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property › environment › safety ›

Ground Level
5 Burwood Road
Hawthorn VIC 3122
(03) 9508 0100

12 April 2024

Adrian Scaffaro

Goldfields Shepparton Ptd Ltd

Level 23, 627 Chapel Street
South Yarra, VIC, 3141

Dear Adrian,

Summary Update relating to Environmental Site Assessment completed at 35 McPhees Road, 150 & 180 Channel Road, Shepparton, Victoria

Prensa was engaged by Goldfields Shepparton Pty Ltd (Goldfields) to conduct an Environmental Site Assessment of the properties located at 35 McPhees Road, 150 & 180 Channel Road, Shepparton, Victoria (the Site).

This letter presents a brief summary of findings from the soil and groundwater works, completed at the Site to date.

1 Gridded Soil Assessment

Fifteen (15) boreholes were established in an approximate gridded pattern across the Sites with the aid of hand sampling equipment (hand auger). Boreholes will be established to a maximum depth of 1 mBGL. Gridded sample location plan, is presented as **Figure 1** as an attachment to this letter.

The analytical results from the gridded soil assessment reported concentrations of contaminants of concern less than the adopted criteria for a low-density residential land use, with minor exceptions noted:

- One (1) concentration of cobalt, copper and zinc exceeded adopted ecological criteria
- One (1) concentration of lead exceeded the adopted HIL A criteria.

Overall the results of the gridded assessment indicate it is unlikely contamination exists at the Site that would pose a risk to the future residential development.

A summary of the gridded analytical results is presented as **Table A1** as an attachment to this letter.

2 Targeted Soil Assessment

Eleven (11) targeted boreholes were established in identified areas of environmental concern (AEC). Targeted strategy has been summarised in the **Table 1** below. Targeted sample location plans, are presented as **Figure 2** and **Figure 3** as an attachment to this letter.

Table 1:Targeted Soil Sampling Program

Site Address	AEC	No. Locations	Excavation Methods	Depth (mBGL)
180 Channel Road	Two (2) USTs	2	Push tube	4
	Two (2) bowsers	2	Push tube	4
	Chemical storage areas/ areas of staining	2	Hand auger	1
	Stockpile of burned waste	1	Hand auger	1
35 McPhees Road	One (1) diesel AST	1	Hand auger	1
	Chemical storage areas/ areas of staining	3	Hand auger	1

Some evidence of hydrocarbon (fuel) staining and odours were encountered in soil sampled from the targeted boreholes established around the UPSS.

The analytical results from the targeted soil assessment reported all concentrations of contaminants of concern less than the adopted criteria for a low-density residential land use.

A summary of the targeted analytical results is presented as **Table A2** as an attachment to this letter.

3 Groundwater Assessment and UST Removal

The groundwater well location and contour plan is presented as **Figure 4**, and the groundwater analytical results are summarised as **Table A3** as attachments to this letter.

One (1) groundwater well was initially installed in the vicinity of the underground petroleum storage system (UPSS) at 180 Channel Road. Groundwater results from monitoring well MW01 installed in August 2022 reported elevated hydrocarbon concentrations. As a result, further groundwater assessment was conducted, with the installation of three (3) additional groundwater monitoring wells.

In the second groundwater monitoring event (GME2) three (3) of the four (4) wells (MW01, MW03 & MW04) reported elevated concentrations, indicating a potential vapour intrusion risk to a low-density residential land use setting.

Given the reported exceedances from GME2, it was recommended that the two (2) underground storage tanks (USTs) be removed and the excavation of impacted soil (with collection of validation samples from tank pit) be completed. The validation assessment identified hydrocarbon contamination that could not be excavated due to the presence of the adjacent warehouses. As such, further soil remediation is still proposed following the demolition of the warehouses.

At the completion of the UST removal works, installation of delineation wells MW05 and MW06 was undertaken. It is noted that during the UST removal and excavation works, MW01 was destroyed, as such it was not included in GME3.

Survey and gauging data identified that the groundwater has a north-western flow direction.

Groundwater results from GME3, reported an overall decrease in concentrations of contaminants of concern from the previous GMEs. The results of GME3 indicated that groundwater hydrocarbon impacts were delineated to the north of the former USTs by monitoring wells MW05 and MW06. This indicated that the groundwater impacts are likely to be limited to the immediate area surrounding the former USTs.

4 Closing

Further works are proposed in the vicinity of the former USTs following the demolition of the warehouses to order to complete the remediation and assessment.

Should you have any questions regarding this report, please do not hesitate to contact Marcus Neve or myself on (03) 9508 0100.

Yours sincerely,

Andrea Casonato

Senior HSE Consultant

Prensa Pty Ltd

Attachments

- Statement of Limitations
- Figures
- Results Tables

Statement of Limitations

This document has been prepared in response to specific instructions from Goldfields Shepparton Ptd Ltd to whom the report has been addressed. The work has been undertaken with the usual care and thoroughness of the consulting profession. The work is based on generally accepted standards, practices of the time the work was undertaken. No other warranty, expressed or implied, is made as to the professional advice included in this report.

The report has been prepared for the use by Goldfields Shepparton Ptd Ltd and the use of this report by other parties may lead to misinterpretation of the issues contained in this report. To avoid misuse of this report, Prensa advise that the report should only be relied upon by Goldfields Shepparton Ptd Ltd and those parties expressly referred to in the introduction of the report. The report should not be separated or reproduced in part and Prensa should be retained to assist other professionals who may be affected by the issues addressed in this report to ensure the report is not misused in any way.

Prensa is not a professional quantity surveyor (QS) organisation. Any areas, volumes, tonnages or any other quantities noted in this report are indicative estimates only. The services of a professional QS organisation should be engaged if quantities are to be relied upon.

Sampling Risks

Prensa acknowledges that any scientifically designed sampling program cannot guarantee all sub-surface contamination will be detected. Sampling programs are designed based on known or suspected site conditions and the extent and nature of the sampling and analytical programs will be designed to achieve a level of confidence in the detection of known or suspected subsurface contamination. The sampling and analytical programs adopted will be those that maximises the probability of identifying contaminants. Goldfields Shepparton Ptd Ltd must therefore accept a level of risk associated with the possible failure to detect certain sub-surface contamination where the sampling and analytical program misses such contamination. Prensa will detail the nature and extent of the sampling and analytical program used in the investigation in the investigation report provided.

Environmental site assessments identify actual subsurface conditions only at those points where samples are taken and when they are taken. Soil contamination can be expected to be non-homogeneous across the stratified soils where present on site, and the concentrations of contaminants may vary significantly within areas where contamination has occurred. In addition, the migration of contaminants through groundwater and soils may follow preferential pathways, such as areas of higher permeability, which may not be intersected by sampling events. Subsurface conditions including contaminant concentrations can also change over time. For this reason, the results should be regarded as representative only.

Goldfields Shepparton Ptd Ltd recognises that sampling of subsurface conditions may result in some cross contamination. All care will be taken and the industry standards used to minimise the risk of such cross contamination occurring, however, Goldfields Shepparton Ptd Ltd recognises this risk and waives any claims against Prensa and agrees to defend, indemnify and hold Prensa harmless from any claims or liability for injury or loss which may arise as a result of alleged cross contamination caused by sampling.

Reliance on Information Provided by Others

Prensa notes that where information has been provided by other parties in order for the works to be undertaken, Prensa cannot guarantee the accuracy or completeness of this information. Goldfields Shepparton Ptd Ltd therefore waives any claim against the company and agrees to indemnify Prensa for any loss, claim or liability arising from inaccuracies or omissions in information provided to Prensa by third parties. No indications were found during our investigations that information contained in this report, as provided to Prensa, is false.

Recommendations for Further Study

The industry recognised methods used in undertaking the works may dictate a staged approach to specific investigations. The findings therefore of this report may represent preliminary findings in accordance with these industry recognised methodologies. In accordance with these methodologies, recommendations contained in this report may include a need for further investigation or analytical analysis. The decision to accept these recommendations and incur additional costs in doing so will be at the sole discretion of Goldfields Shepparton Ptd Ltd and Prensa recognises that Goldfields Shepparton Ptd Ltd will consider their specific needs and the business risks involved. Prensa does not accept any liability for losses incurred as a result of Goldfields Shepparton Ptd Ltd not accepting the recommendations made within this report.

35 McPhees Road and 150-180 Channel Road, Shepparton

Gridded Sample Location Plan

Not to scale - All locations are approximate

Image source: NearMaps

Image Date: 5/04/2022

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Ground Floor,
5 Burwood Rd,
Hawthorn VIC 3122

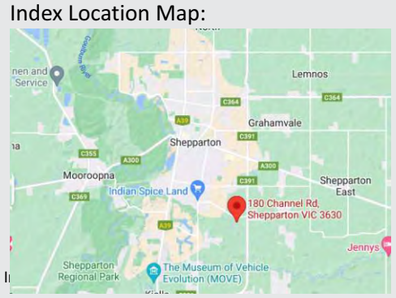
prensa.com.au
P: (03) 9508 0100
F: (03) 9509 6125

Client No: R0121	Job No: 103721M
Client:	Goldfields Shepparton Pty Ltd c/o Reeds Consulting Pty Ltd
Project:	Environmental Site Assessment
Address:	35 McPhees Road and 150-180 Channel Road, Shepparton, Victoria

Legend:

- Site Boundary
- Gridded Sample Locations

Index Location Map:



Index source: Google Maps Viewed: 12/12/2022

N

File Name:			Version:
Figure 1: Gridded Sample Location Plan			1
Drawn By: TAW	Checked By: ACC	Date: 22/11/2022	Figure number: 1

35 McPhees Road and 150-180 Channel Road, Shepparton

Targeted Location Plan - 180 Channel Road

Not to scale - All locations are approximate

Image source: NearMaps

Image Date: 5/04/2022

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5 Burwood Rd,
Hawthorn VIC 3122

