

Mirvac Real Estate Pty Ltd

Confined Spaces Assessment

1-47 Percival Road, Smithfield, NSW



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CONFINED SPACES ASSESSMENT

Prepared for Mirvac Real Estate Pty Ltd

Prepared by Coffey Services Australia Pty Ltd Level 19, Tower B, 799 Pacific Highway Chatswood NSW 2067 Australia t: +61 2 9406 1000 f: +61 2 9406 1002 ABN: 55 139 460 521

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EXECUTIVE SUMMARY

Tetra Tech Coffey Pty Ltd (TTC) was commissioned by Mirvac Real Estate Pty Ltd (the client) to conduct a confined spaces assessment of the industrial site located at 1-47 Percival Road, Smithfield NSW (the site). Ben McCann of TTC carried out the audit on 26th October 2022. For the purpose of this audit, the principal definition of a confined space is that described in the *Work Health and Safety Regulation 2017 (NSW)*.

Identified confined spaces were not entered by personnel at the time of the assessment, therefore the risk assessments contained in this report are limited to general observations made. A more detailed task specific risk assessment is required prior to entering any confined spaces identified in this report.

Assessment Findings

The following findings are based on the site inspection, discussions with site personnel, and review of relevant documentation:

- A total of 62 confined spaces were identified at the site.
- The majority of identified confined spaces were appropriately signposted, however a number of the spaces were not signposted or had faded signs.
- The majority of the confined spaces appeared to be appropriately secured from unauthorised access, however the access hatch to the fuel tank on the southeast corner of Building 4 was not appropriately secured at the time of the assessment.
- The Mirvac Confined Space Entry Permit was made available for review. This included a requirement for the isolation of plant and services associated with confined spaces prior to any entry occurring.

Note: Refer to **Appendix A** for the confined space register, **Appendix C** for photographs and **Appendix E** for a marked-up site plan.

Recommended Actions

The following actions are recommended, based on the above findings:

- Ensure a task specific risk assessment is conducted prior to commencing any works within confined spaces.
- Ensure all identified confined spaces are appropriately signposted. Ensure the signage complies with AS 2865:2009 Confined Spaces, Section 3.2.2. Refer to Appendix D for examples of confined space safety signage.
- Ensure the access hatch to the fuel tank on the southeast corner of Building 4 is appropriately secured at all times to prevent unauthorised access.
- Ensure all staff and contractors working within areas containing confined spaces at the site are provided with appropriate information, instruction and training to ensure they are able to work safely in these areas. It is recommended that this be managed within the site induction.
- Although it was not possible to access the spaces at the time of the inspection, they have been
 deemed to be a confined space (in order to take a precautionary approach) and should continue to
 be treated as such until confirmed as otherwise.
- Avoid entering the confined spaces if possible e.g. conduct cleaning/maintenance activities from outside etc.
- Ensure that the person responsible for the confined space work issues an entry permit prior to any persons entering the confined space.
- Ensure task specific emergency rescue procedures and equipment are available and readily accessible during any confined space work.

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- All works and access in relation to confined spaces must be undertaken in accordance with the Work Health and Safety Regulation 2017 (NSW), the Code of Practice: Confined Spaces (SafeWork NSW, 2019) and AS 2865:2009 Confined Spaces.
- TTC is able to assist the client to implement the above recommended actions.

1. INTRODUCTION

Tetra Tech Coffey Pty Ltd (TTC) was commissioned by Mirvac Real Estate Pty Ltd (the client) to conduct a confined spaces assessment of the industrial site located at 1-47 Percival Road, Smithfield NSW (the site). Ben McCann of TTC carried out the audit on 26th October 2022. For the purpose of this audit, the principal definition of a confined space is that described in the *Work Health and Safety Regulation 2017 (NSW)*.

Identified confined spaces were not entered by personnel at the time of the assessment, therefore the risk assessments contained in this report are limited to general observations made. A more detailed task specific risk assessment is required prior to entering any confined spaces identified in this report.

1.1 Site Description

The site consisted of 4 industrial buildings and associated car parks and loading docks. The site was occupied at the time of the assessment.

2. SCOPE

The objective of the Confined Spaces Assessment was to identify and assess confined spaces at the site, and manage the associated risks to the health and safety of site occupants (including workers, students, visitors and contractors). The assessment included a physical inspection of accessible areas of the site, as well as discussions with relevant site personnel, and a review of relevant systems/documentation.

2.1 Inaccessible Areas

The following areas were not accessible during the inspection:

- Within confined spaces, voids and ceiling spaces.
- Within plant and machinery.
- Below cars/trucks and stored items.
- Tenanted areas.
- Roof areas.

3. WHAT IS A CONFINED SPACE?

The Work Health & Safety Regulation 2017 (NSW) defines a confined space as an enclosed or partially enclosed space that:

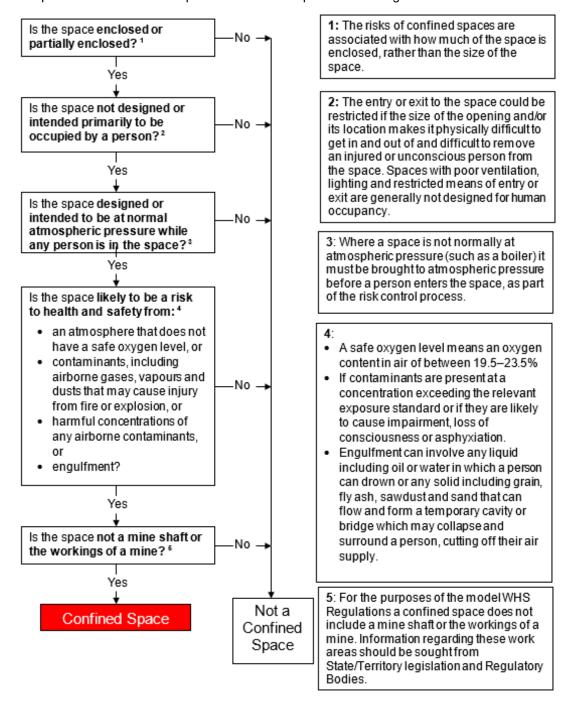
- a) is not designed or intended primarily to be occupied by a person; and
- b) is, or is designed or intended to be, at normal atmospheric pressure while any person is in the space, and
- c) is or is likely to be a risk to health and safety from:
 - i. an atmosphere that does not have a safe oxygen level; or
 - ii. contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion, or
 - iii. harmful concentrations of any airborne contaminants, or
 - iv. engulfment.

