Atma Environmental

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DETAILED SITE INVESTIGATION: 17 EILDON ROAD, ST KILDA, VIC

Prepared for:

City of Port Phillip
99a Carlisle Street
St Kilda, VIC 3182

Project Ref: 2048 CoPP-St Kilda
Date: 25 September 2021

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Acronyms & Units

ABC	Ambient Background Concentration	**meq**	Milliequivalents
ACL	Added Contaminant Limits	**mg**	Milligram
ACM	Asbestos Containing Materials	**mg/kg**	Milligram per Kilogram
ADWG	Australian Drinking Water Guidelines	**mg/L**	Milligram per Litre
agl	Above Ground Level	**mg/m^3**	Milligram per cubic meter
AHD	Australian Height Datum	**MGA**	Map Grid of Australia
ANZECC	Australian and New Zealand Environment Conservation Council	**mm**	Millimetre
ARMC	Agriculture and Resource Management Council of Australia and New Zealand	**MMBW**	Melbourne Metropolitan Board of Works
ANZ			
AS	Australian Standard	**MW**	Monitoring well
ASLP	Australian Standard Leaching Procedure	**N**	Nitrogen

ASS	Acid Sulphate Soil
AST	Aboveground Storage Tank
B(a)P	Benzo(a)Pyrene
bgl	Below ground level
BH	Borehole
BPEM	Best Practice Environmental Management Siting, Design, Operation and Rehabilitation of Landfills
BTEX	Benzene, toluene, ethylbenzene, xylenes
BTEXN	Benzene, toluene, ethylbenzene, xylenes, naphthalene
btoc	Below top of casing
CCME	Canadian Council of Ministers for the Environment
CEC	Cation Exchange Capacity
CHC	Chlorinated Hydrocarbons
COC	Chain of Custody
COPC	Contaminant of Potential Concern
CRC	Cooperative Research Centre for Contamination
CARE	Assessment and Remediation of the Environment
CSM	Conceptual Site Model
CUN	Clean up Notice
CUTEP	Clean up to the Extent Practicable
DELWP	Department of Environment, Land, Water and Planning
DNAPL	Dense Non-Aqueous Phase Liquid
DO	Dissolved Oxygen
DQO	Data Quality Objectives
DSE	Department of Sustainability and Environment
DSI	Detailed Site Investigation
EC	Electrical Conductivity
EIL	Ecological Investigation Level
EMP	Environmental Management Plan
EPA	Environment Protection Authority
ESA	Environmental Site Assessment
ESL	Ecological Screening Level
GIL	Groundwater Investigation Levels
GME	Groundwater Monitoring Event
GQRUZ	Groundwater Quality Restricted Use Zone
GSV	Gas Screening Value
GW	Groundwater
Ha	Hectares
HHRA	Human Health Risk Assessment
HIL	Health Investigation Level
HSL	Health Screening Level
IWRG	Industrial Waste Resource Guidelines
kg	Kilogram
km	Kilometre
N/A	Not Applicable
NAPL	Non-Aqueous Phase Liquid
NATA	National Association of Testing Authorities
ND	Non-Detectable
NDD	Non-Destructive Digging
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
OCP	Organochlorine Pesticides
OPP	Organophosphate Pesticides
PAH	Polycyclic Aromatic Hydrocarbon
PAN	Pollution Abatement Notice
PASS	Potential Acid Sulphate Soil
PCB	Polychlorinated Biphenyls
PCE	Tetrachloroethylene
PCPAN	Post Closure Pollution Abatement Notice
PESA	Preliminary Environmental Site Assessment
pH	Potential Hydrogen
PID	Photo-ionisation Detector
PIW	Prescribed Industrial Waste
ppm	Parts per million
PSI	Preliminary Site Investigation
PSR	Priority Sites Register
QA/QC	Quality Assurance / Quality Control
RL	Reduced Level
RPD	Relative Percentage Difference
SAQP	Sampling, Analysis & Quality Plan
SCMP	Site Contamination Management Plan
SEPP	State Environment Protection Policy.
SRW	Southern Rural Water
SVOC	Semi-Volatile Organic Compounds
SWL	Static Water Level
TCE	Trichloroethylene
TDS	Total Dissolved Solids
TEQ	Toxic Equivalence Quotient
TIT	Triple Intercept Trap
TOC	Top of Casing
TP	Test Pit
TPH	Total Petroleum Hydrocarbons
TRH	Total Recoverable Hydrocarbons
UCL	Upper Confidence Limit
µg/m^3	Micrograms per cubic meter

L	Litre
LFG	Landfill Gas
LNAPL	Light Non-Aqueous Phase Liquid
LOR	Limit of Reporting
m	Metre
MAH	Monocyclic Aromatic Hydrocarbons
mbgl	Metres Below Ground Level
UPSS	Underground Petroleum Storage Systems
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
Vic	Victoria
VOC	Volatile Organic Compound
VVG	Visualising Victoria's Groundwater
WHO	World Health Organisation

EXECUTIVE SUMMARY

Atma Environmental was engaged to complete a Detailed Site Investigation (DSI) at 17 Eildon Road, St Kilda (~670 m^2) to inform potential divestment of the site.

The objective was to provide sufficient information about site conditions to provide an understanding of:

- Thickness of fill on site, whether fill is suitable for the current site use, and likely landfill disposal category for fill in the event it's not suitable for use onsite, or if disposal is required for development.
- Likely disposal category for underlying natural soils.
- Likelihood of groundwater contamination from on/offsite sources.

The assessment included a review of physical site setting, planning, historical and environmental records, a site inspection and a programme of soil sampling at five borehole locations.

Based on the Melbourne Metropolitan Board of Works Map, the site was likely public open space, or the grounds of a boarding house in c.1894-1897. The site was then developed for residential purposes between the late 19th century and the earliest available title in 1922. Since that time, the current dwelling onsite has remained with minimal changes occurring over the years; the current childcare occupation commenced circa 1987 coincident with public ownership. The surrounding land has also had a residential legacy and remains that way to this day.

The current childcare use and historic residential use typically present a low potential for contamination. However, the potential presence of historically placed fill was identified as a potential source of contamination (as is common across urban Melbourne), with a lower potential for contamination also possible from potential onsite activities (such as lead-based paint use, termite treatment, demolition and general maintenance products).

The site is unlikely to be a source of groundwater contamination; the potential for groundwater pollution from off-site sources to migrate beneath the site is considered low.

A layer of fill extending to a maximum depth of 1.6 m was found across site. The fill was generally organic garden fill, with some clinker, brick, glass, concrete and minor white calcareous material across site. The fill was underlain by natural clayey sand.

Sample analysis confirmed the fill to be contaminated with arsenic, lead, zinc and polycyclic aromatic hydrocarbons; the results are typical of historic fill material generally found in urban Melbourne. Although only one result (lead in a 0.5 m depth sample at BH0.1) was found to exceed the Health Investigation Level for residential use.

In the absence of a site-specific health risk assessment, the elevated lead should be considered to pose a *potential* risk to human receptors in residential and open space / recreational settings (but not commercial / industrial settings); however, the potential risks would only be realized in the event that receptors have uncontrolled and long-term access to the soil; therefore, the potential risks are considered easily manageable by restricting access to the fill soil (e.g. by covering with buildings, hardstand or a sufficient layer of other material so as to restrict uncontrolled soil access). In this regard, the identified result was of sub-soil at 0.5 m depth, which is not readily accessible.

With respect to off-site disposal of the fill domain (if required e.g. for development), it is considered likely that the fill domain would be categorised as Category C Reportable Priority Waste for off-site disposal purposes.

The natural soil was found to be uncontaminated. For off-site disposal (if required) it is considered likely that the natural soil would be categorised as Fill Material with naturally elevated arsenic (typical of the Brighton Group formation); however, we note that an EPA designation is now required in circumstances where results are being claimed as naturally occurring.

1 INTRODUCTION

The site at 17 Eildon Road, St Kilda, comprises approximately 670 m^2 of residential zoned land, currently used as the Eildon Road Children's Centre.

To establish site conditions prior to potential divestment, Atma Environmental was engaged by the City of Port Phillip (CoPP) to complete this detailed site investigation (DSI) for the site.

2 OBJECTIVES & SCOPE OF ASSESSMENT

2.1 Assessment Objective

The objective of this DSI was to provide sufficient information about site conditions to enable City of Port Phillip, and potentially, prospective buyers, to understand:

- Thickness of fill on site, whether fill is suitable for the current site use, and likely landfill disposal category for fill in the event it's not suitable for use onsite, or if disposal is required for development.
- Likely disposal category for underlying natural soils.
- Likelihood of groundwater contamination from on/offsite sources.

2.2 Scope of Work

The DSI comprised of the following scope of work:

- Documentation of the site history information, including review of previous environmental investigations, aerial photos, geology, hydrogeology, historical records, local and state government records, EPA records and other available desktop information;
- Review of surrounding environmental audits;
- Environmental site inspection by qualified environmental scientist;
- Soil sampling at five (5) unsealed locations via hand auger;
- Analysis of soil samples for the main contaminants of potential concern;
- Interpretation of soil analysis results;
- Assessment of the findings with respect to the protected beneficial uses of land; and
- Conclusions on the contamination status of the site and provision of recommendations for any further investigation, remediation or management as deemed necessary, based on the findings.

Physical site setting, planning, environmental records searches and historical aerial photos are predominantly provided by the appended third party 'Enviropro' report by Lotsearch (Appendix A). Additional records searches were also completed by Atma Environmental, and these are found in Appendix B.

3 SITE IDENTIFICATION AND REGIONAL SETTING

3.1 Site Identification

The site is situated in St Kilda, approximately seven (7 kilometres south of central Melbourne CBD (refer to Figure 1). Details relating to the formal identification and main features of the site are outlined in Table A and a detailed plan of the site is presented on Figures 1 and Figure 2.

Maps showing the planning zones and overlays affecting the site and surrounding area are provided on pages 87 to 91 of the Lotsearch Report provided in Appendix A.

Table A. Site Identification & Setting

Site Address	17 Eildon Road, St Kilda, VIC 3184
Size of Site	670 m^2
Lot/Plan No.	Lot 1 TP146504
Volume / Folios	Volume 9080 Folio 497
Local Government	City of Port Phillip
Planning Zone on Site	General Residential
Planning Overlays on Site	Design and Development Overlay Heritage Overlay
Current Site Use & Features	Childcare Centre
Adjacent Land Uses	North – Residential, commercial along Fitzroy St. South – Residential, St Kilda boulevard and Luna Park, including areas of commercial. West – St Kilda boulevard, Catani Gardens and Port Phillip Bay, including areas of residential and commercial. East – Generally residential. A 7-Eleven service station is located on the Nepean Hwy. A Coles Express is located on Barkly Street.

3.2 Topography & Surface Water Receptors

The site topography is relatively flat and planer in profile, with an approximate elevation of 10 mAHD (Lotsearch page 6). There were no surface water receptors identified onsite. The nearest offsite surface water receptor is Port Phillip Bay, located approximately 450 m to the west of the site.

3.3 Geology & Regional Hydrogeology

The site and surrounding area are situated on 'Melbourne Formation' consisting of Silurian-aged sandstone and siltstone. See pages 74-75 of the Lotsearch report provided in Appendix

A for geology details.

Mapping of estimated groundwater depths (Lotsearch page 60) indicates a likelihood of groundwater at between 5-10 m bgl, with salinity of 1,000 to 3,500 mg/L total dissolved solids. Groundwater occurrence appears to be related to surface topography, with the depth to groundwater being shallower towards Port Phillip Bay.

3.4 Groundwater Bore Database Search

The Lotsearch groundwater database searches identified approximately 103 registered groundwater bores within an approximate 2 km radius of the site. No bores were identified onsite. The closest bore, with available information was 78465, located 311 m northwest of the site. Details of bore 78465 are outlined in Table B below. Due to the distance from site and the likelihood of the bore being hydraulically downgradient of the site, there is likely a low connectivity of details associated with 78465 and groundwater at the site.

The three closest observation bores, likely associated with a groundwater investigation hydraulically upgradient of the, site are WRK096393, WRK096394 and WRK096395. These bores are for observation purposes and are inferred to be associated with the current 7-Eleven service station on the Nepean Hwy.

Table B. Closest Registered Groundwater Bores.

Bore ID	Drilling Log	Depth (m)	Position (m)	Registered Use
WRK096393	0.00m-4.00m CLAY	4.0	763m East	Observation
WRK096394	0.00m-4.00m CLAY	4.0	787m East	Observation
WRK096395	0.00m-4.00m CLAY	4.0	794m East	Observation

Refer to the Lotsearch Report in Appendix A for a location map (page 62) and details of the surrounding registered bores (pages 63-71).

3.5 Anticipated Groundwater Flow Direction

Based on topography and surrounding depth to groundwater mapping, the regional groundwater flow direction is considered to be towards the west and southwest towards Port Phillip Bay.

4 RECORDS REVIEW

4.1 Environmental Records

In conducting the environmental site assessment, multiple record sources were reviewed by

Lotsearch to identify potential contamination sources and environmental conditions pertaining to both the site and surrounding areas within a 1 km buffer surrounding the site. In addition to the Lotsearch database report, additional searches were conducted directly with various data-holders by Atma Environmental.

The following sources relevant to contamination were reviewed in conducting this site assessment:

EPA Vic Priority Sites and Pollution Notices –

The search (Lotsearch pages 7-8) included current and former Priority Sites and Notices. The site is not listed on the EPA's Priority Sites Register. Two former Pollution Clean Up and Abatement Notices were identified within 1 km of the site. These included notice numbers 90007433 and 90008039, both located at 63-71 Grey St, St Kilda (125 m east of the site). The priority notices relate to contaminated soil retained and managed onsite, requiring assessment and/or clean up.

These previous priority notices appear to relate to Environmental Audit 74991-1, located at the same address (63-71 Grey St, St Kilda); this audit is discussed further below.

PFAS / Dept of Defence Investigation and Management Programs –

No records were found within the 1 km buffer area (Lotsearch pages 9-10).

Issued Certificates and Statements of Environmental Audit –

Certificates and Statements of Environmental Audit are statutory documents that are issued after an environmental audit of a property has been conducted. 29 completed audits were found within 1 km of the site. No Environmental Audits were completed onsite.

The closest two audits completed included 63-71 Grey St, St Kilda (CARMS No. 74991-1) located 125 m east of the site and 58-60 Jackson St, St Kilda (CARM No. 32870-1) located 247 m north of the site. Groundwater was considered in audit 74991-1 and was found not to be unacceptably contaminated. Elevated PAHs and metals were identified the soil during both audits.

There is a low potential for the soil and groundwater at the two audit sites to impact the current site. Details of the audits are found in the Lotsearch Report (pages 11-13).

Groundwater Quality Restricted Use Zones –

A GQRUZ is an area where, following an environmental audit, groundwater pollution remains, usually as a result of previous industrial activity. A GQRUZ is implemented when

attempts have been made to clean up the groundwater and EPA determines that restrictions should remain on how the water can be used without further treatment. Two records were found within the 1 km buffer area (Lotsearch page 11-14). The GQRUZ included:

- 63 Ackland St, St Kilda Vic 3182 (CARMS No. 53754-1,2,3), which is the location of a service station and fuel storage. The GQRUZ is located 356 m south of the site. Groundwater use is restricted at the audit property due to elevated arsenic, chromium, nickel, copper, lead, mercury, zinc, TPH, Benzene, MAHs, ammonia, nitrate and phenols. The land was Cleaned Up to the Extent Practicable (CUTEP).
- 30 Inkerman Street, St Kilda Vic 3182 (CARMS No. 72485-1), which is the location of a commercial premise. The GQRUZ is located 356 m south of the site. Groundwater use is restricted at the audit property due to elevated arsenic, cobalt, copper, lead, manganese, mercury, molybdenum, selenium, chloride, ammonia and nitrate.

The off-site locations identified as containing a GQRUZ are likely to pose a low risk of potentially impacting the groundwater onsite, due to their distances (>350 m) and hydraulic position from the site.

EPA Vic Licensed Activities & Works –

No current or former EPA licences are issued to properties within 1 km of the site and no EPA works approvals are issued to properties within 1 km of the site. Refer to Lotsearch, page 15 for further details on EPA licenses and works approvals within 1 km of the site.

Waste Management Records (includes EPA Prescribed Industrial Waste treaters, disposers and permitted transporters and the Victorian Landfill Register) –

No prescribed industrial waste treatment or disposal sites are registered within 1 km of the site. One prescribed industrial waste transporter was identified within 1 km of the site:

- RJC Electrical Pty Ltd, Unit 206 109 Inkerman St, St Kilda, located 871 m east of the site. As this is a residential address, it is inferred that this is the registered address of this waste transporter.

Ten former waste disposal sites were identified within 1 km of the site and are observed on page 18 of the Lotsearch report. Waste disposal sites relevant to the site include one (Map ID 37) within 500 m of the site, one (Map ID 46) within 100 m of the site and one onsite (Map ID 37). A summary of the sites includes:

- B/n Park St & Canterbury Rd, a former site of inert waste filling. The inferred area of this waste disposal contains the extent of the site. The inert waste appears to have been placed in drift sands.
- Calani Gardens, a former site of municipal wastes and was reclaimed from a previous swamp area. This site is located 12 m northwest of the site.

- St Kilda Station, a former site of municipal wastes and makes up the station embankment. This site is located 300 m north of the site.

Refer to Lotsearch, pages 16-18 for further details.

Gas Works and Liquid Fuel Facilities –

No former Gas Works were recorded were within the dataset buffer (Lotsearch page 20).

Two National Liquid Fuel Facilities were identified within the dataset buffer. These included four current petrol stations located at:

- Shell, 120-134 Barkly Street, St Kilda located 536m southeast of the site.
- 7-Eleven, 154-158 St, St Kilda located 757m east of the site.

There is a low potential of these facilities impacting the site given they are all > 500 m distance. Refer to Lotsearch, page 20 for further details.

Acid Sulphate Soil -

According to the Atlas of Australian Acid Sulphate Soils (CSIRO), the site is not located in an area of probable acid sulphate soils and listed extremely low probability (1 – 5 %). It should be noted that the site is located adjacent to areas of high probability acid sulphate soils (>70%) to the north (approximately 164 m), west and south of the site. Refer to the Lotsearch Report (pages 81-82) provided in Appendix A.

4.2 Historical Records

In addition to the Lotsearch database report, additional historical searches were conducted by Atma Environmental directly with various data-holders.

Melbourne Metropolitan Board of Works –

A c.1894-1897 Melbourne Metropolitan Board of Works map shows:

- The site is largely vacant and is inferred to be contained as party of a park.
- A tennis court is seen just offsite to the north and made of asphalt.
- The site and immediate surrounds on Eildon St are inferred to be part of the former 'Guest Houses' noted in this area in the business Directory Records (1896-1991) located on page 22 of the Lotsearch Report, Appendix A.

Refer to page 52 of the Lotsearch report in Appendix A for a copy of the map.

Military Topographic Maps -

A c.1933 map from Commonwealth Section Imperial General Staff, shows the site is an inferred area of residential allotments. Refer to pages 51 of the Lotsearch report in Appendix A for a copy of the map.

Melway Maps -

The 1966, 1978, 1986, 1998 and 2009 Melway maps shows no notable features on or in close vicinity to the site. Refer to pages 45 - 50 of the Lotsearch report in Appendix A.

1:100,000 Topographic Map -

A 1982 topographic map shows no notable features on or in close vicinity to the site. Refer to page 48 of the Lotsearch report in Appendix A for a copy of the map.

Lotsearch Historical Business Directories Search -

The Lotsearch search of historical business listings (pages 24 to 26) found and eight records within the search buffer of 50 m.

Business listings surrounding the site within the 250 m buffer with a potential to contaminate are summarised in Table C below.

Table C. Former Potentially Contaminating Business Listings

Business Activity	Premise	Year	Direction	Hydraulic Location from Site
Former Dry Cleaner	St. Kilda Dry Cleaning, Prince Of Wales Arc., 29 Fitzroy St., St. Kilda.	1979 - 1989	99m West	Downgradient
Motor Garages & Service Stations.	Whiteford Motors., 8 St Leonards Av St Kilda	1952 - 1964	123m South East	Cross gradient
Former Dry Cleaner	St. Kilda Dry Cleaners, 41a Fitzroy St., St. Kilda. 3182.	1979 - 1989	125m North West	Cross gradient
Motor Garages & Service Stations.	Johnsoon's Auto Service., 59 Fitzroy St St Kilda	1963-64	127m North West	Cross gradient
Motor Garages & Service Stations.	Johnson Auto. Service., 59 Fitzroy St St Kilda	1950 - 1961	127m North West	Cross gradient
Motor Garages & Service Stations.	Dunning, D. J., 57a Fitzroy-St, St. K., S.2	1945	141m North West	Cross gradient
Former Dry Cleaner	Lyke-Nu Dry Cleaning:- 17 Fitzroy St., St. Kilda	1948-1950	173m West	Downgradient

Business Activity	Premise	Year	Direction	Hydraulic Location from Site
Motor Garages & Service Stations.	Fortuna Motors., 58 Jackson St., St. Kilda	1956-1988	209m North	Cross gradient
Motor Garages & Service Stations.	Bayview Service Centre, 10 Esplanade, St. Kilda.	1973-1980	239m West	Downgradient
Motor Garages & Service Stations.	10 The Esplanade, St Kilda	1948 - 1973	239m West	Downgradient
Motor Garages & Service Stations.	Anchor Auto Service., 10 The Esplanade St Kilda	1948-1953	239m West	Downgradient

There is a potential for groundwater contamination at these locations, due to the potential former use and storage of hydrocarbons (TRHs) at service stations or garages and chlorinated hydrocarbons (CHCs) used in dry cleaning industries. These business listings are located either hydraulically cross-gradient or downgradient of the site. Due to their position (and distance from the site), there is a low potential for contamination to have migrated onsite from these potential sources.

Historical Aerial Photographs -

As part of the site history review, historical aerial photographs from 1931 to 2021 were reviewed. Table D presents details of the aerial photo review conducted by Atma Environmental.

Refer to Appendix A (Lotsearch report pages 31 - 44) for copies of the images.

Table D. Aerial Photograph Observations

Date	Notes
1931	**Onsite:** The resolution of this aerial is quite poor. There appears to be a house onsite. **Surrounding Area:** The surrounding area appears to be residential. There is an open space to the east of the site. There are no other significant features observed.
1945	**Onsite:** There appears to be a house covering majority of the site, consistent with the position of the current childcare centre. There is a small shed on the northern boundary. There appears to be a garden in the western yard of the property. **Surrounding Area:** The surrounding land appears to be either residential or special uses (such as the Church area). There are no other significant changes from the 1931 aerial.
1951	**Onsite:** There were no significant changes from the 1945 aerial. **Surrounding Area:** There were no significant changes from the 1945 aerial.
1963	**Onsite:** There were no significant changes from the 1951 aerial. **Surrounding Area:** There is some minor development to the west, which appears to a car park or residential development. There were no other significant changes from the 1951 aerial.
1968	**Onsite:** There were no significant changes from the 1963 aerial.

Date	Notes
	Surrounding Area: Some demolition has occurred to the west and appears to run onto the western boundary of the site. There were no other significant changes from the 1963 aerial.
1975	**Onsite:** There were no significant changes from the 1968 aerial. **Surrounding Area:** Development of structures, likely apartments or boarding houses, has been completed to the west of the site. There were no other significant changes from the 1968 aerial.
1978	**Onsite:** There were no significant changes from the 1975 aerial. **Surrounding Area:** There were no significant changes from the 1975 aerial.
1984	**Onsite:** The onsite shed appears to have been removed or demolished. There were no significant changes from the 1978 aerial. **Surrounding Area:** There were no significant changes from the 1978 aerial.
1987	**Onsite:** There were no significant changes from the 1984 aerial. **Surrounding Area:** There were no significant changes from the 1984 aerial.
1989	**Onsite:** There were no significant changes from the 1987 aerial. **Surrounding Area:** There were no significant changes from the 1987 aerial.
2001	**Onsite:** The site appears to have transitioned into a childcare sometime between 1989 and 2001. Sail shades are observed in the western yard of the property, which appear consistent with the use of the site as a childcare. Inferred tan bark can be seen in the western yard. **Surrounding Area:** A pool is observed immediately adjacent to the site boundary in the northwest. Changes have occurred to structures and land surrounding the site, but these are all consistent with inferred use as residential of commercial land uses. There were no other significant changes from the 1989 aerial.
2009	**Onsite:** The site can be clearly seen to be a childcare centre, in line with its current use. **Surrounding Area:** There were no significant changes from the 2001 aerial.
2016	**Onsite:** There were no significant changes from the 2009 aerial. **Surrounding Area:** There were no significant changes from the 2009 aerial.
2021	**Onsite:** There were no significant changes from the 2016 aerial. **Surrounding Area:** There were no significant changes from the 2016 aerial.

Aerial photos confirm that the main dwelling pre-dates 1931. There have been few changes onsite, except for the addition of some shade structures and the demolition of an onsite shed between 1987 and 2001.

Surrounding land has remained predominantly residential over time, with varying residential demolitions and some commercial developments surrounding the site.

Historical Land Title Search -

As part of the site history review, the ownership of the current and parent land titles was reviewed. Table E presents details of the historical land title review conducted by Atma Environmental. Refer to Appendix B for compiled certificates of land title.

Table E. Current and Historic Land Title Ownership

Title Details	Date	Ownership
Vol. 4629 Fol. 633	24th May 1922	Arthur Ernest Bridger, *Commercial Traveller* and Marion Muriel Bridger, *Wife* are now joint proprietors.
	5th December 1932	Marion Muriel Bridgers, *Widow,* is the proprietor.
	15th September 1943	Marcus Mardon Bridger, *Wool Appraiser,* is the proprietor.
	15th September 1943	Ada Ann Triller, *Spinster,* is the proprietor.
	13th February 1947	Leonard Thomas Davey, *Master Baker*, and Louise Gwendolyn Davey, *Married Woman*, are now the proprietors.
	13th June 1963	Louise Gwendolyn Davey, *Married Woman,* is the proprietor.
	13th June 1963	Leila Grace Simmonds, *Married Woman,* is the proprietor.
	23rd August 1966	Emmeth Frank Luke and Hazel May Luke, *Guest House Proprietors,* are the proprietors.
	30th March 1972	Leslie John O'Reilly, *Carpenter* and Cecelia Katherine O'Reilly, *Married Woman* are the proprietors.
	18th July 1974	Cecelia Katherine O'Reilly, Widow is the proprietor.
Vol. 9080 Fol. 497	18th July 1974	Cecelia Katherine O'Reilly, Widow is the proprietor.
	9th January 1987	The Mayor Councillors and Citizens of the City of St Kilda is the proprietor.
	9th October 2013	Port Phillip City Council is the sole proprietor.

The current proprietor is Port Phillip City Council. The site has likely remained a childcare centre since it was sold to the City of St. Kilda in 1987.

5 SITE RECONNAISSANCE

Atma Environmental conducted an inspection of the site on 23rd August 2021 with observations summarised below. Refer to Figure 2 for site details and to Appendix C for photos of the site inspection.

- The site is currently used as a childcare centre.
- There is a sand pit in the front yard.
- There is a main dwelling, consistent with it's former footprint in historic aerials.
- The ground cover in the rear of the site is bark.
- There was a paved path down the south boundary of the site.
- No significant sources of contamination were identified.
- No significant staining or odours were identified.

6 CONTAMINATION POTENTIAL

6.1 Past, Current and Proposed Use of the Site

In the late 19th century, the site is inferred to be a portion of a larger parcel of land. In this era, the site looked to be part of either public open space, the grounds of a school or guest house, or possibly the gardens of a large former residential estate. This assessment is based on the Melbourne Metropolitan Board of Works on page 52 of the Lotsearch report, Appendix A.

Between the late 19th Century and 1922, the site was developed for residential purposes. The earliest available aerial shows a house, shed and western yard. From 1931 onwards, there is little change to the site. Historic titles suggest the land was purchased by 'The Mayor Councillors and Citizens of the City of St Kilda' in 1987. From this date onwards, it is inferred the land is used as a childcare centre, with evidence of this land use visible in the 2001 aerial.

The site is earmarked for divestment with ongoing sensitive (i.e. residential or childcare) use assumed likely given the site setting.

6.2 Potential for Site-Sourced Contamination

Some activities intrinsically give rise to possible contamination more frequently than others. The current childcare use and historic residential use typically present a low potential for contamination.

That said, historic residential use sites can become contaminated as a result of lead-based paints, termite /pest treatments, demolition (e.g. of sheds), small scale storage & use of general maintenance products (e.g. paints, fuel, pesticides etc.), and (most likely) the potential presence of historically placed uncontrolled fill material.

The site is unlikely to be a source of groundwater contamination.

6.3 Potential for Migrating Contamination

Numerous sources of potential contamination have been identified in the area surrounding the site, however, given the age and distance of these potential sources from the site (and considering the anticipated groundwater flow direction), the potential for contamination to migrate to the site is considered to be low.

6.4 Contaminants of Potential Concern

Potential contaminants and their possible sources are set out on Table F.

Table F. Potential Contaminant Types and Sources

Possible On-site Sources:	Contaminants of Potential Concern:
Lead paint	• Lead
Termite Treatment	• Arsenic • OCPs
Potential use of small-scale maintenance products.	• Metals • OCPs • TRH/BTEXN
Demolition waste.	• Metals • Physical contaminants (concrete, brick, plastic, wood, etc) • Asbestos (disposal)
Uncontrolled historic filling.	• Metals • PAHs • Physical contaminants (concrete, brick, plastic, wood, etc) • Asbestos (disposal)

7 ENVIRONMENTAL VALUES AND ASSESSMENT CRITERIA

7.1 Environmental Values of Land

The *Environmental Reference Standard* (Environment Protection Act 2017) outlines land use categories and associated 'Environmental Values' which must be protected for each category. Table G below summarises the relevant Environmental Values that must be protected for the different land uses.

Table G: Protected Environmental Values of Land

ENVIRONMENTAL VALUES TO BE PROTECTED:	POTENTIAL SITE LAND USE:						
	Parks & Reserves	Agriculture	Sensitive Use: High Density	Sensitive Use: Other	Recreation Open space	Commercial	Industrial
Land dependent ecosystems and species:							
Natural Ecosystems >	✓						
Modified Ecosystems >	✓	✓		✓	✓		
Highly Modified > Ecosystems >		✓	✓	✓	✓	✓	✓
Human Health:	✓	✓	✓	✓	✓	✓	✓
Buildings & Structures:	✓	✓	✓	✓		✓	✓
Aesthetics:	✓		✓	✓	✓	✓	
Production of food, flora & fibre:	✓	✓		✓			

As the site is being divested, it is inferred that sensitive use would continue given its current zoning and setting.

7.2 Assessment Criteria

The following sections outline the assessment guidelines used to assess the sites condition against the protected Environmental Values.

Land Dependent Ecosystems & Species -

For the protection of ecology, contaminant concentrations in soil are compared to the Ecological Investigation and Screening Levels found in the National Environment Protection Council *"National Environment Protection (Assessment of Site Contamination) Measure 1999*, *Amendment Measure 2013 (No. 1)"* (NEPM) including the errata update of 30 April 2014.

NEPM Ecological Investigation Levels (EILs):

Ecological Investigation Levels (EILs) have been developed for selected metals and organic substances and are applicable for assessing risk to terrestrial ecosystems. EILs depend on specific soil physicochemical properties and land use scenarios, and generally apply to the top 2 m of soil.

The derivation of site-specific EILs for, copper, chromium, nickel and zinc were completed using the EIL calculation aids provided in the NEPM toolbox. To inform the derivation, representative soil samples from the site were measured for pH ($CaCl_2$ extract) and for cation exchange capacity (CEC), with the average CEC (28 cmolc/kg) and the average pH (5.37 units) values used for EIL derivations.

Clay content was not laboratory measured, therefore as a conservative screening method a clay content of 1% is used in the calculations; this value likely underestimates actual clay content conditions at this site. Background contaminant concentrations are not available for the site and thus a typical background concentration for low traffic areas in Victoria was adopted.

Where applicable, the EILs used are those based on aged contaminant values, relevant for contamination which has been present in soil for at least two years.

NEPM Ecological Screening Levels (ESLs):

The NEPM also provides Ecological Screening Levels (ESLs) which have been developed for selected petroleum hydrocarbon compounds, total petroleum hydrocarbon (TPH) fractions and for Benzo(a)Pyrene, and which are applicable for assessing risk to terrestrial ecosystems. ESLs broadly apply to coarse and fine-grained soils and to various land uses and they are generally applicable to the top 2 m of soil. For this assessment, the lowest values for fine/coarse grained soil ESLs have been adopted.

Land Use Scenarios:

EILs and ESLs have been developed for three generic land use settings:

- Areas of Ecological Significance
- Urban Residential/Public Open Spaces, and
- Commercial and industrial land uses

An area of ecological significance is one where the planning provisions or land use designation is for the primary intention of conserving and protecting the natural environment (e.g., national parks, state parks, wilderness areas and designated conservation areas). This land use setting is not relevant for the site and is not considered further.

In terms of the proposed future land uses, the Urban Residential/Public Open Space land use settings are considered the most applicable criteria, however, commercial/industrial land use criteria have also been considered in this assessment.

All relevant ecological assessment criteria are listed on the analytical summary table (Table 1).

Human Health -

Soil sample results are compared to Health-based Investigation and Screening Levels found in the *"National Environment Protection (Assessment of Site Contamination) Measure 1999, Amendment 2013 (No. 1)"* (NEPM) including the errata update of 30 April 2014.

Health Investigation Levels (HILs):

Health-based Investigation Levels (HILs) have been developed for a broad range of metals and organic substances. The HILs are applicable for assessing human health risk via all relevant pathways of exposure. The HILs are generic to all soil types but vary for different land use scenarios.

Health Screening Levels (HSLs):

Health Screening Levels (HSLs) for selected petroleum compounds and fractions are applicable for assessing human health risk by the inhalation pathway. The HSLs depend on specific soil physicochemical properties, land use scenarios, and the characteristics of building structures. They apply to different soil types, and depth below surface to greater than 4 m. For this assessment, the results are compared against the HSLs for clayey soils at <1 m depth, with further assessment triggered if results exceed these levels.

The NEPM also provides guidance for the assessment of asbestos in soils, which requires no visible asbestos to be present in the near surface soils (i.e., top 0.1 m depth), with qualitative HSLs available for the assessment of visible asbestos (where present) and non-visible asbestos

(where suspected) in deeper soils.

Adopted Criteria:

In the absence of NEPM HIL/HSL criteria for contaminants of potential concern, the following criteria have been adopted:

- Soil HSLs for direct contact found in the CRC CARE Technical Report No. 10 (*'Health Screening Levels for Petroleum Hydrocarbons in Soil and Groundwater'* Friebel & Nadebaum, 2011) are used for the assessment of human health risk from petroleum compounds and fractions by the direct contact pathway.

Land Use Scenarios:

There are four predominant exposure settings that are used when assessing the use or proposed use of a site:

- 'A' - for standard residential with garden/accessible soil including childcare centres, preschools and primary schools;
- 'B' - for high-density residential with minimal garden/accessible soil such as high-rise buildings and apartments;
- 'C' - for parks, recreational open space and playing fields, also includes secondary schools and footpaths; and
- 'D' - for commercial/industrial use including shops, offices, factories and industrial sites

All relevant human health assessment criteria are listed on the analytical summary table (Table 1).

Buildings and Structures -

The Environmental Values "Buildings and Structures" may be assessed by a review of soil parameters such as pH, sulphate concentration, redox potential, salinity, or any chemical substance or waste that may have a detrimental effect on the structural integrity of buildings or structures. The site is not located on an area of probable acid sulphate soil, though further investigation may be required where pH is less than 4.0 (per Victoria EPA Publication 655) and where sulphate exceeds 2,000 mg/kg (NEPM 1999 EIL) or where electrical conductivity (EC) is considered indicative of potentially aggressive soils.

The Australian Standard AS2159-2009 *Piling – Design and Installation,* provides data on the severity of soil sulphate and pH on concrete structures, with a pH >5.5 being considered non-aggressive to all soils above the groundwater.

Aesthetics -

In general, the criteria for aesthetics (relevant only to recreational / open space land, not industrial use land) relate to the presence of low-concern or non-hazardous inert foreign material (refuse) in soil or fill resulting from human activity. This may include general wastes, industrial, construction and demolition wastes, soil discoloration, or residual odours.

Circumstances which would trigger a further assessment of aesthetics include: highly malodorous soils or extracted groundwater, hydrocarbon sheen on surface water, significant soil staining (associated with otherwise inert chemical waste), significant deposits of low-risk materials, putrescible refuse (potentially generating hazardous levels of methane), and animal burials.

Numerical criteria are not available for assessing aesthetics and its assessment requires a balanced consideration of the quantity, type and distribution of foreign material or odours in relation to the specific land use.

Production of Food Flora & Fibre -

This Environmental Value is assessed with reference to the same criteria as per Land Dependent Ecosystems & Species as those guideline values are set to be protective of plant (among other) species. However, it is recognised that these criteria may not necessarily be applicable for some contaminants (such as organochlorine pesticides, or OCPs).

Alternative criteria may be adopted for the assessment of OCPs in relation to the Environmental Value Production of Food, Flora & Fibre, where OCPs are detected above laboratory limit of reporting at the site.

Other -

Other assessment criteria considered in this assessment include the following:

Management Limits:

The *"National Environment Protection (Assessment of Site Contamination) Measure 1999, Amendment 2013 (No. 1)"* (NEPM) provides petroleum hydrocarbon management limits, which are protective of policy considerations which reflect the nature and properties of petroleum hydrocarbons, e.g. formation of observable light non-aqueous phase liquids, fire and explosion hazards and effects on buried infrastructure.

Management Limits *"are relevant for operating sites where significant sub-surface leakage of petroleum compounds has occurred and when decommissioning industrial and commercial sites"* e.g. service stations (NEPM). Use of the Management Limits is not considered relevant for this site.

Off-Site Disposal Categorisation:

Soil sample results are also compared to EPA waste disposal criteria found in EPA Victoria Publication #1828.2 *'Waste Disposal Categories – Characteristics and Thresholds'* March 2021.

The Environment Protection Regulations (the Regulations), Part 4.2 (Industrial Waste and priority waste) specifies the process for classifying waste. Publication #1828.2 establishes the characteristics and thresholds necessary for complying with the Regulations, specifically, classification of wastes to determine the relevant waste disposal category in accordance with Schedule 6 of the Regulations.

The waste disposal thresholds (indicated on the attached Table 2) are only relevant for waste soil that is intended for off-site disposal.

8 SOIL INVESTIGATION

8.1 Sampling Methodology and Observations

Atma Environmental Pty Ltd's procedures for soil sampling, quality assurance and equipment decontamination are comparable with those found in the Australian Standard AS4482.1 – 2005, (*Guide to the investigation and sampling of sites with potentially contaminated soil, Part 1: Non-volatile and semi-volatile compounds*) and AS4482.2-1999 (*Guide to the sampling and investigation of potentially contaminated soil, Part 2: Volatile Substances*).

Soil sampling was completed on 22nd August 2021 at five (5) unsealed borehole locations (BH01 to BH05). Locations were chosen based on obtaining a general spread across site and in areas where unsealed surfaces were readily available. Figure 2 shows the sampling locations as completed.

8.2 Soil Sample Collection

Samples were collected from the near-surface soils (~0.1 m depth) at each location using decontaminated hand tools. Deeper samples (up to 1.0 m depth) were obtained via hand auger.

New, single use glass containers provided by the laboratory were used in conjunction with latex gloves for each sample and sampling location to avoid contact with contaminated material and cross-contamination. All samples were preserved on ice during site investigations and during transport to the laboratory.

All sampling equipment was decontaminated between each sampling location in accordance with Atma Environmental's in-house decontamination procedures.

8.3 Soil Investigation Observations

A layer of fill extending to a maximum depth of 1.6 m was found across site. The fill was generally organic garden fill, with some building waste (clinker, brick, glass, concrete and minor white calcareous material) observed in varying quantities at all locations. The fill was underlain by natural clayey sand. The generalised soil profile, including details of the fill domain and the natural domain, are outlined in Table H below.

Table H. Generalised Soil Profile

Domain	Horizon	Typical Depth Range	Description
Fill	SAND	Surface to between ~0.8 to ~1.6 mbgl	Sand, brown, medium grained, soft, loose and dry. Inert waste observed in this horizon includes clinker, brick, glass, concrete and minor white calcareous material observed.
Natural	Clayey SAND	~0.8 to ~1.75 mbgl	Clayey SAND, orange, brown, low plasticity clay, firm, dense, damp.

No suspect asbestos containing materials were identified at the tested locations. Soil description logs are provided in Appendix D.

8.4 Sample Analysis

The selected sample analysis program was based on the main contaminants of potential concern identified by the site history review, inspection and field observations (including PID results).

One sample at 0.1 m (BH01_0.1) and one sample at 0.5 m (BH05_0.5) were analysed for a screen of analytes in accordance with EPA Publication 1828.2. All samples at 0.1 m were analysed for PAHs, OCPs and a multi-metals suite. All samples at 0.5 m were analysed for TRHs, PAHs and multi-metals suite. All samples at 1.0 m were analysed for PAHs and a multi metal suite. Six samples were also analysed for pH ($CaCl_2$) and one for CEC for derivation of site-specific EILs. A summary of the analysis completed is outlined in Table I below.

Table I. Summary of Analytical Schedule

Analytes:	No. Of Analysis Per Soil Sample Depth				Total No.
	0.1 m	0.45 - 0.5 m	0.9 - 1.0 m	>1.0 m	
EPA IWRG 1828.2 Screen	1	1	-		2
Total Recoverable Hydrocarbons (TRH)	-	3	-	1	4
Polycyclic Aromatic Hydrocarbons (PAH)	3	4	3	3	13
Metals Suite (13)	3	4	3	3	13
Organochlorine Pesticides (OCPs)	2	2	-		4.

pH (CaCl2 per NEPM '13)	6	-	-		6
Cation Exchange Capacity (CEC)	1	-	-		1
ASLP	-	2	-	1	4

The primary laboratory used for soil sample analysis was Eurofins Environment Testing (a NATA accredited laboratory). The secondary (check) lab used was ALS - also NATA-accredited. Appendix E includes the Chain of Custody documentation used for the delivery of the samples to the lab and the full NATA certified lab reports.

8.5 Soil Analysis Results & Discussion

A comparison of the laboratory analysis results against ecological and human health assessment guidelines is provided on Table 1. Full laboratory reports are provided in Appendix E. The following sections provide a discussion on the implication of the results with respect to the protected Environmental Values at the land.

8.5.1 Land Dependent Ecosystems & Species / Production of Food, Flora, Fibre

The fill material found across the site (with the exception of BH04) contains concentrations of Benzo(a)pyrene above the adopted ESL for recreational / public open space land uses (and to a lesser extent also commercial / industrial land uses).

Furthermore, concentrations of zinc in the sub-soil at three locations (BH01, BH02 and BH03) also exceeded the relevant ecological assessment criteria for recreational / public open space land uses (but not commercial / industrial land uses).

All results for natural soil samples were below the adopted EILs & ESLs.

With respect to the Benzo(a)pyrene and zinc, the NEPM states that the relevance of an ecological assessment should be considered within context of the conceptual site model and that a pragmatic risk-based approach should be taken in applying EILs and ESLs on residential and commercial/industrial land use settings.

"Site soils may have poor structure and drainage, low organic content, minimal topsoil depth and a limited ability to support plant growth and soil micro-organisms. In existing residential and urban development sites there are often practical considerations that enable soil properties to be improved by addition of ameliorants with a persistent modifying effect or by the common practice of backfilling or top dressing with clean soil. In other cases, all of the site soils will be removed during site development works or relocated for the formation of new land forms. ……Commercial and industrial sites may have large building structures and extensive areas covered with concrete, other pavement or hardstand materials and may have limited environmental values requiring consideration while in operational use". [NEPM 2013]

Furthermore, the NEPM Tier 1 screening level for benzo(a)pyrene (0.7 mg/kg for residential settings) is based on an older set of low reliability (limited toxicity dataset) data adopted from the 1997 provisional Canadian environmental health soil quality guidelines (CCME SQGs), which have since been revised. New toxicological data/information was presented in the 2010 CCME SQG, and the Benzo(a)Pyrene soil quality guideline has been subsequently revised to 20 mg/kg for residential/parkland scenarios. Additionally, in March 2017, CRC CARE Technical Report No. 39 (*"Risk-Based Management and Remediation Guidance for Benzo(a)pyrene"*) derived a Benzo(a)Pyrene ecological screening level of 33 mg/kg, which is more than an order of magnitude greater than the ESL listed in the NEPM and more generally in accord with the revised Canadian guideline levels.

In summary, the results are considered unlikely to preclude the protected Environmental Values of 'Land Dependent Ecosystems & Species' or 'Production of Food, Flora & Fibre', and further investigation/remediation is not required with respect to same.

8.5.2 Human Health

The lead concentration reported in the 0.5 m depth fill soil at location BH05, exceeds the HILs for low & high density residential (but not for recreational / public open space or commercial / industrial uses).

All results for natural soil samples were below the adopted HILs & HSLs.

In the absence of a site-specific health risk assessment, the lead concentration results should be considered to pose a *potential* risk to human receptors in residential and open space / recreational settings; however, the potential risks would only be realized in the event that receptors have uncontrolled and long-term access to the soil; therefore, the potential risks are considered easily manageable. In this case, the lead concentration exceeding the HIL was found at one location in the sub-oil (0.5 m depth), where uncontrolled access by site users is limited.

8.5.3 Buildings & Structures

Data from the Australian Standard AS2159-2009 ('*Piling – Design and Installation'*) shows the severity of soil sulphate concentrations and pH on concrete piles. In accordance with the standard, the pH ($CaCl_2$ extract) range of 4.6 to 7.6, renders the soils as 'Mild' to 'Moderate' to structures in soils above the groundwater. This outcome is based on the most conservative value of pH (4.6 pH units).

The site is not located in an area of probable acid sulphate soils and the pH results are considered indicative of natural soil conditions rather than a result of possible contamination.

8.5.4 Aesthetics

No noticeable hydrocarbon odours were noted in the discrete areas assessed and the soil is generally considered aesthetically acceptable for sensitive land clinker, brick, glass, concrete and minor white calcareous material observed across site but are considered negligible and would be removed during development.

8.5.5 Preliminary Off-Site Soil Disposal Hazard Categorisation

Table 2 provides a comparison of the analytical results against soil hazard categorisation thresholds per EPA Publication 1828.2, for the purposes of providing a preliminary soil hazard categorisation of the soil domains (fill and natural).

A summary of the results for the fill domain (as per Table H above) includes:

- Total concentrations of arsenic, lead, zinc and Benzo(a)pyrene exceeded the maximum allowable levels for Fill (i.e. within Category C range).
- Australian Standard Leaching Procedure (ALSP pH 5) analysis was completed on selected samples, with the following results:
    - BH01_0.5 for arsenic (<0.01 mg/L) and lead (<0.01 mg/L).
    - BH04_1.5 for arsenic (0.07 mg/L) and Benzo(a)Pyrene (<0.001 mg/L).
- The ASLP concentrations fall below the Category C upper limits. ASLP results are available in Eurofins lab report #822461, provided in Appendix E.
- It is considered likely that the fill domain would be categorised as Category C Reportable Priority Waste for off-site disposal purposes.

A summary of the results for the natural domain (as per Table H above) includes:

- Total concentrations of arsenic exceeded the maximum allowable levels for Fill Material (i.e. within the range for Category C) in all four samples of natural soil tested.
- Due to the position of the site within the Brighton Group Sands, it is likely these concentrations of arsenic within the natural material are natural occurring. According to the Victorian Background Soil Database (the "soil database"), Version 1.0 (RMIT, 2018), the mean concentration of arsenic in soils beyond 0.6 m depth in the Brighton group have a mean concentration of 20 mg/kg, with a maximum observed concentration of 1,200 mg/kg. The magnitude of the arsenic concentrations observed in the analytical data represent a similar range reported by the soil database. These concentrations in the natural domain are considered to be naturally occurring.
- Australian Standard Leaching Procedure (ALSP pH 5) analysis was completed on sample BH05_0.9 for arsenic (0.02 mg/L). This ASLP concentration falls below the Category C upper limit. ASLP results are available in Eurofins lab report #822461, provided in Appendix E.
- Based on the available results, it is considered likely that the natural soil would be categorised as Fill Material with naturally elevated arsenic; however, we note that an

EPA designation is required to allow the soil to be classified as Fill Material to be taken to a like for like site.

9 QUALITY ASSURANCE

9.1 Fieldwork Quality Assurance

9.1.1 Procedures

All fieldworks were completed in accordance with Atma Environmental Pty Ltd's procedures for sampling, quality assurance and equipment decontamination. These procedures are comparable with those found in the Australian Standard AS4482.1 – 2005, (*Guide to the sampling and investigation of potentially contaminated soil, Part 1: Non-volatile and semi-volatile compounds*) and AS4482.2-1999 (*Guide to the sampling and investigation of potentially contaminated soil, Part 2: Volatile Substances*).

Atma Environmental recorded all samples on a Sample Master List, in the order of collection to enable tracking of any suspected incidence of cross-contamination if necessary.

Samples were transported to the laboratories under a Chain of Custody document listing all samples collected, analysis required for each sample and signatures of the persons responsible for the transport of the samples.

9.1.2 Decontamination, Field and Trip Blanks

Equipment rinsate blanks should be collected where cross-contamination of samples is likely to impact on the validity of the sampling and assessment process. Rinsate, collected during the sampling equipment decontamination process should be tested for contaminants of concern.

One equipment rinsate (decontamination) sample (DECON-220821A) was collected during the soil investigation and tested at the lab for metals. All analytical results were below laboratory detection limits, indicating the equipment decontamination procedure was effective and risk of cross contamination between sampling locations is unlikely.

Field Blanks are for the purpose of providing a control against contamination potentially introduced to samples during field works. A field blank sample was not collected during the soil investigation, as the site was assessed to be low risk of cross contamination from the ambient air or dust onsite.

A Trip Blank is for the purpose of providing a control sample against contamination potentially introduced during transport of samples from the field to the laboratory. One trip blank sample (TRIP-220821A) was collected during the soil investigation and placed on hold

at the laboratory, pending evidence of potential cross contamination during sample transport. Analytical results were reported heterogeneous results across all samples and did not present characteristics associated with cross contamination during sample transport, demonstrating that sample integrity has not been affected during transport.

See Table 3.1 for a summary of the QA/QC – Decontamination and Trip Blank details and results.

9.2 Blind Quality Control Replicate Testing

Replicate samples, comprising two containers of the same media (sample) are created in the field and submitted to the primary laboratory or to a secondary laboratory in a blind test of reporting accuracy. The results of the check (replicate) sample are assessed against the primary sample in terms of the relative percent difference, or 'RPD' (difference in results divided by the mean of the results, x 100).

The Australian Standard AS4482.1 requires a minimum of one Primary Duplicate and one Split Duplicate be collected for every 20 primary samples collected, with sample analysis carried out to reflect the same ratio.

The standard provides 30% - 50% as a typical RPD value for quality control samples and notes that the significance of the RPD results should be evaluated on the basis of sampling technique, sample variability, absolute concentration relative to criteria and laboratory performance.

RPDs can be expected to be higher when based on low concentration of analytes. In this regard, RPD results that exceed 50% are not considered indicative of laboratory error if:

- The RPD is artificially elevated due to the halving of a non-detectable result, or if
- The RPD is based on low concentrations, less than 10 times the limit of reporting,

Where replicate RPDs exceed 50% and are not subject to either of the above conditions, additional comment is provided as to the possible explanation for the divergence in reported results.

The following duplicate and split duplicate samples (with paired primary sample) were collected/analysed as part of this investigation:

- DUP-210821A & SPLIT-210821A – PAHs and metals.

One replicate pair was tested with good comparative results. the most notable variation in results relates to the Total PAH concentration in the split duplicate sample reported by the secondary laboratory, which is notably higher than the concentration reported in the corresponding primary sample and also in the primary duplicate sample (collected at the same

location). This variance is likely to be attributable to the heterogeneous nature of the fill material and discrete particle like nature of clinker and ash, which result in the large variance in PAH results.

Overall, the sampling and analysis process has produced reproducible results and did not identify any significant errors in the data collection process. Results of the duplicate RPD calculations are summarised on Table 3.2.

10 CONCLUSIONS

Based on the Melbourne Metropolitan Board of Works Map, the site was likely public open space or the grounds of a boarding house in c.1894-1897. The site was then developed for residential purposes between the late 19th century and the earliest available title in 1922. Since that time, the current dwelling onsite has remained, with minimal changes occurring over the years; the current childcare occupation is thought to have commenced circa 1987, coincident with public ownership. The surrounding land has also had a residential legacy and remains that way to this day.

The current childcare use and historic residential use typically present a low potential for contamination. However, the potential presence of historically placed fill was identified as a potential source of contamination (as is common across urban Melbourne), with a lower potential for contamination also possible from potential onsite activities (such as lead-paint use, termite treatment, demolition and general maintenance products).