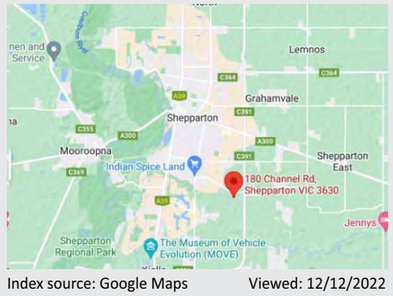
prensa.com.au
P: (03) 9508 0100
F: (03) 9509 6125

Client No: R0121	Job No: 103721M
Client:	Goldfields Shepparton Pty Ltd c/o Reeds Consulting Pty Ltd
Project:	Environmental Site Assessment
Address:	35 McPhees Road and 150-180 Channel Road, Shepparton, Victoria

Legend:

- Targeted Push Tube Location
- Converted Groundwater Monitoring Well Location
- Targeted Borehole Location

Index Location Map:



Index source: Google Maps Viewed: 12/12/2022

N

File Name:	Version:
Figure 2: Targeted Sample Location Plan 180 Channel Road	1

Drawn By:	Checked By:	Date:	Figure number:
TAW	ACC	5/12/2022	2

35 McPhees Road and 150-180 Channel Road, Shepparton

Targeted Location Plan - 35 McPhees Road

Image source: NearMaps Image Date: 5/04/2022

Not to scale - All locations are approximate

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Ground Floor,
5 Burwood Rd,
Hawthorn VIC 3122

prensa.com.au
P: (03) 9508 0100
F: (03) 9509 6125

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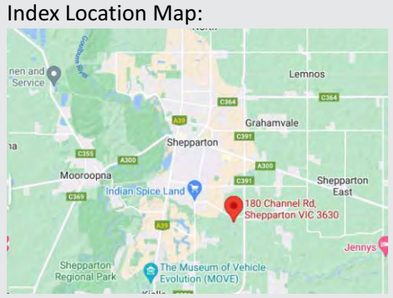
Client:	Goldfields Shepparton Pty Ltd c/o Reeds Consulting Pty Ltd
Project:	Environmental Site Assessment
Address:	35 McPhees Road and 150-180 Channel Road, Shepparton, Victoria

Legend:

- Targeted Borehole Locations
- Pushtube Locations

Index Location Map:



Index source: Google Maps Viewed: 12/12/2022

N

File Name:	Version:
Figure 3: Target Sample Location Plan - 35 McPhees Road	1

Drawn By:	Checked By:	Date:	Figure number:
TAW	ACC	22/11/2022	3

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FIGURE NAME - GROUNWATER CONTOURS GME2 NOV 2022

JOB NO - 103721M

PROJECT - PSI, MCPHEES & CHANNEL RD, SHEPPARTON

CLIENT / CLIENT NO - REEDS CONSULTING / R0121

LEGEND

- Groundwater Monitoring Well
- Inferred Groundwater Flow Direction
- Groundwater Contour

KEY MAP

0 2 4 6 8

SCALE 1:100 **M**

NOTES
1. PROJECTION: GDA2020 MGA ZONE 55
2. MW05 & MW06 NOT GAUGED AS PART OF THE MONITORING EVENT.

REFERENCES
1. AERIAL IMAGERY SOURCED FROM NEARMAP.COM DATE OF CAPTURE 28 JAN 2024
2. ROAD & CADASTRAL DATA SOURCED FROM VICMAP.COM.

Drawn By: SXD	Checked By : MJN	Date: 2024-04-11	Figure number : 1

PATH: P:\R0121 Reeds Consulting\Jobs\103721M PSI McPhees & Channel Rd, Shepparton\Appendices\Figures\GIS\Mxd\103721M-F001-Rev1.mxd PRINTED ON: 2024-04-11 AT: 5:02:10 PM

103721M: ESA Shepparton
R0121: Goldfields Living Pty Ltd c/o Reeds Consulting Pty Ltd
35 McPhees Road 150-190 Channel Road, Shepparton, Victoria

Table A1: Summary of Analytical Results - Soil (Gridded)

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		Inorganics							Metals														TRH						
		pH (aqueous extract)	pH (Lab)	Cation Exchange Capacity	Conductivity (1:5 aqueous extract)	Chloride	Sulphate	Cyanide (Free)	Arsenic	Beryllium	Boron	Cadmium	Chromium (hexavalent)	Chromium (III+VI)	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Selenium	Zinc	C6-C10	F1 (C6-C10 less BTEX)	C10-C16	F2 (C10-C16 less NAPHTHALENE)	F3 (C16-C34)	F4 (C34-C40)	C6 - C9
		pH_Units	pH_Units	meq/100g	uS/cm	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Environmental Values	EQL	0.1	0.1	0.05	10	5	30	5	2	2	10	0.4	1	5	5	5	5	5	0.1	5	2	5	20	20	50	50	100	100	20
Land Dependent Ecosystems and Species	NEPM (2013) EILS for Urban Residential / Open Public Space								100[1]	4[2]		10[2]		510[1]	50[2]	210[1]	1100[1]		6.6[2]	230|210[1]		610|490[1]							
	NEPM (2013) ESL for Urban Residential / Public Open Space (Fine Soil)																							180		120	1300	5600	
Human Health	NEPM (2013) HIL A for Low-Density Residential							250	100	60	4500	20	100		100	6000	300	3800	40	400	200	7400							
	NEPM (2013) HSL A/B for Low-Density Residential (Clay)																												
	0-1m																							50		280			
	1-2m																							90		NL			
	2-4m																							150		NL			
	>4m																							290		NL			
Direct Contact	CRC Care Direct Contact for Low-Density Residential																							4400		3300	4500	6300	
Buildings & Structures	AS 2159 (2009) Piling - Design and Installation	<5.5	<5.5			5000	5000																						
Management Limits	**NEPM (2013) Management Limits for Residential / Parkland Coarse Soil)**																						**700**		**1000**		**2500**	**10000**	

Field ID	Sample Date	Lab Report Number	Location	Matrix Description																										
103721M_BH01_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	21	<2	<10	<0.4	-	25	7.1	53	70	600	<0.1	9.5	<2	66	-	-	-	-	-	-	-
103721M_BH01_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	4.3	<2	<10	<0.4	-	28	5.4	13	13	82	<0.1	13	<2	24	-	-	-	-	-	-	-
103721M_BH02_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	25	<2	<10	<0.4	-	18	<5	100	120	440	0.1	7.9	<2	83	-	-	-	-	-	-	-
103721M_BH02_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	3.3	<2	<10	<0.4	-	23	<5	11	12	74	<0.1	10	<2	22	-	-	-	-	-	-	-
103721M_BH03_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	33	<2	<10	<0.4	-	27	6.8	42	96	650	<0.1	14	<2	37	-	-	-	-	-	-	-
103721M_BH03_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	5.1	<2	<10	<0.4	-	22	8.9	9.4	13	290	<0.1	17	<2	20	-	-	-	-	-	-	-
103721M_BH04_0.1	23/08/2022	917795	GRIDDED	FILL	8.1	6.7	16	57	12	32	<5	81	<2	<10	<0.4	<1	24	<5	180	310	290	<0.1	11	<2	49	<20	<20	<50	<50	<100	<100	<20
103721M_BH04_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	3.9	2.6	<15	<0.4	-	22	11	8.8	13	510	<0.1	27	<2	20	-	-	-	-	-	-	-
103721M_BH05_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	63	<2	<10	0.5	-	37	10	1000	290	610	1.3	24	<2	680	-	-	-	-	-	-	-
103721M_BH05_0.5	23/08/2022	917795	GRIDDED	NATURAL	7.3	7.1	18	440	5.2	<30	<5	5.3	<2	<10	<0.4	<1	29	7	14	15	74	<0.1	13	<2	27	<20	<20	<50	<50	<100	<100	<20
103721M_BH06_0.2	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	5.1	<2	<10	<0.4	-	28	5.8	14	17	130	<0.1	13	<2	24	-	-	-	-	-	-	-
103721M_BH06_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	6.7	<2	<10	<0.4	-	25	11	14	20	160	<0.1	12	<2	23	-	-	-	-	-	-	-
103721M_BH07_0.1	24/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	13	<2	<10	<0.4	-	21	7	99	39	1000	<0.1	15	<2	42	-	-	-	-	-	-	-
103721M_BH07_0.5	24/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	2.6	<2	<10	<0.4	-	17	<5	9.5	11	64	<0.1	9.8	<2	20	-	-	-	-	-	-	-
103721M_BH08_0.2	24/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	17	<2	<10	<0.4	-	23	<5	39	58	390	<0.1	11	<2	33	-	-	-	-	-	-	-
103721M_BH08_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	6	2.2	<10	<0.4	-	24	61	13	21	680	<0.1	27	<2	24	-	-	-	-	-	-	-
103721M_BH08_1.0	23/08/2022	917795	GRIDDED	NATURAL	-	6.1	13	310	62	240	<5	4.6	<2	<10	<0.4	<1	22	9.2	10	16	320	<0.1	13	<2	23	<20	<20	<50	<50	<100	<100	<20
103721M_BH09_0.2	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	9.6	<2	<10	<0.4	-	25	7.4	28	25	330	<0.1	11	<2	28	-	-	-	-	-	-	-
103721M_BH09_0.5	24/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	5.2	<2	<10	<0.4	-	26	13	13	15	1000	<0.1	37	<2	26	-	-	-	-	-	-	-
103721M_BH10_0.2	24/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	64	<2	<10	<0.4	-	27	6.6	140	290	550	<0.1	11	<2	43	-	-	-	-	-	-	-
103721M_BH10_0.5	24/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	3.8	<2	<10	<0.4	-	22	<5	9.1	11	80	<0.1	9.4	<2	18	-	-	-	-	-	-	-
103721M_BH11_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	5.5	<2	<10	<0.4	-	18	5.1	73	20	370	<0.1	8	<2	50	-	-	-	-	-	-	-
103721M_BH11_0.5	23/08/2022	917795	GRIDDED	NATURAL	8.5	7.3	18	78	6.8	130	<5	5.3	<2	<10	<0.4	<1	25	14	12	16	150	<0.1	16	<2	28	<20	<20	<50	<50	<100	<100	<20
103721M_BH12_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	10	<2	<10	<0.4	-	21	<5	73	44	340	<0.1	8.9	<2	48	-	-	-	-	-	-	-
103721M_BH12_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	6.7	<2	<10	<0.4	-	31	25	13	18	1000	<0.1	18	<2	23	-	-	-	-	-	-	-
103721M_BH13_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	10	<2	<10	<0.4	-	20	<5	71	35	340	<0.1	9.3	<2	32	-	-	-	-	-	-	-
103721M_BH13_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	4.8	<2	<10	<0.4	-	22	7.9	9.4	13	75	<0.1	12	<2	22	-	-	-	-	-	-	-
103721M_BH14_0.1	23/08/2022	917795	GRIDDED	FILL	7.6	6.8	15	25	8	<30	<5	11	<2	<10	<0.4	<1	20	<5	98	31	440	<0.1	8.6	<2	48	<20	<20	<50	<50	<100	<100	<20
103721M_BH14_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	3.6	<2	11	<0.4	-	19	5.9	9	11	55	<0.1	9.8	<2	17	-	-	-	-	-	-	-
103721M_BH15_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	28	<2	<10	<0.4	-	32	14	52	80	1400	<0.1	18	<2	54	-	-	-	-	-	-	-
103721M_BH15_0.5	24/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	3.9	<2	11	<0.4	-	22	8.5	11	13	570	<0.1	17	<2	25	-	-	-	-	-	-	-