Note: The above definition does not include a mine shaft or the workings of a mine.

Section 66 (1) of the *Work Health and Safety Regulations 2017 (NSW)* states that 'a PCBU must manage risks to health and safety associated with a confined space at a workplace including risks associated with entering, working in, on or in the vicinity of the confined space (including a risk of a person inadvertently entering the confined space'.

Section 62 (2) of the Regulations also state that the requirements relating to confined spaces within the Regulations refer to confined spaces that are under the PCBUs management or control. For this reason, confined spaces that are identified on site but that fall under the management or control of another PCBU have not been included in this report. Examples of such confined spaces include storm water drains and sewer pits (managed by the local water authority), and underground electrical substations (managed by the local power authority).

Further explanation of a confined space definition is explained in the figure below:



Source: Compliance Code: Confined Spaces 2019

4. RISK ASSESSMENT

Risk assessments have been conducted for each confined space identified on site. The risk assessments considered the nature of the confined space, including its location, frequency of entry, work performed, the nature of the potential hazards present and the controls currently in place. Each identified potential hazard was risk assessed, based on the likelihood of an event occurring, and the consequence or outcome of that event in general terms. An overall risk rating of Low, Medium, High, Very High or Extreme was then assigned to each hazard using the provided risk assessment matrix (refer to Risk Matrix below). The assessment of the risk is a subjective assessment and is to be used for guidance purposes in relation to selecting and implementing corrective actions.

Risk Matrix								
	CONSEQUENCE							
LIKELIHOOD	Insignificant	Minor	Moderate	Major	Catastrophic			
LIKELIHOOD	(No injuries)	(First aid only)	(Medical treatment)	(Extensive injuries, loss of production)	(Fatality / permanent disability)			
Almost Certain								
(Expected in most circumstances)	Medium	High	Very High	Extreme	Extreme			
Likely								
(Will probably occur in most circumstances)	Medium	High	Very High	Extreme	Extreme			
Possible								
(Might occur at some time)	Low	Medium	High	Very High	Extreme			
Unlikely	1	1	NA a alliana	Liberte) / a			
(Not likely to occur)	Low	Low	Medium	High	Very High			
Rare								
(May occur only in exceptional circumstances)	Low	Low	Medium	High	High			

Where the hazards associated with work in particular confined spaces are similar in nature, a group risk assessment has been prepared. Separate space specific risk assessments will be prepared for any confined spaces identified as having unique hazards or risks that are different to the group risk assessment.

Refer to **Appendix B** for confined space risk assessments.

FINDINGS

The following findings are based on the site inspection, discussions with site personnel, and review of relevant documentation:

- A total of 62 confined spaces were identified at the site.
- The majority of identified confined spaces were appropriately signposted, however a number of the spaces were not signposted or had faded signs.
- The majority of the confined spaces appeared to be appropriately secured from unauthorised access, however the access hatch to the fuel tank on the southeast corner of Building 4 was not appropriately secured at the time of the assessment.
- The Mirvac Confined Space Entry Permit was made available for review. This included a requirement for the isolation of plant and services associated with confined spaces prior to any entry occurring.

Note: Refer to **Appendix A** for the confined space register, **Appendix C** for photographs and **Appendix E** for a marked-up site plan.

6. RECOMMENDED ACTIONS

The following actions are recommended, based on the above findings:

- Ensure a task specific risk assessment is conducted prior to commencing any works within confined spaces.
- Ensure all identified confined spaces are appropriately signposted. Ensure the signage complies with AS 2865:2009 Confined Spaces, Section 3.2.2. Refer to Appendix D for examples of confined space safety signage.
- Ensure the access hatch to the fuel tank on the southeast corner of Building 4 is appropriately secured at all times to prevent unauthorised access.
- Ensure all staff and contractors working within areas containing confined spaces at the site are
 provided with appropriate information, instruction and training to ensure they are able to work safely
 in these areas. It is recommended that this be managed within the site induction.
- Although it was not possible to access the spaces at the time of the inspection, they have been
 deemed to be a confined space (in order to take a precautionary approach) and should continue to
 be treated as such until confirmed as otherwise.
- Avoid entering the confined spaces if possible e.g. conduct cleaning/maintenance activities from outside etc.
- Ensure that the person responsible for the confined space work issues an entry permit prior to any
 persons entering the confined space.
- Ensure task specific emergency rescue procedures and equipment are available and readily accessible during any confined space work.
- All works and access in relation to confined spaces must be undertaken in accordance with the Work
 Health and Safety Regulation 2017 (NSW), the Code of Practice: Confined Spaces (SafeWork NSW,
 2019) and AS 2865:2009 Confined Spaces.
- TTC is able to assist the client to implement the above recommended actions.

7. REFERENCES

- Work Health and Safety Act 2011 (NSW).
- Work Health and Safety Regulation 2017 (NSW).

Confined Spaces Assessment

- Code of Practice: Confined Spaces (SafeWork NSW, 2019).
- Australian Standard 2865:2009 Confined Spaces.

8. LIMITATIONS

This report and the associated services performed by TTC are in accordance with the scope of services set out in the contract between TTC and the Client. The scope of services was defined by the requests of the Client, by the time and budgetary constraints imposed by the Client, and by the availability of access to the site.

TTC derived the data in this report primarily from visual inspections, examination of available records, and interviews with individuals with relevant information about the site. In preparing this report, TTC has relied upon, and presumed accurate, certain information (or absence thereof) provided by government authorities, the Client and others identified herein. Except as otherwise stated in the report, TTC has not attempted to verify the accuracy or completeness of any such information.

