Open space RBC	29/08/2019	<5	50	<10	<10	-	-	1	-	<10	290	200	140	<50	340	<1	<1	<1	0.089
MW25	Off Site (Down Gradient)	Open space RBC	16/01/2019	<100	<1000	<1000	<1000	<1	-	<100	-	<1000	14,600	<50	<100	<50	<50	<100	<100	<100	<0.1
MW25	Off Site (Down Gradient)	Open space RBC	10/04/2019	<100	<1000	<1000	<1000	<1	-	<100	<50	<1000	14,200	<50	<100	<50	<50	<100	<100	<100	<0.1
MW26	Off Site (Down Gradient)	Open space RBC	16/01/2019	<100	<1000	<1000	<1000	<1	-	<100	<50	<1000	129,000	<50	110	<50	110	<100	<100	<100	0.452
MW26	Off Site (Down Gradient)	Open space RBC	11/04/2019	<500 - 104	<1000	<1000	<1000	<1	-	<100	<50	<1000	136,000	<50	<100	<50	<50	<100	<100	<100	0.415
MW32	Lot 2 (Up Gradient)	Open space RBC	16/01/2019	<5	<10	<10	<10	<0.01	-	<1	-	<10	500	<50	<100	<50	<50	<1	<1	<1	0.047
MW33R			16/01/2019	<5	<10	<10	<10	<0.01	-	<1	-	<10	420	<50	120	<50	120	<1	<1	<1	0.014
MW34a	Off Site (Down Gradient)	Open space RBC	17/01/2019	<100	<1000	<1000	<1000	<1	-	<100	-	<1000	58,400	<50	<100	<50	<50	<100	<100	<100	0.525
MW34A	Off Site (Down Gradient)	Open space RBC	10/04/2019	<100	<1000	<1000	<1000	<1	-	<100	<50	<1000	53,400	<50	<100	<50	<50	<100	<100	<100	0.602
MW34A	Off Site (Down Gradient)	Open space RBC	19/09/2019	<5	20	<10	<10					<10	820	130	220	<50	350			5	0.405
MW34b	Off Site (Down Gradient)	Open space RBC	16/01/2019	<100	<1000	<10	<1000	<1	-	<100	-	<1000	26,800	<50	100	<50	100	<100	<100	<100	0.272
MW34b	Off Site (Down Gradient)	Open space RBC	17/01/2019	-	-	-	-	-	-	-	<50	-	-	-	-	-	-	-	-	-	-
MW34B	Off Site (Down Gradient)	Open space RBC	10/04/2019	<100	<1000	<1000	<1000	<1	-	<100	<50	<1000	27,800	<50	<100	<50	<50	<100	<100	<100	0.21
MW34B	Off Site (Down Gradient)	Open space RBC	19/09/2019	<5	10		<10					<10	670	<50	150	<50	150			3	0.206
MW35	Lot 2 (Up Gradient)	Open space RBC	28/08/2019	<5	<10	<10	<10	-	-	<1	-	<10	15,400	<50	110	<50	110	<1	<1	<1	0.087
MW38			29/08/2019	<5	<10	<10	<10	-	-	<1	-	<10	<20	<50	<100	<50	<50	<1	<1	<1	<0.001
MW39			15/01/2019	<5	<10	<10	<10	<0.01	-	<1	-	<10	<20	<50	360	240	600	<1	<1	<1	0.004
MW41			15/01/2019	<5	<10	<10	<10	<0.01	-	<1	-	<10	<20	<50	100	<50	100	<1	<1	<1	<0.001
MW42			15/01/2019	<5	<10	<10	<10	<0.01	-	<1	<50	<10	<20	<50	<100	<50	<50	<1	<1	<1	<0.001
MW42			29/08/2019	<5	<10	<10	<10	-	-	<1	-	<10	<20	<50	<100	<50	<50	<1	<1	<1	0.002
MW50A	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	<5	<10	<10	<10	<0.01	-	<1	-	<10	830	<50	<100	<50	<50	<1	<1	<1	0.253
MW50A	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	<5	<10	<10	<10	<0.01	-	<1	<50	<10	1150	<50	<100	<50	<50	<1	<1	<1	0.263
MW50A	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	<5	<10	<10	<10	-	-	<1	-	<10	1680	<50	130	<50	130	<1	<1	<1	0.321
MW50B	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	<100	<1000	<1000	<1000	<1	-	<100	<50	<1000	29,100	<50	<100	<50	<50	<100	<100	<100	0.401
MW50B	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	<10	<100	<100	<100	<0.1	-	<10	<50	<100	8830	<50	<100	<50	<50	<10	<10	<10	0.279
MW50B	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	<5	<10	<10	<10	-	-	<1	-	<10	40,900	<50	<100	<50	<50	<1	<1	<1	0.336
MW50C	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	<100	<1000	<1000	<1000	<1	-	<100	-	<1000	28,900	<50	<100	<50	<50	<100	<100	<100	0.149
MW50C	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	<100	<1000	<1000	<1000	<1	-	<100	<50	<1000	40,100	<50	<100	<50	<50	<100	<100	<100	0.21
MW50C	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	<5	<10	<10	<10	-	-	<1	-	<10	55,200	<50	110	<50	110	<1	<1	<1	0.242
MW51	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	<5	<10	<10	<10	<0.01	-	<1	<50	<10	270	<50	<100	<50	<50	<1	<1	<1	<0.001
MW51	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	<5	<10	<10	<10	-	-	<1	-	<10	60	<50	<100	<50	<50	<1	<1	<1	<0.001
MW53			15/01/2019	<5	<10	<10	<10	<0.01	-	<1	-	<10	<20	<50	<100	<50	<50	<1	<1	<1	<0.001
MW56			14/01/2019	<5	<10	<10	<10	<0.01	-	<1	-	<10	<20	<50	<100	<50	<50	<1	<1	<1	<0.001
MW57			15/01/2019	<5	<10	<10	<10	<0.01	-	<1	<50	<10	<20	<50	<100	<50	<50	<1	<1	<1	<0.001
MW58			15/01/2019	<5	<10	<10	<10	<0.01	-	<1	-	<10	<20	<50	<100	<50	<50	<1	<1	<1	<0.001

Notes

Derived Groundwater Risk Based (RBC) Contaminant Screening Levels - EnRiskS 2018

S' Denotes derived RBC significantly exceeds the solubility of the VOC

* Groundwater monitoring well screen is below the water table and as such comparison to RBC is not applicable

Table 3
Groundwater Analytical Results (Chandos Lot 2)
Chandos St, Cheltenham, VIC

Resolve Environmental

ANALYTE				pH	Carboxylic Acids		TRH							Volatile Organic Compounds WF		BTEX						Other chlorinated hydrocarbons EPAVic	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
					Volatile Acids as Acetic Acid	Acetic Acid	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	Sum of Trichlorobenzenes	1,3-Dichloropropylene (cis & trans)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX											
					mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				0.1	5	50	20	20	50	50	100	100	100	1	2	1	1	1	1	1	1	1	5	1	1	1	1	0.01	1	1	1	1
Potable Water Supply														0.03 / 0.005[A]		1	800 / 25[A]	300 / 3[A]			600 / 20[A]											
Primary Contact Recreation														0.03 / 0.005[A]		1	800 / 25[A]	300 / 3[A]			600 / 20[A]											
Stock Watering														0.03 / 0.005[A]		1	800 / 25[A]	300 / 3[A]			600 / 20[A]											
Agriculture, Parks and Gardens																																
Maintenance of Ecosystems																700																
Buildings and Structures				<5.5																												
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m								1000		1000						900	NL	NL			NL											
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m								NL		NL						NL	NL	NL			NL											
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m								7000		NL						5000	NL	NL			NL											
EnRiskS RBC:	Slab on grade: warehouses				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S	-	1,100,000	2,100,000	750,000	-	-	-
	Slab on grade: multistory offices				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S	-	150,000	830,000	420,000	-	-	-
	Commercial with 1 level basement car park				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S	-	160,000	940,000	490,000	-	-	-
	Commercial with 2 levels basement car park				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S	-	140,000	870,000	460,000	-	-	-
	Commercial with 3 levels basement car park				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S	-	110,000	790,000	420,000	-	-	-
	Open space RBC				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S	-	S	S	S	-	-	-
Field_ID	**Location**	**Applicable RBC for Location**	**Sampled_Date-Time**																													
BMW1	Lot 4		29/08/2019		-	-	**380**	**380**	<100	<100	**150**	<100	**150**	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	**2**	<1	<1	<1
	Lot 4		5/03/2020		-	-	**340**	**340**	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	1	**3**	<1	<1	<1
	Lot 4		6/03/2020	5.31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BMW2	Lot 4		16/01/2019		-	-	**290**	**290**	<100	<100	<100	<100	<100	<1	<2	**1**	<1	<1	<1	<1	<1	**1**	-	<1	<1	<1	<1	**2**	**29**	**52**	<1	<1	<1
	Lot 4		29/08/2019		-	-	**260**	**260**	<100	<100	<100	<100	<100	<1	<2	**1**	<1	<1	<1	<1	<1	**1**	-	<1	<1	<1	<1	**4**	**29**	**31**	<1	<1	<1
	Lot 4		5/03/2020		-	-	**230**	**230**	<100	<100	<100	<100	<100	<1	<2	**1**	<1	<1	<1	<1	<1	**1**	-	<1	<1	<1	<1	**3**	**38**	**53**	<1	<1	<1
	Lot 4		6/03/2020	6.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CMW1	Lot 3		16/01/2019		-	-	**320**	**160**	<100	<100	<100	<100	<100	<1	<2	**15 - 16**	**23**	**21 - 22**	**71 - 73**	**26 - 27**	**97 - 100**	**161**	-	<1	<1	<1	<1	<1	9	**50**	<1	<1	<1
	Lot 3		3/03/2020		-	-	**20**	**20**	-	-	-	-	-	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	8	**33**	<1	<1	<1
	Lot 3		6/03/2020		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW22	Lot 2 (North south driveway)		16/01/2019		-	-	**5540**	**5540**	<100	<100	<100	<100	<100	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Lot 2 (North south driveway)		3/03/2020		-	-	**1190**	**1190**	<100	<100	**150**	<100	**150**	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	1	<1	<1	<1
	Lot 2 (North south driveway)		6/03/2020	5.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23A	Lot 3		3/03/2020		-	-	-	-	-	-	-	-	-	<1	<2	<1	<1	**24**	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Lot 3		6/03/2020		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24AR	Lot 2 (Source)	Open space RBC	17/01/2019		-	-	**14,800**	**14800**	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	Lot 2 (Source)	Open space RBC	11/04/2019		39	-	**17,400**	**17400**	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	Lot 2 (Source)	Open space RBC	29/08/2019		-	-	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Lot 2 (Source)	Open space RBC	4/03/2020	1.5	-	-	**3260**	**3260**	<100	<100	**120**	<100	**120**	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	**2**	**28**	**26**	**12**	<1	<1	<1	<1
MW24BR	Lot 2 (Source)	Open space RBC	17/01/2019		-	<50	**1510**	**1510**	<100	<100	**160**	<100	**160**	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	**7**	**1**	<1	<1	<1	<1
	Lot 2 (Source)	Open space RBC	10/04/2019		54	-	**1370**	**1370**	<100	<100	**140**	<100	**140**	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	**6**	**1**	<1	<1	<1	<1
	Lot 2 (Source)	Open space RBC	30/08/2019		-	-	**780**	**780**	**140**	**140**	**120**	<100	**260**	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	**8**	**2**	<1	<1	<1	<1
	Lot 2 (Source)	Open space RBC	4/03/2020		-	-	**2170**	**2170**	<100	<100	**110**	<100	**110**	<1	<2	1	<1	<1	<1	<1	1	<1	-	<1	2	<1	**16**	**12**	**5**	<1	<1	<1
	Lot 2 (Source)	Open space RBC	6/03/2020	5.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24CR	Lot 2 (Source)	Open space RBC	17/01/2019		-	-	**4580**	**4580**	**160**	**160**	**290**	<100	**450**	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Lot 2 (Source)	Open space RBC	11/04/2019		105	-	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Lot 2 (Source)	Open space RBC	29/08/2019		-	-	**280**	**280**	**190**	**190**	**130**	<100	**320**	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	**5**	**1**	<1	<1	<1	<1
	Lot 2 (Source)	Open space RBC	4/03/2020	4.17	-	-	**930**	**930**	**320**	**320**	**160**	<100	**480**	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	**9**	**3**	<1	<1	<1	<1
MW25	Off Site (Down Gradient)	Open space RBC	16/01/2019		-	-	**13,200**	**13200**	<100	<100	**120**	<100	**120**	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	Off Site (Down Gradient)	Open space RBC	10/04/2019		44	-	**13,900**	**13900**	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
MW26	Off Site (Down Gradient)	Open space RBC	16/01/2019		-	<50	**118,000**	**118000**	<100	<100	**110**	<100	**110**	<100	<100	<100	**143 - 183**	<100	<100	<100	<100	**183**	-	<100	<100	<100	**124**	<100	<100	<100	<100	<100	<100
	Off Site (Down Gradient)	Open space RBC	11/04/2019		44	-	**133,000**	**133000**	<100	<100	<100	<100	<100	<100	<100	<100	**114 - 119**	<100	<100	<100	<100	**119**	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
MW29	Lot 3 (off-site)		5/03/2020		-	-	<20	<20	-	-	-	-	-	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW30	Lot 3 (off-site)		3/03/2020	6.74	-	-	<20	<20	**240**	**240**	**400**	<100	**640**	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW30	Lot 3 (off-site)		6/03/2020		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW31	Lot 2 (Up-Gradient)		4/03/2020	6.06	-	-	**520**	**520**	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	**4**	<1	<1	**8**	**108**	<1	<1	<1
MW32	Lot 2 (Up Gradient)	Open space RBC	16/01/2019		-	-	**490**	**490**	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	**4**	<1	<1	<1
	Lot 2 (Up Gradient)	Open space RBC	3/03/2020		-	-	**60**	**60**	<100	<100	<140	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Lot 2 (Up Gradient)	Open space RBC	6/03/2020	6.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW34A	Off Site (Down Gradient)	Open space RBC	17/01/2019		-	-	**57300**	**57100**	<100	<100	<100	<100	<100	<100	<100	<100	**142 - 156**	<100	<100	<100	<100	**156**	-	<100	<100	<100	**244**	<100	<100	<100	<100	<100
	Off Site (Down Gradient)	Open space RBC	10/04/2019		28	-	**52000**	**52000**	<100	<100	<100	<100	<100	<100	<100	<100	<100 - 102	<100	<100	<100	<100	<100	-	<100	<100	<100	**223**	<100	<100	<100	<100	<100
	Off Site (Down Gradient)	Open space RBC	19/09/2019		-	-	**820**	**820**	**140**	**200**	<100	**340**	**140**	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	**2**		**197**	**2**	<1	<1	<1	
	Off Site (Down Gradient)	Open space RBC	5/03/2020		-	-	**46000**	**45900**	<100	<100	<100	<100	<100	<100	<100	<100	112 - 120	<100	<100	<100	<100	120	-	<100	<100	<100	**322**	<100	<100	<100	<100	<100
	Off Site (Down Gradient)	Open space RBC	6/03/2020	2.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW34B	Off Site (Down Gradient)	Open space RBC	16/01/2019		-	-	**24500**	**24500**	<100	<100	130	<100	130	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	Off Site (Down Gradient)	Open space RBC	17/01/2019		-	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Off Site (Down Gradient)	Open space RBC	10/04/2019		43	-	**27,300**	**27300**	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	Off Site (Down Gradient)	Open space RBC	19/09/2019		-	-	**640**	**640**	<100	**140**	<100	**140**	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1		<1	**2**		**39**	**2**	<1	<1	<1	
	Off Site (Down Gradient)	Open space RBC	5/03/2020	3.38	-	-	**5,260**	**5260**	<100	<100	<100	<100	<100	<1	<2	2	<4	<1	<1	<1	<1	2	-	<1	**2**	**8**	**34**	**1**	<1	<1	<1	<1
MW35	Lot 2 (Up Gradient)	Open space RBC	28/08/2019		-	-	**14,800**	**14800**	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	4	<1	7	<1	<1	<1
	Lot 2 (Up Gradient)	Open space RBC	4/03/2020	5.63	-	-	**4,160**	**4160**	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	3	<1	5	<1	<1	<1
MW38	Lot 4		29/08/2019		-	-	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Lot 4		4/03/2020		-	-	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Lot 4		6/03/2020	6.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW39	Lot 2		15/01/2019		-	-	<20	<20	<100	<100	**540**	<100	**540**	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Lot 2		4/03/2020		-	-	**140**	**140**	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Lot 2		6/03/2020	7.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW41	Lot 2 (Off-site)		15/01/2019	-	-	-	<20	<20	<100	<100	120	<100	120	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW41R	Lot 2 (Off-site)		2/04/2020	**5.14**	-	-	<20	<20	<100	<100	120	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW42	Lot 2 (Off-site)		15/01/2019		-	<50	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Table 3
Groundwater Analytical Results (Chandos Lot 2)
Chandos St, Cheltenham, VIC

ANALYTE				pH	Carboxylic Acids		TRH							Volatile Organic Compounds WF		BTEX							Other chlorinated hydrocarbons EPAVic	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
					Volatile Acids as Acetic Acid	Acetic Acid	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	Sum of Trichlorobenzenes	1,3-Dichloropropylene (cis & trans)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX											
					mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				0.1	5	50	20	20	50	50	100	100	100	1	2	1	1	1	1	1	1	1	5	1	1	1	1	0.01	1	1	1	1
Potable Water Supply														0.03 / 0.005[A]		1	800 / 25[A]	300 / 3[A]			600 / 20[A]											
Primary Contact Recreation														0.03 / 0.005[A]		1	800 / 25[A]	300 / 3[A]			600 / 20[A]											
Stock Watering														0.03 / 0.005[A]		1	800 / 25[A]	300 / 3[A]			600 / 20[A]											
Agriculture, Parks and Gardens																																
Maintenance of Ecosystems																700																
Buildings and Structures				<5.5																												
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m								1000		1000						900	NL	NL			NL											
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m								NL		NL						NL	NL	NL			NL											
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m								7000		NL						5000	NL	NL			NL											
EnRiskS RBC:	Slab on grade: warehouses				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S	-	1,100,000	2,100,000	750,000	-	-	-
	Slab on grade: multistory offices				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S	-	150,000	830,000	420,000	-	-	-
	Commercial with 1 level basement car park				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S	-	160,000	940,000	490,000	-	-	-
	Commercial with 2 levels basement car park				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S	-	140,000	870,000	460,000	-	-	-
	Commercial with 3 levels basement car park				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S	-	110,000	790,000	420,000	-	-	-
	Open space RBC				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S	-	S	S	S	-	-	-
Field_ID	Location	Applicable RBC for Location	Sampled_Date-Time																													
MW42	Lot 2 (Off-site)		29/08/2019		-	-	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW42R	Lot 2 (Off-site)		2/04/2020	6.52			<20	<20	<100	<100	120	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW50A	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019		-	-	760	750	<100	<100	<100	<100	<100	<1	<2	**5 - 6**	<1	<1	<1	<1	<1	6	-	<1	<1	<1	**3**	**105**	**83**	<1	<1	<1
	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019		36	-	**1080**	**1070**	<100	<100	<100	<100	<100	<1	<2	**7**	<1	<1	<1	<1	<1	7	-	<1	<1	<1	**3**	**130**	**124**	<1	<1	<1
	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019		-	-	**1610**	**1600**	<100	<100	**130**	<100	**130**	<1	<2	**5**	2	<1	<1	<1	<1	7	-	<1	<1	<1	**3**	**78**	**92**	<1	<1	<1
	Lot 3 (Cross Gradient)	Open space RBC	3/03/2020		-	-	**880**	**870**	<100	<100	**110**	<100	**110**	<1	<2	**7 - 8**	<1	<1	<1	<1	<1	7	-	<1	<1	<1	**4**	**140**	**148**	<1	<1	<1
	Lot 3 (Cross Gradient)	Open space RBC	6/03/2020	6.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW50B	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019		-	<50	**28,500**	**28500**	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100	<100	<100	<100	<100	<100	<100	<100	<100
	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019		69	-	**8730**	**8730**	<100	<100	100	<100	100	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<10	**26**	**37**	<10	<10	<10
	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019		-	-	**39,800**	**39800**	<100	<100	<100	<100	<100	<1	<2	**5**	**2**	<1	**12**	**12**	**24**	**31**	-	<1	<1	<1	**18**	**14**	**43**	<1	<1	<1
MW50C	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019		-	-	**28,300**	**28300**	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100	<100	<100	<100	<100	<100	<100	<100	<100
	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019		41	-	**39,100**	**39100**	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100	<100	<100	<100	<100	<100	<100	<100	<100
	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019		-	-	**53,700**	**53700**	<100	<100	<100	<100	<100	<1	<2	**5**	**6**	<1	**7**	**9**	**16**	**27**	-	<1	<1	<1	**29**	**6**	**34**	<1	<1	<1
MW51	Lot 2 (Off-Site)	Open space RBC	16/01/2019		-	<50	**270**	**270**	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Lot 2 (Off-Site)	Open space RBC	30/08/2019		-	-	**60**	**60**	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Lot 2 (Off-Site)	Open space RBC	2/03/2020	5.51			**160**	**160**	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1
MW53			15/01/2019		-	-	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW56	Lot 2 (Off-site)		14/01/2019		-	-	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Lot 2 (Off-site)		2/03/2020	5.46			<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1
MW57	Lot 2 (Off-site)		15/01/2019		-	<50	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Lot 2 (Off-site)		2/03/2020	6.4			<20	<20	**140**	**140**	**580**	**190**	**910**	<1	<2	<1	<1	<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1
MW58	Lot 2 (Off-site)		15/01/2019		-	-	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Lot 2 (Off-site)		4/03/2020		-	-	<20	<20	<100	<100	<100	<100	<100	<1	<2	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Lot 2 (Off-site)		6/03/2020	7.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes
Derived Groundwater Risk Based (RBC) Contaminant Screening Levels - EnRiskS 2018
S' Denotes derived RBC significantly exceeds the solubility of the VOC
* Groundwater monitoring well screen is below the water table and as such comparison to RBC is not applicable