NOTES:

[1] Site Derived EILS calculated for Fill soil, based on: CEC = 15, pH($CaCl_2$) = 6.8. Site Derived EILS calculated for Natural soil, based on: CEC = 13, pH(CaCl2) = 6.1. Generic EILs for As, DDT, naphthalene and lead.

Chromium (III) EIL criteria has been adopted for Chromium (III+VI).

[2] EILs from Canadian Environmental Quality Guidelines (Residential / Parklands and Commercial).

103721M: ESA Shepparton
R0121: Goldfields Living Pty Ltd c/o Reeds Consulting Pty Ltd
35 McPhees Road 150-190 Channel Road, Shepparton, Victoria

Table A1: Summary of Analytical Results - Soil (Gridded)

prensa

		TRH					MAH						PAH																		
		C10 - C14	C15 - C28	C29-C36	+C10 - C36 (Sum of total)	C10 - C40 (Sum of total)	Benzene	Ethylbenzene	Toluene	Xylene (m & p)	Xylene (o)	Xylene Total	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b+j)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Benzo(a)pyrene TEQ calc (Zero)	PAHs (Sum of total)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Environmental Values	EQL	20	50	50	50	100	0.1	0.1	0.1	0.2	0.1	0.3	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Land Dependent Ecosystems and Species	NEPM (2013) EILS for Urban Residential / Open Public Space																									170[1]				
	NEPM (2013) ESL for Urban Residential / Public Open Space (Fine Soil)						65	125	105			45					0.7													
Human Health	NEPM (2013) HIL A for Low-Density Residential																												3	300
	NEPM (2013) HSL A/B for Low-Density Residential (Clay)																													
	0-1m						0.7	NL	480			110														5				
	1-2m						1	NL	NL			310														NL				
	2-4m						2	NL	NL			NL														NL				
	>4m						3	NL	NL			NL														NL				
Direct Contact	CRC Care Direct Contact for Low-Density Residential						100	4500	14,000			12,000														1400				
Buildings & Structures	AS 2159 (2009) Piling - Design and Installation																													
Management Limits	**NEPM (2013) Management Limits for Residential / Parkland Coarse Soil)**																													

Field ID	Sample Date	Lab Report Number	Location	Matrix Description																															
103721M_BH01_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH01_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH02_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH02_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH03_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH03_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH04_0.1	23/08/2022	917795	GRIDDED	FILL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH04_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH05_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH05_0.5	23/08/2022	917795	GRIDDED	NATURAL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH06_0.2	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH06_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH07_0.1	24/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH07_0.5	24/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH08_0.2	24/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH08_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH08_1.0	23/08/2022	917795	GRIDDED	NATURAL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH09_0.2	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH09_0.5	24/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH10_0.2	24/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH10_0.5	24/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH11_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH11_0.5	23/08/2022	917795	GRIDDED	NATURAL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH12_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH12_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH13_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH13_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH14_0.1	23/08/2022	917795	GRIDDED	FILL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH14_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH15_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_BH15_0.5	24/08/2022	917795	GRIDDED	NATURAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:

[1] Site Derived EILS calculated for Fill soil, based on: CEC = 15, pH($CaCl_2$) = 6.8. Site Derived EILS calculated for Natural soil, based on: CEC = 13, pH(CaCl2) = 6.1. Generic EILs for As, DDT, naphthalene and lead.

Chromium (III) EIL criteria has been adopted for Chromium (III+VI).

[2] EILs from Canadian Environmental Quality Guidelines (Residential / Parklands and Commercial).

103721M: ESA Shepparton
R0121: Goldfields Living Pty Ltd c/o Reeds Consulting Pty Ltd
35 McPhees Road 150-190 Channel Road, Shepparton, Victoria

Table A1: Summary of Analytical Results - Soil (Gridded)

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		Phenols		Halogenated Benzenes	Halogenated Phenols	Herbicides							OCP												
		2-methylphenol	Phenol	Hexachlorobenzene (HCB)	Pentachlorophenol	2,4,5-Trichlorophenoxy Acetic Acid (2,4,5-T)	Hedonal (2,4-D)	Atrazine	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	2-Methyl-4-Chlorophenoxy Butanoic Acid (MCPB)	Mecoprop	Picloram	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	chlordane	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Environmental Values	EQL	0.2	0.5	0.05	1	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.05	0.05
Land Dependent Ecosystems and Species	NEPM (2013) EILS for Urban Residential / Open Public Space																						180[1]		
	NEPM (2013) ESL for Urban Residential / Public Open Space (Fine Soil)																								
Human Health	NEPM (2013) HIL A for Low-Density Residential		3000	10	100	600	900	320	600	600	600	4500						6		50				240	
	NEPM (2013) HSL A/B for Low-Density Residential (Clay)																								
	0-1m																								
	1-2m																								
	2-4m																								
	>4m																								
Direct Contact	CRC Care Direct Contact for Low-Density Residential																								
Buildings & Structures	AS 2159 (2009) Piling - Design and Installation																								
Management Limits	**NEPM (2013) Management Limits for Residential / Parkland Coarse Soil)**																								

Field ID	Sample Date	Lab Report Number	Location	Matrix Description																						
103721M_BH01_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH01_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH02_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH02_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH03_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH03_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH04_0.1	23/08/2022	917795	GRIDDED	FILL	<0.2	<0.5	<0.05	<1	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	-	-	0.74	-	<0.05	<0.05	-	<0.1	-	0.19	<0.05	0.93	<0.05
103721M_BH04_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH05_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH05_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.5	<0.05	<1	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	-	-	<0.05	-	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05
103721M_BH06_0.2	23/08/2022	917795	GRIDDED	FILL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH06_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH07_0.1	24/08/2022	917795	GRIDDED	FILL	-	-	<0.05	-	-	-	-	-	-	-	-	0.27	<0.1	0.27	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	0.27	<0.05
103721M_BH07_0.5	24/08/2022	917795	GRIDDED	NATURAL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH08_0.2	24/08/2022	917795	GRIDDED	FILL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH08_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH08_1.0	23/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.5	<0.05	<1	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	-	-	<0.05	-	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05
103721M_BH09_0.2	23/08/2022	917795	GRIDDED	FILL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH09_0.5	24/08/2022	917795	GRIDDED	NATURAL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH10_0.2	24/08/2022	917795	GRIDDED	FILL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH10_0.5	24/08/2022	917795	GRIDDED	NATURAL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH11_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH11_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.5	<0.05	<1	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	-	-	<0.05	-	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05
103721M_BH12_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH12_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH13_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH13_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH14_0.1	23/08/2022	917795	GRIDDED	FILL	<0.2	<0.5	<0.05	<1	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	-	-	<0.05	-	<0.05	<0.05	-	<0.1	-	<0.05	<0.05	<0.05	<0.05
103721M_BH14_0.5	23/08/2022	917795	GRIDDED	NATURAL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05
103721M_BH15_0.1	23/08/2022	917795	GRIDDED	FILL	-	-	<0.05	-	-	-	-	-	-	-	-	0.72	<0.1	0.72	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	0.72	<0.05
103721M_BH15_0.5	24/08/2022	917795	GRIDDED	NATURAL	-	-	<0.05	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05

NOTES:

[1] Site Derived EILS calculated for Fill soil, based on: CEC = 15, pH($CaCl_2$) = 6.8. Site Derived EILS calculated for Natural soil, based on: CEC = 13, pH(CaCl2) = 6.1. Generic EILs for As, DDT, naphthalene and lead.

Chromium (III) EIL criteria has been adopted for Chromium (III+VI).

[2] EILs from Canadian Environmental Quality Guidelines (Residential / Parklands and Commercial).