The site is unlikely to be a source of groundwater contamination; the potential for groundwater pollution from off-site sources to migrate beneath the site is considered low.

A layer of fill extending to a maximum depth of 1.6 m was found across site. The fill was generally organic garden fill, with some clinker, brick, glass, concrete and minor white calcareous material across site. The fill was underlain by natural clayey sand.

Sample analysis confirmed the fill to be contaminated with arsenic, lead, zinc and PAHs; the results are typical of historic fill material generally found in urban Melbourne. Although only one result (lead in a 0.5 m depth sample at BH0.1) was found to exceed the HIL for residential use.

In the absence of a site-specific health risk assessment, the elevated lead should be considered to pose a *potential* risk to human receptors in residential and open space / recreational settings (but not commercial / industrial settings); however, the potential risks would only be realized in the event that receptors have uncontrolled and long-term access to the soil; therefore, the potential risks are considered easily manageable by restricting access to the fill soil (e.g. by covering with buildings, hardstand or a sufficient layer of other material so as to restrict uncontrolled soil access). In this regard, the identified result was of sub-soil at 0.5 m depth,

which is not readily accessible.

With respect to off-site disposal of the fill domain (if required e.g. for development), it is considered likely that the fill domain would be categorised as Category C Reportable Priority Waste for off-site disposal purposes.

The natural soil was found to be uncontaminated, although contains naturally elevated arsenic. For off-site disposal (if required) it is considered likely that the natural soil would be categorised as Fill Material with naturally elevated arsenic (typical of the Brighton Group formation); however, we note that an EPA designation is now required in circumstances where results are being claimed as naturally occurring.

11 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

The report consists of the scope of work outlined previously. This report describes the work undertaken and has been compiled for the use of City of Port Phillip (CoPP) only. Its conclusions are only valid for the purpose for which it was requested. This report is not a Preliminary Risk Screen Assessment or an 'environmental audit' within the meaning of the *Environment Protection Act* 2017 (Vic), or its successor.

It is valid only when it is in original and complete form, and any person or company other than City of Port Phillip (CoPP) who rely on the report without specific reference to and permission from Atma Environmental Pty Ltd does so at their own risk. While every care has been taken in the compilation of this report, to the extent that its conclusions are based on the analysis of the data made available by your organisation or by a third party, no responsibility or liability is accepted for consequences arising from either errors or omissions in that data, or from factors or data which were not made available to Atma Environmental Pty Ltd, or which Atma Environmental Pty Ltd could not ascertain by reasonable inquiry in the ordinary course of its investigation, nor for any commercial decisions taken as a result of the report.

This report has not included an assessment of groundwater contamination, soil vapours or ground (landfill) gases. The site assessment has not specifically considered above ground issues such as silica dust, lead-based paint and installed asbestos containing building products.

Environmental site assessments document property conditions at the time they are conducted. These conditions may change over time. In addition, contamination (potentially of greater or lesser severity than as reported) may exist at other locations, which have not been tested. The results of additional site testing and future changes in assessment guidelines, criteria or legislative requirements may alter the conclusions of this report and any recommendations flowing therefrom.

12 REFERENCES

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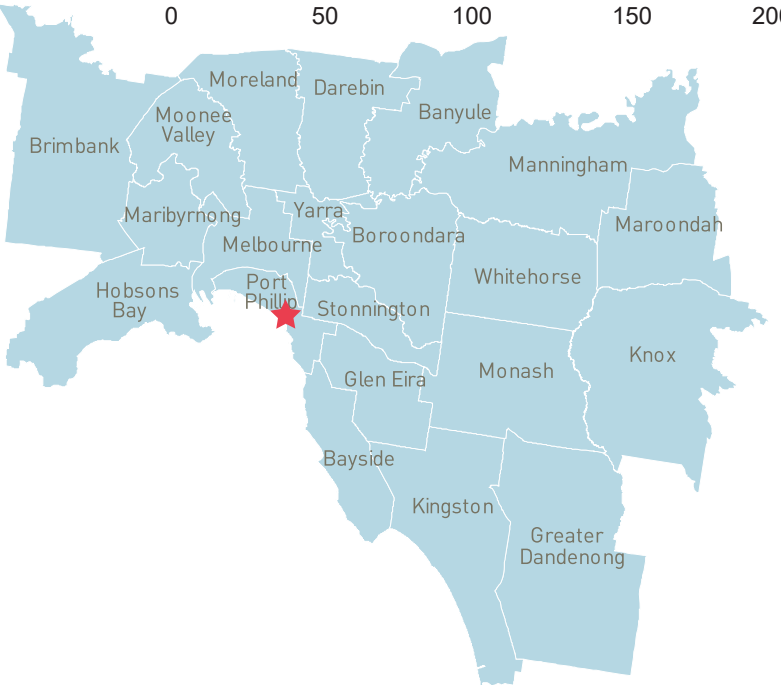
Imagery: *Melways*

N

Approximate Scale:

0 50 100 150 200 m.



Approximate Site Location

Atma *Environmental*

Client:

City of Port Phillip

Project: #2048 - St Kilda City of Port Phillip

Drawn by: GB Dated: 13/08/2021 Status: Final

Figure 1. Site Location

LEGEND:

- Investigation Area
- Borehole
- Approximate Former Shed

Imagery: Nearmap 13.08.2021

Atma *Environmental*

Client: **City of Port Phillip**

Project: #2048 - St Kilda - DSI

Drawn by: GB Dated: 13/08/2021 Status: Final

Figure 2. Site Details

Approximate Scale:

0 5 10 15 20 m.

Table 1. Results Summary Vs Ecological & Human Health Assessment Criteria

PROJECT: St Kilda (#2048-2)

Atma Environmental

Sample Identification	Date Sampled	Laboratory	Laboratory Report No.	Material Type	METALS													TRHs					BTEXN					CHCs		PAHs			PHENOLS			OCPs										PCBs	OTHER			
					Arsenic (As)	Cadmium (Cd)	Total Chromium (Cr)[D]	Hexavalent Chromium	Copper (Cu)	Lead (Pb)	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Silver (Ag)	Tin (Sn)	Zinc (Zn)	Cyanide (CN-)	T.R.H (C6-C10)[B]	T.R.H (>C10-C16)	T.R.H (>C10-C16)[C]	T.R.H (>C16-C34)	T.R.H (>C34-C40)	Benzene	Toluene	Ethyl Benzene	Xylene	Naphthalene	EPA IWRG 621 CHC (Total)	EPA IWRG 621 Other CHC (Total)	PAHs (Total)	Benzo-a-Pyrene	Sum of Carcinogenic PAHs (as BaP TEQ)	Phenol	Pentachlorophenol	Cresols	DDT+DDE+DDD	Aldrin and dieldrin	Chlordane	Endosulfan	Endrin	Heptachlor	Hexachlorobenzene	Methoxychlor	Toxaphene	PCBs (total)	Fluoride (total, fusion)	Cation Exchange Capacity (cmolc/kg)	pH (1:5 Aqueous extract)	pH (1:5 soil:CaCl2 extract)
Ecological Investigation & Screening Levels *Residential / Public Open Space*					100	n/a	200	n/a	130	1,100	n/a	n/a	340	n/a	n/a	n/a	300	n/a	180	120	n/a	300	2800	50	85	70	45	170	n/a	n/a	n/a	0.7	n/a	n/a	n/a	n/a	180	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ecological Investigation & Screening Levels *Commercial / Industrial*					160	n/a	320	n/a	180	1,800	n/a	n/a	580	n/a	n/a	n/a	430	n/a	215	170	n/a	1700	3300	75	135	165	95	370	n/a	n/a	n/a	1.4	n/a	n/a	n/a	n/a	640	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Health Investigation & Screening Levels **'A' Setting -** *Low Density Residential*					100	20	n/a	100	6,000	300	40	n/a	400	200	n/a	n/a	7,400	250	45	n/a	110	4500[A]	6300[A]	0.5	160	55	40	3.0	n/a	n/a	300	n/a	3.0	3,000	100	400	240	6.0	50	270	10	6.0	10	300	20	1.0	n/a	n/a	n/a	n/a
Health Investigation & Screening Levels **'B' Setting -** *High Density Residential*					500	150	n/a	500	30,000	1,200	120	n/a	1,200	1,400	n/a	n/a	60,000	300	45	n/a	110	5800[A]	8100[A]	0.5	160	55	40	3.0	n/a	n/a	400	n/a	4.0	45,000	130	4,700	600	10	90	400	20	10	15	500	30	1.0	n/a	n/a	n/a	n/a
Health Investigation & Screening Levels **'C' Setting -** *Recreational / Public Open Space*					300	90	n/a	300	17,000	600	80	n/a	1,200	700	n/a	n/a	30,000	240	5100[A]	n/a	3800[A]	5300[A]	7400[A]	120[A]	18000[A]	5300[A]	15000[A]	1900[A]	n/a	n/a	300	n/a	3.0	40,000	120	4,000	400	10	70	340	20	10	10	400	30	1.0	n/a	n/a	n/a	n/a
Health Investigation & Screening Levels **'D' Setting -** *Commercial / Industrial*					3,000	900	n/a	3,600	240,000	1,500	730	n/a	6,000	10,000	n/a	n/a	400,000	1,500	260	n/a	20000[A]	27000[A]	38000[A]	3.0	99000[A]	27000[A]	230	11000[A]	n/a	n/a	4,000	n/a	40	240,000	660	25,000	3600	45	530	2,000	100	50	80	2,500	160	7.0	n/a	n/a	n/a	n/a
BH01_0.1	22-Aug-21	Eurofins	819280	Fill	5.5	< 0.4	17	< 1	17	57	< 0.1	< 5	6	< 2	< 2	< 10	87	< 5	< 20	< 50	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	< 0.1	< 100	-	7.8	7.4
BH01_0.5	22-Aug-21	Eurofins	819280	Fill	21	0.9	35	-	34	430	0.4	< 5	15	< 2	< 2	< 10	410	-	< 20	< 50	< 50	< 100	< 100	-	-	-	-	< 0.5	-	-	8	0.9	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.1
BH01_1.0	22-Aug-21	Eurofins	819280	Fill	16	0.5	21	-	14	140	0.2	< 5	8.7	< 2	< 2	< 10	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01_1.3	22-Aug-21	Eurofins	819280	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.1	22-Aug-21	Eurofins	819280	Fill	8.8	0.6	16	-	42	290	0.2	< 5	17	< 2	< 2	< 10	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.1	1.3	1.6	-	-	-	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	-	-	-	-	6.8
BH02_0.5	22-Aug-21	Eurofins	819280	Fill	22	< 0.4	23	-	18	300	0.2	< 5	14	< 2	< 2	< 10	410	-	< 20	< 50	< 50	< 100	< 100	-	-	-	-	< 0.5	-	-	1.6	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.9	22-Aug-21	Eurofins	819280	Natural	42	< 0.4	91	-	13	36	0.1	< 5	36	2.5	< 2	< 10	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.5	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_0.2	22-Aug-21	Eurofins	819280	Fill	3.3	< 0.4	5.6	-	16	56	< 0.1	< 5	< 5	< 2	< 2	< 10	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.5	< 0.5	< 0.5	-	-	-	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	-	28	-	7.6
BH03_0.5	22-Aug-21	Eurofins	819280	Fill	5.0	0.9	10	-	38	240	0.1	< 5	15	< 2	< 2	< 10	340	-	< 20	< 50	< 50	< 100	< 100	-	-	-	-	< 0.5	-	-	6.2	0.9	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_1.1	22-Aug-21	Eurofins	819280	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_1.6	22-Aug-21	Eurofins	819280	Natural	70	< 0.4	91	-	11	23	< 0.1	< 5	40	2.8	< 2	< 10	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.5	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_0.45	22-Aug-21	Eurofins	819280	Fill	2.8	< 0.4	8.7	-	12	21	< 0.1	< 5	7.6	< 2	< 2	< 10	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.5	< 0.5	< 0.5	-	-	-	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	-	-	-	4.6
BH04_1.0	22-Aug-21	Eurofins	819280	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_1.5	22-Aug-21	Eurofins	819280	Fill	28	< 0.4	38	-	22	170	0.7	< 5	18	< 2	< 2	< 10	120	-	< 20	< 50	< 50	150	< 100	-	-	-	-	< 0.5	-	-	9.7	1.4	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_1.8	22-Aug-21	Eurofins	819280	Natural	60	< 0.4	74	-	11	32	0.1	< 5	28	2.5	< 2	< 10	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.5	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.1	22-Aug-21	Eurofins	819280	Fill	21	< 0.4	27	-	21	190	0.3	< 5	13	< 2	< 2	12	130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.9	0.7	0.7	-	-	-	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	-	-	-	7.7
BH05_0.5	22-Aug-21	Eurofins	819280	Fill	43	< 0.4	46	< 1	12	140	0.1	< 5	8.8	< 2	< 2	< 10	90	< 5	< 20	< 50	< 50	150	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 0.5	< 0.5	10.8	1.2	1.6	< 0.5	< 1	< 0.5	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	< 0.1	160	-	6.9	-
BH05_0.9	22-Aug-21	Eurofins	819280	Natural	76	< 0.4	67	-	12	25	< 0.1	< 5	23	< 2	< 2	< 10	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.5	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:

[A] = NEPM HSLs (for vapour intrustion) are Non-Limiting. Therefore, Soil Health Screening Levels for Direct Contact from CRC CARE 2011 Technical Report No. 10 'Health Screening Levels for Petroleum Hydrocarbons in Soil and Groundwater' are adopted

[B] = Less BTEX

[C] = Less Naphthalene

[D] = EIL is for Cr 3+

Bolded results exceed criteria;

ND means Not Detected;

n/a means Not Available or Not Applicable;

All units are in **mg/kg** unless otherwise stated;

HSLs are for SANDY soils at 0 - <1 m depth

ESLs are the LOWEST values for fine/coarse grained soils

EILs for Copper, Chromium, Nickel and Zinc are for aged contaminants, calculated using the NEPM EIL calculators using the following parameters:

-Traffic Volume:	High	
-Clay Content (%):	1	(Conservative value in the absence of clay content analysis)
-CEC (cmolc/kg):	28	(Lowest recorded CEC value)
-pH (CaCl2):	5.37	(Average of recorded pH values)

Table 2. Results Summary Vs Off-Site Disposal Criteria

PROJECT: St Kilda (#2048-2)

Atma Environmental

Sample Identification	Date Sampled	Laboratory	Laboratory Report No.	Material Type	Arsenic (As)	Cadmium (Cd)	Chromium Hexavalent (Cr VI)	Copper (Cu)	Lead (Pb)	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Silver (Ag)	Tin (Tn)	Zinc (Zn)
Category C Threshold - Maximum allowable for Fill					**20**	**3.0**	**1.0**	**100**	**300**	**1.0**	**40**	**60**	**10**	**10**	**50**	**200**
Category B Threshold					**500**	**100**	**500**	**5,000**	**1,500**	**75**	**1,000**	**3,000**	**10,000**	**180**	**n/a**	**35,000**
Category A Threshold					**2,000**	**400**	**2,000**	**20,000**	**6,000**	**300**	**4,000**	**12,000**	**40,000**	**720**	**n/a**	**140,000**
BH01_0.1	22-Aug-21	Eurofins	819280	Fill	5.5	< 0.4	< 1	17	57	< 0.1	< 5	6.2	< 2	< 2	< 10	87
BH01_0.5	22-Aug-21	Eurofins	819280	Fill	**21**	0.9	-	34	**430**	0.4	< 5	15	< 2	< 2	< 10	**410**
BH01_1.0	22-Aug-21	Eurofins	819280	Fill	16	0.5	-	14	140	0.2	< 5	8.7	< 2	< 2	< 10	160
BH01_1.3	22-Aug-21	Eurofins	819280	Fill	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.1	22-Aug-21	Eurofins	819280	Fill	8.8	0.6	-	42	290	0.2	< 5	17	< 2	< 2	< 10	**280**
BH02_0.5	22-Aug-21	Eurofins	819280	Fill	**22**	< 0.4	-	18	300	0.2	< 5	14	< 2	< 2	< 10	**410**
BH02_0.9	22-Aug-21	Eurofins	819280	Natural	**42**	< 0.4	-	13	36	0.1	< 5	36	2.5	< 2	< 10	27
BH03_0.2	22-Aug-21	Eurofins	819280	Fill	3.3	< 0.4	-	16	56	< 0.1	< 5	< 5	< 2	< 2	< 10	100
BH03_0.5	22-Aug-21	Eurofins	819280	Fill	5.0	0.9	-	38	240	0.1	< 5	15	< 2	< 2	< 10	**340**
BH03_1.1	22-Aug-21	Eurofins	819280	Fill	-	-	-	-	-	-	-	-	-	-	-	-
BH03_1.6	22-Aug-21	Eurofins	819280	Natural	**70**	< 0.4	-	11	23	< 0.1	< 5	40	2.8	< 2	< 10	32
BH04_0.45	22-Aug-21	Eurofins	819280	Fill	2.8	< 0.4	-	12	21	< 0.1	< 5	7.6	< 2	< 2	< 10	37
BH04_1.0	22-Aug-21	Eurofins	819280	Fill	-	-	-	-	-	-	-	-	-	-	-	-
BH04_1.5	22-Aug-21	Eurofins	819280	Fill	**28**	< 0.4	-	22	170	0.7	< 5	18	< 2	< 2	< 10	120
BH04_1.8	22-Aug-21	Eurofins	819280	Natural	**60**	< 0.4	-	11	32	0.1	< 5	28	2.5	< 2	< 10	31
BH05_0.1	22-Aug-21	Eurofins	819280	Fill	**21**	< 0.4	-	21	190	0.3	< 5	13	< 2	< 2	12	130
BH05_0.5	22-Aug-21	Eurofins	819280	Fill	**43**	< 0.4	< 1	12	140	0.1	< 5	8.8	< 2	< 2	< 10	90
BH05_0.9	22-Aug-21	Eurofins	819280	Natural	**76**	< 0.4	-	12	25	< 0.1	< 5	23	< 2	< 2	< 10	25

	ORGANIC SPECIES														PESTICIDES								
Sample Identification	T.R.H (C6-C9)	T.R.H (C10-C36)	MAHs (sum)	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Styrene	PAHs (Total)	Benzo (a) Pyrene	CHCs	Polychlorinated biphenyls	Phenols (halogenated)	Phenols (total, non-halogenated)	Organochlorine pesticides	Aldrin + Dieldrin	DDT+DDE+DDD	Chlordane	Heptachlor	Other OCPs	Cyanide (total)	Fluoride (total, fusion)	pH (units)
Category C Threshold - Maximum allowable for Fill	**100**	**1000**	**7.0**	**1.0**	**n/a**	**n/a**	**n/a**	**n/a**	**20**	**1.0**	**1.0**	**2.0**	**1.0**	**60**	**1.0**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**50**	**450**	**<4 or >10**
Category B Threshold	**650**	**10,000**	**n/a**	**4.0**	**3,200**	**1,200**	**2,400**	**120**	**100**	**40**	**n/a**	**n/a**	**n/a**	**560**	**n/a**	**1.2**	**50**	**4.0**	**1.2**	**10**	**2,500**	**10,000**	**n/a**
Category A Threshold	**2,600**	**40,000**	**n/a**	**16**	**12,800**	**4,800**	**9,600**	**480**	**400**	**160**	**n/a**	**n/a**	**n/a**	**2,200**	**n/a**	**4.8**	**50**	**16**	**4.8**	**50**	**10,000**	**40,000**	**<2 or >12.5**
BH01_0.1	< 20	< 50	< 0.5	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1	< 1	< 20	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05	< 0.1	< 5	< 100	7.8
BH01_0.5	< 20	< 50	-	-	-	-	-	-	8	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01_1.0	-	-	-	-	-	-	-	-	1.1	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01_1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.1	-	-	-	-	-	-	-	-	10.1	**1.3**	-	-	-	-	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05	< 0.1	-	-	-
BH02_0.5	< 20	< 50	-	-	-	-	-	-	1.6	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_0.9	-	-	-	-	-	-	-	-	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_0.2	-	-	-	-	-	-	-	-	< 0.5	< 0.5	-	-	-	-	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05	< 0.1	-	-	-
BH03_0.5	< 20	< 50	-	-	-	-	-	-	6.2	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_1.6	-	-	-	-	-	-	-	-	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_0.45	-	-	-	-	-	-	-	-	< 0.5	< 0.5	-	-	-	-	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05	< 0.1	-	-	-
BH04_1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_1.5	< 20	181	-	-	-	-	-	-	9.7	**1.4**	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_1.8	-	-	-	-	-	-	-	-	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.1	-	-	-	-	-	-	-	-	2.9	0.7	-	-	-	-	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05	< 0.1	-	-	-
BH05_0.5	< 20	177	< 0.5	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	10.8	**1.2**	< 0.5	< 0.1	< 1	< 20	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05	< 0.1	< 5	160	6.9
BH05_0.9	-	-	-	-	-	-	-	-	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:

ND means Not Detected;
n/a means Not Available or Not Applicable;
K means x 1,000
95% UCL Average calculated using ProUCL (Refer to attached calculation outputs).
Bolded results exceed criteria;
Underlined results exceed the maximum allowable levels for Fill and 20 times the relevant Category B elutriable threshold
Units are in **mg/kg** unless otherwise stated;
Refer to EPA Publication 1828.2 for further details on contaminant concentration thresholds

Atma Environmental

Table 3.1 QA/QC - Equipment Decontamination, Field & Trip Samples

Date Sampled	Laboratory	Laboratory Report No.	Sample Name	Arsenic (As)	Cadmium (Cd)	Total Chromium (Cr)	Copper (Cu)	Lead (Pb)	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Silver (Ag)	Tin (Sn)	Zinc (Zn)	PAHs (Total)	Benzo (a) Pyrene
22-Aug-21	Eurofins	819280	**TRIP-220821A**	Held at lab		-	-	-	-	-	-	-	-	-	-	-	-
22-Aug-21	Eurofins	819280	**DECON-220821A**	< 0.001	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.0001	< 0.005	< 0.001	< 0.001	< 0.005	< 0.005	< 0.005	-	-

NOTES: All results in mg/L.

Table 3.2. Sample Relative Percentage Differences (RPDs)

Date Sampled	Laboratory	Laboratory Report No.	Sample Name	Arsenic (As)	Cadmium (Cd)	Total Chromium (Cr)	Copper (Cu)	Lead (Pb)	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Silver (Ag)	Tin (Sn)	Zinc (Zn)	PAHs (Total)	Benzo (a) Pyrene
	Eurofins		*Limit of Reporting*	*2.0*	*0.4*	*5.0*	*5.0*	*5.0*	*0.1*	*5.0*	*5.0*	*2.0*	*0.2*	*10*	*5.0*	*0.5*	*0.5*
	ALS		*Limit of Reporting*	*5.0*	*1.0*	*2.0*	*5.0*	*5.0*	*0.1*	*2.0*	*2.0*	*5.0*	*2.0*	*5.0*	*5.0*	*0.5*	*0.5*
22-Aug-21	Eurofins	819280	BH02_0.1	8.8	0.6	16	42	290	0.2	< 5	17	< 2	< 2	< 10	280	10.1	1.6
			DUP-220821A	8.6	0.6	14	47	320	0.2	< 5	17	< 2	< 2	11	260	10.7	1.2
	RPD:			2.3	0.0	13	11	9.8	0.0	0*	0.0	0*	0*	**75**	7.4	5.8	29
22-Aug-21	Eurofins	819280	BH02_0.1	8.8	0.6	16	42	290	0.2	< 5	17	< 2	< 2	< 10	280	10.1	1.6
	ALS	EM2116842	**SPLIT-220821A**	6.0	<1	10	29	167	-	-	10	-	-	-	157	43.8	4.8
	RPD			38	18	46	37	**54**	-	-	**52**	-	-	-	**56**	**125**	**100**

NOTES: Where one sample is non-detectable and its paired result is positive, one half the detection limit is used to calculate the RPD. All results in mg/kg;

Grey shaded results exceed 50%, although are based on low results <10 x LOR or due to halving a non-detectable value to calculate the RPD * = effectively zero

Yellow highlighted results indicate an RPD above the acceptable limit after an allowance for the effect of non-detect values and/or limits of reporting has been taken

APPENDIX A

Lotsearch EnviroPro Report

LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Date: 16 Aug 2021 09:04:37

Reference: LS023223 EP

Address: Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Dataset Listing

Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Topographic and Cadastre data	State Government Victoria - Department of Environment, Land, Water & Planning	19/07/2021	19/07/2021	Monthly	-	-	-	-
Current EPA Priority Sites	Environment Protection Authority (Vic)	02/08/2021	30/06/2021	Monthly	1000m	0	0	0
Former EPA Priority Sites & other Remedial Notices	Environment Protection Authority (Vic)	25/01/2021	25/01/2021	Monthly	1000m	0	0	2
EPA PFAS Site Investigations	Environment Protection Authority (Vic)	03/08/2021	18/09/2020	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Department of Defence	02/08/2021	02/08/2021	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Department of Defence	02/08/2021	02/08/2021	Monthly	2000m	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	05/08/2021	05/08/2021	Monthly	2000m	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Department of Defence	11/05/2021	11/05/2021	Quarterly	2000m	0	0	0
EPA Environmental Audit Reports	Environment Protection Authority (Vic)	22/07/2021	22/07/2021	Monthly	1000m	0	0	29
EPA Groundwater Zones with Restricted Uses	Environment Protection Authority (Vic)	11/08/2021	11/08/2021	Monthly	1000m	0	0	2
Current EPA Licensed Activities	Environment Protection Authority (Vic)	22/07/2021	22/07/2021	Monthly	1000m	0	0	0
Former EPA Licensed Activities	Environment Protection Authority (Vic)	22/07/2021	22/07/2021	Monthly	1000m	0	0	0
EPA Works Approvals	Environment Protection Authority (Vic)	09/08/2021	09/08/2021	Monthly	1000m	0	0	0
National Waste Management Facilities Database	Geoscience Australia	12/05/2021	07/03/2017	Annually	1000m	0	0	0
Statewide Waste and Resource Recovery Infrastructure Plan Facilities	State Government Victoria - Department of Sustainability	27/11/2014	31/12/2012	None planned	1000m	0	0	0
EPA Prescribed Industrial Waste	Environment Protection Authority (Vic)	12/08/2020	12/08/2020	Quarterly	1000m	0	0	1
EPA Victorian Landfill Register	Environment Protection Authority (Vic)	04/08/2021	25/08/2020	Quarterly	1000m	0	0	0
Former Waste Disposal Sites	Various historical sources collated by Lotsearch	15/08/2017	29/12/1998	Not required	1000m	1	2	10
Former Gasworks	Various historical sources collated by Lotsearch	15/08/2017	15/08/2017	Not required	1000m	0	0	0
National Liquid Fuel Facilities	Geoscience Australia	15/02/2021	15/03/2012	Annually	1000m	0	0	2
Historical Business Directories (Premise & Intersection Matches)	Hardie Grant; Sands & McDougall, State Library Victoria			Not required	50m	0	-	12
Historical Business Directories (Road & Area Matches)	Hardie Grant; Sands & McDougall, State Library Victoria			Not required	50m	-	-	4
Historical Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant; Sands & McDougall, State Library Victoria			Not required	250m	0	7	109
Historical Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant; Sands & McDougall, State Library Victoria			Not required	250m	-	1	2
Features of Interest	State Government Victoria - Department of Environment, Land, Water & Planning	31/05/2021	31/05/2021	Quarterly	1000m	1	5	185
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000m	1	1	1
Groundwater Salinity	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0m	1	-	-
Depth to Watertable	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0m	1	-	-

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Surface Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0m	1	-	-
Basement Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0m	1	-	-
Groundwater Boreholes WMIS	State Government Victoria - Department of Environment, Land, Water & Planning	16/02/2021	16/02/2021	Quarterly	2000m	0	0	103
Groundwater Boreholes Earth Resources Database	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	20/05/2021	17/02/2010	Annually	2000m	0	0	0
Groundwater Boreholes Fed Uni	Federation University Australia	21/12/2017	07/01/2014	As required	2000m	0	0	0
Historical Mining Activity - Shafts	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	11/05/2021	11/05/2021	Annually	1000m	0	0	0
Geological Units 1:50,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000m	1	1	8
Geological Structures 1:50,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000m	0	0	0
Dykes and Marker Beds 50k	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000m	0	0	0
Shear zones 250k	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000m	0	0	0
Atlas of Australian Soils	ABARES	19/05/2017	17/02/2011	As required	1000m	1	1	1
Victorian Soil Type Mapping	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	24/08/2017	21/03/2016	Unknown	1000m	1	1	1
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000m	1	1	2
Coastal Acid Sulfate Soils	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	28/03/2017	30/03/2011	None planned	1000m	0	0	1
Planning Scheme Zones	State Government Victoria - Department of Environment, Land, Water & Planning	06/07/2021	30/06/2021	Monthly	1000m	1	2	84
Planning Scheme Overlay	State Government Victoria - Department of Environment, Land, Water & Planning	06/07/2021	30/06/2021	Monthly	1000m	2	5	205
Commonwealth Heritage List	Australian Government Department of Agriculture, Water and the Environment	18/05/2021	20/11/2019	Annually	1000m	0	0	0
National Heritage List	Australian Government Department of Agriculture, Water and the Environment	18/05/2021	20/11/2019	Annually	1000m	0	0	1
Victorian Heritage Register	State Government Victoria - Department of Environment, Land, Water & Planning	05/08/2021	05/08/2021	Quarterly	1000m	0	1	39
Cultural Heritage Sensitivity	State Government Victoria - Department of Premier and Cabinet	31/05/2021	31/05/2021	Quarterly	1000m	0	0	11
Bushfire Prone Area	State Government Victoria - Department of Transport, Planning and Local Infrastructure	05/08/2021	06/07/2021	Quarterly	1000m	0	0	0
Fire History	State Government Victoria - Department of Environment, Land, Water & Planning	12/07/2021	30/12/2020	Quarterly	1000m	0	0	0
Flood - 1 in 100 Year Modelled Flood Extent	State Government Victoria - Department of Environment, Land, Water & Planning	11/08/2021	05/02/2018	Quarterly	1000m	0	0	0
Victorian Coastal Inundation Sea Level Rise	State Government Victoria - Department of Environment, Land, Water & Planning	10/04/2018	24/10/2017	Unknown	1000m	0	0	8
Native Vegetation (Modelled 2005 Ecological Vegetation Classes)	State Government Victoria - Department of Environment, Land, Water & Planning	13/01/2015	31/12/2005	None planned	1000m	0	0	4
Ramsar Wetland Areas in Victoria	State Government Victoria - Department of Environment, Land, Water & Planning	25/02/2021	13/03/2019	Annually	1000m	0	0	0
Groundwater Dependent Ecosystems Atlas	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000m	0	0	4
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000m	0	0	6

Site Diagram

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Legend

- Site Boundary
- Internal Parcel Boundaries

Total Area: 670m²

Total Perimeter: 121m

Disclaimers:

Measurements are approximate only and may have been simplified or smaller lengths removed for readability.

Parcels that make up a small percentage of the total site area have not been labelled for increased legibility.

Scale:

0 5 10
Meters

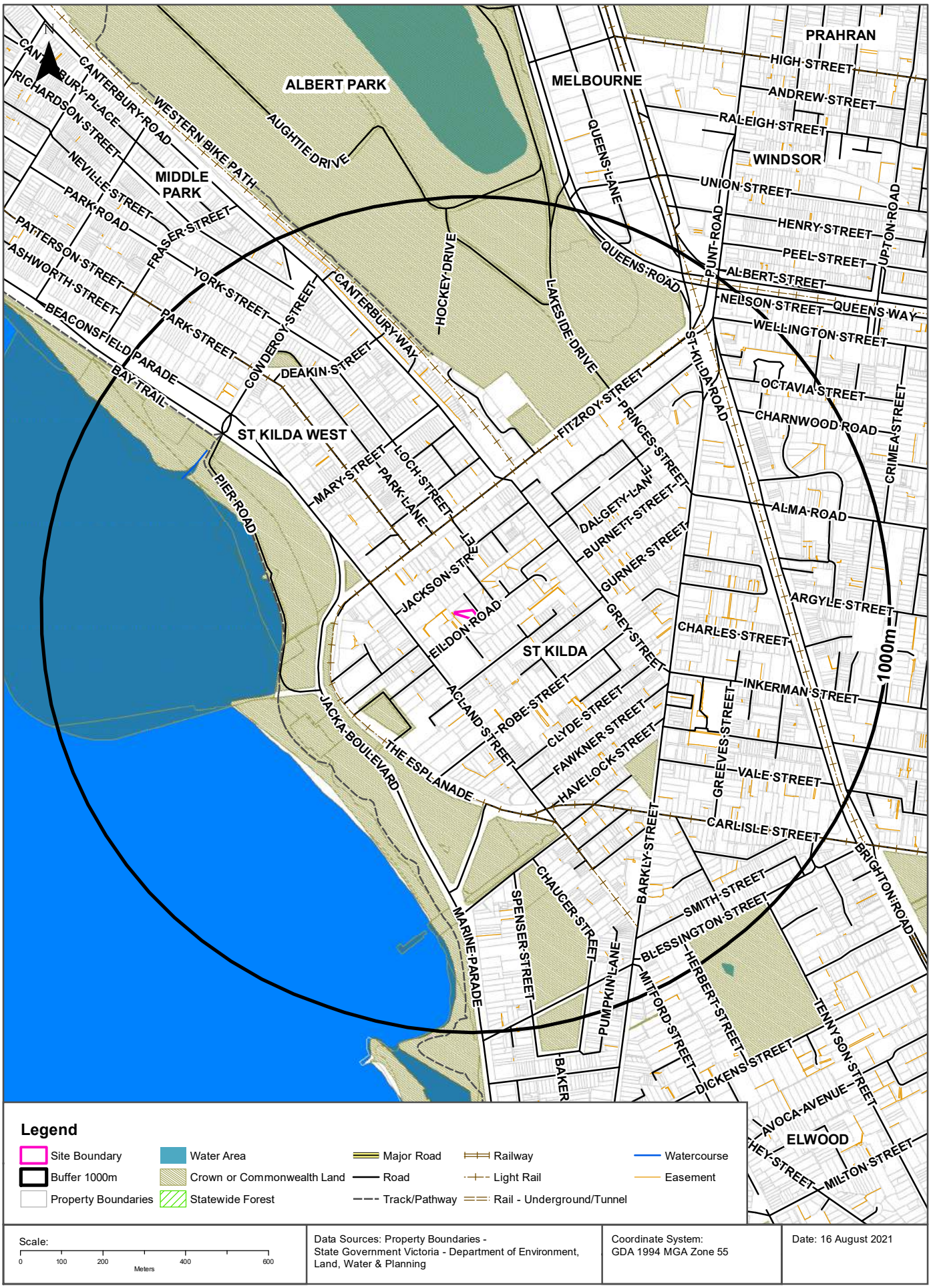
Data Source Aerial Imagery:
© Aerometrex Pty Ltd

Coordinate System:
GDA 1994 MGA Zone 55

Date: 16 August 2021

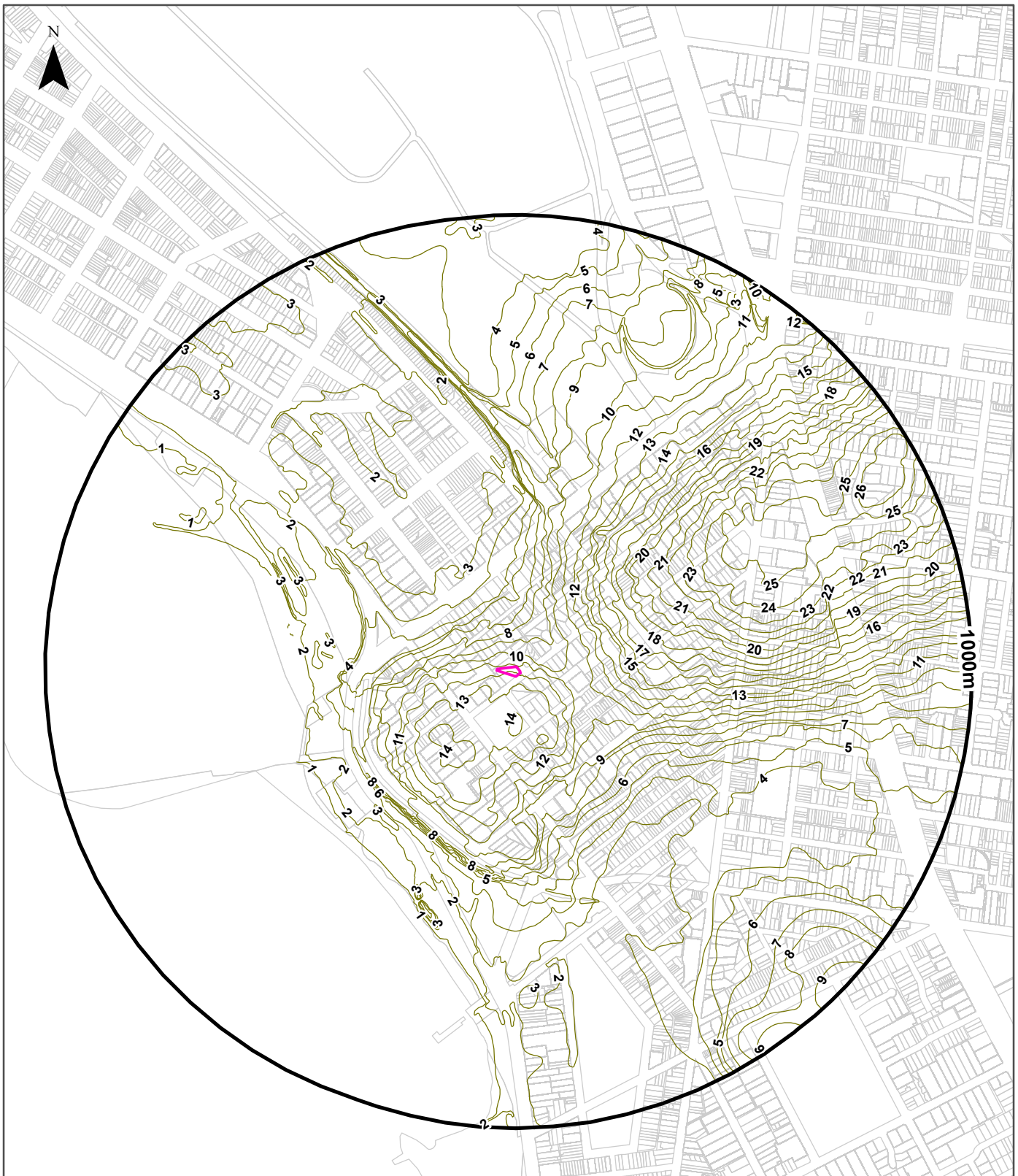
Topographic Data

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Elevation Contours (m AHD)

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Legend

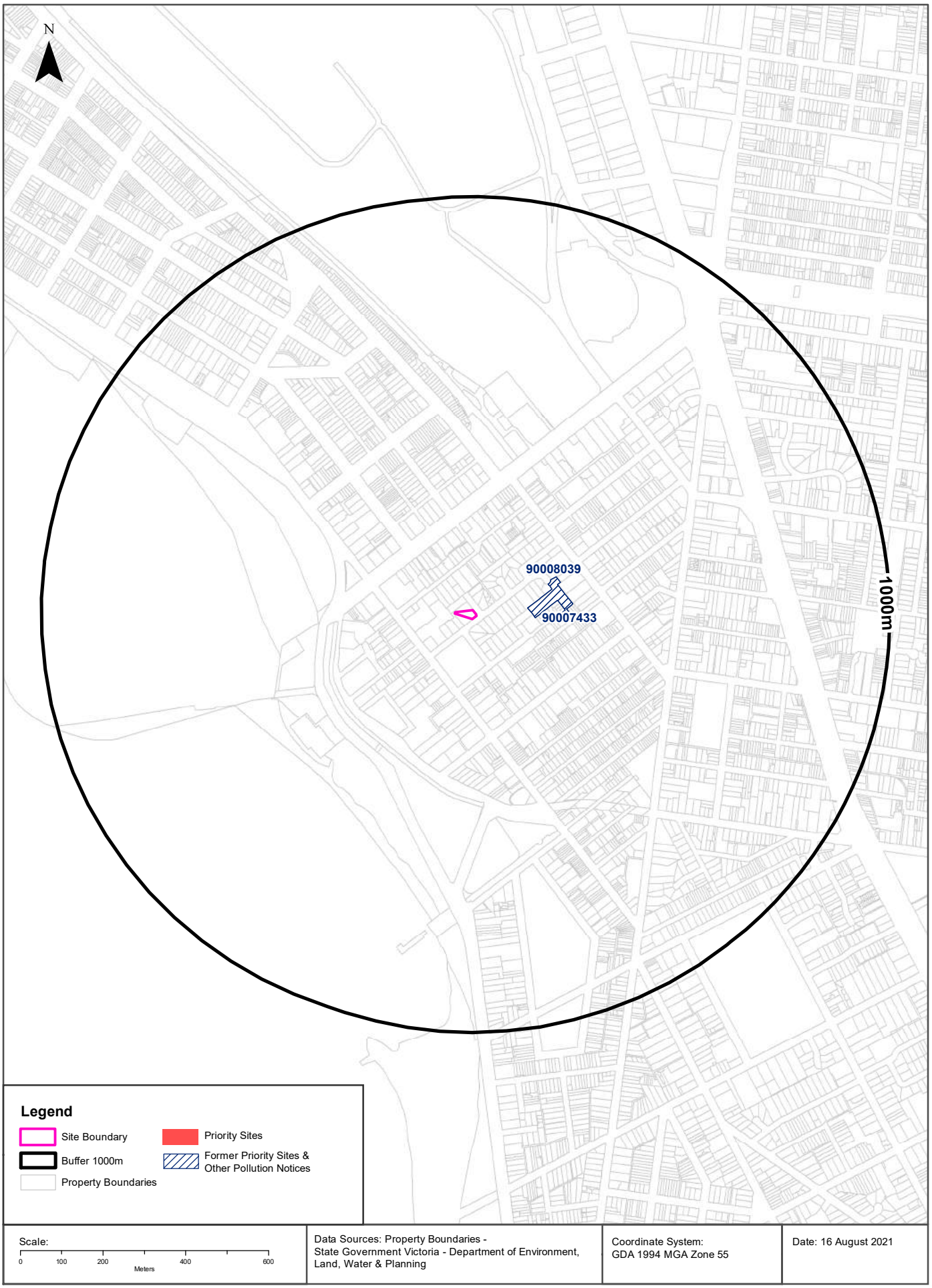
- Site Boundary
- Buffer 1000m
- Property Boundaries
- Elevation Contour (m AHD)

Accuracy & Currency: The vertical accuracy of these contours is +/-0.5m and must therefore not be used for any design or engineering works, but only as a general guide to topography. Gaps may occur along contour lines due to vertical topography, obscured topography in the source mapping such as buildings, quarries, dense vegetation or dead ground, or the fact that original buildings have been replaced in the intervening forty years since the original contour capture. Original contour capture occurred between 1970 and 1985.

Scale: 0 100 200 400 600 Meters	Data Sources: Property Boundaries - State Government Victoria - Department of Environment, Land, Water & Planning	Coordinate System: GDA 1994 MGA Zone 55	Date: 16 August 2021

EPA Records - Priority Sites & Pollution Notices

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



EPA Priority Sites & Pollution Notices

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Current EPA Priority Sites Register

Sites on the current EPA priority sites register that exist within the dataset buffer:

Notice No	Address	Suburb	Issue	Loc Conf	Dist (m)	Direction
N/A	No records in buffer					

Priority Sites Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

Former EPA Priority Sites & Other Pollution Notices

Sites within the dataset buffer that have been issued a Pollution Notice:
Note. Due to pollution notices being revoked and removed from published lists this is not an exhaustive list of all past pollution notices.

Notice No	Notice Type	Company	Address	Suburb	Status	Issue	Date Issued	Loc Conf	Dist	Dir
90007433	Previous Priority Notice		63 - 71 GREY ST	ST KILDA	Previous Priority Notice	Contaminated soil is retained and managed onsite. Requires assessment and/or clean up.		Premise Match	125m	East
90008039	Previous Priority Notice		63 - 71 GREY ST	ST KILDA	Previous Priority Notice			Premise Match	125m	East

Pollution Notice Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

PFAS Investigation & Management Programs

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

EPA PFAS Site Investigations

Sites being investigated by the EPA for PFAS contamination within the dataset buffer:

Map ID	Site Name	Address	Location Confidence	Distance	Direction
N/A	No records in buffer				

EPA PFAS Site Investigations Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

Defence PFAS Investigation & Management Program Investigation Sites

Sites being investigated by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Location Confidence	Distance	Direction
N/A	No records in buffer				

Defence PFAS Investigation & Management Program Data Custodian: Department of Defence, Australian Government

Defence PFAS Investigation & Management Program Management Sites

Sites being managed by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Location Confidence	Distance	Direction
N/A	No records in buffer				

Defence PFAS Investigation & Management Program Data Custodian: Department of Defence, Australian Government

Airservices Australia National PFAS Management Program

Sites being investigated or managed by Airservices Australia for PFAS contamination within the dataset buffer:

Map ID	Site Name	Impacts	Location Confidence	Distance	Direction
N/A	No records in buffer				

Airservices Australia National PFAS Management Program Data Custodian: Airservices Australia

Defence Sites

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Defence 3 Year Regional Contamination Investigation Program

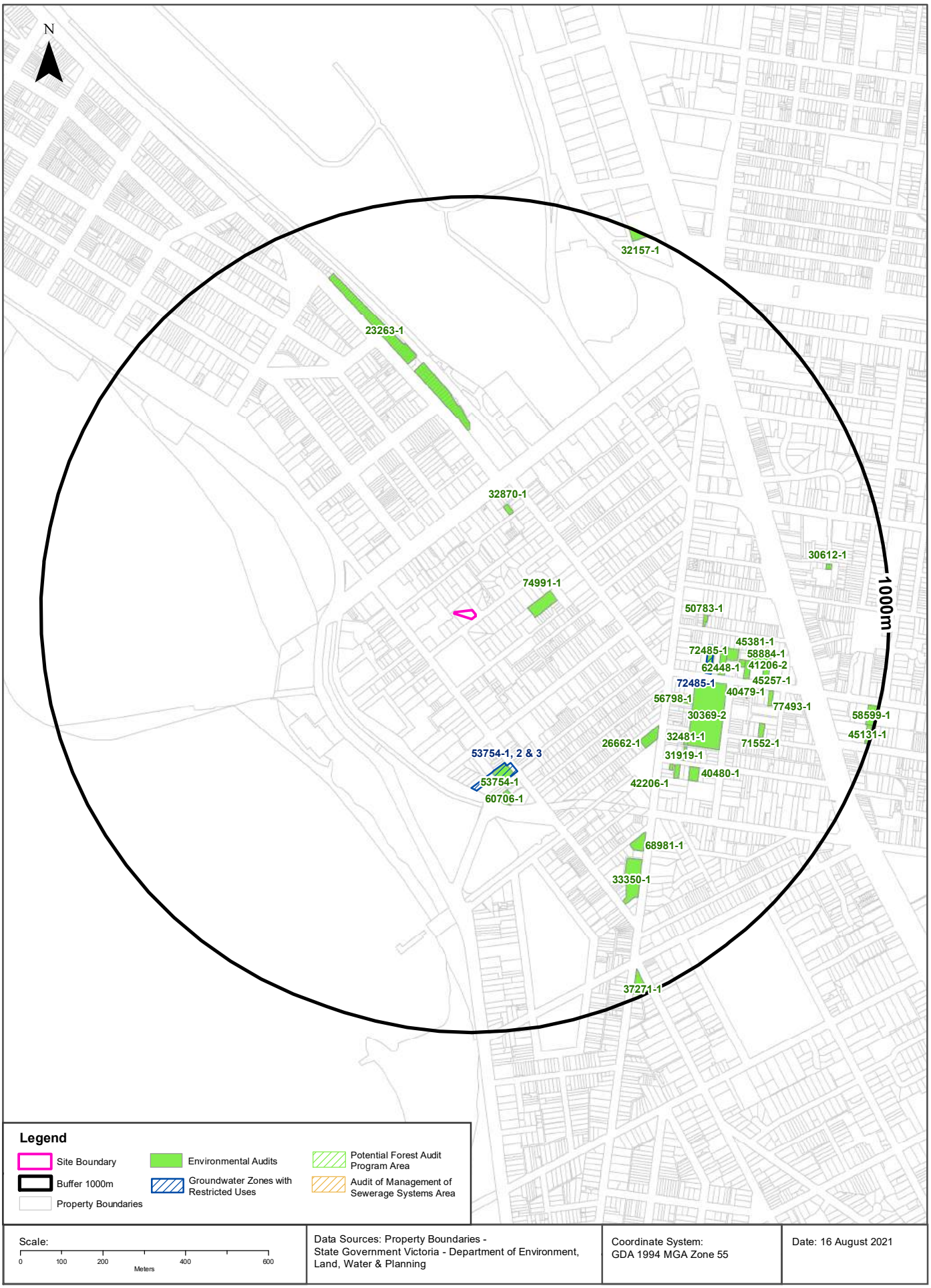
Sites which have been assessed as part of the Defence 3 Year Regional Contamination Investigation Program within the dataset buffer:

Property ID	Base Name	Address	Known Contamination	Loc Conf	Dist	Dir
N/A	No records in buffer					

Defence 3 Year Regional Contamination Investigation Program, Data Custodian: Department of Defence, Australian Government

EPA Records - Audit Reports & GQRUZ

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



EPA Records

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

EPA Environmental Audits

EPA environmental audit records that exist within the dataset buffer:
Note. Please click on CARMS No. to activate a hyperlink to online documentation. If link does not work, documentation may still be accessible via the EPA Interaction Portal.

CARMS No	Transaction No	Site	Address	Suburb	Date Complete	Audit Category	Loc Conf	Distance	Direction
74991-1	8005321	63-71 GREY ST, ST KILDA VIC 3182 63-71 GREY ST	63-71 GREY ST, ST KILDA VIC 3182 63-71 GREY ST	ST KILDA	28/03/2018	53V Audit recommendations	Premise Match	125m	East
32870-1	8000665	58-60 JACKSON ST	58-60 JACKSON ST	ST KILDA	19/11/1997	53X Statement	Premise Match	247m	North
53754-1,	8001788	63 ACKLAND ST	63 ACKLAND ST	ST KILDA	17/02/2006	53X Statement	Premise Match	356m	South
60706-1	8002253	30 THE ESP	30 THE ESP	ST KILDA	05/04/2007	53X Statement	Premise Match	422m	South
23263-1	8000227	CA 2D & 2E, CANTERBURY ROAD CA 2D & 2E, CANTERBURY ROAD ST KILDA VIC 3182	ST KILDA VIC 3182 62A FITZROY ST	ST KILDA	04/07/1994	53X Certificate	Premise Match	434m	North
26662-1	8000335	SW CNR HAVELOCK AND BARKLY ST CNR HAVELOCK AND BARKLY ST	BARKLY STREET, ST KILDA BARKLY STREET	ST KILDA	10/08/1995	53X Statement	Premise Match	497m	South East
56798-1	8001950	104 BARKLY ST	104 BARKLY ST	ST KILDA	04/01/2005	53X Statement	Premise Match	510m	East
50783-1	8001636	8 CHARLES ST	8 CHARLES ST	ST KILDA	17/09/2003	53X Statement	Premise Match	548m	East
30369-2	8000508	FORMER MUNICIPAL DEPOT 33 INKERMAN ST	FORMER MUNICIPAL DEPOT 33 INKERMAN ST	ST KILDA	14/04/2000	53X Statement	Premise Match	553m	South East
72485-1	8004144	30 INKERMAN ST	30 INKERMAN ST	ST KILDA	30/06/2014	53X Certificate	Premise Match	568m	East
32481-1	8000633	3 BLANCHE ST	3 BLANCHE ST	ST KILDA	12/01/1998	53X Statement	Premise Match	578m	South East
42206-1	8001225	1-3 VALE ST	1-3 VALE ST	ST KILDA	10/10/2000	53X Statement	Premise Match	589m	South East
31919-1	8000597	6 VALE ST	6 VALE ST	ST KILDA	27/05/1997	53X Statement	Premise Match	595m	South East
62448-1	8002431	38 INKERMAN ST	38 INKERMAN ST	ST KILDA	10/07/2008	53X Certificate	Premise Match	599m	East
45381-1	8001331	2-8 INKERMAN GR, ST KILDA VIC 3182 8 INKERMAN GR	2-8 INKERMAN GR	ST KILDA	06/04/2001	53X Statement	Premise Match	614m	East
40480-1	8001090	9-11 VALE ST	9-11 VALE ST	ST KILDA	17/12/1999	53X Statement	Premise Match	632m	South East
58884-1	8002079	REAR OF 58 INKERMAN STREET	REAR OF 58 INKERMAN STREET	ST KILDA	27/04/2006	53X Statement	Premise Match	646m	East
45257-1	8001328	60 INKERMAN ST	60 INKERMAN ST	ST KILDA	09/03/2001	53X Statement	Premise Match	660m	East
68981-1	8003093	173-177 BARKLY ST	173-177 BARKLY ST	ST KILDA	22/08/2012	53X Certificate	Premise Match	663m	South East
41206-2	8001139	62 INKERMAN ST	62 INKERMAN ST	ST KILDA	13/10/2008	53X Statement	Premise Match	674m	East
40479-1	8001089	57 INKERMAN ST	57 INKERMAN ST	ST KILDA	24/11/1999	53X Statement	Premise Match	677m	East

CARMS No	Transaction No	Site	Address	Suburb	Date Complete	Audit Category	Loc Conf	Distance	Direction
33350-1	8000701	181-189 BARKLY ST	181-189 BARKLY ST	ST KILDA	30/06/1999	53X Statement	Premise Match	689m	South East
77493-1	8005988	71 INKERMAN STREET 71 INKERMAN ST	71 INKERMAN STREET 71 INKERMAN ST	ST KILDA	27/03/2019	53X Statement	Premise Match	732m	East
71552-1	8003359	36 BLANCHE ST	36 BLANCHE ST	ST KILDA	07/01/2013	53X Statement	Premise Match	733m	East
30612-1	8000518	9 SOMERSET ST	9 SOMERSET ST	ST KILDA	06/12/1996	53X Statement	Premise Match	852m	East
37271-1	8000890	CNR BARKLY, MITFORD STS FMR SERVICE STAT CNR BARKLY & MILFORD ST	218A BARKLY ST, ST KILDA VIC 3182 218A BARKLY ST	ST KILDA	07/01/1999	53X Statement	Premise Match	935m	South East
32157-1	8000609	632 ST KILDA RD	632 ST KILDA RD	MELBOURNE	16/07/1997	53X Statement	Premise Match	972m	North East
58599-1	8002059	135 INKERMAN ST	135 INKERMAN ST	ST KILDA	26/07/2006	53X Statement	Premise Match	973m	East
45131-1	8001320	12 PAKINGTON ST	12 PAKINGTON ST	ST KILDA	09/04/2001	53X Statement	Premise Match	982m	East

Environmental Audit Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

EPA Records

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

EPA Groundwater Zones with Restricted Uses

EPA GQRUZ records that exist within the dataset buffer:
Note. Please click on CARMS No. to activate a hyperlink to online documentation.