NOTES
Potable Water Supply / Water Based Recreation (Primary Contact Recreation)
Australian Drinking Water Guidelines 2015, Health

Agriculture and Irrigation (Stock Watering)
ANZECC 2000 Livestock Drinking Water Low Risk Trigger Values
Potable Water Supply / Primary Contact Recreation guidance

Agriculture and Irrigation (Irrigation)
ANZECC 2000 Irrigation Long Term Trigger Values

Water Dependent Ecosystems and Species
ANZECC 2000 Marine Water 95%
LR: ANZECC 2000 Low Reliability Guidelines
F : ANZECC 2000 Freshwater 95%

A: Australian Drinking Water Guidelines 2015, Aesthetics
C: CCME 2007 Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture – Freshwater
DI: Dutch 2000 Target and Intervention Values for Soil and Groundwater
N: NIWA 2014, Nitrate toxicity guidelines for the National Objectives Framework
NZ: New Zealand Ministry of Health 2008, Drinking Water Standards for New Zealand
US: USEPA 2018, Health Advisories for Drinking Water Contaminants
WH: World Health Organization 2011, WHO DWQG 4th Ed
WR: Environment Protection and Heritage Council 2008, Australian Guidelines for Water Recycling
Derived Groundwater Risk Based Contminant Screening Levels (Commercial, Slab on grade: multi-storey offices)- EnRisks, 2018
S: Derived RBC significantly exceeds the solubility of the VOC

ANALYTE				Chlorinated Hydrocarbons																							Glycols	Halogenated Benzenes							
				1,2-dichloroethane	1,2-Dichloroethene	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Dichloromethane	Hexachlorobutadiene	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride	Ethylene glycol	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene
				µg/L		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				0.01		1	1	1	1	1	1	1	1	1	1	1	1	0.01	1	1	0.02	0.5	0.01	0.02	1	1	0.05	2000	1	1	1	1	0.01	1	1	1
Potable Water Supply																												10^{NZ}	5^{NZ}	1,500 / 1^{A}	20^{A}	40 / 0.3^{A}	24US	25US	6.2^{US}
Primary Contact Recreation																												10^{NZ}	5^{NZ}	1,500 / 1^{A}	20^{A}	40 / 0.3^{A}	24US	25US	6.2^{US}
Stock Watering																												10^{NZ}	5^{NZ}	1,500 / 1^{A}	20^{A}	40 / 0.3^{A}	24US	25US	6.2^{US}
Agriculture, Parks and Gardens																																			
Maintenance of Ecosystems																													80						
Buildings and Structures																																			
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																																			
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																																			
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																																			
EnRiskS RBC:	Slab on grade: warehouses			160,000		-	-	-	-	-	-	19,000	-	-	1,300,000	-	110,000	-	-	-	-	18,000	1,500,000	580,000	-	7,000	-	-	-	-	-	-	-	-	-
	Slab on grade: multistory offices			30,000		-	-	-	-	-	-	10,000	-	-	420,000	-	37,000	-	-	-	-	8,000	720,000	270,000	-	4,000	-	-	-	-	-	-	-	-	-
	Commercial with 1 level basement car park			32,000		-	-	-	-	-	-	12,000	-	-	470,000	-	42,000	-	-	-	-	9,000	820,000	310,000	-	4,000	-	-	-	-	-	-	-	-	-
	Commercial with 2 levels basement car park			28,000		-	-	-	-	-	-	11,000	-	-	430,000	-	39,000	-	-	-	-	8,000	760,000	286,000	-	4,000	-	-	-	-	-	-	-	-	-
	Commercial with 3 levels basement car park			24,000		-	-	-	-	-	-	10,000	-	-	380,000	-	35,000	-	-	-	-	8,000	690,000	260,000	-	4,000	-	-	-	-	-	-	-	-	-
	Open space RBC			S		-	-	-	-	-	-	S	-	-	S	-	7,600,000	-	-	-	-	S	S	S	-	790,000	-	-	-	-	-	-	-	-	-
Field_ID	Location	Applicable RBC for Location	Sampled_Date-Time																																
BMW1	Lot 4		29/08/2019	<1	-	<1	<1	<1	<1	<1	<1	36	<1	<10	48	<10	21	<2	<1	<2	<0.5	352	8	<1	<2	0.6	-	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 4		5/03/2020	<1	30	<1	<1	<1	<1	<1	<1	34	<1	<10	53	<10	30	<2	<1	<2	<0.5	382	8	<1	<2	2.4	-	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 4		6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BMW2	Lot 4		16/01/2019	<1	-	<1	<1	<1	<1	<1	<1	20	<1	<10	160	<10	21	<2	<1	<2	<0.5	179	3	<1	<2	0.6	-	<1	<1	30	<1	4.8	<1	<1	<1
	Lot 4		29/08/2019	<1	-	<1	<1	<1	<1	<1	<1	14	<1	<10	152	<10	21	<2	<1	<2	<0.5	130	2	<1	<2	<0.2	-	<1	<1	71	<1	5.5	<1	<1	<1
	Lot 4		5/03/2020	<1	25	<1	<1	<1	<1	<1	<1	18	<1	<10	146	<10	25	<2	<1	<2	<0.5	136	2	<1	<2	0.7	-	<1	<1	40	<1	1.5	<1	<1	<1
	Lot 4		6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CMW1	Lot 3		16/01/2019	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	12	<10	4	<2	<1	<2	<0.5	14	<1	<1	<2	11.6	-	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 3		3/03/2020	<1	5	<1	<1	<1	<1	<1	<1	<1	<1	<10	11	<10	5	<2	<1	<2	<0.5	13	<1	<1	<2	3.9	-	<1	<1	1	<1	0.1	<1	<1	<1
	Lot 3		6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW22	Lot 2 (North south driveway)		16/01/2019	<10	-	<10	<10	<10	<10	<10	<10	<10	<10	<100	95	<100	43	<20	<10	<10	<1	5030	228	<10	<20	<2	-	<10	<10	<10	<10	<1	<10	<10	<10
	Lot 2 (North south driveway)		3/03/2020	<1	16	<1	<1	<1	<1	<1	<1	2	<1	<10	42	<10	16	<2	<1	<2	<0.5	1860	66	<1	<2	0.6	-	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 2 (North south driveway)		6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23A	Lot 3		3/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	<1	<1	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 3		6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24AR	Lot 2 (Source)	Open space RBC	17/01/2019	465	-	<100	<100	<100	<100	<100	<100	184	<100	<1000	331	<1000	357	<200	<100	<100	<10	14,000	361	<100	<200	<20	-	<100	<100	<100	<100	<10	<100	<100	<100
	Lot 2 (Source)	Open space RBC	11/04/2019	453	-	<100	<100	<100	<100	<100	<100	212	<100	<1000	359	<1000	404	<200	<100	<100	<10	17,200	474	<100	<200	<20	<2000	<100	<100	<100	<100	<10	<100	<100	<100
	Lot 2 (Source)	Open space RBC	29/08/2019	1	-	<1	<1	<1	<1	1	<1	<1	<1	<10	6	<10	<1	<2	<1	2	<0.5	<1	<1	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 2 (Source)	Open space RBC	4/03/2020	627	-	<1	<1	<1	8	<1	2	68	5	<10	463	20	146	<2	<1	2050	<0.5	4860	122	26	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
MW24BR	Lot 2 (Source)	Open space RBC	17/01/2019	11	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	14	<10	442	<2	<1	15	<0.5	655	18	<1	<2	0.3	<2000	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 2 (Source)	Open space RBC	10/04/2019	7	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	18	<10	408	<2	<1	25	<0.5	824	17	5	<2	0.3	<2000	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 2 (Source)	Open space RBC	30/08/2019	3	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	21	<10	646	<2	<1	4	<0.5	363	8	9	<2	0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 2 (Source)	Open space RBC	4/03/2020	11	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	60	<10	3320	<2	<1	<10	<0.5	602	18	99	<2	2.7	-	<1	<1	<1	<1	0.1	<1	<1	<1
	Lot 2 (Source)	Open space RBC	6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24CR	Lot 2 (Source)	Open space RBC	17/01/2019	<10	-	<10	<10	<10	<10	<10	<10	<10	<10	<100	<10	<100	322	<20	<10	<10	<1	103	<10	<10	<20	<2	-	<10	<10	<10	<10	<1	<10	<10	<10
	Lot 2 (Source)	Open space RBC	11/04/2019	<1	-	<1	<1	<1	<1	3	<1	<1	1	<10	9	<10	<1	<2	<1	<2	<0.5	<1	<1	<1	<2	<0.2	<2000	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 2 (Source)	Open space RBC	29/08/2019	3	-	<1	<1	<1	<1	13	28	<1	11	<10	37	<10	26	<2	<1	4	<0.5	1	<1	4	<2	<0.2	-	<1	<1	<1	<1	0.1	<1	<1	<1
	Lot 2 (Source)	Open space RBC	4/03/2020	10	-	<1	<1	<1	<1	1	3	<1	2	<10	46	<10	433	<2	<1	<6	<0.5	151	8	63	<2	<0.2	-	<1	<1	<1	<1	0.8	<1	<1	<1
MW25	Off Site (Down Gradient)	Open space RBC	16/01/2019	<100	-	<100	210	<100	<100	<100	<100	<100	<100	<1000	<100	<1000	254	<100	<100	<100	<10	23,300	216	<100	<100	<10	-	<100	<100	<100	<100	<10	<100	<100	<100
	Off Site (Down Gradient)	Open space RBC	10/04/2019	<100	-	<100	<100	<100	<100	<100	<100	<100	<100	<1000	<100	<1000	165	<200	<100	<100	<10	14,100	108	<100	<200	<20	<2000	<100	<100	<100	<100	<10	<100	<100	<100
MW26	Off Site (Down Gradient)	Open space RBC	16/01/2019	1280	-	<100	247	<100	<100	<100	<100	<100	<100	<1000	452	<1000	869	<100	<100	10,900	<10	136,000	1580	<100	<100	<10	<2000	<100	<100	<100	<100	<10	<100	<100	<100
	Off Site (Down Gradient)	Open space RBC	11/04/2019	1280	-	<100	<100	<100	<100	<100	<100	<100	<100	<1000	415	<1000	739	<200	<100	8280	<10	145,000	1660	<100	<200	<20	<2000	<100	<100	<100	<100	<10	<100	<100	<100
MW29	Lot 3 (off-site)		5/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	1	<1	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
MW30	Lot 3 (off-site)		3/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	<1	<1	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
MW30	Lot 3 (off-site)		6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW31	Lot 2 (Up-Gradient)		4/03/2020	8	-	<1	<1	<1	<1	<1	<1	19	<1	<10	33	<10	160	<2	<1	<2	<0.5	425	92	2	<2	6.8	-	<1	<1	<1	<1	<0.1	<1	<1	<1
MW32	Lot 2 (Up Gradient)	Open space RBC	16/01/2019	5	-	<1	<1	<1	<1	<1	<1	7	<1	<10	47	<10	174	<2	<1	<2	<0.5	303	18	<1	<2	9.6	-	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 2 (Up Gradient)	Open space RBC	3/03/2020	<1	5	<1	<1	<1	<1	<1	<1	<1	<1	<10	2	<10	5	<2	<1	<2	<0.5	60	3	<1	<2	0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 2 (Up Gradient)	Open space RBC	6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW34A	Off Site (Down Gradient)	Open space RBC	17/01/2019	298	-	<100	<100	<100	<100	<100	<100	<100	<100	<1000	525	<1000	2130	<200	<100	1310	<10	73,800	676	<100	<200	<20	-	<100	<100	<100	<100	<10	<100	<100	<100
	Off Site (Down Gradient)	Open space RBC	10/04/2019	290	-	<100	<100	<100	<100	<100	<100	<100	<100	<1000	602	<1000	2480	<200	<100	1300	<10	61,000	402	<100	<200	<20	<2000	<100	<100	<100	<100	<10	<100	<100	<100
	Off Site (Down Gradient)	Open space RBC	19/09/2019	191	-	<1	<1	<1	12	13	3	1		<10	419	20	<1	<2	<1	15	<0.5	44	24	<1	<2	<0.2	-	<1	<1	<1	<1	<1	<1	<1	<1
	Off Site (Down Gradient)	Open space RBC	5/03/2020	379	2670	<100	<100	<100	<100	<100	<100	<100	<100	<1,000	808	<1,000	2360	<200	<100	2480	<10	48,100	870	314	<200	<20	-	<100	<100	<100	<100	<10	<100	<100	<100
	Off Site (Down Gradient)	Open space RBC	6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW34B	Off Site (Down Gradient)	Open space RBC	16/01/2019	<100	-	<100	236	<100	<100	<100	<100	<100	<100	<1000	272	<1000	1390	<100	<100	<100	<10	35,500	429	<100	<100	<10	-	<100	<100	<100	<100	<10	<100	<100	<100
	Off Site (Down Gradient)	Open space RBC	17/01/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2000	-	-	-	-	-	-	-	-
	Off Site (Down Gradient)	Open space RBC	10/04/2019	<100	-	<100	<100	<100	<100	<100	<100	<100	<100	<1000	210	<1000	956	<200	<100	<100	<10	27,700	265	<100	<200	<20	<2000	<100	<100	<100	<100	<10	<100	<100	<100
	Off Site (Down Gradient)	Open space RBC	19/09/2019	51	-	<1	<1	<1	1	2	<1	<1		<10	203	10	15	<2	<1	1	<0.5	645	41	3	<2	<0.2	-	<1	<1	<1	<1	<1	<1	<1	<1
	Off Site (Down Gradient)	Open space RBC	5/03/2020	44	585	<1	<1	<1	<1	<1	<1	<1	<1	<10	162	<10	514	<2	<1	62	<0.5	13,100	270	71	<2	1.1	-	<1	<1	<1	<1	<0.1	<1	<1	<1
MW35	Lot 2 (Up Gradient)	Open space RBC	28/08/2019	3380	-	<1	<1	<1	<1	<1	<1	226	<1	<10	87	<10	950	<2	<1	30	<0.5	14,700	78	20	<2	5	-	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 2 (Up Gradient)	Open space RBC	4/03/2020	2360	-	<1	<1	<1	<1	<1	<1	88	<1	<10	56	<10	795	<2	<1	<20	<0.5	7,140	40	11	<2	4.5	-	<1	<1	<1	<1	<0.1	<1	<1	<1
MW38	Lot 4		29/08/2019	<1		<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	<1	<1	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 4		4/03/2020	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	3	<1	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 4		6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW39	Lot 2		15/01/2019	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	4	<10	7	<2	<1	<2	<0.5	8	<1	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 2		4/03/2020	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	6	<10	41	<2	<1	<2	<0.5	123	<1	<1	<2	0.3	-	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 2		6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW41	Lot 2 (Off-site)		15/01/2019	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	3	<1	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
MW41R	Lot 2 (Off-site)		2/04/2020	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	5	<10	1	<2	<1	<2	<0.5	20	<1	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
MW42	Lot 2 (Off-site)		15/01/2019	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	<1	<1	<1	<2	<0.2	<2000	<1	<1	<1	<1	<0.1	<1	<1	<1

Table 3
Groundwater Analytical Results (Chandos Lot 2)
Chandos St, Cheltenham, VIC

ANALYTE				Chlorinated Hydrocarbons																							Glycols	Halogenated Benzenes								
				1,2-dichloroethane	1,2-Dichloroethene	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Dichloromethane	Hexachlorobutadiene	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride	Ethylene glycol	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene
				µg/L		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				0.01		1	1	1	1	1	1	1	1	1	1	1	0.01	1	1	0.02	0.5	0.01	0.02	1	1	0.05	2000	1	1	1	1	0.01	1	1	1
Potable Water Supply																												10^{NZ}	5^{NZ}	1,500 / 1^{A}	20^{A}	40 / 0.3^{A}	24US	25US	6.2^{US}
Primary Contact Recreation																												10^{NZ}	5^{NZ}	1,500 / 1^{A}	20^{A}	40 / 0.3^{A}	24US	25US	6.2^{US}
Stock Watering																												10^{NZ}	5^{NZ}	1,500 / 1^{A}	20^{A}	40 / 0.3^{A}	24US	25US	6.2^{US}
Agriculture, Parks and Gardens																																			
Maintenance of Ecosystems																													80						
Buildings and Structures																																			
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																																			
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																																			
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																																			
EnRiskS RBC:	Slab on grade: warehouses			160,000		-	-	-	-	-	-	19,000	-	-	1,300,000	-	110,000	-	-	-	-	18,000	1,500,000	580,000	-	7,000	-	-	-	-	-	-	-	-	-
	Slab on grade: multistory offices			30,000		-	-	-	-	-	-	10,000	-	-	420,000	-	37,000	-	-	-	-	8,000	720,000	270,000	-	4,000	-	-	-	-	-	-	-	-	-
	Commercial with 1 level basement car park			32,000		-	-	-	-	-	-	12,000	-	-	470,000	-	42,000	-	-	-	-	9,000	820,000	310,000	-	4,000	-	-	-	-	-	-	-	-	-
	Commercial with 2 levels basement car park			28,000		-	-	-	-	-	-	11,000	-	-	430,000	-	39,000	-	-	-	-	8,000	760,000	286,000	-	4,000	-	-	-	-	-	-	-	-	-
	Commercial with 3 levels basement car park			24,000		-	-	-	-	-	-	10,000	-	-	380,000	-	35,000	-	-	-	-	8,000	690,000	260,000	-	4,000	-	-	-	-	-	-	-	-	-
	Open space RBC			S		-	-	-	-	-	-	S	-	-	S	-	7,600,000	-	-	-	-	S	S	S	-	790,000	-	-	-	-	-	-	-	-	-
Field_ID	Location	Applicable RBC for Location	Sampled_Date-Time																																
MW42	Lot 2 (Off-site)		29/08/2019	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	**2**	<10	<1	<2	<1	<2	<0.5	<1	<1	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
MW42R	Lot 2 (Off-site)		2/04/2020	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	<1	<1	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
MW50A	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	**4**	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	**253**	<10	**137**	<2	<1	**3**	<0.5	**564**	**5**	<1	<2	**0.6**	-	<1	<1	**7**	<1	**1.9**	<1	<1	<1
	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	**4**	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	**263**	<10	**168**	<2	<1	**4**	<0.5	**726**	**10**	<1	<2	**0.9**	<2000	<1	<1	**6**	<1	**2.5**	<1	<1	<1
	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	**6**	-	<1	<1	<1	<1	<1	<1	3	<1	<10	**321**	<10	**180**	<2	<1	**7**	<0.5	**1920**	**30**	<1	<2	**1.1**	-	<1	<1	**5**	<1	**2.8**	<1	<1	<1
	Lot 3 (Cross Gradient)	Open space RBC	3/03/2020	**3**	**168**	<1	<1	<1	<1	<1	<1	<1	<1	<10	**379**	<10	**168**	<2	<1	<2	<0.5	**874**	**14**	<1	<2	**1.8**	-	<1	<1	**2**	<1	**4**	<1	<1	<1
	Lot 3 (Cross Gradient)	Open space RBC	6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW50B	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	**276**	-	<100	<100	<100	<100	<100	<100	<100	<100	<1000	**401**	<1000	**381**	<200	<100	**194**	<10	**32,600**	**590**	<100	<200	<20	<2000	<100	<100	<100	<100	<10	<100	<100	<100
	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	**149**	-	<10	<10	<10	<10	<10	<10	<10	<10	<100	**279**	<100	**221**	<20	<10	**49**	<1	**8100**	**119**	<10	<20	<2	<2000	<10	<10	<10	<10	<1	<10	<10	<10
	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	**368**	-	<1	<1	<1	1	<1	<1	**9**	<1	<10	**336**	<10	**399**	<2	<1	**192**	<0.5	**42,200**	**1080**	**3**	<2	**6.1**	-	<1	<1	**15**	<1	1.7	<1	<1	<1
MW50C	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	**300**	-	<100	<100	<100	<100	<100	<100	<100	<100	<1000	**149**	<1000	**183**	<200	<100	<100	<10	**35,600**	**434**	<100	<200	<20	-	<100	<100	<100	<100	<10	<100	<100	<100
	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	**403**	-	<100	<100	<100	<100	<100	<100	<100	<100	<1000	**210**	<1000	**254**	<200	<100	<100	<10	**43,000**	**599**	<100	<200	<20	<2000	<100	<100	<100	<100	<10	<100	<100	<100
	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	**599**	-	<1	<1	<1	**3**	<1	<1	**10**	<1	<10	**242**	<10	**295**	<2	<1	**520**	<0.5	**56,500**	**1090**	6	<2	**3.5**	-	<1	<1	**4**	<1	**0.3**	<1	<1	<1
MW51	Lot 2 (Off-Site)	Open space RBC	16/01/2019	1	-	<1	<1	<1	<1	<1	<1	3	<1	<10	<1	<10	**19**	<2	<1	<2	<0.5	**307**	<1	**3**	<2	**2.7**	<2000	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 2 (Off-Site)	Open space RBC	30/08/2019	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	**8**	<2	<1	<2	<0.5	**63**	<1	**1**	<2	**1.9**	-	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 2 (Off-Site)	Open space RBC	2/03/2020	<1		<1	<1	<1	<1	<1	<1	<1	**3**	<10	<1	<10	**27**	<2	<1	<2	<0.5	**163**	<1	**3**	<2	**1.1**		<1	<1	<1	<1	<0.1	<1	<1	<1
MW53			15/01/2019	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	**9**	<2	<1	<2	<0.5	**5**	<1	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
MW56	Lot 2 (Off-site)		14/01/2019	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	<1	<1	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 2 (Off-site)		2/03/2020	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	<1	<1	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
MW57	Lot 2 (Off-site)		15/01/2019	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	<1	<1	<1	<2	<0.2	<2000	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 2 (Off-site)		2/03/2020	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	<1	<1	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
MW58	Lot 2 (Off-site)		15/01/2019	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	<1	<1	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 2 (Off-site)		4/03/2020	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<10	<1	<2	<1	<2	<0.5	<1	<1	<1	<2	<0.2	-	<1	<1	<1	<1	<0.1	<1	<1	<1
	Lot 2 (Off-site)		6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes
Derived Groundwater Risk Based (RBC) Contaminant Screening Levels - EnRiskS 2018
S' Denotes derived RBC significantly exceeds the solubility of the VOC
* Groundwater monitoring well screen is below the water table and as such comparison to RBC is not applicable