103721M: ESA Shepparton
R0121: Goldfields Living Pty Ltd c/o Reeds Consulting Pty Ltd
35 McPhees Road 150-190 Channel Road, Shepparton, Victoria

Table A1: Summary of Analytical Results - Soil (Gridded)

					OCP										
					Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Environmental Values	EQL				0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.5
Land Dependent Ecosystems and Species	NEPM (2013) EILS for Urban Residential / Open Public Space														
	NEPM (2013) ESL for Urban Residential / Public Open Space (Fine Soil)														
Human Health	NEPM (2013) HIL A for Low-Density Residential							10				6		300	20
	NEPM (2013) HSL A/B for Low-Density Residential (Clay)														
	0-1m														
	1-2m														
	2-4m														
	>4m														
Direct Contact	CRC Care Direct Contact for Low-Density Residential														
Buildings & Structures	AS 2159 (2009) Piling - Design and Installation														
Management Limits	**NEPM (2013) Management Limits for Residential / Parkland Coarse Soil)**														
Field ID	**Sample Date**	**Lab Report Number**	**Location**	**Matrix Description**											
103721M_BH01_0.1	23/08/2022	917795	GRIDDED	FILL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH01_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH02_0.1	23/08/2022	917795	GRIDDED	FILL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH02_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH03_0.1	23/08/2022	917795	GRIDDED	FILL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH03_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH04_0.1	23/08/2022	917795	GRIDDED	FILL	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	-	<0.05	<0.5
103721M_BH04_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH05_0.1	23/08/2022	917795	GRIDDED	FILL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH05_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	-	<0.05	<0.5
103721M_BH06_0.2	23/08/2022	917795	GRIDDED	FILL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH06_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH07_0.1	24/08/2022	917795	GRIDDED	FILL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH07_0.5	24/08/2022	917795	GRIDDED	NATURAL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH08_0.2	24/08/2022	917795	GRIDDED	FILL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH08_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH08_1.0	23/08/2022	917795	GRIDDED	NATURAL	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	-	<0.05	<0.5
103721M_BH09_0.2	23/08/2022	917795	GRIDDED	FILL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH09_0.5	24/08/2022	917795	GRIDDED	NATURAL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH10_0.2	24/08/2022	917795	GRIDDED	FILL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH10_0.5	24/08/2022	917795	GRIDDED	NATURAL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH11_0.1	23/08/2022	917795	GRIDDED	FILL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH11_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	-	<0.05	<0.5
103721M_BH12_0.1	23/08/2022	917795	GRIDDED	FILL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH12_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH13_0.1	23/08/2022	917795	GRIDDED	FILL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH13_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH14_0.1	23/08/2022	917795	GRIDDED	FILL	<0.05	<0.05	<0.05	<0.05	-	-	-	<0.05	-	<0.05	<0.5
103721M_BH14_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH15_0.1	23/08/2022	917795	GRIDDED	FILL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
103721M_BH15_0.5	24/08/2022	917795	GRIDDED	NATURAL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5

	OPP																
	Azinophos methyl	Bolstar (Sulprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethion	Ethoprop	Fenitrothion	Fensulfothion	Fenthion
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.2	0.2	0.2	0.2	0.2	2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
NEPM (2013) EILS for Urban Residential / Open Public Space																	
NEPM (2013) ESL for Urban Residential / Public Open Space (Fine Soil)																	
NEPM (2013) HIL A for Low-Density Residential				160													
NEPM (2013) HSL A/B for Low-Density Residential (Clay)																	
0-1m																	
1-2m																	
2-4m																	
>4m																	
CRC Care Direct Contact for Low-Density Residential																	
AS 2159 (2009) Piling - Design and Installation																	
NEPM (2013) Management Limits for Residential / Parkland Coarse Soil)																	
Field ID																	
103721M_BH01_0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH01_0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH02_0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH02_0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH03_0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH03_0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH04_0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH04_0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH05_0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH05_0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH06_0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH06_0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH07_0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH07_0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH08_0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH08_0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH08_1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH09_0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH09_0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH10_0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH10_0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH11_0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH11_0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH12_0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH12_0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH13_0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH13_0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH14_0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH14_0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH15_0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
103721M_BH15_0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

NOTES:

(1) Site Derived EILS calculated for Fill soil, based on: CEC = 15, pH($CaCl_2$) = 6.8. Site Derived EILS calculated for Natural soil, based on: CEC = 13, pH(CaCl2) = 6.1. Generic EILs for As, DDT, naphthalene and lead.

Chromium (III) EIL criteria has been adopted for Chromium (III+VI).

(2) EILs from Canadian Environmental Quality Guidelines (Residential / Parklands and Commercial).

103721M: ESA Shepparton
R0121: Goldfields Living Pty Ltd c/o Reeds Consulting Pty Ltd
35 McPhees Road 150-190 Channel Road, Shepparton, Victoria

Table A1: Summary of Analytical Results - Soil (Gridded)

								OCP											Pesticides				PCB								SVOC	Other	
								Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Phorate	Pyrazophos	Ronnel	Terbufos	Trichloronate	Tetrachlorvinphos	Bifenthrin	Mirex	Parathion	Pirimiphos-methyl	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	EPN	3/4-Methylphenol (m/p-cresol)	Tokuthion
								mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Environmental Values	EQL							0.2	0.2	0.2	0.2	2	0.2	2	0.2	0.2	0.2	0.2	0.2	0.2	0.05	0.05	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.2
Land Dependent Ecosystems and Species	NEPM (2013) EILS for Urban Residential / Open Public Space																																	
	NEPM (2013) ESL for Urban Residential / Public Open Space (Fine Soil)																																	
Human Health	NEPM (2013) HIL A for Low-Density Residential																				600	10									1			
	NEPM (2013) HSL A/B for Low-Density Residential (Clay)																																	
	0-1m																																	
	1-2m																																	
	2-4m																																	
	>4m																																	
Direct Contact	CRC Care Direct Contact for Low-Density Residential																																	
Buildings & Structures	AS 2159 (2009) Piling - Design and Installation																																	
Management Limits	**NEPM (2013) Management Limits for Residential / Parkland Coarse Soil)**																																	
Field ID	**Sample Date**	**Lab Report Number**	**Location**	**Matrix Description**																														
103721M_BH01_0.1	23/08/2022	917795	GRIDDED	FILL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH01_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH02_0.1	23/08/2022	917795	GRIDDED	FILL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH02_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH03_0.1	23/08/2022	917795	GRIDDED	FILL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH03_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH04_0.1	23/08/2022	917795	GRIDDED	FILL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.05	<0.05	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.4	<0.2
103721M_BH04_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH05_0.1	23/08/2022	917795	GRIDDED	FILL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH05_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.05	<0.05	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.4	<0.2
103721M_BH06_0.2	23/08/2022	917795	GRIDDED	FILL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH06_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH07_0.1	24/08/2022	917795	GRIDDED	FILL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH07_0.5	24/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH08_0.2	24/08/2022	917795	GRIDDED	FILL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH08_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH08_1.0	23/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.05	<0.05	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.4	<0.2
103721M_BH09_0.2	23/08/2022	917795	GRIDDED	FILL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH09_0.5	24/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH10_0.2	24/08/2022	917795	GRIDDED	FILL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH10_0.5	24/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH11_0.1	23/08/2022	917795	GRIDDED	FILL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH11_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.05	<0.05	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.4	<0.2
103721M_BH12_0.1	23/08/2022	917795	GRIDDED	FILL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH12_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH13_0.1	23/08/2022	917795	GRIDDED	FILL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH13_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH14_0.1	23/08/2022	917795	GRIDDED	FILL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.05	<0.05	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.4	<0.2
103721M_BH14_0.5	23/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH15_0.1	23/08/2022	917795	GRIDDED	FILL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2
103721M_BH15_0.5	24/08/2022	917795	GRIDDED	NATURAL	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	<0.2	-	<0.2

NOTES:

(1) Site Derived EILS calculated for Fill soil, based on: CEC = 15, pH($CaCl_2$) = 6.8. Site Derived EILS calculated for Natural soil, based on: CEC = 13, pH(CaCl2) = 6.1. Generic EILs for As, DDT, naphthalene and lead.

Chromium (III) EIL criteria has been adopted for Chromium (III+VI).

(2) EILs from Canadian Environmental Quality Guidelines (Residential / Parklands and Commercial).

103721M: ESA Shepparton
R0121: Goldfields Living Pty Ltd c/o Reeds Consulting Pty Ltd
35 McPhees Road 150-190 Channel Road, Shepparton, Victoria

Table A2: Summary of Analytical Results - Soil (Targeted)

prensa

		Inorganics							Metals														TRH						
		pH (aqueous extract)	pH (Lab)	Cation Exchange Capacity	Conductivity (1:5 aqueous extract)	Chloride	Sulphate	Cyanide (Free)	Arsenic	Beryllium	Boron	Cadmium	Chromium (hexavalent)	Chromium (III+VI)	Cobalt	Copper	Lead	Manganese	Mercury	Nickel	Selenium	Zinc	C6-C10	F1 (C6-C10 less BTEX)	C10-C16	F2 (C10-C16 less NAPHTHALENE)	F3 (C16-C34)	F4 (C34-C40)	C6 - C9
		pH_Units	pH_Units	meq/100g	uS/cm	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Environmental Values	EQL	0.1	0.1	0.05	10	5	30	5	2	2	10	0.4	1	5	5	5	5	5	0.1	5	2	5	20	20	50	50	100	100	20
Land Dependent Ecosystems and Species	NEPM (2013) EILS for Urban Residential / Open Public Space								100[1]	4[2]		10[2]		510[1]	50[2]	210[1]	1100[1]		6.6[2]	230|210[1]		610|490[1]							
	NEPM (2013) ESL for Urban Residential / Public Open Space (Fine Soil)																							180		120	1300	5600	
Human Health	NEPM (2013) HIL A for Low-Density Residential							250	100	60	4500	20	100		100	6000	300	3800	40	400	200	7400							
	NEPM (2013) HSL A/B for Low-Density Residential (Clay)																												
	0-1m																							50		280			
	1-2m																							90		NL			
	2-4m																							150		NL			
	>4m																							290		NL			
Direct Contact	CRC Care Direct Contact for Low-Density Residential																							4400		3300	4500	6300	
Buildings & Structures	AS 2159 (2009) Piling - Design and Installation	<5.5	<5.5			5000	5000																						
Management Limits	**NEPM (2013) Management Limits for Residential / Parkland Coarse Soil)**																						**700**		**1000**		**2500**	**10000**	