No warranty, undertaking, or guarantee, whether expressed or implied, is made with respect to the data reported or to the findings, observations, and recommendations expressed in this report. Furthermore, such data, findings, observations, and recommendations are based solely upon existence at the time of the assessment. The passage of time, manifestation of latent conditions or impacts of future events (e.g. changes in legislation, scientific knowledge, land uses, etc.) may require further investigation at the site with subsequent data analysis and re-evaluation of the findings, observations, and recommendations expressed in this report.

This report has been prepared on behalf of and for the exclusive use of the Client, and is subject to and issued in connection with the provisions of the agreement between TTC and the Client. TTC accepts no liability or responsibility whatsoever and expressly disclaims any responsibility for or in respect of any use of or reliance upon this report by any third party or parties. It is the responsibility of the Client to accept if the Client so chooses any recommendations contained within and implement them in an appropriate, suitable and timely manner.

APPENDIX A: CONFINED SPACES REGISTER

Confined Spaces Register								
Space ID	Type Building		Location / Comments	Secure	Signage	Dimensions	Risk Assessment	Photo
001	Sewer pit	4	West side, adjacent to main entrance	Yes	Yes	Unknown	Α	01
002	Unknown pit	4	West side, adjacent to disabled car parking spaces Yes Yes Unknown B		В	02		
003	Unknown pit	4	Northwest corner, adjacent to speed hump	Yes	No	Unknown	В	03
004	Storm water drain	4	North side, central area	Yes	No	Unknown	С	-
005	Storm water drain	4	North side, east area, adjacent to Dock 3 entrance	Yes No Unknown C		С	04	
006	Storm water drain	4	Northeast corner, driveway	Yes	No Unknown		С	-
007	Storm water drain	4	Southeast corner, adjacent to diesel tank	Yes	No	Unknown	С	-
008	Fuel tank	4	Southeast corner, diesel tank	No	Yes	3m ³	Е	05
009	Unknown pit	4	South side, central east area, adjacent to driveway and garden bed	Yes	Yes	Unknown	В	-
010	Unknown pit	4	South side, central west area, adjacent to driveway and garden bed	Yes	No	Unknown	В	06
011	Sewer pit	3	West side, adjacent to foot path and building	Yes	Yes (faded)		А	07
012	Unknown pit	3	West side, grassed area, adjacent to driveway	Yes	No	Unknown	В	-
013	Unknown pit	3	West side, northern grassed area	Yes	No	Unknown	В	-

Confir	Confined Spaces Register								
Space ID	Туре	Building	Location / Comments Secure L Signage L Dimensions L		Risk Assessment	Photo			
014- 015	Storm water drain (x2)	3	West side, grassed area, adjacent to road	West side, grassed area, adjacent to road Yes Yes Unknown C		С	08		
016	Sewer pit	3	Southwest corner, adjacent to disabled parking spaces	Yes No Unknown A		А	-		
017	Unknown pit	3	South side, southwest corner of loading bay 1/2	Yes	No	Unknown	В	-	
018	Unknown pit	3	East side, footpath adjacent to building	Yes	No	Unknown	В	09	
019	Storm water drain	3	East side, adjacent to footpath	East side, adjacent to footpath Yes No Unknown		С	-		
020	Storm water drain	3	East side, adjacent to driveway	Yes	Yes (faded)	Unknown	С	-	
021- 024	Storm water drain (x4)	2	North side, driveway	Yes	Yes	Unknown	С	10	
025	Water tank	2	North side, west area	Yes	No	15m ³	D	11	
026	Unknown pit	2	North side, west area, adjacent to water tank	Yes	Yes	Unknown	В	-	
027	Unknown pit	2	West side, northern corner, driveway	Yes	Yes	Unknown	В	-	
028	Sewer pit	2	West side, garden area, adjacent to driveway	Yes	Yes	Unknown	Α	12	
029	Storm water drain	2	Western car park, southeast corner, parking space 11	Yes	No	Unknown	С	13	

Confined Spaces Register								
Space ID	Туре	Building	Location / Comments Secure Signage Dimension		Dimensions	Risk Assessment	Photo	
030	Storm water drain	2	Western car park, south area, parking space 15	Yes	No	Unknown	С	-
031	Storm water drain	2	Western car park, southwest area, parking space 22	Yes	Yes	Unknown	С	-
032	Unknown pit	2	Southwest corner, in garden adjacent to driveway	Yes	No	Unknown	В	-
033	Unknown pit	2	Northwest side, driveway, adjacent to site entrance	Yes Yes Unknown		Unknown	В	14
034	Storm water drain	2	Northwest side, driveway, adjacent to site entrance	Yes Yes Unknown C		С	15	
035	Storm water tank	2	Northeast side, car park area (6 x hatches)	Yes	Yes	Unknown	F	16
036	Storm water drain	2	Northeast corner, driveway, adjacent to building	Yes	Yes	Unknown	С	-
037	Storm water drain	2	Northeast corner, driveway, adjacent to concrete embankment	Yes	No	Unknown	С	-
038- 041	Storm water drain (x4)	2	Northeast corner, car park, southeast area	ortheast corner, car park, southeast area Yes Yes Unknown C		С	17	
042	Unknown pit	2	East side, south corner	Yes	No	Unknown	В	-
043	Unknown pit	2	East side, central driveway	Yes	Yes	Unknown	В	18