NOTES
Potable Water Supply / Water Based Recreation (Primary Contact Recreation)
Australian Drinking Water Guidelines 2015, Health

Agriculture and Irrigation (Stock Watering)
ANZECC 2000 Livestock Drinking Water Low Risk Trigger Values
Potable Water Supply / Primary Contact Recreation guidance

Agriculture and Irrigation (Irrigation)
ANZECC 2000 Irrigation Long Term Trigger Values

Water Dependent Ecosystems and Species
ANZECC 2000 Marine Water 95%
LR: ANZECC 2000 Low Reliability Guidelines
F : ANZECC 2000 Freshwater 95%

A: Australian Drinking Water Guidelines 2015, Aesthetics
C: CCME 2007 Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture
DI: Dutch 2000 Target and Intervention Values for Soil and Groundwater
N: NIWA 2014, Nitrate toxicity guidelines for the National Objectives Framework
NZ: New Zealand Ministry of Health 2008, Drinking Water Standards for New Zealand
US: USEPA 2018, Health Advisories for Drinking Water Contaminants
WH: World Health Organization 2011, WHO DWQG 4th Ed
WR: Environment Protection and Heritage Council 2008, Australian Guidelines for Water Recyc
Derived Groundwater Risk Based Contminant Screening Levels (Commercial, Slab on grade: mu
S: Derived RBC significantly exceeds the solubility of the VOC

Table 3
Groundwater Analytical Results (Chandos Lot 2)
Chandos St, Cheltenham, VIC

Resolve Environmental

ANALYTE				Halogenated Hydrocarbons					Inorganics																														
				Chlorobenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Iodomethane	Trichlorofluoromethane	Nitrite + Nitrate as N	Alkalinity (Bicarbonate as CaCO3)	Carbonate Alkalinity as CaCO3	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Ammonia as N	Anions Total	Bromide	Cations Total	Chloride	Ferrous Iron	Ferric Iron (Filtered)	Fluoride	Ionic Balance	Nitrate (as N)	Nitrite (as N)	Reactive Phosphorus as P	Potassium (Filtered)	Calcium (Filtered)	Magnesium (Filtered)	Sodium (Filtered)	Sulfate as SO4 - Turbidimetric (Filtered)	TDS	ORTHOPHOSPHATE (PO4-P)	Total MAH	1,2,3-trimethylbenzene		
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	µg/L	meq/L	mg/L	mg/L	mg/L	mg/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L				
EQL				0.01	1	1	1	1	1	0.01	1	1	1	1	0.01	0.01	10	0.01	1	0.05	0.05	0.1	0.01	0.01	0.01	0.01	1	1	1	1	1	10	0.01	0.003				
Potable Water Supply				300 / 10[A]											0.5[A]				250[A]			1.5		50[WR]	3[WR]						500 / 250[A]							
Primary Contact Recreation				300 / 10[A]											0.5[A]				250[A]			15		112.87[N]	9.12[N]						5,000 / 250[A]							
Stock Watering				300 / 10[A]											0.5[WR]				250[A]			2		50[WR]	3[WR]						1000							
Agriculture, Parks and Gardens																						1																	
Maintenance of Ecosystems															5.96									2.4[N]	0.06[C]														
Buildings and Structures																			6000												1000							
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																																							
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																																							
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																																							
EnRiskS RBC:	Slab on grade: warehouses			S	-	-	-	-	1,500,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Slab on grade: multistory offices			3,500,000	-	-	-	-	940,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Commercial with 1 level basement car park			3,900,000	-	-	-	-	1,100,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Commercial with 2 levels basement car park			3,600,000	-	-	-	-	1,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Commercial with 3 levels basement car park			3,200,000	-	-	-	-	940,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Open space RBC			S	-	-	-	-	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Field_ID	Location	Applicable RBC for Location	Sampled_Date-Time																																				
BMW1	Lot 4		29/08/2019	<1	<1	<10	<10	<1	<10	-	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Lot 4		5/03/2020	<1	<1	<10	<10	<1	<10	27.3	9	<1	<1	9	<0.01	37.7	-	37	1110	-	-	0.1	0.92	27.3	<0.01	<0.01	<1	<1	39	778	300	2460	-	-	<1				
	Lot 4		6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BMW2	Lot 4		16/01/2019	4	<1	<10	<10	<1	<10	19.5	11	<1	<1	11	0.05	82.5	-	68.4	2680	-	-	<0.1	9.36	19.5	<0.01	<0.01	<1	16	108	1350	323	4340	-	-	-				
	Lot 4		29/08/2019	6	<1	<10	<10	<1	<10	-	-	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Lot 4		5/03/2020	3	<1	<10	<10	<1	<10	16.6	10	<1	<1	10	<0.01	84.6	-	75.6	2760	<0.05	-	<0.1	5.65	16.6	<0.01	0.01	<1	16	121	1490	315	8320	-	-	<1				
	Lot 4		6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CMW1	Lot 3		16/01/2019	<1	<1	<10	<10	<1	<10	13.8	51	<1	<1	51	0.19	58.2	-	55.5	1670	-	-	<0.1	2.37	13.8	<0.01	0.04	2	11	86	1100	485	3630	-	-	-				
	Lot 3		3/03/2020	<1	<1	<10	<10	<1	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1
	Lot 3		6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW22	Lot 2 (North south driveway)		16/01/2019	<10	<10	<100	<100	<10	<10	40.8	31	<1	<1	31	0.03	42.8	-	39.8	1190	-	-	0.1	3.57	40.8	<0.01	<0.01	<1	3	42	833	413	2710	-	-	-				
	Lot 2 (North south driveway)		3/03/2020	<1	<1	<10	<10	<1	<10	31	29	<1	<1	29	0.03	31.3	-	29.2	850	0.13	<0.05	0.1	3.48	31	<0.01	<0.01	<1	6	29	610	325	2270	-	-	<1				
	Lot 2 (North south driveway)		6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23A	Lot 3		3/03/2020	<1	<1	<10	<10	<1	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1
	Lot 3		6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24AR	Lot 2 (Source)	Open space RBC	17/01/2019	<100	<100	<1000	<1000	<100	<100	23	128	<1	<1	128	0.06	43.3	-	39.7	1270	-	-	0.1	4.37	23	0.01	0.06	3	70	698	237	2600	-	-	-				
	Lot 2 (Source)	Open space RBC	11/04/2019	<100	<100	<1000	<1000	<100	<100	23.3	138	<1	<1	138	0.06	48.8	-	43.8	1440	0.09	<0.05	-	5.37	23.2	0.07	-	4	89	77	758	262	-	-	-	-				
	Lot 2 (Source)	Open space RBC	29/08/2019	<1	<1	<10	<10	<1	<10	-	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Lot 2 (Source)	Open space RBC	4/03/2020	<1	<1	<10	<10	<1	<10	29.4	<1	<1	<1	<1	0.05	217	-	178	684	0.28	6.66	0.5	9.72	29.1	0.3	<0.01	7	167	99	3720	9490	16500	-	-	<1				
MW24BR	Lot 2 (Source)	Open space RBC	17/01/2019	<1	<1	<10	<10	<1	<10	4.36	164	<1	<1	164	0.81	17.8	1220	15	373	<0.05	0.22	0.5	8.65	4.35	0.01	8.3	4	9	14	306	195	1060	-	-	-				
	Lot 2 (Source)	Open space RBC	10/04/2019	<1	<1	<10	<10	<1	<10	3.95	135	<1	<1	135	0.38	25.2	-	20.5	528	0.07	<0.05	-	10.2	3.84	0.11	-	2	8	20	423	364	-	-	-	-				
	Lot 2 (Source)	Open space RBC	30/08/2019	<1	<1	<10	<10	<1	<10	-	-	-	-	-	0.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Lot 2 (Source)	Open space RBC	4/03/2020	2	<1	<10	<10	<1	<10	2.36	34	<1	<1	34	1.26	30.4	-	29.8	479	-	-	0.2	1.03	2.34	0.02	<0.01	<1	17	34	602	781	2260	-	-	<1				
	Lot 2 (Source)	Open space RBC	6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24CR	Lot 2 (Source)	Open space RBC	17/01/2019	<10	<10	<100	<100	<10	<10	0.02	190	<1	<1	190	0.33	10.6	-	8.69	178	-	-	0.7	10.1	0.02	<0.01	10.1	4	11	10	166	88	670	-	-	-				
	Lot 2 (Source)	Open space RBC	11/04/2019	<1	<1	<10	<10	<1	<10	7.01	<1	<1	<1	<1	0.27	267	-	236	31	1.09	2.14	-	6.33	6.45	0.56	-	82	282	245	4580	12800	-	-	-	-				
	Lot 2 (Source)	Open space RBC	29/08/2019	<1	<1	20	<10	1	<10	-	-	-	-	-	0.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Lot 2 (Source)	Open space RBC	4/03/2020	2	<1	<10	<10	<1	<10	5.72	<1	<1	<1	<1	0.65	52.5	-	60.4	689	0.11	0.11	1.4	6.97	5.5	0.22	0.01	18	15	64	1240	1590	4450	-	-	<1				
MW25	Off Site (Down Gradient)	Open space RBC	16/01/2019	<100	<100	<1000	<1000	<100	<1000	1.52	66	<1	<1	66	0.03	15.5	-	12.8	379	-	-	0.2	9.44	1.52	<0.01	0.02	<1	6	12	265	167	941	-	-	-				
	Off Site (Down Gradient)	Open space RBC	10/04/2019	<100	<100	<1000	<1000	<100	<100	1.63	58	<1	<1	58	0.83	15.6	-	11.8	371	0.07	<0.05	-	14	1.62	0.01	-	<1	8	14	235	192	-	-	-				
MW26	Off Site (Down Gradient)	Open space RBC	16/01/2019	<100	<100	<1000	<1000	<100	<1000	27.6	105	<1	<1	105	0.07	34.3	2510	29.4	934	<0.05	0.27	0.2	7.74	27.2	0.38	<0.01	2	18	40	578	282	2000	-	-	-				
	Off Site (Down Gradient)	Open space RBC	11/04/2019	<100	<100	<1000	<1000	<100	<100	30.6	107	<1	<1	107	0.04	33.7	-	28.8	907	0.05	<0.05	-	7.95	30.3	0.33	-	2	17	39	567	289	-	-	-	-				
MW29	Lot 3 (off-site)		5/03/2020	<1	<1	<10	<10	<1	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1
MW30	Lot 3 (off-site)		3/03/2020	<1	<1	<10	<10	<1	<10	0.01	166	<1	<1	166	0.22	5.12	-	4.43	36	25.1	<0.05	1.8	7.29	0.01	<0.01	<0.01	<1	<1	2	98	38	899	-	-	<1				
MW30	Lot 3 (off-site)		6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW31	Lot 2 (Up-Gradient)		4/03/2020	<1	<1	<10	<10	<1	<10	17.8	66	<1	<1	66	0.04	21.2	-	19.2	531	<0.05	0.07	0.1	5.17	17.8	0.04	<0.01	1	3	14	410	238	1380	-	-	<1				
MW32	Lot 2 (Up Gradient)	Open space RBC	16/01/2019	<1	<1	<10	<10	<1	<10	13.5	87	<1	<1	87	0.4	14.7	-	11.7	394	-	-	0.1	11.3	13.5	0.02	0.01	5	20	12	220	87	893	-	-	-				
	Lot 2 (Up Gradient)	Open space RBC	3/03/2020	<1	<1	<10	<10	<1	<10	0.78	42	<1	<1	42	0.04	2.24	-	2.07	26	0.42	0.25	0.8	3.96	0.78	<0.01	0.04	2	4	2	38	32	498	-	-	<1				
	Lot 2 (Up Gradient)	Open space RBC	6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW34A	Off Site (Down Gradient)	Open space RBC	17/01/2019	<100	<100	<1000	<1000	<100	<100	1.39	33	<1	<1	33	0.02	50.8	-	46	1500	-	-	0.4	4.99	1.32	0.07	<0.01	<1	9	60	933	376	3490	-	-	-				
	Off Site (Down Gradient)	Open space RBC	10/04/2019	<100	<100	<1000	<1000	<100	<100	1.46	34	<1	<1	34	0.02	50.9	-	44.6	1500	0.06	<0.05	-	6.57	1.37	0.09	-	<1	8	63	898	381	-	-	-	-				
	Off Site (Down Gradient)	Open space RBC	19/09/2019	<1		20	<10	5	<10	-	-	-	-	-	0.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Off Site (Down Gradient)	Open space RBC	5/03/2020	<100	<100	<1,000	<1,000	<100	<100	2	<1	<1	<1	<1	0.3	65.6	-	69.1	1470	<0.05	-	1	2.62	1.86	0.14	0.02	<1	12	93	1400	1160	4930	-	-	<100				
	Off Site (Down Gradient)	Open space RBC	6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW34B	Off Site (Down Gradient)	Open space RBC	16/01/2019	<100	<100	<1000	<1000	<100	<1000	0.52	85	<1	<1	85	0.32	27.4	-	22.8	735	-	-	0.2	8.98	0.52	<0.01	<0.01	2	8	27	464	237	2090	-	-	-				
	Off Site (Down Gradient)	Open space RBC	17/01/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	1880	-	-	<0.05	0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Off Site (Down Gradient)	Open space RBC	10/04/2019	<100	<100	<1000	<1000	<100	<100	0.51	86	<1	<1	86	0.36	28.5	-	21.6	763	0.09	<0.05	-	13.7	0.51	<0.01	-	2	9	30	428	251	-	-	-	-				
	Off Site (Down Gradient)	Open space RBC	19/09/2019	<1		10	<10	2	<10	-	-	-	-	-	0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Off Site (Down Gradient)	Open space RBC	5/03/2020	1	<1	<10	<10	<1	<10	0.46	<1	<1	<1	<1	0.42	31.9	-	36.2	728	0.14	-	0.2	6.26	0.42	0.04	0.03	2	13	43	734	546	2180	-	-	<1				
MW35	Lot 2 (Up Gradient)	Open space RBC	28/08/2019	<1	<1	<10	<10	<1	<10	-	-	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Lot 2 (Up Gradient)	Open space RBC	4/03/2020	<1	<1	<10	<10	<1	<10	14	103	<1	<1	103	0.1	21.3	-	18	507	<0.05	<0.05	0.1	8.38	14	0.02	0.01	2	11	24	355	238	1270	-	-	<1				
MW38	Lot 4		29/08/2019	<1	<1	<10	<10	<1	<10	-	-	-	-	-	0.28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Lot 4		4/03/2020	<1	<1	<10	<10	<1	<10	0.01	89	<1	<1	89	0.21	3.22	-	2.12	24	<0.05	1	<0.5	20.7	0.01	<0.01	<0.01	17	<1	3	33	37	1970	-	-	<1				
	Lot 4		6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW39	Lot 2		15/01/2019	<1	<1	<10	<10	<1	<10	5.07	83	<1	<1	83	0.02	2.9	-	3.09	25	-	-	0.1	3.09	5.07	<0.01	0.02	9	8	4	49	26	316	-	-	-				
	Lot 2		4/03/2020	<1	<1	<10	<10	<1	<10	5.68	123	<1	<1	123	0.01	6.42	-	5.6	94	<0.05	<0.05	0.2	6.84	5.63	0.05	<0.01	<1	1	4	120	63	672	-	-	<1				
	Lot 2		6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW41	Lot 2 (Off-site)		15/01/2019	<1	<1	<10	<10	<1	<10	0.9	121	<1	<1	121	0.04	5.45	-	4.95	39	-	-	0.1	4.85	0.9	<0.01	<0.01	<1	<1	2	110	93	560	-	-	-				
MW41R	Lot 2 (Off-site)		2/04/2020	<1	<1	<10	<10	<1	<10	0.61	60	<1	<1	60	0.02	1.57	-	1.16	8	<0.05	0.49	0.1	-	0.61	<0.01	0.01	<1	7	4	11	7	2920	-	-	-				
MW42	Lot 2 (Off-site)		15/01/2019	<1	<1	<10	<10	<1	<10	3.69	112	<1	<1	112	0.08	19.7	3240	16.1	328	<0.05	<0.05	0.1	10	3.67	0.02	0.02	1	6	15	334	393	1260	-	-	-				

Table 3
Groundwater Analytical Results (Chandos Lot 2)
Chandos St, Cheltenham, VIC