Field ID	Sample Date	Lab Report Number	Location	Matrix Description																										
103721M_BH16_0.1	24/08/2022	917795	TARGETED	FILL	-	-		-	-	-	-	13	<2	10	<0.4	-	29	7.8	35	49	240	<0.1	17	<2	95	<20	<20	<50	<50	<100	<100	<20
103721M_BH16_0.5	24/08/2022	917795	TARGETED	NATURAL	-	-		-	-	-	-	5.5	<2	<10	<0.4	-	27	5.3	9.9	13	180	<0.1	9.7	<2	22	<20	<20	<50	<50	<100	<100	<20
103721M_BH17_0.2	24/08/2022	917795	TARGETED	FILL	-	-		-	-	-	-	16	<2	<10	<0.4	-	25	8.3	63	39	720	<0.1	13	<2	23	<20	<20	<50	<50	<100	<100	<20
103721M_BH17_0.5	24/08/2022	917795	TARGETED	NATURAL	-	-		-	-	-	-	6.2	<2	<10	<0.4	-	31	6.1	14	16	95	<0.1	13	<2	28	<20	<20	<50	<50	<100	<100	<20
103721M_BH18_0.2	24/08/2022	917795	TARGETED	FILL	-	-		-	-	-	-	7.6	<2	<15	<0.4	-	19	12	60	21	280	<0.1	22	<2	35	<20	<20	<50	<50	<100	<100	<20
103721M_BH18_0.5	24/08/2022	917795	TARGETED	NATURAL	-	-		-	-	-	-	4.9	<2	<10	<0.4	-	21	<5	21	17	210	<0.1	9.3	<2	17	<20	<20	<50	<50	<100	<100	<20
103721M_BH19_0.1	24/08/2022	917795	TARGETED	FILL	-	-		-	-	-	-	47	<2	<10	<0.4	-	22	<5	94	110	350	<0.1	8.4	<2	56	<20	<20	<50	<50	<100	<100	<20
103721M_BH19_0.5	24/08/2022	917795	TARGETED	NATURAL	-	-		-	-	-	-	6.9	<2	<10	<0.4	-	25	5.8	14	17	150	<0.1	11	<2	24	<20	<20	<50	<50	100	<100	<20
103721M_BH20_0.1	24/08/2022	917795	TARGETED	FILL	-	-		-	-	-	-	53	<2	18	0.5	-	36	6.3	210	220	410	<0.1	13	<2	190	<20	<20	<50	<50	<100	<100	<20
103721M_BH20_0.5	24/08/2022	917795	TARGETED	NATURAL	-	-		-	-	-	-	11	<2	13	<0.4	-	19	<5	75	22	340	<0.1	8.9	<2	29	<20	<20	<50	<50	<100	<100	<20
103721M_BH21_0.1	24/08/2022	917795	TARGETED	FILL	-	-		-	-	-	-	13	<2	11	<0.4	-	35	11	150	96	470	<0.1	22	<2	200	<20	<20	<50	<50	100	<100	<20
103721M_BH21_0.5	24/08/2022	917795	TARGETED	NATURAL	-	-		-	-	-	-	4.5	<2	<10	<0.4	-	25	<5	17	14	160	<0.1	11	<2	24	<20	<20	<50	<50	<100	<100	<20
103721M_BH22_0.1	24/08/2022	917795	TARGETED	FILL	-	-		-	-	-	-	3.8	<2	10	<0.4	-	110	26	65	14	560	<0.1	93	<2	78	<20	<20	<50	<50	<100	<100	<20
103721M_BH22_0.5	24/08/2022	917795	TARGETED	NATURAL	-	-		-	-	-	-	4.2	<2	<10	<0.4	-	22	7.7	9.7	12	390	<0.1	23	<2	23	<20	<20	<50	<50	<100	<100	<20
103721M_BH23_0.5	23/08/2022	917795	TARGETED	NATURAL	-	-		-	-	-	-	-	-	-	-	-	-	-	-	8.3	-	-	-	-	-	<20	<20	<50	<50	<100	<100	<20
103721M_BH23_5.0	23/08/2022	917795	TARGETED	NATURAL	-	-		-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	26	21	<50	<50	<100	<100	<20
103721M_BH24_0.5	23/08/2022	917795	TARGETED	FILL	-	-		-	-	-	-	-	-	-	-	-	-	-	-	55	-	-	-	-	-	<20	<20	<50	<50	610	100	<20
103721M_BH24_3.0	23/08/2022	917795	TARGETED	NATURAL	-	-		-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	<20	<20	620	620	570	<100	<20
103721M_BH25_1.0	23/08/2022	917795	TARGETED	NATURAL	-	-		-	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	<20	<20	<50	<50	<100	<100	<20
103721M_BH25_4.0	23/08/2022	917795	TARGETED	NATURAL	-	-		-	-	-	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	<20	<20	<50	<50	<100	<100	<20
103721M_BH26_1.0	24/08/2022	917795	TARGETED	NATURAL	-	-		-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	<20	<20	<50	<50	<100	<100	<20
103721M_BH26_3.0	24/08/2022	917795	TARGETED	NATURAL	-	-		-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	<20	<20	<50	<50	<100	<100	<20
103721M_BH27_0.5	24/08/2022	917795	TARGETED	NATURAL	-	-		-	-	-	-	-	-	-	-	-	-	-	-	52	-	-	-	-	-	<20	<20	<50	<50	<100	<100	<20
103721M_BH27_3.0	24/08/2022	917795	TARGETED	NATURAL	-	-		-	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-	<20	<20	<50	<50	<100	<100	<20
103721M_BH28_1.0	24/08/2022	917795	TARGETED	NATURAL	-	-		-	-	-	-	-	-	-	-	-	-	-	-	40	-	-	-	-	-	<20	<20	<50	<50	<100	<100	<20
103721M_BH28_4.0	24/08/2022	917795	TARGETED	NATURAL	-	-		-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-	-	-	<20	<20	<50	<50	<100	<100	<20

NOTES:

[1] Site Derived EILS calculated for Fill soil, based on: CEC = 15, pH($CaCl_2$) = 6.8. Site Derived EILS calculated for Natural soil, based on: CEC = 13, pH(CaCl2) = 6.1. Generic EILs for As, DDT, naphthalene and lead.
Chromium (III) EIL criteria has been adopted for Chromium (III+VI).

[2] EILs from Canadian Environmental Quality Guidelines (Residential / Parklands and Commercial).

Table A2: Summary of Analytical Results - Soil (Targeted)

		TRH					MAH						PAH																		
		C10 - C14	C15 - C28	C29-C36	+C10 - C36 (Sum of total)	C10 - C40 (Sum of total)	Benzene	Ethylbenzene	Toluene	Xylene (m & p)	Xylene (o)	Xylene Total	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b+j)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Benzo(a)pyrene TEQ calc (Zero)	PAHs (Sum of total)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Environmental Values	EQL	20	50	50	50	100	0.1	0.1	0.1	0.2	0.1	0.3	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Land Dependent Ecosystems and Species	NEPM (2013) EILS for Urban Residential / Open Public Space																									170[1]				
	NEPM (2013) ESL for Urban Residential / Public Open Space (Fine Soil)						65	125	105			45					0.7													
Human Health	NEPM (2013) HIL A for Low-Density Residential																												3	300
	NEPM (2013) HSL A/B for Low-Density Residential (Clay)																													
	0-1m						0.7	NL	480			110														5				
	1-2m						1	NL	NL			310														NL				
	2-4m						2	NL	NL			NL														NL				
	>4m						3	NL	NL			NL														NL				
Direct Contact	CRC Care Direct Contact for Low-Density Residential						100	4500	14,000			12,000														1400				
Buildings & Structures	AS 2159 (2009) Piling - Design and Installation																													
Management Limits	**NEPM (2013) Management Limits for Residential / Parkland Coarse Soil)**																													

Field ID	Sample Date	Lab Report Number	Location	Matrix Description																													
103721M_BH16_0.1	24/08/2022	917795	TARGETED	FILL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH16_0.5	24/08/2022	917795	TARGETED	NATURAL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH17_0.2	24/08/2022	917795	TARGETED	FILL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH17_0.5	24/08/2022	917795	TARGETED	NATURAL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH18_0.2	24/08/2022	917795	TARGETED	FILL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH18_0.5	24/08/2022	917795	TARGETED	NATURAL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH19_0.1	24/08/2022	917795	TARGETED	FILL	<20	79	<50	79	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH19_0.5	24/08/2022	917795	TARGETED	NATURAL	<20	100	<50	100	100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH20_0.1	24/08/2022	917795	TARGETED	FILL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH20_0.5	24/08/2022	917795	TARGETED	NATURAL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH21_0.1	24/08/2022	917795	TARGETED	FILL	<20	54	65	119	100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH21_0.5	24/08/2022	917795	TARGETED	NATURAL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH22_0.1	24/08/2022	917795	TARGETED	FILL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH22_0.5	24/08/2022	917795	TARGETED	NATURAL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
103721M_BH23_0.5	23/08/2022	917795	TARGETED	NATURAL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
103721M_BH23_5.0	23/08/2022	917795	TARGETED	NATURAL	22	<50	<50	<50	<100	<0.1	0.7	0.2	3.1	0.9	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
103721M_BH24_0.5	23/08/2022	917795	TARGETED	FILL	<20	380	280	660	710	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
103721M_BH24_3.0	23/08/2022	917795	TARGETED	NATURAL	370	830	<50	1200	1190	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
103721M_BH25_1.0	23/08/2022	917795	TARGETED	NATURAL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
103721M_BH25_4.0	23/08/2022	917795	TARGETED	NATURAL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
103721M_BH26_1.0	24/08/2022	917795	TARGETED	NATURAL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
103721M_BH26_3.0	24/08/2022	917795	TARGETED	NATURAL	<20	<50	<50	<50	<100	<0.1	0.2	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
103721M_BH27_0.5	24/08/2022	917795	TARGETED	NATURAL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
103721M_BH27_3.0	24/08/2022	917795	TARGETED	NATURAL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
103721M_BH28_1.0	24/08/2022	917795	TARGETED	NATURAL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
103721M_BH28_4.0	24/08/2022	917795	TARGETED	NATURAL	<20	<50	<50	<50	<100	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-