CARMS No	EPA Id	Site History	Site Address	Restricted Uses	Status	Loc Conf	Distance	Direction
53754-1, 2 & 3	7000186	Service station/fuel storage	63 ACKLAND ST ST KILDA VIC 3182	Drinking water Irrigation of crops (including domestic gardens) and parks Livestock water supply Water used for recreational purposes (e.g. swimming)	Current EPA list	Premise Match	356m	South
72485-1	7000904	Mixed commercial use	30 INKERMAN ST ST KILDA VIC 3182	Drinking water Irrigation of crops (including domestic gardens) and parks Water used for industrial purposes Water used for recreational purposes (e.g. swimming)	Current EPA list	Premise Match	568m	East

Environmental GQRUZ Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

EPA Activities

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

EPA Licensed Activities

EPA licensed activities that exist within the dataset buffer:

Trans No	Licence No	Licence Type	Organisation	Premise Ref	Premise Address 1	Premise Address 2	Activities	Loc Conf	Dist (m)	Direction
N/A	No records in buffer									

Licensed Activity Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

Former EPA Licensed Activities

Former EPA licensed activities that exist within the dataset buffer:

Licence No	Organisation	Premise Address	Suburb	Activities	Loc Conf	Dist (m)	Direction
N/A	No records in buffer						

Former Licensed Activity Data Custodian: State Government Victoria - Environmental Protection Authority (EPA)

EPA Works Approvals

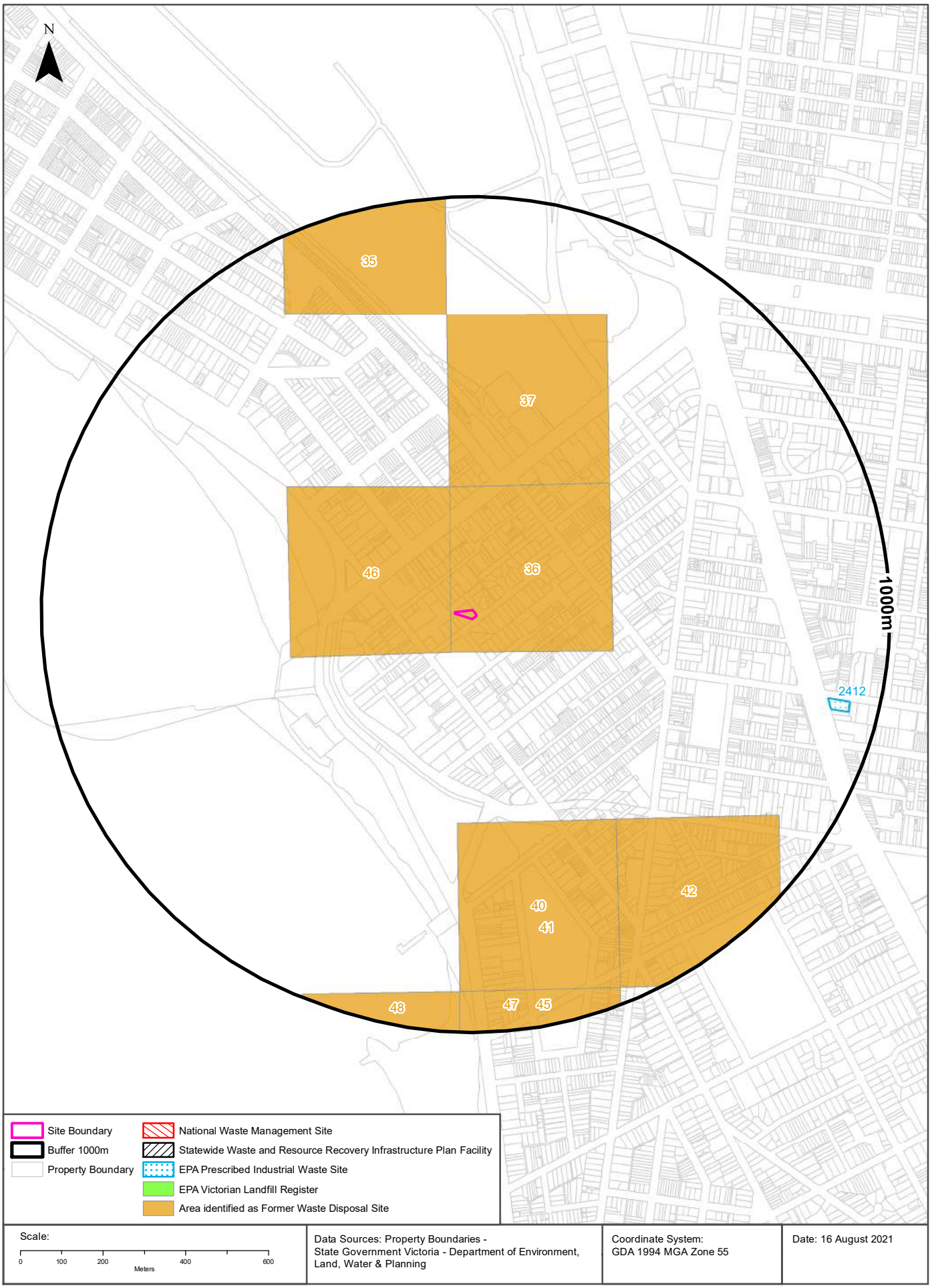
EPA works approvals that exist within the dataset buffer:

Transaction No	Status	Approval No	Organisation	Premise Address	Suburb	Scheduled Categories	Loc Conf	Dist (m)	Direction
N/A	No records in buffer								

Works Approvals Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

Waste Management Facilities and Landfills

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Waste Management Facilities & Landfills

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

National Waste Management Site Database

Sites on the National Waste Management Site Database within the dataset buffer:

Site Id	Owner	Name	Address	Suburb	Class	Landfill	Reprocess	Transfer	Comments	Loc Conf	Dist (m)	Direction
N/A	No records in buffer											

Waste Management Facilities Data Source: Australian Government Geoscience Australia

Statewide Waste and Resource Recovery Infrastructure Plan Facilities

Statewide Waste and Resource Recovery Infrastructure Plan Facilities within the dataset buffer:

Map Id	Owner	Site Name	Address	Suburb	Category	Sub Category	Loc Conf	Distance	Direction
N/A	No records in buffer								

SWRRIPF Data Source: State Government Victoria - Department of Sustainability

EPA Prescribed Industrial Waste

EPA Prescribed Industrial Waste treaters, disposers and permitted transporters within the dataset buffer:

Map Id	Company Name	Address	Suburb	Treatment /Disposal	Transport	Accredited Agent	EPA List Status	Loc Conf	Dist (m)	Dir
2412	RJC ELECTRICAL SOLUTIONS PTY LTD	UNIT 206 109 INKERMAN ST	ST KILDA VIC 3182	No	Yes	No	Previous EPA List	Premise Match	871m	East

Prescribed Industrial Waste Data Source: State Government Victoria - Environment Protection Authority (EPA)

Waste Management Facilities & Landfills

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

EPA Victorian Landfill Register

EPA Victorian Landfill Register sites within the dataset buffer:

Landfill Register No.	Site	Address	Operating Status	Est. Year Of Closure	Waste type	Loc Conf	Dist (m)	Direction
N/A	No records in buffer							

EPA Victorian Landfill Register Data Source: State Government Victoria - Environment Protection Authority (EPA)

Former Waste Disposal sites

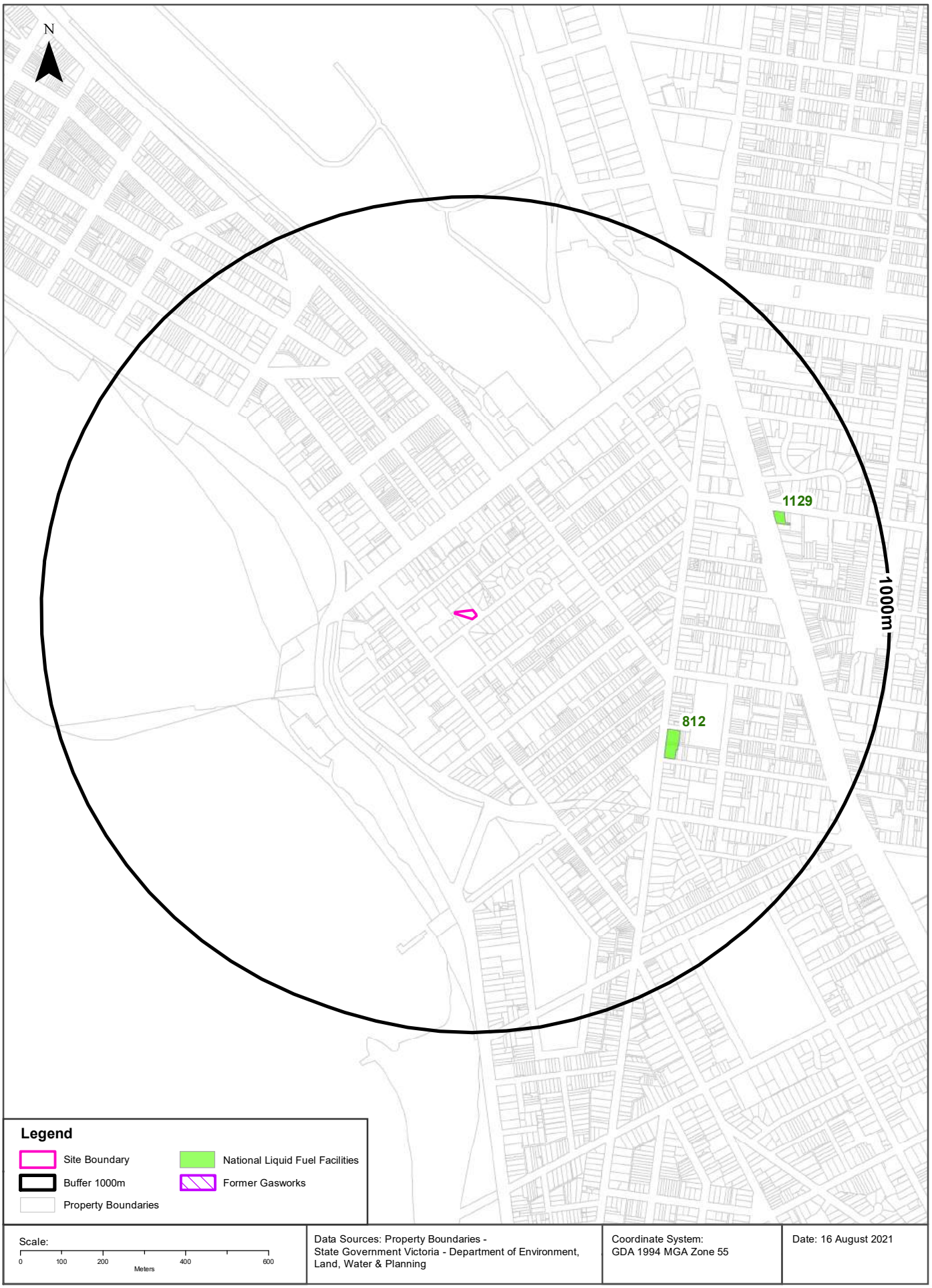
Former Waste Disposal sites identified from various historical sources within the dataset buffer:
Note - As this is a dataset collated from various historical sources, it is not an exhaustive list of all former waste disposal sites

Map Id	Title	Suburb	Fill Type	Prior Use	Current Use	Start Year	Finish Year	Other Information	Melway Page	Melway Grid	Location Confidence	Dist	Direction
36	B/n Park st & Canterbury rd	St Kilda	inert		residential	1879		drift sand	58	A9	Melway Map Grid Reference	0m	On-site
46	Calani Gardens	St Kilda		swamp	reserve	1910	1912	Reclaimed from swamp	57	K9	Melway Map Grid Reference	12m	North West
37	St Kilda Station	St Kilda				1856	1857	station embankment	58	A8	Melway Map Grid Reference	300m	North
40	O'Donnell gardens	St Kilda	municipal waste		reserve		up until 1877	increased ground height by 4ft 6in	58	A11	Melway Map Grid Reference	493m	South
41	Peanut Farm Reserve	St Kilda	manure &nightsoil		reserve	1857	1877	extent not certain	58	A11	Melway Map Grid Reference	493m	South
42	St.Kilda Botannical Gardens	St Kilda	municipal waste	quarry	reserve			Gravel removed & holes filled will rubbish	58	B11	Melway Map Grid Reference	594m	South East
35	nr. Albert Park Lake	St Kilda	inert	swamp	reserve	1870	1873	bay at Cowderoy st. more info about Alb.Park lake from Melb. Parks & Waterways, filled in with sand & silt	57	K7	Melway Map Grid Reference	718m	North
45	marine pde	St Kilda			foreshore	1899		Marine Pde embanked, fromed and metalled	58	A12	Melway Map Grid Reference	900m	South
47	marine Pde	St Kilda		sandbanks	road	1930		sandbanks enclosed and filled	58	A12	Melway Map Grid Reference	900m	South
48	marina	St Kilda			marina	1970's			57	K12	Melway Map Grid Reference	902m	South

Former Waste Disposal Sites Data Source: Collated from various historical sources

Former Gasworks & Liquid Fuel Facilities

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Former Gasworks and Liquid Fuel Facilities

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Former Gasworks

Former Gasworks identified from various historical sources within the dataset buffer:
Note - As this is a dataset collated from various historical sources, it is not an exhaustive list of all former Gasworks

Map Id	Site Name	Date Opened	Year Closed	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Collated from various historical sources

National Liquid Fuel Facilities

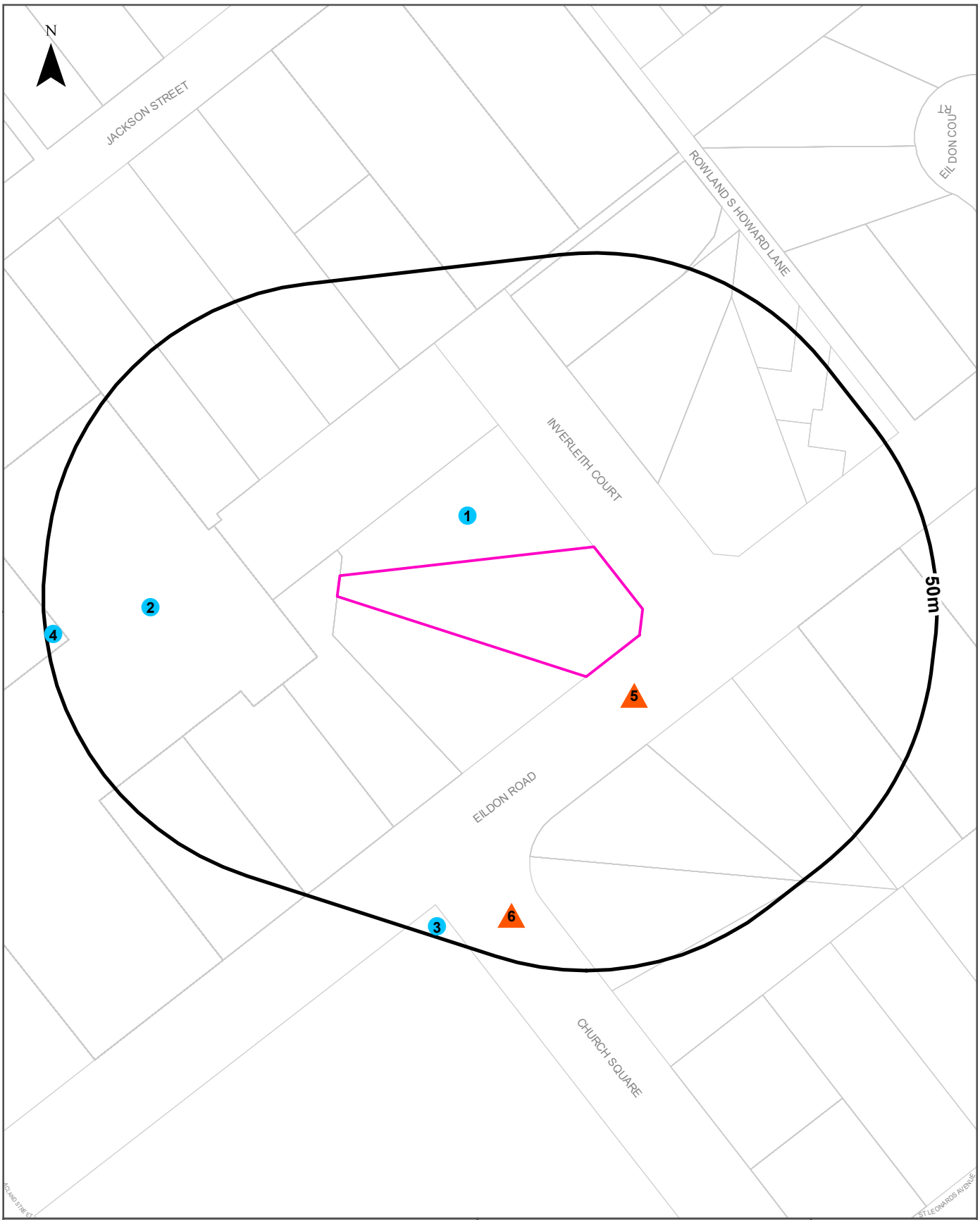
National Liquid Fuel Facilties within the dataset buffer:

Map Id	Owner	Name	Address	Suburb	Class	Operational Status	Operator	Revision Date	Loc Conf	Dist (m)	Direction
812	Shell	Coles Express St Kilda	120-134 Barkly Street	St Kilda	Petrol Station	Operational		25/07/2011	Premise Match	536m	South East
1129	7-Eleven Pty Ltd	St Kilda	154-158 St Kilda Road	St Kilda	Petrol Station	Operational		13/07/2012	Premise Match	757m	East

National Liquid Fuel Facilities Data Source: Geoscience Australia

Historical Business Directories

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Legend

- Site Boundary
- Buffer 50m
- Property Boundary
- Business directory records mapped to a specific premise
- Business directory records mapped to a road intersection
- Business directory records mapped to a road corridor
- Business directory records mapped to a general area

Scale: 0 10 20 30 40 Meters

Coordinate System: GDA 1994 MGA Zone 55

Date: 16 August 2021

Data Sources: Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018
Sands & McDougall's Directory - Digitised by State Library Victoria
Property Boundaries © State Government Victoria - Dept. of Environment, Land, Water & Planning 2021

Historical Business Directories

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Business Directory Records 1896-1991
Premise or Road Intersection Matches

Universal Business Directory and Sands & McDougall Directory records, from years 1991, 1984, 1980, 1977, 1974, 1965, 1960, 1950, 1945, 1925, 1905 & 1896, mapped to a premise or road intersection within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	Management Consultants	Little John D & Associates, 1 Inverleith St., St Kilda 3182	38744	1991	Premise Match	0m	North West
2	Convention Management &/or Organisation	Diplomat Motor Inn, 12 Acland St., St. Kilda. 3182.	41749	1991	Premise Match	9m	West
	CATERERS.	Diplomat Motor Inn, 12 Acland St., St. Kilda.	13794	1980	Premise Match	9m	West
	MOTELS.	Diplomat Motor Inn, 12 Acland St., St. Kilda.	37861	1980	Premise Match	9m	West
	BUTCHERS.	Praga Butchers., 12 Acland St., St. Kilda. 3182	5135	1977	Premise Match	9m	West
	GUEST HOUSES	Inverleith., 12 Acland St., St. Kilda. 3182	141209	1974	Premise Match	9m	West
	GUEST HOUSES	Inverleith., 12 Acland St., St. Kilda	52498	1965	Premise Match	9m	West
	GUEST HOUSES	Inverleith, 12 Acland St., St. Kilda	82331	1960	Premise Match	9m	West
	Guest Houses	ST. KILDA, S.2-Inverlelth, 12 Acland-st	27758	1945	Premise Match	9m	West
3	Theatrical Producers	Theatre Works Ltd, 14 Acland St, St Kilda. 3182	17034	1991	Premise Match	45m	South
	CHILD MINDING CENTRES.	Bambi Day Nursery & Child Minding Centre, 14 Acland St., St. Kilda. 3182	112580	1974	Premise Match	45m	South
4	Florists	Jarrais, 10 Acland-st, St K., S.2	25646	1945	Premise Match	46m	West

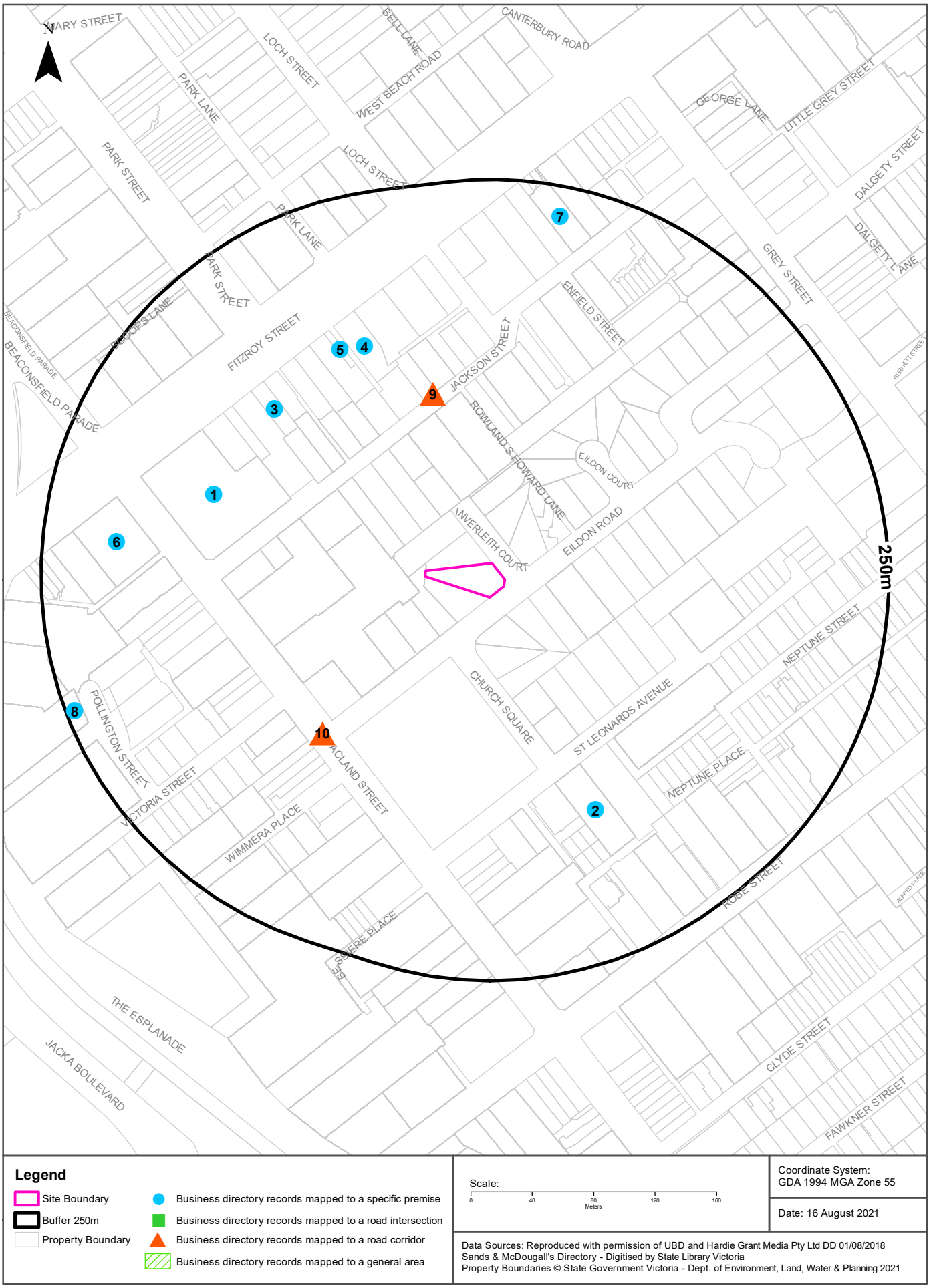
Business Directory Records 1896-1991
Road or Area Matches

Universal Business Directory and Sands & McDougall Directory records, from years 1991, 1984, 1980, 1977, 1974, 1965, 1960, 1950, 1945, 1925, 1905 & 1896, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
5	FLATS	Biltmore. Eildon Rd St. K.	389241	1925	Road Match	0m
	FLATS	Brayza Eildon Rd . St. K.	389242	1925	Road Match	0m
6	PHYSICIANS & SURGEONS	Atkinson, G., Church Square, St. Kilda	8017	1960	Road Match	25m
	MEDICAL PRACTITIONERS	Atkinson, G., Church Square, St. Kilda	53491	1950	Road Match	25m

Dry Cleaners, Motor Garages & Service Stations

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Legend

- Site Boundary
- Buffer 250m
- Property Boundary
- Business directory records mapped to a specific premise
- Business directory records mapped to a road intersection
- Business directory records mapped to a road corridor
- Business directory records mapped to a general area

Scale: 0 40 80 120 160 Meters

Coordinate System: GDA 1994 MGA Zone 55

Date: 16 August 2021

Historical Business Directories

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Dry Cleaners, Motor Garages & Service Stations Premise or Road Intersection Matches

Dry Cleaners, Motor Garages & Service Stations from Sands & McDougall's Directories (1925, 1945) and UBD Business Directories (1948-1992), mapped to a premise or road intersection, within the dataset buffer. As spatial coverage varies between directory editions, this table may not include every year in the dataset.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	DRY CLEANERS &/OR PRESSERS	St. Kilda Dry Cleaning, Prince Of Wales Arc., 29 Fitzroy St., St. Kilda. 3182.	7093	1989	Premise Match	99m	West
	DRY CLEANERS & PRESSERS.	Topcare, 29 Fitzroy St., St. Kilda. 3182	66988	1988	Premise Match	99m	West
	DRY CLEANERS & PRESSERS.	Topcare, 29 Fitzroy St., St Kilda. 3182	56703	1986	Premise Match	99m	West
	DRY CLEANERS & PRESSERS.	St. Kleena, 29 Fitzroy St., St Kilda. 3182	18055	1984	Premise Match	99m	West
	DRY CLEANERS & PRESSERS.	St. Kleena, 29 Fitzroy St., St Kilda 3182	37329	1982	Premise Match	99m	West
	DRY CLEANERS, PRESSERS &/OR DYERS.	St. Kleena, 29 Fitzroy St., St. Kilda.	228	1980	Premise Match	99m	West
	DRY CLEANERS, PRESSERS &/OR DYERS.	St. Kleena., 29 Fitzroy St., St Kilda 3182	32568	1979	Premise Match	99m	West
2	MOTOR GARAGES & ENGINEERS	Whiteford Motors., 8 St Leonards Av St Kilda	29720	1963-64	Premise Match	123m	South East
	MOTOR GARAGES AND ENGINEERS	Whiteford Motors, 8 St. Leonards Av., St. Kilda	2175	1960	Premise Match	123m	South East
	MOTOR GARAGES & ENGINEERS.	Whiteford Motors., 8 St Leonards Av St Kilda	7163	1959	Premise Match	123m	South East
	MOTOR GARAGES & ENGINEERS.	Whiteford Motors., 8 St Leonards Av St Kilda	67939	1958	Premise Match	123m	South East
	MOTOR GARAGES & ENGINEERS.	Whiteford Motors., 8 St Leonards Av St Kilda	60320	1957	Premise Match	123m	South East
	MOTOR GARAGES & ENGINEERS.	Whiteford Motors., 8 St Leonards Av St Kilda	53412	1956	Premise Match	123m	South East
	MOTOR GARAGES & ENGINEERS.	Whiteford Motors., 8 St Leonards Av St Kilda	49888	1954	Premise Match	123m	South East
	MOTOR GARAGES & ENGINEERS.	Whiteford Motors., 8 St Leonards Av St Kilda	40631	1952-53	Premise Match	123m	South East
3	DRY CLEANERS &/OR PRESSERS	St. Kilda Dry Cleaners, 41A Fitzroy St., St. Kilda. 3182.	7092	1989	Premise Match	125m	North West
	DRY CLEANERS & PRESSERS.	St. Kilda Dry Cleaners, 41A Fitzroy St., St. Kilda. 3182	66967	1988	Premise Match	125m	North West
	DRY CLEANERS & PRESSERS.	St. Kilda Dry Cleaners, 41A Fitzroy St., St Kilda. 3182	56683	1986	Premise Match	125m	North West
	DRY CLEANERS & PRESSERS.	St. Kilda Dry Cleaners, 41A Fitzroy St., St Kilda. 3182	18054	1984	Premise Match	125m	North West
	DRY CLEANERS & PRESSERS.	St. Kilda Dry Cleaners, 41A Fitzroy St., St Kilda 3182	37328	1982	Premise Match	125m	North West
	DRY CLEANERS, PRESSERS &/OR DYERS.	St. Kilda Dry Cleaners, 41a Fitzroy St., St. Kilda.	227	1980	Premise Match	125m	North West
	DRY CLEANERS, PRESSERS &/OR DYERS.	St. Kilda Dry Cleaners, 41A Fitzroy St., St Kilda 3182	32567	1979	Premise Match	125m	North West
4	MOTOR SERVICE STATIONS, PETROL, ETC.	Johnsoon's Auto Service., 59 Fitzroy St St Kilda	34163	1963-64	Premise Match	127m	North West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
4	MOTOR GARAGE & ENGINEERS	Johnson Auto. Service., 59 Fitzroy St St Kilda	21569	1961	Premise Match	127m	North West
	MOTOR SERVICE STATIONS, PETROL, ETC.	Johnsoon's Auto Service., 59 Fitzroy St St Kilda	24602	1961	Premise Match	127m	North West
	MOTOR GARAGES AND ENGINEERS	Johnson Auto. Service, 59 Fitzroy St., St. Kilda	2179	1960	Premise Match	127m	North West
	MOTOR SERVICE STATIONS, PETROL, ETC.	Johnsoon's Auto Service, 59 Fitzroy St., St. Kilda	2178	1960	Premise Match	127m	North West
	MOTOR GARAGES & ENGINEERS.	Johnson Auto. Service., 59 Fitzroy St St Kilda	3644	1959	Premise Match	127m	North West
	MOTOR SERVICE STATIONS PETROL ETC.	Johnson's Auto Service., 59 Fitzroy St St Kilda	7777	1959	Premise Match	127m	North West
	MOTOR GARAGES & ENGINEERS.	Johnson Auto. Service., 59 Fitzroy St St Kilda	67505	1958	Premise Match	127m	North West
	MOTOR GARAGES & ENGINEERS.	Johnson Auto. Service., 59 Fitzroy St St Kilda	57858	1957	Premise Match	127m	North West
	MOTOR SERVICE STATIONS—PETROL, ETC.	Johnson's Auto Service., 59 Fitzroy St St Kilda	60878	1957	Premise Match	127m	North West
	MOTOR GARAGES & ENGINEERS.	Johnson Auto. Service., 59 Fitzroy St St Kilda	50722	1956	Premise Match	127m	North West
	MOTOR SERVICE STATIONS—PETROL, ETC.	Johnson's Auto Service., 59 Fitzroy St St Kilda	53836	1956	Premise Match	127m	North West
	MOTOR GARAGES & ENGINEERS.	Johnson Auto. Service., 59 Fitzroy St St Kilda	46430	1954	Premise Match	127m	North West
	MOTOR GARAGES & ENGINEERS.	Johnson Auto. Service., 59 Fitzroy St St Kilda	40265	1952-53	Premise Match	127m	North West
	MOTOR SERVICE STATIONS-PETROL, ETC.	Johnson's Auto Service., 59 Fitzroy St St Kilda	42943	1952-53	Premise Match	127m	North West
	MOTOR SERVICE STATIONS-PETROL, ETC.	Johnson's Auto Service., 59 Fitzroy St St Kilda	36265	1951-52	Premise Match	127m	North West
	MOTOR SERVICE STATIONS-PETROL, ETC.	Johnson's Auto Service (H. E. Johnson), 59 Fitzroy St., St. Kilda	59651	1950	Premise Match	127m	North West
5	Motor Garages	Dunning, D. J., 57a Fitzroy-st, St. K., S.2	41983	1945	Premise Match	141m	North West
6	DRY CLEANERS, DYERS & PRESSERS	Lyke-Nu Dry Cleaning:- 17 Fitzroy St., St. Kilda	27412	1950	Premise Match	173m	West
	DRY CLEANERS, DYERS & PRESSERS.	Lyke-Nu Dry Cleaning:-, 17 Fitzroy St St Kilda	27677	1948-49	Premise Match	173m	West
7	MOTOR GARAGES & SERVICE STATIONS.	Fortuna Motors, 58 Jackson St., St Kitda. 3182.	2713	1988	Premise Match	209m	North
	MOTOR GARAGES & SERVICE STATIONS.	Fortuna Motors, 58 Jackson St., St Kilda. 3182.	61634	1986	Premise Match	209m	North
	MOTOR' GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Fortuna Motors., 58 Jackson St., St. Kilda.3182	44205	1984	Premise Match	209m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Fortune Motors, 58 Jackson St., St Kilda 3182	42287	1982	Premise Match	209m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Fortuna Motors, 58 Jackson St., St. Kilda.	1136	1980	Premise Match	209m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Fortune Motors, 58 Jackson St., St Kilda 3182	33405	1979	Premise Match	209m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Fortuna Motors, 58 Jackson St., St Kilda 3182	26659	1978	Premise Match	209m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
7	MOTOR GARAGES&/OR ENGINEERS &/OR SERVICE STATIONS.	Fortuna Motors., 58 Jackson St., St. Kilda.3182	25361	1977	Premise Match	209m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Fortuna Motors, 52 Jackson St., St Kilda 3182	18466	1976	Premise Match	209m	North
	MOTOR GARAGES &/OR ENGINEERS.	Fortuna Motors., 52 Jackson St., St Kilda 3182	490	1975-76	Premise Match	209m	North
	MOTOR GARAGES &/OR ENGINEERS.	Fortuna Motors, 52 Jackson St., St. Kilda., 3182	156987	1974	Premise Match	209m	North
	MOTOR GARAGES &/ OR ENGINEERS.	Fortuna Motors, 52 Jackson St., St Kilda 3182	55535	1973	Premise Match	209m	North
	MOTOR GARAGES &/OR ENGINEERS.	Fortuna Motors, 52 Jackson St., St Kilda 3182	44457	1972	Premise Match	209m	North
	MOTOR GARAGES AND ENGINEERS.	Fortuna Motors., 52-60 Jackson St St Kilda	30394	1971	Premise Match	209m	North
	MOTOR GARAGES & ENGINEERS	Fortuna Motors., 52-60 Jackson St St Kilda	17285	1969	Premise Match	209m	North
	MOTOR GARAGES AND ENGINEERS.	Fortuna Motors., 52-60 Jackson St St Kilda	8180	1968-69	Premise Match	209m	North
	MOTOR GARAGES & ENGINEERS.	Fortuna Motors., 52-60 Jackson St St Kilda	65226	1967	Premise Match	209m	North
	MOTOR GARAGES AND ENGINEERS.	Fortuna Motors., 52-60 Jackson St St Kilda	54116	1966-67	Premise Match	209m	North
	MOTOR GARAGES AND ENGINEERS.	Fortuna Motors., 52-60 Jackson St St Kilda	38576	1966	Premise Match	209m	North
	MOTOR GARAGES & ENGINEERS	Fortuna Motors., 52-60 Jackson St., St. Kilda.	69316	1965	Premise Match	209m	North
	MOTOR GARAGES & ENGINEERS	Fortuna Motors., 52-60 Jackson St St Kilda	29114	1963-64	Premise Match	209m	North
	MOTOR GARAGE & ENGINEERS	Fortune Motors., 52-60 Jackson St St Kilda	21426	1961	Premise Match	209m	North
	MOTOR GARAGES AND ENGINEERS	Fortuna Motors, 52-60 Jackson St., St. Kilda.	2184	1960	Premise Match	209m	North
	MOTOR GARAGES & ENGINEERS.	Fortuna Motors., 52-60 Jackson St St Kilda	3520	1959	Premise Match	209m	North
	MOTOR GARAGES & ENGINEERS.	Fortuna Motors., 52-60 Jackson St St Kilda	67385	1958	Premise Match	209m	North
	MOTOR GARAGES & ENGINEERS.	Fortuna Motors., 52-60 Jackson St St Kilda	57746	1957	Premise Match	209m	North
	MOTOR GARAGES & ENGINEERS.	Fortuna Motors., 52-60 Jackson St St Kilda	50600	1956	Premise Match	209m	North
8	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Bayview Service Centre, 10 Esplanade, St. Kilda.	499	1980	Premise Match	239m	West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Bayview Service Centre, 10 Esplanade, St Kilda 3182	32812	1979	Premise Match	239m	West
	MOTOR GARAGES&/OR ENGINEERS &/OR SERVICE STATIONS.	Bayview Service Centre., 10 Esplanade., St. Kilda. 3182	24792	1977	Premise Match	239m	West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Bayview Service Centre, 10 Esplanade, St Kilda 3182	13580	1976	Premise Match	239m	West
	MOTOR SERVICE STATIONS - PETROL, OIL.	Bayview Servicenter., 10 The Esplanade St. Kilda. 3182	4380	1975-76	Premise Match	239m	West
	MOTOR GARAGES &/OR ENGINEERS.	Bayview Servicentre., 10 The Esplanade, St. Kilda 3182	370	1975-76	Premise Match	239m	West
	MOTOR SERVICE STATIONS - PETROL, OIL.	Bayview Servicenter., 10 The Esplanade St Kilda 3182	59632	1973	Premise Match	239m	West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
8	MOTOR GARAGES &/ OR ENGINEERS.	Bayview Servicentre, 10 The Esplanade, St Kilda 3182	55305	1973	Premise Match	239m	West
	MOTOR SERVICE STATIONS- PETROL, OIL.	Bayview Servicenter, 10 The Esplanade, St Kilda 3182	48570	1972	Premise Match	239m	West
	MOTOR GARAGES &/OR ENGINEERS.	Bayview Servicentre, 10 The Esplanade, St Kilda 3182	44228	1972	Premise Match	239m	West
	MOTOR GARAGES AND ENGINEERS.	Bayview Servicenter., 10 The Esplanade St Kilda	30175	1971	Premise Match	239m	West
	MOTOR SERVICE STATIONS-PETROL, ETC.	Bayview Servicenter., 10 The Esplanade St Kilda	35443	1971	Premise Match	239m	West
	MOTOR GARAGES & ENGINEERS	Bayview Servicenter., 10 The Esplanade., St. Kilda	17066	1969	Premise Match	239m	West
	MOTOR SERVICE STATIONS, PETROL, ETC.	Bayview Servicenter., 10 The Esplanade., St. Kilda	20345	1969	Premise Match	239m	West
	MOTOR GARAGES AND ENGINEERS.	Bayview Servicenter., 10 The Esplanade St Kilda	5550	1968-69	Premise Match	239m	West
	MOTOR SERVICE STATIONS, PETROL, ETC.	Bayview Servicenter., 10 The Esplanade St Kilda	12308	1968-69	Premise Match	239m	West
	MOTOR GARAGES & ENGINEERS.	Bayview Servicenter., 10 The Esplanade., St. Kilda	62981	1967	Premise Match	239m	West
	MOTOR SERVICE STATIONS, PETROL, ETC.	Bayview Servieenter., 10 The Esplanade St Kilda	1256	1967	Premise Match	239m	West
	MOTOR GARAGES AND ENGINEERS.	Bayview Servicenter., 10 The Esplanade St Kilda	52884	1966-67	Premise Match	239m	West
	MOTOR SERVICE STATIONS, PETROL, ETC.	Bayview Servicentre., 10 The Esplanade, St. Kilda 3182	58241	1966-67	Premise Match	239m	West
	MOTOR GARAGES AND ENGINEERS.	Bayview Servicenter., 10 The Esplanade St Kilda	38367	1966	Premise Match	239m	West
	MOTOR GARAGES AND ENGINEERS.	Bayview Servicenter., 10 The Esplanade St Kilda	38279	1966	Premise Match	239m	West
	MOTOR SERVICE STATIONS, PETROL, ETC.	Bayview Servicenter., 10 The Esplanade St Kilda	44720	1966	Premise Match	239m	West
	MOTOR SERVICE STATIONS, PETROL, ETC.	Bayview Servicenter., 10 The Esplanade St Kilda	41066	1966	Premise Match	239m	West
	MOTOR GARAGES & ENGINEERS	Fisher's Bob Service Centre., 10 The Esplanade St Kilda	29102	1963-64	Premise Match	239m	West
	MOTOR SERVICE STATIONS, PETROL, ETC.	Fisher's Bob Service Centre., 10 The Esplanade St Kilda	29766	1963-64	Premise Match	239m	West
	MOTOR SERVICE STATIONS, PETROL, ETC.	Fisher's Bob Service Centre., 10 The Esplanade St Kilda	33958	1963-64	Premise Match	239m	West
	MOTOR SERVICE STATIONS, PETROL, ETC.	Anchor Auto Service., 10 The Esplanade St Kilda	22015	1961	Premise Match	239m	West
	MOTOR SERVICE STATIONS, PETROL, ETC.	Anchor Auto Service, 10 The Esplanade, St. Kilda	2214	1960	Premise Match	239m	West
	MOTOR SERVICE STATIONS PETROL ETC.	Anchor Auto Service., 10 The Esplanade St Kilda	7318	1959	Premise Match	239m	West
	MOTOR SERVICE STATIONS—PETROL, ETC.	Anchor Auto Service., 10 The Esplanade St Kilda	60446	1957	Premise Match	239m	West
	MOTOR SERVICE STATIONS-PETROL, ETC.	Anchor Auto Service., 10 The Esplanade St Kilda	53491	1956	Premise Match	239m	West
	MOTOR SERVICE STATIONS—PETROL, ETC.	Geoghegan, V. G., 10 The Esplanade, St. Kilda	53729	1956	Premise Match	239m	West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
8	MOTOR SERVICE STATIONS-PETROL, ETC.	Anchor Auto Service., 10 The Esplanade St Kilda	42712	1952-53	Premise Match	239m	West
	MOTOR SERVICE STATIONS-PETROL, ETC.	Geoghegan V G., 10 The Esplanade St Kilda	42877	1952-53	Premise Match	239m	West
	MOTOR SERVICE STATIONS-PETROL, ETC.	Artrhnr Allte Service., 10 The Esplanade, St. Kilda	36047	1951-52	Premise Match	239m	West
	MOTOR SERVICE STATIONS-PETROL, ETC.	Geoghegan V. G., 10 The Esplanade St Kilda	36206	1951-52	Premise Match	239m	West
	MOTOR SERVICE STATIONS-PETROL, ETC.	Anchor Auto Service, 10 The Esplanade, St. Kilda	59386	1950	Premise Match	239m	West
	MOTOR SERVICE STATIONS-PETROL, ETC.	Geoghegan, V. G., 10 The Esplanade, St. Kilda	59586	1950	Premise Match	239m	West
	MOTOR SERVICE STATIONS—PETROL ETC.	Anchor Auto Service., 10 The Esplanade St Kilda	30612	1948-49	Premise Match	239m	West

Dry Cleaners, Motor Garages & Service Stations Road or Area Matches

Dry Cleaners, Motor Garages & Service Stations from Sands & McDougall's Directories (1925, 1945) and UBD Business Directories (1948-1992), mapped to a road or an area within the dataset buffer. As spatial coverage varies between directory editions, this table may not include every year in the dataset. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
9	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Fortuna Motors, Jackson St., St Kilda 3182	42288	1982	Road Match	78m
10	MOTOR SERVICE STATIONS, PETROL, ETC.	Palais Motor Park & Service Station., 63 Acland St., St. Kilda	24823	1961	Road Match	106m

Aerial Imagery 2021

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

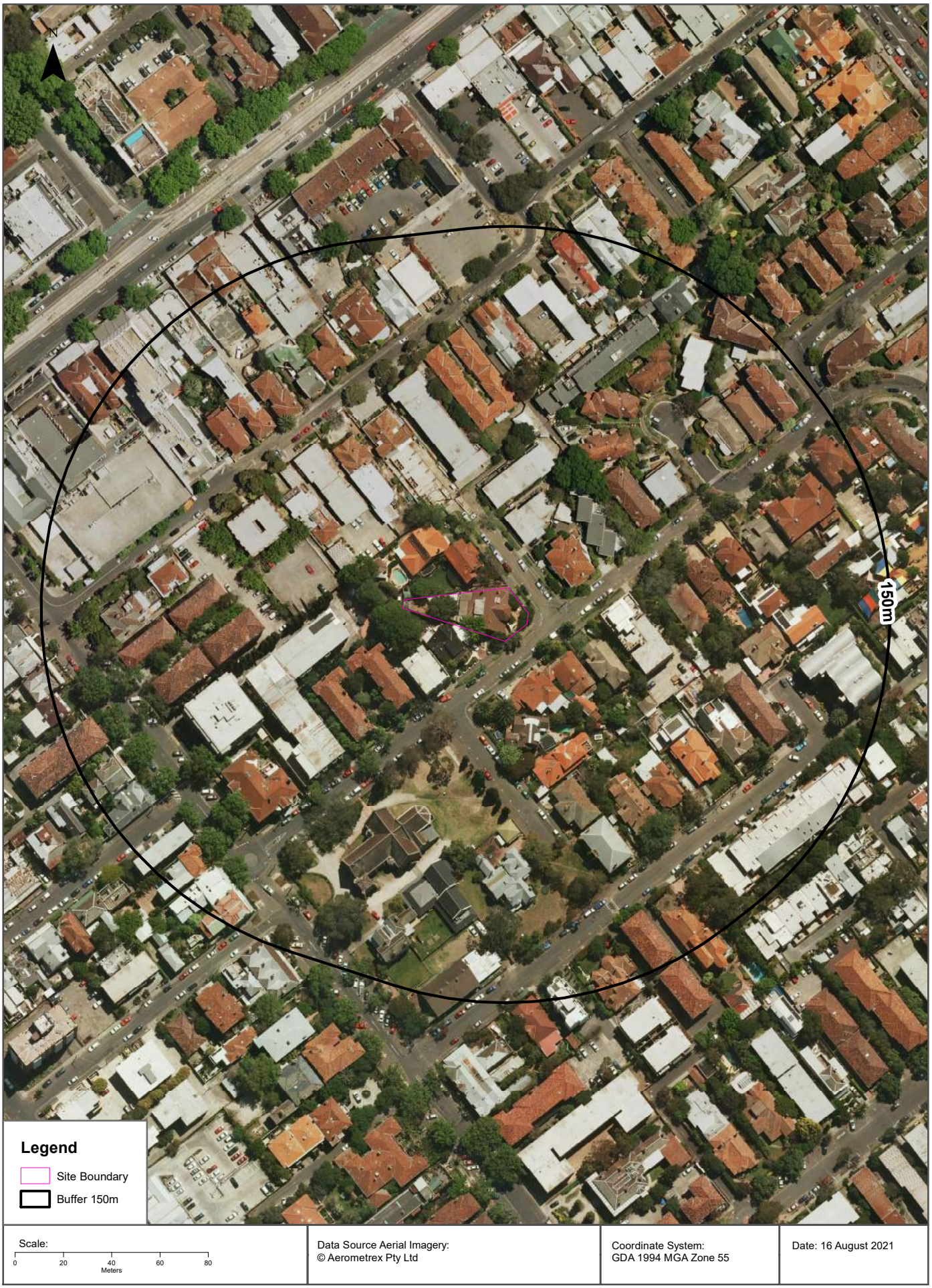
Aerial Imagery 2016

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Data Source Aerial Imagery:	Coordinate System:	Date: 16 August 2021
© Aerometrex Pty Ltd	GDA 1994 MGA Zone 55	

Aerial Imagery 2009

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Aerial Imagery 2001

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Aerial Imagery 1989

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Scale: 0 25 50 Meters 75 100	Data Source Aerial Imagery: © Department of Environment, Land, Water and Planning (Vicmap Topographic Mapping Program)	Coordinate System: GDA 1994 MGA Zone 55	Date: 12 August 2021

Aerial Imagery 1987

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Aerial Imagery 1984

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Aerial Imagery 1978

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Aerial Imagery 1975

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Aerial Imagery 1968

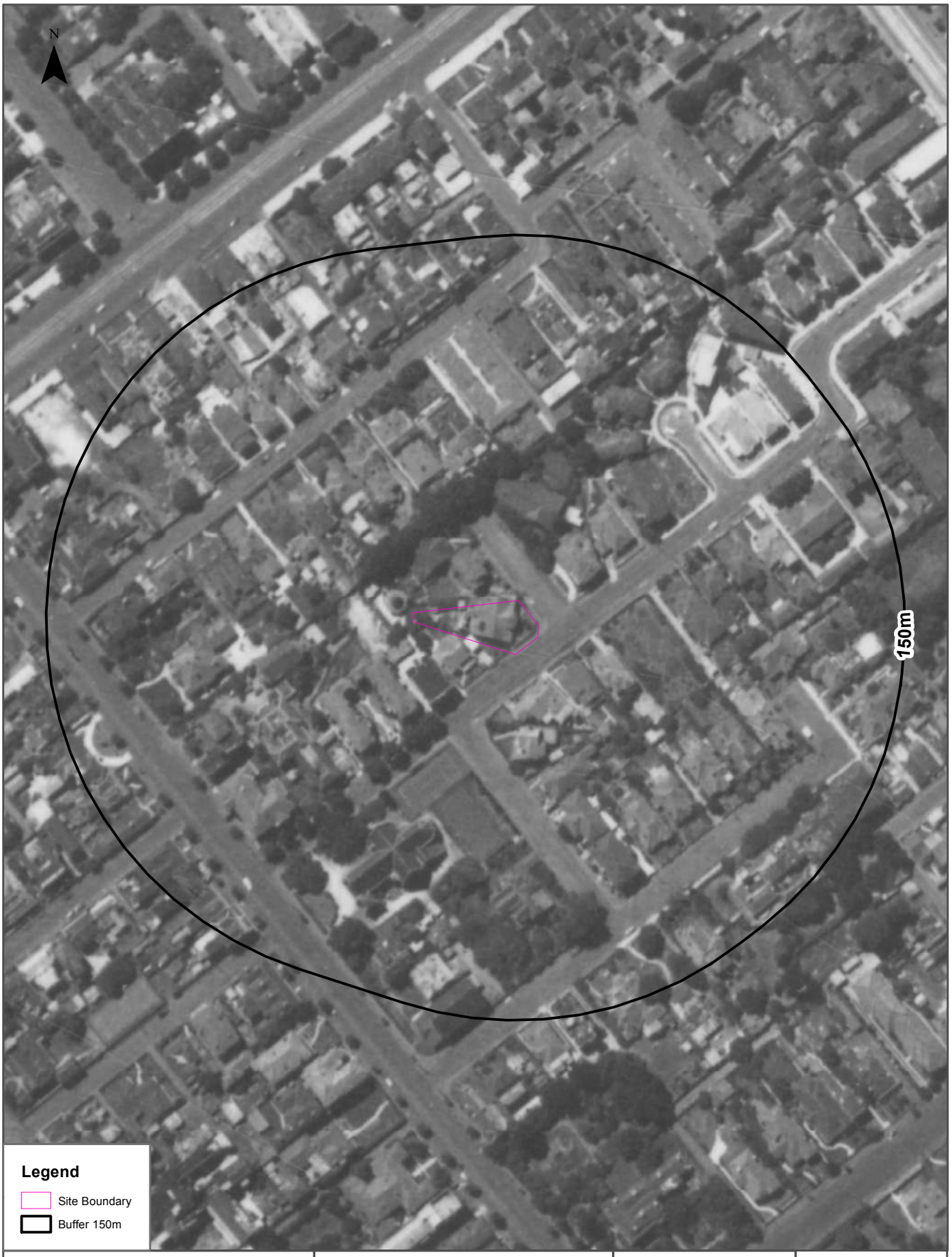
Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Aerial Imagery 1963