Resolve Environmental

ANALYTE				Halogenated Hydrocarbons						Inorganics																													
				Chlorobenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Iodomethane	Trichlorofluoromethane	Nitrite + Nitrate as N	Alkalinity (Bicarbonate as CaCO3)	Carbonate Alkalinity as CaCO3	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Ammonia as N	Anions Total	Bromide	Cations Total	Chloride	Ferrous Iron	Ferric Iron (Filtered)	Fluoride	Ionic Balance	Nitrate (as N)	Nitrite (as N)	Reactive Phosphorus as P	Potassium (Filtered)	Calcium (Filtered)	Magnesium (Filtered)	Sodium (Filtered)	Sulfate as SO4 - Turbidimetric (Filtered)	TDS	ORTHOPHOSPHATE (PO4-P)	Total MAH	1,2,3-trimethylbenzene	
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	µg/L	meq/L	mg/L	mg/L	mg/L	mg/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		
EQL				0.01	1	1	1	1	1	0.01	1	1	1	1	0.01	0.01	10	0.01	1	0.05	0.05	0.1	0.01	0.01	0.01	0.01	1	1	1	1	1	10	0.01	0.003	
Potable Water Supply				300 / 10[A]											0.5[A]				250[A]			1.5		50[WR]	3[WR]						500 / 250[A]					
Primary Contact Recreation				300 / 10[A]											0.5[A]				250[A]			15		112.87[N]	9.12[N]						5,000 / 250[A]					
Stock Watering				300 / 10[A]											0.5[WR]				250[A]			2		50[WR]	3[WR]						1000					
Agriculture, Parks and Gardens																						1															
Maintenance of Ecosystems															5.96									2.4[N]	0.06[C]												
Buildings and Structures																			6000												1000					
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																																					
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																																					
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																																					
EnRiskS RBC:	Slab on grade: warehouses			S	-	-	-	-	1,500,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Slab on grade: multistory offices			3,500,000	-	-	-	-	940,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Commercial with 1 level basement car park			3,900,000	-	-	-	-	1,100,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Commercial with 2 levels basement car park			3,600,000	-	-	-	-	1,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Commercial with 3 levels basement car park			3,200,000	-	-	-	-	940,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Open space RBC			S	-	-	-	-	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Field_ID	Location	Applicable RBC for Location	Sampled_Date-Time																																		
MW42	Lot 2 (Off-site)		29/08/2019	<1	<1	<10	<10	<1	<10	-	-	-	-	-	**0.02**	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-	-	-	-	-	-	
MW42R	Lot 2 (Off-site)		2/04/2020	<1	<1	<10	<10	<1	<10	8.48	89	<1	<1	89	**0.08**	3.16	-	3.27	21	<0.05	0.25	0.4	**1.66**	8.48	<0.01	0.01	<1	1	<1	74	38	4370	-	-	-	
MW50A	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	**3**	<1	<10	<10	1	<10	**1.47**	**79**	<1	<1	**79**	**0.03**	**29.3**	-	**24.2**	**862**	-	-	**0.1**	**9.47**	**1.47**	<0.01	<0.01	**1**	**10**	**39**	**471**	**163**	**1560**	-	-	-	
	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	**4**	<1	<10	<10	<1	<10	**1.38**	**72**	<1	<1	**72**	**0.05**	**28.6**	-	**26.4**	**846**	**0.08**	<0.05	-	**3.8**	**1.38**	<0.01	-	**4**	**12**	**45**	**507**	**156**	-	-	-	-	
	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	**4**	<1	<10	<10	<1	<10	-	-	-	-	-	**0.03**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Lot 3 (Cross Gradient)	Open space RBC	3/03/2020	**3**	<1	<10	<10	<1	<10	**1.4**	**70**	<1	<1	**70**	**0.01**	**27.2**	-	**24.3**	**795**	<0.05	<0.05	<0.5	**5.67**	**1.4**	<0.01	<0.01	<1	**8**	**43**	**468**	**163**	**1760**	-	-	<1	
	Lot 3 (Cross Gradient)	Open space RBC	6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-	-	-	-	-	-	
MW50B	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	<100	<100	<1000	<1000	<100	<100	**45.2**	**132**	<1	<1	**132**	**0.34**	**30.3**	**3800**	**27.5**	**700**	<0.05	**0.08**	**0.2**	**4.78**	**44.8**	**0.42**	<0.01	**6**	**22**	**36**	**536**	**380**	**1990**	-	-	-	
	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	<10	<10	<100	<100	<10	<10	**36.4**	**176**	<1	<1	**176**	**0.57**	**27.6**	-	**23.8**	**638**	**0.05**	<0.05	-	**7.29**	**36.4**	<0.01	-	**32**	**20**	**30**	**450**	**293**	-	-	-	-	
	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	3	<1	<10	<10	<1	<10	-	-	-	-	-	**0.34**	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW50C	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	<100	<100	<1000	<1000	<100	<100	**38.4**	**175**	<1	<1	**175**	**0.19**	**47.1**	-	**43.7**	**1380**	-	-	**0.1**	**3.74**	**38**	**0.39**	<0.01	**4**	**117**	**85**	**707**	**224**	**2840**	-	-	-	
	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	<100	<100	<1000	<1000	<100	<100	**45.7**	**186**	<1	<1	**186**	**0.22**	**39.9**	-	**35.8**	**1070**	**0.05**	<0.05	-	**5.36**	**45**	**0.71**	-	**4**	**81**	**60**	**615**	**288**	-	-	-	-	
	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	1	<1	<10	<10	<1	<10	-	-	-	-	-	**0.16**	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW51	Lot 2 (Off-Site)	Open space RBC	16/01/2019	<1	<1	<10	<10	<1	<10	**1.12**	**165**	<1	<1	**165**	**0.06**	**13.8**	**1400**	**11.1**	**263**	<0.05	**0.24**	**0.1**	**10.6**	**1.12**	<0.01	<0.01	**2**	**4**	**17**	**218**	**147**	**1010**	-	-	-	
	Lot 2 (Off-Site)	Open space RBC	30/08/2019	<1	<1	<10	<10	<1	<10	-	-	-	-	-	**0.03**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Lot 2 (Off-Site)	Open space RBC	2/03/2020	<1	<1	<10	<10	<1	<10	**1.33**	**143**	<1	<1	**143**	**0.02**	**12**		**10.8**	**217**	0.1	<0.05	<0.1	**5.43**	**1.33**	<0.01	<0.01	**3**	7	**18**	**204**	**146**	**2020**		-	<1	
MW53			15/01/2019	<1	<1	<10	<10	<1	<10	**0.02**	**139**	<1	<1	**139**	**0.04**	**5.16**	-	**4.42**	**58**	-	-	**0.1**	**7.69**	**0.02**	<0.01	<0.01	1	**4**	**4**	**89**	**36**	**427**	-	-	-	
MW56	Lot 2 (Off-site)		14/01/2019	<1	<1	<10	<10	<1	<10	**2.05**	**22**	<1	<1	**22**	**0.09**	**19.2**	-	**15.6**	**381**	-	-	**0.2**	**10.5**	**2.05**	<0.01	<0.01	<1	**1**	**10**	**338**	**386**	**1530**	-	-	-	
	Lot 2 (Off-site)		2/03/2020	<1	<1	<10	<10	<1	<10	**1.95**	**11**	<1	<1		**0.01**	**18.8**		**16.2**	**356**	<0.05	0.06	<0.1	**7.13**	**1.95**	<0.01	<0.01	<1	<1	**11**	**353**	**408**	**1900**		-	<1	
MW57	Lot 2 (Off-site)		15/01/2019	<1	<1	<10	<10	<1	<10	**0.9**	**94**	<1	<1	**94**	**0.08**	**6.64**	**510**	**5.88**	**78**	<0.05	**0.05**	**0.2**	**6.08**	**0.9**	<0.01	<0.01	<1	**6**	**7**	**115**	**123**	**462**	-	-	-	
	Lot 2 (Off-site)		2/03/2020	<1	<1	<10	<10	<1	<10	**0.4**	**85**	<1	<1		<0.01	**5.23**		**4.98**	**58**	<0.05	**0.01**	**0.2**	**2.4**	**0.4**	<0.01	<0.01	<1	**3**	**8**	**96**	**91**	**473**		-	<1	
MW58	Lot 2 (Off-site)		15/01/2019	<1	<1	<10	<10	<1	<10	**1.39**	**370**	<1	<1	**370**	**0.05**	**19.8**	-	**16.2**	**322**	-	-	**1.6**	**10.1**	**1.39**	<0.01	<0.01	<1	**2**	**7**	**356**	**160**	**1450**	-	-		
	Lot 2 (Off-site)		4/03/2020	<1	<1	<10	<10	<1	<10	**1.56**	**335**	<1	<1	**335**	<0.01	**18.2**	-	**14.8**	**296**	<0.05	**0.09**	**1.2**	**10.1**	**1.56**	<0.01	**0.03**	<1	**1**	**5**	**331**	**152**	**1220**		-	<1	
	Lot 2 (Off-site)		6/03/2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Notes
Derived Groundwater Risk Based (RBC) Contaminant Screening Levels - EnRiskS 2018
S' Denotes derived RBC significantly exceeds the solubility of the VOC
* Groundwater monitoring well screen is below the water table and as such comparison to RBC is not applicable

NOTES
Potable Water Supply / Water Based Recreation (Primary Contact Recreation)
Australian Drinking Water Guidelines 2015, Health

Agriculture and Irrigation (Stock Watering)
ANZECC 2000 Livestock Drinking Water Low Risk Trigger Values
Potable Water Supply / Primary Contact Recreation guidance

Agriculture and Irrigation (Irrigation)
ANZECC 2000 Irrigation Long Term Trigger Values

Water Dependent Ecosystems and Species
ANZECC 2000 Marine Water 95%
LR: ANZECC 2000 Low Reliability Guidelines
F : ANZECC 2000 Freshwater 95%

A: Australian Drinking Water Guidelines 2015, Aesthetics
C: CCME 2007 Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture
DI: Dutch 2000 Target and Intervention Values for Soil and Groundwater
N: NIWA 2014, Nitrate toxicity guidelines for the National Objectives Framework
NZ: New Zealand Ministry of Health 2008, Drinking Water Standards for New Zealand
US: USEPA 2018, Health Advisories for Drinking Water Contaminants
WH: World Health Organization 2011, WHO DWQG 4th Ed
WR: Environment Protection and Heritage Council 2008, Australian Guidelines for Water Recycl
Derived Groundwater Risk Based Contminant Screening Levels (Commercial, Slab on grade: mu
S: Derived RBC significantly exceeds the solubility of the VOC

ANALYTE				MAH										Heavy Metals												Organic			PAH	Solvents								
				1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Aluminium (Filtered)	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (III+VI) (Filtered)	Cobalt (Filtered)	Copper (Filtered)	Iron (Filtered)	Lead (Filtered)	Manganese (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)	Ethane	Ethene	Methane	Naphthalene	Methyl Ethyl Ketone	2-hexanone (MBK)	4-Methyl-2-pentanone	Acetone	Allyl chloride	Carbon disulfide	Ethanol	Vinyl acetate
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L
EQL				1	1	1	1	1	1	1	1	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.05	0.001	0.001	0.0001	0.001	0.005	10	10	0.01	5	1	10	1	0.001	0.001	1	50	10
Potable Water Supply				5.6[US]	6[US]	45[US]	100[US]	66[US]		200[US]	30 / 4[A]	69[US]		0.01	0.002	0.05	0.0006[US]	2 / 1[A]	0.3[A]	0.01	0.5 / 0.1[A]	0.001	0.02	3[A]													
Primary Contact Recreation				5.6[US]	6[US]	45[US]	100[US]	66[US]		200[US]	30 / 4[A]	69[US]		0.1	0.02	0.5	0.006[US]	20 / 1[A]	0.3[A]	0.1	5 / 0.1[A]	0.01	0.2	3[A]													
Stock Watering				5.6[US]	6[US]	45[US]	100[US]	66[US]		200[US]	30 / 4[A]	69[US]		0.5	0.01	1	1	0.4	0.3[A]	0.1	0.5 / 0.1[A]	0.002	1	20													
Agriculture, Parks and Gardens														0.1	0.01	0.1	0.05	0.2	0.2	2	0.2	0.002	0.2	2													
Maintenance of Ecosystems														0.024[F]	0.0055		0.001	0.0013		0.0044		0.0004	0.07	0.015													
Buildings and Structures																																					
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																																					
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																																					
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																																					
EnRiskS RBC:	Slab on grade: warehouses			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Slab on grade: multistory offices			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Commercial with 1 level basement car park			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Commercial with 2 levels basement car park			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Commercial with 3 levels basement car park			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Open space RBC			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field_ID	Location	Applicable RBC for Location	Sampled_Date-Time																																		
BMW1	Lot 4		29/08/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<10	<10	<10	-	-	<1	-	<10
	Lot 4		5/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	<5	<10	<10	<10	<0.01	-	<1	-	<10
	Lot 4		6/03/2020	-	-	-	-	-	-	-	-	-	0.05	0.002	<0.0001	<0.001	-	<0.001	<0.05	<0.001	0.002	<0.0001	0.008	0.013	-	-	-	-	-	-	-	-	-	-	-	-	-
BMW2	Lot 4		16/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.17	0.031	0.0002	0.002	0.007	0.004	0.33	0.007	0.005	<0.0001	0.017	0.044	-	-	-	<5	<10	<10	<10	<0.01	-	<1	-	<10
	Lot 4		29/08/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<10	<10	<10	-	-	<1	-	<10
	Lot 4		5/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	<5	<10	<10	<10	<0.01	-	<1	-	<10
	Lot 4		6/03/2020	-	-	-	-	-	-	-	-	-	0.01	0.002	<0.0001	<0.001	-	<0.001	<0.05	<0.001	0.005	<0.0001	0.012	0.062	-	-	-	-	-	-	-	-	-	-	-	-	-
CMW1	Lot 3		16/01/2019	18	6	2	<1	3	<1	<1	<1	<1	0.58	0.004	<0.0001	0.001	0.004	0.012	0.2	0.001	0.008	0.0002	0.038	0.199	-	-	-	<5	<10	<10	<10	<0.01	-	<1	-	<10
	Lot 3		3/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<10	<10	<10	<0.01	-	<1	-	<10
	Lot 3		6/03/2020	-	-	-	-	-	-	-	-	-	-	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW22	Lot 2 (North south driveway)		16/01/2019	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.49	0.003	<0.0001	0.001	0.004	0.004	0.2	<0.001	0.023	<0.0001	0.033	0.043	-	-	-	<10	<100	<100	<100	<0.1	-	<10	-	<100
	Lot 2 (North south driveway)		3/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	<5	<10	<10	<10	<0.01	-	<1	-	<10
	Lot 2 (North south driveway)		6/03/2020	-	-	-	-	-	-	-	-	-	0.12	<0.001	<0.0001	<0.001	-	0.008	0.05	<0.001	0.015	<0.0001	0.002	0.038	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23A	Lot 3		3/03/2020	<1	<1	3	<1	3	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<10	<10	<10	<0.01	-	<1	-	<10
	Lot 3		6/03/2020	-	-	-	-	-	-	-	-	-	-	0.096	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24AR	Lot 2 (Source)	Open space RBC	17/01/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	0.63	0.002	<0.0001	0.001	0.018	0.002	0.33	<0.001	0.693	<0.0001	0.041	0.027	-	-	-	<100	<1000	<1000	<1000	<1	-	<100	-	<1000
	Lot 2 (Source)	Open space RBC	11/04/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<0.001	0.0001	<0.001	-	0.002	<0.05	<0.001	0.558	<0.0001	0.042	0.012	<10	<10	<0.01	<100	<1000	<1000	<1000	<1	-	<100	<50	<1000
	Lot 2 (Source)	Open space RBC	29/08/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<10	<10	<10	-	-	<1	-	<10
	Lot 2 (Source)	Open space RBC	4/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	10.7	0.03	0.0026	0.33	-	1.07	6.94	0.044	0.411	0.0147	0.633	1.94	-	-	<0.01	<5	20	<10	<10	0.27	-	<1	-	<10
MW24BR	Lot 2 (Source)	Open space RBC	17/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.52	0.032	<0.0001	0.001	0.005	0.003	0.22	<0.001	0.029	0.0001	0.021	0.006	<10	<10	<0.01	<5	<10	<10	<10	<0.01	-	<1	<50	<10
	Lot 2 (Source)	Open space RBC	10/04/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0.017	<0.0001	0.002	-	0.004	<0.05	<0.001	0.012	0.0008	0.15	0.022	<10	<10	<0.01	<5	<10	<10	<10	<0.01	-	<1	<50	<10
	Lot 2 (Source)	Open space RBC	30/08/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<10	<10	<10	-	-	<1	-	<10
	Lot 2 (Source)	Open space RBC	4/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	<5	<10	<10	<10	<0.02	-	<1	-	<10
	Lot 2 (Source)	Open space RBC	6/03/2020	-	-	-	-	-	-	-	-	-	0.51	0.002	0.0002	0.005	-	0.009	<0.05	0.001	0.037	0.0018	0.017	0.119	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24CR	Lot 2 (Source)	Open space RBC	17/01/2019	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.13	0.036	<0.0001	<0.001	0.001	<0.001	1.21	<0.001	0.276	<0.0001	0.009	<0.005	-	-	-	<10	44,400	<100	<100	<0.1	-	<10	-	<100
	Lot 2 (Source)	Open space RBC	11/04/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0.386	0.006	0.555	-	2.36	3.23	0.028	14.1	0.0095	4.73	2.29	<10	<10	<0.01	<5	20	<10	<10	1.12	-	<1	<50	<10
	Lot 2 (Source)	Open space RBC	29/08/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	50	<10	<10	-	-	1	-	<10
	Lot 2 (Source)	Open space RBC	4/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	20.7	0.026	0.0007	0.043	-	0.293	0.22	0.01	0.906	0.0021	0.716	0.624	-	-	<0.01	<5	20	<10	30	0.6	-	1	-	<10
MW25	Off Site (Down Gradient)	Open space RBC	16/01/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	0.17	0.008	0.0002	0.001	<0.001	0.005	0.09	0.001	0.013	<0.0001	0.009	0.112	-	-	-	<100	<1000	<1000	<1000	<1	-	<100	-	<1000
	Off Site (Down Gradient)	Open space RBC	10/04/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	0.008	<0.0001	<0.001	-	0.005	<0.05	<0.001	0.01	0.0001	0.244	0.056	<10	<10	<0.01	<100	<1000	<1000	<1000	<1	-	<100	<50	<1000
MW26	Off Site (Down Gradient)	Open space RBC	16/01/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	0.49	0.009	0.0001	0.001	0.011	0.001	0.27	0.001	0.702	<0.0001	0.017	0.026	<10	<10	<0.01	<100	<1000	<1000	<1000	<1	-	<100	<50	<1000
	Off Site (Down Gradient)	Open space RBC	11/04/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	0.001	<0.0001	<0.001	-	0.001	<0.05	<0.001	0.56	<0.0001	0.043	0.014	<10	<10	<0.01	<500 - 104	<1000	<1000	<1000	<1	-	<100	<50	<1000
MW29	Lot 3 (off-site)		5/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<10	<10	<10	<0.01	-	<1	-	<10
MW30	Lot 3 (off-site)		3/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.024	<5	<10	<10	<10	<0.01	-	1	-	<10
MW30	Lot 3 (off-site)		6/03/2020	-	-	-	-	-	-	-	-	-	0.06	0.006	<0.0001	<0.001	-	<0.001	<0.05	<0.001	0.004	<0.0001	0.004	0.008	-	-	-	-	-	-	-	-	-	-	-	-	-
MW31	Lot 2 (Up-Gradient)		4/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.13	0.003	<0.0001	0.008	-	0.002	0.07	<0.001	0.079	<0.0001	0.058	0.037	-	-	<0.01	<5	<10	<10	<10	<0.01	-	<1	-	<10
MW32	Lot 2 (Up Gradient)	Open space RBC	16/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.48	0.002	0.0024	0.001	0.052	0.008	0.4	0.002	0.224	<0.0001	0.008	0.622	-	-	-	<5	<10	<10	<10	<0.01	-	<1	-	<10
	Lot 2 (Up Gradient)	Open space RBC	3/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	<5	<10	<10	<10	<0.01	-	<1	-	<10
	Lot 2 (Up Gradient)	Open space RBC	6/03/2020	-	-	-	-	-	-	-	-	-	2.77	0.002	<0.0001	0.003	-	<0.001	0.69	<0.001	0.002	<0.0001	0.002	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-
MW34A	Off Site (Down Gradient)	Open space RBC	17/01/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	0.5	0.004	<0.0001	<0.001	0.005	0.003	0.12	0.003	0.006	<0.0001	0.017	0.04	-	-	-	<100	<1000	<1000	<1000	<1	-	<100	-	<1000
	Off Site (Down Gradient)	Open space RBC	10/04/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	0.002	<0.0001	<0.001	-	0.003	<0.05	<0.001	0.005	<0.0001	0.03	0.074	<10	<10	<0.01	<100	<1000	<1000	<1000	<1	-	<100	<50	<1000
	Off Site (Down Gradient)	Open space RBC	19/09/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	20	<10	<10	-	-	-	-	<10
	Off Site (Down Gradient)	Open space RBC	5/03/2020	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	<100	<1,000	<1,000	<1,000	<1	-	<100	-	<1,000
	Off Site (Down Gradient)	Open space RBC	6/03/2020	-	-	-	-	-	-	-	-	-	30.1	0.015	<0.0001	0.093	-	0.053	0.24	0.074	0.015	0.0048	0.092	0.154	-	-	-	-	-	-	-	-	-	-	-	-	-
MW34B	Off Site (Down Gradient)	Open space RBC	16/01/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	0.23	0.012	<0.0001	<0.001	0.029	0.004	0.24	0.005	0.055	<0.0001	0.044	0.038	-	-	-	<100	<1000	<10	<1000	<1	-	<100	-	<1000
	Off Site (Down Gradient)	Open space RBC	17/01/2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.15	-	-	-	-	-	<10	<10	<0.01	-	-	-	-	-	-	-	<50	-
	Off Site (Down Gradient)	Open space RBC	10/04/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	0.005	<0.0001	<0.001	-	0.004	0.05	<0.001	0.048	<0.0001	0.052	0.029	<10	<10	<0.01	<100	<1000	<1000	<1000	<1	-	<100	<50	<1000
	Off Site (Down Gradient)	Open space RBC	19/09/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	10	-	<10	-	-	-	-	<10
	Off Site (Down Gradient)	Open space RBC	5/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	<5	<10	<10	<10	0.1	-	<1	-	<10
MW35	Lot 2 (Up Gradient)	Open space RBC	28/08/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<10	<10	<10	-	-	<1	-	<10
	Lot 2 (Up Gradient)	Open space RBC	4/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.09	0.002	0.0004	0.002	-	0.049	<0.05	0.054	0.048	<0.0001	0.189	0.266	-	-	<0.01	<5	<10	<10	<10	<0.01	-	<1	-	<10
MW38	Lot 4		29/08/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<10	<10	<10	-	-	<1	-	<10
	Lot 4		4/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.028	<5	<10	<10	<10	<0.01	-	<1	-	<10
	Lot 4		6/03/2020	-	-	-	-	-	-	-	-	-	0.18	0.008	<0.0001	0.002	-	<0.001	0.37	0.005	0.022	<0.0001	0.002	0.013	-	-	-	-	-	-	-	-	-	-	-	-	-
MW39	Lot 2		15/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.44	0.001	0.0001	<0.001	<0.001	0.003	0.2	0.005	0.003	<0.0001	0.006	0.06	-	-	-	<5	<10	<10	<10	<0.01	-	<1	-	<10
	Lot 2		4/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	<5	<10	<10	<10	<0.01	-	<1	-	<10
	Lot 2		6/03/2020	-	-	-	-	-	-	-	-	-	0.02	0.004	<0.0001	<0.001	-	<0.001	<0.05	<0.001	0.049	<0.0001	0.005	0.022	-	-	-	-	-	-	-	-	-	-	-	-	-
MW41	Lot 2 (Off-site)		15/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.08	0.004	<0.0001	<0.001	0.001	0.001	0.07	0.001	0.084	<0.0001	0.006	0.018	-	-	-	<5	<10	<10	<10	<0.01	-	<1	-	<10
MW41R	Lot 2 (Off-site)		2/04/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.31	0.006	<0.0001	-	-	0.001	0.49	<0.001	0.002	<0.0001	0.006	0.014	-	<10	-	<5	<10	<10	<10	<0.01	-	<1	-	<10
MW42	Lot 2 (Off-site)		15/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.02	0.004	<0.0001	<0.001	0.005	<0.001	<0.05	<0.001	0.279	<0.0001	0.017	0.065	<10	<10	<0.01	<5	<10	<10	<10	<0.01	-	<1	<50	<10