Confined Spaces Register								
Space ID	Туре	Building	Location / Comments	Secure	Signage	Dimensions	Risk Assessment	Photo
044	Unknown pit	2	East side, adjacent to eastern perimeter fence	Yes	No	Unknown	В	-
045- 046	Unknown pit (x2)	2	East side, far east driveway	Yes	Yes	Unknown	В	19
047- 048	HumeCeptor (x2)	2	East side, far east driveway	Yes	Yes	Unknown	F	20
049- 050	Unknown pit (x2)	1	West side, adjacent to reception	West side, adjacent to reception Yes Yes Unknown B		В	-	
051	Unknown pit	1	Northwest corner, grassed area adjacent to site entrance	Yes	No	Unknown	В	-
052	Unknown pit	1	West side, grassed area, adjacent to perimeter fence	Yes	No	Unknown	В	21
053	Unknown pit	1	Southwest corner, grassed area, adjacent to perimeter fence	Yes	No	Unknown	В	-
054	Unknown pit	1	South side, west area, adjacent to external dining area	Yes	Yes (faded)	Unknown	В	22
055	Unknown pit	1	South side, east area, adjacent to car park	Yes	Yes	Unknown	В	-
056	Unknown pit	1	South side, grassed area, adjacent to perimeter fence	Yes	No	Unknown	В	-
057	Fuel tank	1	East side, north area, diesel tank	Yes	No	3m ³	Е	23

Confined Spaces Assessment

Confin	Confined Spaces Register								
Space ID	Туре	Building	Location / Comments	Secure	Signage	Dimensions	Risk Assessment	Photo	
058- 059	Storm water drain (x2)	1	North side, central driveway	Yes	No	Unknown	С	-	
060- 062	Unknown pit (x3)	1	North side, west area	Yes	Yes (faded)	Unknown	В	24	

APPENDIX B: CONFINED SPACE RISK ASSESSMENTS

Risk Assessment A: S	Sewer P	it	
		ents of a Confined Space?	YES
-	-	e part of C is yes, then the space is a confined space	ILS
and requires a risk assessm		s part of 0 is yes, then the space is a commed space	
A. Is the space designed of	r intended	d primarily not to be occupied by a person?	YES
B. Is the space designed of person is in the space?	r intended	d to be, at normal atmospheric pressure while any	YES
C. Is the space likely to be	a risk to h	nealth and safety from:	
 an atmosphere that of 	does not h	ave a safe oxygen level?	YES
from fire or explosion	?	ne gases, vapours and dusts, that may cause injury airborne contaminants?	YES YES
engulfment?	,		YES
Works to be completed:	Maintena	ance and inspection activities.	
Comments:	Access t	to space is restricted. No access gained during assess	ment.
Hazard Types	Risk	Recommended Actions	
	Rating		
Restricted entry and	VH	Wear a safety harness and remain connected to a life	eline at
egress in an emergency		all times. Ensure the standby person remains in constant contage. person(s) entering the space.	act with
Oxygen deficiency whilst work in progress	Е	Monitor the atmosphere within the space prior to ent Only enter the space if oxygen levels are within the srange (19.5% to 23.5%). Ventilate the space if required. Continually monitor the atmosphere within the space entry.	safe
Build-up or excess of vapours such as hydrogen sulphide (H ₂ S) or carbon monoxide (CO) to concentrations above the workplace exposure standards (WES)	E	Monitor the atmosphere within the space prior to enti- Purge and ventilate the space if required. Continually monitor the atmosphere within the space entry.	_
Build-up of organic vapours to within explosive limits	Е	Monitor the atmosphere within the space prior to enter Purge and ventilate the space if required. Only enter the space if the concentration of any flam vapours is less than 5% of its lower explosive limit. Continually monitor the atmosphere within the space entry. Ensure no ignition sources are located within or introlinto the space.	mable during
Airborne dust concentrations above the WES	L	No action required.	
Radiation (non-ionising and ionising)	L	No action required.	
Noise generated at levels above 85 dB(A)	L	No action required.	
Uncontrolled introduction of substances (e.g. steam, water, gases etc.)	E	Isolate all services within the space. Ensure no vehicles operate in the vicinity of the entry Ensure the standby person is monitoring external we conditions and any other factors that could impact th confined space.	ather

Hazard Types	Risk Rating	Recommended Actions
Engulfment	ш	Isolate all inflow pipes into the space. Wear a safety harness and remain connected to a lifeline at all times.
Manual handling of covers, lowering equipment into pits	M	Ensure a two-person lift or lifting device is used when lifting or removing covers. Use a winch to lower equipment into the space.
Mechanical hazards (e.g. entanglement, crushing, cutting, etc.)	L	No action required.
Skin contact with hazardous substances and surface contaminants	Η	Wear appropriate PPE (e.g. gloves, long sleeve shirt and pants, boots and eye wear).
Slips and trips	Ι	Wear slip resistant boots.
Falls from height	VH	Wear a safety harness and remain connected to a lifeline at all times.
Electrical hazards	M	Portable electrical equipment should be protected through an RCD, located outside of the space.
Biological hazards (e.g. E-coli)	I	Wear appropriate PPE (e.g. gloves, long sleeve shirt and pants, boots and eye wear). Wash hands and face after exiting the space.
Lack of lighting	Н	Use appropriate and safe temporary lighting and/or torch within the space.
Heat and cold stress	L	No action required.

- Avoid entering the confined space if possible e.g. conduct cleaning activities from outside etc.
- Ensure access to the confined space remains secure at all times.
- Only authorised personnel are to access the confined space.
- All works and access in relation to confined spaces must be undertaken in accordance with AS 2865-2009.
- Ensure that the person responsible for the confined space work issues an entry permit prior to any persons entering the confined space.
- Ensure contractors are appropriately trained to undertake confined space entry and standby duties.
- Ensure site specific emergency rescue procedures and equipment are available and readily accessible during any confined space work.
- Ensure contractor safe work method statement (SWMS) addresses working at heights and traffic management issues.
- Ensure suitable PPE is available and appropriately maintained.
- Ensure a task specific risk assessment is conducted within the space prior to commencing any works.
- Although it was not possible to access the space at the time of the assessment, it has been
 deemed to be a confined space (in order to take a precautionary approach) and should continue
 to be treated as such until confirmed as otherwise.