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Aerial Imagery 1951

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

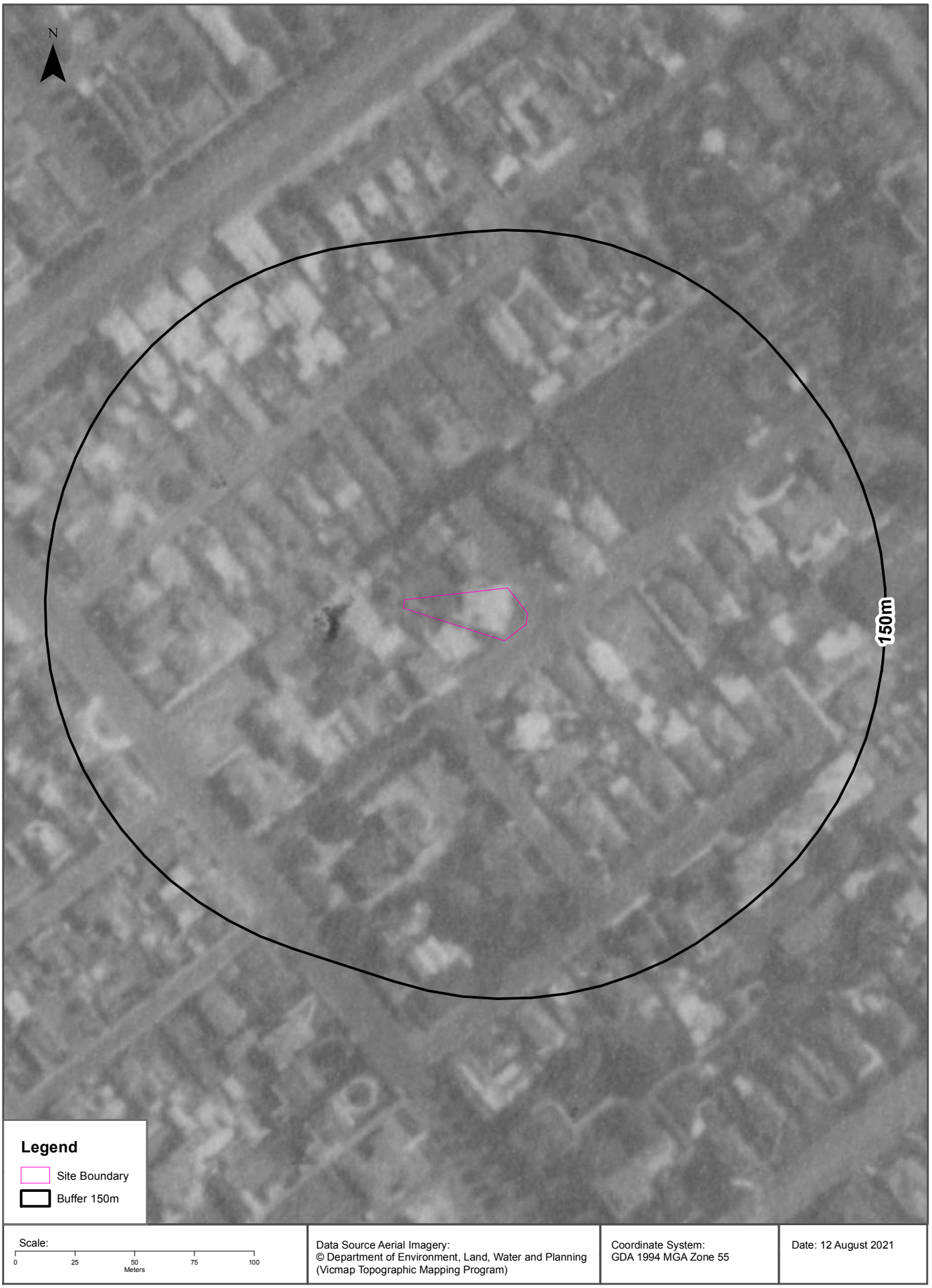


Aerial Imagery 1945

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Aerial Imagery 1931

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

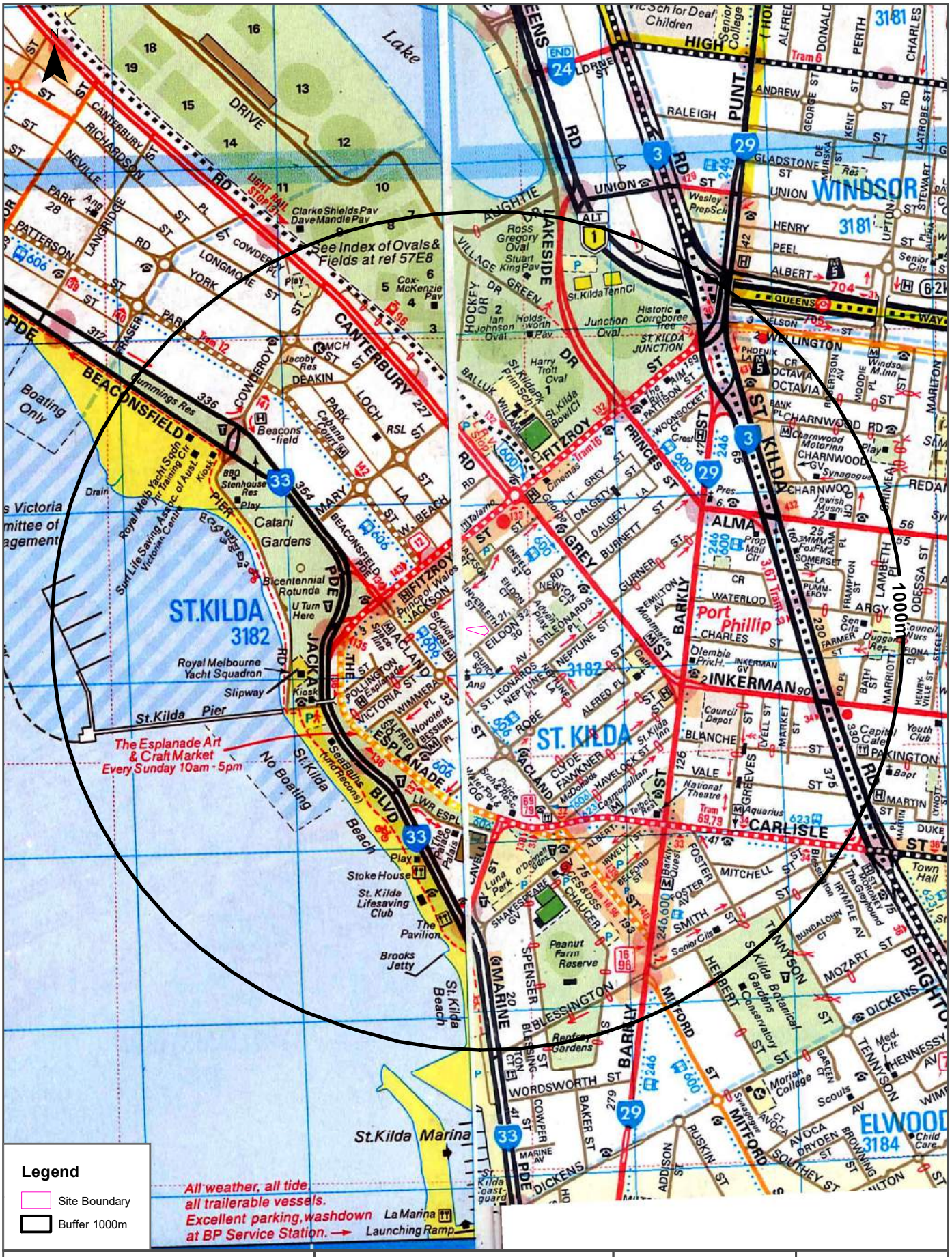


Historical Map 2009

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Historical Map 1998

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Historical Map 1986

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Historical Map 1982

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Historical Map 1978

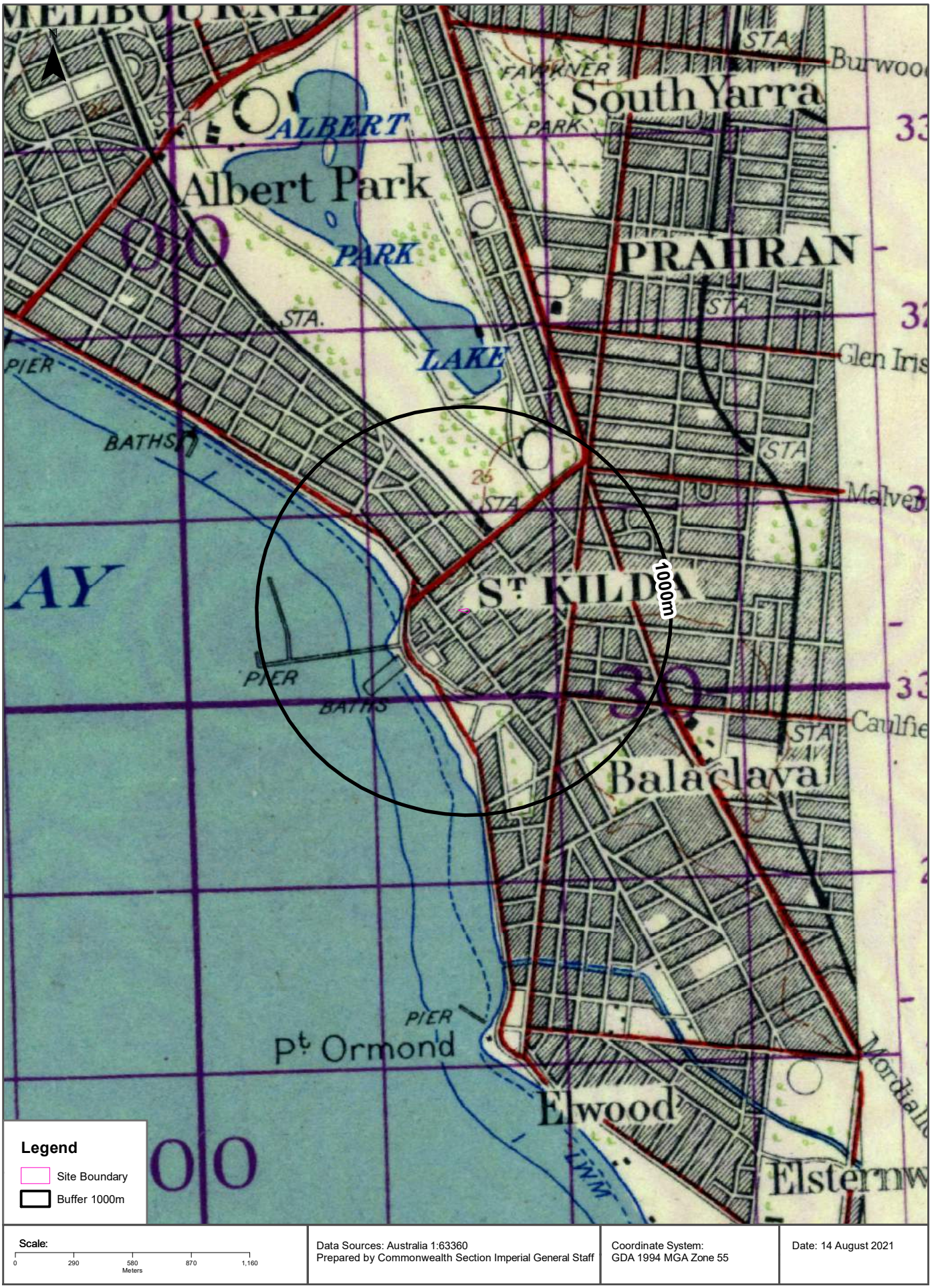
Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Historical Map 1966

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

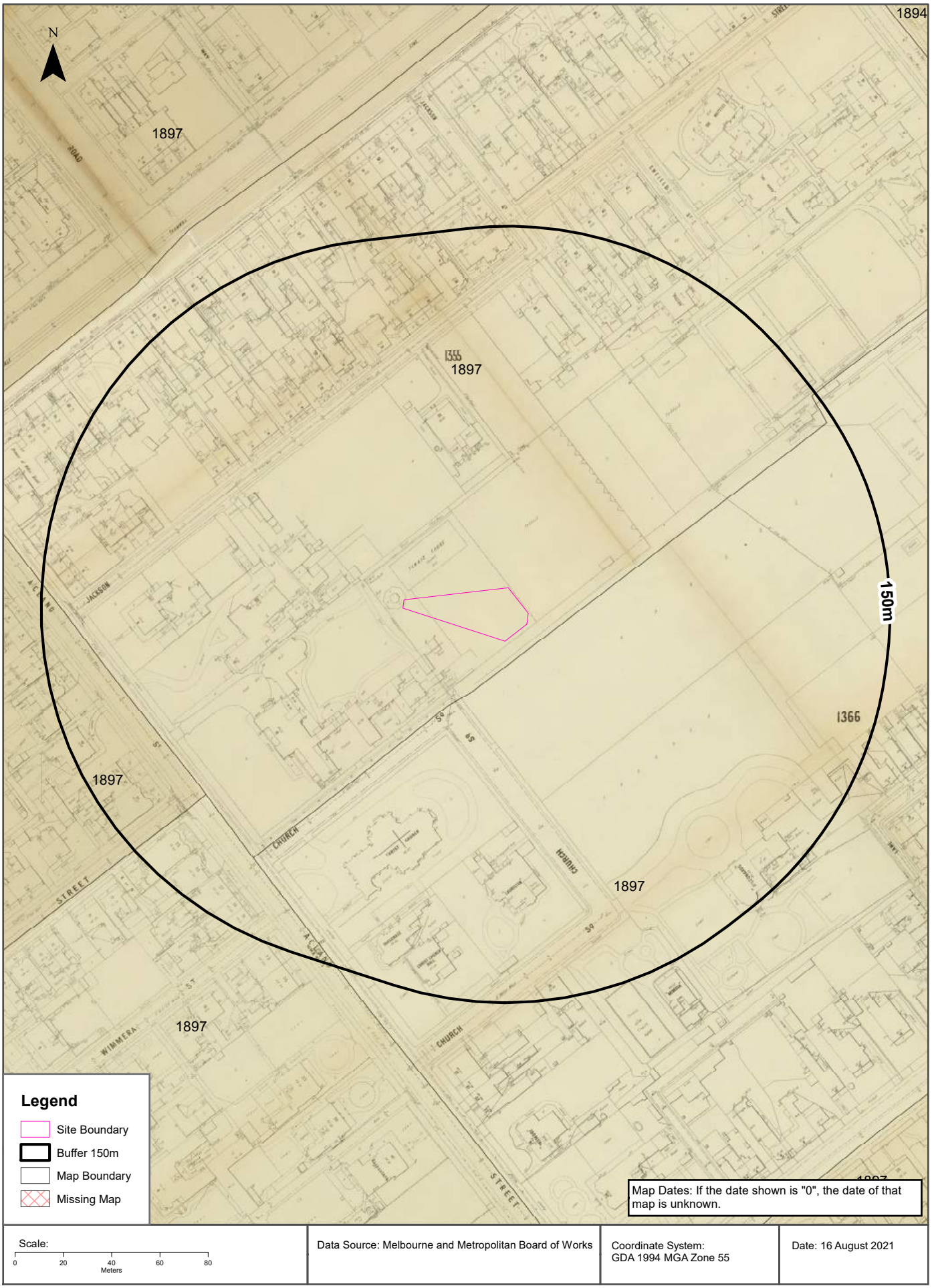
Historical Map c.1933

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



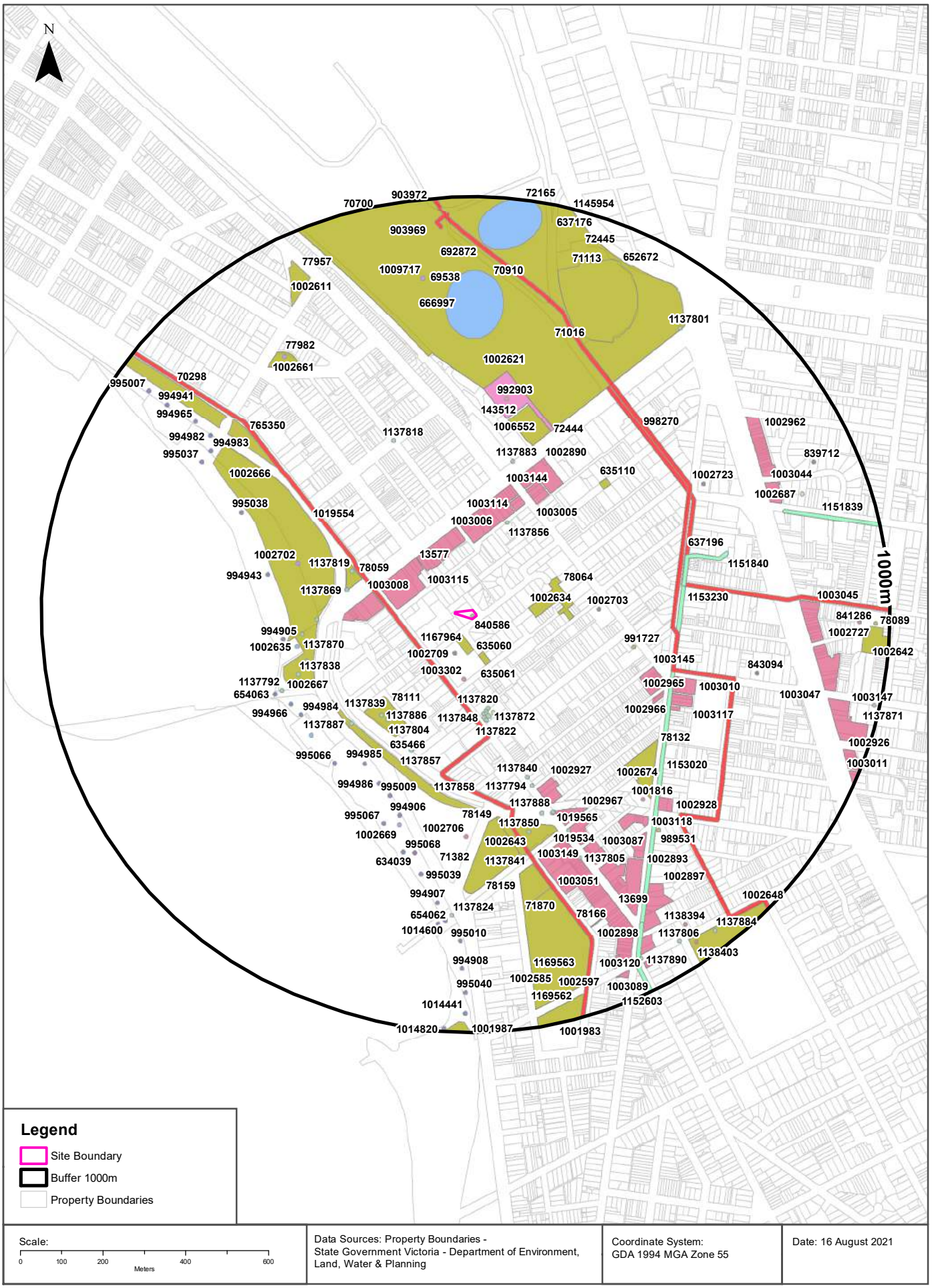
Historical Map 1894 - 1897

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Features of Interest

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Features of Interest

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Features of Interest

Features of Interest within the dataset buffer:

Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
840586	care facility	child care	Eildon Road Child Care Centre	0m	On-site
635060	reserve	park	Church Square	45m	South
635061	reserve	park	Church Square Reserve	82m	South
1002709	place of worship	church	Anglican Christ Church St Kilda	87m	South
13577	commercial facility	shopping precinct		94m	North West
1167964	pipeline	oil pipeline	Wag24	115m	South West
1003115	commercial facility	shopping precinct		118m	North West
78064	reserve	park	St Kilda Adventure Playground	125m	East
1003006	commercial facility	shopping precinct		127m	North
1003302	commercial facility	entertainment centre	Theatre Works	142m	South
1002634	recreational resource	playground		152m	East
1003144	commercial facility	shopping precinct		162m	North
1003008	commercial facility	shopping precinct		173m	West
1137820	landmark	tourist attraction	Ceramic Tiles	213m	South
1137821	landmark	tourist attraction	Entrance Gateway To Linden Gallery	219m	South
1137856	landmark	tourist attraction	Wattle House	222m	North East
1137803	landmark	tourist attraction	Shell Seat	226m	South
1001382	cultural centre	art gallery	Linden Centre For Contemporary Arts	227m	South
1137872	landmark	tourist attraction	Two Marble Cushion Seats	231m	South
1137848	landmark	tourist attraction	Lovers Seat	234m	South
78059	reserve	park	Cleve Gardens	240m	West
1137822	landmark	tourist attraction	Iron Seat	242m	South
1003114	commercial facility	shopping precinct		261m	North East
1137869	landmark	monument	Edwin Knox Memorial	263m	West
78111	reserve	park	Alfred Square	264m	South West
1137819	landmark	tourist attraction	Cultural Marker	264m	West
1002703	place of worship	church	Sacred Heart Catholic Church	290m	East
1003005	commercial facility	shopping precinct		298m	North East
1137886	landmark	monument	Schipperheyn Victoria Cross Memorial	299m	South West
1019554	reserve	park	Catani Gardens	300m	West
1137804	landmark	monument	South African War Memorial	300m	South West

Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
1137839	landmark	monument	Site Of The First Building In St Kilda	311m	South West
1002890	commercial facility	shopping precinct		319m	North East
1002667	landmark	monument	St Kilda Cenotaph	330m	West
1137857	landmark	tourist attraction	St Moritz	343m	South West
635466	reserve	park	Lower Esplanade Reserve	361m	South West
1137793	landmark	monument	Catani Memorial	361m	South West
1137887	landmark	monument	Catani Clocktower	364m	South West
1137883	landmark	tourist attraction	St Kilda Railway Station	367m	North
1137870	landmark	monument	Admiral Creswell Memorial	369m	West
1137847	landmark	monument	Sali Cleve Drinking Fountain	372m	West
991727	care facility	aged care	Sacred Heart Community	382m	East
1002635	sport facility	boating club	Royal Melbourne Yacht Squadron	386m	West
1002702	recreational resource	rotunda		394m	West
1137840	landmark	tourist attraction	Acland Street Footpath Pavers	399m	South
1137838	landmark	monument	Captain Cook Memorial	403m	West
1137858	landmark	monument	Fairchild Fountain	413m	South
994905	sign	emergency marker	COP525	416m	West
994985	sign	emergency marker	COP545	420m	South West
1003145	commercial facility	shopping precinct		420m	East
72444	sport facility	bowling green	St Kilda Bowling Club	422m	North
1145954	reserve	conservation park	Albert Park	422m	North
1137794	landmark	tourist attraction	Acland Street Footpath Fence And Seating	423m	South
1002927	commercial facility	shopping precinct		428m	South East
635110	reserve	park	Dalgety Street Reserve	430m	North East
1137818	landmark	tourist attraction	Bay Totem	436m	North West
994984	sign	emergency marker	COP535	441m	South West
994986	sign	emergency marker	COP550	445m	South West
994966	sign	emergency marker	COP530	449m	South West
1002647	sport facility	swimming pool	St Kilda Sea Baths	451m	South West
1137792	landmark	tourist attraction	St Kilda Pier Mosaic	454m	South West
994943	sign	emergency marker	COP520	458m	West
995066	sign	emergency marker	COP540	461m	South West
995009	sign	emergency marker	COP555	463m	South West
637196	pipeline	gas pipeline	Highett - West Melbourne	468m	East
1002965	commercial facility	shopping precinct		470m	South East
1006552	education centre	education complex		470m	North
654063	sign	emergency marker	BAY815	473m	South West

Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
78149	reserve	park	Odonnell Gardens	481m	South
1153230	power line	power sub transmission		482m	East
71382	reserve	amusement centre	Luna Park	483m	South
1153020	power line	power sub transmission		487m	South East
1137850	landmark	tourist attraction	(Ceramic Planter)	493m	South
998270	pipeline	gas pipeline	Dandenong - West Melbourne	498m	North East
1003010	commercial facility	shopping precinct		499m	East
1137795	landmark	tourist attraction	(Maritime Pavers)	500m	South East
1137888	landmark	tourist attraction	Acland Street Seating Bollards And Curved Wall	500m	South East
1151840	power line	power sub transmission		500m	East
994906	sign	emergency marker	COP560	501m	South
1137796	landmark	tourist attraction	Bronze Directional Plaque	502m	South East
1002967	commercial facility	shopping precinct		504m	South East
1003117	commercial facility	shopping precinct		507m	East
78132	reserve	park	J Talbot Reserve	508m	South East
143512	education centre	primary school	St Kilda Park Primary School	513m	North
992903	care facility	child care	St Kilda Park Ps Theircare	513m	North
1002966	commercial facility	shopping precinct		516m	South East
1002706	commercial facility	entertainment centre	St Kilda Palais Theatre	522m	South
1002669	recreational resource	playground		524m	South
1002643	landmark	monument	Edward Odonnell Memorial	527m	South
995067	sign	emergency marker	COP565	532m	South
71016	sport facility	sports ground	Ian Johnson Oval	543m	North
1003149	commercial facility	shopping precinct		547m	South East
765350	reserve	park	Stenhouse Reserve	550m	North West
1019565	recreational resource	club house	St Kilda Rsl	554m	South East
1137823	landmark	tourist attraction	(Ceramic / Metal Seats)	556m	South East
1019534	community venue	hall	St Kilda Memorial Hall	557m	South East
1002674	recreational resource	playground		559m	South East
1163684	care facility	child care	Team Holiday - St Kilda Park	564m	North
995038	sign	emergency marker	COP515	566m	North West
1137841	landmark	tourist attraction	Aunty Alma?S Seats	572m	South
13699	commercial facility	shopping precinct		576m	South East
634039	emergency facility	lifesaving club	St Kilda LSC	578m	South
1002621	recreational resource	playground		582m	North
995068	sign	emergency marker	COP570	583m	South
1001816	commercial facility	entertainment centre	National Theatre	593m	South East

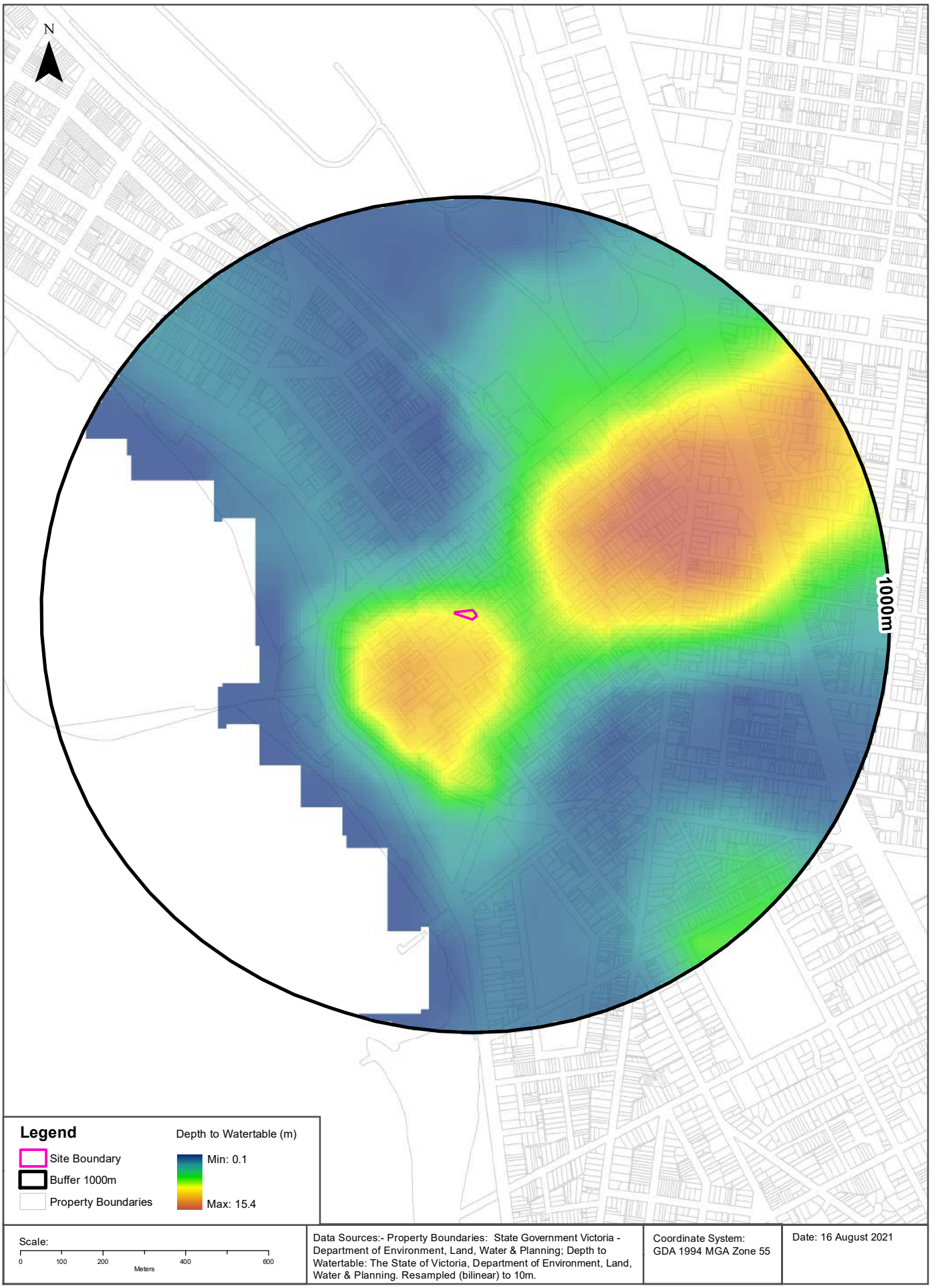
Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
1003118	commercial facility	shopping precinct		600m	South East
1002666	recreational resource	playground		602m	North West
78159	reserve	gardens	Veg Out Community Garden	609m	South
1003087	commercial facility	shopping precinct		609m	South East
1002928	commercial facility	shopping precinct		621m	South East
995039	sign	emergency marker	COP575	625m	South
1002723	place of worship	church	St Kilda Presbyterian Church	627m	North East
1137805	landmark	tourist attraction	Scheherazade	628m	South East
70910	sport facility	sports ground	Harry Trott Oval	657m	North
1002893	commercial facility	shopping precinct		663m	South East
1003051	commercial facility	shopping precinct		669m	South East
989531	care facility	aged care	Acland Grange	674m	South East
78166	reserve	park	Peanut Farm Reserve	676m	South
843094	communication service	telephone exchange	St Kilda Telephone Exchange	686m	East
994907	sign	emergency marker	COP580	687m	South
666997	sport facility	hockey ground	Albert Park Tennis And Hockey Centre	693m	North
77982	reserve	park	Jacoby Reserve	701m	North West
994983	sign	emergency marker	COP505	703m	North West
995037	sign	emergency marker	COP510	708m	North West
652672	reserve	park	St Kilda Cricket Ground	710m	North East
1137824	landmark	monument	Obelisks	713m	South
70298	reserve	park	Cummings Reserve	723m	North West
69538	sport facility	tennis court	Albert Park Tennis And Hockey Centre	725m	North
994982	sign	emergency marker	COP500	725m	North West
1014600	sign	emergency marker	COP585	727m	South
71113	sport facility	sports ground	Junction Oval	731m	North East
71870	sport facility	sports ground		732m	South
654062	sign	emergency marker	BAY814	737m	South
1002661	recreational resource	playground		738m	North West
1003044	commercial facility	shopping precinct		759m	East
1002962	commercial facility	shopping precinct		767m	North East
1002897	commercial facility	shopping precinct		768m	South East
994965	sign	emergency marker	COP470	774m	North West
995010	sign	emergency marker	COP600	776m	South
1151839	power line	power sub transmission		780m	East
1003045	commercial facility	shopping precinct		781m	East
1009717	recreational resource	club house	Cox-Mckenzie Pavillion	807m	North

Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
903969	sport facility	sports ground	Dorothy Paul John Coleman Field	815m	North
1003047	commercial facility	shopping precinct		816m	East
692872	sport facility	baseball field	Tom Ohalloran Oval	827m	North
1002687	cultural centre	museum	Jewish Museum Of Australia	833m	East
1152603	power line	power sub transmission		838m	South East
77957	reserve	park		839m	North West
1137801	landmark	monument	Isaac Jacobs Fountain	840m	North East
994908	sign	emergency marker	COP605	841m	South
72445	sport facility	tennis court	St Kilda Tennis Club	848m	North
994941	sign	emergency marker	COP465	854m	North West
1169563	recreational resource	club house		866m	South
1003147	commercial facility	shopping precinct		871m	East
72165	sport facility	sports ground	Ross Gregory Oval	874m	North
1002898	commercial facility	shopping precinct		875m	South East
637176	pipeline	gas pipeline	Dandenong - West Melbourne	881m	North
839712	place of worship	synagogue	St Kilda Hebrew Congregation	888m	North East
1002611	recreational resource	playground		888m	North West
1138394	community venue	community centre	Cora Graves Community Centre	894m	South East
995040	sign	emergency marker	COP610	899m	South
1002585	sport facility	netball court		905m	South
1002597	sport facility	basketball court		906m	South
995007	sign	emergency marker	COP460	910m	North West
1137890	landmark	tourist attraction	Monument On Wheels	912m	South East
1169562	recreational resource	playground		916m	South
1002727	community venue	community centre	Betty Day Community Centre	919m	East
1137806	landmark	tourist attraction	Albert Tuckers Home	921m	South East
1003120	commercial facility	shopping precinct		929m	South East
1003089	commercial facility	shopping precinct		930m	South East
78089	reserve	park	Jim Duggan Reserve	933m	East
1002648	reserve	gardens	St Kilda Botanical Gardens	935m	South East
1002926	commercial facility	shopping precinct		942m	East
1001983	reserve	park	Renfrey Reserve	945m	South
903972	sport facility	sports ground	Paul Wade Field	946m	North
1138403	community venue	community centre	Botatic Gardens - Eco Centre	946m	South East
1137884	landmark	tourist attraction	Painted Tile Mural	948m	South East
1014441	sign	emergency marker	COP615	949m	South
70700	sport facility	sports ground	Gary Smorgon Oval	953m	North

Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
841286	care facility	child care	North St Kilda Childrens Centre	959m	East
1001987	reserve	park	Marina Park	974m	South
1003011	commercial facility	shopping precinct		974m	South East
1137871	landmark	tourist attraction	Gallier And Klaerrs	979m	East
1002642	recreational resource	playground		981m	East
1014820	sign	emergency marker	COP620	988m	South

Depth to Watertable

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Data Sources:- Property Boundaries: State Government Victoria - Department of Environment, Land, Water & Planning; Depth to Watertable: The State of Victoria, Department of Environment, Land, Water & Planning. Resampled (bilinear) to 10m.

Coordinate System: GDA 1994 MGA Zone 55

Date: 16 August 2021

Hydrogeology & Groundwater

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Hydrogeology

Description of aquifers within the dataset buffer:

Description	Distance	Direction
Fractured or fissured, extensive aquifers of low to moderate productivity	0m	On-site

Groundwater Salinity

On-site Groundwater Salinity:

Groundwater Salinity	Percent Of Site Area
1,000 - 3,500 mg/l	100

Depth to Watertable

On-site Depth to Watertable:

Depth to Watertable	Percent Of Site Area
5 to 10 metres	100

Surface Elevation

Approximate on-site Surface Elevation:

Surface Elevation
6 AHDm to 12 AHDm

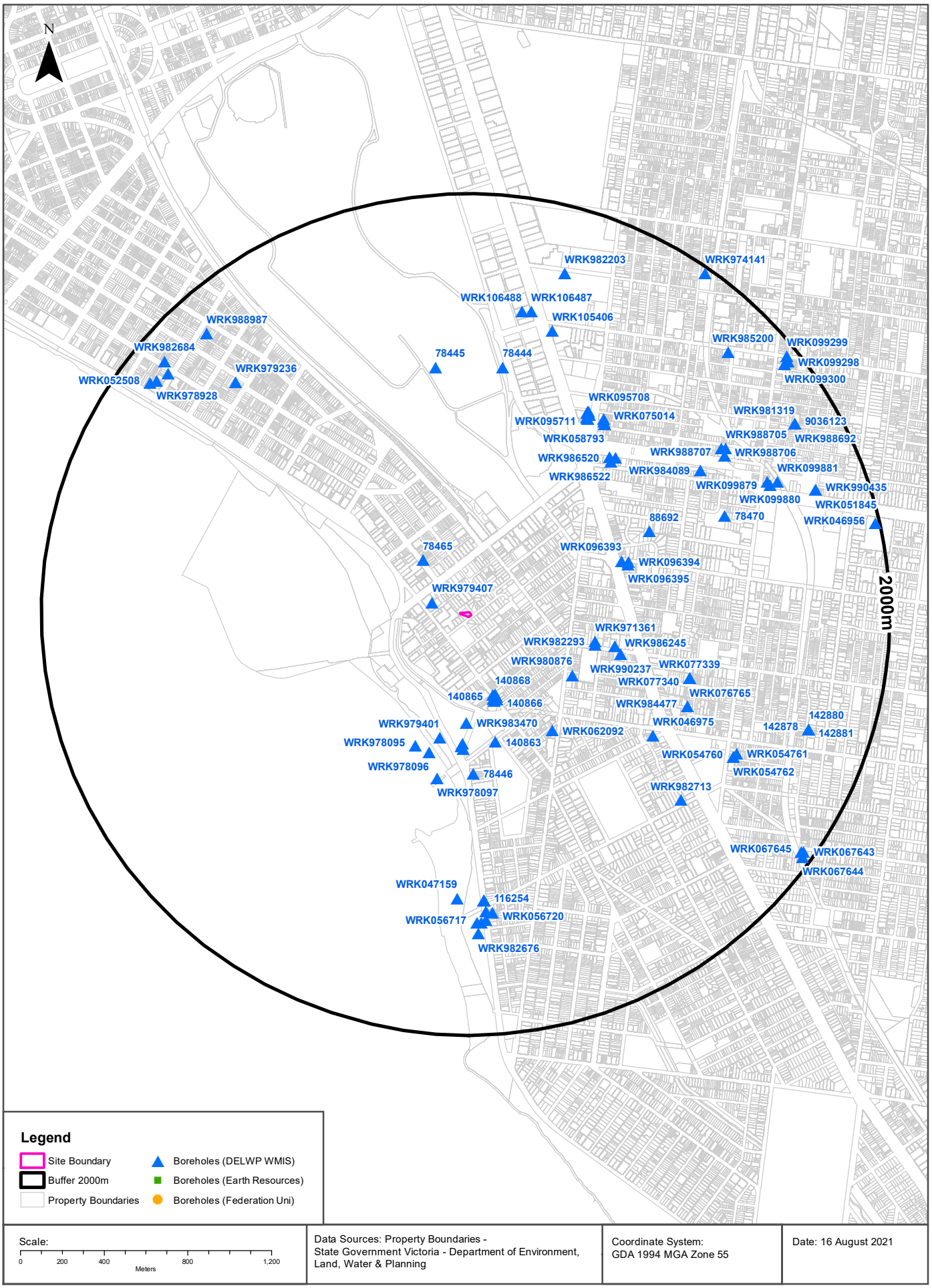
Basement Elevation

Approximate on-site Basement Elevation:

Basement Elevation - Basement Rocks comprise Lower Palaeozoic basement rocks that form the highlands and the crystalline basement; and Mesozoic rocks of the Otway and Gippsland basins both outcropping and subsurface
7 AHDm to 12 AHDm

Groundwater Boreholes

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Groundwater Boreholes

Eildon Road Children’s Centre - 17 Eildon Road, St Kilda, VIC 3182

Boreholes (DELWP WMIS)

Boreholes from the Department of Environment, Land, Water & Planning's Water Measurement Information System, within the dataset buffer:

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK979407							145m	West
78465	Domestic	0.00m-1.50m FINE WHITE SAND 1.50m-3.90m FINE WHITE SAND WITH TRACES OF BLACK SILTY CLAY 3.90m-6.60m WHITE SANDS	0.00m-6.00m INNER LINING - CASING = Galvanised Iron 6.00m-6.60m INNER LINING - SCREEN = Galvanised Iron 6.00m-6.60m OUTER LINING - GRAVEL = Gravel		6.00m-6.60m Sand	06/12/1983	311m	North West
140867	Groundwater Investigation	0.00m-0.10m ASPHALT 0.10m-0.80m GRAVEL, SAND, CLAY, MOIST 0.80m-7.60m SANDY CLAY, BROWN, MOIST 7.60m-9.00m SANDSTONE, BROWN, FINE GRAINED, MOIST 9.00m-10.60m METAMORPHOSED SANDSTONE, GREY, MOIST 10.60m-15.40m SANDSTONE, LIGHT BROWN, VERY FINE GRAINED, MOIST 15.40m-17.20m SANDSTONE, LIGHT BROWN, FINE GRAINED, WET	0.00m-8.20m INNER LINING - CASING = Pvc Class 18 8.20m-17.20m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-0.00m OUTER LINING - GRAVEL = Packer 7.70m-8.20m OUTER LINING - GRAVEL = Bentonite 8.20m-17.20m OUTER LINING - GRAVEL = Gravel			01/03/2000	389m	South
140868	Groundwater Investigation	0.00m-0.30m ASPHALT 0.30m-1.60m SANDY CLAY, DARK BROWN, MOIST 1.60m-4.60m SANDY CLAY, LIGHT BROWN, MOIST 4.60m-7.60m CLAYEY SAND, BROWN, FINE GRAINED, MOIST 7.60m-8.80m SANDSTONE, BROWN, MOIST 8.80m-11.60m SANDSTONE, LIGHT BROWN, FINE GRAINED, MOIST 11.60m-13.50m SANDSTONE, LIGHT BROWN, FINE GRAINED, WET	0.00m-7.50m INNER LINING - CASING = Pvc Class 18 7.50m-13.50m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-0.00m OUTER LINING - GRAVEL = Packer 7.00m-7.50m OUTER LINING - GRAVEL = Bentonite 7.50m-13.50m OUTER LINING - GRAVEL = Gravel			31/03/2000	391m	South
140864	Groundwater Investigation	0.00m-0.80m SAND, DARK BROWN, MEDIUM GRAINED, MOIST 0.80m-1.60m SANDY CLAY, BROWN ORANGE MOTTLED, MOIST 1.60m-5.60m SANDY CLAY, LIGHT BROWN, MOIST 5.60m-6.60m SANDY CLAY, LIGHT BROWN, MINOR QUARTZ, MOIST 6.60m-8.00m CLAYEY SAND, LIGHT BROWN, MEDIUM GRAINEDM MOIST 8.00m-9.00m SAND, LIGHT BROWN, MEDIUM GRAINED, MOIST 9.00m-12.00m SAND, GREY, MEDIUM GRAINED, WET	0.00m-7.50m INNER LINING - CASING = Pvc Class 18 7.50m-12.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-0.00m OUTER LINING - GRAVEL = Packer 7.00m-7.50m OUTER LINING - GRAVEL = Bentonite 7.50m-12.00m OUTER LINING - GRAVEL = Gravel			29/02/2000	403m	South
140865	Groundwater Investigation	0.00m-0.18m CONCRETE 0.18m-1.40m SILTY SAND, GREY BROWN, FINE MEDIUM GRAINED, MOIST 1.40m-2.60m SANDY CLAY, ORANGE BROWN, MEDIUM GRAINED, MOIST 2.60m-11.00m SANDY CLAY, BROWN, FINE GRAINED, MINOR QUARTZ, MOIST 11.00m-12.00m CLAYEY SILT, BROWN, MINOR QUARTZ PEBBLES, WET	0.00m-7.50m INNER LINING - CASING = Pvc Class 18 7.50m-12.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-0.00m OUTER LINING - GRAVEL = Packer 7.00m-7.50m OUTER LINING - GRAVEL = Bentonite 7.50m-12.00m OUTER LINING - GRAVEL = Gravel			01/03/2000	409m	South
140866	Groundwater Investigation	0.00m-0.40m BITUMEN OVER BLUESTONE 0.40m-1.60m SILTY CLAY, DARK GREY BROWN, PLASTIC, MOIST 1.60m-3.80m SANDY CLAY, ORANGE BROWN, FINE GRAINED, MINOR QUARTZ, MOIST 3.80m-10.00m CLAYEY SAND, LIGHT BROWN, FINE MEDIUM GRAINED, MOIST 10.00m-12.00m SAND, LIGHT BRWON, FINE MEDIUM GRAINED, WET	0.00m-7.50m INNER LINING - CASING = Pvc Class 18 7.50m-12.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-0.00m OUTER LINING - GRAVEL = Packer 7.00m-7.50m OUTER LINING - GRAVEL = Bentonite 7.50m-12.00m OUTER LINING - GRAVEL = Gravel			29/02/2000	417m	South