Table 3
Groundwater Analytical Results (Chandos Lot 2)
Chandos St, Cheltenham, VIC

ANALYTE				MAH										Heavy Metals												Organic			PAH	Solvents								
				1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Aluminium (Filtered)	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (III+VI) (Filtered)	Cobalt (Filtered)	Copper (Filtered)	Iron (Filtered)	Lead (Filtered)	Manganese (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)	Ethane	Ethene	Methane	Naphthalene	Methyl Ethyl Ketone	2-hexanone (MBK)	4-Methyl-2-pentanone	Acetone	Allyl chloride	Carbon disulfide	Ethanol	Vinyl acetate
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L
EQL				1	1	1	1	1	1	1	1	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.05	0.001	0.001	0.0001	0.001	0.005	10	10	0.01	5	1	10	1	0.001	0.001	1	50	10
Potable Water Supply				5.6[US]	6[US]	45[US]	100[US]	66[US]		200[US]	30 / 4[A]	69[US]		0.01	0.002	0.05	0.0006[US]	2 / 1[A]	0.3[A]	0.01	0.5 / 0.1[A]	0.001	0.02	3[A]												
Primary Contact Recreation				5.6[US]	6[US]	45[US]	100[US]	66[US]		200[US]	30 / 4[A]	69[US]		0.1	0.02	0.5	0.006[US]	20 / 1[A]	0.3[A]	0.1	5 / 0.1[A]	0.01	0.2	3[A]												
Stock Watering				5.6[US]	6[US]	45[US]	100[US]	66[US]		200[US]	30 / 4[A]	69[US]		0.5	0.01	1	1	0.4	0.3[A]	0.1	0.5 / 0.1[A]	0.002	1	20												
Agriculture, Parks and Gardens														0.1	0.01	0.1	0.05	0.2	0.2	2	0.2	0.002	0.2	2												
Maintenance of Ecosystems														0.024[F]	0.0055		0.001	0.0013		0.0044		0.0004	0.07	0.015												
Buildings and Structures																																				
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m																																				
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m																																				
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m																																				
EnRiskS RBC:	Slab on grade: warehouses			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Slab on grade: multistory offices			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Commercial with 1 level basement car park			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Commercial with 2 levels basement car park			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Commercial with 3 levels basement car park			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Open space RBC			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field_ID	Location	Applicable RBC for Location	Sampled_Date-Time																																	
MW42	Lot 2 (Off-site)		29/08/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<10	<10	<10	-	-	<1	-	<10
MW42R	Lot 2 (Off-site)		2/04/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.18	0.005	<0.0001	-	-	<0.001	0.25	<0.001	0.002	<0.0001	0.001	<0.005	-	-	<10	<5	<10	<10	<10	<0.01	-	<1	-	<10
MW50A	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	**0.48**	**0.002**	<0.0001	**0.005**	**0.011**	**0.007**	**0.1**	<0.001	**0.034**	**0.0006**	**0.052**	**0.108**	-	-	-	<5	<10	<10	<10	<0.01	-	<1	-	<10
	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.001	<0.0001	<0.001	-	**0.002**	<0.05	<0.001	**0.029**	**0.0015**	**0.104**	**0.058**	<10	<10	<0.01	<5	<10	<10	<10	<0.01	-	<1	<50	<10
	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<10	<10	<10	-	-	<1	-	<10
	Lot 3 (Cross Gradient)	Open space RBC	3/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	<5	<10	<10	<10	<0.01	-	<1	-	<10
	Lot 3 (Cross Gradient)	Open space RBC	6/03/2020	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW50B	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	**0.2**	**0.002**	<0.0001	**0.001**	**0.022**	**0.005**	**0.08**	**0.001**	**0.652**	<0.0001	**0.063**	**0.134**	<10	<10	<0.01	<100	<1000	<1000	<1000	<1	-	<100	<50	<1000
	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	**0.001**	<0.0001	**0.001**	-	**0.007**	<0.05	<0.001	**0.174**	<0.0001	**0.196**	**0.197**	<10	<10	<0.01	<10	<100	<100	<100	<0.1	-	<10	<50	<100
	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<10	<10	<10	-	-	<1	-	<10
MW50C	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	<0.01	<0.001	<0.0001	<0.001	**0.01**	**0.007**	<0.05	<0.001	**0.703**	<0.0001	**0.07**	**0.095**	-	-	-	<100	<1000	<1000	<1000	<1	-	<100	-	<1000
	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	**0.001**	<0.0001	<0.001	-	**0.001**	<0.05	<0.001	**0.517**	<0.0001	**0.058**	**0.042**	<10	<10	<0.01	<100	<1000	<1000	<1000	<1	-	<100	<50	<1000
	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<10	<10	<10	-	-	<1	-	<10
MW51	Lot 2 (Off-Site)	Open space RBC	16/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	**0.33**	**0.008**	<0.0001	<0.001	**0.001**	**0.002**	**0.24**	<0.001	**0.018**	<0.0001	**0.004**	**0.024**	<10	<10	<0.01	<5	<10	<10	<10	<0.01	-	<1	<50	<10
	Lot 2 (Off-Site)	Open space RBC	30/08/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1					-	-							-	-	-	<5	<10	<10	<10	-	-	<1	-	<10
	Lot 2 (Off-Site)	Open space RBC	2/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	**0.11**	**0.005**	<0.001	0.001	**0.008**		**0.12**	<0.001	**0.016**	<0.0001	**0.038**	**0.182**	-	-	-	-	-	-	-	-	-	-	-	-	-
MW53			15/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	**0.27**	**0.004**	<0.0001	<0.001	<0.001	**0.001**	**0.19**	<0.001	**0.027**	<0.0001	**0.003**	**0.014**	-	-	-	<5	<10	<10	<10	<0.01	-	<1	-	<10
MW56	Lot 2 (Off-site)		14/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	**0.53**	**0.014**	<0.0001	<0.001	**0.009**	**0.003**	-	0.002	**0.046**	<0.0001	**0.034**	**0.056**	-	-	-	<5	<10	<10	<10	<0.01	-	<1	-	<10
	Lot 2 (Off-site)		2/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	**0.06**	**0.003**	<0.0001	<0.001		<0.001	0.06	<0.001	**0.052**	0.0006	**0.048**	**0.062**	-	-	<0.01	<5	<10	<10	<10	<0.01	-	<1	-	<10
MW57	Lot 2 (Off-site)		15/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	**0.14**	**0.001**	<0.0001	<0.001	<0.001	**0.002**	**0.05**	<0.001	**0.009**	<0.0001	**0.004**	**0.034**	<10	<10	<0.01	<5	<10	<10	<10	<0.01	-	<1	<50	<10
	Lot 2 (Off-site)		2/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	**0.26**	**0.001**	<0.0001	<0.001		<0.001	**0.1**	<0.001	**0.005**	<0.0001	**0.002**	**0.008**	-	-	<0.01	<5	<10	<10	<10	<0.01	-	<1	-	<10
MW58	Lot 2 (Off-site)		15/01/2019	<1	<1	<1	<1	<1	<1	<1	<1	<1	**0.12**	**0.01**	<0.0001	<0.001	<0.001	**0.001**	-	<0.001	**0.001**	<0.0001	**0.003**	**0.009**	-	-	-	<5	<10	<10	<10	<0.01	-	<1	-	<10
	Lot 2 (Off-site)		4/03/2020	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	<5	<10	<10	<10	<0.01	-	<1	-	<10
	Lot 2 (Off-site)		6/03/2020	-	-	-	-	-	-	-	-	-	<0.01	**0.012**	<0.0001	<0.001	-	<0.001	<0.05	<0.001	<0.001	<0.0001	<0.001	<0.005	-	-	-	-	-	-	-	-	-	-	-	-

Notes
Derived Groundwater Risk Based (RBC) Contaminant Screening Levels - EnRiskS 2018
S' Denotes derived RBC significantly exceeds the solubility of the VOC
* Groundwater monitoring well screen is below the water table and as such comparison to RBC is not applicable

NOTES
Potable Water Supply / Water Based Recreation (Primary Contact Recreation)
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ANZECC 2000 Marine Water 95%
LR: ANZECC 2000 Low Reliability Guidelines
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ANALYTE				TPH					VOCs			
				C6-C9	C10-C14	C15-C28	C29-C36	C10-C36	cis-1,4-Dichloro-2-butene	trans-1,4-Dichloro-2-butene	Pentachloroethane	Trihalomethanes
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
EQL				20	50	100	50	50	1	1	1	0.001
Potable Water Supply												
Primary Contact Recreation												
Stock Watering												
Agriculture, Parks and Gardens												
Maintenance of Ecosystems												
Buildings and Structures												
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m												
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NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m												
EnRiskS RBC:	Slab on grade: warehouses			-	-	-	-	-	-	-	-	-
	Slab on grade: multistory offices			-	-	-	-	-	-	-	-	-
	Commercial with 1 level basement car park			-	-	-	-	-	-	-	-	-
	Commercial with 2 levels basement car park			-	-	-	-	-	-	-	-	-
	Commercial with 3 levels basement car park			-	-	-	-	-	-	-	-	-
	Open space RBC			-	-	-	-	-	-	-	-	-
Field_ID	**Location**	**Applicable RBC for Location**	**Sampled_Date-Time**									
BMW1	Lot 4		29/08/2019	**380**	<50	140	<50	**140**	<1	<1	<1	**0.048**
	Lot 4		5/03/2020	**360**	<50	<100	<50	<50	<1	<1	<1	**0.053**
	Lot 4		6/03/2020	-	-	-	-	-	-	-	-	-
BMW2	Lot 4		16/01/2019	**310**	<50	<100	<50	<50	<1	<1	<1	**0.16**
	Lot 4		29/08/2019	**280**	<50	<100	<50	<50	<1	<1	<1	**0.152**
	Lot 4		5/03/2020	**260**	<50	<100	70	70	<1	<1	<1	**0.146**
	Lot 4		6/03/2020	-	-	-	-	-	-	-	-	-
CMW1	Lot 3		16/01/2019	**280**	<50	<100	<50	<50	<1	<1	<1	**0.012**
	Lot 3		3/03/2020	**30**	-	-	-	-	<1	<1	<1	**0.011**
	Lot 3		6/03/2020	-	-	-	-	-	-	-	-	-
MW22	Lot 2 (North south driveway)		16/01/2019	**5650**	<50	<100	<50	<50	<10	<10	<10	**0.095**
	Lot 2 (North south driveway)		3/03/2020	**1280**	<50	120	<50	120	<1	<1	<1	**0.042**
	Lot 2 (North south driveway)		6/03/2020	-	-	-	-	-	-	-	-	-
MW23A	Lot 3		3/03/2020	-	-	-	-	-	<1	<1	<1	<0.001
	Lot 3		6/03/2020	-	-	-	-	-	-	-	-	
MW24AR	Lot 2 (Source)	Open space RBC	17/01/2019	**15,100**	<50	<100	<50	<50	<100	<100	<100	**0.331**
	Lot 2 (Source)	Open space RBC	11/04/2019	**18,000**	<50	<100	<50	<50	<100	<100	<100	**0.359**
	Lot 2 (Source)	Open space RBC	29/08/2019	<20	<50	<100	<50	<50	<1	<1	<1	**0.007**
	Lot 2 (Source)	Open space RBC	4/03/2020	**3490**	**110**	**160**	<50	**270**	<1	<1	4	**0.47**
MW24BR	Lot 2 (Source)	Open space RBC	17/01/2019	**1540**	**<50**	**170**	<50	**170**	<1	<1	<1	**0.014**
	Lot 2 (Source)	Open space RBC	10/04/2019	**1380**	**<50**	**130**	<50	**130**	<1	<1	<1	**0.018**
	Lot 2 (Source)	Open space RBC	30/08/2019	**800**	**130**	**140**	<50	**270**	<1	<1	<1	**0.021**
	Lot 2 (Source)	Open space RBC	4/03/2020	**2390**	**<50**	**130**	<50	**130**	<1	<1	<1	**0.06**
	Lot 2 (Source)	Open space RBC	6/03/2020	-	-	-	-	-	-	-	-	-
MW24CR	Lot 2 (Source)	Open space RBC	17/01/2019	**4670**	**130**	**300**	<50	**430**	<10	<10	<10	<0.01
	Lot 2 (Source)	Open space RBC	11/04/2019	<20	<50	<100	<50	<50	<1	<1	<1	**0.013**
	Lot 2 (Source)	Open space RBC	29/08/2019	**290**	**200**	**140**	<50	**340**	<1	<1	<1	**0.089**
	Lot 2 (Source)	Open space RBC	4/03/2020	**1030**	**360**	**200**	<50	**560**	<1	<1	<1	**0.052**
MW25	Off Site (Down Gradient)	Open space RBC	16/01/2019	**14,600**	<50	<100	<50	<50	<100	<100	<100	<0.1
	Off Site (Down Gradient)	Open space RBC	10/04/2019	**14,200**	<50	<100	<50	<50	<100	<100	<100	<0.1
MW26	Off Site (Down Gradient)	Open space RBC	16/01/2019	**129,000**	<50	110	<50	**110**	<100	<100	<100	**0.452**
	Off Site (Down Gradient)	Open space RBC	11/04/2019	**136,000**	<50	<100	<50	<50	<100	<100	<100	**0.415**
MW29	Lot 3 (off-site)		5/03/2020	<20	-	-	-	-	<1	<1	<1	<0.001
MW30	Lot 3 (off-site)		3/03/2020	<20	**190**	**190**	**300**	**680**	<1	<1	<1	<0.001
MW30	Lot 3 (off-site)		6/03/2020	-	-	-	-	-	-	-	-	-
MW31	Lot 2 (Up-Gradient)		4/03/2020	**560**	<50	<100	<50	<50	<1	<1	<1	**0.033**
MW32	Lot 2 (Up Gradient)	Open space RBC	16/01/2019	**500**	<50	<100	<50	<50	<1	<1	<1	**0.047**
	Lot 2 (Up Gradient)	Open space RBC	3/03/2020	**60**	<50	<130	<50	<50	<1	<1	<1	**0.002**
	Lot 2 (Up Gradient)	Open space RBC	6/03/2020	-	-	-	-	-	-	-	-	-
MW34A	Off Site (Down Gradient)	Open space RBC	17/01/2019	**58,400**	<50	<100	<50	<50	<100	<100	<100	**0.525**
	Off Site (Down Gradient)	Open space RBC	10/04/2019	**53,400**	<50	<100	<50	<50	<100	<100	<100	**0.602**
	Off Site (Down Gradient)	Open space RBC	19/09/2019	**820**	**130**	**220**	<50	**350**	-	-	5	**0.405**
	Off Site (Down Gradient)	Open space RBC	5/03/2020	**49,600**	**200**	<100	<50	**200**	<100	<100	<100	**0.808**
	Off Site (Down Gradient)	Open space RBC	6/03/2020	-	-	-	-	-	-	-	-	-
MW34B	Off Site (Down Gradient)	Open space RBC	16/01/2019	**26,800**	<50	**100**	<50	**100**	<100	<100	<100	**0.272**
	Off Site (Down Gradient)	Open space RBC	17/01/2019	-	-	-	-	-	-	-	-	-
	Off Site (Down Gradient)	Open space RBC	10/04/2019	**27,800**	<50	<100	<50	<50	<100	<100	<100	**0.21**
	Off Site (Down Gradient)	Open space RBC	19/09/2019	**670**	<50	**150**	<50	**150**	-	-	3	**0.206**
	Off Site (Down Gradient)	Open space RBC	5/03/2020	**5,680**	<50	<100	<50	<50	<1	<1	<1	**0.162**
MW35	Lot 2 (Up Gradient)	Open space RBC	28/08/2019	**15,400**	<50	**110**	<50	**110**	<1	<1	<1	**0.087**
	Lot 2 (Up Gradient)	Open space RBC	4/03/2020	**4,460**	<50	<100	<50	<50	<1	<1	<1	**0.056**
MW38	Lot 4		29/08/2019	<20	<50	<100	<50	<50	<1	<1	<1	<0.001
	Lot 4		4/03/2020	<20	<50	<100	<50	<50	<1	<1	<1	<0.001
	Lot 4		6/03/2020	-	-	-	-	-	-	-	-	-
MW39	Lot 2		15/01/2019	<20	<50	**360**	**240**	**600**	<1	<1	<1	**0.004**
	Lot 2		4/03/2020	**140**	<50	<100	<50	<50	<1	<1	<1	**0.006**
	Lot 2		6/03/2020	-	-	-	-	-	-	-	-	-
MW41	Lot 2 (Off-site)		15/01/2019	<20	<50	100	<50	100	<1	<1	<1	<0.001
MW41R	Lot 2 (Off-site)		2/04/2020	<20	<50	100	<50	100	<1	<1	<1	**0.005**
MW42	Lot 2 (Off-site)		15/01/2019	<20	<50	<100	<50	<50	<1	<1	<1	<0.001