Risk Assessment B: U	Inknow	n Dit	
Does the space meet the i			YES
•		part of C is yes, then the space is a confined space	IES
and requires a risk assessm		,	
A. Is the space intended to	be, or is	likely to be, entered by any person?	YES
		restricted means for entry or exit that makes it	YES
physically difficult for a		•	
C. Is the space likely to be		•	YES
•		ave a safe oxygen level? ne gases, vapours and dusts, that may cause injury	YES
from fire or explosion		ie gases, vapours and dusts, that may cause injury	
	ns of any	airborne contaminants?	YES
engulfment?			YES
Works to be completed:	Unknow	n. Presumed maintenance and/or inspection activities.	
Comments:		pose of the pit is unknown. Access within the space wa	s not
		e at the time of assessment.	
Hazard Types	Risk	Recommended Actions	
Postricted entry and	Rating VH	Wear a safety harness and remain connected to a lif	olino at
Restricted entry and egress in an emergency	VП	all times.	eiirie at
		Ensure the standby person remains in constant conta	act with
Oxygen deficiency whilst	Е	person(s) entering the space. Monitor the atmosphere within the space prior to entering the space prior to entering the space prior to entering the space.	oring
work in progress	_	Only enter the space if oxygen levels are within the s	
		range (19.5% to 23.5%).	
		Ventilate the space if required. Continually monitor the atmosphere within the space	during
		entry.	during
Build-up or excess of	Е	Monitor the atmosphere within the space prior to enter	ering.
vapours such as hydrogen sulphide (H₂S)		Purge and ventilate the space if required. Continually monitor the atmosphere within the space	during
or carbon monoxide (CO)		entry.	during
to concentrations above		•	
the workplace exposure standards (WES)			
Build-up of organic	Е	Monitor the atmosphere within the space prior to enter	ering.
vapours to within		Purge and ventilate the space if required.	_
explosive limits		Only enter the space if the concentration of any flam vapours is less than 5% of its lower explosive limit.	mable
		Continually monitor the atmosphere within the space	during
		entry.	
		Ensure no ignition sources are located within or intro into the space.	auced
Airborne dust	L	No action required.	
concentrations above the WES			
Radiation (non-ionising and ionising)	L	No action required.	
Noise generated at levels	M	Isolate machinery. Wear appropriate PPE (e.g. heari	ng
above 85 dB(A)		protection).	

Risk Rating	Recommended Actions
E	Isolate all services within the space. Ensure the standby person is monitoring external weather conditions and any other factors that could impact the confined space.
Ш	Isolate all inflow pipes into the space. Wear a safety harness and remain connected to a lifeline at all times.
M	Ensure a two-person lift or lifting device is used when lifting or removing covers. Use a winch to lower equipment into the space.
L	No action required.
M	Wear appropriate PPE (e.g. gloves, long sleeve shirt and pants, boots and eye wear).
Н	Wear slip resistant boots.
H	Wear a safety harness and remain connected to a lifeline at all times.
M	Isolate all power sources within the space. Portable electrical equipment should be protected through an RCD, located outside of the space.
M	Wear appropriate PPE (e.g. gloves, long sleeve shirt and pants, boots and eye wear). Wash hands and face after exiting the space.
M	Use appropriate and safe temporary lighting and/or torch within the space.
L	No action required.
	Rating E E M H H M M

- Avoid entering the confined space if possible e.g. conduct cleaning activities from outside etc.
- Ensure access to the confined space remains secure at all times.
- Only authorised personnel are to access the confined space.
- All works and access in relation to confined spaces must be undertaken in accordance with AS 2865-2009.
- Ensure that the person responsible for the confined space work issues an entry permit prior to any persons entering the confined space.
- Ensure contractors are appropriately trained to undertake confined space entry and standby duties.
- Ensure site specific emergency rescue procedures and equipment are available and readily accessible during any confined space work.
- Ensure contractor safe work method statement (SWMS) addresses working at heights issues.
- Ensure suitable PPE is available and appropriately maintained.
- Ensure a task specific risk assessment is conducted within the space prior to commencing any works.
- Although it was not possible to access the space at the time of the assessment, it has been
 deemed to be a confined space (in order to take a precautionary approach) and should continue
 to be treated as such until confirmed as otherwise.

Risk Assessment C: Storm Water Drain			
Does the space meet the requirements of a Confined Space? YES			
(If the answer to A, B and at least one part of C is yes, then the space is a confined space			
and requires a risk assessment).			
A. Is the space designed or intended primarily not to be occupied by a person?			
B. Is the space designed of person is in the space?	r intended	d to be, at normal atmospheric pressure while any	YES
C. Is the space likely to be	a risk to h	nealth and safety from:	
an atmosphere that of	does not h	ave a safe oxygen level?	YES
from fire or explosion	?	ne gases, vapours and dusts, that may cause injury	YES
narmful concentrationengulfment?	ns of any a	airborne contaminants?	YES YES
Works to be completed:	Maintena	ance and inspection activities.	0
Comments:		to space is restricted. No access gained during assess	ment.
Hazard Types	Risk	Recommended Actions	
71	Rating		
Restricted entry and	Н	Wear a safety harness and remain connected to a life	eline at
egress in an emergency		all times.	
		Ensure the standby person remains in constant control person(s) entering the space.	act with
Oxygen deficiency whilst	Н	Monitor the atmosphere within the space prior to ent	erina
work in progress		Only enter the space if oxygen levels are within the s	
. 3		range (19.5% to 23.5%).	
		Ventilate the space if required.	
		Continually monitor the atmosphere within the space	during
Build-up or excess of	Н	entry. Monitor the atmosphere within the space prior to enter	erina
vapours such as		Purge and ventilate the space if required.	og.
hydrogen sulphide (H ₂ S)		Continually monitor the atmosphere within the space	during
or carbon monoxide (CO)		entry.	
to concentrations above			
the workplace exposure standards (WES)			
Build-up of organic	Н	Monitor the atmosphere within the space prior to ento	ering.
vapours to within		Purge and ventilate the space if required.	-
explosive limits		Only enter the space if the concentration of any flam	mable
		vapours is less than 5% of its lower explosive limit.	during
		Continually monitor the atmosphere within the space entry.	auring
		Ensure no ignition sources are located within or intro	duced
		into the space.	
Airborne dust	L	No action required.	
concentrations above the WES			
Radiation (non-ionising and ionising)	L	No action required.	
Noise generated at levels above 85 dB(A)	L	No action required.	
Uncontrolled introduction	VH	Isolate all services within the space.	
of substances (e.g.		Ensure no vehicles operate in the vicinity of the entry	
steam, water, gases etc.)		Ensure the standby person is monitoring external we conditions and any other factors that could impact the	
		conditions and any other factors that could impact the confined space.	5