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
140862	Groundwater Investigation	0.00m-0.05m ASPHALT 0.05m-0.80m CRUSHED BASALT, STABILISED ROCK, MINOR SAND, MOIST 0.80m-3.60m SANDY CLAY, GREY BROWN, FINE GRAINED, MOIST 3.60m-5.60m CLAYEY SAND, LIGHT BRWON, FINE MEDIUM GRAINED, MOIST 5.60m-9.00m CLAYEY SAND, ORANGE, FINE MEDIUM GRAINED, MOIST 9.00m-12.60m CLAYEY SAND, ORANGE FINE MEDIUM GRAINED, MINOR ROCK	0.00m-8.10m INNER LINING - CASING = Pvc Class 18 8.10m-12.60m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-0.00m OUTER LINING - GRAVEL = Packer 7.60m-8.10m OUTER LINING - GRAVEL = Bentonite 8.10m-12.60m OUTER LINING - GRAVEL = Gravel			28/02/2000	418m	South
WRK983470							506m	South
WRK980876							562m	South East
WRK979401							592m	South
WRK974721	Domestic & Stock	0.00m-1.00m FILL 1.00m-11.00m CLAY	0.00m-7.00m INNER LINING - CASING = Pvc 7.00m-11.00m INNER LINING - SCREEN = Pvc 0.00m-5.50m OUTER LINING - GRAVEL = Cement 5.50m-6.50m OUTER LINING - GRAVEL = Bentonite 6.50m-11.00m OUTER LINING - GRAVEL = Gravel			05/10/2006	605m	South
WRK971361							606m	East
WRK982293							609m	East
140863	Groundwater Investigation	0.00m-0.10m ASPHALT 0.10m-0.80m SANDY CLAY, BROWN ORANGE, MOTTLED, MOIST 0.80m-2.80m SANDY CLAY LIGHT BROWN, PLASTIC 2.80m-10.60m CLAYEY SAND, LIGHT BRWON, MEDIUM GRAINED 10.60m-11.60m SANDY CLAY, ORANGE BROWN, PLASTIC, MOIST 11.60m-12.00m SAND, LIGHT BROWN, WET	0.00m-7.50m INNER LINING - CASING = Pvc Class 18 7.50m-12.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-0.00m OUTER LINING - GRAVEL = Packer 7.00m-7.50m OUTER LINING - GRAVEL = Bentonite 7.50m-12.00m OUTER LINING - GRAVEL = Gravel			29/02/2000	611m	South
WRK974720	Domestic & Stock	0.00m-1.00m FILL 1.00m-11.00m CLAY	0.00m-7.00m INNER LINING - CASING = Pvc 7.00m-11.00m INNER LINING - SCREEN = Pvc 0.00m-5.50m OUTER LINING - GRAVEL = Cement 5.50m-6.50m OUTER LINING - GRAVEL = Bentonite 6.50m-11.00m OUTER LINING - GRAVEL = Gravel			05/10/2006	621m	South
WRK974719	Domestic & Stock		0.00m-7.00m INNER LINING - CASING = Pvc 7.00m-11.00m INNER LINING - SCREEN = Pvc 0.00m-5.50m OUTER LINING - GRAVEL = Cement 5.50m-6.50m OUTER LINING - GRAVEL = Bentonite 6.50m-11.00m OUTER LINING - GRAVEL = Gravel			05/10/2006	629m	South
WRK978095	Domestic & Stock		0.00m-0.50m OUTER LINING - GRAVEL = Cement 3.50m-4.70m OUTER LINING - GRAVEL = Bentonite 4.70m-9.00m OUTER LINING - GRAVEL = Gravel			16/01/2007	663m	South
WRK062092	Observation					03/11/2011	672m	South East
WRK978096	Domestic & Stock		0.00m-4.50m INNER LINING - CASING = Pvc 4.50m-7.50m INNER LINING - SCREEN = Pvc 0.00m-0.45m OUTER LINING - GRAVEL = Cement 2.70m-4.00m OUTER LINING - GRAVEL = Bentonite 4.00m-7.50m OUTER LINING - GRAVEL = Gravel			16/01/2007	673m	South
WRK986245							703m	East
WRK990237							740m	East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
78446	Domestic, Stock	0.00m-0.91m SANDY TOPSOIL 0.91m-2.74m CLAY 2.74m-11.58m LIGHT BROWN DAMP SILTY CLAY 11.58m-20.72m WET SILTY CLAY	0.00m-20.72m INNER LINING - CASING = Not Known 3.05m-20.72m INNER LINING - SCREEN = Not Known		3.05m-20.72m	19/01/1973	748m	South
WRK096393	Observation	0.00m-4.00m CLAY	0.00m-1.00m INNER LINING - CASING = UPVC class 12 1.00m-4.00m INNER LINING - SCREEN = UPVC class 12 0.00m-0.30m OUTER LINING - GRAVEL = Cement 0.30m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-4.00m OUTER LINING - GRAVEL = Gravel			13/10/2016	763m	East
WRK978097	Domestic & Stock		0.00m-3.00m INNER LINING - CASING = Pvc 3.00m-6.00m INNER LINING - SCREEN = Pvc 0.00m-0.46m OUTER LINING - GRAVEL = Cement 1.50m-2.50m OUTER LINING - GRAVEL = Bentonite 2.50m-6.00m OUTER LINING - GRAVEL = Gravel			16/01/2007	785m	South
WRK096395	Observation	0.00m-4.00m CLAY	0.00m-0.30m INNER LINING - CASING = UPVC class 12 1.00m-4.00m INNER LINING - SCREEN = UPVC class 12 0.00m-0.30m OUTER LINING - GRAVEL = Cement 0.30m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-4.00m OUTER LINING - GRAVEL = Gravel			13/10/2016	787m	East
WRK096394	Observation	0.00m-4.00m CLAY	0.00m-1.00m INNER LINING - CASING = UPVC class 12 1.00m-4.00m INNER LINING - SCREEN = UPVC class 12 0.00m-0.30m OUTER LINING - GRAVEL = Cement 0.30m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-4.00m OUTER LINING - GRAVEL = Gravel			13/10/2016	794m	East
88692	Irrigation	0.00m-2.00m STIFF YELLOW CLAY 2.00m-12.00m FINE YELLOW SANDY CLAY 12.00m-24.00m STIFF YELLOW CLAY 24.00m-26.00m WEATHERED BASALT 26.00m-45.00m WEATHERED MUDSTONE 45.00m-60.00m MUDSTONE	0.00m-45.00m INNER LINING - CASING = Mild Steel 45.00m-60.00m INNER LINING - SCREEN = Mild Steel		45.00m-60.00m Mudstone	22/03/1983	939m	North East
WRK986522							987m	North East
WRK986520							999m	North East
WRK986521							1016 m	North East
WRK046975	Domestic & Stock		0.00m-23.00m OUTER LINING - GRAVEL = Cement			19/06/2007	1043 m	South East
WRK077101	Observation	0.00m-1.00m FILL 1.00m-12.00m BRIGHTON GROUP SAND	0.00m-4.50m OUTER LINING - GRAVEL = Cement 4.50m-5.50m OUTER LINING - GRAVEL = Bentonite 5.50m-10.00m OUTER LINING - GRAVEL = Gravel		7.00m-10.00m Sand	17/12/2013	1086 m	North East
WRK077454	Observation	0.00m-1.00m FILL 1.00m-12.00m BRIGHTON GROUP SAND	0.00m-4.50m OUTER LINING - GRAVEL = Cement 4.50m-5.50m OUTER LINING - GRAVEL = Bentonite 5.50m-10.00m OUTER LINING - GRAVEL = Gravel		7.00m-10.00m Sand	17/12/2013	1086 m	North East
WRK076765	Observation	0.00m-5.00m CLAY	0.00m-1.40m OUTER LINING - GRAVEL = Cement 1.40m-1.90m OUTER LINING - GRAVEL = Bentonite 1.90m-5.00m OUTER LINING - GRAVEL = Gravel		2.00m-5.00m Clay	02/12/2013	1087 m	East
WRK077339	Observation	0.00m-5.00m CLAY	0.00m-1.40m OUTER LINING - GRAVEL = Cement 1.40m-1.90m OUTER LINING - GRAVEL = Bentonite 1.90m-5.00m OUTER LINING - GRAVEL = Gravel		2.00m-5.00m Clay	02/12/2013	1087 m	East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK077340	Observation	0.00m-5.00m CLAY	0.00m-1.40m OUTER LINING - GRAVEL = Cement 1.40m-1.90m OUTER LINING - GRAVEL = Bentonite 1.90m-5.00m OUTER LINING - GRAVEL = Gravel		2.00m-5.00m Clay	02/12/2013	1087 m	East
WRK095711	Investigation	0.00m-13.00m CLAY: Light brown	0.00m-7.00m INNER LINING - CASING = Pvc Class 18 7.00m-13.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-5.50m OUTER LINING - GRAVEL = Cement 5.50m-6.50m OUTER LINING - GRAVEL = Bentonite 6.50m-13.00m OUTER LINING - GRAVEL = Gravel			07/09/2016	1087 m	North East
WRK095707	Investigation	0.00m-13.00m CLAY: Light Brown	0.00m-7.00m INNER LINING - CASING = Pvc Class 18 7.00m-13.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-5.50m OUTER LINING - GRAVEL = Cement 5.50m-6.50m OUTER LINING - GRAVEL = Bentonite 6.50m-13.00m OUTER LINING - GRAVEL = Gravel			07/09/2016	1104 m	North East
WRK095710	Investigation	0.00m-13.00m CLAY: Light brown at 10.5 at each location harder sandstone encountered.	0.00m-7.00m INNER LINING - CASING = Pvc Class 18 7.00m-13.00m INNER LINING - SCREEN = UPVC class 18 0.00m-5.50m OUTER LINING - GRAVEL = Cement 5.50m-6.50m OUTER LINING - GRAVEL = Bentonite 6.50m-13.00m OUTER LINING - GRAVEL = Gravel			07/09/2016	1105 m	North East
WRK058792	Observation	0.00m-0.20m concrete 0.20m-0.50m fill 0.50m-12.00m silty clay	0.00m-6.00m INNER LINING - CASING = Pvc 6.00m-12.00m INNER LINING - SCREEN = Pvc 0.00m-4.50m OUTER LINING - GRAVEL = Cement 4.50m-5.50m OUTER LINING - GRAVEL = Bentonite 5.50m-12.00m OUTER LINING - GRAVEL = Gravel		0.00m-6.00m Clay 6.00m-12.00m Clay	20/09/2010	1107 m	North East
WRK058793	Observation					20/09/2010	1107 m	North East
WRK075012	Observation	0.00m-0.15m CONCRETE 0.15m-0.30m ASH & GRITTY FILL 0.30m-0.50m GRAVEL 0.50m-1.50m SAND 4.50m-8.00m SANDAND CLAY 8.00m-10.00m WET SANDY SILT	0.00m-7.00m INNER LINING - CASING = Pvc 7.00m-10.00m INNER LINING - SCREEN = Pvc 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-6.70m OUTER LINING - GRAVEL = Seal 6.70m-10.00m OUTER LINING - GRAVEL = Gravel		7.00m-10.00m Silt	14/06/2013	1114 m	North East
WRK095709	Investigation	0.00m-13.00m CLAY: Light brown at 10.5 at each location harder sandstone encountered.	0.00m-7.00m INNER LINING - CASING = Pvc Class 18 7.00m-13.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-5.00m OUTER LINING - GRAVEL = Cement 5.50m-6.50m OUTER LINING - GRAVEL = Bentonite 6.50m-13.00m OUTER LINING - GRAVEL = Gravel			07/09/2016	1116 m	North East
WRK095708	Investigation	0.00m-13.00m CLAY: Light brown at 10.5 at each locationharder sandstone encountered.	0.00m-7.00m INNER LINING - CASING = Pvc Class 18 7.00m-13.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-5.50m OUTER LINING - GRAVEL = Cement 5.50m-6.50m OUTER LINING - GRAVEL = Bentonite 6.50m-13.00m OUTER LINING - GRAVEL = Gravel			07/09/2016	1117 m	North East
WRK984477	Groundwater Investigation		0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-1.50m OUTER LINING - GRAVEL = Bentonite 1.50m-5.00m OUTER LINING - GRAVEL = Gravel			19/01/2009	1122 m	South East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK075014	Observation	0.00m-0.10m CONCRETE 0.10m-0.40m ASH & GRITTY FILL 0.40m-0.60m DISTURBED CLAY 0.60m-1.80m NATURAL SANDY CLAY 1.80m-6.00m CLAYSANDY YELLOW 6.00m-8.00m WET SANDY CLAY 8.00m-10.00m WET SAND	0.00m-7.00m INNER LINING - CASING = Pvc 7.00m-10.00m INNER LINING - SCREEN = Pvc 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-6.50m OUTER LINING - GRAVEL = Seal 6.50m-10.00m OUTER LINING - GRAVEL = Gravel		7.00m-10.00m Sand	14/06/2013	1126 m	North East
78444	Miscellaneous	0.00m-13.72m SANDY CLAY 13.72m-14.02m YELLOW IRONSTONE 14.02m-21.94m CLAY WITH LAYERS OF SAND 21.94m-25.29m LIGNEOUS (BLACK WOOD) 25.29m-64.00m SOFT MUDSTONE 64.00m-70.10m ROCK				18/12/1972	1181 m	North
78445	Miscellaneous	0.00m-0.30m TOPSOIL 0.30m-1.52m YELLOW SANDY CLAY 1.52m-3.05m YELLOW SANDY CLAY AND COARSE GRAVEL 3.05m-13.72m LIGHT YELLOW SANDY CLAY 13.72m-22.86m LIGHT YELLOW BROWN SAND WITH TRACES OF COARSE SAND 22.86m-25.91m DARK BROWN LIGNITE CLAY WITH TRACES OF QUARTZ GRAVEL 25.91m-30.48m DARK BROWN LIGNITE CLAY				28/12/1972	1181 m	North
WRK984089							1293 m	North East
78470	Irrigation	0.00m-3.50m REDISH YELLOW SANDY CLAY 3.50m-5.00m YELLOW SAND 5.00m-7.50m PARTY WEATHERED SANDSTONE 7.50m-35.80m LIGHT BROWN SANDSTONE 35.80m-40.00m VERY BROKEN GREY SANDSTONE & QUARTZ 40.00m-42.60m GREY SANDSTONE	0.00m-7.50m INNER LINING - CASING = Not Known 7.50m-42.60m INNER LINING - SCREEN = Not Known		7.50m-42.60m Sandstone	06/09/1983	1300 m	East
WRK982713							1337 m	South East
WRK047159	Commercial	0.00m-5.00m Fill 5.00m-16.00m brown sandy clay 16.00m-28.00m black lignite 28.00m-39.00m basalt 39.00m-42.00m lignite 42.00m-90.00m grey basalt 93.00m-105.00m grey basalt	0.00m-53.00m INNER LINING - CASING = Pvc 0.00m-53.00m OUTER LINING - GRAVEL = Cement			17/02/2009	1346 m	South
116249	Groundwater Investigation	0.00m-2.00m FILL CLAYEY SAND 2.00m-3.00m DARK GREY-BROWN CLAYEY SILT 3.00m-4.20m PALE GREY CLAYEY SAND	0.00m-0.50m INNER LINING - CASING = Pvc Class 18 0.50m-4.20m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-4.20m OUTER LINING - GRAVEL = Gravel		0.50m-4.20m Sand	16/07/1992	1359 m	South
116250	Groundwater Investigation	0.00m-0.75m CLAY & BRICK FILL 0.75m-3.60m LIGHT BROWN SAND 3.60m-4.00m BROWN CLAY	0.00m-0.50m INNER LINING - CASING = Pvc Class 18 0.50m-4.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.25m OUTER LINING - GRAVEL = Bentonite 0.25m-4.00m OUTER LINING - GRAVEL = Gravel		0.50m-4.00m Sand	11/12/1992	1359 m	South
116251	Groundwater Investigation	0.00m-1.50m CLAY & BRICK FILL 1.50m-4.00m GREY SANDY CLAY	0.00m-0.50m INNER LINING - CASING = Pvc Class 18 0.50m-4.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.30m OUTER LINING - GRAVEL = Bentonite 0.30m-4.00m OUTER LINING - GRAVEL = Gravel		0.50m-4.00m Clay	11/12/1992	1359 m	South
116252	Groundwater Investigation	0.00m-0.75m CLAY & BRICK FILL 0.75m-3.00m BROWN-GREY SILTY CLAY 3.00m-4.00m GREY SANDY CLAY	0.00m-0.50m INNER LINING - CASING = Pvc Class 18 0.50m-4.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-4.00m OUTER LINING - GRAVEL = Gravel		0.50m-4.00m Clay	11/12/1992	1359 m	South

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116253	Groundwater Investigation	0.00m-0.20m BITUMEN 0.20m-2.00m GRAVEL & CLAY FILL 2.00m-4.00m GREY-BROWN SANDY CLAY	0.00m-0.75m INNER LINING - CASING = Pvc Class 18 0.75m-4.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-4.00m OUTER LINING - GRAVEL = Gravel		0.75m-4.00m Clay	17/12/1992	1359 m	South
116254	Groundwater Investigation	0.00m-0.20m BITUMAN 0.20m-2.25m SANDY CLAY & GRAVEL FILL 2.25m-5.00m GREY SANDY CLAY	0.00m-0.75m INNER LINING - CASING = Pvc Class 18 0.75m-5.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-5.00m OUTER LINING - GRAVEL = Gravel		0.75m-5.00m Clay	17/12/1992	1359 m	South
116255	Groundwater Investigation	0.00m-2.00m SANDY GRAVELLY CLAY FILL 2.00m-4.00m GREY SANDY CLAY	0.00m-0.75m INNER LINING - CASING = Pvc Class 18 0.75m-4.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-4.00m OUTER LINING - GRAVEL = Gravel		0.75m-4.00m Clay	17/12/1992	1359 m	South
116256	Groundwater Investigation	0.00m-0.75m TAN-BROWN SAND 0.75m-2.25m DARK BROWN SILTY CLAYEY SAND 2.25m-4.45m GREY SANDY CLAY	0.00m-0.50m INNER LINING - CASING = Pvc Class 18 0.50m-4.50m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.25m OUTER LINING - GRAVEL = Bentonite 0.25m-4.50m OUTER LINING - GRAVEL = Gravel		0.50m-4.50m Clay	01/04/1992	1359 m	South
WRK105406	Investigation	0.00m-4.50m SILTSTONE 4.50m-15.00m CLAYEY SANDS WET FROM 9	0.00m-6.00m INNER LINING - CASING = Pvc 6.00m-15.00m INNER LINING - SCREEN = Pvc 0.00m-0.30m OUTER LINING - GRAVEL = Cement 0.30m-4.50m OUTER LINING - GRAVEL = Bentonite 4.50m-5.50m OUTER LINING - GRAVEL = Bentonite 5.50m-15.00m OUTER LINING - GRAVEL = Gravel			16/04/2018	1402 m	North
121288	Groundwater Investigation	0.00m-4.50m GREY SILTY SAND	0.00m-0.50m INNER LINING - CASING = Pvc 0.50m-4.50m INNER LINING - SCREEN = Pvc 0.00m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-4.50m OUTER LINING - GRAVEL = Gravel		0.50m-4.50m Sand	22/09/1993	1410 m	South
WRK056720	Observation					07/10/2010	1417 m	South
WRK054760	Observation	0.00m-0.80m fill 0.80m-6.00m brighton group sands	0.00m-3.00m INNER LINING - CASING = Pvc 3.00m-6.00m INNER LINING - SCREEN = Pvc 0.00m-2.80m OUTER LINING - GRAVEL = Bentonite 2.80m-6.00m OUTER LINING - GRAVEL = Gravel		0.00m-3.00m Sand 3.00m-6.00m Sand	01/02/2010	1425 m	South East
WRK054762	Observation	0.00m-0.80m fill 0.80m-6.00m brighton group sands	0.00m-3.00m INNER LINING - CASING = Pvc 3.00m-6.00m INNER LINING - SCREEN = Pvc 0.00m-2.80m OUTER LINING - GRAVEL = Bentonite 2.80m-6.00m OUTER LINING - GRAVEL = Gravel		0.00m-3.00m Sand 3.00m-6.00m Sand	01/02/2010	1425 m	South East
WRK054761	Observation	0.00m-0.80m fill 0.80m-6.00m brighton group sands	0.00m-3.00m INNER LINING - CASING = Pvc 3.00m-6.00m INNER LINING - SCREEN = Pvc 0.00m-2.80m OUTER LINING - GRAVEL = Bentonite 2.80m-6.00m OUTER LINING - GRAVEL = Gravel		0.00m-3.00m Sand 3.00m-6.00m Sand	01/02/2010	1431 m	South East
WRK988706							1431 m	North East
WRK988707							1436 m	North East
121289	Groundwater Investigation	0.00m-4.50m GREY SILTY SAND	0.00m-0.50m INNER LINING - CASING = Pvc 0.50m-4.50m INNER LINING - SCREEN = Pvc 0.00m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-4.50m OUTER LINING - GRAVEL = Gravel		0.50m-4.50m Sand	22/09/1993	1450 m	South

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK988705							1451 m	North East
WRK106488	Observation	0.00m-1.00m FILL 1.00m-33.00m SAND 33.00m-45.00m GRANODIORITE	0.00m-12.00m INNER LINING - CASING = Pvc 12.00m-15.00m INNER LINING - SCREEN = UPVC class 18 0.00m-10.00m OUTER LINING - GRAVEL = Cement 10.00m-11.00m OUTER LINING - GRAVEL = Bentonite 11.00m-15.00m OUTER LINING - GRAVEL = Gravel 15.00m-45.00m OUTER LINING - GRAVEL = Bentonite			11/05/2018	1459 m	North
WRK056717	Observation	0.00m-5.50m clayey sand	0.00m-1.50m INNER LINING - CASING = Pvc 1.50m-5.50m INNER LINING - SCREEN = Pvc 0.00m-1.00m OUTER LINING - GRAVEL = Bentonite 1.00m-5.50m OUTER LINING - GRAVEL = Gravel		1.50m-5.50m Sand	07/10/2010	1462 m	South
WRK056718	Observation					10/05/2011	1463 m	South
WRK106487	Observation	0.00m-1.80m FILL 1.80m-32.00m SAND 32.00m-45.00m GRANODIORITE	0.00m-12.00m INNER LINING - CASING = Pvc 12.00m-15.00m INNER LINING - SCREEN = UPVC class 18 0.00m-10.00m OUTER LINING - GRAVEL = Cement 10.00m-11.00m OUTER LINING - GRAVEL = Bentonite 11.00m-15.00m OUTER LINING - GRAVEL = Gravel 15.00m-45.00m OUTER LINING - GRAVEL = Bentonite			08/05/2018	1466 m	North
WRK982676							1512 m	South
WRK979236							1539 m	North West
WRK099879	Investigation	0.00m-1.00m FILL 1.00m-10.50m SILTSTONE	0.00m-7.50m INNER LINING - CASING = Pvc 7.50m-10.00m INNER LINING - SCREEN = Pvc 0.00m-6.00m OUTER LINING - GRAVEL = Cement 6.00m-7.00m OUTER LINING - GRAVEL = Bentonite 7.00m-10.50m OUTER LINING - GRAVEL = Gravel			25/05/2017	1551 m	North East
WRK099880	Investigation	0.00m-1.00m FILL 1.00m-10.50m SILTSTONE	0.00m-7.50m INNER LINING - CASING = Pvc 7.50m-10.00m INNER LINING - SCREEN = Pvc 0.00m-6.00m OUTER LINING - GRAVEL = Cement 6.00m-7.00m OUTER LINING - GRAVEL = Bentonite 7.00m-10.50m OUTER LINING - GRAVEL = Gravel			25/05/2017	1557 m	North East
WRK099881	Investigation	0.00m-1.00m FILL 1.00m-10.50m SILTSTONE	0.00m-7.50m INNER LINING - CASING = Pvc 7.50m-10.00m INNER LINING - SCREEN = Pvc 0.00m-6.00m OUTER LINING - GRAVEL = Cement 6.00m-7.00m OUTER LINING - GRAVEL = Bentonite 7.00m-10.50m OUTER LINING - GRAVEL = Gravel			25/05/2017	1594 m	North East
WRK982203	Irrigation	0.00m-0.50m SAND LOAM 0.50m-4.00m DRY SAND 4.00m-61.00m CLAY BOUND GRANITIC SAND 61.00m-94.00m BLACK & WHITE GRANITE HARD	0.00m-61.00m OUTER LINING - GRAVEL = Cement			26/04/2008	1682 m	North
142878	Groundwater Investigation	0.00m-0.20m CONCRETE 0.20m-0.50m SAND & GRAVEL 0.50m-5.00m SILTY CLAY & SNDY CLAY, ORANGE, YELLOW, BROWN, MOIST	0.00m-2.00m INNER LINING - CASING = Pvc Class 18 2.00m-5.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.30m OUTER LINING - GRAVEL = Cement 0.30m-1.50m OUTER LINING - GRAVEL = Bentonite 1.50m-5.00m OUTER LINING - GRAVEL = Gravel		2.00m-5.00m Clay	06/10/1999	1701 m	East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
142880	Groundwater Investigation	0.00m-0.20m CONCRETE 0.20m-0.50m SAND & GRAVEL 0.50m-5.00m SILTY CLAY & SANDY CLAY, YELLOW, MOIST-WET	0.00m-1.00m INNER LINING - CASING = Pvc Class 18 1.00m-5.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.30m OUTER LINING - GRAVEL = Cement 0.30m-0.80m OUTER LINING - GRAVEL = Bentonite 0.80m-5.00m OUTER LINING - GRAVEL = Gravel		1.00m-5.00m Sand	06/10/1999	1701 m	East
142881	Groundwater Investigation	0.00m-0.20m CONCRETE 0.20m-0.50m SAND & GRAVEL 0.50m-8.00m SANDY CLAY, SILTY CLAY, & CLAYEY SAND, YELLOW/BROWN/ORANGE,	0.00m-2.00m INNER LINING - CASING = Pvc Class 18 2.00m-8.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.30m OUTER LINING - GRAVEL = Cement 0.70m-1.50m OUTER LINING - GRAVEL = Bentonite 1.50m-8.00m OUTER LINING - GRAVEL = Gravel		2.00m-8.00m Clay	05/10/1999	1701 m	East
WRK051845	Irrigation						1748 m	East
WRK990435		0.00m-7.00m SANDY CLAY 7.00m-48.00m MUDSTONE 48.00m-75.00m WHEATHERED BASALT	0.00m-9.00m INNER LINING - CASING = Pvc 9.00m-63.00m INNER LINING - CASING = Pvc 0.00m-24.00m OUTER LINING - GRAVEL = Bentonite 24.00m-25.00m OUTER LINING - GRAVEL = Cement			17/07/2009	1748 m	East
WRK985200							1752 m	North East
9036123	Not Known	0.00m-2.00m Fill 2.00m-3.00m Clay 3.00m-5.00m Basalt	0.00m-8.00m INNER LINING - CASING = Pvc 8.00m-14.50m INNER LINING - SCREEN = Pvc			06/11/2008	1795 m	North East
WRK981319							1795 m	North East
WRK988692							1795 m	North East
WRK988987	Domestic					03/12/2008	1804 m	North West
WRK977529	Domestic & Stock		0.00m-3.00m INNER LINING - CASING = Pvc 3.00m-9.00m INNER LINING - SCREEN = Pvc 0.00m-1.50m OUTER LINING - GRAVEL = Cement 1.50m-2.50m OUTER LINING - GRAVEL = Bentonite 2.50m-9.00m OUTER LINING - GRAVEL = Gravel			11/01/2007	1806 m	North West
WRK978928							1826 m	North West
WRK052508	Domestic & Stock	0.00m-6.00m sand 6.00m-10.00m ironstone 10.00m-30.00m mudstone 30.00m-36.00m lignite black 36.00m-39.00m clay 39.00m-46.00m sand 46.00m-58.00m clay bands	0.00m-38.50m INNER LINING - CASING = Pvc 38.50m-44.50m INNER LINING - SCREEN = Pvc 44.50m-46.00m INNER LINING - CASING = Pvc 0.00m-6.00m OUTER LINING - GRAVEL = Cement 6.00m-15.00m OUTER LINING - GRAVEL = Bentonite 15.00m-58.00m OUTER LINING - GRAVEL = Gravel		0.00m-38.50m Mudstone 38.50m-44.50m Sand 44.50m-46.00m Clay	17/07/2010	1845 m	North West
WRK982684							1856 m	North West
WRK099300	Investigation	0.00m-0.60m FILL 0.60m-4.60m SAND. CLAY 4.60m-10.00m CLAYEY SAND	0.00m-6.00m INNER LINING - CASING = Pvc 6.00m-10.00m INNER LINING - SCREEN = Pvc 0.00m-2.00m OUTER LINING - GRAVEL = Cement 2.00m-5.00m OUTER LINING - GRAVEL = Bentonite 5.00m-10.00m OUTER LINING - GRAVEL = Gravel			15/03/2017	1917 m	North East
WRK099298	Investigation	0.00m-0.60m FILL 0.60m-4.60m SAND. CLAY 4.60m-10.00m CLAYEY SAND	0.00m-6.00m INNER LINING - CASING = Pvc 6.00m-10.00m INNER LINING - SCREEN = Pvc 0.00m-2.00m OUTER LINING - GRAVEL = Cement 2.00m-5.00m OUTER LINING - GRAVEL = Bentonite 5.00m-10.00m OUTER LINING - GRAVEL = Gravel			15/03/2017	1936 m	North East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK067645	Observation					01/01/2011	1941 m	South East
WRK067643	Observation					01/01/2011	1949 m	South East
WRK099299	Investigation	0.00m-0.60m FILL 0.60m-4.60m SAND CLAY 4.60m-10.00m CLAYEY SAND	0.00m-6.00m INNER LINING - CASING = Pvc 6.00m-10.00m INNER LINING - SCREEN = Pvc 0.00m-2.00m OUTER LINING - GRAVEL = Cement 2.00m-5.00m OUTER LINING - GRAVEL = Bentonite 5.00m-10.00m OUTER LINING - GRAVEL = Gravel			15/03/2017	1949 m	North East
WRK067644	Observation					01/01/2011	1959 m	South East
WRK974141	Domestic & Stock		0.00m-6.90m INNER LINING - CASING = Pvc 6.90m-9.90m INNER LINING - SCREEN = Pvc 0.00m-4.50m OUTER LINING - GRAVEL = Cement 4.50m-5.80m OUTER LINING - GRAVEL = Bentonite 5.80m-9.90m OUTER LINING - GRAVEL = Gravel			19/06/2006	1974 m	North East
WRK046956							1980 m	East

Groundwater Boreholes

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Boreholes (Earth Resources Database)

Boreholes from the Earth Resources dataset, within the dataset buffer:

Bore Id	Bore Type	Company	Usage	Method	Status	Drill Date	Depth	Elevation	Accuracy (m)	Dist (m)	Dir
N/A	No records in buffer										

Boreholes (Federation University)

Boreholes from the Federation University Australia dataset, within the dataset buffer:

Bore Id	Authority	Type	Uses	Initial TD	Log	Dist (m)	Dir
N/A	No records in buffer						

Historical Mining Activity - Shafts

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Historical Mining Activity - Shafts

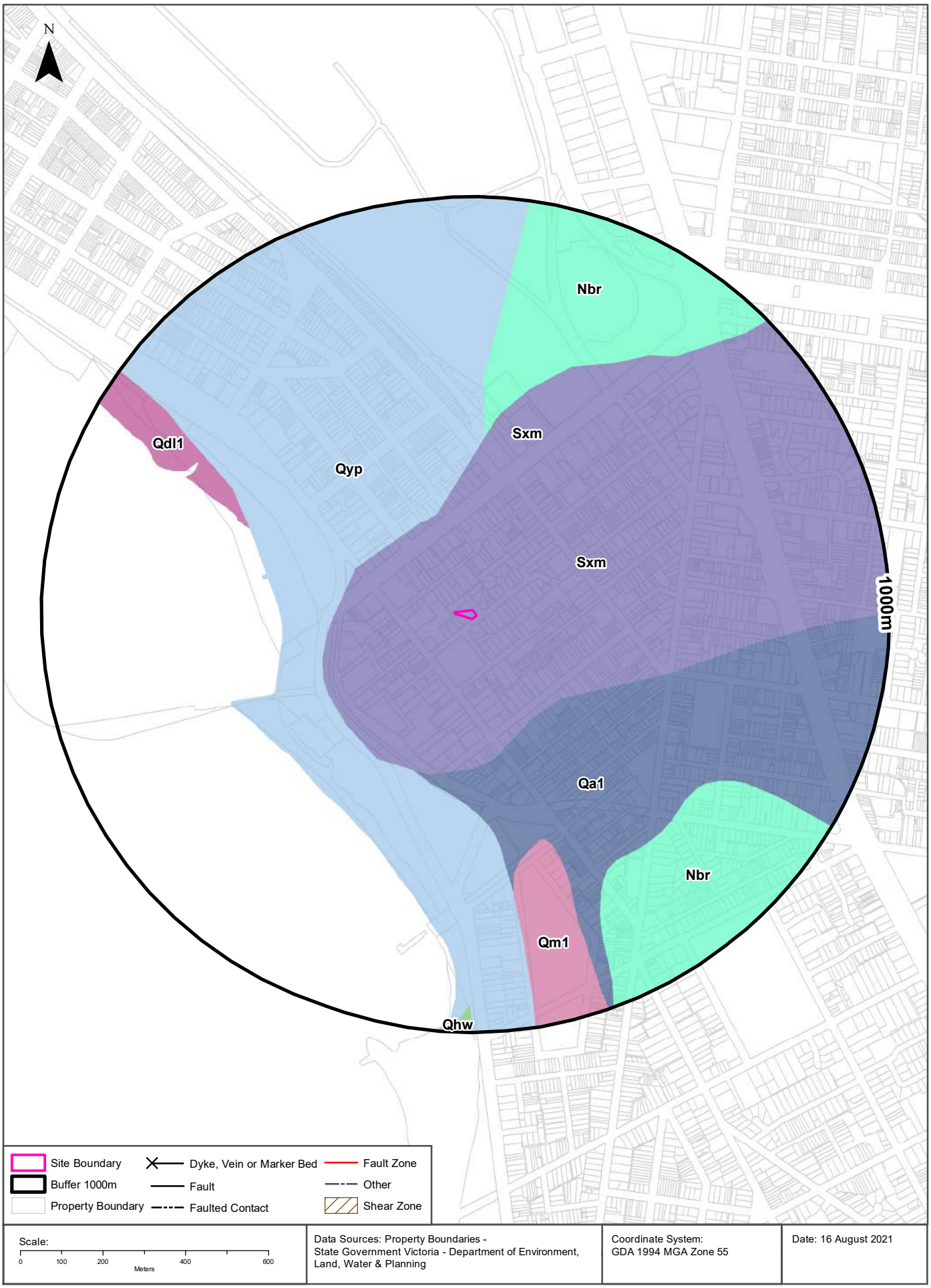
Mine Shaft Locations were collected by a variety of methods from 1869 in some areas of the state, mainly concentrating in Ballarat and Bendigo. In places a shaft may be recorded multiple times with a different source. In cases where several shaft locations are shown close together (generally with separations less than stated position errors) and they have different sources, it is possible that one shaft has been mapped several times. In cases where several shaft locations are shown close together but they have the same information source, it is possible that each shaft location represents a different shaft on the ground.

Historical Mine Shafts within the dataset buffer:

Map Id	Name	Source	Depth (m)	Collar (ft)	Fill/Cap Method	Location Desc	Location Accuracy	Distance	Direction
N/A	No records in buffer								

Geology

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Geology

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Geological Units 1:50,000

What are the Geological Units within the dataset buffer?

Symbol	Name	Description	Geological Age	Lithology	Distance	Direction
Sxm	Melbourne Formation(Sxm): generic	Siltstone and sandstone: mainly thin-bedded; most beds show undisturbed Bouma sequences.	Silurian to Silurian	sandstone (major proportion); siltstone (major proportion)	0m	On-site
Sxm	Melbourne Formation(Sxm): hornfels	Hornfels	Silurian to Silurian; Middle Devonian to Middle Devonian	hornfels (all)	133m	North East
Qyp	Port Melbourne Sand(Qyp): generic	Aeolian and beach ridges. Bedded and cross-bedded sand, moderately silty, with shelly fossils including bivalves and gastropods.	Holocene to Holocene	medium sand material (all); fine sand (all)	226m	North West
Qa1	alluvium(Qa1): generic	Gravel, sand, silt: variably sorted and rounded; generally unconsolidated; includes deposits of low terraces; alluvial floodplain deposits	Pleistocene to Holocene	gravel material (significant); sand (significant); silt material (significant)	279m	South East
Nbr	Red Bluff Sandstone (Nbr): generic	Sandstone, conglomerate: pale yellow and brown; fine to coarse-grained, massive to well bedded; cross-bedded; local ironstone	Miocene to Pliocene	conglomerate (significant); sandstone (significant)	418m	South East
Qdl1	coastal dune deposits (Qdl1): generic	Sand, silt, clay: well sorted, poorly consolidated; coastal dune and beach deposits, some swamp deposits	Holocene to Holocene	sand (significant); silt material (significant); clay lithology (significant)	536m	North West
Qm1	swamp and lake deposits (Qm1): generic	Grey to black carbonaceous mud, silt, clay, minor peat: generally unconsolidated; rare dolomite	Pleistocene to Holocene	mud (major proportion); silt material (significant); clay lithology (significant); peat (minor proportion)	557m	South
Qhw	waste deposits (Qhw): generic	Clayey silt containing organic and non-organic material; land fill of various kinds.	Holocene to Holocene	fill (all)	935m	South

Geology

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Geological Structures 1:50,000

What are the Geological Faults or Faulted Contacts within the dataset buffer?

Map Id	Type	Name	Contact	Positional Accuracy	Distance	Direction
N/A	No records in buffer					

What are the Dykes, Marker Beds and Veins within the dataset buffer?

Map Id	Type	Name	Description	Positional Accuracy	Distance	Direction
N/A	No records in buffer					

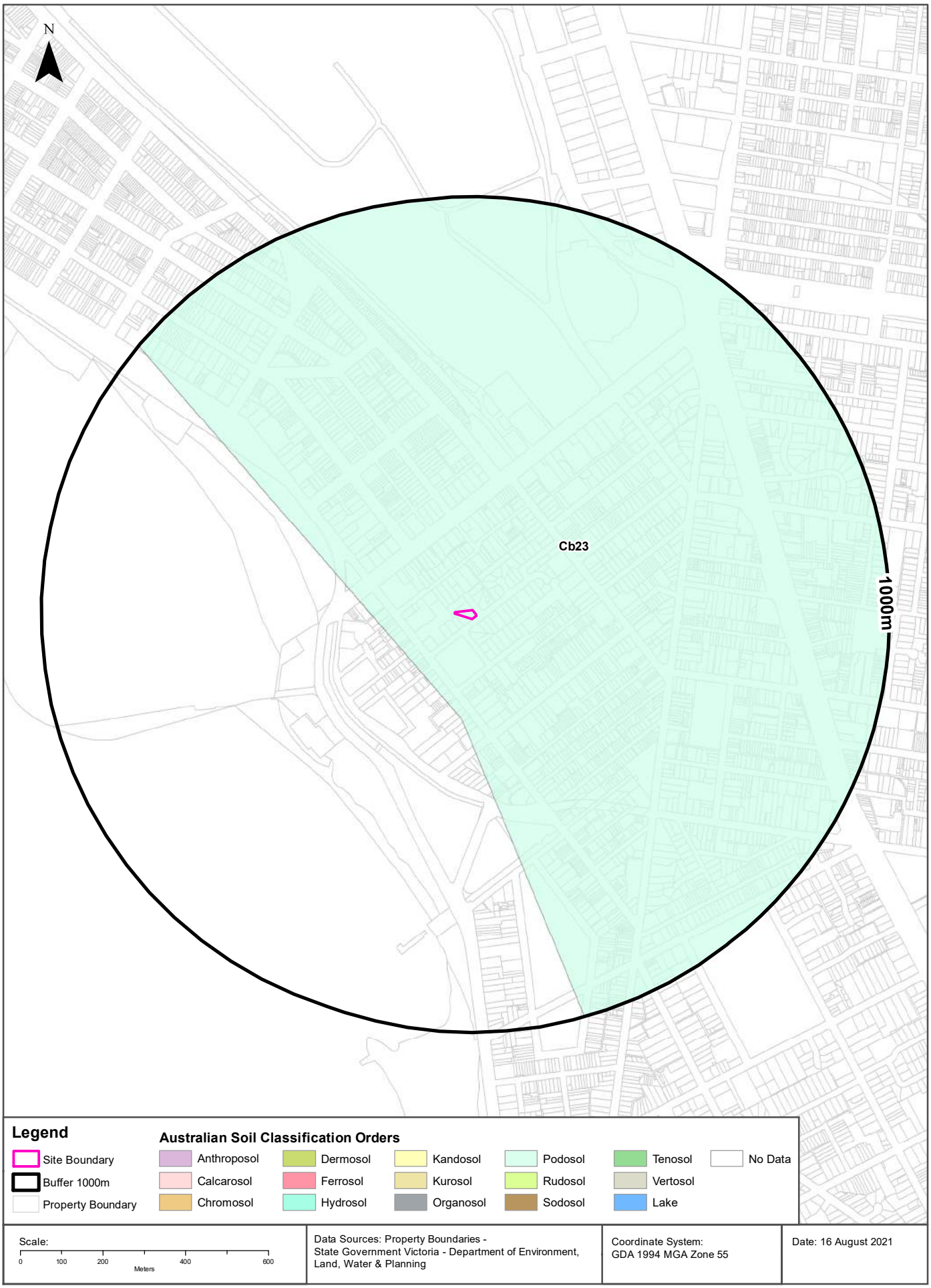
Geological Structures 1:250,000

What are the Shear Zones within the dataset buffer?

Map Id	Type	Name	Description	Positional Accuracy	Distance	Direction
N/A	No records in buffer					

Atlas of Australian Soils

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Soils

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

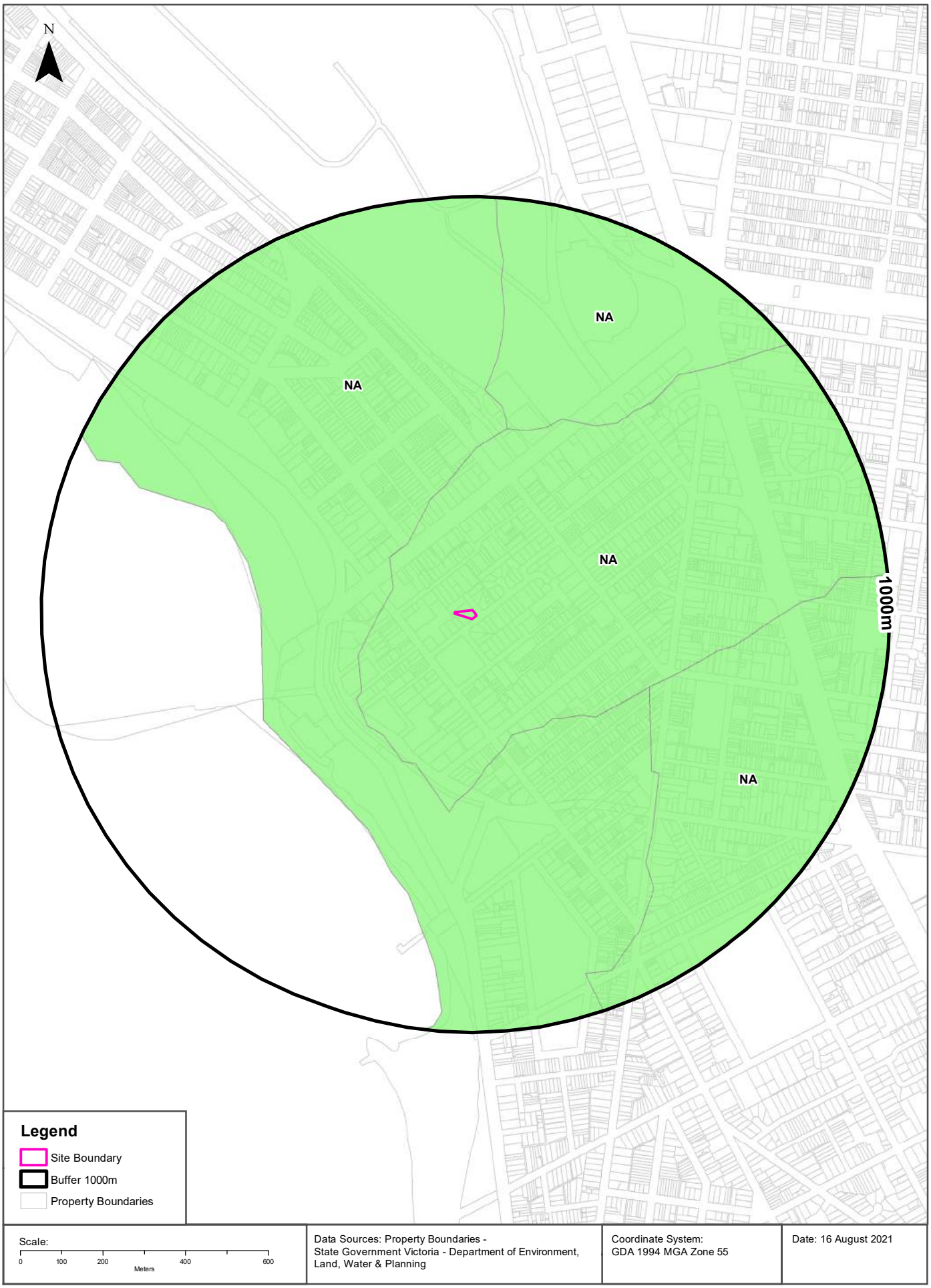
Atlas of Australian Soils

Soil mapping units and Australian Soil Classification orders within the dataset buffer:

Map Unit Code	Soil Order	Map Unit Description	Distance	Direction
Cb23	Podosol	Coastal plains: plains of leached sands (Uc2.33) and other (Uc2.3) soils in association with sandy acidic yellow mottled soils (Dy5.41 and Dy5.81) and small areas of (Dy3.4) soils with dunes of leached sands, (Uc2.2) on dune crests. and (Uc2.3) on dune slopes; and with small swampy areas and possibly some lunettes both with undescribed soils.	0m	On-site

Victorian Soil Type Mapping

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Soils

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

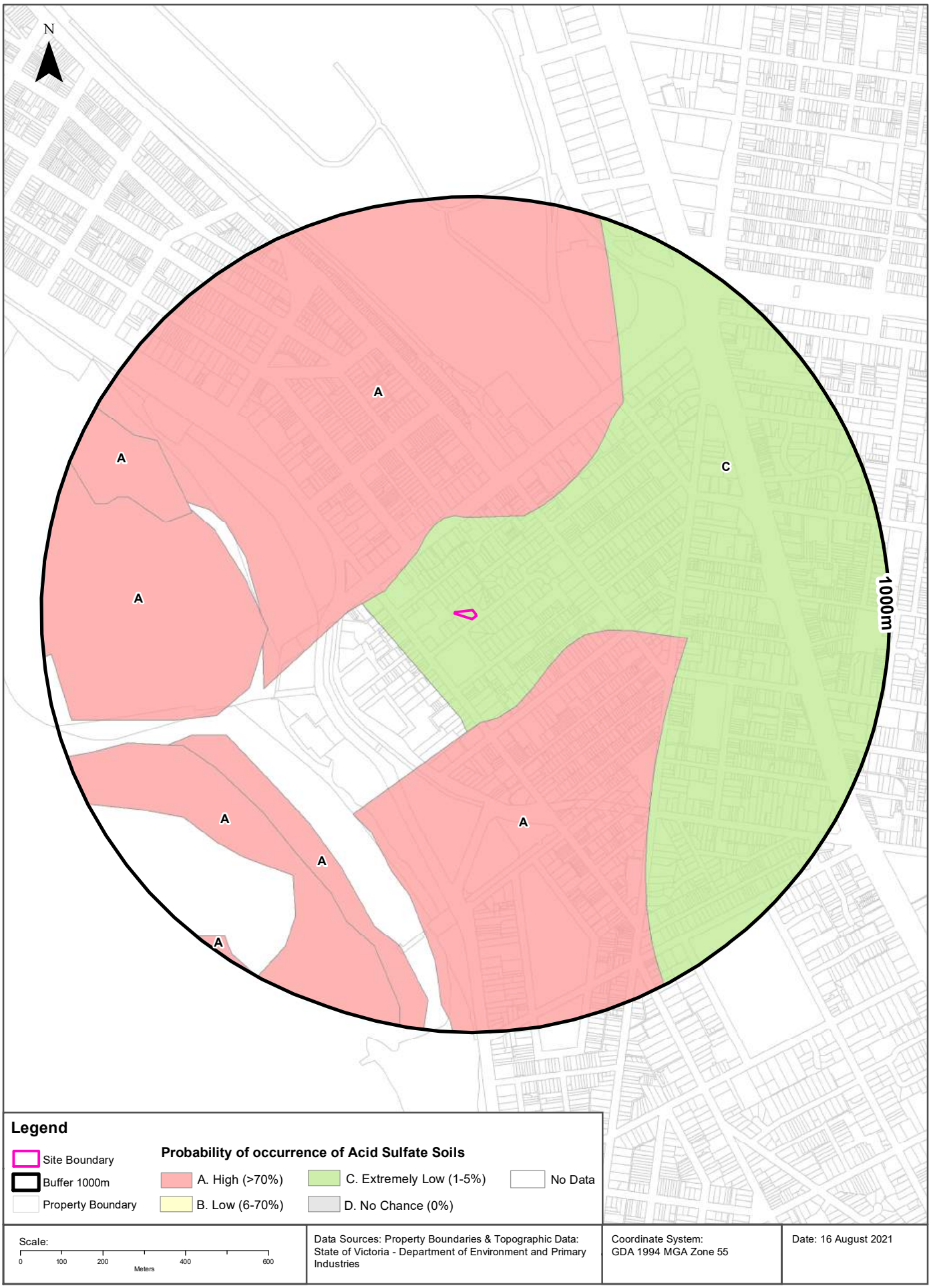
Victorian Soil Type Mapping

Victorian Soil Types within the dataset buffer:

Symbol	Description	Distance	Direction
NA	Unassigned	0m	On-site

Atlas of Australian Acid Sulfate Soils

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Acid Sulfate Soils

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Atlas of Australian Acid Sulfate Soils

Atlas of Australian Acid Sulfate Soil categories within the dataset buffer:

Class	Description	Distance	Direction
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m	On-site
A	High Probability of occurrence. >70% chance of occurrence.	164m	North

Coastal Acid Sulfate Soils

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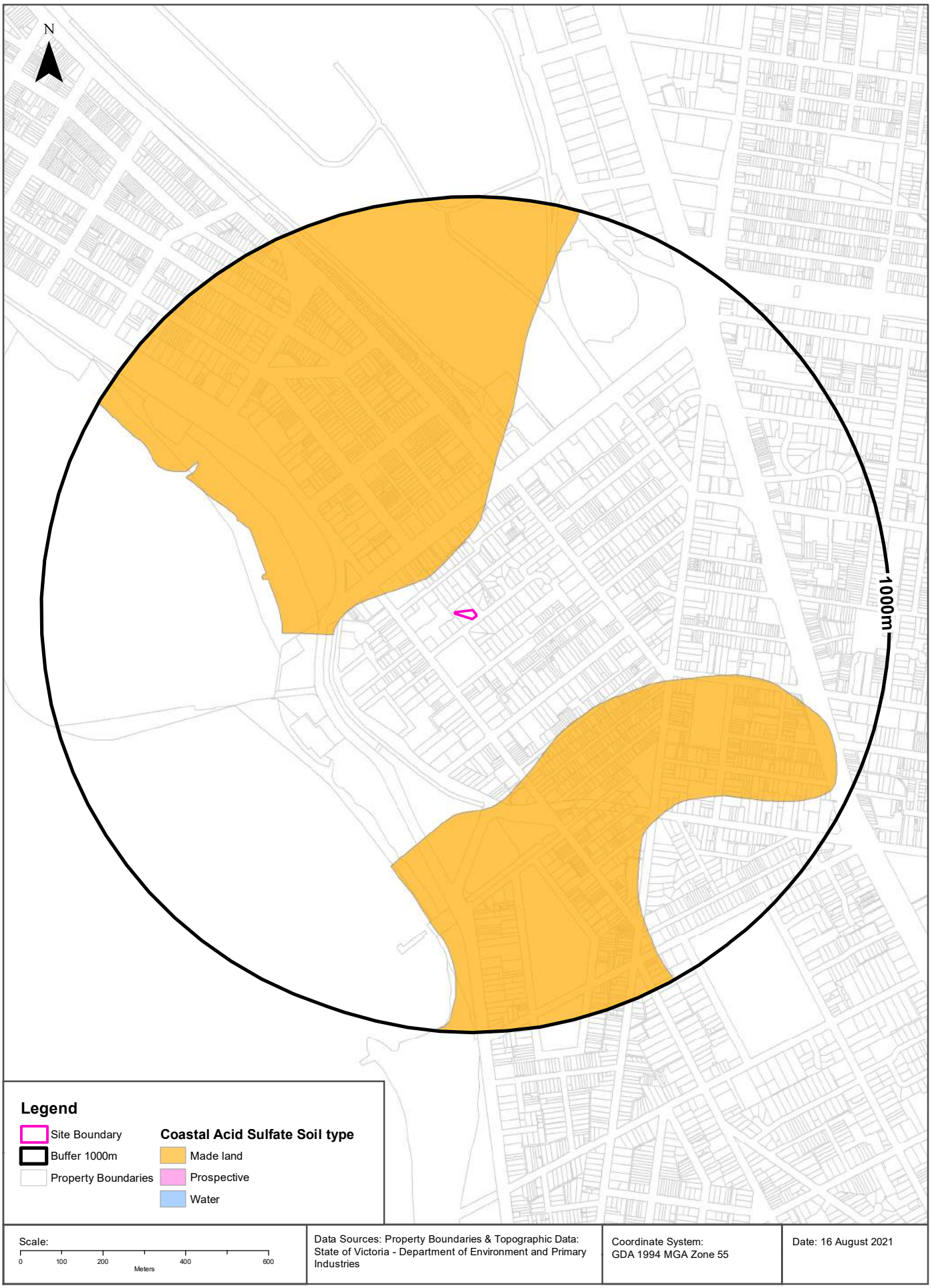


Acid Sulfate Soils

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

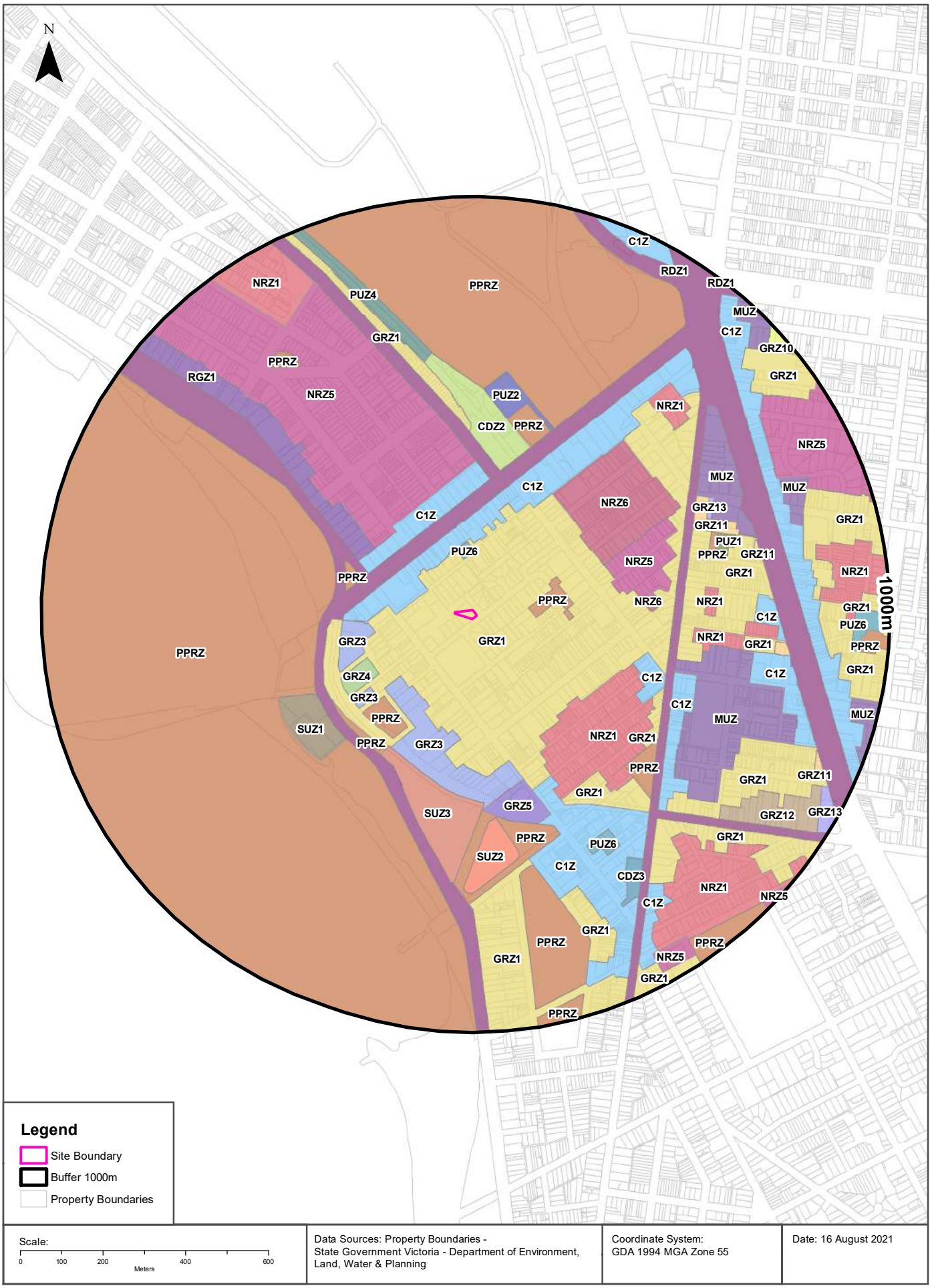
Coastal Acid Sulfate Soils

Coastal Acid Sulfate Soil types within the dataset buffer:

Coastal Acid Sulfate Soil Types	Distance	Direction
Made land	107	North West

Planning Zones

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Planning

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Planning Zones

Planning zones within the dataset buffer:

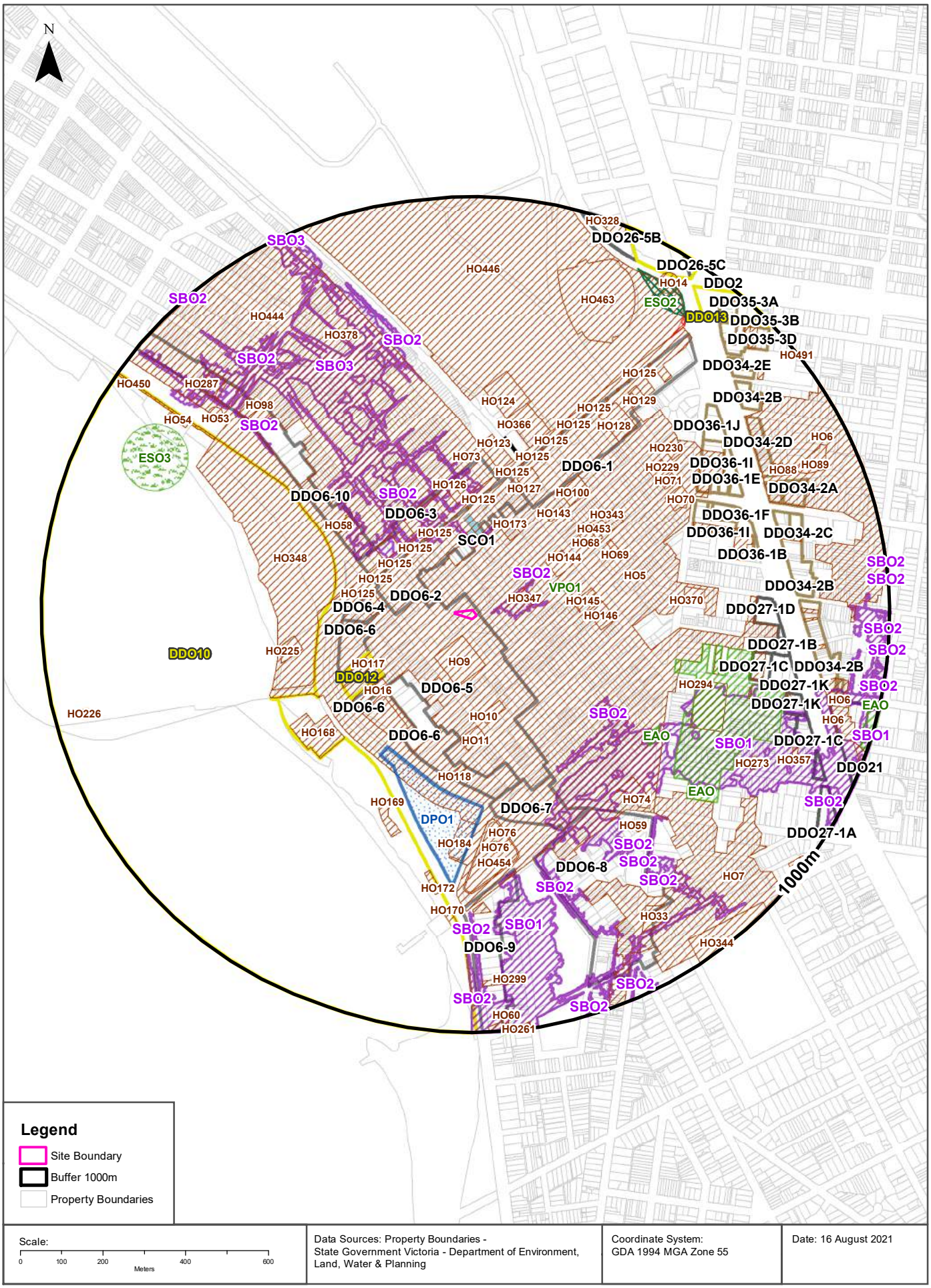
Zone Code	Description	Distance	Direction
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	0m	On-site
C1Z	COMMERCIAL 1 ZONE	85m	North East
PUZ6	PUBLIC USE ZONE - LOCAL GOVERNMENT	124m	North
PPRZ	PUBLIC PARK AND RECREATION ZONE	125m	East
RDZ1	ROAD ZONE - CATEGORY 1	162m	North
GRZ3	GENERAL RESIDENTIAL ZONE - SCHEDULE 3	199m	West
GRZ3	GENERAL RESIDENTIAL ZONE - SCHEDULE 3	202m	South
C1Z	COMMERCIAL 1 ZONE	203m	North
GRZ4	GENERAL RESIDENTIAL ZONE - SCHEDULE 4	235m	South West
PPRZ	PUBLIC PARK AND RECREATION ZONE	240m	West
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	241m	North West
RGZ1	RESIDENTIAL GROWTH ZONE - SCHEDULE 1	248m	North West
PPRZ	PUBLIC PARK AND RECREATION ZONE	264m	South West
GRZ3	GENERAL RESIDENTIAL ZONE - SCHEDULE 3	272m	South West
PPRZ	PUBLIC PARK AND RECREATION ZONE	297m	South West
NRZ1	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 1	304m	South East
NRZ6	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 6	311m	North East
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	330m	East
CDZ2	COMPREHENSIVE DEVELOPMENT ZONE - SCHEDULE 2	343m	North
SUZ3	SPECIAL USE ZONE - SCHEDULE 3	358m	South
PPRZ	PUBLIC PARK AND RECREATION ZONE	362m	South West
SUZ1	SPECIAL USE ZONE - SCHEDULE 1	389m	South West
C1Z	COMMERCIAL 1 ZONE	394m	East
NRZ6	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 6	402m	East
GRZ5	GENERAL RESIDENTIAL ZONE - SCHEDULE 5	406m	South
PPRZ	PUBLIC PARK AND RECREATION ZONE	417m	North
C1Z	COMMERCIAL 1 ZONE	422m	South East
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	434m	North
PPRZ	PUBLIC PARK AND RECREATION ZONE	463m	South
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	468m	South East
PUZ2	PUBLIC USE ZONE - EDUCATION	470m	North
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	475m	South East

Zone Code	Description	Distance	Direction
PPRZ	PUBLIC PARK AND RECREATION ZONE	479m	North
SUZ2	SPECIAL USE ZONE - SCHEDULE 2	483m	South
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	491m	East
MUZ	MIXED USE ZONE	493m	East
C1Z	COMMERCIAL 1 ZONE	497m	South East
PPRZ	PUBLIC PARK AND RECREATION ZONE	508m	South East
NRZ1	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 1	525m	East
NRZ1	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 1	548m	East
GRZ11	GENERAL RESIDENTIAL ZONE - SCHEDULE 11	560m	East
PPRZ	PUBLIC PARK AND RECREATION ZONE	577m	East
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	591m	East
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	595m	South
GRZ13	GENERAL RESIDENTIAL ZONE - SCHEDULE 13	602m	North East
PUZ6	PUBLIC USE ZONE - LOCAL GOVERNMENT	603m	South East
MUZ	MIXED USE ZONE	605m	North East
PUZ4	PUBLIC USE ZONE - TRANSPORT	609m	North
PPRZ	PUBLIC PARK AND RECREATION ZONE	612m	South
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	638m	South East
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	648m	East
NRZ1	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 1	649m	North East
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	655m	South East
C1Z	COMMERCIAL 1 ZONE	670m	East
C1Z	COMMERCIAL 1 ZONE	674m	East
GRZ11	GENERAL RESIDENTIAL ZONE - SCHEDULE 11	679m	East
CDZ3	COMPREHENSIVE DEVELOPMENT ZONE - SCHEDULE 3	686m	South East
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	692m	South
PPRZ	PUBLIC PARK AND RECREATION ZONE	701m	North West
NRZ1	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 1	713m	South East
GRZ11	GENERAL RESIDENTIAL ZONE - SCHEDULE 11	724m	East
GRZ12	GENERAL RESIDENTIAL ZONE - SCHEDULE 12	746m	South East
C1Z	COMMERCIAL 1 ZONE	757m	East
C1Z	COMMERCIAL 1 ZONE	768m	South East
MUZ	MIXED USE ZONE	787m	East
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	795m	North East
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	801m	East
NRZ1	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 1	803m	North West
NRZ1	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 1	828m	East

Zone Code	Description	Distance	Direction
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	853m	North East
GRZ11	GENERAL RESIDENTIAL ZONE - SCHEDULE 11	883m	South East
PUZ6	PUBLIC USE ZONE - LOCAL GOVERNMENT	908m	East
MUZ	MIXED USE ZONE	918m	North East
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	920m	South East
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	922m	South East
MUZ	MIXED USE ZONE	928m	East
GRZ13	GENERAL RESIDENTIAL ZONE - SCHEDULE 13	930m	South East
PPRZ	PUBLIC PARK AND RECREATION ZONE	931m	East
PPRZ	PUBLIC PARK AND RECREATION ZONE	935m	South East
PPRZ	PUBLIC PARK AND RECREATION ZONE	945m	South
GRZ10	GENERAL RESIDENTIAL ZONE - SCHEDULE 10	947m	North East
C1Z	COMMERCIAL 1 ZONE	949m	North East
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	969m	South East
RDZ1	ROAD ZONE - CATEGORY 1	987m	North East

Planning Overlays

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Planning

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Planning Overlays

Planning overlays within the dataset buffer:

Zone Code	Description	Distance	Direction
DDO6-5	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 6-5	0m	On-site
HO5	HERITAGE OVERLAY (HO5)	0m	On-site
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	35m	East
HO9	HERITAGE OVERLAY (HO9)	45m	South
DDO6-2	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 6-2	85m	North
HO347	HERITAGE OVERLAY (HO347)	115m	East
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	154m	North
SCO1	SPECIFIC CONTROLS OVERLAY - SCHEDULE 1	162m	North
DDO6-4	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 6-4	164m	West
HO345	HERITAGE OVERLAY (HO345)	173m	West
HO125	HERITAGE OVERLAY (HO125)	180m	North West
DDO6-3	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 6-3	182m	North
HO125	HERITAGE OVERLAY (HO125)	184m	North West
HO125	HERITAGE OVERLAY (HO125)	186m	North West
HO173	HERITAGE OVERLAY (HO173)	189m	North East
HO125	HERITAGE OVERLAY (HO125)	193m	North West
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	194m	North West
HO125	HERITAGE OVERLAY (HO125)	197m	North
DDO6-6	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 6-6	199m	West
DDO6-6	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 6-6	202m	South
HO444	HERITAGE OVERLAY (HO444)	203m	North West
HO125	HERITAGE OVERLAY (HO125)	206m	West
HO10	HERITAGE OVERLAY (HO10)	207m	South
HO144	HERITAGE OVERLAY (HO144)	209m	North East
HO125	HERITAGE OVERLAY (HO125)	212m	North
VPO1	VEGETATION PROTECTION OVERLAY - SCHEDULE 1	219m	East
HO125	HERITAGE OVERLAY (HO125)	228m	North
DDO12	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 12	229m	South West
HO145	HERITAGE OVERLAY (HO145)	235m	East
HO117	HERITAGE OVERLAY (HO117)	236m	South West
HO17	HERITAGE OVERLAY (HO17)	236m	South West

Zone Code	Description	Distance	Direction
HO125	HERITAGE OVERLAY (HO125)	238m	West
HO125	HERITAGE OVERLAY (HO125)	246m	North
DDO6-10	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 6-10	250m	North West
HO11	HERITAGE OVERLAY (HO11)	257m	South
HO126	HERITAGE OVERLAY (HO126)	259m	North
HO16	HERITAGE OVERLAY (HO16)	260m	South West
HO18	HERITAGE OVERLAY (HO18)	264m	South West
HO125	HERITAGE OVERLAY (HO125)	268m	North
HO146	HERITAGE OVERLAY (HO146)	268m	East
DDO6-6	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 6-6	272m	South West
HO143	HERITAGE OVERLAY (HO143)	283m	North East
DDO6-1	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 6-1	288m	North East
HO125	HERITAGE OVERLAY (HO125)	292m	North
DDO10	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 10	297m	South West
HO348	HERITAGE OVERLAY (HO348)	297m	West
HO68	HERITAGE OVERLAY (HO68)	311m	North East
HO127	HERITAGE OVERLAY (HO127)	319m	North East
HO58	HERITAGE OVERLAY (HO58)	329m	North West
HO453	HERITAGE OVERLAY (HO453)	340m	North East
HO123	HERITAGE OVERLAY (HO123)	343m	North
HO100	HERITAGE OVERLAY (HO100)	344m	North East
HO125	HERITAGE OVERLAY (HO125)	346m	North
HO118	HERITAGE OVERLAY (HO118)	351m	South
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	357m	South East
HO69	HERITAGE OVERLAY (HO69)	358m	North East
DPO1	DEVELOPMENT PLAN OVERLAY - SCHEDULE 1	363m	South
HO73	HERITAGE OVERLAY (HO73)	363m	North
HO125	HERITAGE OVERLAY (HO125)	370m	North
HO225	HERITAGE OVERLAY (HO225)	379m	West
HO343	HERITAGE OVERLAY (HO343)	380m	North East
RXO	ROAD CLOSURE OVERLAY	385m	North
HO168	HERITAGE OVERLAY (HO168)	394m	South West
HO125	HERITAGE OVERLAY (HO125)	395m	North
DDO6-7	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 6-7	406m	South
HO366	HERITAGE OVERLAY (HO366)	415m	North
HO125	HERITAGE OVERLAY (HO125)	420m	North East
SBO1	SPECIAL BUILDING OVERLAY - SCHEDULE 1	444m	South East

Zone Code	Description	Distance	Direction
HO125	HERITAGE OVERLAY (HO125)	448m	North East
SBO3	SPECIAL BUILDING OVERLAY - SCHEDULE 3	448m	North West
HO124	HERITAGE OVERLAY (HO124)	470m	North
HO446	HERITAGE OVERLAY (HO446)	470m	North
HO125	HERITAGE OVERLAY (HO125)	476m	North East
HO169	HERITAGE OVERLAY (HO169)	478m	South
HO184	HERITAGE OVERLAY (HO184)	484m	South
HO76	HERITAGE OVERLAY (HO76)	485m	South
EAO	ENVIRONMENTAL AUDIT OVERLAY	493m	South East
HO454	HERITAGE OVERLAY (HO454)	493m	South
EAO	ENVIRONMENTAL AUDIT OVERLAY	499m	South East
HO370	HERITAGE OVERLAY (HO370)	501m	East
HO125	HERITAGE OVERLAY (HO125)	508m	North East
HO70	HERITAGE OVERLAY (HO70)	535m	North East
HO125	HERITAGE OVERLAY (HO125)	537m	North East
HO128	HERITAGE OVERLAY (HO128)	538m	North East
DDO6-8	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 6-8	539m	South East
HO74	HERITAGE OVERLAY (HO74)	540m	South East
HO229	HERITAGE OVERLAY (HO229)	541m	North East
HO76	HERITAGE OVERLAY (HO76)	541m	South
HO71	HERITAGE OVERLAY (HO71)	546m	North East
HO294	HERITAGE OVERLAY (HO294)	553m	East
DDO36-1I	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 36 1I	560m	East
HO285	HERITAGE OVERLAY (HO285)	560m	East
HO125	HERITAGE OVERLAY (HO125)	568m	North East
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	583m	North West
DDO36-1G	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 36 1G	602m	North East
HO125	HERITAGE OVERLAY (HO125)	602m	North East
HO230	HERITAGE OVERLAY (HO230)	603m	North East
HO31	HERITAGE OVERLAY (HO31)	610m	North East
DDO36-1F	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 36 1F	611m	East
DDO36-1I	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 36 1I	612m	North East
DDO6-9	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 6-9	614m	South
HO7	HERITAGE OVERLAY (HO7)	615m	South East
HO172	HERITAGE OVERLAY (HO172)	616m	South
SBO1	SPECIAL BUILDING OVERLAY - SCHEDULE 1	618m	South
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	621m	South

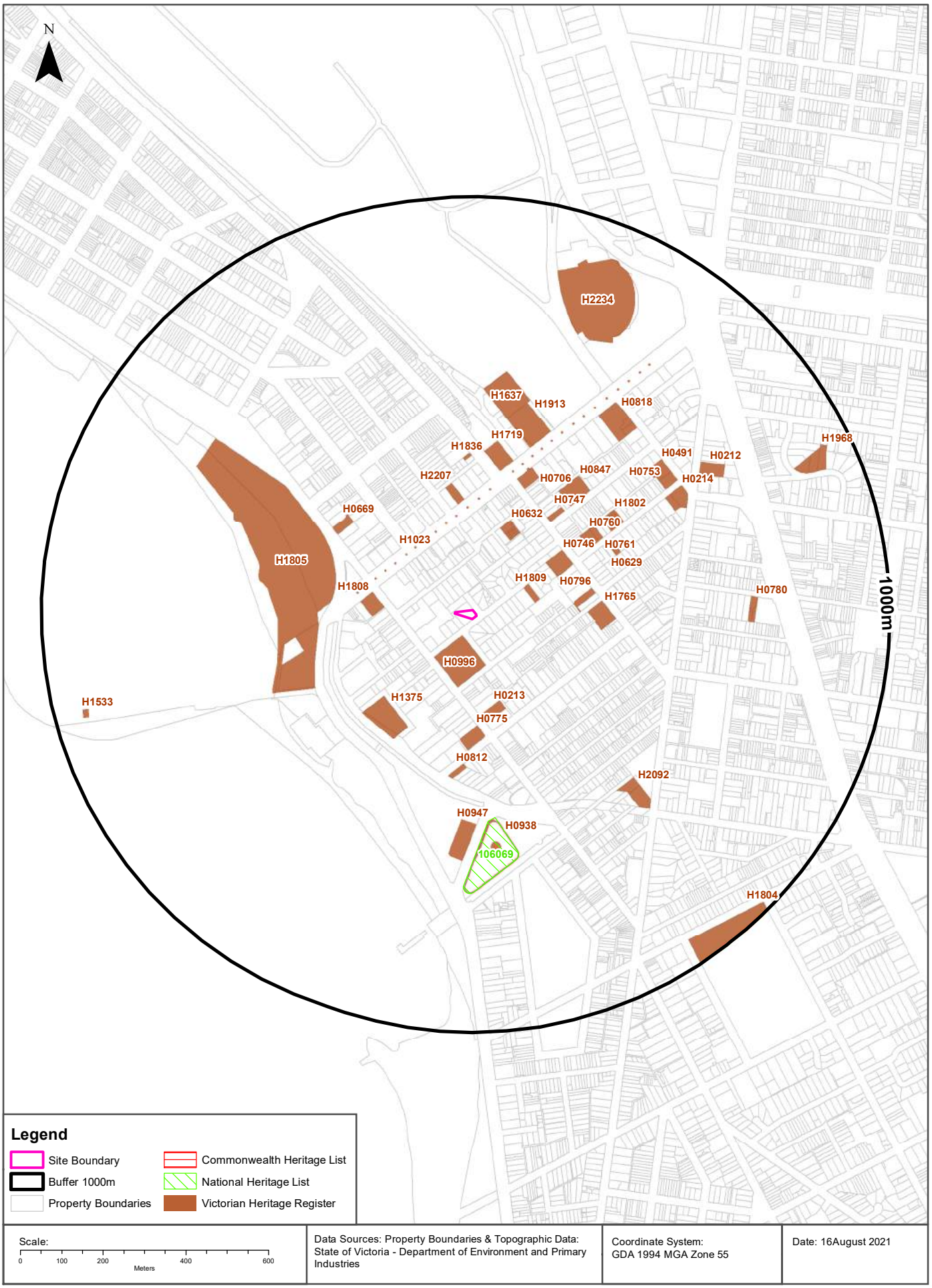
Zone Code	Description	Distance	Direction
HO59	HERITAGE OVERLAY (HO59)	627m	South East
HO275	HERITAGE OVERLAY (HO275)	634m	East
DDO36-1H	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 36 1H	635m	North East
HO125	HERITAGE OVERLAY (HO125)	635m	North East
HO32	HERITAGE OVERLAY (HO32)	635m	North East
HO129	HERITAGE OVERLAY (HO129)	644m	North East
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	650m	South East
DDO36-1G	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 36 1G	655m	North East
HO276	HERITAGE OVERLAY (HO276)	655m	East
DDO36-1E	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 36 1E	659m	East
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	660m	North
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	661m	South East
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	665m	South East
HO125	HERITAGE OVERLAY (HO125)	666m	North East
DDO27-1D	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 27 1D	670m	East
DDO27-1C	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 27 1C	674m	East
HO160	HERITAGE OVERLAY (HO160)	674m	East
DDO36-1E	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 36 1E	675m	North East
DDO36-1B	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 36 1B	679m	East
HO159	HERITAGE OVERLAY (HO159)	682m	East
HO298	HERITAGE OVERLAY (HO298)	684m	South
HO98	HERITAGE OVERLAY (HO98)	684m	North West
DDO36-1J	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 36 1J	692m	North East
HO125	HERITAGE OVERLAY (HO125)	699m	North East
HO170	HERITAGE OVERLAY (HO170)	699m	South
HO378	HERITAGE OVERLAY (HO378)	708m	North West
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	709m	South
HO463	HERITAGE OVERLAY (HO463)	710m	North
HO450	HERITAGE OVERLAY (HO450)	717m	North West
DDO27-1K	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 27 1K	720m	East
DDO27-1B	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 27 1B	724m	East
HO125	HERITAGE OVERLAY (HO125)	727m	North East
ESO3	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 3	736m	North West
HO53	HERITAGE OVERLAY (HO53)	737m	North West
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	737m	North West
HO273	HERITAGE OVERLAY (HO273)	746m	South East
DDO34-2B	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 34 2B	757m	East

Zone Code	Description	Distance	Direction
DDO34-2G	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 34 2G	757m	East
HO248	HERITAGE OVERLAY (HO248)	757m	East
DDO34-2B	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 34 2B	759m	East
HO6	HERITAGE OVERLAY (HO6)	759m	East
DDO34-2D	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 34 2D	767m	North East
DDO27-1K	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 27 1K	772m	East
HO161	HERITAGE OVERLAY (HO161)	772m	East
DDO34-2B	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 34 2B	781m	East
HO287	HERITAGE OVERLAY (HO287)	782m	North West
DDO34-2C	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 34 2C	783m	East
HO249	HERITAGE OVERLAY (HO249)	784m	East
DDO34-2A	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 34 2A	787m	East
HO54	HERITAGE OVERLAY (HO54)	789m	North West
HO250	HERITAGE OVERLAY (HO250)	791m	East
HO88	HERITAGE OVERLAY (HO88)	796m	North East
PAO5	PUBLIC ACQUISITION OVERLAY 5	804m	North East
HO33	HERITAGE OVERLAY (HO33)	809m	South East
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	809m	South
DDO27-1C	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 27 1C	810m	East
DDO34-2B	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 34 2B	814m	North East
HO506	HERITAGE OVERLAY (HO506)	816m	East
HO357	HERITAGE OVERLAY (HO357)	828m	South East
HO89	HERITAGE OVERLAY (HO89)	843m	North East
DDO34-2E	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 34 2E	846m	North East
HO6	HERITAGE OVERLAY (HO6)	850m	East
SBO3	SPECIAL BUILDING OVERLAY - SCHEDULE 3	852m	North West
ESO2	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 2	864m	North East
DDO21	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 21	871m	East
HO251	HERITAGE OVERLAY (HO251)	871m	East
DDO34-2F	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 34 2F	872m	North East
HO299	HERITAGE OVERLAY (HO299)	872m	South
HO6	HERITAGE OVERLAY (HO6)	880m	East
DDO27-1B	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 27 1B	883m	South East
HO358	HERITAGE OVERLAY (HO358)	885m	North East
DDO34-2I	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 34 2I	886m	North East
DDO34-2A	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 34 2A	888m	East
HO14	HERITAGE OVERLAY (HO14)	897m	North East

Zone Code	Description	Distance	Direction
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	899m	East
DDO13	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 13	902m	North East
HO226	HERITAGE OVERLAY (HO226)	916m	West
DDO35-3D	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 35 3D	918m	North East
HO363	HERITAGE OVERLAY (HO363)	918m	North East
HO488	HERITAGE OVERLAY (HO488)	928m	North East
DDO27-1A	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 27 1A	930m	South East
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	930m	South East
DDO34-2H	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 34 2H	931m	North East
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	931m	South East
DDO13	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 13	933m	North East
DDO26-5B	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 26-5B	933m	North East
HO344	HERITAGE OVERLAY (HO344)	935m	South East
DDO35-3A	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 35 3A	953m	North East
HO60	HERITAGE OVERLAY (HO60)	953m	South
HO232	HERITAGE OVERLAY (HO232)	955m	North East
DDO26-5C	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 26-5C	959m	North East
HO328	HERITAGE OVERLAY (HO328)	966m	North
EAO	ENVIRONMENTAL AUDIT OVERLAY	971m	East
HO300	HERITAGE OVERLAY (HO300)	976m	South
DDO35-3B	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 35 3B	982m	North East
HO261	HERITAGE OVERLAY (HO261)	983m	South
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	985m	North West
DDO2	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 2	987m	North East
HO491	HERITAGE OVERLAY (HO491)	988m	North East
HO489	HERITAGE OVERLAY (HO489)	999m	North East

Heritage

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Heritage

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Commonwealth Heritage List

What are the Commonwealth Heritage List Items located within the dataset buffer?

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch

National Heritage List

What are the National Heritage List Items located within the dataset buffer?
Note. Please click on Place Id to activate a hyperlink to online website.

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
106069	Luna Park	18 Cavell St, St Kilda VIC	2/11/046/0024	Historic	Nomination now ineligible for PPAL		483m	South

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch

Victorian Heritage Register

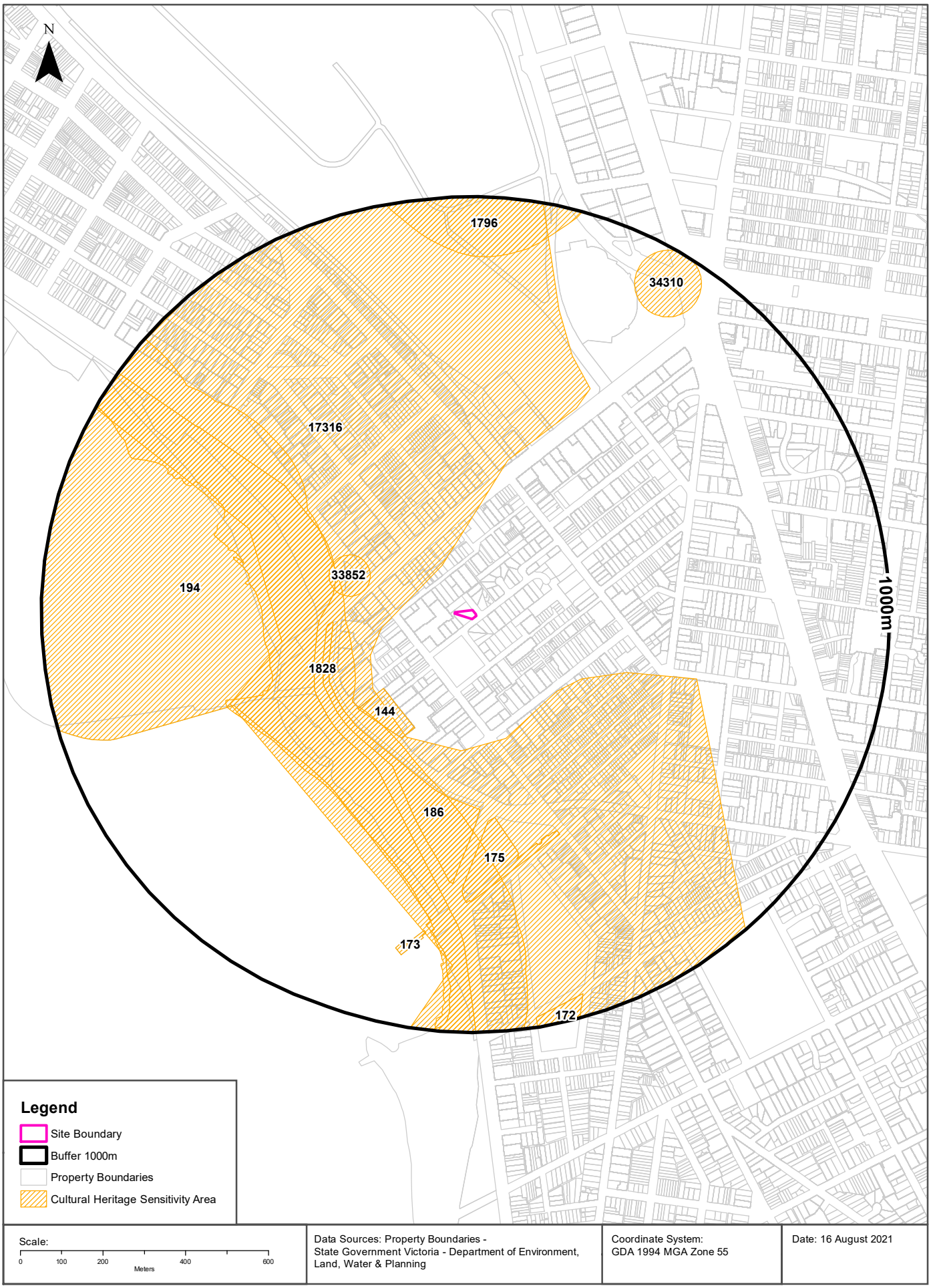
What are the Victorian Heritage Register items located within the dataset buffer?:

VHR Number	Description	Distance	Direction
H0996	CHRIST CHURCH COMPLEX	45m	South
H1809	BILTMORE	129m	East
H1808	SUMMERLAND MANSIONS	173m	West
H1023	ORNAMENTAL TRAMWAY OVERHEAD POLES	180m	North
H0632	WATTLE HOUSE	189m	North East
H0213	LINDEN	207m	South
H0746	EILDON	209m	North East
H0796	RESIDENCE 77-79 GREY STREET	235m	East
H0775	HALCYON	257m	South
H2207	TOLARNO RESTAURANT & BAR	259m	North
H1375	SOUTH AFRICAN WAR MEMORIAL	264m	South West
H1765	SACRED HEART CHURCH HALL & PRESBYTERY	268m	East
H0747	RIPPLEMERE	283m	North East
H1805	CATANI GARDENS	297m	West

VHR Number	Description	Distance	Direction
H0760	WILGAH	311m	North East
H0706	GEORGE HOTEL	319m	North East
H0669	SHANDON	329m	North West
H0761	WILGAH	340m	North East
H1719	FORMER ST KILDA RAILWAY STATION COMPLEX	343m	North
H0847	EDEN TERRACE	344m	North East
H0812	BELVEDERE	351m	South
H0629	FENAGH COTTAGE	358m	North East
H1836	THE CANTERBURY	363m	North
H1802	MARION TERRACE	380m	North East
H1913	ST KILDA BOWLING CLUB	415m	North
H1637	ST KILDA PRIMARY SCHOOL (#2460)	470m	North
H0947	PALAIS THEATRE	484m	South
H0938	LUNA PARK	485m	South
H0214	OBERWYL	535m	North East
H0818	FORMER WESLEYAN METHODIST CHURCH	538m	North East
H2092	NATIONAL THEATRE ST KILDA	540m	South East
H0491	BERKELEY HALL	541m	North East
H0753	FLEURS	546m	North East
H0212	THE MANSE	635m	North East
H0780	RESIDENCE 34 WATERLOO CRESCENT	655m	East
H2234	ST KILDA CRICKET GROUND	710m	North
H1968	ST KILDA HEBREW CONGREGATION SYNAGOGUE	843m	North East
H1533	ST KILDA PAVILION	916m	West
H1804	ST KILDA BOTANICAL GARDENS	935m	South East

Cultural Heritage Sensitivity

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Heritage

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

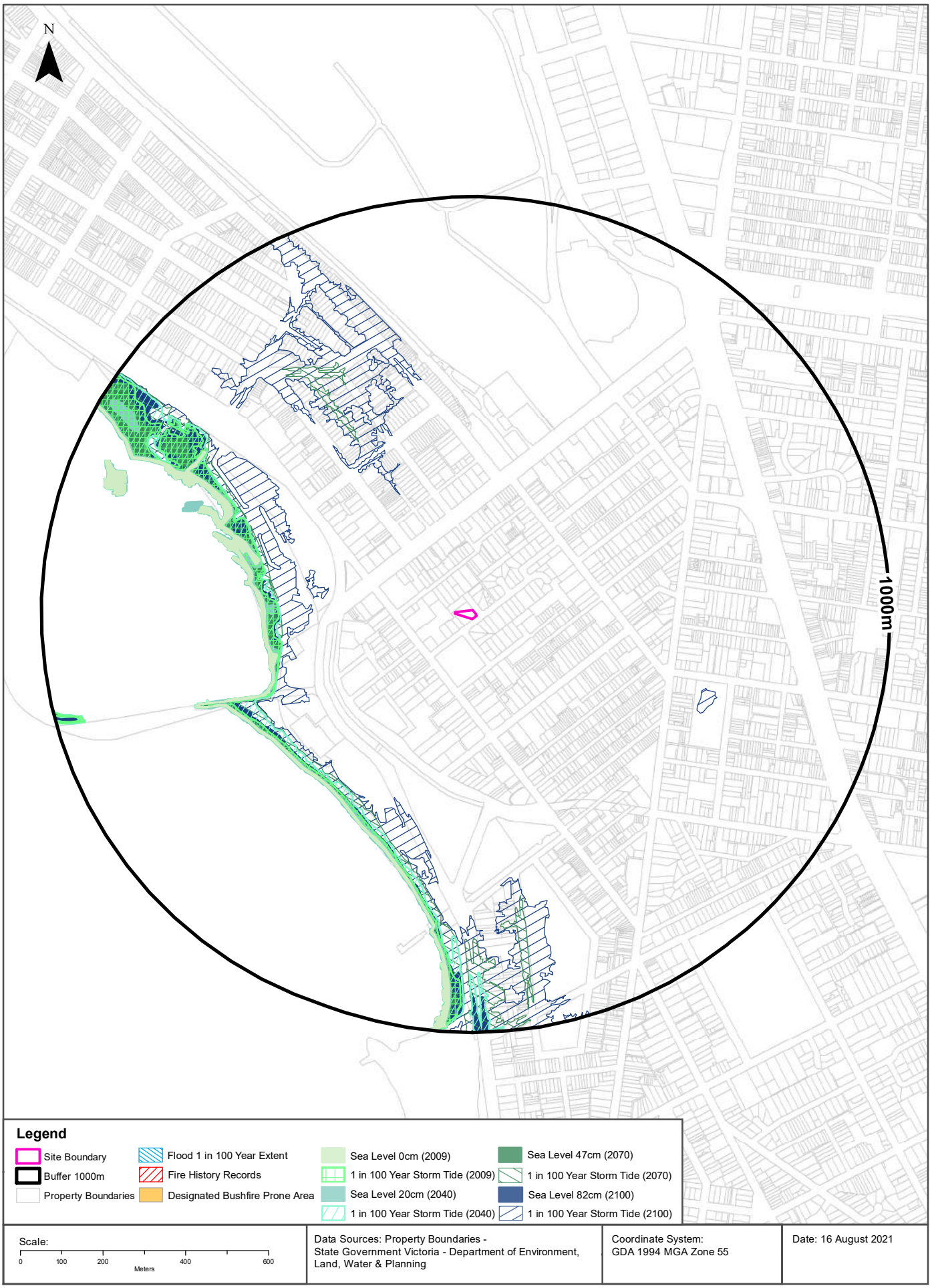
Cultural Heritage Sensitivity

Areas of Cultural Heritage Sensitivity as specified in Division 3 of Part 2 in the Victorian Aboriginal Heritage Regulations 2018, within the dataset buffer:

Map Id	Distance	Direction
17316	101m	North West
33852	219m	West
144	250m	South West
1828	260m	South West
186	294m	South
194	297m	West
175	483m	South
173	762m	South
34310	840m	North East
1796	855m	North
172	945m	South

Natural Hazards

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Natural Hazards

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Bushfire Prone Areas

What are the designated bushfire prone areas within the dataset buffer?

Map ID	Feature	Plan No	LGA	Gazetted Date	Distance	Direction
N/A	No records in buffer					

Fire History

What are the fire history records of fires primarily on public land, within the dataset buffer?

Map Id	Fire Type	Fire Key	Season	Fire No	Fire Name	Treatment	Fire Cover	Start Date	Dist (m)	Direction
N/A	No records in buffer									

Flood - 1 in 100 year modelled flood extent

What 1 in 100 year flood extent features exist within the dataset buffer?

Feature	Source	Method	Scale	Modified Date	Distance	Direction
N/A	No records in buffer					

Natural Hazards

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

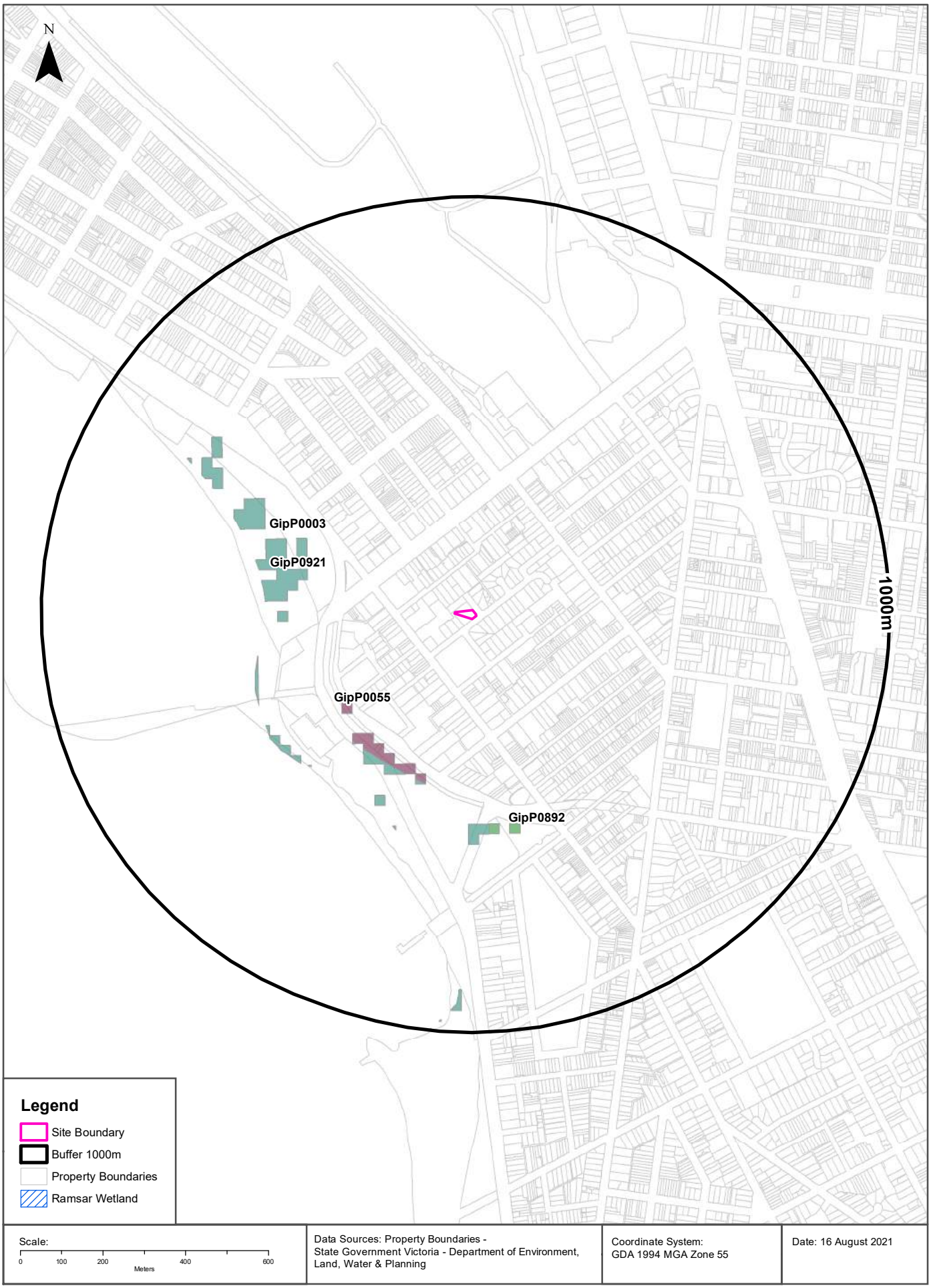
Victorian Coastal Inundation Sea Level Rise

What coastal inundation sea level rise features exist within the dataset buffer?

Description	Distance	Direction
Inundation to 1-in-100 year storm tide level with storm surge increased by 19% plus 82 cm sea level rise (2100)	311m	West
Inundation to 1-in-100 year storm tide level with storm surge increased by 13% plus 47 cm sea level rise (2070)	419m	West
Inundation to 1-in-100 year storm tide level with storm surge increased by 6% plus 20 cm sea level rise (2040)	420m	West
Projected 82cm sea level rise by 2100	422m	West
Current (2009) inundation to 1-in-100 year storm tide level	425m	West
Projected 47cm sea level rise by 2070	426m	West
Projected 20cm sea level rise by 2040	432m	West
Current (2009) sea level	441m	West

Ecological Constraints - Native Vegetation 2005 & Ramsar Wetlands

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Ecological Constraints

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Native Vegetation (Modelled 2005 Ecological Vegetation Classes)

What native vegetation exists within the dataset buffer?

Veg Code	EVC Name	EVCCode	Group	Subgroup	Bioregion	Conservation Status	Geographic Occurance	Dist	Dir
GipP0055	Plains Grassy Woodland	0055	Plains Woodlands or Forests	Freely-draining	Gippsland Plain	Endangered	Common	331m	South West
GipP0921	Coast Banksia Woodland/Coastal Dune Scrub Mosaic	0921	Coastal Scrubs Grasslands and Woodlands		Gippsland Plain	Vulnerable	not applicable	366m	West
GipP0003	Damp Sands Herb-rich Woodland	0003	Herb-rich Woodlands	Damp Sands	Gippsland Plain	Vulnerable	Common	401m	North West
GipP0892	Heathy Woodland/Sand Heathland Mosaic	0892	Heathy Woodlands	Dry and/or better drained	Gippsland Plain	Least Concern	not applicable	497m	South

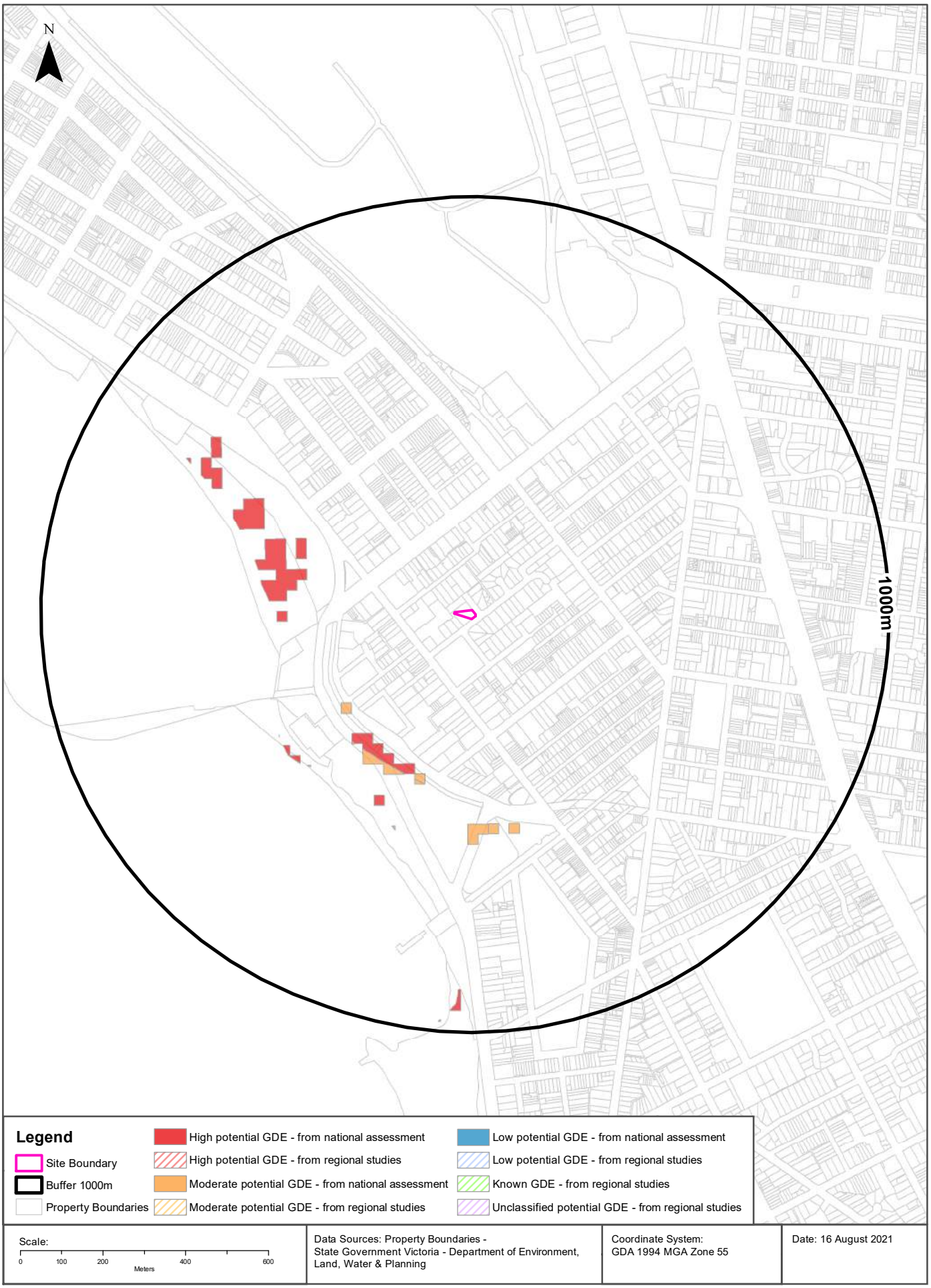
Ramsar Wetlands

What Ramsar wetland areas exist within the dataset buffer?

Map ID	Site Name	Lake Name	Distance	Direction
N/A	No records in buffer			

Ecological Constraints - Groundwater Dependent Ecosystems Atlas

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Ecological Constraints

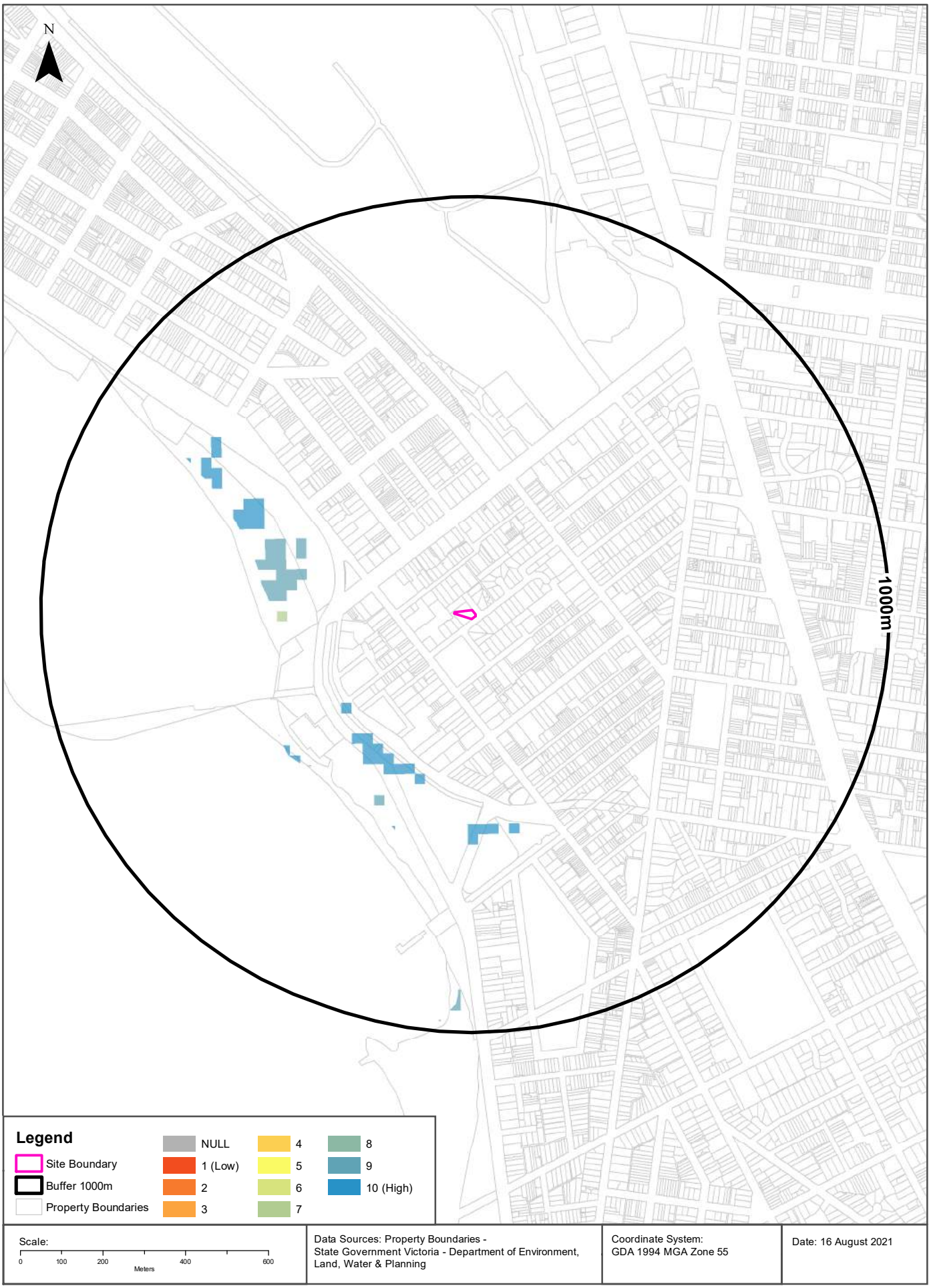
Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Groundwater Dependent Ecosystems Atlas

Type	Name	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial		Moderate potential GDE - from national assessment	Plains mainly on basalt lavas with many volcanic forms and lakes, partly on weak sedimentary rocks.	Vegetation	Unconsolidated sedimentary	331m	South West
Terrestrial		High potential GDE - from national assessment	Plains mainly on basalt lavas with many volcanic forms and lakes, partly on weak sedimentary rocks.	Vegetation	Unconsolidated sedimentary	352m	South West
Terrestrial		High potential GDE - from national assessment	Plains mainly on basalt lavas with many volcanic forms and lakes, partly on weak sedimentary rocks.	Vegetation		366m	West
Terrestrial		Moderate potential GDE - from national assessment	Plains mainly on basalt lavas with many volcanic forms and lakes, partly on weak sedimentary rocks.	Vegetation		533m	South

Inflow Dependent Ecosystems Likelihood

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182



Ecological Constraints

Eildon Road Children's Centre - 17 Eildon Road, St Kilda, VIC 3182

Inflow Dependent Ecosystems Likelihood

Type	Name	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial		10	Plains mainly on basalt lavas with many volcanic forms and lakes, partly on weak sedimentary rocks.	Vegetation	Unconsolidated sedimentary	331m	South West
Terrestrial		9	Plains mainly on basalt lavas with many volcanic forms and lakes, partly on weak sedimentary rocks.	Vegetation		366m	West
Terrestrial		9	Plains mainly on basalt lavas with many volcanic forms and lakes, partly on weak sedimentary rocks.	Vegetation	Unconsolidated sedimentary	380m	West
Terrestrial		7	Plains mainly on basalt lavas with many volcanic forms and lakes, partly on weak sedimentary rocks.	Vegetation		405m	West
Terrestrial		10	Plains mainly on basalt lavas with many volcanic forms and lakes, partly on weak sedimentary rocks.	Vegetation		502m	North West
Terrestrial		0	Plains mainly on basalt lavas with many volcanic forms and lakes, partly on weak sedimentary rocks.	Vegetation		998m	South

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology

Location Confidences

Where Lotsearch has had to georeference features from supplied addresses, a location confidence has been assigned to the data record. This indicates a confidence to the positional accuracy of the feature. Where applicable, a code is given under the field heading “LC” or “LocConf”. These codes lookup to the following location confidences:

LC Code	Location Confidence
Premise Match	Georeferenced to the site location / premise or part of site
Area Match	Georeferenced to an approximate or general area
Road Match	Georeferenced to a road or rail corridor
Road Intersection	Georeferenced to a road intersection
Buffered Point	A point feature buffered to x metres
Adjacent Match	Land adjacent to a georeferenced feature
Network of Features	Georeferenced to a network of features
Suburb Match	Georeferenced to a suburb boundary
As Supplied	Spatial data supplied by provider

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APPENDIX B

Other Records Reviewed

PLANNING PROPERTY REPORT

From www.planning.vic.gov.au at 01 September 2021 04:15 PM

PROPERTY DETAILS

Address:	**17 EILDON ROAD ST KILDA 3182**
Lot and Plan Number:	**Lot 1 TP146504**
Standard Parcel Identifier (SPI):	**1\TP146504**
Local Government Area (Council):	**PORT PHILLIP** www.portphillip.vic.gov.au
Council Property Number:	**200828**
Planning Scheme:	**Port Phillip** Planning Scheme - Port Phillip
Directory Reference:	**Melway 2P A6**

UTILITIES

Rural Water Corporation:	**Southern Rural Water**
Melbourne Water Retailer:	**South East Water**
Melbourne Water:	**Inside drainage boundary**
Power Distributor:	**CITIPOWER**

STATE ELECTORATES

Legislative Council:	**SOUTHERN METROPOLITAN**
Legislative Assembly:	**ALBERT PARK**

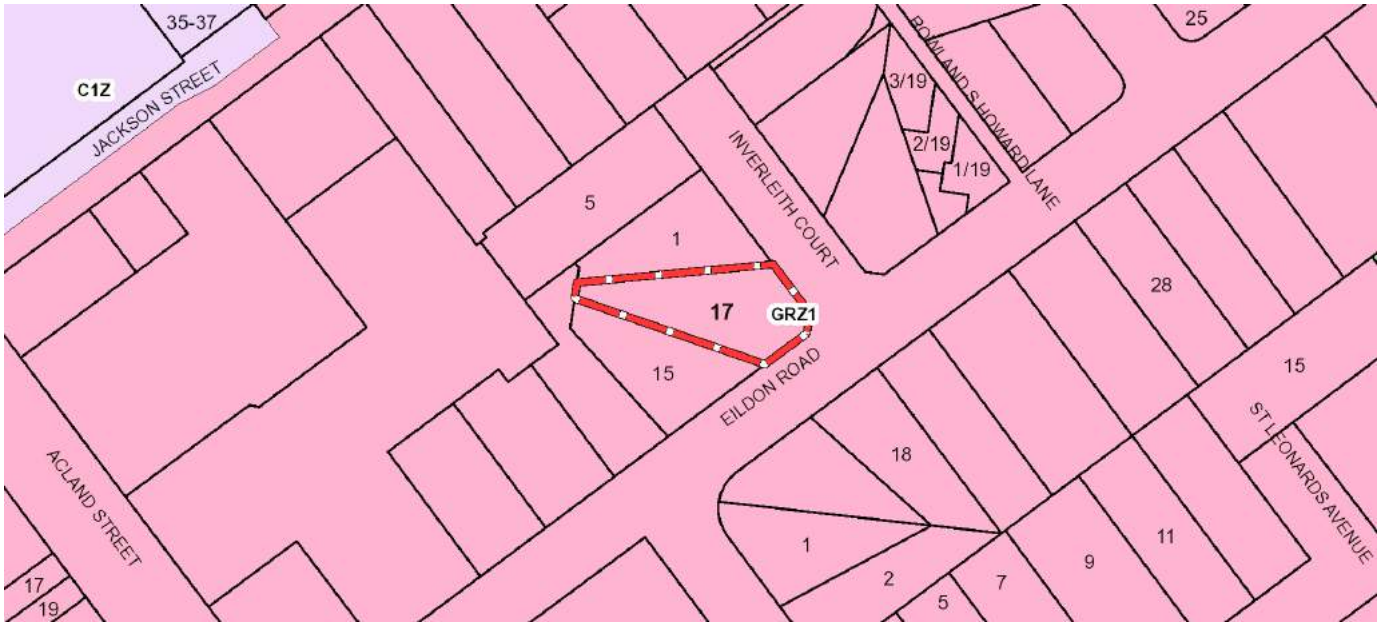
OTHER

Registered Aboriginal Party:	**Bunurong Land Council Aboriginal Corporation**

View location in VicPlan

Planning Zones

GENERAL RESIDENTIAL ZONE (GRZ)
GENERAL RESIDENTIAL ZONE - SCHEDULE 1 (GRZ1)



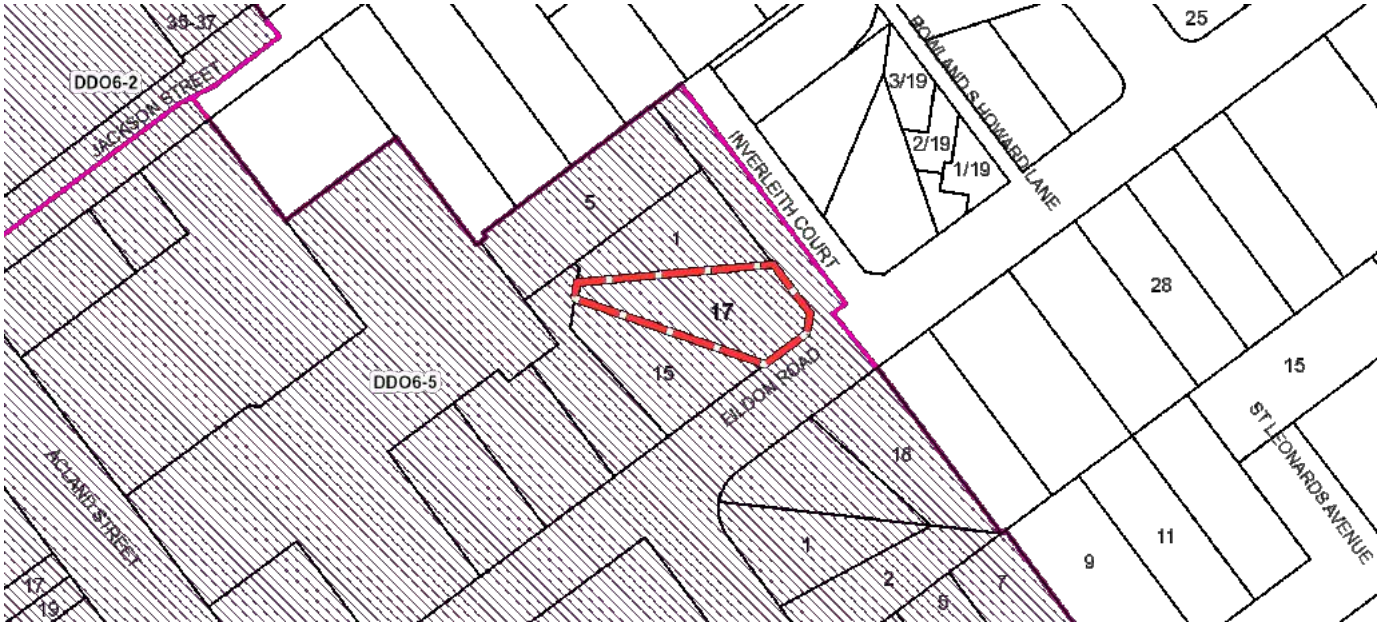
Note: labels for zones may appear outside the actual zone - please compare the labels with the legend.