ANALYTE				TPH					VOCs			
				C6-C9	C10-C14	C15-C28	C29-C36	C10-C36	cis-1,4-Dichloro-2-butene	trans-1,4-Dichloro-2-butene	Pentachloroethane	Trihalomethanes
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
EQL				20	50	100	50	50	1	1	1	0.001
Potable Water Supply												
Primary Contact Recreation												
Stock Watering												
Agriculture, Parks and Gardens												
Maintenance of Ecosystems												
Buildings and Structures												
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand, >8m												
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, >8m												
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >8m												
EnRiskS RBC:	Slab on grade: warehouses			-	-	-	-	-	-	-	-	-
	Slab on grade: multistory offices			-	-	-	-	-	-	-	-	-
	Commercial with 1 level basement car park			-	-	-	-	-	-	-	-	-
	Commercial with 2 levels basement car park			-	-	-	-	-	-	-	-	-
	Commercial with 3 levels basement car park			-	-	-	-	-	-	-	-	-
	Open space RBC			-	-	-	-	-	-	-	-	-
Field_ID	Location	Applicable RBC for Location	Sampled_Date-Time									
MW42	Lot 2 (Off-site)		29/08/2019	<20	<50	<100	<50	<50	<1	<1	<1	**0.002**
MW42R	Lot 2 (Off-site)		2/04/2020	<20	<50	100	<50	100	<1	<1	<1	<0.001
MW50A	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	**830**	<50	<100	<50	<50	<1	<1	<1	**0.253**
	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	**1150**	<50	<100	<50	<50	<1	<1	<1	**0.263**
	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	**1680**	<50	130	<50	130	<1	<1	<1	**0.321**
	Lot 3 (Cross Gradient)	Open space RBC	3/03/2020	**1000**	<50	<100	<50	<50	<1	<1	<1	**0.379**
	Lot 3 (Cross Gradient)	Open space RBC	6/03/2020	-	-	-	-	-	-	-	-	-
MW50B	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	**29,100**	<50	<100	<50	<50	<100	<100	<100	**0.401**
	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	**8830**	<50	<100	<50	<50	<10	<10	<10	**0.279**
	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	**40,900**	<50	<100	<50	<50	<1	<1	<1	**0.336**
MW50C	Lot 3 (Cross Gradient)	Open space RBC	16/01/2019	**28,900**	<50	<100	<50	<50	<100	<100	<100	**0.149**
	Lot 3 (Cross Gradient)	Open space RBC	10/04/2019	**40,100**	<50	<100	<50	<50	<100	<100	<100	**0.21**
	Lot 3 (Cross Gradient)	Open space RBC	30/08/2019	**55,200**	<50	**110**	<50	**110**	<1	<1	<1	**0.242**
MW51	Lot 2 (Off-Site)	Open space RBC	16/01/2019	**270**	<50	<100	<50	<50	<1	<1	<1	<0.001
	Lot 2 (Off-Site)	Open space RBC	30/08/2019	**60**	<50	<100	<50	<50	<1	<1	<1	<0.001
	Lot 2 (Off-Site)	Open space RBC	2/03/2020	170	<50	<100	<50	<50	<1	<1	<1	<0.001
MW53			15/01/2019	<20	<50	<100	<50	<50	<1	<1	<1	<0.001
MW56	Lot 2 (Off-site)		14/01/2019	<20	<50	<100	<50	<50	<1	<1	<1	<0.001
	Lot 2 (Off-site)		2/03/2020	<20	<50	<100	<50	<50	<1	<1	<1	<0.001
MW57	Lot 2 (Off-site)		15/01/2019	<20	<50	<100	<50	<50	<1	<1	<1	<0.001
	Lot 2 (Off-site)		2/03/2020	<20	<50	520	280	800	<1	<1	<1	<0.001
MW58	Lot 2 (Off-site)		15/01/2019	<20	<50	<100	<50	<50	<1	<1	<1	<0.001
	Lot 2 (Off-site)		4/03/2020	<20	<50	<100	<50	<50	<1	<1	<1	<0.001
	Lot 2 (Off-site)		6/03/2020	-	-	-	-	-	-	-	-	-

Notes
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S' Denotes derived RBC significantly exceeds the solubility of the VOC
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Derived Groundwater Risk Based Contminant Screening Levels (Commercial, Slab on grade: mu
S: Derived RBC significantly exceeds the solubility of the VOC

Table H1 Summary of Final Groundwater Condition (µg/L)

Analyte	Concentration Range (µg/L)					Water dependent ecosystems and species[1]	Potable water supply[2]	Agriculture and irrigation (irrigation)[3]	Agriculture and irrigation (stock watering)[4]	Water based recreation (primary contact recreation)[5]	Traditional Owner cultural values[1]	Cultural and spiritual values[1]	Buildings and structures[6]	Human Health – Vapour Intrusion			Calculated RBC (slab on grade multi storey office)
	Off-site Up-gradient (Regional)^	Off-site Up/cross-gradient (Nuplex Lot 1 & 2) ^^	On-site^^^	MW50A, MW50B, MW50C	Off-site Down-gradient^^^^									On-site: HSL A/B[7]	On-site: Intrusive Maint. Worker[4]	Off-site: HSL A/B[5]	
Analytes considered by the Auditor to be naturally occurring																	
pH	5.5 - 6.8	2.2 – 10.7	4.5 – 6.1	5.1 – 6.2	5.6 – 6.8	7.5-8.5	6.5-8.5	6-8.5	6.5-8.5	6.5-8.5	7.5-8.5	7.5-8.5	>5.5	NE	NE	NE	NE
Sodium	117,000 – 214,000	49,000 – 833,000	42,000 – 1,350,000	471,000 – 701,000	63,000 – 1,100,000	NE	180,000#	115,000[21]	NE	180,000#	NE	NE	NE	NE	NE	NE	NE
Chloride	33,000 – 46,000	25,000 – 1,270,000	20,000 – 2,680,000	700,000 – 1,380,000	14,000 – 1,670,000	NE	250,000#	25,000[20]	NE	250,000#	NE	NE	6,000,000	NE	NE	NE	NE
Sulphate	190,000 – 454,000	26,000 – 413,000	8,000 - 329,000	163,000 – 380,000	12,000 – 485,000	NE	500,000/ 250,000#	1,000,000	1,000,000	250,000#	NE	NE	1,000,000	NE	NE	NE	NE
Copper	1 - 2	<1 - 8	1 - 11	5 – 7	<1 - 12	1.3	2,000/1,000#	200	400	20,000/1,000#	1.3	1.3	NE	NE	NE	NE	NE
Zinc	22 - 44	<5 - 622	33 - 65	95 – 138	10 - 199	15	3,000	2,000	20,000	3,000#	15	15	NE	NE	NE	NE	NE
Analytes considered by the Auditor to be regional in nature or from an upgradient / off-site source																	
Arsenic	2 - 9	1 - 36	2 - 96	<1 – 2	4 – 114	13^[10] (AsV)	10	100	500	100	13^[10] (AsV)	13^[10] (AsV)	NE	NE	NE	NE	NE
Cobalt	<1 - 2	<1 - 52	<1 - 8	10 – 22	<1 - 10	1	6[9]	50	1,000	60[9]	1	1	NE	NE	NE	NE	NE
Iron	80 - 190	<50 – 1,210	<50 – 4,830	<50 - 100	<50 – 12,700	NE	300#	200	Not toxic	300#	NE	NE	NE	NE	NE	NE	NE
Lead	<1 - 6	<1 - 28	<1 - 7	<1	<1 – 15	4.4	10	2,000	100	100	4.4	4.4	NE	NE	NE	NE	NE
Nickel	41 - 58	2 - 41	13 - 59	52 – 70	3 – 95	70	20	200	1,000	200	70	70	NE	NE	NE	NE	NE
Ammonia (as N)	30 - 80	30 - 810	30 - 440	30 – 340	<10 - 830	910	412	NE	412[2]	412	910	910	NE	NE	NE	NE	NE
Nitrate (as N)	550 – 16,400	<10 – 40,800	140 – 33,100	1,470 – 44,800	<10 – 13,800	2,400[15]	11,286	NE	90,293	112,866	2,400[15]	2,400[15]	NE	NE	NE	NE	NE
Trichloroethene	<1	3 – 14,000	<1 - 352	1,920 – 56,500	<1 – 70	330[10]	30[18]/2.8[9]	NE	30[18]/2.8[10]	30[18]/2.8[10]	330[10]	330[10]	NE	NE	NE	NE	8,000
Vinyl chloride	<0.2	<0.2 – 9.6 (<20)	<0.2 – 0.6	1.1 – 6.1	<0.2 – 11.6	930[12]	0.3	NE	0.3[2]	0.3	930[12]	930[12]	NE	NE	NE	NE	4,000
1,1-dichloroethane	<1	<1 – 1 (<100)	<1 – 29	6 -78	<0.1 - 9	250[10]	2.8[9]	NE	2.8[9]	2.8[9]	250[10]	250[10]	NE	NE	NE	NE	830,000

Analyte	Concentration Range (µg/L)					Water dependent ecosystems and species[1]	Potable water supply[2]	Agriculture and irrigation (irrigation)[3]	Agriculture and irrigation (stock watering)[4]	Water based recreation (primary contact recreation)[5]	Traditional Owner cultural values[1]	Cultural and spiritual values[1]	Buildings and structures[6]	Human Health – Vapour Intrusion			Calculated RBC (slab on grade multi storey office)
	Off-site Up-gradient (Regional)^	Off-site Up/cross-gradient (Nuplex Lot 1 & 2) ^^	On-site^^^	MW50A, MW50B, MW50C	Off-site Down-gradient^^^^									On-site: HSL A/B[7]	On-site: Intrusive Maint. Worker[4]	Off-site: HSL A/B[5]	
1,1-dichloroethene	<1	<1 – 7	<1 – 31	34 – 92	<1 – 50	700[10]	30	NE	30[2]	30	700[10]	700[10]	NE	NE	NE	NE	420,000
Carbon Tetrachloride	<1	<1 - 184	<1 - 36	3 – 10	<1 - <1	240[12]	3	NE	5[18]	3	240[12]	240[12]	NE	NE	NE	NE	10,000
1,1,2-trichloroethane	<1	<1 – 6 (<100)	<1 – 4	3 – 29	<1 - 1	1,900[10]	0.41[9]	NE	0.41[9]	0.41[9]	1,900[10]	1,900[10]	NE	NE	NE	NE	150,000
1,2-dichlorobenzene	<0.1	<0.1 - <10	<0.1 - 71	4 -15	<1 - <1	160[10]	1,500/1[#]	NE	1,500/1[2#]	1,500/1[#]	160[10]	160[10]	NE	NE	NE	NE	NE
1,4-dichlorobenzene	<0.1	<0.1 – 0.2 (<1.0)	<0.1 – 5.5	0.3 – 2.8	<0.1 – <0.1	60[10]	40/0.3[#]	NE	40/0.3[2#]	40/0.3[#]	60[10]	60[10]	NE	NE	NE	NE	NE
TRH C6-C10	<20	<20 – 14,800	<20 - 380	1,610 – 53,750	<20 – 320	NE	300[11]	NE	NE	300[11]	NE	NE	NE	1,000	NL	1,000	NE
TRH >C10-C40 (sum)	<100	<100 – 320	<100 – 150	<100 – 130	<100 - 120	600[14]	600[14]	600[14]	600[14]	600[14]	600[14]	600[14]	NE	NE	NE	NE	NE
Benzene	<1 - <1	<1 - 1	<1 – 1	<1 – 5	<1 - 15	700	1	NE	1[2]	1	700	700	NE	800	NL	800	700
Toluene	<1 - <1	<1	<1	<1 – 6	<1 - 23	180[10]	800/25[#]	NE	800/25[2#]	800/25[#]	180[10]	180[10]	NE	NL	NL	NL	180[10]
Ethylbenzene	<1 - <1	<1	<1	<1	<1 - 38	180[10]	800/25[#]	NE	800/25[2#]	800/25[#]	180[10]	180[10]	NE	NL	NL	NL	180[10]
Total xylenes	<1 - <1	<1	<1	<1 – 24	<1 - 97	NE	600/20[#]	NE	600/20[2#]	600/20[#]	NE	NE	NE	NL	NL	NL	NE
1,2-dichloroethane	<1	<1 - 453	<1	6 – 599	0.2 - <1	1,900[10]	3	NE	3[2]	3	1,900[10]	1,900[10]	NE	NE	NE	NE	30,000
Dichloromethane	<2	<2 – 30	<2	7 - 520	<2	98[18]	4	NE	4[2]	4	98[18]	98[18]	NE	NE	NE	NE	1,500,000
Chloroform	<1	2 – 504	<1 - 152	242 - 336	<1 - 12	370[10]	250	NE	250[2]	250	370[10]	370[10]	NE	NE	NE	NE	420,000
Cis-1,2-dichloroethene	<1	7 - 408	<1 - 21	180 – 399	<1 - 9	NE	60	NE	60[2]	60	NE	NE	NE	NE	NE	NE	37,000
Tetrachloroethene	<1	<1 – 474	<1 – 8	30 – 1,090	<1 - 19	70[10]	50	NE	50[2]	50	70[10]	70[10]	NE	NE	NE	NE	720,000
Trans-1,2-dichloroethene	<1	<1 – 13	<1	<1 – 6	<1 - <1	970 ('trans' only)[12]	60	NE	60[2]	60	970 ('trans' only)[12]	970 ('trans' only)[12]	NE	NE	NE	NE	970 ('trans' only)[12]

Analyte	Concentration Range (µg/L)					Water dependent ecosystems and species[1]	Potable water supply[2]	Agriculture and irrigation (irrigation)[3]	Agriculture and irrigation (stock watering)[4]	Water based recreation (primary contact recreation)[5]	Traditional Owner cultural values[1]	Cultural and spiritual values[1]	Buildings and structures[6]	Human Health – Vapour Intrusion			Calculated RBC (slab on grade multi storey office)
	Off-site Up-gradient (Regional)^	Off-site Up/cross-gradient (Nuplex Lot 1 & 2) ^^	On-site^^^	MW50A, MW50B, MW50C	Off-site Down-gradient^^^^									On-site: HSL A/B[7]	On-site: Intrusive Maint. Worker[4]	Off-site: HSL A/B[5]	
Acetone	<10	<10 – 40 (<1000)	<10	<0.01 - <1	<0.01 - <0.01	NE	14,000[9]	NE	14,000[9]	14,000[9]	NE	NE	NE	NE	NE	NE	NE
Carbon disulfide	<1	<1 – <100	<1	<1 - <100	<1 - <1	20[10]	810	NE	810[2]	810	20[10]	20[10]	NE	NE	NE	NE	20[10]
Chlorobenzene	<1	<1 - <100	<1 - 6	1 – 4	<1 - 1	55[10]	300/10[#]	NE	300/10[2#]	300/10[#]	55[10]	55[10]	NE	NE	NE	NE	55[10]
Trihalomethanes	<1	2 - 504	<1 – 152	242 - 336	<1 - 12	NE	250	NE	250[2]	250	NE	NE	NE	NE	NE	NE	NE

Notes:

1: ANZECC (2000 revised 2018) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. 95% trigger values for marine water.

2: NHMRC/NRMMC (2011 updated August 2018) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria).

3: ANZECC (2000 revised 2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Water Quality for Irrigation and General Water Use – Long-term Trigger Values. Unless otherwise specified.

4: ANZECC (2000 revised 2018) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Livestock Drinking Water" – Unless otherwise specified.

5: NHMRC/NRMMC (2008) Guidelines for Managing Risks in Recreational Water (Health / Aesthetic: # denotes aesthetic criteria). Unless otherwise specified. Adjusted by a factor of 10 in accordance with advice from NHMRC (2008). Adjustment was only applied to non-volatile chemicals.

6: Australian Standard AS2159-2009 Piling Design and Installation.

7: NEPC (2013) Health Screening Levels – Groundwater HSL-A (Low Density Residential) for Sand 2 to <4m.

8: NEPC (2013) Health Screening Levels – Groundwater HSL-A (Intrusive Maintenance Worker) for Sand 2 to <4m, adopted for information purposes only.

9: US EPA (November 2018) Regional Screening Levels for Tap Water. Adjusted to be consistent with Australian cancer risk policy. Adjusted by a factor of 10 in accordance with advice from NHMRC (2008) (adjustment was only applied to non-volatile chemicals).

10: ANZECC (2000 revised 2018) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Marine Low Reliability Trigger Levels.

11: WHO (2005a) Note the values are based on health effects via ingestion and do not include aesthetic effects.

12: US EPA (2003) Region 5 Ecological Screening Levels.

13: Guideline for chromium VI adopted.

14: Netherlands (2009) Circular on Target Values and Intervention Values for Soil Remediation. Ministry of Housing, Spatial Planning and the Environment, Netherlands Government (Groundwater Intervention Value).

15: NIWA (2013) Site-specific nitrate guidelines for Hawke's Bay, 95% protection.

16: NSW EPA (1994) Guidelines for Assessing Service Station Sites

17: ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters – Raw Water criteria.

18: CCME (2007) Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture - Freshwater or Livestock criteria.

19: ANZECC (2000 revised 2018) Long term trigger value for total nitrogen.

20: ANZECC (2000 revised 2018) Adopted range for chloride concentration is based on foliar injury to sensitive crops as detailed in Section 4.2.5.2 and Table 4.2.6.

21: ANZECC (2000 revised 2018) Adopted concentration range for sodium is based on Table 4.2.8 for the prevention of foliar injury to crops.

22: WHO (2005b). Odour threshold for MTBE in water.

23: ANZECC (2000 revised 2018) Long term trigger value for total nitrogen

#: Denotes Aesthetic number. NHMRC/NRMMC (2011 updated 2018) and NHMRC/NRMMC (2008).

NE: Not Established.

NL: Not Limiting. Denotes that a groundwater vapour source concentration for a petroleum mixture could not exceed a level that would result in the maximum allowable vapour risk for the given scenario.

S: derived RBC significantly exceeds the solubility of the VOC

All values in ug/L

^ Off-site groundwater monitoring wells considered to be representative of up-gradient regional conditions: MW20, MW27, MW28

^^ Off-site groundwater monitoring wells considered to be representative of up-gradient conditions within Lot 1 and Lot 2 of the former Nuplex facility: MW22, MW24AR, MW24BR, MW24CR, MW31, MW32, MW35, MW36, MW37, MW39, MW45A, MW45B. Results from 2019 sampling undertaken as part of Lot 2 on-going groundwater management adopted.

^^^ On-site groundwater monitoring wells: MW21, MW38, BMW1, BMW2

^^^^ Off-site groundwater monitoring wells considered to be representative of down-gradient conditions: CMW1, MW02A, MW17B, MW23A, MW52, MW53, MW55, MW59

( ) detectable concentration shown where laboratory detection limit was higher in certain wells.