Hazard Types	Risk Rating	Recommended Actions
Engulfment	I	Isolate all inflow pipes into the space. Wear a safety harness and remain connected to a lifeline at all times.
Manual handling of covers, lowering	M	Ensure a two-person lift or lifting device is used when lifting or removing covers.
equipment into pits		Use a winch to lower equipment into the space.
Mechanical hazards (e.g. entanglement, crushing, cutting, etc.)	ا ۔	No action required.
Skin contact with hazardous substances and surface contaminants	M	Wear appropriate PPE (e.g. gloves, long sleeve shirt and pants, boots and eye wear).
Slips and trips	Н	Wear slip resistant boots.
Falls from height	L	No action required.
Electrical hazards	M	Portable electrical equipment should be protected through an RCD, located outside of the space.
Biological hazards (e.g. E-coli)	M	Wear appropriate PPE (e.g. gloves, long sleeve shirt and pants, boots and eye wear). Wash hands and face after exiting the space.
Lack of lighting	M	Use appropriate and safe temporary lighting and/or torch within the space.
Heat and cold stress	Ĺ	No action required.

- Avoid entering the confined space if possible e.g. conduct cleaning activities from outside etc.
- Ensure access to the confined space remains secure at all times.
- Only authorised personnel are to access the confined space.
- All works and access in relation to confined spaces must be undertaken in accordance with AS 2865-2009.
- Ensure that the person responsible for the confined space work issues an entry permit prior to any persons entering the confined space.
- Ensure contractors are appropriately trained to undertake confined space entry and standby duties.
- Ensure site specific emergency rescue procedures and equipment are available and readily accessible during any confined space work.
- Ensure contractor safe work method statement (SWMS) addresses traffic management issues.
- Ensure suitable PPE is available and appropriately maintained.
- Ensure a task specific risk assessment is conducted within the space prior to commencing any works.
- Although it was not possible to access the space at the time of the assessment, it has been
 deemed to be a confined space (in order to take a precautionary approach) and should continue
 to be treated as such until confirmed as otherwise.

Risk Assessment D: Water Tank			
Does the space meet the requirements of a Confined Space? (If the answer to A. P. and at least one part of C is yes, then the space is a confined space.)			
(If the answer to A, B and at least one part of C is yes, then the space is a confined space and requires a risk assessment).			
A. Is the space designed or intended primarily not to be occupied by a person? YES			
B. Is the space designed of person is in the space?		ed to be, at normal atmospheric pressure while any	YES
C. Is the space likely to be	a risk to	health and safety from:	
an atmosphere that	does not	have a safe oxygen level?	YES
 contaminants, include from fire or explosion 		rne gases, vapours and dusts, that may cause injury	NO
harmful concentratioengulfment?	ns of any	airborne contaminants?	NO YES
Works to be completed:	Cleanin	g and maintenance activities.	
Comments:		to space is restricted. No access gained during assessr	ment.
Hazard Types	Risk	Recommended Actions	
	Rating		
Restricted entry and	VH	Wear a safety harness and remain connected to a life	line at all
egress in an emergency		times.	
		Ensure the standby person remains in constant conta	ct with
		person(s) entering the space.	
Oxygen deficiency whilst	Е	Monitor the atmosphere within the space prior to ente	
work in progress		Only enter the space if oxygen levels are within the sa	ite range
		(19.5% to 23.5%). Ventilate the space if required.	
		Continually monitor the atmosphere within the space of	durina
		entry.	adinig
Build-up or excess of	L	No action required.	
vapours such as		·	
hydrogen sulphide (H ₂ S)			
or carbon monoxide (CO)			
to concentrations above			
the workplace exposure			
standards (WES) Build-up of organic	1	No action required.	
vapours to within	_	i No action required.	
explosive limits			
Airborne dust	L	No action required.	
concentrations above the			
WES			
Radiation (non-ionising	L	No action required.	
and ionising)			
Noise generated at levels above 85 dB(A)	L	No action required.	
Uncontrolled introduction	VH	Isolate all inflow pipes into the space.	
of substances (e.g.			
steam, water, gases etc.)			
Engulfment	E	Isolate all inflow pipes into the space.	
		Wear a safety harness and remain connected to a life	line at all
		times.	

Hazard Types	Risk Rating	Recommended Actions
Manual handling of covers, lowering equipment into pits	M	Use a winch or rope pulley system to lower equipment into the tank.
Mechanical hazards (e.g. entanglement, crushing, cutting, etc.)	L	No action required.
Skin contact with hazardous substances and surface contaminants	L	No action required.
Slips and trips	M	Wear slip resistant boots.
Falls from height	VH	Wear a safety harness and remain connected to a lifeline at all times.
Electrical hazards	M	Portable electrical equipment should be protected through an RCD, located outside of the space.
Biological hazards (e.g. E-coli)	M	Wear appropriate PPE (e.g. gloves, long sleeve shirt and pants, boots and eye wear). Wash hands and face after exiting the space.
Lack of lighting	Н	Use appropriate and safe temporary lighting and/or torch within the space.
Heat and cold stress	Ĺ	No action required.