NOTES:

[1] Site Derived EILS calculated for Fill soil, based on: CEC = 15, pH($CaCl_2$) = 6.8. Site Derived EILS calculated for Natural soil, based on: CEC = 13, pH(CaCl2) = 6.1. Generic EILs for As, DDT, naphthalene and lead.

Chromium (III) EIL criteria has been adopted for Chromium (III+VI).

[2] EILs from Canadian Environmental Quality Guidelines (Residential / Parklands and Commercial).

R0121 : Goldfields c/o Reeds
103721M : Environmental Site Assessment
McPhees & Channel Rd, Shepparton
Pty Ltd c/o Reeds Consulting Pty Ltd

Table A3: Summary of Groundwater Analytical Results

	BTEX								TRH												MAH				
	Benzene	Ethylbenzene	Toluene	Xylene (m & p)	Xylene (o)	Xylene Total	Naphthalene	Naphthalene (VOC)	C6-C10 Fraction	C6-C10 minus BTEX (F1)	>C10-C16 Fraction	>C10-C16 Fraction minus Naphthalene (F2)	>C16-C34 Fraction (F3)	>C34-C40 Fraction (F4)	C6-C9 Fraction	>C10-C40 Fraction (Sum)	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum)	Total MAH	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	Styrene
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.001	0.001	0.001	0.002	0.001	0.003	0.001	0.01	0.02	0.02	0.05	0.05	0.1	0.1	0.02	0.1	0.05	0.1	0.1	0.1	0.003	0.001	0.001	0.001	0.001
ANZG Freshwater Toxicant DGVs LOSP 95% (July 2023)	0.95	0.08	0.18		0.35	0.07[2]	0.016	0.016																0.03	0.3[2]
ADWG 2022 Health	0.001	0.3	0.8		0.19[4]	0.6																0.056[4]	0.06[4]	0.45[4]	0.03
ADWG 2022 Aesthetic		0.003	0.025			0.02																			0.004
ANZECC 2000 Irrigation Long Term Trigger Values																									
ANZECC 2000 Livestock DW Low Risk Trigger Values																									
NHMRC (2008) Risks in Recreational Water (Health)	**0.001**	**0.3**	**0.8**			**0.6**																			**0.03**
NHMRC (2008) Risks in Recreational Water (Aesthetic)		**0.003**	**0.025**			**0.02**																			**0.004**
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																									
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand 4-8 m	0.8									1		1													
Field ID	**Lab Report Number**	**Date**																							
GME1																									
103721M_MW1	919735	31 Aug 2022	**0.028**	**0.083**	**0.10**	0.28	0.12	**0.39**	<0.001	0.05	1.2	0.59	0.58	0.53	1.5	<0.1	0.86	2.08	0.65	1.7	<0.1	2.35	0.62	0.072	0.020	0.006	0.003
GME2																									
103721M_MW01	946441	30 Nov 2022	**0.13**	**0.46**	**0.27**	0.92	0.34	**1.3**	-	0.19	5.7	3.6	1.2	1.01	0.2	<0.1	3.8	1.4	2.0	0.3	<0.1	2.3	2.201	0.15	0.044	0.071	**0.010**
103721M_MW02	946441	30 Nov 2022	<0.001	<0.001	<0.001	0.002	<0.001	<0.003	-	<0.01	<0.02	<0.02	<0.05	<0.05	<0.1	<0.1	<0.02	<0.1	<0.05	<0.1	<0.1	<0.1	<0.003	<0.001	<0.001	<0.001	<0.001
103721M_MW03	946441	30 Nov 2022	**0.067**	**0.21**	**0.077**	0.53	0.19	**0.72**	-	<0.1	2.4	1.3	0.10	0.1	<0.1	<0.1	1.7	0.1	0.33	<0.1	<0.1	0.33	1.089	0.062	0.018	0.015	<0.01
103721M_MW04	946441	30 Nov 2022	**0.052**	**0.41**	<0.01	0.41	0.050	**0.46**	-	0.27	3.2	2.3	1.3	1.03	<0.1	<0.1	1.6	1.3	2.1	<0.1	<0.1	2.1	1.003	0.18	0.044	0.081	<0.01
GME3																									
103721M_MW02	1008054	13 Jul 2023	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	-	<0.01	<0.02	<0.02	<0.05	<0.05	<0.1	<0.1	<0.02	<0.1	<0.05	<0.1	<0.1	<0.1	<0.003	<0.001	<0.001	<0.001	<0.001
103721M_MW03	1008054	13 Jul 2023	**0.027**	**0.063**	0.015	0.055	0.056	**0.11**	-	0.01	0.53	0.31	0.20	0.19	0.3	0.2	0.35	0.7	0.29	0.3	0.2	0.79	0.219	0.027	0.007	0.003	<0.001
103721M_MW04	1008054	12 Jul 2023	**0.004**	**0.010**	<0.001	0.010	0.002	0.011	-	0.01	0.09	0.06	0.12	0.11	<0.1	<0.1	0.05	0.12	0.20	<0.1	<0.1	0.2	0.029	0.009	0.002	0.003	<0.001
103721M_MW05	1008054	13 Jul 2023	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	-	<0.01	<0.02	<0.02	0.09	0.09	<0.1	<0.1	<0.02	<0.1	0.12	<0.1	<0.1	0.12	<0.003	<0.001	<0.001	<0.001	<0.001
103721M_MW06	1008054	12 Jul 2023	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	-	<0.01	<0.02	<0.02	<0.05	<0.05	<0.1	<0.1	<0.02	<0.1	<0.05	<0.1	<0.1	<0.1	<0.003	<0.001	<0.001	<0.001	<0.001

Notes:

(1): ANZG, March 2021, ANZG (2018) Freshwater Unknown LOSP Toxicant DGVs (March 2021)

(2): VROM, 2000, Dutch Invervention (Water)

(3): NIWA (2013) Chronic - 95% protection grading concentration

(4): USEPA, Nov 2023, USEPA RSLs Tapwater THQ=1.0

R0121 : Goldfields c/o Reeds
103721M : Environmental Site Assessment
McPhees & Channel Rd, Shepparton
Pty Ltd c/o Reeds Consulting Pty Ltd

Table A3: Summary of Groundwater Analytical Results

	Metals																						
	Aluminium (filtered)	Antimony (filtered)	Barium (filtered)	Beryllium (filtered)	Boron (filtered)	Arsenic (filtered)	Cadmium (filtered)	Chromium (hexavalent)	Chromium (III+VI) (filtered)	Cobalt (filtered)	Copper (filtered)	Iron (filtered)	Lead (filtered)	Manganese (filtered)	Mercury (filtered)	Molybdenum (filtered)	Nickel (filtered)	Selenium (filtered)	Silver (filtered)	Thallium (filtered)	Tin (filtered)	Vanadium (filtered)	Zinc (filtered)
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.05	0.005	0.02	0.001	0.05	0.001	0.0002	0.005	0.001	0.001	0.001	0.05	0.001	0.005	0.0001	0.005	0.001	0.001	0.005	0.005	0.005	0.005	0.005
ANZG Freshwater Toxicant DGVs LOSP 95% (July 2023)	0.055		0.625[2]		0.94		0.0002	0.001		0.0014[1]	0.0014		0.0034	1.9	0.0006		0.011	0.011	0.00005				0.008
ADWG 2022 Health		0.003	2	0.06	4	0.01	0.002	0.05		0.006[4]	2	14[4]	0.01	0.5	0.001	0.05	0.02	0.01	0.1				
ADWG 2022 Aesthetic											1	0.3		0.1									3
ANZECC 2000 Irrigation Long Term Trigger Values	*5*			*0.1*	*0.5*	*0.1*	*0.01*		*0.1*	*0.05*	*0.2*	*0.2*	*2*	*0.2*	*0.002*	*0.01*	*0.2*	*0.02*				*0.1*	*2*
ANZECC 2000 Livestock DW Low Risk Trigger Values	*5*				*5*	*0.5*	*0.01*		*1*	*1*	*0.4*		*0.1*		*0.002*	*0.15*	*1*	*0.02*					*20*
NHMRC (2008) Risks in Recreational Water (Health)		**0.03**	**20**	**0.6**	**40**	**0.1**	**0.02**	**0.5**			**20**		**0.1**	**5**	**0.01**	**0.5**	**0.2**	**0.1**	**1**				
NHMRC (2008) Risks in Recreational Water (Aesthetic)											**1**	**0.3**		**0.1**									**3**
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																							
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand 4-8 m																							