Table H2 Summary of Groundwater Condition (µg/L) – All Rounds Undertaken During the Audit (January 2017 – August 2019)

Analyte	Concentration Range (µg/L)					Water dependent ecosystems and species[1]	Potable water supply[2]	Agriculture and irrigation (irrigation)[3]	Agriculture and irrigation (stock watering)[4]	Water based recreation (primary contact recreation)[5]	Traditional Owner cultural values[1]	Cultural and spiritual values[1]	Buildings and structures[6]	Human Health – Vapour Intrusion			Calculated RBC
	Off-site Up-gradient (Regional)^	Off-site Up/cross-gradient (Nuplex Lots 1 & 2) ^^	On-site^^^	MW50A, MW50B, MW50C	Off-site Down-gradient^^^^									On-site: HSL A/B[7]	On-site: Intrusive Maint. Worker[4]	Off-site: HSL A/B[5]	
Analytes considered by the Auditor to be natural in nature and hence not pollution																	
pH	5.5 – 6.8	2.2 – 11.4	4.3 – 6.8	5.1 – 7.3	5.4 – 6.9	7.5-8.5	6.5-8.5	6-8.5	6.5-8.5	6.5-8.5	7.5-8.5	7.5-8.5	>5.5	NE	NE	NE	NE
Sodium	108,000 – 281,000	18,000 – 1,030,000	38,000 – 1,640,000	189,000 – 834,000	63,000 – 1,360,000	NE	180,000#	115,000[21]	NE	180,000#	NE	NE	NE	NE	NE	NE	NE
Chloride	21,000 – 46,000	14,000 – 1,680,000	19,000 – 2,760,000	242,000 – 1,620,000	12,000 – 2,120,000	NE	250,000#	25,000[20]	NE	250,000#	NE	NE	6,000,000	NE	NE	NE	NE
Sulphate	183,000 – 454,000	12,000 – 450,000	8,000 - 332,000	95,000 – 380,000	11,000 – 490,000	NE	500,000/ 250,000#	1,000,000	1,000,000	250,000#	NE	NE	1,000,000	NE	NE	NE	NE
Copper	<1 - 4	<1 - 43	<1 – 11	<1 – 117	<1 – 87	1.3	2,000/1,000#	200	400	20,000/1,000#	1.3	1.3	NE	NE	NE	NE	NE
Zinc	<5 - 52	<5 - 622	14 – 145	5 – 248	<5 - 199	15	3,000	2,000	20,000	3,000#	15	15	NE	NE	NE	NE	NE
Analytes considered by the Auditor to be regional in nature or from an upgradient / off-site source																	
Arsenic	<1 - 9	<1 - 36	1 - 142	<1 – 3	<1 - 155	13^[10] (AsV)	10	100	500	100	13^[10] (AsV)	13^[10] (AsV)	NE	NE	NE	NE	NE
Cobalt	<1 - 2	<1 - 52	<1 - 17	4 – 27	<1 – 10	1	6[9]	50	1,000	60[9]	1	1	NE	NE	NE	NE	NE
Iron	<50 - 190	<50 – 4,750	<50 – 7,510	<50 - 180	<50 – 12,700	NE	300#	200	Not toxic	300#	NE	NE	NE	NE	NE	NE	NE
Lead	<1 - 6	<1 - 28	<1 - 17	<1 – 5	<1 – 15	4.4	10	2,000	100	100	4.4	4.4	NE	NE	NE	NE	NE
Mercury	<0.1 – <0.1	<0.1 – 0.6	<0.1 – 1.3	<0.1 – 0.6	<0.1 – 0.2	0.4	1	2	2	10	0.4	0.4	NE	NE	NE	NE	NE
Nickel	1 - 58	<1 - 103	4 - 59	6 – 175	1 – 1,100	70	20	200	1,000	200	70	70	NE	NE	NE	NE	NE
Ammonia (as N)	<10 - 80	<10 - 810	<10 - 640	40 - 390	<10 - 830	910	412	NE	412[2]	412	910	910	NE	NE	NE	NE	NE
Nitrate (as N)	550 – 16,400	40 – 52,300	140 – 33,100	1,470 – 72,600	<10 – 17,500	2,400[15]	11,286	NE	90,293	112,866	2,400[15]	2,400[15]	NE	NE	NE	NE	NE
Trichloroethene	<1	1 – 39,800	<1 - 352	564 - 77,200	<1 – 105	330[10]	30[18]/2.8[9]	NE	30[18]/2.8[10]	30[18]/2.8[10]	330[10]	330[10]	NE	NE	NE	NE	8,000
Vinyl chloride	<0.2	<0.2 – 10.0	<0.2 – 11.9	0.4 – 6.1	<0.2 – 12.6	930[12]	0.3	NE	0.3[2]	0.3	930[12]	930[12]	NE	NE	NE	NE	4,000
1,1-dichloroetha	<1	<1 – 165	<1 – 29	5 - 184	<0.1 - 9	250[10]	2.8[9]	NE	2.8[9]	2.8[9]	250[10]	250[10]	NE	NE	NE	NE	830,000
1,1-dichloroethene	<1	<1 - 577	<1 - 58	11 - 195	<1 - 70	700[10]	30	NE	30[2]	30	700[10]	700[10]	NE	NE	NE	NE	420,000

Analyte	Concentration Range (µg/L)					Water dependent ecosystems and species[1]	Potable water supply[2]	Agriculture and irrigation (irrigation)[3]	Agriculture and irrigation (stock watering)[4]	Water based recreation (primary contact recreation)[5]	Traditional Owner cultural values[1]	Cultural and spiritual values[1]	Buildings and structures[6]	Human Health – Vapour Intrusion			Calculated RBC
	Off-site Up-gradient (Regional)^	Off-site Up/cross-gradient (Nuplex Lots 1 & 2) ^^	On-site^^^	MW50A, MW50B, MW50C	Off-site Down-gradient^^^^									On-site: HSL A/B[7]	On-site: Intrusive Maint. Worker[4]	Off-site: HSL A/B[5]	
cis-1,2-Dichloroethene	<1	<1 – 10,200	<1 - 84	49 - 652	<1 - 12	NE	60	NE	60[2]	60	NE	NE	NE	NE	NE	NE	37,000
Dichloromethane	<1	<2 – 4,100	<1 - 6	3 – 5,040	<1 – <2	98[18]	4	NE	4[2]	4	98[18]	98[18]	NE	NE	NE	NE	1,500,000
Carbon Tetrachlorid	<1	<1 - 593	<1 - 165	<1 – 10	<0.05 – <1	240[12]	3	NE	5[18]	3	240[12]	240[12]	NE	NE	NE	NE	10,000
1,2-dichlorobenz	<1	<1 – 6 (<10)	<1 - 71	2 - 30	<0.1 – 3	160[10]	1,500/1[#]	NE	1,500/1[2#]	1,500/1[#]	160[10]	160[10]	NE	NE	NE	NE	S
1,4-dichlorobenz	<0.1	<0.1 – 0.6 (<1.0)	<0.1 – 5.5	0.2 – 4.8	<0.1 – 0.5	60[10]	40/0.3[#]	NE	40/0.3[2#]	40/0.3[#]	60[10]	60[10]	NE	NE	NE	NE	S
Benzene	<1	<1 – 27	<1 - 2	1 – 10	<0.05 – 15	700	1	NE	1[2]	1	700	700	NE	800	NL	800	700
TRH C_6-C_{10}	<20	<20 – 61,000	<20 - 420	<20 – 64,600	<20 – 320	NE	300[11]	NE	NE	300[11]	NE	NE	NE	1,000	NL	1,000	NE
Analytes not reported as pollution on Lot 4																	
TRH >C10-C40 (sum)	<100	<100 – 6,540	<100 - 150	<100 - 470	<100 - 120	600[14]	600[14]	600[14]	600[14]	600[14]	600[14]	600[14]	NE	NE	NE	NE	NE
Toluene	<1 – <2	<1 – 4,100	<1 – 5	<1 - 70	<0.05 – 23	180[10]	800/25[#]	NE	800/25[2#]	800/25[#]	180[10]	180[10]	NE	NL	NL	NL	180[10]
Ethylbenzene	<1 - <2	<1 – 41	<1 - <2	<1 – 8	<0.05 – 38	5[10]	300/3[#]	NE	300/3[2#]	300/3[#]	5[10]	5[10]	NE	NL	NL	NL	5[10]
Xylene (m&p)	<1 - <2	<1 – 29	<1 - <2	<1 - 37	<0.05 – 71	75[10] (m) / 200[10] (p)	190[9]	NE	190[9]	190[9]	75[10] (m) / 200[10] (p)	75[10] (m) / 200[10] (p)	NE	NE	NE	NE	75[10] (m) / 200[10] (p)
Xylene (o)	<1 - <2	<1 - 28	<1 - <2	<1 – 23	<0.05 – 26	350[10]	190[9]	NE	190[9]	190[9]	350[10]	350[10]	NE	NE	NE	NE	350[10]
Xylenes (total)	<1	<1 - 45	<1	<1 - 60	<0.05 – 97	NE	600/20[#]	NE	600/20[2#]	600/20[#]	NE	NE	NE	NL	NL	NL	NE
1,1,1-trichloroethane	<1	<1 – 9 (<100)	<1	<1 - <100	<1 - <1	270[10]	8,000[9]	NE	8,000[9]	8,000[9]	NE	NE	NE	NE	NE	NE	S
1,1,2-trichloroethane	<1	<1 – 196	<1	<1 – 37	<0.1 – 1	1,900[10]	0.41[9]	NE	0.41[9]	0.41[9]	1,900[10]	1,900[10]	NE	NE	NE	NE	150,000
1,2-dichloroethane	<1	<1 – 4,530	<1	<1 - 800	<0.1 – 0.2	1,900[10]	3	NE	3[2]	3	1,900[10]	1,900[10]	NE	NE	NE	NE	30,000
Chloroform	<1	<1 – 1,660	<1 - 152	6 – 599	<0.1 - 14	370[10]	250	NE	250[2]	250	370[10]	370[10]	NE	NE	NE	NE	420,000

Analyte	Concentration Range (µg/L)					Water dependent ecosystems and species[1]	Potable water supply[2]	Agriculture and irrigation (irrigation)[3]	Agriculture and irrigation (stock watering)[4]	Water based recreation (primary contact recreation)[5]	Traditional Owner cultural values[1]	Cultural and spiritual values[1]	Buildings and structures[6]	Human Health – Vapour Intrusion			Calculated RBC
	Off-site Up-gradient (Regional)^	Off-site Up/cross-gradient (Nuplex Lots 1 & 2) ^^	On-site^^^	MW50A, MW50B, MW50C	Off-site Down-gradient^^^^									On-site: HSL A/B[7]	On-site: Intrusive Maint. Worker[4]	Off-site: HSL A/B[5]	
Tetrachloroethene	<1	<1 – 494	<1 – 13	5 – 1,540	<0.05 – 19	70[10]	50	NE	50[2]	50	70[10]	70[10]	NE	NE	NE	NE	720,000
Trans-1,2-dichloroethene	<1	<1 – 35	<1	<1 - 6	<1 - <1	970 ('trans' only)[12]	60	NE	60[2]	60	970 ('trans' only)[12]	970 ('trans' only)[12]	NE	NE	NE	NE	970 ('trans' only)[12]
Methyl Ethyl Ketone	<10	<10 – 44,400	<10	<0.01 - <1,000	<0.01 - <10	2,200[12]	5,600[9]	NE	5,600[9]	5,600[9]	2,200[12]	2,200[12]	NE	NE	NE	NE	2,200[12]
Acetone	<0.01	<0.01 – 66,000	<10	<10 - 20	<10 – 20	NE	14,000[9]	NE	14,000[9]	14,000[9]	NE	NE	NE	NE	NE	NE	NE
Carbon disulfide	<1	<1 – 2 (<100)	<1	<1 - <100	<1 <100	20[10]	810	NE	810[2]	810	20[10]	20[10]	NE	NE	NE	NE	20[10]
Chlorobenzene	<1	<1 - 369	<1 - 6	1 – 4 (<100)	<0.1 – 1	55[10]	300/10[#]	NE	300/10[2#]	300/10[#]	55[10]	55[10]	NE	NE	NE	NE	55[10]
Trihalomethanes	<1	<1 – 1,660	<1 – 152	70 – 544	<0.1 – 14	NE	250	NE	250[2]	250	NE	NE	NE	NE	NE	NE	NE
Formaldehyde	<2	<2 – 2.4	<2 – 6	<2 - 2	<2 – 7.8	NE	500	NE	500[2]	500	NE	NE	NE	NE	NE	NE	NE
Ethanol	<50	<50 – 131	<50	<50	<50	1,400[10]	800	NE	800	800	1,400[10]	1,400[10]	NE	NE	NE	NE	NE
4-methyl-2-pentanone	<10	<10 – 490 (<1,000)	<10	<10	<10	170[12]	6,300[9]	NE	6,300[9]	6,300[9]	170[12]	170[12]	NE	NE	NE	NE	NE

Notes:

1: ANZECC (2000 revised 2018) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. 95% trigger values for marine water.

2: NHMRC/NRMMC (2011 updated August 2018) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria).

3: ANZECC (2000 revised 2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Water Quality for Irrigation and General Water Use – Long-term Trigger Values. Unless otherwise specified.

4: ANZECC (2000 revised 2018) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Livestock Drinking Water" – Unless otherwise specified.

5: NHMRC/NRMMC (2008) Guidelines for Managing Risks in Recreational Water (Health / Aesthetic: # denotes aesthetic criteria). Unless otherwise specified. Adjusted by a factor of 10 in accordance with advice from NHMRC (2008). Adjustment was only applied to non-volatile chemicals.

6: Australian Standard AS2159-2009 Piling Design and Installation.

7: NEPC (2013) Health Screening Levels – Groundwater HSL-A (Low Density Residential) for Sand 2 to <4m.

8: NEPC (2013) Health Screening Levels – Groundwater HSL-A (Intrusive Maintenance Worker) for Sand 2 to <4m, adopted for information purposes only.

9: US EPA (November 2018) Regional Screening Levels for Tap Water. Adjusted to be consistent with Australian cancer risk policy. Adjusted by a factor of 10 in accordance with advice from NHMRC (2008) (adjustment was only applied to non-volatile chemicals).

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11: WHO (2005a) Note the values are based on health effects via ingestion and do not include aesthetic effects.

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14: Netherlands (2009) Circular on Target Values and Intervention Values for Soil Remediation. Ministry of Housing, Spatial Planning and the Environment, Netherlands Government (Groundwater Intervention Value).

15: NIWA (2013) Site-specific nitrate guidelines for Hawke's Bay, 95% protection.

16: NSW EPA (1994) Guidelines for Assessing Service Station Sites

17: ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters – Raw Water criteria.

18: CCME (2007) Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture - Freshwater or Livestock criteria.
19: ANZECC (2000 revised 2018) Long term trigger value for total nitrogen.
20: ANZECC (2000 revised 2018) Adopted range for chloride concentration is based on foliar injury to sensitive crops as detailed in Section 4.2.5.2 and Table 4.2.6.
21: ANZECC (2000 revised 2018) Adopted concentration range for sodium is based on Table 4.2.8 for the prevention of foliar injury to crops.
22: WHO (2005b). Odour threshold for MTBE in water.
23: ANZECC (2000 revised 2018) Long term trigger value for total nitrogen
#: Denotes Aesthetic number. NHMRC/NRMMC (2011 updated 2018) and NHMRC/NRMMC (2008).
NE: Not Established.
NL: Not Limiting. Denotes that a groundwater vapour source concentration for a petroleum mixture could not exceed a level that would result in the maximum allowable vapour risk for the given scenario.
All values in ug/L
^ Off-site groundwater monitoring wells considered to be representative of up-gradient regional conditions: MW20, MW27, MW28
^^ Off-site groundwater monitoring wells considered to be representative of up-gradient conditions within Lot 1 and Lot 2 of the former Nuplex facility: MW22, MW24AR, MW24BR, MW24CR, MW31, MW32, MW35, MW36, MW37, MW39, MW45A, MW45B. Results from 2019 sampling undertaken as part of Lot 2 on-going groundwater management adopted.
^^^ On-site groundwater monitoring wells: MW21, MW38, BMW1, BMW2
^^^^ Off-site groundwater monitoring wells considered to be representative of down-gradient conditions: CMW1, MW02A, MW17B, MW23A, MW52, MW53, MW55, MW59
( ) detectable concentration shown where laboratory detection limit was higher in certain wells. .

Table I Contaminant Concentrations (µg/L) Prior to Audit (2008-2014) – Shading based on onsite criteria exceedances only.

Analyte	Concentration Range (µg/L)			Water dependent ecosystems and species[1]	Potable water supply[2]	Agriculture and irrigation (irrigation)[3]	Agriculture and irrigation (stock watering)[4]	Water based recreation (primary contact recreation)[5]	Traditional Owner cultural values[2]	Cultural and spiritual values[2]	Buildings and Structures[6]	Human Health – Vapour Intrusion			Calculated RBC
	Off-site Up-gradient^	On-site^^	Off-site Down-gradient^^^									On-site: HSL A/B[7]	On-site: Intrusive Maint. Worker[4]	Off-site: HSL A/B[5]	
pH	4.9 – 7.7	5.1 – 7.7	5.3 – 7.6	7.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	7.5-8.5	7.5-8.5	>5.5	NE	NE	NE	NE
Arsenic	<1 – 22	2 - 305	4 - 256	13[^10] (AsV)	10	100	500	100	13[^10] (AsV)	13[^10] (AsV)	NE	NE	NE	NE	NE
Cadmium	<0.1 – 59	0.03 – 1.8	<0.1 - 3	5.5	2	10	10	20	5.5	5.5	NE	NE	NE	NE	NE
Cobalt	<1 – 117	4 - 125	<1 - 6	1	6[9]	50	1,000	60[9]	1	1	NE	NE	NE	NE	NE
Copper	4 – 71	5 - 14	2 - 31	1.3	2,000/1,000[#]	200	400	20,000/1,000[#]	1.3	1.3	NE	NE	NE	NE	NE
Iron	<50 – 9,980	<50 – 30,800	<50 – 3,060	300[10]	300[#]	200	Not toxic	300[#]	300[10]	300[10]	NE	NE	NE	NE	NE
Lead	<1 – 385	<1 - 5	<1 - 8	4.4	10	2,000	100	100	4.4	4.4	NE	NE	NE	NE	NE
Manganese	<1 – 1,480	3 - 208	8 - 95	1,900[^]	500/100[#]	200	NE	5,000/100[#]	1,900[^]	1,900[^]	NE	NE	NE	NE	NE
Mercury	<0.1 – 98	<0.1 – 0.2	<0.1 - 0.1	0.4	1	2	2	10	0.4	0.4	NE	NE	NE	NE	NE
Nickel	<1 – 134	2 – 99	2 - 22	70	20	200	1,000	200	70	70	NE	NE	NE	NE	NE
Zinc	8 – 670	<5 - 197	<5 - 215	15	3,000	2,000	20,000	3,000[#]	15	15	NE	NE	NE	NE	NE
Ammonia as N	<10 – 280	<10 - 760	<10 - 300	910	412	NE	412[2]	412	412	412	NE	NE	NE	NE	NE
Nitrate as N	250 – 116,000	2,960 – 5,670	20 – 16,200	2,400[15]	11,286	NE	90,293	112,866	2,400[15]	2,400[15]	NE	NE	NE	NE	NE
Nitrite as N	<10 – 1,220	<10 - 500	<10 - 90	60[18]	912	3,040[18]	9,119	9,119	60[18]	60[18]	NE	NE	NE	NE	NE
Cyanide (total)	<4 - 820	-	<4 - 116	4[10]	80	NE	80[2]	800[2]	4[10]	4[10]	NE	NE	NE	NE	NE
Chloride	23,000 – 5,030,000	21,000 – 1,100,000	66,000 – 949,000	NE	250,000[#]	25,000[20]	NE	250,000[#]	NE	NE	6,000,000	NE	NE	NE	NE
Fluoride	<100 – 1,000	<100 - 800	<100 – 1,300	NE	1,500	1,000	2,000	15,000	NE	NE	NE	NE	NE	NE	NE
Sodium	74,000 – 1,420,000	35,000 – 729,000	211,000 – 710,000	NE	180,000[#]	115,000[21]	NE	180,000[#]	NE	NE	NE	NE	NE	NE	NE
Sulphate	1,000 – 638,000	7,000 – 243,000	<1,000 – 566,000	NE	500,000/ 250,000[#]	1,000,000	1,000,000	250,000[#]	NE	NE	1,000,000	NE	NE	NE	NE
Carbon tetrachloride	<1 – 400 (<5,000)	<1 - 9	<5	240[12]	3	NE	5[18]	3	240[12]	240[12]	NE	NE	NE	NE	10,000
Chloroform	<5 – 11,600	<5 - 38	<5 – 21	370[10]	250	NE	250[2]	250	370[10]	370[10]	NE	NE	NE	NE	420,000
Dichloromethane	<5 – 179,000	<5 - 22	<1 – 12 (<15)	98[18]	4	NE	4[2]	4	98[18]	98[18]	NE	NE	NE	NE	1,500,000
Bromomethane (Methyl bromide)	<50 - <50,000	<50 - 18	<50	16[12]	7.5[9]	NE	7.5[9]	7.5[9]	16[12]	16[12]	NE	NE	NE	NE	NE
Trichloroethene	<5 – 791,000	<5 - 679	<1 - 42	330[10]	30[18]/2.8[9]	NE	30[18]/2.8[10]	30[18]/2.8[10]	330[10]	330[10]	NE	NE	NE	NE	8,000
Tetrachloroethene	<5 – 7,970	<1 - 39	<1 - <5	70[10]	50	NE	50[2]	50	70[10]	70[10]	NE	NE	NE	NE	720,000
cis-1,2-dichloroethene	<5 – 523,000	<5 - 153	<5 – 64	NE	60	NE	60[2]	60	NE	NE	NE	NE	NE	NE	37,000