PLANNING PROPERTY REPORT

Planning Overlays

DESIGN AND DEVELOPMENT OVERLAY (DDO)

DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 6-5 (DDO6-5)



DDO - Design and Development

Note: due to overlaps, some overlays may not be visible, and some colours may not match those in the legend

HERITAGE OVERLAY (HO)

HERITAGE OVERLAY - SCHEDULE (HO5)

HO - Heritage

Note: due to overlaps, some overlays may not be visible, and some colours may not match those in the legend

PLANNING PROPERTY REPORT

Planning Overlays

OTHER OVERLAYS

Other overlays in the vicinity not directly affecting this land

SPECIAL BUILDING OVERLAY (SBO)

SPECIFIC CONTROLS OVERLAY (SCO)

Note: due to overlaps, some overlays may not be visible, and some colours may not match those in the legend

Further Planning Information

Planning scheme data last updated on 26 August 2021.

A **planning scheme** sets out policies and requirements for the use, development and protection of land.
This report provides information about the zone and overlay provisions that apply to the selected land.
Information about the State and local policy, particular, general and operational provisions of the local planning scheme that may affect the use of this land can be obtained by contacting the local council or by visiting https://www.planning.vic.gov.au

This report is NOT a **Planning Certificate** issued pursuant to Section 199 of the ***Planning and Environment Act 1987.***
It does not include information about exhibited planning scheme amendments, or zonings that may abut the land.
To obtain a Planning Certificate go to Titles and Property Certificates at Landata - https://www.landata.vic.gov.au

For details of surrounding properties, use this service to get the Reports for properties of interest.

To view planning zones, overlay and heritage information in an interactive format visit https://mapshare.maps.vic.gov.au/vicplan

For other information about planning in Victoria visit https://www.planning.vic.gov.au

PLANNING PROPERTY REPORT

Designated Bushfire Prone Areas

This property is not in a designated bushfire prone area.
No special bushfire construction requirements apply. Planning provisions may apply.

Designated Bushfire Prone Areas

Designated bushfire prone areas as determined by the Minister for Planning are in effect from 8 September 2011 and amended from time to time.

The Building Regulations 2018 through application of the Building Code of Australia, apply bushfire protection standards for building works in designated bushfire prone areas.

Designated bushfire prone areas maps can be viewed on VicPlan at https://mapshare.maps.vic.gov.au/vicplan or at the relevant local council.

Note: prior to 8 September 2011, the whole of Victoria was designated as bushfire prone area for the purposes of the building control system.

Further information about the building control system and building in bushfire prone areas can be found on the Victorian Building Authority website https://www.vba.vic.gov.au

Copies of the Building Act and Building Regulations are available from http://www.legislation.vic.gov.au

For Planning Scheme Provisions in bushfire areas visit https://www.planning.vic.gov.au

Native Vegetation

Native plants that are indigenous to the region and important for biodiversity might be present on this property. This could include trees, shrubs, herbs, grasses or aquatic plants. There are a range of regulations that may apply including need to obtain a planning permit under Clause 52.17 of the local planning scheme. For more information see Native Vegetation (Clause 52.17) with local variations in Native Vegetation (Clause 52.17) Schedule

To help identify native vegetation on his property and the application of Clause 52.17 please visit the Native Vegetation Information Management system https://nvim.delwp.vic.gov.au/ and Native vegetation (environment.vic.gov.au) or please contact your relevant council.

You can find out more about the natural values on your property through NatureKit NatureKit (environment.vic.gov.au)

Produced 20/08/2021 11:22 AM

Volume 9080 Folio 497
Folio Creation: Created as paper folio continued as computer folio
Parent title Volume 04629 Folio 633

THE IMAGE OF THE FOLIO CEASED TO BE THE DIAGRAM LOCATION ON 24/09/2002 07:31:35 AM

RECORD OF HISTORICAL DEALINGS

Date Lodged for Registration	Date Recorded on Register	Dealing	Imaged	Dealing Type and Details

RECORD OF VOTS DEALINGS

Date Lodged for Registration	Date Recorded on Register	Dealing	Imaged
22/11/2007	22/11/2007	AF486778B	Y

RECTIFICATION-PROPRIETOR NAME/ADDRESS

RESULTING PROPRIETORSHIP:
Estate Fee Simple
Sole Proprietor
THE MAYOR COUNCILLORS AND CITIZENS OF THE CITY OF ST KILDA of CNR BRIGHTON ROAD & CARLISLE STREET ST KILDA VIC 3182
M646740U 09/01/1987

09/10/2013	10/10/2013	AK643897B	Y

RECORDING OF DISPOSITION OF LAND
FROM:
THE MAYOR COUNCILLORS AND CITIZENS OF THE CITY OF ST KILDA
TO:
PORT PHILLIP CITY COUNCIL

RESULTING PROPRIETORSHIP:
Estate Fee Simple
Sole Proprietor
PORT PHILLIP CITY COUNCIL of 99A CARLISLE STREET ST KILDA VIC 3182
AK643897B 09/10/2013

STATEMENT END

VOTS Snapshot

Volume 09080 Folio 497
124024143300L
Produced 22/11/2007 04:57 pm

LAND DESCRIPTION

Lot 1 on Title Plan 146504S (formerly known as Lot 2 on Plan of Subdivision 008800).
PARENT TITLE Volume 04629 Folio 633
Created by instrument F388073 18/07/1974

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
THE MAYOR COUNCILLORS AND CITIZENS OF THE CITY OF ST.KILDA
M646740U 09/01/1987

ENCUMBRANCES, CAVEATS AND NOTICES

COVENANT 1046754

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE TP146504S FOR FURTHER DETAILS AND BOUNDARIES

Paper Title Images

9080/497 - Version 0, Date 21/08/1999

ORIGINAL

NOT TO BE TAKEN FROM THE OFFICE OF TITLES

VICTORIA

REGISTER BOOK

VOL. 9080 FOL. 497

Certificate of Title

UNDER THE "TRANSFER OF LAND ACT"

VOL.

FOL.

CECELIA KATHERINE O'REILLY of 17 Eildon Road St. Kilda Widow is- - - - now the proprietor of an estate in fee simple subject to the encumbrances- notified hereunder in ALL THAT piece of land delineated and coloured red - on the map hereon being Lot 2 on Plan of Subdivision No.8800 at St. Kilda- Parish of Melbourne South County of Bourke - - - - - - - - - - - - - - - - -

DATED the 18th day of July 1974

Assistant Registrar of Titles

OFFICE OF TITLES VICTORIA

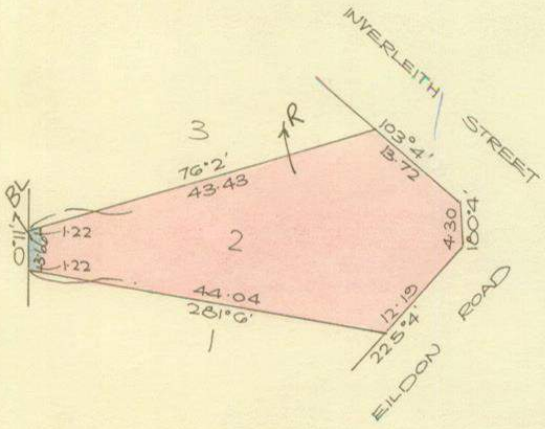
ENCUMBRANCES REFERRED TO

MORTGAGES E92624 and E247698- - -

THE COVENANT contained in- - - - - - - - - Transfer 1046754 that there may not be- placed or erected on the said land more than one dwellinghouse or one system of Flats to cost at least £1400 exclusive- of architect's fees and that the roof - thereof shall consist of some material- other than iron and that no sand gravel earth soil or clay may be dug or- - - - removed from the said land except in- - the way of excavating for the - - - - - foundation of any building to be - - - erected thereon or for use in such- - - building or in preparing or laying out- gardens to be occupied therewith and- - that no bricks tiles clay or lime may - be manufactured or burnt upon the said- land- - - - - - - - - - - - - - - - - - -

As to the land coloured blue- - - - - -

ANY EASEMENTS affecting the same- - - -



THE ABOVE MORTGAGES ARE DISCHARGED

18 JUL 1974 OFFICE OF TITLES P.Q. VICTORIA

MEASUREMENTS ARE IN METRES

Derived from Vol.4629 Fol.633 F388073

Vol 9080[redacted] 497

MORTGAGE to CORBUN NOMINEES
PROPRIETARY LIMITED
Registered 22nd March 1977
No.G560123

23 MAR 1982 J 865000

OFFICE OF TITLES P.J.S. VICTORIA

OFFICE OF TITLES W.M. VICTORIA

MORTGAGE to [illegible] FRANK LUKE
and HAZEL MAY LUKE
Registered 23rd March [illegible]
No.J865001

DISCHARGED 18 OCT 1985

OFFICE OF TITLES B.S.L. VICTORIA

OFFICE OF TITLES S. H. VICTORIA

CAVEAT No.M527404H LODGED 21 OCT 1986
CAVEAT WILL LAPSE ON
REGISTRATION OF M646740U
19 JAN 1987

OFFICE OF TITLES J. W. C. VICTORIA

OFFICE OF TITLES J. W. C. VICTORIA

PROPRIETOR
THE MAYOR COUNCILLORS AND CITIZENS OF THE
CITY OF ST.KILDA
REGISTERED 9/1/87
M646740U

OFFICE OF TITLES R.J.P. VICTORIA

T09080-497-1-7

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Volume 4629 Folio 633
Folio Creation: Details Unknown
Parent title Volume 04561 Folio 058

STATEMENT END

VOTS Snapshot

NIL

Paper Title Images

4629/633 - Version 0, Date 14/12/1999

ORIGINAL

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SUBSTITUTED CANCELLED

REGISTER BOOK VOL. 4629 FOL. 633

VICTORIA

SUBSTITUTED Certificate of Title

UNDER THE "TRANSFER OF LAND ACT"

MELBOURNE SOUTH
INDEX 8 PARCEL 131

VOL. 4629 FOL. 633

ARTHUR ERNEST BRIDGER Commercial Traveller and MARION MURIEL BRIDGER his Wife both of Eildon Road Church Square St.Kilda are now - - - - joint proprietors of an estate in fee simple subject to the - - - - - - encumbrances notified hereunder in ALL THAT piece of land delineated -- and coloured red and blue on the map in the margin being Lot 2 on Plan- of Subdivision No.8800 lodged in the Office of Titles and being part of Crown Allotment Thirteen at St.Kilda Parish of South Melbourne County of Bourke -

DATED the 24th day of May 1922.

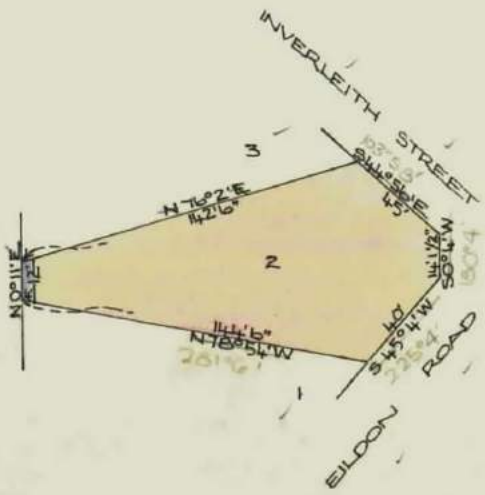
This substituted Certificate of Title has been prepared pursuant to Section 31(2) of the Transfer of Land Act - - 1958 and is to be used in place of -- the original Title which has been - - lost -

SIGNED ALF. W. COMPORT

OFFICE OF TITLES VICTORIA

Assistant Registrar of Titles

Assistant Registrar of Titles.



ENCUMBRANCES REFERRED TO

As to the land colored blue -

ANY EASEMENTS subsisting over or upon or - - - - affecting the same -

As to the whole of the land -

THE COVENANT contained in Instrument of - - -- Transfer No.1046754 in the Register Book that- there may not be placed or erected on the said land more than one dwellinghouse or one system of flats to cost at least £1400 exclusive of - architect's fees and that the roof thereof - - shall consist of some material other than iron and that no sand gravel earth soil or clay may be dug or removed from the said land except in the way of excavating for the foundation of -- any building to be erected thereon or for use- in such building or in preparing or laying out gardens to be occupied therewith and that no - bricks tiles clay or lime may be manufactured- or burnt upon the said land -

MEASUREMENTS ARE IN FEET AND INCHES.

T04629-633-1-9

Red Ink No.3279046
MARION MURIEL BRIDGER of 17 Eildon Road St.Kilda Widow the survivor of the proprietors named herein is by direction of The Commissioner of Titles now registered as sole proprietor of the land now comprised herein
Dated 5th December 1932.

SIGNED A.J. EDGOOSE
Assistant Registrar of Titles.

Red Ink No.4422918
ADA ANN TRILLER died on 21st September 1945 Probate of her Will has been granted to LEONARD THOMAS DAVEY Master Baker and LOUISE GWENDOLYN DAVEY Married Woman both of 13 Haverbrack Avenue Malvern
DATED 13th February 1947.

SIGNED F.O. HEWISON
Assistant Registrar of Titles.

DISCHARGED 15-9-1943 SIGNED J.V.SWEENEY Assistant Registrar of Titles

MORTGAGE to THE BANK OF AUSTRALASIA
Registered 22nd March 1938
Numbered 752392.

SIGNED T.A.ORR
Assistant Registrar of Titles.

DISCHARGED 28-11-1957 SIGNED J.TONKS Assistant Registrar of Titles

MORTGAGE to JOHN RALPH BURT and BERNARD GORE
Registered 19th January 1949
Numbered 907816.

SIGNED W.P.FITZGERALD
Assistant Registrar of Titles.

Red Ink No.4110735
MARION MURIEL BRIDGER died on 9th November 1941 Probate of her Will has been granted to MARCUS MARDON BRIDGER of 18 Alston Grove East St.Kilda Wool Appraiser
Dated 15th September 1943.

SIGNED J.V. SWEENEY
Assistant Registrar of Titles.

LOUISE GWENDOLYN DAVEY of 17 Kinkora Avenue Hawthorn Married Woman is now the SURVIVING PROPRIETOR
Registered 13th June 1963
No.B679142.

OFFICE SEAL

ADA ANN TRILLER of 17 Kinkora Road Hawthorn Spinster is now the proprietor of the within described estate by transfer
Registered 15th September 1943.
Numbered 1894922.

SIGNED J.V. SWEENEY
Assistant Registrar of Titles.

LEILA GRACE SIMMONDS of 17 Eildon Road St.Kilda Married Woman is now the proprietor
Registered 13th June 1963
No.B679143.

OFFICE SEAL

EMMETH FRANK LUKE and HAZEL MAY LUKE both of 16 Eildon Road St.Kilda Guest House Proprietors are now JOINT PROPRIETORS
Registered 23rd August 1966
No.C572815.

OFFICE SEAL

For continuation of endorsement see annexed sheet marked "A"

This is the Sheet marked "A" referred to in the Certificate of Title entered in the Register Book Vol. 4629 Fol. 633

Assistant Registrar of Titles

7344/67

DISCHARGED 24th October 1969 OFFICE SEAL

MORTGAGE TO PATRICK JAMES SHEEHAN
Registered 23rd August 1966
Numbered C572816
OFFICE SEAL

DISCHARGED 24th October 1969 OFFICE SEAL

MORTGAGE TO PATRICK JAMES SHEEHAN
Registered 22nd December 1967
Numbered C972502
OFFICE SEAL

MORTGAGE TO JAMES PATRICK HILBERT
Registered 6th July 1971
Numbered E92624
OFFICE SEAL

MORTGAGE TO JAMES PATRICK HILBERT
Registered 9th December 1971
Numbered E247698
OFFICE SEAL

LESLIE JOHN O'REILLY Carpenter and CECELIA KATHERINE O'REILLY Married Woman both of 63 Vears Road Burwood are now JOINT PROPRIETORS
Registered 30th March 1972
Numbered E347938
OFFICE SEAL

DISCHARGED 9th October 1973 OFFICE SEAL

MORTGAGE TO ENNETH FRANK LUKE and HAZEL MAY LUKE
Registered 30th March 1972
Numbered E347939
OFFICE SEAL

CECELIA KATHERINE O'REILLY of 17 Eildon Road St.Kilda Widow is now the SURVIVING PROPRIETOR
Registered 5th November 1973
Numbered F73451
OFFICE SEAL

TRANSFER No. F388073 registered 18th July 1974.
CANCELLED See Vol. 9080 Fol. 497

OFFICE OF TITLES P.Q. VICTORIA

CANCELLED

T04629-633-2-7

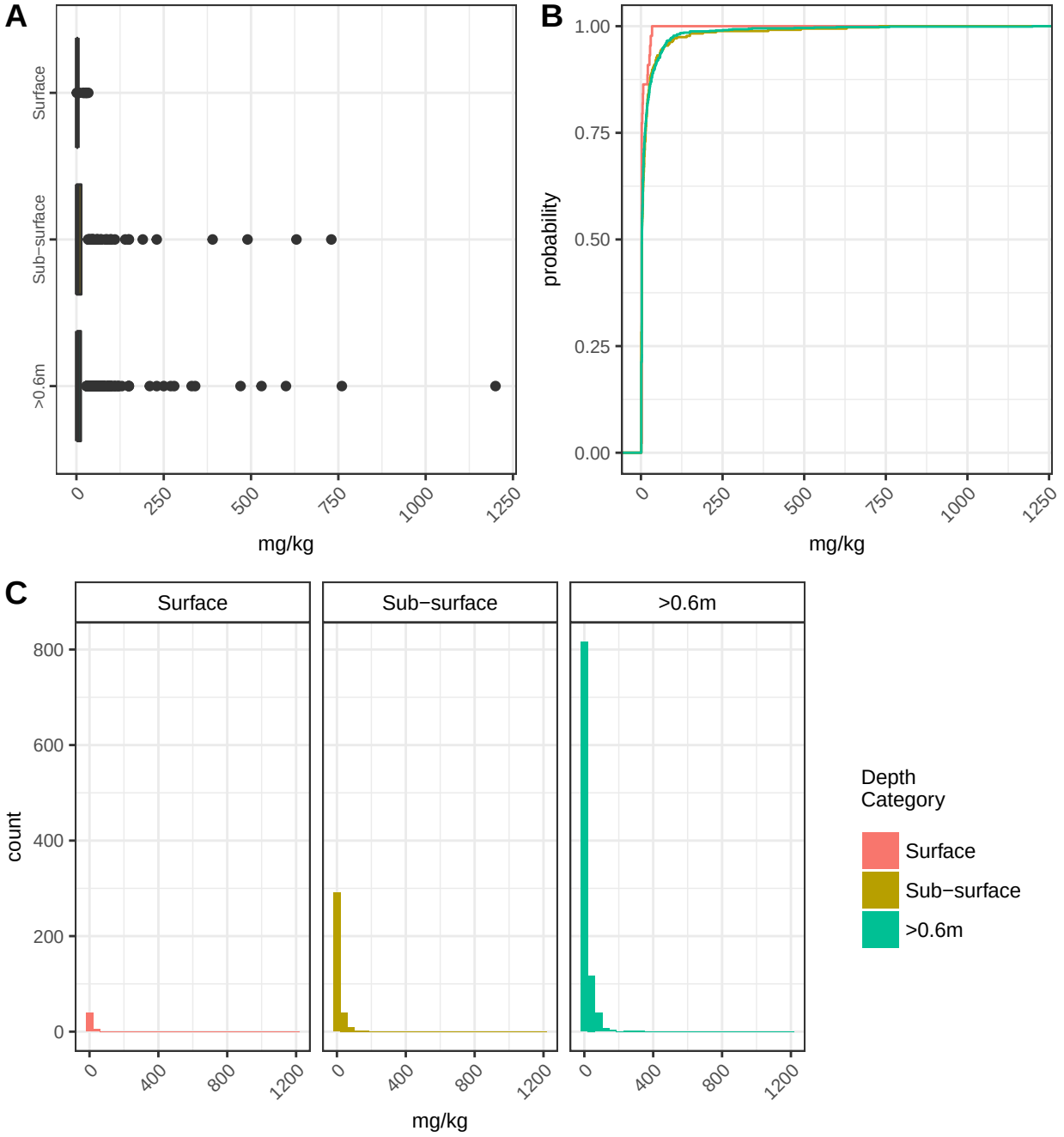
Arsenic
Summary Statistics

REGION: **Greater Melbourne**

PARENT MATERIAL: **Brighton Group**

Summary Plots

Boxplot (A), cumulative probability plot (B) and histogram (C) of ambient background arsenic concentrations in surface (0.0 - 0.1m), sub-surface (0.3 - 0.6m) and greater than 0.6m soils of Greater Melbourne, overlying Brighton Group.



Document Set ID: 5631954
Version: 1, Version Date: 27/10/2021

Summary Statistics

Summary statistics for ambient background arsenic, surface (0.0 - 0.1m), sub-surface (0.3 - 0.6m) and greater than 0.6m soils of Greater Melbourne, overlying Brighton Group. *Note: Results less than the limit of reporting were substituted with half the limit of reporting. NA values indicate no results less than the limit of reporting or insufficient data available.*

	Surface	Sub-surface	>0.6m
Count	44	351	994
Typical Limit of Reporting	<5	<5	<10
Min.	<5	<5	<10
1st Qu.	<5	<5	<10
Median	<5	<5	<10
Mean	6	20	18
3rd Qu.	<5	14	13
Upper Whisker of Boxplot	<5	34	30
Max.	34	730	1200

Citation

Mikkonen HG, Dasika R, Wallis CJ, Clarke BO, Reichman SM. 2018. Victorian Background Soil Database, Version 1.0. RMIT University, Melbourne, Australia. http://doi.org/10.4225/61/5a3ae6d48570c

Notes

Parent material based on polygons defined by VandenBerg, A.H.M., 1997. Melbourne SJ 55-5 Edition 2, 1:250 000 Geological Map Series, SJ 55-5. Geological Survey of Victoria, Melbourne.

Research Lead: RMIT UNIVERSITY

Project Partners: ACLCA Australian Contaminated Land Consultants Association; HAZWASTEfund

Data Science: CDM Smith

APPENDIX C

Site Inspection Photographs

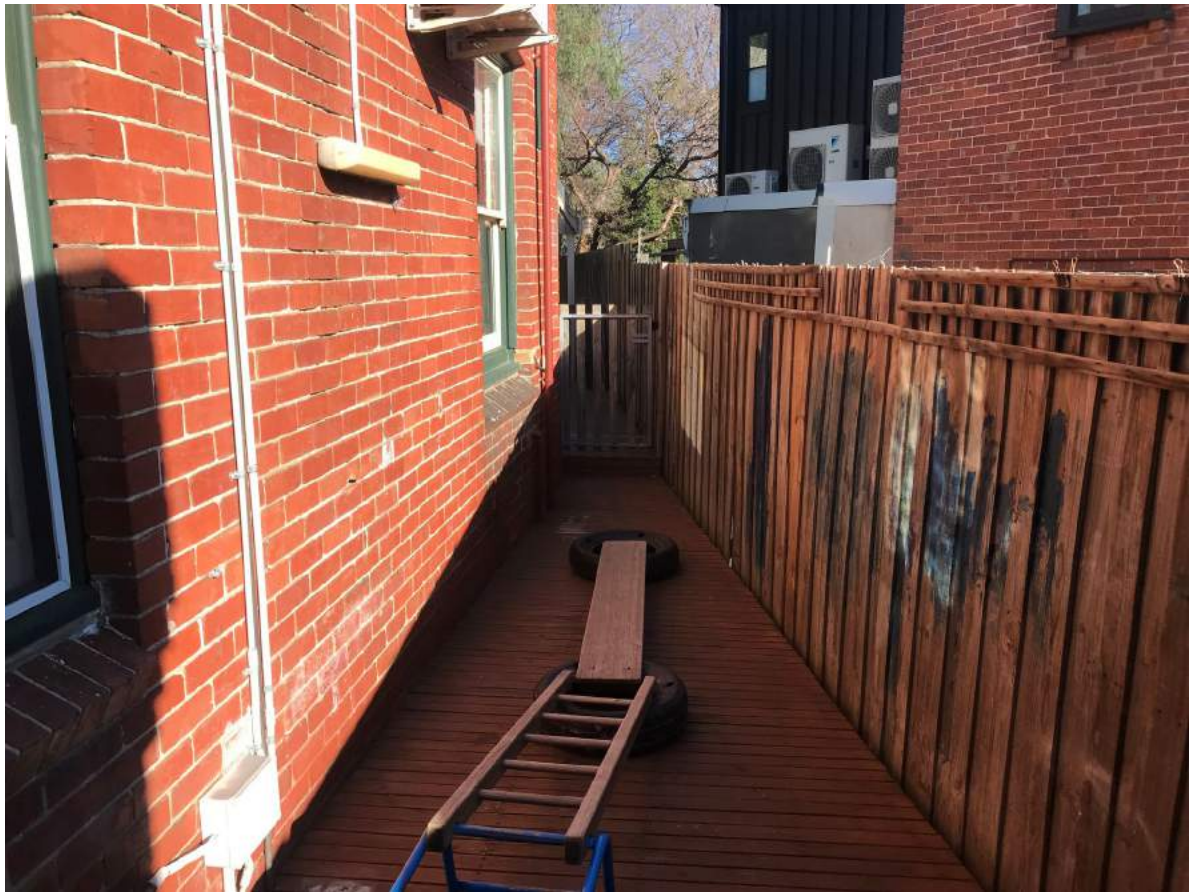
1. Rear of looking west

2. Rear of St Kilda looking east

3. North side of site, looking east

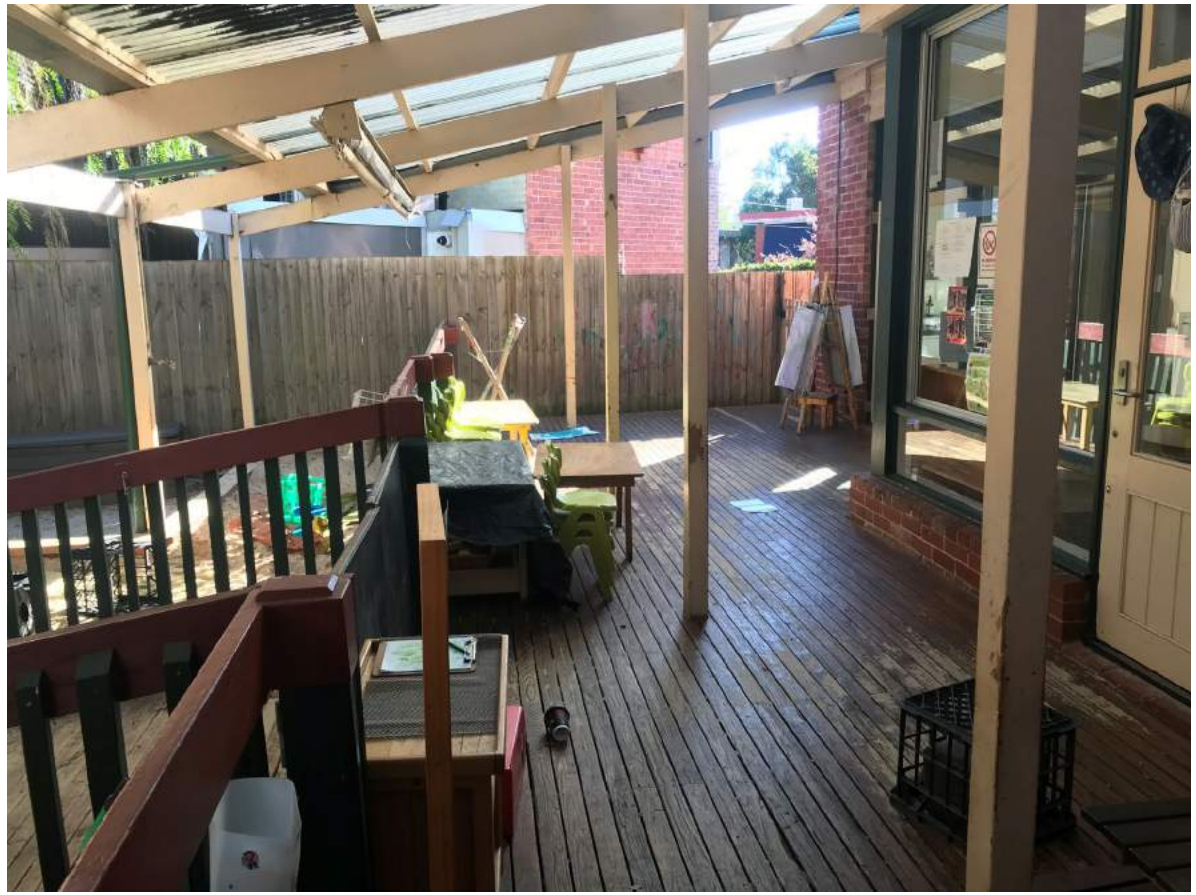
4. South side of site, looking west 2048-2

5. BH01 Lithology



6. North side of site looking west

7. Deck at rear of site



8. Deck at rear of site looking north

9. Waste storage area on southern side of site

11. BH05 Lithology

12. BH02 Lithology

APPENDIX D

Field Investigation Documents

Soil Bore: BH01

Project Ref. No: 2048-2
Project Name: St Kilda
Bore Diameter (mm): 75
OVA Type: N/A

Date: 22/08/2021
Page Number: 1 of 1
Logged By: MC
Easting: N/A ***Northing:*** N/A
Datum: N/A

Location Description: Refer to Figure

Depth (m bgl)	Soil Description	Graphic Symbol	Depth (m)	Sample Type	Sample ID	OVA (ppm)	Additional Observations
	Ground Surface		0.00				
	FILL Silty SAND: fine to medium grained, brown, soft, loose, dry		0.25		BH01/0.1	0.0	Bark on surface Fill contains brick, white calcareous material, some fragments of concrete
			0.50		BH01/0.5	0.0	
			0.75				
			1.00		BH01/1.0	0.0	
	End of Log		1.25				
			1.50				
			1.75				
			2.00				

Sample Type

Hand Auger | Solid Stem Auger | Push Tube | Split Spoon | Testpit Wall

Soil Bore: BH02

Project Ref. No: 2048-2
Project Name: St Kilda
Bore Diameter (mm): 75
OVA Type: N/A

Date: 22/08/2021
Page Number: 1 of 1
Logged By: MC
Easting: N/A ***Northing:*** N/A
Datum: N/A

Location Description: Refer to Figure

Depth (m bgl)	Soil Description	Graphic Symbol	Depth (m)	Sample Type	Sample ID	OVA (ppm)	Additional Observations
	Ground Surface		0.00				
	FILL Silty SAND: fine to medium grained, brown, dark brown, soft, loose, dry				BH02/0.1	0.0	Bark on surface Brick and glass observed throughout fill layer.
			0.25				
0.5	SAND: medium grained, brown, soft, loose, dry		0.50		BH02/0.5	0.0	
			0.75				
0.8	**NATURAL** Sandy CLAY: low plasticity, brown, mottled orange, medium grained sand, stiff, dry, damp				BH02/0.9	0.0	Roots present at base of the natural.
	End of Log		1.00				
			1.25				
			1.50				
			1.75				
			2.00				

Sample Type

Hand Auger | Solid Stem Auger | Push Tube | Split Spoon | Testpit Wall

Soil Bore: BH03

Project Ref. No: 2048-2
Project Name: St Kilda
Bore Diameter (mm): 75
OVA Type: N/A

Date: 22/08/2021
Page Number: 1 of 1
Logged By: MC
Easting: N/A ***Northing:*** N/A
Datum: N/A

Location Description: Refer to Figure

Depth (m bgl)	Soil Description	Graphic Symbol	Depth (m)	Sample Type	Sample ID	OVA (ppm)	Additional Observations
	Ground Surface		0.00				
0.2	**FILL** SAND: fine to medium grained, brown, soft, loose, dry		0.25		BH03/0.2	0.0	
			0.50		BH03/0.5	0.0	Minor brick fragments @ 0.4m
			0.75				
			1.00		BH03/1.1	0.0	Minor plastic and glass @ 1.1m
			1.25				
			1.50				
1.55	**NATURAL** Clayey SAND: low plasticity, orange, very dense, dry				BH03/1.6	0.0	
	End of Log		1.75				
			2.00				

Sample Type

Hand Auger | Solid Stem Auger | Push Tube | Split Spoon | Testpit Wall

Soil Bore: BH04

Project Ref. No: 2048-2
Project Name: St Kilda
Bore Diameter (mm): 75
OVA Type: N/A

Date: 22/08/2021
Page Number: 1 of 1
Logged By: MC
Easting: N/A ***Northing:*** N/A
Datum: N/A

Location Description: Refer to Figure

Depth (m bgl)	Soil Description	Graphic Symbol	Depth (m)	Sample Type	Sample ID	OVA (ppm)	Additional Observations
	Ground Surface		0.00				
	Bark with minor sand, did not sample due to nature of horizon		0.25				
0.4	**FILL** SAND: fine to medium grained, brown, grey, soft, loose, damp		0.50		BH04/0.45	0.0	
			0.75				Minor brick @ 0.7m Appears to be organic topsoil
			1.00		BH04/1.0	0.0	
			1.25				
			1.50		BH04/1.5	0.0	
1.6	**NATURAL** Clayey SAND: low plasticity, orange, very soft, very dense, dry		1.75		BH04/1.8	0.0	
	End of Log		2.00				

Sample Type

Hand Auger | Solid Stem Auger | Push Tube | Split Spoon | Testpit Wall

Soil Bore: BH05

Project Ref. No: 2048-2
Project Name: St Kilda
Bore Diameter (mm): 75
OVA Type: N/A

Date: 22/08/2021
Page Number: 1 of 1
Logged By: MC
Easting: N/A ***Northing:*** N/A
Datum: N/A

Location Description: Refer to Figure

Depth (m bgl)	Soil Description	Graphic Symbol	Depth (m)	Sample Type	Sample ID	OVA (ppm)	Additional Observations
	Ground Surface		0.00				
	FILL SAND: fine to medium grained, brown, black, soft, loose, dry				BH05/0.1	0.0	Plastic mat covreing location (lifted up) Brick, concrete, clinker @ 0.15m, some black staining.
			0.25				
			0.50		BH05/0.5	0.0	
0.7	**NATURAL** Clayey SAND: medium grained, brown, orange, low plasticity clay, firm, dense, damp		0.75		BH05/0.9	0.0	
	End of Log		1.00				
			1.25				
			1.50				
			1.75				
			2.00				

Sample Type

Hand Auger | Solid Stem Auger | Push Tube | Split Spoon | Testpit Wall

APPENDIX E

Chain of Custody Documents & Laboratory Reports

CHAIN OF CUSTODY RECORD

Company	Atma Environmental	Project №	2048-2
Address	58 William Street, ABBOTSFORD, Vic 3067 Australia	Project Name	BST KILDA
Contact Name	MICK CONDON	Project Manager	RORY MCPHILLIPS
Phone №	0425 741 022	Sampler(s)	ML
Special Directions		Handed over by	ML
Purchase Order		Email for Invoice	RORY
Quote ID №		Email for Results	ML + RORY.

№	Client Sample ID	Sampled Date/Time	Matrix	1	2	3	4	5	6	7	HOLD	Sample Comments
1	BH01-0.1	22/8	SOIL	x					x		X	
2	BH01-0.5	↓	↓		x	x	x		x		X	
3	BH01-1.0	↓	↓		x	x					X	
4	BH02-0.1	↓	↓		x	x		x	x		X	
5	DUP-220821A	↓	↓		x	x					X	
6	SPL-220821A	↓	↓		x	x					X	Please forward SPL-220821A to ALS on standard TAT
7	BH02-0.5	↓	↓		x	x	x				X	
8	BH02-0.9	↓	↓		x	x					X	
9	BH03-0.2	↓	↓		x	x		x	x	x	X	
10	BH03-0.5	↓	↓		x	x	x				X	
11	BH03-1.1	↓	↓								X	
	Total Counts				9	9	3	2	4	1		

Method of Shipment: ☑ Courier (# Josics) ☐ Hand Delivered ☐ Postal — Name: MICK — Signature: [signature] — Date: 23/8 — Time: 9:00 am

1 - IWRG 621
2 - M12 Metals (IWRG)
3 - PAHs
4 - TRH
5 - OCPs
6 - pH CaCl2
7 - CEC

819280
[signature] EF
24/8/21

CHAIN OF CUSTODY RECORD

Company: Abea Environmental

Address: 56 William Street, ABBOTSFORD, Vic 3067 Australia

Client Sample ID	Sampled Date	Matrix	1	2	3	4	5	6	7	HOLD
BH03-1.6	22/8	SOIL		x	x					x
BH04-0.45	↓	↓		x	x		x	x		x
BH04-1.0	↓	↓								x
BH04-1.5	↓	↓		x	x	x				x
BH04-1.8	↓	↓		x	x					x
BH05-0.1	↓	↓		x	x		x	x		x
BH05-0.5	↓	↓	x							x
BH05-0.9	↓	↓		x	x					x
DECON-220821A	↓	1x Met 1x Vial water		x						x
TRIP-220821A	↓	1x vial water								x
Total Counts			1	7	6	1	2	2		

1 - IWRG 621
2 - M12 Metals (IWRG)
3 - PAHs
4 - TRH
5 - OCPs
6 - pH CaCl2
7 - CEC

CHAIN OF CUSTODY RECORD

Company	Atma Environmental
Address	56 William Street, ABBOTSFORD, Vic 3067 Australia
Contact Name	MICK CONDON
Phone	0425 741 022
Project No	2048-2
Project Name	ST KILDA
Project Manager	RORY MCPHILLIPS
Sampler(s)	ML
Handed over by	ML
Email for results	RORY
	ML + RORY.

Client Sample ID	Sampled Date/Time	Matrix	1	2	3	4	5	6	7	HOLD
BH01-0.1	22/8	SOIL	x					x		X
BH01-0.5	↓	↓		x	x	x		x		X
BH01-1.0	↓	↓		x	x					X
BH02-0.1	↓	↓		x	x		x	x		X
DUP-220821A	↓	↓		x	x					X
SPL-220821A	↓	↓		x	x					X
BH02-0.5	↓	↓		x	x	x				X
BH02-0.9	↓	↓		x	x					X
BH03-0.2	↓	↓		x	x		x	x	x	X
BH03-0.5	↓	↓		x	x	x				X
BH03-1.1	↓	↓								X
Total Counts			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4	1	

Method of Shipment: Courier: JOSIES

Received by: MICK — Date: 23/8 — Time: 9:00 am

1 - IWRG 621
2 - M12 Metals (IWRG)
3 - PAHs
4 - TRH
5 - OCPs
6 - pH CaCl2
7 - CEC

(5)

eurofins | Environment Testing

ABN: 50 005 085 521 www.eurofins.com.au EnviroSales@eurofins.com

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NATA # 1261 Site # 18217

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NATA # 1261 Site # 20794

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NATA # 1261 Site # 23736

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Penrose, Auckland 1061
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IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Sample Receipt Advice

Company name:	Atma Environmental
Contact name:	Rory McPhillips
Project name:	ST KILDA
Project ID:	2048-2
Turnaround time:	5 Day
Date/Time received	Aug 24, 2021 10:27 PM
Eurofins reference	819280

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of a random sample selected from the batch as recorded by Eurofins Sample Receipt : 4.4 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
✓	Split sample sent to requested external lab.
✗	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Received additional sample BH01_1.3
Samples received by the laboratory after 5.30pm are deemed to have been received the following working day.

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Michael Cassidy on phone : +61 3 8564 5000 or by email: MichaelCassidy@eurofins.com

Results will be delivered electronically via email to Rory McPhillips - rmcphillips@atmaenvironmental.com.

Global Leader - Results you can trust

Atma Environmental
56 William St
Abbotsford
VIC 3067

Attention: **Rory McPhillips**

Report **819280-S**
Project name ST KILDA
Project ID 2048-2
Received Date Aug 24, 2021

Client Sample ID			**BH01_0.1**	**BH01_0.5**	**BH01_1.0**	**BH02_0.1**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M21-Au44407**	**M21-Au44408**	**M21-Au44409**	**M21-Au44410**
Date Sampled			**Aug 22, 2021**	**Aug 22, 2021**	**Aug 22, 2021**	**Aug 22, 2021**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	-	-
TRH C10-C14	20	mg/kg	< 20	< 20	-	-
TRH C15-C28	50	mg/kg	< 50	< 50	-	-
TRH C29-C36	50	mg/kg	< 50	< 50	-	-
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	-	-
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	-	-
TRH C6-C10	20	mg/kg	< 20	< 20	-	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	-	-
TRH >C10-C16	50	mg/kg	< 50	< 50	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	-	-
TRH >C16-C34	100	mg/kg	< 100	< 100	-	-
TRH >C34-C40	100	mg/kg	< 100	< 100	-	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	-	-
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	-	-	-
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-	-	-
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	-	-	-

Client Sample ID			BH01_0.1	BH01_0.5	BH01_1.0	BH02_0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au44407	M21-Au44408	M21-Au44409	M21-Au44410
Date Sampled			Aug 22, 2021	Aug 22, 2021	Aug 22, 2021	Aug 22, 2021
Test/Reference	LOR	Unit				
Volatile Organics						
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	-	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-	-	-
Allyl chloride	0.5	mg/kg	< 0.5	-	-	-
Benzene	0.1	mg/kg	< 0.1	-	-	-
Bromobenzene	0.5	mg/kg	< 0.5	-	-	-
Bromochloromethane	0.5	mg/kg	< 0.5	-	-	-
Bromodichloromethane	0.5	mg/kg	< 0.5	-	-	-
Bromoform	0.5	mg/kg	< 0.5	-	-	-
Bromomethane	0.5	mg/kg	< 0.5	-	-	-
Carbon disulfide	0.5	mg/kg	< 0.5	-	-	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	-	-
Chlorobenzene	0.5	mg/kg	< 0.5	-	-	-
Chloroethane	0.5	mg/kg	< 0.5	-	-	-
Chloroform	0.5	mg/kg	< 0.5	-	-	-
Chloromethane	0.5	mg/kg	< 0.5	-	-	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	-
Dibromochloromethane	0.5	mg/kg	< 0.5	-	-	-
Dibromomethane	0.5	mg/kg	< 0.5	-	-	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	-	-
Iodomethane	0.5	mg/kg	< 0.5	-	-	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	-	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	-	-
Methylene Chloride	0.5	mg/kg	< 0.5	-	-	-
o-Xylene	0.1	mg/kg	< 0.1	-	-	-
Styrene	0.5	mg/kg	< 0.5	-	-	-
Tetrachloroethene	0.5	mg/kg	< 0.5	-	-	-
Toluene	0.1	mg/kg	< 0.1	-	-	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	-
Trichloroethene	0.5	mg/kg	< 0.5	-	-	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-	-	-
Vinyl chloride	0.5	mg/kg	< 0.5	-	-	-
Xylenes - Total*	0.3	mg/kg	< 0.3	-	-	-
Total MAH*	0.5	mg/kg	< 0.5	-	-	-
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	-	-	-
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	-	-	-
4-Bromofluorobenzene (surr.)	1	%	130	-	-	-
Toluene-d8 (surr.)	1	%	141	-	-	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	1.2	< 0.5	1.6
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	1.4	0.6	1.9
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.7	1.2	2.1
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	0.7	< 0.5	1.0
Benzo(a)pyrene	0.5	mg/kg	< 0.5	0.9	< 0.5	1.3

Client Sample ID			BH01_0.1	BH01_0.5	BH01_1.0	BH02_0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au44407	M21-Au44408	M21-Au44409	M21-Au44410
Date Sampled			Aug 22, 2021	Aug 22, 2021	Aug 22, 2021	Aug 22, 2021
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	0.8	< 0.5	0.9
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	0.6	< 0.5	0.7
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	0.7	< 0.5	0.6
Chrysene	0.5	mg/kg	< 0.5	0.8	< 0.5	1.2
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	1.4	0.5	1.8
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	0.6	< 0.5	0.7
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	1.5	0.6	1.9
Total PAH*	0.5	mg/kg	< 0.5	8	1.1	10.1
2-Fluorobiphenyl (surr.)	1	%	91	88	85	72
p-Terphenyl-d14 (surr.)	1	%	93	88	80	82
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	-	-	< 0.05
a-HCH	0.05	mg/kg	< 0.05	-	-	< 0.05
Aldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
b-HCH	0.05	mg/kg	< 0.05	-	-	< 0.05
d-HCH	0.05	mg/kg	< 0.05	-	-	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	-	-	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	-	-	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	-	-	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	-	-	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	-	< 0.1
Dibutylchlorendate (surr.)	1	%	98	-	-	86
Tetrachloro-m-xylene (surr.)	1	%	103	-	-	119
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1221	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1232	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1242	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1248	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1254	0.1	mg/kg	< 0.1	-	-	-

Client Sample ID			BH01_0.1	BH01_0.5	BH01_1.0	BH02_0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au44407	M21-Au44408	M21-Au44409	M21-Au44410
Date Sampled			Aug 22, 2021	Aug 22, 2021	Aug 22, 2021	Aug 22, 2021
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1260	0.1	mg/kg	< 0.1	-	-	-
Total PCB*	0.1	mg/kg	< 0.1	-	-	-
Dibutylchlorendate (surr.)	1	%	98	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	103	-	-	-
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	-	-	-
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	-	-	-
2.4.5-Trichlorophenol	1	mg/kg	< 1	-	-	-
2.4.6-Trichlorophenol	1	mg/kg	< 1	-	-	-
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	-	-	-
4-Chloro-3-methylphenol	1	mg/kg	< 1	-	-	-
Pentachlorophenol	1	mg/kg	< 1	-	-	-
Tetrachlorophenols - Total	10	mg/kg	< 10	-	-	-
Total Halogenated Phenol*	1	mg/kg	< 1	-	-	-
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	-	-	-
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	-	-	-
2-Nitrophenol	1.0	mg/kg	< 1	-	-	-
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	-	-	-
2.4-Dinitrophenol	5	mg/kg	< 5	-	-	-
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	-	-	-
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	-	-	-
Total cresols*	0.5	mg/kg	< 0.5	-	-	-
4-Nitrophenol	5	mg/kg	< 5	-	-	-
Dinoseb	20	mg/kg	< 20	-	-	-
Phenol	0.5	mg/kg	< 0.5	-	-	-
Phenol-d6 (surr.)	1	%	70	-	-	-
Total Non-Halogenated Phenol*	20	mg/kg	< 20	-	-	-
Chromium (hexavalent)	1	mg/kg	< 1	-	-	-
Cyanide (total)	5	mg/kg	< 5	-	-	-
Fluoride (Total)	100	mg/kg	< 100	-	-	-
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	7.8	-	-	-
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	0.1	pH Units	7.4	8.1	-	6.8
% Moisture	1	%	10	8.1	13	14
Heavy Metals						
Arsenic	2	mg/kg	5.5	21	16	8.8
Cadmium	0.4	mg/kg	< 0.4	0.9	0.5	0.6
Chromium	5	mg/kg	17	35	21	16
Copper	5	mg/kg	17	34	14	42
Lead	5	mg/kg	57	430	140	290
Mercury	0.1	mg/kg	< 0.1	0.4	0.2	0.2
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	6.2	15	8.7	17
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	87	410	160	280

Client Sample ID			DUP_220821A	BH02_0.5	BH02_0.9	BH03_0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au44411	M21-Au44412	M21-Au44413	M21-Au44414
Date Sampled			Aug 22, 2021	Aug 22, 2021	Aug 22, 2021	Aug 22, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	-	< 20	-	-
TRH C10-C14	20	mg/kg	-	< 20	-	-
TRH C15-C28	50	mg/kg	-	< 50	-	-
TRH C29-C36	50	mg/kg	-	< 50	-	-
TRH C10-C36 (Total)	50	mg/kg	-	< 50	-	-
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	-	-
TRH C6-C10	20	mg/kg	-	< 20	-	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	-	-
TRH >C10-C16	50	mg/kg	-	< 50	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	-	-
TRH >C16-C34	100	mg/kg	-	< 100	-	-
TRH >C34-C40	100	mg/kg	-	< 100	-	-
TRH >C10-C40 (total)*	100	mg/kg	-	< 100	-	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	1.6	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	1.8	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	2.1	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	1.0	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	1.2	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	0.9	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	0.8	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	0.8	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	1.0	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	1.6	0.8	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	0.8	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	0.7	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	1.9	0.8	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	10.7	1.6	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	86	86	88	71
p-Terphenyl-d14 (surr.)	1	%	80	80	89	89
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	-	< 0.1
4.4'-DDD	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDT	0.05	mg/kg	-	-	-	< 0.05
a-HCH	0.05	mg/kg	-	-	-	< 0.05
Aldrin	0.05	mg/kg	-	-	-	< 0.05
b-HCH	0.05	mg/kg	-	-	-	< 0.05
d-HCH	0.05	mg/kg	-	-	-	< 0.05
Dieldrin	0.05	mg/kg	-	-	-	< 0.05
Endosulfan I	0.05	mg/kg	-	-	-	< 0.05
Endosulfan II	0.05	mg/kg	-	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	-	< 0.05