Field ID	Lab Report Number	Date																						
GME1																								
103721M_MW1	919735	31 Aug 2022	<0.05	<0.005	0.12	<0.001	0.32	0.011	<0.0002	<0.005	<0.001	0.019	<0.001	***0.41***	<0.001	***0.99***	<0.0001	<0.005	0.009	0.003	<0.005	<0.005	<0.005	<0.005	0.009
GME2																								
103721M_MW01	946441	30 Nov 2022	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-
103721M_MW02	946441	30 Nov 2022	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-
103721M_MW03	946441	30 Nov 2022	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-
103721M_MW04	946441	30 Nov 2022	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-
GME3																								
103721M_MW02	1008054	13 Jul 2023	-	-	-	-	-	-	-	-	-	-	=AP:BI-	-	<0.001	-	-	-	-	-	-	-	-	-	-
103721M_MW03	1008054	13 Jul 2023	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-
103721M_MW04	1008054	12 Jul 2023	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-
103721M_MW05	1008054	13 Jul 2023	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-
103721M_MW06	1008054	12 Jul 2023	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-

Notes:

(1): ANZG, March 2021, ANZG (2018) Freshwater Unknown LOSP Toxicant DGVs (March 2021)

(2): VROM, 2000, Dutch Invervention (Water)

(3): NIWA (2013) Chronic - 95% protection grading concentration

(4): USEPA, Nov 2023, USEPA RSLs Tapwater THQ=1.0

R0121 : Goldfields c/o Reeds
103721M : Environmental Site Assessment
McPhees & Channel Rd, Shepparton
Pty Ltd c/o Reeds Consulting Pty Ltd

Table A3: Summary of Groundwater Analytical Results

			Inorganics							PCBs								PAH									
			Calcium	Chloride	Cyanide Total	Fluoride	Nitrate (as N)	Nitrite (as N)	Total Dissolved Solids (Lab)	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a) pyrene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL			0.5	1	0.005	0.5	0.02	0.02	10	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
ANZG Freshwater Toxicant DGVs LOSP 95% (July 2023)							2.4[3]						0.0006		0.00003					0.0004		0.0002				
ADWG 2022 Health					0.08	1.5																0.00001				
ADWG 2022 Aesthetic				250					600																	
ANZECC 2000 Irrigation Long Term Trigger Values						*1*																				
ANZECC 2000 Livestock DW Low Risk Trigger Values			*1,000*			*2*	*90*	*9*	*2,000*																	
NHMRC (2008) Risks in Recreational Water (Health)					**0.8**	**1.5**	**113**	**9.12**														**0.00001**				
NHMRC (2008) Risks in Recreational Water (Aesthetic)				**250**					**600**																	
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)				1,000																						
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand 4-8 m																										
Field ID	**Lab Report Number**	**Date**																									
GME1																											
103721M_MW1	919735	31 Aug 2022	8.8	120	<0.005	0.9	4.2	0.13	**920**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
GME2																											
103721M_MW01	946441	30 Nov 2022	-	-	-	-	-	-	**810**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW02	946441	30 Nov 2022	-	-	-	-	-	-	460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW03	946441	30 Nov 2022	-	-	-	-	-	-	**1,100**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW04	946441	30 Nov 2022	-	-	-	-	-	-	**850**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GME3																											
103721M_MW02	1008054	13 Jul 2023	-	-	-	-	-	-	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW03	1008054	13 Jul 2023	-	-	-	-	-	-	580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW04	1008054	12 Jul 2023	-	-	-	-	-	-	**790**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW05	1008054	13 Jul 2023	-	-	-	-	-	-	**750**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW06	1008054	12 Jul 2023	-	-	-	-	-	-	**880**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

(1): ANZG, March 2021, ANZG (2018) Freshwater Unknown LOSP Toxicant DGVs (March 2021)

(2): VROM, 2000, Dutch Invervention (Water)

(3): NIWA (2013) Chronic - 95% protection grading concentration

(4): USEPA, Nov 2023, USEPA RSLs Tapwater THQ=1.0

R0121 : Goldfields c/o Reeds
103721M : Environmental Site Assessment
McPhees & Channel Rd, Shepparton
Pty Ltd c/o Reeds Consulting Pty Ltd

Table A3: Summary of Groundwater Analytical Results

			PAH							Phenols																			
			Dibenz(a,h)anthracene	**Fluoranthene**	**Fluorene**	**Indeno(1,2,3-c,d)pyrene**	**Phenanthrene**	**Pyrene**	**PAHs (Sum of total)**	**3&4-Methylphenol (m&p-cresol)**	**2,4,5-Trichlorophenol**	**2,4,6-Trichlorophenol**	**2,4-Dichlorophenol**	**2,4-Dimethylphenol**	**2,4-Dinitrophenol**	**2,6-Dichlorophenol**	**2-Chlorophenol**	**2-Methylphenol**	**2-Nitrophenol**	**4,6-Dinitro-2-methylphenol**	**4,6-Dinitro-o-cyclohexyl phenol**	**4-chloro-3-methylphenol**	**4-Nitrophenol**	**Cresol Total**	**Pentachlorophenol**	**Tetrachlorophenols**	**Phenol**	**Phenols (Total Halogenated)**	**Phenols (Total Non Halogenated)**
			mg/L	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
EQL			0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.006	0.01	0.01	0.003	0.003	0.03	0.003	0.003	0.003	0.01	0.03	0.1	0.01	0.03	0.01	0.01	0.03	0.003	0.01	0.1
ANZG Freshwater Toxicant DGVs LOSP 95% (July 2023)				0.0014			0.002					0.02	0.16	0.002[1]	0.045		0.49								0.01		0.32		
ADWG 2022 Health												0.02	0.2	0.36[4]			0.3								0.01				
ADWG 2022 Aesthetic												0.002	0.0003				0.0001												
ANZECC 2000 Irrigation Long Term Trigger Values																													
ANZECC 2000 Livestock DW Low Risk Trigger Values																													
NHMRC (2008) Risks in Recreational Water (Health)												**0.02**	**0.2**				**0.3**								**0.01**				
NHMRC (2008) Risks in Recreational Water (Aesthetic)												**0.002**	**0.0003**				**0.0001**												
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																													
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand 4-8 m																													
Field ID	**Lab Report Number**	**Date**																											
GME1																													
103721M_MW1	919735	31 Aug 2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.006	<0.01	<0.01	<0.003	0.036	<0.03	<0.003	<0.003	<0.003	<0.01	<0.03	<0.1	<0.01	<0.03	<0.01	<0.01	<0.03	<0.003	<0.01	<0.1
GME2																													
103721M_MW01	946441	30 Nov 2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW02	946441	30 Nov 2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW03	946441	30 Nov 2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW04	946441	30 Nov 2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GME3																													
103721M_MW02	1008054	13 Jul 2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW03	1008054	13 Jul 2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW04	1008054	12 Jul 2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW05	1008054	13 Jul 2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW06	1008054	12 Jul 2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

(1): ANZG, March 2021, ANZG (2018) Freshwater Unknown LOSP Toxicant DGVs (March 2021)

(2): VROM, 2000, Dutch Invervention (Water)

(3): NIWA (2013) Chronic - 95% protection grading concentration

(4): USEPA, Nov 2023, USEPA RSLs Tapwater THQ=1.0

R0121 : Goldfields c/o Reeds
103721M : Environmental Site Assessment
McPhees & Channel Rd, Shepparton
Pty Ltd c/o Reeds Consulting Pty Ltd

Table A3: Summary of Groundwater Analytical Results

	Organochlorine Pesticides																							
	4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Toxaphene
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.0002	0.0002	0.0002	0.0002	0.0002	0.002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.005
ANZG Freshwater Toxicant DGVs LOSP 95% (July 2023)						0.00008			0.00001						0.00002			0.0002	0.00009		0.0001		0.0002
ADWG 2022 Health				0.0003		0.002			0.009									0.01	0.0003				
ADWG 2022 Aesthetic																							
ANZECC 2000 Irrigation Long Term Trigger Values																							
ANZECC 2000 Livestock DW Low Risk Trigger Values																							
NHMRC (2008) Risks in Recreational Water (Health)				**0.0003**		**0.002**			**0.009**									**0.01**	**0.0003**			**0.3**	
NHMRC (2008) Risks in Recreational Water (Aesthetic)																							
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																							
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand 4-8 m																							

Field ID	Lab Report Number	Date																							
GME1																									
103721M_MW1	919735	31 Aug 2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.005
GME2																									
103721M_MW01	946441	30 Nov 2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW02	946441	30 Nov 2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW03	946441	30 Nov 2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW04	946441	30 Nov 2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GME3																									
103721M_MW02	1008054	13 Jul 2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW03	1008054	13 Jul 2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW04	1008054	12 Jul 2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW05	1008054	13 Jul 2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103721M_MW06	1008054	12 Jul 2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

(1): ANZG, March 2021, ANZG (2018) Freshwater Unknown LOSP Toxicant DGVs (March 2021)

(2): VROM, 2000, Dutch Invervention (Water)

(3): NIWA (2013) Chronic - 95% protection grading concentration

(4): USEPA, Nov 2023, USEPA RSLs Tapwater THQ=1.0

R0121 : Goldfields c/o Reeds
103721M : Environmental Site Assessment
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Table A3: Summary of Groundwater Analytical Results