Analyte	Concentration Range (µg/L)			Water dependent ecosystems and species[1]	Potable water supply[2]	Agriculture and irrigation (irrigation)[3]	Agriculture and irrigation (stock watering)[4]	Water based recreation (primary contact recreation)[5]	Traditional Owner cultural values[2]	Cultural and spiritual values[2]	Buildings and Structures[6]	Human Health – Vapour Intrusion			Calculated RBC
	Off-site Up-gradient^	On-site^^	Off-site Down-gradient^^^									On-site: HSL A/B[7]	On-site: Intrusive Maint. Worker[4]	Off-site: HSL A/B[5]	
Vinyl chloride	<10 – 230	<10 - <50	<10 - <50	930[12]	0.3	NE	0.3[2]	0.3	930[12]	930[12]	NE	NE	NE	NE	4,000
1,1-dichloroethane	<5 – 622 (<5,000)	<4 - <5	<1 - 15	250[10]	2.7[9]	NE	2.7[9]	2.7[9]	250[10]	250[10]	NE	NE	NE	NE	830,000
1,1-dichloroethene	<5 – 2,820 (<5,000)	<4 - <5	<1 - 10	700[10]	30	NE	30[2]	30	700[10]	700[10]	NE	NE	NE	NE	420,000
1,2-dichloroethane	<1 – 3,480 (<5,000)	<1 - <5	<1 – 9	1,900[10]	3	NE	3[2]	3	1,900[10]	1,900[10]	NE	NE	NE	NE	30,000
1,1,2-trichloroethane	<5 – 360 (<5,000)	<4 - <5	<1 - <5	NE	0.41[9]	NE	0.41[9]	0.41[9]	NE	NE	NE	NE	NE	NE	150,000
1,2-dichlorobenzene	<1 – 94 (<5,000)	<1 – <5	<1 - 18	160[10]	1,500/1[#]	NE	1,500/1[2#]	1,500/1[#]	160[10]	160[10]	NE	NE	NE	NE	S
1,4-dichlorobenzene	<1 – 6 (<5,000)	<1 - <5	<1 - <5	60[10]	40/0.3[#]	NE	40/0.3[2#]	40/0.3[#]	60[10]	60[10]	NE	NE	NE	NE	S
Chlorobenzene	<5 – 2,110 (<5,000)	<4 - <5	<1 - <5	55[10]	300/10[#]	NE	300/10[2#]	300/10[#]	55[10]	55[10]	NE	NE	NE	NE	3,500,000
Bromodichloromethane	<5 – 96 (<5,000)	<4 - <5	<1 - <5	NE	8.7[9]	NE	8.7[9]	8.7[9]	NE	NE	NE	NE	NE	NE	NE
Benzene	<1 – 114 (<5,000)	<1 - <5	<1 - 442	700	1	NE	1[2]	1	700	700	NE	800	NL	800	NE
Toluene	<5 – 12,200	<1 - 11	<2 – 108	180[10]	800/25[#]	NE	800/25[2#]	800/25[#]	180[10]	180[10]	NE	NL	NL	NL	NE
Ethylbenzene	<1 – 353 (<5,000)	<1 - <5	<1 – 59	5[10]	300/3[#]	NE	300/3[2#]	300/3[#]	5[10]	5[10]	NE	NL	NL	NL	NE
Xylene (m&p)	<2 – 101 (<10,000)	<2 - <10	<2 – 15	75[10] (m) / 200[10] (p)	190[9]	NE	190[9]	190[9]	75[10] (m) / 200[10] (p)	75[10] (m) / 200[10] (p)	NE	NE	NE	NE	NE
Xylene (o)	<2 – 206 (<5,000)	<1 – <5	<1 – 8	350[10]	190[9]	NE	190[9]	190[9]	350[10]	350[10]	NE	NE	NE	NE	NE
Xylenes (total)	<3 – 307 (<15,000)	<3 - <15	<3 - 23	NE	600/20[#]	NE	600/20[2#]	600/20[#]	NE	NE	NE	NL	NL	NL	NE
TRH C_6-C_9	<20 – 810,000	<20 - 950	<20 - 500	NE	300[11]	NE	NE	300[11]	NE	NE	NE	1,000	NL	1,000	NE
TRH C_{10}-C_{36} (sum)	<50 – 139,380	<50 - 850	<50	600[14]	600[14]	600[14]	600[14]	600[14]	600[14]	600[14]	NE	NE	NE	NE	NE
Acetone	<50 – 61,400	<50	<50	NE	14,000	NE	14,000	14,000	NE	NE	NE	NE	NE	NE	S
trans-1,2-dichloroethene	<5 – 20	<5	<5	970	60	NE	60[2]	60	970	970	NE	NE	NE	NE	270,000
1,1,1-trichloroethane	<5 – 216 (<5,000)	<4 - <5	<1 - <5	NE	8,000[9]	NE	8,000[9]	8,000[9]	NE	NE	NE	NE	NE	NE	NE
Chlorodibromomethane	<5 – 5 (<5,000)	<5	<5	NE	380[9]	NE	380[9]	380[9]	NE	NE	NE	NE	NE	NE	NE

Analyte	Concentration Range (µg/L)			Water dependent ecosystems and species[1]	Potable water supply[2]	Agriculture and irrigation (irrigation)[3]	Agriculture and irrigation (stock watering)[4]	Water based recreation (primary contact recreation)[5]	Traditional Owner cultural values[2]	Cultural and spiritual values[2]	Buildings and Structures[6]	Human Health – Vapour Intrusion			Calculated RBC
	Off-site Up-gradient^	On-site^^	Off-site Down-gradient^^^									On-site: HSL A/B[7]	On-site: Intrusive Maint. Worker[4]	Off-site: HSL A/B[5]	
1,3 dichloropropane	<5 – 11 (<5,000)	<5	<5	NE	370[9]	NE	370[9]	370[9]	NE	NE	NE	NE	NE	NE	NE
Pyrene	<1 - 1	<1	<1	NE	120[9]	NE	120[9]	120[9]	NE	NE	NE	NE	NE	NE	NE

Notes:

1: ANZECC (2000 revised 2018) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. 95% trigger values for marine water.

2: NHMRC/NRMMC (2011 updated August 2018) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria).

3: ANZECC (2000 revised 2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Water Quality for Irrigation and General Water Use – Long-term Trigger Values. Unless otherwise specified.

4: ANZECC (2000 revised 2018) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Livestock Drinking Water" – Unless otherwise specified.

5: NHMRC/NRMMC (2008) Guidelines for Managing Risks in Recreational Water (Health / Aesthetic: # denotes aesthetic criteria). Unless otherwise specified. Adjusted by a factor of 10 in accordance with advice from NHMRC (2008). Adjustment was only applied to non-volatile chemicals.

6: Australian Standard AS2159-2009 Piling Design and Installation.

7: NEPC (2013) Health Screening Levels – Groundwater HSL-A (Low Density Residential) for Sand 2 to <4m.

8: NEPC (2013) Health Screening Levels – Groundwater HSL-A (Intrusive Maintenance Worker) for Sand 2 to <4m, adopted for information purposes only.

9: US EPA (November 2018) Regional Screening Levels for Tap Water. Adjusted to be consistent with Australian cancer risk policy. Adjusted by a factor of 10 in accordance with advice from NHMRC (2008)
(adjustment was only applied to non-volatile chemicals).

10: ANZECC (2000 revised 2018) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Marine Low Reliability Trigger Levels.

11: WHO (2005a) Note the values are based on health effects via ingestion and do not include aesthetic effects.

12: US EPA (2003) Region 5 Ecological Screening Levels.

13: Guideline for chromium VI adopted.

14: Netherlands (2009) Circular on Target Values and Intervention Values for Soil Remediation. Ministry of Housing, Spatial Planning and the Environment, Netherlands Government (Groundwater Intervention Value).

15: NIWA (2013) Site-specific nitrate guidelines for Hawke's Bay, 95% protection.

16: NSW EPA (1994) Guidelines for Assessing Service Station Sites

17: ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters – Raw Water criteria.

18: CCME (2007) Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture - Freshwater or Livestock criteria.

19: ANZECC (2000 revised 2018) Long term trigger value for total nitrogen.

20: ANZECC (2000 revised 2018) Adopted range for chloride concentration is based on foliar injury to sensitive crops as detailed in Section 4.2.5.2 and Table 4.2.6.

21: ANZECC (2000 revised 2018) Adopted concentration range for sodium is based on Table 4.2.8 for the prevention of foliar injury to crops.

22: WHO (2005b). Odour threshold for MTBE in water.

23: ANZECC (2000 revised 2018) Long term trigger value for total nitrogen

#: Denotes Aesthetic number. NHMRC/NRMMC (2011 updated 2018) and NHMRC/NRMMC (2008).

NE: Not Established.

NL: Not Limiting. Denotes that a groundwater vapour source concentration for a petroleum mixture could not exceed a level that would result in the maximum allowable vapour risk for the given scenario.

All values in ug/L

^ Off-site groundwater monitoring wells considered to be representative of up-gradient conditions: MW3, MW4, MW7, MW11, MW13/2, MW15/3, MW22, MW24A, MW24B, MW24C, MW31, MW32, MW35, MW36, MW37, MW39

^^ On-site groundwater monitoring wells: MW9/2, MW12/1, MW21, MW38

^^^ Off-site groundwater monitoring wells considered to be representative of down-gradient conditions: MW16/1, MW17/1, MW23, MW33

Table J Soil Vapour Results (2001)

Table 1: 601048.781 Soil Gas Survey Results

SGS Point	Depth	PID ppm	FID ppm
VP1	0.4	1	7.2
	0.8	3.9	5.9
VP2	0.4	1	6.5
	0.8	1.6	7.3
VP3	0.4	1.3	1
	0.8	1.5	1
VP4	0.4	5	7
	0.8	5	5
VP5	0.4	15	11
	0.8	13	7
VP6	0.4	1	6
	0.8	1.5	7
VP7	0.4	120	2000
	0.8	50	2150
VP8	0.4	70	12000
	0.8	40	3000
VP9	0.4	7	450
	0.8	1	201
VP10	0.4	1	4.5
	0.8	2	5.5
VP11	0.4	5.5	18
	0.8	8	42
VP12	0.4	7	3400
	0.8	10	1400
VP13	0.4	4	1500
	0.8	3.5	8000
VP14	0.4	2.5	3200
	0.8	7	3300
VP15	0.4	1	5
	0.8	3	15
VP16	0.4	2.5	80
	0.8	4	110
VP17	0.4	70	180
	0.8	5	39
VP18	0.4	2	1
	0.8	3.5	6
VP19	0.4	7	61
	0.8	13	93
VP20	0.4	1	4
	0.8	1	2
VP21	0.4	27	54
	0.8	30	56
VP22	0.4	1	1
	0.8	1.7	3.9
VP23	0.4	3	10
	0.8	7.9	48
VP24	0.4	3	25
	0.8	2	42
VP25	0.4	5	54
	0.8	14	120
VP26	0.4	40	305
	0.8		
VP27	0.4	6	24
	0.8	5	89
VP28	0.4	7	60
	0.8	12	95

SGS Point	Depth	PID ppm	FID ppm
VP29	0.4	49	25
	0.8	60	28
VP30	0.4	8.9	27000
	0.8	9.5	27000
VP31	0.4	40	40
	0.8	800	140
VP32	0.4	100	190
	0.8	400	
VP33	0.4	1.7	6
	0.8	2	5
VP34	0.4	12	29
	0.8	3	10
VP35	0.4	12	86
	0.8		
VP36	0.4	0.8	3
	0.8	10	4
VP37	0.4	32	121
	0.8	14	53
VP38	0.4	12	46
	0.8	4	14
VP39	0.4	5	27
	0.8	5	31
VP40	0.4	2.9	8.6
	0.8	2.5	60
VP41	0.4	12	6029
	0.8	2	6079
VP42	0.4	2	8
	0.8	2	5
VP43	0.4	35	2100
	0.8	50	4500
VP44	0.4	25	6500
	0.8	17	3050
VP45	0.4	25	90000
	0.8	24	120000
VP46	0.4	23	1000
	0.8	14	3100
VP47	0.4	17	75
	0.8	25	300
VP48	0.4	1.4	1700
	0.8	3.5	8500
VP49	0.4	8	15
	0.8	150	30
VP50	0.4	2	8
	0.8	2.5	70
VP51	0.4	360	382
	0.8	380	5260
VP52	0.4	1.5	20
	0.8	2	85
VP53	0.4	1.5	15
	0.8	2	25
VP54	0.4	4	6000
	0.8	3	15000
VP55	0.4	220	110
	0.8	300	119
VP56	0.4	25	390
	0.8	30	420

Appendix A
Statement of Environmental Audit

Lot 4, 20 Hamlet Street, Cheltenham, Victoria

ENVIRONMENT PROTECTION ACT 1970

STATEMENT OF ENVIRONMENTAL AUDIT

I, Timothy Kent Russell of Maple Auditing Pty Ltd, a person appointed by the Environment Protection Authority ('the Authority') under the *Environment Protection Act* 1970 ('the Act') as an Environmental Auditor for the purposes of the Act, having

1. been requested by Mr Andrew Johnston of Chandos Bay Pty Ltd (the owner of the site at the commencement of the Audit) to issue a certificate of environmental audit in relation to the site located at 20 Hamlet Street, Cheltenham, Victoria 3192; defined as Lot 4 on Plan of Subdivision PS802507T (Volume 11973 and Folio 119), ('the site') owned/occupied by Chandos Bay Pty Ltd;

2. had regard to, among other things,
   (i) guidelines issued by the Authority for the purposes of Part IXD of the Act,
   (ii) the beneficial uses that may be made of the site
   (iii) relevant State environment protection policies/industrial waste management policies, namely

   SEPP *(Waters)*

   SEPP *(Ambient Air Quality & Air Quality Management)*

   SEPP *(Prevention and Management of Contamination of Land*)

   EPA *Environment Protection (Industrial Waste Resource) Regulations*

   in making a total assessment of the nature and extent of any harm or detriment caused to, or the risk of any possible harm or detriment which may be caused to, any beneficial use made of the site by any industrial processes or activity, waste or substance (including any chemical substance), and
3. completed an environmental audit report in accordance with section 53X of the Act, a copy of which has been sent to the Authority and the relevant planning and responsible authority.

HEREBY STATE that I am of the opinion that the site is suitable for the beneficial uses associated with commercial and industrial land uses subject to the following conditions attached thereto:

A. If a basement (either single or multi-level) is incorporated in any proposed future development of the site, further assessment and the potential design and installation of mitigation measures to manage vapour/odour risks is required. An environmental auditor appointed under Part IXD of the Environment Protection Act 1970 ("the Act") must be engaged to conduct an environmental audit of the site under Section 53X of the Act, to consider this use.

B. Any landscaped area or garden bed must be constructed and maintained with at least 0.5 m thickness of soil below the finished surface, which is demonstrated to be suitable for the site and consistent with EPA Publication IWRG 621 Soil Hazard Categorisation and Management as 'fill material' (or commercially sourced garden soil such as topsoil or potting mix).

C. All physical barriers (as prescribed in condition 'B' above), must be maintained on the site and if subsequently damaged or removed during development or occupation of the site, must be reinstated as soon as possible and to the same condition or better as they were prior to any disturbance.

D. If removal of the physical barrier (as prescribed in condition 'B' above) is proposed, an environmental auditor appointed under Part IXD of the Environment Protection Act 1970 ("the Act") must be engaged to conduct an environmental audit of the site under Section 53X of the Act, to consider if the barrier is no longer required.

E. Groundwater at the site is polluted and is not suitable for any beneficial use. Groundwater must not be used for any beneficial use without prior testing and review of results by a suitably qualified professional to confirm its suitability for the proposed use. It may be extracted for the purpose of environmental monitoring or remediation.

The condition of the site is detrimental or potentially detrimental to any (one or more) beneficial uses of the site. Accordingly, I have not issued a certificate of environmental audit for the site in its current condition, the reasons for which are presented in the environmental audit report. The terms and conditions that need to be complied with before a certificate of environmental audit may be issued are set out as follows:

(i) Clean-up of polluted groundwater such that all beneficial uses of groundwater are restored.

(ii) All chemically unsuitable soils and materials are remediated such that all beneficial uses of land are restored.

Other related information

1) On 18 August 2020 the Authority determined that;

   (i) groundwater had been cleaned up to the extent practicable, and

   (ii) the site is a Groundwater Quality Restricted Use Zone (GQRUZ). The extent of the GQRUZ is shown on the Authority GQRUZ Figure attached to this Statement of Environmental Audit.

2) The beneficial uses 'Water Dependent Ecosystems', 'Potable Water Supply – Desirable', 'Agriculture and Irrigation (irrigation)', 'Agriculture and Irrigation (stock watering)', 'Water-Based Recreation (primary contact recreation)', 'Industrial and Commercial Use', 'Traditional Owner and Cultural Values' and 'Cultural and Spiritual Values' are precluded by one or more of arsenic, cobalt, lead, iron, nickel, ammonia, nitrate, trichloroethene, vinyl chloride, 1,1-dichloroethane, carbon tetrachloride, 1,2-dichlorobenzene, 1,4-dichlorobenzene, TRH C_6-C_{10}, benzene, 1,1,2-trichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, chloroform, cis-1,2-dichloroethene, dichloromethane, tetrachloroethene, trihalomethanes and xylenes which are not considered to be derived from the site but are regional in nature.

3) Groundwater beneath the site contains naturally elevated concentrations of pH, copper, zinc, sulphate, sodium and chloride. The levels are considered typical of the regional groundwater quality surrounding the site and do not constitute pollution in accordance with pollution in accordance with clause 17(3)(b) of the SEPP (Waters).

4) At the completion of the audit, an ongoing groundwater monitoring program was being implemented for Lot 2 (i.e. through the 53X Audit on Lot 2 and with commitment to post audit groundwater sampling work through a Groundwater Quality Management Plan). Chandos Bay Pty Ltd is the responsible party for all future groundwater monitoring works for Lot 2 and committed to include monitoring of a selection of wells on Lot 3 as part of the Lot 2 GQMP. This was confirmed via a 'Notice to Identify Occupier' between Chandos Bay Pty Ltd and EPA on 1

October 2019. The GQMP states that groundwater monitoring will be implemented over a three year program (March 2020 to September 2022) with bi-annual monitoring. As such there is no specific GQMP requirement for Lot 4 and ongoing groundwater monitoring is being conducted as part of the Lot 2 audit. A copy of the GQMP is provided within Appendix I of this audit report.

5) In accordance with Clause 58(4) of the SEPP (Waters) the EPA may require periodic reassessment of the practicability of groundwater clean-up.

6) Groundwater monitoring bores present at the site (not required as part of the GQMP) should be decommissioned in accordance with the requirements of the most up to date version of "Minimum Construction Requirements for Water Bores in Australia", published by the Land and Water Biodiversity Committee.

7) Asbestos containing material has been reported on the site within the on-site buildings. As part of future site development, asbestos removal works must be conducted in accordance with the Occupational Health & Safety Regulations 2007 (Part 4.3 Asbestos), including the use of an appropriately licensed contractor prior to occupation.

8) Any fill or soil imported to the site must be chemically tested soil or fill that classifies as "fill material" in accordance with relevant EPA guidelines.

9) Any soils proposed to be excavated from the site and disposed of off-site must be classified and managed in accordance with relevant statutory regulations and EPA guidelines (e.g. IWRG 621).

10) Soil at the site contains naturally elevated concentrations pH (slightly acidic). The levels are considered typical of the regional soil quality surrounding the site and do not constitute pollution or represent a health or ecological risk. Local natural plants and grasses and fauna are likely to be adapted to these background levels however there may be some impact on the development of some introduced plants, grasses and fauna.

11) In accordance with section 53ZE of the Environment Protection Act 1970, the owner/occupier of the site must provide a copy of this Statement of Environmental Audit to any person who becomes or proposes to become the occupier of the site.

This statement forms part of environmental audit report *(Maple Auditing Pty Ltd, Environmental Audit Report, Lot 4 on PS802507, 20 Hamlet Street, Cheltenham, VIC 3192, Report Number MA115-R02, 28 August 2020*). Further details regarding the condition of the site may be found in the environmental audit report.

DATED 28 August 2020

Signed 

ENVIRONMENTAL AUDITOR

Groundwater zone with restricted uses

CHELTENHAM

This zone has been cleaned up to the relevant environmental standards (section 53X environmental audit) but is still subject to restricted groundwater uses.

Environmental audit site

20 HAMLET ST CHELTENHAM VIC 3192

Restrictions on use

Potable water supply (desirable)
Agriculture and irrigation (irrigation)
Agriculture and irrigation (stock watering)
Water-based recreation (primary contact recreation)
Industrial and commercial use

Site history

Chemical manufacturing/storage/blending

Legend

- Environmental audit site
- Groundwater zone with restricted uses
- Properties
- 452 Unit/house/building number
- Primary road



For more information contact 1300 EPA VIC

Disclaimer: The map represents an approximate estimation of an area where groundwater quality has been impacted by human activities. It does not provide information on the naturally occurring quality of groundwater, which can also have restrictions on its use. The environmental audit boundary and groundwater zone are based on land parcel boundaries at the time of mapping. Subsequent changes to land parcel boundaries do not change the location of the zone.

EPA CARMS ID: 74971-3
EPA IBIS ID: 7001980
Map generated on: 16 Jul 2020

This map may also contain data from: Vicmap