- Avoid entering the confined space if possible e.g. conduct cleaning activities from outside etc.
- Ensure access to the confined space remains secure at all times.
- Only authorised personnel are to access the confined space.
- All works and access in relation to confined spaces must be undertaken in accordance with AS 2865-2009.
- Ensure that the person responsible for the confined space work issues an entry permit prior to any persons entering the confined space.
- Ensure contractors are appropriately trained to undertake confined space entry and standby duties.
- Ensure site specific emergency rescue procedures and equipment are available and readily accessible during any confined space work.
- Ensure contractor safe work method statement (SWMS) addresses working at heights issues.
- Ensure suitable PPE is available and appropriately maintained.
- Ensure a task specific risk assessment is conducted within the space prior to commencing any works.
- Although it was not possible to access the space at the time of the assessment, it has been deemed to be a confined space (in order to take a precautionary approach) and should continue to be treated as such until confirmed as otherwise.

Risk Assessment E: Fuel Tank					
Does the space meet the requirements of a Confined Space? YES					
(If the answer to A, B and at least one part of C is yes, then the space is a confined space and requires a risk assessment).					
A. Is the space designed or intended primarily not to be occupied by a person? YES					
B. Is the space designed of person is in the space?					
C. Is the space likely to be	a risk to h	nealth and safety from:			
an atmosphere that of	an atmosphere that does not have a safe oxygen level? YES				
from fire or explosion	?	ne gases, vapours and dusts, that may cause injury airborne contaminants?	YES YES		
• engulfment?			YES		
Works to be completed:	Cleaning	g and maintenance activities.			
Comments:	Access t	to space is restricted. No access gained during assess	ment.		
Hazard Types	Risk Rating	Recommended Actions			
Restricted entry and egress in an emergency	VH	Wear a safety harness and remain connected to a lif all times. Ensure the standby person remains in constant cont person(s) entering the space.	act with		
Oxygen deficiency whilst work in progress	E	Monitor the atmosphere within the space prior to ent Only enter the space if oxygen levels are within the strange (19.5% to 23.5%). Ventilate the space if required. Continually monitor the atmosphere within the space entry.	safe during		
Build-up or excess of vapours such as hydrogen sulphide (H ₂ S) or carbon monoxide (CO) to concentrations above the workplace exposure standards (WES)	E	Monitor the atmosphere within the space prior to enti- Purge and ventilate the space if required. Continually monitor the atmosphere within the space entry.	•		
Build-up of organic vapours to within explosive limits	E	Monitor the atmosphere within the space prior to ent Purge and ventilate the space if required. Only enter the space if the concentration of any flam vapours is less than 5% of its lower explosive limit. Continually monitor the atmosphere within the space entry. Ensure no ignition sources are located within or introinto the space.	mable during		
Airborne dust concentrations above the WES	L	No action required.			
Radiation (non-ionising and ionising)	L	No action required.			
Noise generated at levels above 85 dB(A)	L	No action required.			
Uncontrolled introduction of substances (e.g. steam, water, gases etc.)	VH	Isolate all inflow pipes into the space.			

Hazard Types	Risk Rating	Recommended Actions
Engulfment	VH	Isolate all inflow pipes into the space. Wear a safety harness and remain connected to a lifeline at all times.
Manual handling of covers, lowering equipment into pits	٦	No action required.
Mechanical hazards (e.g. entanglement, crushing, cutting, etc.)	١	No action required.
Skin contact with hazardous substances and surface contaminants	M	Wear appropriate PPE (e.g. gloves, long sleeve shirt and pants, boots and eye wear).
Slips and trips	М	Wear slip resistant boots.
Falls from height	L	No action required.
Electrical hazards	M	Portable electrical equipment should be protected through an RCD, located outside of the space.
Biological hazards (e.g. E-coli)	L	No action required.
Lack of lighting	Ι	Use appropriate and safe temporary lighting and/or torch within the space.
Heat and cold stress	L	No action required.

- Avoid entering the confined space if possible e.g. conduct cleaning activities from outside etc.
- Ensure access to the confined space remains secure at all times.
- Only authorised personnel are to access the confined space.
- All works and access in relation to confined spaces must be undertaken in accordance with AS 2865-2009.
- Ensure that the person responsible for the confined space work issues an entry permit prior to any persons entering the confined space.
- Ensure contractors are appropriately trained to undertake confined space entry and standby duties.
- Ensure site specific emergency rescue procedures and equipment are available and readily accessible during any confined space work.
- Ensure contractor safe work method statement (SWMS) addresses working at heights issues.
- Ensure suitable PPE is available and appropriately maintained.
- Ensure a task specific risk assessment is conducted within the space prior to commencing any works.
- Although it was not possible to access the space at the time of the assessment, it has been
 deemed to be a confined space (in order to take a precautionary approach) and should continue
 to be treated as such until confirmed as otherwise.

Risk Assessment F: S	Storm W	ater Tank / HumeCeptor			
		ents of a Confined Space?	YES		
(If the answer to A, B and at least one part of C is yes, then the space is a confined space and requires a risk assessment).					
A. Is the space designed or intended primarily not to be occupied by a person? YES					
B. Is the space designed of person is in the space?	r intended	d to be, at normal atmospheric pressure while any	YES		
C. Is the space likely to be	a risk to h	nealth and safety from:			
an atmosphere that of	an atmosphere that does not have a safe oxygen level? YES				
from fire or explosion harmful concentration	?	ne gases, vapours and dusts, that may cause injury airborne contaminants?	YES YES		
engulfment? Works to be correlated.	Maintan	and and increation of initial	YES		
Works to be completed: Comments:		ance and inspection activities. to space is restricted. No access gained during assess	mont		
Hazard Types	Risk	Recommended Actions	inent.		
Hazaiu Types	Rating	Neconinienueu Actions			
Restricted entry and egress in an emergency	VH	Wear a safety harness and remain connected to a lif all times. Ensure the standby person remains in constant cont person(s) entering the space.			
Oxygen deficiency whilst work in progress	Е	Monitor the atmosphere within the space prior to entering. Only enter the space if oxygen levels are within the safe range (19.5% to 23.5%). Ventilate the space if required. Continually monitor the atmosphere within the space during entry.			
Build-up or excess of vapours such as hydrogen sulphide (H ₂ S) or carbon monoxide (CO) to concentrations above the workplace exposure standards (WES)	VH	Monitor the atmosphere within the space prior to enti- Purge and ventilate the space if required. Continually monitor the atmosphere within the space entry.	•		
Build-up of organic vapours to within explosive limits	VH	Monitor the atmosphere within the space prior to ent Purge and ventilate the space if required. Only enter the space if the concentration of any flam vapours is less than 5% of its lower explosive limit. Continually monitor the atmosphere within the space entry. Ensure no ignition sources are located within or introinto the space.	mable during		
Airborne dust concentrations above the WES	L	No action required.			
Radiation (non-ionising and ionising)	L	No action required.			
Noise generated at levels above 85 dB(A)	L	No action required.			
Uncontrolled introduction of substances (e.g. steam, water, gases etc.)	E	Isolate all services within the space. Ensure no vehicles operate in the vicinity of the entry Ensure the standby person is monitoring external we conditions and any other factors that could impact th confined space.	eather		