	Chlorinated Hydrocarbons																												
	1,1-dichloroethane (SIM)	1,2-dichloroethane (SIM)	cis-1,2-dichloroethene (SIM)	Dichloromethane (SIM)	Tetrachloroethene (SIM)	Trichloroethene (SIM)	Vinyl chloride (SIM)	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethene	1,1-dichloroethene	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	Bromochloromethane	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Dichloromethane
	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.01	0.01	0.01	0.02	0.02	0.00001	0.05	0.001	0.001	0.001	0.001	0.00001	0.001	0.001	0.00001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.005	0.005	0.00001	0.001	0.001	0.00002
ANZG Freshwater Toxicant DGVs LOSP 95% (July 2023)									0.27	0.4	6.5		0.7		1.9	0.9	1.1				0.24			0.77					4
ADWG 2022 Health		3		4	50		0.3						0.03		0.003						0.003								0.004
ADWG 2022 Aesthetic																													
ANZECC 2000 Irrigation Long Term Trigger Values																													
ANZECC 2000 Livestock DW Low Risk Trigger Values																													
NHMRC (2008) Risks in Recreational Water (Health)		**3**		**4**	**50**								**0.03**		**0.003**						**0.003**								**0.004**
NHMRC (2008) Risks in Recreational Water (Aesthetic)																													
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																													
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand 4-8 m																													

Field ID	Lab Report Number	Date																												
GME1																														
103721M_MW1	919735	31 Aug 2022	-	-	-	-	-	-	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.005	<0.01	<0.002	<0.002	<0.002	<0.01
GME2																														
103721M_MW01	946441	30 Nov 2022	<10	<10	<10	<50	<10	<0.01	<50	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.05	-	<0.01	<0.01	-
103721M_MW02	946441	30 Nov 2022	<0.01	<0.01	<0.01	<0.02	<0.02	<0.00001	<0.05	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	-	<0.001	<0.001	-
103721M_MW03	946441	30 Nov 2022	<10	<10	<10	<50	<10	<0.01	<50	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.05	-	<0.01	<0.01	-
103721M_MW04	946441	30 Nov 2022	<10	<10	<10	<50	<10	<0.01	<50	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.05	-	<0.01	<0.01	-
GME3																														
103721M_MW02	1008054	13 Jul 2023	<0.01	<0.01	<0.01	<0.02	<0.02	<0.00001	<0.05	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	-	<0.001	<0.001	-
103721M_MW03	1008054	13 Jul 2023	<0.01	<0.01	<0.01	<0.02	<0.02	<0.00001	<0.05	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	-	<0.001	<0.001	-
103721M_MW04	1008054	12 Jul 2023	<0.01	<0.01	<0.01	<0.02	<0.02	<0.00001	<0.05	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	-	<0.001	<0.001	-
103721M_MW05	1008054	13 Jul 2023	<0.01	<0.01	<0.01	<0.02	<0.02	<0.00001	<0.05	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	-	<0.001	<0.001	-
103721M_MW06	1008054	12 Jul 2023	<0.01	<0.01	<0.01	<0.02	<0.02	<0.00001	<0.05	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	-	<0.001	<0.001	-

Notes:

(1): ANZG, March 2021, ANZG (2018) Freshwater Unknown LOSP Toxicant DGVs (March 2021)

(2): VROM, 2000, Dutch Invervention (Water)

(3): NIWA (2013) Chronic - 95% protection grading concentration

(4): USEPA, Nov 2023, USEPA RSLs Tapwater THQ=1.0

R0121 : Goldfields c/o Reeds
103721M : Environmental Site Assessment
McPhees & Channel Rd, Shepparton
Pty Ltd c/o Reeds Consulting Pty Ltd

Table A3: Summary of Groundwater Analytical Results

	Chlorinated Hydrocarbons					Herbicides	Halogenated Benzenes								Halogenated Hydrocarbons				
	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride	Dinoseb	1,4-dichlorobenzene (SIM)	Chlorobenzene (SIM)	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	4-chlorotoluene	Bromobenzene	Chlorobenzene	1,2-dibromomethane	Bromomethane	Dichlorodifluoromethane	Iodomethane	Trichlorofluoromethane
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.00001	0.00002	0.001	0.001	0.00005	0.1	0.01	0.01	0.001	0.001	0.00001	0.001	0.001	0.00001	0.001	0.005	0.005	0.001	0.005
ANZG Freshwater Toxicant DGVs LOSP 95% (July 2023)	0.33	0.07			0.1				0.16	0.26	0.06			0.055					
ADWG 2022 Health		0.05			0.0003				1.5		0.04			0.3	0.001	0.001			
ADWG 2022 Aesthetic							0.3	10	0.001	0.02	0.0003			0.01					
ANZECC 2000 Irrigation Long Term Trigger Values																			
ANZECC 2000 Livestock DW Low Risk Trigger Values																			
NHMRC (2008) Risks in Recreational Water (Health)		**0.05**			**0.0003**		**40**	**300**	**1.5**		**0.04**			**0.3**	**0.001**	**0.001**			
NHMRC (2008) Risks in Recreational Water (Aesthetic)							**0.3**	**10**	**0.001**	**0.02**									
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																			
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand 4-8 m																			

Field ID	Lab Report Number	Date																		
GME1																				
103721M_MW1	919735	31 Aug 2022	<0.002	<0.002	<0.002	<0.002	<0.01	<0.1	-	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.01	<0.002	<0.01
GME2																				
103721M_MW01	946441	30 Nov 2022	-	-	<0.01	<0.01	-	-	<10	<10	<0.01	<0.01	-	<0.01	<0.01	-	<0.01	<0.05	<0.05	<0.01	<0.05
103721M_MW02	946441	30 Nov 2022	-	-	<0.001	<0.001	-	-	<0.01	<0.01	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.005	<0.005	<0.001	<0.005
103721M_MW03	946441	30 Nov 2022	-	-	<0.01	<0.01	-	-	<10	<10	<0.01	<0.01	-	<0.01	<0.01	-	<0.01	<0.05	<0.05	<0.01	<0.05
103721M_MW04	946441	30 Nov 2022	-	-	<0.01	<0.01	-	-	<10	<10	<0.01	<0.01	-	<0.01	<0.01	-	<0.01	<0.05	<0.05	<0.01	<0.05
GME3																				
103721M_MW02	1008054	13 Jul 2023	-	-	<0.001	<0.001	-	-	<0.01	<0.01	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.005	<0.005	<0.001	<0.005
103721M_MW03	1008054	13 Jul 2023	-	-	<0.001	<0.001	-	-	<0.01	<0.01	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.005	<0.005	<0.001	<0.005
103721M_MW04	1008054	12 Jul 2023	-	-	<0.001	<0.001	-	-	<0.01	<0.01	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.005	<0.005	<0.001	<0.005
103721M_MW05	1008054	13 Jul 2023	-	-	<0.001	<0.001	-	-	<0.01	<0.01	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.005	<0.005	<0.001	<0.005
103721M_MW06	1008054	12 Jul 2023	-	-	<0.001	<0.001	-	-	<0.01	<0.01	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.005	<0.005	<0.001	<0.005

Notes:

(1): ANZG, March 2021, ANZG (2018) Freshwater Unknown LOSP Toxicant DGVs (March 2021)

(2): VROM, 2000, Dutch Invervention (Water)

(3): NIWA (2013) Chronic - 95% protection grading concentration

(4): USEPA, Nov 2023, USEPA RSLs Tapwater THQ=1.0

R0121 : Goldfields c/o Reeds
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Table A3: Summary of Groundwater Analytical Results

			Solvents					Phthalates					
			Methyl Ethyl Ketone	4-Methyl-2-pentanone	Acetone	Allyl chloride	Carbon disulfide	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Diethylphthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
			mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			0.005	0.005	0.005	0.001	0.001	5	5	5	5	5	5
ANZG Freshwater Toxicant DGVs LOSP 95% (July 2023)										1,000	3,700	26	
ADWG 2022 Health								10					
ADWG 2022 Aesthetic													
ANZECC 2000 Irrigation Long Term Trigger Values													
ANZECC 2000 Livestock DW Low Risk Trigger Values													
NHMRC (2008) Risks in Recreational Water (Health)								**10**					
NHMRC (2008) Risks in Recreational Water (Aesthetic)													
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)													
NEPM 2013 Table 1A(4) Res HSL A & B GW for Vapour Intrusion, Sand 4-8 m													
Field ID	**Lab Report Number**	**Date**											
GME1													
103721M_MW1	919735	31 Aug 2022	<0.01	<0.01	<0.01	<0.002	<0.002	<5	<5	<5	<5	<5	<5
GME2													
103721M_MW01	946441	30 Nov 2022	<0.05	<0.05	<0.05	<0.01	<0.01	-	-	-	-	-	-
103721M_MW02	946441	30 Nov 2022	<0.005	<0.005	<0.005	<0.001	<0.001	-	-	-	-	-	-
103721M_MW03	946441	30 Nov 2022	<0.05	<0.05	<0.05	<0.01	<0.01	-	-	-	-	-	-
103721M_MW04	946441	30 Nov 2022	<0.05	<0.05	<0.05	<0.01	<0.01	-	-	-	-	-	-
GME3													
103721M_MW02	1008054	13 Jul 2023	<0.005	<0.005	<0.005	<0.001	<0.001	-	-	-	-	-	-
103721M_MW03	1008054	13 Jul 2023	<0.005	<0.005	<0.005	<0.001	<0.001	-	-	-	-	-	-
103721M_MW04	1008054	12 Jul 2023	<0.005	<0.005	<0.005	<0.001	<0.001	-	-	-	-	-	-
103721M_MW05	1008054	13 Jul 2023	<0.005	<0.005	<0.005	<0.001	<0.001	-	-	-	-	-	-
103721M_MW06	1008054	12 Jul 2023	<0.005	<0.005	<0.005	<0.001	<0.001	-	-	-	-	-	-

Notes:

(1): ANZG, March 2021, ANZG (2018) Freshwater Unknown LOSP Toxicant DGVs (March 2021)

(2): VROM, 2000, Dutch Invervention (Water)

(3): NIWA (2013) Chronic - 95% protection grading concentration

(4): USEPA, Nov 2023, USEPA RSLs Tapwater THQ=1.0