Client Sample ID			DUP_220821A	BH02_0.5	BH02_0.9	BH03_0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au44411	M21-Au44412	M21-Au44413	M21-Au44414
Date Sampled			Aug 22, 2021	Aug 22, 2021	Aug 22, 2021	Aug 22, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endrin	0.05	mg/kg	-	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	-	< 0.05
Endrin ketone	0.05	mg/kg	-	-	-	< 0.05
g-HCH (Lindane)	0.05	mg/kg	-	-	-	< 0.05
Heptachlor	0.05	mg/kg	-	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	-	< 0.05
Methoxychlor	0.05	mg/kg	-	-	-	< 0.05
Toxaphene	0.5	mg/kg	-	-	-	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	-	-	86
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	123
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	0.1	pH Units	-	-	-	7.6
% Moisture	1	%	15	10	18	14
Conductivity (1:5 aqueous extract at 25°C as rec.)	10	uS/cm	-	-	-	99
Heavy Metals						
Arsenic	2	mg/kg	8.6	22	42	3.3
Cadmium	0.4	mg/kg	0.6	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	14	23	91	5.6
Copper	5	mg/kg	47	18	13	16
Lead	5	mg/kg	320	300	36	56
Mercury	0.1	mg/kg	0.2	0.2	0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	17	14	36	< 5
Selenium	2	mg/kg	< 2	< 2	2.5	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	11	< 10	< 10	< 10
Zinc	5	mg/kg	260	410	27	100
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	-	-	-	28

Client Sample ID			BH03_0.5	BH03_1.6	BH04_0.45	BH04_1.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au44415	M21-Au44416	M21-Au44417	M21-Au44418
Date Sampled			Aug 22, 2021	Aug 22, 2021	Aug 22, 2021	Aug 22, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	-	-	< 20
TRH C10-C14	20	mg/kg	< 20	-	-	< 20
TRH C15-C28	50	mg/kg	< 50	-	-	82
TRH C29-C36	50	mg/kg	< 50	-	-	99
TRH C10-C36 (Total)	50	mg/kg	< 50	-	-	181
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	-	< 0.5
TRH C6-C10	20	mg/kg	< 20	-	-	< 20

Client Sample ID			BH03_0.5	BH03_1.6	BH04_0.45	BH04_1.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au44415	M21-Au44416	M21-Au44417	M21-Au44418
Date Sampled			Aug 22, 2021	Aug 22, 2021	Aug 22, 2021	Aug 22, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	-	< 20
TRH >C10-C16	50	mg/kg	< 50	-	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	-	< 50
TRH >C16-C34	100	mg/kg	< 100	-	-	150
TRH >C34-C40	100	mg/kg	< 100	-	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	-	150
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	1.1	< 0.5	< 0.5	1.8
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	1.4	0.6	0.6	2.0
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.6	1.2	1.2	2.3
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	0.7	< 0.5	< 0.5	0.9
Benzo(a)pyrene	0.5	mg/kg	0.9	< 0.5	< 0.5	1.4
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	0.6	< 0.5	< 0.5	0.8
Benzo(g.h.i)perylene	0.5	mg/kg	0.6	< 0.5	< 0.5	1.1
Benzo(k)fluoranthene	0.5	mg/kg	0.5	< 0.5	< 0.5	0.8
Chrysene	0.5	mg/kg	0.7	< 0.5	< 0.5	0.9
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	1.0	< 0.5	< 0.5	1.4
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.8
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	1.2	< 0.5	< 0.5	1.6
Total PAH*	0.5	mg/kg	6.2	< 0.5	< 0.5	9.7
2-Fluorobiphenyl (surr.)	1	%	89	86	73	87
p-Terphenyl-d14 (surr.)	1	%	82	82	88	82
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	< 0.1	-
4.4'-DDD	0.05	mg/kg	-	-	< 0.05	-
4.4'-DDE	0.05	mg/kg	-	-	< 0.05	-
4.4'-DDT	0.05	mg/kg	-	-	< 0.05	-
a-HCH	0.05	mg/kg	-	-	< 0.05	-
Aldrin	0.05	mg/kg	-	-	< 0.05	-
b-HCH	0.05	mg/kg	-	-	< 0.05	-
d-HCH	0.05	mg/kg	-	-	< 0.05	-
Dieldrin	0.05	mg/kg	-	-	< 0.05	-
Endosulfan I	0.05	mg/kg	-	-	< 0.05	-
Endosulfan II	0.05	mg/kg	-	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	-	-	< 0.05	-
Endrin	0.05	mg/kg	-	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	-	-	< 0.05	-
Endrin ketone	0.05	mg/kg	-	-	< 0.05	-
g-HCH (Lindane)	0.05	mg/kg	-	-	< 0.05	-
Heptachlor	0.05	mg/kg	-	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	-	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.05	-

Client Sample ID			BH03_0.5	BH03_1.6	BH04_0.45	BH04_1.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au44415	M21-Au44416	M21-Au44417	M21-Au44418
Date Sampled			Aug 22, 2021	Aug 22, 2021	Aug 22, 2021	Aug 22, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Methoxychlor	0.05	mg/kg	-	-	< 0.05	-
Toxaphene	0.5	mg/kg	-	-	< 0.5	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	-	-	92	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	124	-
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	0.1	pH Units	-	-	4.6	-
% Moisture	1	%	10	17	17	11
Heavy Metals						
Arsenic	2	mg/kg	5.0	70	2.8	28
Cadmium	0.4	mg/kg	0.9	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	10	91	8.7	38
Copper	5	mg/kg	38	11	12	22
Lead	5	mg/kg	240	23	21	170
Mercury	0.1	mg/kg	0.1	< 0.1	< 0.1	0.7
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	15	40	7.6	18
Selenium	2	mg/kg	< 2	2.8	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	340	32	37	120

Client Sample ID			BH04_1.8	BH05_0.1	BH05_0.5	BH05_0.9
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au44419	M21-Au44420	M21-Au44421	M21-Au44422
Date Sampled			Aug 22, 2021	Aug 22, 2021	Aug 22, 2021	Aug 22, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	-	-	< 20	-
TRH C10-C14	20	mg/kg	-	-	< 20	-
TRH C15-C28	50	mg/kg	-	-	97	-
TRH C29-C36	50	mg/kg	-	-	80	-
TRH C10-C36 (Total)	50	mg/kg	-	-	177	-
Naphthalene[N02]	0.5	mg/kg	-	-	< 0.5	-
TRH C6-C10	20	mg/kg	-	-	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	-	< 20	-
TRH >C10-C16	50	mg/kg	-	-	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	-	< 50	-
TRH >C16-C34	100	mg/kg	-	-	150	-
TRH >C34-C40	100	mg/kg	-	-	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	-	-	150	-
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	-	-	< 0.5	-

Client Sample ID			BH04_1.8	BH05_0.1	BH05_0.5	BH05_0.9
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au44419	M21-Au44420	M21-Au44421	M21-Au44422
Date Sampled			Aug 22, 2021	Aug 22, 2021	Aug 22, 2021	Aug 22, 2021
Test/Reference	LOR	Unit				
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.2.4-Trichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	-	-	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
1.3-Dichloropropane	0.5	mg/kg	-	-	< 0.5	-
1.3.5-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	-
2-Butanone (MEK)	0.5	mg/kg	-	-	< 0.5	-
2-Propanone (Acetone)	0.5	mg/kg	-	-	< 0.5	-
4-Chlorotoluene	0.5	mg/kg	-	-	< 0.5	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	-	< 0.5	-
Allyl chloride	0.5	mg/kg	-	-	< 0.5	-
Benzene	0.1	mg/kg	-	-	< 0.1	-
Bromobenzene	0.5	mg/kg	-	-	< 0.5	-
Bromochloromethane	0.5	mg/kg	-	-	< 0.5	-
Bromodichloromethane	0.5	mg/kg	-	-	< 0.5	-
Bromoform	0.5	mg/kg	-	-	< 0.5	-
Bromomethane	0.5	mg/kg	-	-	< 0.5	-
Carbon disulfide	0.5	mg/kg	-	-	< 0.5	-
Carbon Tetrachloride	0.5	mg/kg	-	-	< 0.5	-
Chlorobenzene	0.5	mg/kg	-	-	< 0.5	-
Chloroethane	0.5	mg/kg	-	-	< 0.5	-
Chloroform	0.5	mg/kg	-	-	< 0.5	-
Chloromethane	0.5	mg/kg	-	-	< 0.5	-
cis-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-
cis-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	-
Dibromochloromethane	0.5	mg/kg	-	-	< 0.5	-
Dibromomethane	0.5	mg/kg	-	-	< 0.5	-
Dichlorodifluoromethane	0.5	mg/kg	-	-	< 0.5	-
Ethylbenzene	0.1	mg/kg	-	-	< 0.1	-
Iodomethane	0.5	mg/kg	-	-	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	-	-	< 0.5	-
m&p-Xylenes	0.2	mg/kg	-	-	< 0.2	-
Methylene Chloride	0.5	mg/kg	-	-	< 0.5	-
o-Xylene	0.1	mg/kg	-	-	< 0.1	-
Styrene	0.5	mg/kg	-	-	< 0.5	-
Tetrachloroethene	0.5	mg/kg	-	-	< 0.5	-
Toluene	0.1	mg/kg	-	-	< 0.1	-
trans-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	-

Client Sample ID			BH04_1.8	BH05_0.1	BH05_0.5	BH05_0.9
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au44419	M21-Au44420	M21-Au44421	M21-Au44422
Date Sampled			Aug 22, 2021	Aug 22, 2021	Aug 22, 2021	Aug 22, 2021
Test/Reference	LOR	Unit				
Volatile Organics						
trans-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	-
Trichloroethene	0.5	mg/kg	-	-	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	-	-	< 0.5	-
Vinyl chloride	0.5	mg/kg	-	-	< 0.5	-
Xylenes - Total*	0.3	mg/kg	-	-	< 0.3	-
Total MAH*	0.5	mg/kg	-	-	< 0.5	-
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	-	-	< 0.5	-
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	-	-	< 0.5	-
4-Bromofluorobenzene (surr.)	1	%	-	-	55	-
Toluene-d8 (surr.)	1	%	-	-	56	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	0.7	1.6	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	1.1	1.8	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.4	2.1	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	1.2	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	0.7	1.2	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	1.0	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	0.6	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	1.0	< 0.5
Chrysene	0.5	mg/kg	< 0.5	0.6	1.2	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	0.7	1.7	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	0.6	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	0.9	1.8	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	2.9	10.8	< 0.5
2-Fluorobiphenyl (surr.)	1	%	80	72	96	86
p-Terphenyl-d14 (surr.)	1	%	82	88	97	94
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	< 0.1	-
4.4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05	-
4.4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05	-
4.4'-DDT	0.05	mg/kg	-	< 0.05	< 0.05	-
a-HCH	0.05	mg/kg	-	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
b-HCH	0.05	mg/kg	-	< 0.05	< 0.05	-
d-HCH	0.05	mg/kg	-	< 0.05	< 0.05	-
Dieldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan I	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan II	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin ketone	0.05	mg/kg	-	< 0.05	< 0.05	-

Client Sample ID			BH04_1.8	BH05_0.1	BH05_0.5	BH05_0.9
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au44419	M21-Au44420	M21-Au44421	M21-Au44422
Date Sampled			Aug 22, 2021	Aug 22, 2021	Aug 22, 2021	Aug 22, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
g-HCH (Lindane)	0.05	mg/kg	-	< 0.05	< 0.05	-
Heptachlor	0.05	mg/kg	-	< 0.05	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	< 0.05	-
Methoxychlor	0.05	mg/kg	-	< 0.05	< 0.05	-
Toxaphene	0.5	mg/kg	-	< 0.5	< 0.5	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.1	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1	< 0.1	-
Dibutylchlorendate (surr.)	1	%	-	86	90	-
Tetrachloro-m-xylene (surr.)	1	%	-	126	118	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1221	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1232	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1242	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1248	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1254	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1260	0.1	mg/kg	-	-	< 0.1	-
Total PCB*	0.1	mg/kg	-	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	-	-	90	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	118	-
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	-	-	< 0.5	-
2.4-Dichlorophenol	0.5	mg/kg	-	-	< 0.5	-
2.4.5-Trichlorophenol	1	mg/kg	-	-	< 1	-
2.4.6-Trichlorophenol	1	mg/kg	-	-	< 1	-
2.6-Dichlorophenol	0.5	mg/kg	-	-	< 0.5	-
4-Chloro-3-methylphenol	1	mg/kg	-	-	< 1	-
Pentachlorophenol	1	mg/kg	-	-	< 1	-
Tetrachlorophenols - Total	10	mg/kg	-	-	< 10	-
Total Halogenated Phenol*	1	mg/kg	-	-	< 1	-
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	-	-	< 20	-
2-Methyl-4.6-dinitrophenol	5	mg/kg	-	-	< 5	-
2-Nitrophenol	1.0	mg/kg	-	-	< 1	-
2.4-Dimethylphenol	0.5	mg/kg	-	-	< 0.5	-
2.4-Dinitrophenol	5	mg/kg	-	-	< 5	-
2-Methylphenol (o-Cresol)	0.2	mg/kg	-	-	< 0.2	-
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	-	-	< 0.4	-
Total cresols*	0.5	mg/kg	-	-	< 0.5	-
4-Nitrophenol	5	mg/kg	-	-	< 5	-
Dinoseb	20	mg/kg	-	-	< 20	-
Phenol	0.5	mg/kg	-	-	< 0.5	-
Phenol-d6 (surr.)	1	%	-	-	67	-
Total Non-Halogenated Phenol*	20	mg/kg	-	-	< 20	-

Client Sample ID			BH04_1.8	BH05_0.1	BH05_0.5	BH05_0.9
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M21-Au44419**	**M21-Au44420**	**M21-Au44421**	**M21-Au44422**
Date Sampled			**Aug 22, 2021**	**Aug 22, 2021**	**Aug 22, 2021**	**Aug 22, 2021**
Test/Reference	LOR	Unit				
Chromium (hexavalent)	1	mg/kg	-	-	< 1	-
Cyanide (total)	5	mg/kg	-	-	< 5	-
Fluoride (Total)	100	mg/kg	-	-	160	-
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	-	-	6.9	-
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	0.1	pH Units	-	7.7	-	-
% Moisture	1	%	16	15	14	21
Heavy Metals						
Arsenic	2	mg/kg	60	21	43	76
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	74	27	46	67
Copper	5	mg/kg	11	21	12	12
Lead	5	mg/kg	32	190	140	25
Mercury	0.1	mg/kg	0.1	0.3	0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	28	13	8.8	23
Selenium	2	mg/kg	2.5	< 2	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	12	< 10	< 10
Zinc	5	mg/kg	31	130	90	25

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Vic EPA 1828.2 Table 3 (Solids)			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Aug 25, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 25, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 25, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Volatile Organics	Melbourne	Aug 25, 2021	7 Days
- Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS			
Volatile Organics	Melbourne	Aug 25, 2021	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)			
Polycyclic Aromatic Hydrocarbons	Melbourne	Aug 25, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Melbourne	Aug 25, 2021	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)			
Polychlorinated Biphenyls	Melbourne	Aug 25, 2021	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)			
Phenols (Halogenated)	Melbourne	Aug 25, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Melbourne	Aug 25, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Chromium (hexavalent)	Melbourne	Aug 25, 2021	28 Days
- Method: APHA 3500-Cr Hexavalent Chromium- (Extraction:- USEPA3060)			
Cyanide (total)	Melbourne	Aug 25, 2021	14 Days
- Method: LTM-INO-4020 Total Free WAD Cyanide by CFA			
Fluoride (Total)	Melbourne	Aug 25, 2021	28 Days
- Method: LTM-INO-4150 Determination of Total Fluoride PART A – CIC			
pH (1:5 Aqueous extract at 25°C as rec.)	Melbourne	Aug 25, 2021	7 Days
- Method: LTM-GEN-7090 pH in soil by ISE			
Metals IWRG 621 : Metals M12	Melbourne	Aug 25, 2021	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	Melbourne	Aug 24, 2021	7 Days
- Method: LTM-GEN-7090 pH in soil by ISE			
% Moisture	Melbourne	Aug 24, 2021	14 Days
- Method: LTM-GEN-7080 Moisture			
Conductivity (1:5 aqueous extract at 25°C as rec.)	Melbourne	Aug 24, 2021	7 Days
- Method: LTM-INO-4030 Conductivity			
Cation Exchange Capacity	Melbourne	Aug 25, 2021	180 Days
- Method: LTM-MET-3060 Cation Exchange Capacity by bases & Exchangeable Sodium Percentage			

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Company Name:	Atma Environmental	**Order No.:**	**Received:** Aug 24, 2021 10:27 PM
Address:	56 William St Abbotsford VIC 3067	**Report #:** 819280 **Phone:** 9429 6955 **Fax:** 9429 5911	**Due:** Sep 1, 2021 **Priority:** 5 Day **Contact Name:** Rory McPhillips
Project Name:	ST KILDA		
Project ID:	2048-2		

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						HOLD	pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals IWRG 621 : Metals M12	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	Vic EPA 1828.2 Table 3 (Solids)
Melbourne Laboratory - NATA Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217														
Brisbane Laboratory - NATA Site # 20794														
Perth Laboratory - NATA Site # 23736														
Mayfield Laboratory - NATA Site # 25079														
External Laboratory														
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**									
1	BH01_0.1	Aug 22, 2021		Soil	M21-Au44407		X				X			X
2	BH01_0.5	Aug 22, 2021		Soil	M21-Au44408		X	X		X	X		X	
3	BH01_1.0	Aug 22, 2021		Soil	M21-Au44409			X		X	X			
4	BH02_0.1	Aug 22, 2021		Soil	M21-Au44410		X	X	X	X	X			
5	DUP_220821A	Aug 22, 2021		Soil	M21-Au44411			X		X	X			
6	BH02_0.5	Aug 22, 2021		Soil	M21-Au44412			X		X	X		X	
7	BH02_0.9	Aug 22, 2021		Soil	M21-Au44413			X		X	X			
8	BH03_0.2	Aug 22, 2021		Soil	M21-Au44414		X	X	X	X	X	X		
9	BH03_0.5	Aug 22, 2021		Soil	M21-Au44415			X		X	X		X	

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Address: 56 William St
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VIC 3067

Project Name: ST KILDA
Project ID: 2048-2

Order No.:
Report #: 819280
Phone: 9429 6955
Fax: 9429 5911

Received: Aug 24, 2021 10:27 PM
Due: Sep 1, 2021
Priority: 5 Day
Contact Name: Rory McPhillips

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						HOLD	pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals IWRG 621 : Metals M12	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	Vic EPA 1828.2 Table 3 (Solids)
Melbourne Laboratory - NATA Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217														
Brisbane Laboratory - NATA Site # 20794														
Perth Laboratory - NATA Site # 23736														
Mayfield Laboratory - NATA Site # 25079														
External Laboratory														
10	BH03_1.6	Aug 22, 2021		Soil	M21-Au44416			X		X	X			
11	BH04_0.45	Aug 22, 2021		Soil	M21-Au44417		X	X	X	X	X			
12	BH04_1.5	Aug 22, 2021		Soil	M21-Au44418			X		X	X		X	
13	BH04_1.8	Aug 22, 2021		Soil	M21-Au44419			X		X	X			
14	BH05_0.1	Aug 22, 2021		Soil	M21-Au44420		X	X	X	X	X			
15	BH05_0.5	Aug 22, 2021		Soil	M21-Au44421						X			X
16	BH05_0.9	Aug 22, 2021		Soil	M21-Au44422			X		X	X			
17	DECON_220821A	Aug 22, 2021		Water	M21-Au44423					X				
18	BH03_1.1	Aug 22, 2021		Soil	M21-Au44424	X								
19	BH04_1.0	Aug 22, 2021		Soil	M21-Au44425	X								

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Melbourne Laboratory - NATA Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217														
Brisbane Laboratory - NATA Site # 20794														
Perth Laboratory - NATA Site # 23736														
Mayfield Laboratory - NATA Site # 25079														
External Laboratory														
20	TRIP_220821 A	Aug 22, 2021		Water	M21-Au44426	X								
21	BH01_1.3	Aug 22, 2021		Soil	M21-Au44427	X								
Test Counts						4	6	14	4	15	16	1	4	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
ug/L: micrograms per litre
ppm: Parts per million
ppb: Parts per billion
%: Percentage
org/100mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 10			10	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Nitrophenol	mg/kg	< 1			1.0	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
Total cresols*	mg/kg	< 0.5			0.5	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	117			70-130	Pass	
Acenaphthylene	%	87			70-130	Pass	
Anthracene	%	80			70-130	Pass	
Benz(a)anthracene	%	102			70-130	Pass	
Benzo(a)pyrene	%	104			70-130	Pass	
Benzo(b&j)fluoranthene	%	89			70-130	Pass	
Benzo(g.h.i)perylene	%	98			70-130	Pass	
Benzo(k)fluoranthene	%	94			70-130	Pass	
Chrysene	%	107			70-130	Pass	
Dibenz(a.h)anthracene	%	78			70-130	Pass	
Fluoranthene	%	107			70-130	Pass	
Fluorene	%	79			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	71			70-130	Pass	
Naphthalene	%	115			70-130	Pass	
Phenanthrene	%	101			70-130	Pass	
Pyrene	%	113			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	108			70-130	Pass	
4.4'-DDD	%	84			70-130	Pass	
4.4'-DDE	%	86			70-130	Pass	
4.4'-DDT	%	97			70-130	Pass	
a-HCH	%	88			70-130	Pass	
Aldrin	%	88			70-130	Pass	
b-HCH	%	84			70-130	Pass	
d-HCH	%	87			70-130	Pass	
Dieldrin	%	77			70-130	Pass	
Endosulfan I	%	95			70-130	Pass	
Endosulfan II	%	84			70-130	Pass	
Endosulfan sulphate	%	100			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin	%	79			70-130	Pass	
Endrin aldehyde	%	94			70-130	Pass	
Endrin ketone	%	92			70-130	Pass	
g-HCH (Lindane)	%	109			70-130	Pass	
Heptachlor	%	81			70-130	Pass	
Heptachlor epoxide	%	78			70-130	Pass	
Methoxychlor	%	117			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	90			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	75			25-140	Pass	
2.4-Dichlorophenol	%	76			25-140	Pass	
2.4.6-Trichlorophenol	%	97			30-130	Pass	
2.6-Dichlorophenol	%	104			30-130	Pass	
4-Chloro-3-methylphenol	%	77			30-130	Pass	
Pentachlorophenol	%	91			30-130	Pass	
Tetrachlorophenols - Total	%	73			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	50			30-130	Pass	
2-Methyl-4.6-dinitrophenol	%	104			30-130	Pass	
2-Nitrophenol	%	75			30-130	Pass	
2.4-Dimethylphenol	%	67			30-130	Pass	
2.4-Dinitrophenol	%	41			30-130	Pass	
2-Methylphenol (o-Cresol)	%	87			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	79			30-130	Pass	
Total cresols*	%	82			30-130	Pass	
4-Nitrophenol	%	100			30-130	Pass	
Dinoseb	%	107			30-130	Pass	
Phenol	%	79			25-145	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	M21-Au44039	NCP	%	78			70-130	Pass	
TRH C10-C14	M21-Au48286	NCP	%	115			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M21-Au42367	NCP	%	77			70-130	Pass	
Acenaphthylene	M21-Au42367	NCP	%	92			70-130	Pass	
Anthracene	M21-Au42367	NCP	%	87			70-130	Pass	
Benz(a)anthracene	M21-Au42367	NCP	%	79			70-130	Pass	
Benzo(a)pyrene	M21-Au42367	NCP	%	85			70-130	Pass	
Benzo(b&j)fluoranthene	M21-Au42367	NCP	%	82			70-130	Pass	
Benzo(g.h.i)perylene	M21-Au42367	NCP	%	78			70-130	Pass	
Benzo(k)fluoranthene	M21-Au42367	NCP	%	89			70-130	Pass	
Chrysene	M21-Au42367	NCP	%	93			70-130	Pass	
Dibenz(a.h)anthracene	M21-Au42367	NCP	%	77			70-130	Pass	
Fluoranthene	M21-Au42367	NCP	%	84			70-130	Pass	
Fluorene	M21-Au42367	NCP	%	98			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M21-Au42367	NCP	%	72			70-130	Pass	
Naphthalene	M21-Au42367	NCP	%	88			70-130	Pass	
Phenanthrene	M21-Au42367	NCP	%	78			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Pyrene	M21-Au42367	NCP	%	87			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Hexachlorobenzene	M21-Au38883	NCP	%	74			70-130	Pass	
Spike - % Recovery									
				Result 1					
Fluoride (Total)	M21-Au41399	NCP	%	89			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
Naphthalene	M21-Au47701	NCP	%	128			70-130	Pass	
TRH C6-C10	M21-Au47701	NCP	%	102			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	M21-Au44421	CP	%	86			70-130	Pass	
4.4'-DDD	M21-Au44421	CP	%	85			70-130	Pass	
4.4'-DDE	M21-Au44421	CP	%	112			70-130	Pass	
4.4'-DDT	M21-Au44421	CP	%	89			70-130	Pass	
a-HCH	M21-Au44421	CP	%	120			70-130	Pass	
Aldrin	M21-Au44421	CP	%	87			70-130	Pass	
b-HCH	M21-Au44421	CP	%	107			70-130	Pass	
d-HCH	M21-Au44421	CP	%	107			70-130	Pass	
Dieldrin	M21-Au44421	CP	%	125			70-130	Pass	
Endosulfan I	M21-Au44421	CP	%	128			70-130	Pass	
Endosulfan II	M21-Au44421	CP	%	117			70-130	Pass	
Endosulfan sulphate	M21-Au44421	CP	%	116			70-130	Pass	
Endrin	M21-Au44421	CP	%	91			70-130	Pass	
Endrin aldehyde	M21-Au44421	CP	%	83			70-130	Pass	
Endrin ketone	M21-Au44421	CP	%	113			70-130	Pass	
g-HCH (Lindane)	M21-Au44421	CP	%	80			70-130	Pass	
Heptachlor	M21-Au44421	CP	%	105			70-130	Pass	
Heptachlor epoxide	M21-Au44421	CP	%	122			70-130	Pass	
Methoxychlor	M21-Au44421	CP	%	85			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	M21-Au41813	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M21-Au52228	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M21-Au52228	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M21-Au52228	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M21-Au41813	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M21-Au52228	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M21-Au52228	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M21-Au52228	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Hexachlorobutadiene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1.2-Trichloroethane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzene	M21-Au41813	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Bromobenzene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethylbenzene	M21-Au41813	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Iodomethane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
m&p-Xylenes	M21-Au41813	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methylene Chloride	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
o-Xylene	M21-Au41813	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Styrene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Toluene	M21-Au41813	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
trans-1.2-Dichloroethene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	M21-Au41813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Xylenes - Total*	M21-Au41813	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M21-Au47214	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M21-Au47214	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M21-Au47214	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M21-Au47214	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M21-Au47214	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	M21-Au47214	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	M21-Au47214	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M21-Au47214	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	M21-Au47214	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	M21-Au47214	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M21-Au47214	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	M21-Au47214	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M21-Au47214	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M21-Au47214	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M21-Au47214	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M21-Au47214	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	B21-Au37459	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	B21-Au37459	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	B21-Au37459	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	B21-Au37459	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	B21-Au37459	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	B21-Au37459	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	B21-Au37459	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	B21-Au37459	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	B21-Au37459	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	B21-Au37459	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	B21-Au37459	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	B21-Au37459	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	B21-Au37459	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	B21-Au37459	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	B21-Au37459	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	B21-Au37459	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	B21-Au37459	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	B21-Au37459	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	B21-Au37459	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	B21-Au37459	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	B21-Au37459	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	B21-Au37459	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	B21-Au37459	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	B21-Au37459	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	B21-Au37459	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	B21-Au37459	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	B21-Au37459	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	B21-Au37459	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	B21-Au37459	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	B21-Au37459	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	B21-Au37459	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	B21-Au37459	NCP	mg/kg	< 1	< 1	<1	30%	Pass	

Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
4-Chloro-3-methylphenol	B21-Au37459	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	B21-Au37459	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	B21-Au37459	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	B21-Au37459	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	B21-Au37459	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Nitrophenol	B21-Au37459	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	B21-Au37459	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	B21-Au37459	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	B21-Au37459	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	B21-Au37459	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	B21-Au37459	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Dinoseb	B21-Au37459	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	B21-Au37459	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Chromium (hexavalent)	M21-Au41875	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Fluoride (Total)	M21-Au41522	NCP	mg/kg	250	330	28	30%	Pass	
pH (1:5 Aqueous extract at 25°C as rec.)	M21-Au44037	NCP	pH Units	6.2	6.0	pass	30%	Pass	
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	M21-Au41514	NCP	pH Units	6.6	6.6	pass	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M21-Au45511	NCP	mg/kg	5.1	6.2	20	30%	Pass	
Cadmium	M21-Au45511	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M21-Au45511	NCP	mg/kg	34	42	21	30%	Pass	
Copper	M21-Au45511	NCP	mg/kg	18	21	13	30%	Pass	
Lead	M21-Au45511	NCP	mg/kg	22	27	18	30%	Pass	
Mercury	M21-Au45511	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Molybdenum	M21-Au45511	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Nickel	M21-Au45511	NCP	mg/kg	15	18	13	30%	Pass	
Selenium	M21-Au45511	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Silver	M21-Au45511	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Tin	M21-Au45511	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Zinc	M21-Au45511	NCP	mg/kg	38	44	15	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M21-Au44409	CP	%	13	12	8.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25°C as rec.)	M21-Au44037	NCP	uS/cm	67	70	4.1	30%	Pass	
Duplicate									
Cation Exchange Capacity				Result 1	Result 2	RPD			
Cation Exchange Capacity	S21-Au35657	NCP	meq/100g	20	21	1.0	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2.6-Dichlorophenol	M21-Au45658	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
Total cresols*	M21-Au45658	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised by:

Emily Daos	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)
Scott Beddoes	Senior Analyst-Inorganic (VIC)
Vivian Wang	Senior Analyst-Volatile (VIC)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Atma Environmental
56 William St
Abbotsford
VIC 3067

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Rory McPhillips**

Report **819280-W**
Project name ST KILDA
Project ID 2048-2
Received Date Aug 24, 2021

Client Sample ID			**DECON_220821A**
Sample Matrix			**Water**
Eurofins Sample No.			**M21-Au44423**
Date Sampled			**Aug 22, 2021**
Test/Reference	LOR	Unit	
Heavy Metals			
Arsenic	0.001	mg/L	< 0.001
Cadmium	0.0002	mg/L	< 0.0002
Chromium	0.001	mg/L	< 0.001
Copper	0.001	mg/L	< 0.001
Lead	0.001	mg/L	< 0.001
Mercury	0.0001	mg/L	< 0.0001
Molybdenum	0.005	mg/L	< 0.005
Nickel	0.001	mg/L	< 0.001
Selenium	0.001	mg/L	< 0.001
Silver	0.005	mg/L	< 0.005
Tin	0.005	mg/L	< 0.005
Zinc	0.005	mg/L	< 0.005

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Vic EPA 1828.2 Table 3 (Solids)			
Metals IWRG 621 : Metals M12	Melbourne	Aug 24, 2021	28 Days
- Method:			

eurofins | Environment Testing

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IANZ # 1290

Company Name:	Atma Environmental	**Order No.:**	**Received:** Aug 24, 2021 10:27 PM
Address:	56 William St Abbotsford VIC 3067	**Report #:** 819280 **Phone:** 9429 6955 **Fax:** 9429 5911	**Due:** Sep 1, 2021 **Priority:** 5 Day **Contact Name:** Rory McPhillips
Project Name:	ST KILDA		
Project ID:	2048-2		

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						HOLD	pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals IWRG 621 : Metals M12	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	Vic EPA 1828.2 Table 3 (Solids)
Melbourne Laboratory - NATA Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217														
Brisbane Laboratory - NATA Site # 20794														
Perth Laboratory - NATA Site # 23736														
Mayfield Laboratory - NATA Site # 25079														
External Laboratory														
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**									
1	BH01_0.1	Aug 22, 2021		Soil	M21-Au44407		X				X			X
2	BH01_0.5	Aug 22, 2021		Soil	M21-Au44408		X	X		X	X		X	
3	BH01_1.0	Aug 22, 2021		Soil	M21-Au44409			X		X	X			
4	BH02_0.1	Aug 22, 2021		Soil	M21-Au44410		X	X	X	X	X			
5	DUP_220821A	Aug 22, 2021		Soil	M21-Au44411			X		X	X			
6	BH02_0.5	Aug 22, 2021		Soil	M21-Au44412			X		X	X		X	
7	BH02_0.9	Aug 22, 2021		Soil	M21-Au44413			X		X	X			
8	BH03_0.2	Aug 22, 2021		Soil	M21-Au44414		X	X	X	X	X	X		
9	BH03_0.5	Aug 22, 2021		Soil	M21-Au44415			X		X	X		X	

eurofins | Environment Testing

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

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IANZ # 1290

Company Name: Atma Environmental
Address: 56 William St
Abbotsford
VIC 3067

Project Name: ST KILDA
Project ID: 2048-2

Order No.:
Report #: 819280
Phone: 9429 6955
Fax: 9429 5911

Received: Aug 24, 2021 10:27 PM
Due: Sep 1, 2021
Priority: 5 Day
Contact Name: Rory McPhillips

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						HOLD	pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals IWRG 621 : Metals M12	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	Vic EPA 1828.2 Table 3 (Solids)
Melbourne Laboratory - NATA Site # 1254						X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217														
Brisbane Laboratory - NATA Site # 20794														
Perth Laboratory - NATA Site # 23736														
Mayfield Laboratory - NATA Site # 25079														
External Laboratory														
10	BH03_1.6	Aug 22, 2021		Soil	M21-Au44416			X		X	X			
11	BH04_0.45	Aug 22, 2021		Soil	M21-Au44417		X	X	X	X	X			
12	BH04_1.5	Aug 22, 2021		Soil	M21-Au44418			X		X	X		X	
13	BH04_1.8	Aug 22, 2021		Soil	M21-Au44419			X		X	X			
14	BH05_0.1	Aug 22, 2021		Soil	M21-Au44420		X	X	X	X	X			
15	BH05_0.5	Aug 22, 2021		Soil	M21-Au44421						X			X
16	BH05_0.9	Aug 22, 2021		Soil	M21-Au44422			X		X	X			
17	DECON_220821A	Aug 22, 2021		Water	M21-Au44423					X				
18	BH03_1.1	Aug 22, 2021		Soil	M21-Au44424	X								
19	BH04_1.0	Aug 22, 2021		Soil	M21-Au44425	X								

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

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NATA # 1261 Site # 18217

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NATA # 1261 Site # 25079

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IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Atma Environmental
Address: 56 William St
Abbotsford
VIC 3067

Project Name: ST KILDA
Project ID: 2048-2

Order No.:
Report #: 819280
Phone: 9429 6955
Fax: 9429 5911

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Perth Laboratory - NATA Site # 23736														
Mayfield Laboratory - NATA Site # 25079														
External Laboratory														
20	TRIP_220821 A	Aug 22, 2021		Water	M21-Au44426	X								
21	BH01_1.3	Aug 22, 2021		Soil	M21-Au44427	X								
Test Counts						4	6	14	4	15	16	1	4	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram | **mg/L:** milligrams per litre | **ug/L:** micrograms per litre

ppm: Parts per million | **ppb:** Parts per billion | **%:** Percentage

org/100mL: Organisms per 100 millilitres | **NTU:** Nephelometric Turbidity Units | **MPN/100mL:** Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
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QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Molybdenum	mg/L	< 0.005			0.005	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Selenium	mg/L	< 0.001			0.001	Pass	
Silver	mg/L	< 0.005			0.005	Pass	
Tin	mg/L	< 0.005			0.005	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	93			80-120	Pass	
Cadmium	%	87			80-120	Pass	
Chromium	%	92			80-120	Pass	
Copper	%	89			80-120	Pass	
Lead	%	91			80-120	Pass	
Mercury	%	84			80-120	Pass	
Molybdenum	%	84			80-120	Pass	
Nickel	%	89			80-120	Pass	
Selenium	%	94			80-120	Pass	
Silver	%	91			80-120	Pass	
Tin	%	115			80-120	Pass	
Zinc	%	93			80-120	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised by:

Emily Daos	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

FW: Further Sample Analysis Request

Michael Cassidy <MichaelCassidy@eurofins.com>

Mon 6/09/2021 11:42 AM

To: #AU_CAU001_EnviroSampleVic <EnviroSampleVic@eurofins.com>

Thanks Canh,

Kind Regards,

Michael Cassidy

Phone: 8564 5940
Mobile: 0498 700 069
Email : MichaelCassidy@eurofins.com

From: Rory McPhillips <rmcphillips@atmaenvironmental.com>
Sent: Monday, 6 September 2021 11:38 AM
To: Michael Cassidy <MichaelCassidy@eurofins.com>
Cc: mickenviro@gmail.com
Subject: Further Sample Analysis Request

EXTERNAL EMAIL*

Hi Michael,

Can you please arrange for the following further analysis (standard TAT):

Project #2048-1 (Eurofins Report #819243):

Sample ID	TRH Silica-Gel clean up	TRHs (total)	Arsenic ASLP (pH5)	Lead ASLP (pH5)	PAHs ASLP (pH5)
BH03_0.5	X		X		
BH03_1.0		X	X		X
BH05_0.1			X	X	X

Project #2048-2 (Eurofins Report #819243): 819280

Sample ID	Arsenic ASLP (pH5)	Lead ASLP (pH5)	PAHs ASLP (pH5)
BH01_0.5	X	X	
BH04_1.5	X		X
BH05_0.9	X		

AU 44157 - GT155 - FH304
AU44158 ↓ ↓
AU44162

AU44408 - GT1359 - FH305
AU44418 - ↓ ↓
AU44422 - GT822 - FH305

Thanks,

822324
Jake

eurofins | Environment Testing

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IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Sample Receipt Advice

Company name:	Atma Environmental
Contact name:	Rory McPhillips
Project name:	ST KILDA
Project ID:	2048-2
Turnaround time:	5 Day
Date/Time received	Sep 6, 2021 11:38 AM
Eurofins reference	822461

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Michael Cassidy on phone : +61 3 8564 5000 or by email: MichaelCassidy@eurofins.com

Results will be delivered electronically via email to Rory McPhillips - rmcphillips@atmaenvironmental.com.

Global Leader - Results you can trust

Atma Environmental
56 William St
Abbotsford
VIC 3067

Attention: **Rory McPhillips**

Report **822461-L-V3**
Project name ST KILDA
Project ID 2048-2
Received Date Sep 06, 2021

Client Sample ID			**BH01_0.5**	**BH04_1.5**	**BH05_0.9**
Sample Matrix			**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**	**AUS Leachate - pH 5.0**
Eurofins Sample No.			**M21-Se10299**	**M21-Se10300**	**M21-Se10301**
Date Sampled			**Aug 22, 2021**	**Aug 22, 2021**	**Aug 22, 2021**
Test/Reference	LOR	Unit			
Heavy Metals					
Arsenic	0.01	mg/L	< 0.01	0.07	0.02
Lead	0.01	mg/L	< 0.01	-	-
AUS Leaching Procedure					
Leachate Fluid[C01]		comment	1.0	1.0	1.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	4.9	5.0	5.0
pH (off)	0.1	pH Units	5.0	5.0	5.0
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	0.001	mg/L	-	< 0.001	-
Acenaphthylene	0.001	mg/L	-	< 0.001	-
Anthracene	0.001	mg/L	-	< 0.001	-
Benz(a)anthracene	0.001	mg/L	-	< 0.001	-
Benzo(a)pyrene	0.001	mg/L	-	< 0.001	-
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	-	< 0.001	-
Benzo(g.h.i)perylene	0.001	mg/L	-	< 0.001	-
Benzo(k)fluoranthene	0.001	mg/L	-	< 0.001	-
Chrysene	0.001	mg/L	-	< 0.001	-
Dibenz(a.h)anthracene	0.001	mg/L	-	< 0.001	-
Fluoranthene	0.001	mg/L	-	< 0.001	-
Fluorene	0.001	mg/L	-	< 0.001	-
Indeno(1.2.3-cd)pyrene	0.001	mg/L	-	< 0.001	-
Naphthalene	0.001	mg/L	-	< 0.001	-
Phenanthrene	0.001	mg/L	-	< 0.001	-
Pyrene	0.001	mg/L	-	< 0.001	-
Total PAH*	0.001	mg/L	-	< 0.001	-
2-Fluorobiphenyl (surr.)	1	%	-	146	-
p-Terphenyl-d14 (surr.)	1	%	-	116	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Heavy Metals	Melbourne	Sep 06, 2021	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
AUS Leaching Procedure			
pH (initial)	Melbourne	Sep 06, 2021	0 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			
pH (Leachate fluid)	Melbourne	Sep 06, 2021	0 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			
pH (off)	Melbourne	Sep 06, 2021	0 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			
Polycyclic Aromatic Hydrocarbons	Melbourne	Sep 08, 2021	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			

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Project Name: ST KILDA
Project ID: 2048-2

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Phone: 9429 6955
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Received: Sep 6, 2021 11:38 AM
Due: Sep 14, 2021
Priority: 5 Day
Contact Name: Rory McPhillips

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						Arsenic	Lead	Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure
Melbourne Laboratory - NATA Site # 1254						X	X	X	X
Sydney Laboratory - NATA Site # 18217									
Brisbane Laboratory - NATA Site # 20794									
Perth Laboratory - NATA Site # 23736									
Mayfield Laboratory - NATA Site # 25079									
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	BH01_0.5	Aug 22, 2021		AUS Leachate - pH 5.0	M21-Se10299	X	X		X
2	BH04_1.5	Aug 22, 2021		AUS Leachate - pH 5.0	M21-Se10300	X		X	X
3	BH05_0.9	Aug 22, 2021		AUS Leachate - pH 5.0	M21-Se10301	X			X
Test Counts						3	1	1	3

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WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

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6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
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10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
Method Blank									
Heavy Metals									
Arsenic			mg/L	< 0.01			0.01	Pass	
Lead			mg/L	< 0.01			0.01	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M21-Se10215	NCP	%	119			75-125	Pass	
Lead	M21-Se10215	NCP	%	117			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	B21-Au52625	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Lead	B21-Au52625	NCP	mg/L	0.02	0.02	1.0	30%	Pass	

Comments

This report has been revised (V3) following repeat analysis. Test (Arsenic) results for sample (Se10300 and Se10301) have now been replaced by the repeat results.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised by:

Michael Cassidy	Analytical Services Manager
Joseph Edouard	Senior Analyst-Organic (VIC)
Emily Rosenberg	Senior Analyst-Metal (VIC)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

CHAIN OF CUSTODY RECORD

Atma Environmental

58 William Street, ABBOTSFORD, Vic 3067 Australia

MICK CONDON

0425 741 022

2048-2

EST KILDA

RORY MCPHILLIPS

1 | 2 | 3 | 4 | 5 | 6 | 7 | HOLD

Sample ID	Date	Matrix
BH01-0.1	22/8	SOIL
BH01-0.5	↓	↓
BH01-1.0		
BH02-0.1		
DUP-220821A		
SPL-220821A		
BH02-0.5		
BH02-0.9		
BH03-0.2		
BH03-0.5		
BH03-1.1	↓	↓

Environmental Division
Melbourne
Work Order Reference
EM2116842

Telephone: +61-3-8549 9600

1 - IWRG 621
2 - M12 Metals (IWRG)
3 - PAHs
4 - TRH
5 - OCPs
6 - pH CaCl2
7 - CEC

Received: 25/8 9.00 Carrier:

Note:

Temp: 6.4 C Seal: Y

Icebricks / NA

⑤

The team at Eurofins will be forwarding you the following samples relating to Atma Environmental job #2048 (Elwood & St Kilda), please complete the following analysis on standard TAT:

- SPL-220821A = S-2 Metals & PAHs
- SPL-220821B = S-2 Metals & PAHs

Thanks

Rory McPhillips, CEnvP SC
Principal Environmental Scientist

Atma Environmental | 25 YR 1996 - 2021

56 William Street, ABBOTSFORD, Vic 3067 Australia
Tel: +61-3-9429 6955 Mob: +61-403 208 004
E-mail: rmcphillips@atmaenvironmental.com Web: www.atmaenvironmental.com

CERTIFICATE OF ANALYSIS

Work Order	: **EM2116842**	Page	: 1 of 5
Client	: **ATMA ENVIRONMENTAL P/L**	Laboratory	: Environmental Division Melbourne
Contact	: MR RORY McPHILLIPS	Contact	: Customer Services EM
Address	: 56 William Street ABBOTSFORD VIC, AUSTRALIA 3067	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: +61 94296955	Telephone	: +61-3-8549 9600
Project	: 2048-2	Date Samples Received	: 25-Aug-2021 09:00
Order number	: ----	Date Analysis Commenced	: 26-Aug-2021
C-O-C number	: ----	Issue Date	: 31-Aug-2021 15:01
Sampler	: MC		
Site	: ----		
Quote number	: EN/333 Seconday work only		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Nancy Wang	2IC Organic Chemist	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Organics, Springvale, VIC
Nikki Stepniewski	Senior Inorganic Instrument Chemist	Melbourne Inorganics, Springvale, VIC

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

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

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	SPL-220821A	----	----	----	----
			Sampling date / time	22-Aug-2021 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	EM2116842-001	--------	--------	--------	--------
				Result	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**11.2**	----	----	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	**6**	----	----	----	----
Cadmium	7440-43-9	1	mg/kg	<1	----	----	----	----
Chromium	7440-47-3	2	mg/kg	**10**	----	----	----	----
Copper	7440-50-8	5	mg/kg	**29**	----	----	----	----
Lead	7439-92-1	5	mg/kg	**167**	----	----	----	----
Nickel	7440-02-0	2	mg/kg	**10**	----	----	----	----
Zinc	7440-66-6	5	mg/kg	**157**	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	**0.1**	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	----	----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	**0.7**	----	----	----	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	----	----	----	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	----	----	----	----
Phenanthrene	85-01-8	0.5	mg/kg	**5.9**	----	----	----	----
Anthracene	120-12-7	0.5	mg/kg	**1.7**	----	----	----	----
Fluoranthene	206-44-0	0.5	mg/kg	**8.4**	----	----	----	----
Pyrene	129-00-0	0.5	mg/kg	**7.8**	----	----	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	**3.8**	----	----	----	----
Chrysene	218-01-9	0.5	mg/kg	**3.3**	----	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	**3.9**	----	----	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	**1.6**	----	----	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	**3.7**	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	**1.4**	----	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	----	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	**1.6**	----	----	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	**43.8**	----	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	**4.8**	----	----	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	**5.1**	----	----	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	**5.3**	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**76.0**	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SPL-220821A	----	----	----	----
				Sampling date / time	22-Aug-2021 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		EM2116842-001	--------	--------	--------	--------
					Result	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates - Continued									
2-Chlorophenol-D4	93951-73-6	0.5	%		**85.4**	----	----	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%		**79.4**	----	----	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**100**	----	----	----	----
Anthracene-d10	1719-06-8	0.5	%		**109**	----	----	----	----
4-Terphenyl-d14	1718-51-0	0.5	%		**101**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) Low	High
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	54	125
2-Chlorophenol-D4	93951-73-6	65	123
2.4.6-Tribromophenol	118-79-6	34	122
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	61	125
Anthracene-d10	1719-06-8	62	130
4-Terphenyl-d14	1718-51-0	67	133

QUALITY CONTROL REPORT

Work Order	: **EM2116842**	Page	: 1 of 5
Client	: **ATMA ENVIRONMENTAL P/L**	Laboratory	: Environmental Division Melbourne
Contact	: MR RORY McPHILLIPS	Contact	: Customer Services EM
Address	: 56 William Street ABBOTSFORD VIC, AUSTRALIA 3067	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: +61 94296955	Telephone	: +61-3-8549 9600
Project	: 2048-2	Date Samples Received	: 25-Aug-2021
Order number	: ----	Date Analysis Commenced	: 26-Aug-2021
C-O-C number	: ----	Issue Date	: 31-Aug-2021
Sampler	: MC		
Site	: ----		
Quote number	: EN/333 Seconday work only		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Nancy Wang	2IC Organic Chemist	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Organics, Springvale, VIC
Nikki Stepniewski	Senior Inorganic Instrument Chemist	Melbourne Inorganics, Springvale, VIC

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 3870630)									
EM2116840-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	40	45	10.5	0% - 20%
		EG005T: Nickel	7440-02-0	2	mg/kg	19	21	11.8	0% - 50%
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	26	30	12.9	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	5	5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	18	20	14.2	No Limit
EM2116843-174	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	64	67	3.7	0% - 20%
		EG005T: Nickel	7440-02-0	2	mg/kg	36	31	13.9	0% - 50%
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	15	14	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	8	5	48.3	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	30	31	0.0	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 3867179)									
EM2116840-001	Anonymous	EA055: Moisture Content	----	0.1	%	15.5	16.8	7.9	0% - 50%
EM2116850-003	Anonymous	EA055: Moisture Content	----	0.1	%	17.2	16.8	2.3	0% - 50%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 3870629)									
EM2116840-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2116843-174	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 3869585)									
EM2116752-001	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	7.6	7.3	3.6	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<1.0	<1.0	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 3869585) - continued									
EM2116752-001	Anonymous	EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<1.0	<1.0	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 3870630)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	89.8	70.0	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	63.0	50.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	93.8	70.0	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	84.0	70.0	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	87.1	70.0	130
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	89.7	70.0	130
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	75.3	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3870629)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	82.0	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3869585)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	3 mg/kg	110	85.7	123
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	3 mg/kg	105	81.0	123
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	3 mg/kg	109	83.6	120
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	3 mg/kg	99.4	81.3	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	3 mg/kg	107	79.4	123
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	3 mg/kg	114	81.7	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	3 mg/kg	106	78.3	124
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	3 mg/kg	112	79.9	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	3 mg/kg	98.9	76.9	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	3 mg/kg	114	80.9	130
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	3 mg/kg	81.2	70.0	121
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	3 mg/kg	118	80.4	130
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	3 mg/kg	109	70.2	123
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	3 mg/kg	85.6	67.9	122
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	3 mg/kg	87.2	65.8	123
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	3 mg/kg	92.4	65.8	127

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Matrix Spike (MS) Report		
Spike	SpikeRecovery(%)	Acceptable Limits (%)

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 3870630)							
EM2116840-002	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	96.9	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	85.7	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	87.0	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	84.5	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	87.8	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	84.9	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	80.9	80.0	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 3870629)							
EM2116840-002	Anonymous	EG035T: Mercury	7439-97-6	0.5 mg/kg	102	76.0	116
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 3869585)							
EM2116836-001	Anonymous	EP075(SIM): Acenaphthene	83-32-9	3 mg/kg	96.6	77.2	116
		EP075(SIM): Pyrene	129-00-0	3 mg/kg	77.9	65.5	136

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EM2116842**	Page	: 1 of 4
Client	: **ATMA ENVIRONMENTAL P/L**	Laboratory	: Environmental Division Melbourne
Contact	: MR RORY McPHILLIPS	Telephone	: +61-3-8549 9600
Project	: 2048-2	Date Samples Received	: 25-Aug-2021
Site	: ----	Issue Date	: 31-Aug-2021
Sampler	: MC	No. of samples received	: 1
Order number	: ----	No. of samples analysed	: 1

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
Soil Glass Jar - Unpreserved (EA055)							
SPL-220821A	**22-Aug-2021**	**----**	----	----	**26-Aug-2021**	05-Sep-2021	✓
EG005(ED093)T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T)							
SPL-220821A	**22-Aug-2021**	**28-Aug-2021**	18-Feb-2022	✓	**28-Aug-2021**	18-Feb-2022	✓
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved (EG035T)							
SPL-220821A	**22-Aug-2021**	**28-Aug-2021**	19-Sep-2021	✓	**28-Aug-2021**	19-Sep-2021	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP075(SIM))							
SPL-220821A	**22-Aug-2021**	**27-Aug-2021**	05-Sep-2021	✓	**27-Aug-2021**	06-Oct-2021	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	15	**13.33**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	1	10	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl2) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3)
PAH/Phenols (SIM)	EP075(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM Schedule B(3).
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.