Hazard Types	Risk Rating	Recommended Actions
Engulfment	ш	Isolate all inflow pipes into the space. Wear a safety harness and remain connected to a lifeline at all times.
Manual handling of covers, lowering equipment into pits	M	Ensure a two-person lift or lifting device is used when lifting or removing covers. Use a winch to lower equipment into the space.
Mechanical hazards (e.g. entanglement, crushing, cutting, etc.)	L	No action required.
Skin contact with hazardous substances and surface contaminants	M	Wear appropriate PPE (e.g. gloves, long sleeve shirt and pants, boots and eye wear).
Slips and trips	Ι	Wear slip resistant boots.
Falls from height	VH	Wear a safety harness and remain connected to a lifeline at all times.
Electrical hazards	M	Portable electrical equipment should be protected through an RCD, located outside of the space.
Biological hazards (e.g. E-coli)	M	Wear appropriate PPE (e.g. gloves, long sleeve shirt and pants, boots and eye wear). Wash hands and face after exiting the space.
Lack of lighting	Н	Use appropriate and safe temporary lighting and/or torch within the space.
Heat and cold stress	Ĺ	No action required.

- Avoid entering the confined space if possible e.g. conduct cleaning activities from outside etc.
- Ensure access to the confined space remains secure at all times.
- Only authorised personnel are to access the confined space.
- All works and access in relation to confined spaces must be undertaken in accordance with AS 2865-2009.
- Ensure that the person responsible for the confined space work issues an entry permit prior to any persons entering the confined space.
- Ensure contractors are appropriately trained to undertake confined space entry and standby duties.
- Ensure site specific emergency rescue procedures and equipment are available and readily accessible during any confined space work.
- Ensure contractor safe work method statement (SWMS) addresses working at heights and traffic management issues.
- Ensure suitable PPE is available and appropriately maintained.
- Ensure a task specific risk assessment is conducted within the space prior to commencing any works.
- Although it was not possible to access the space at the time of the assessment, it has been
 deemed to be a confined space (in order to take a precautionary approach) and should continue
 to be treated as such until confirmed as otherwise.

APPENDIX C: PHOTOGRAPHS



Photo 01. Building 4, West side, adjacent to main entrance – sewer pit.



Photo 02. Building 4, West side, adjacent to disabled car parking spaces – unknown pit.



Photo 03. Building 4, Northwest corner, adjacent to speed hump – unknown pit.



Photo 04. Building 4, North side, east area, adjacent to Dock 3 entrance – storm water drain.

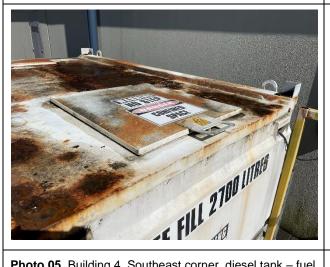


Photo 05. Building 4, Southeast corner, diesel tank – fuel tank.



Photo 06. Building 4, South side, central west area, adjacent to driveway and garden bed – unknown pit.



Photo 07. Building 3, West side, adjacent to foot path and building – sewer pit.



Photo 08. Building 3, West side, grassed area, adjacent to road – storm water drains (x2).



Photo 09. Building 3, East side, footpath adjacent to building – unknown pit.



Photo 10. Building 2, North side, driveway – storm water drains (x4).



Photo 11. Building 2, North side, west area – water tank.



Photo 12. Building 2, West side, garden area, adjacent to driveway – sewer pit.



Photo 13. Building 2, Western car park, southeast corner, parking space 11 – storm water drain.



Photo 14. Building 2, Northwest side, driveway, adjacent to site entrance – unknown pit.



Photo 15. Building 2, Northwest side, driveway, adjacent to site entrance – storm water drain.



Photo 16. Building 2, Northeast side, car park area (6 x hatches) – storm water tank.



Photo 17. Building 2, Northeast corner, car park, southeast area – storm water drains (x4).



Photo 18. Building 2, East side, central driveway – unknown pit.



Photo 19. Building 2, East side, far east driveway – unknown pits (x2).



Photo 20. Building 2, East side, far east driveway – humeceptor (x2).



Photo 21. Building 1, West side, grassed area, adjacent to perimeter fence – unknown pit.



Photo 22. Building 1, South side, west area, adjacent to external dining area – unknown pit.



Photo 23. Building 1, East side, north area, diesel tank – fuel tank.



Photo 24. Building 1, North side, west area – unknown pit (x3).

APPENDIX D: CONFINED SPACE SIGNAGE

Example A: Fixed confined space warning sign that can be established in a prominent position adjacent the confined space or on the access hatch.



Example B: Another fixed confined space warning sign that can be established in a prominent position adjacent the confined space or on the access hatch. The warning signage carries brief information that would need to be listed in the confined space entry permit.



Example C: Mobile confined space warning sign that can be established in a prominent position adjacent the confined space while works are in progress.



APPENDIX E: SITE PLAN

