

14 February 2024

Our ref: SYDEN346305-L01

The Uniting Church in Australia Property Trust for Uniting (NSW.ACT)
c/- Midson Group Pty Ltd
via email: eghali@midsongroup.com.au

Attention: Emmanuel Ghali

Dear Emmanuel,

Addendum to Report on Detailed Site Investigation (Contamination), Proposed Seniors Housing Development, Uniting Edinglassie Development, Emu Plains

Please find attached our Addendum to Report on Detailed Site Investigation (Contamination) for the subject development.

If you have any questions, please do not hesitate to contact me.

For and on Behalf of Tetra Tech Coffey Pty Ltd,



Edward Wu
Principal, EIANZ Certified Site Contamination Specialist

Attachment – Addendum Report

1. INTRODUCTION

Tetra Tech Coffey Pty Ltd (Coffey) understands the Uniting Church in Australia Property Trust for Uniting (NSW.ACT) (to be referred to as the Uniting) has proposed a new seniors housing development in the western portion of the site identified as 1-3 Emerald Street and 6-8 Troy Street, Emu Plains, NSW. The development will include five buildings (3 to 4 storeys) providing independent living units and a communal clubhouse, one basement car park and associated demolition works, tree removal, earthworks, landscaping and stormwater drainage works.

To the east of the proposed seniors housing development is the residential aged care facility (including an on-grade care park) that has recently been completed. The residential aged care facility was subject to a separate development consent.

A Detailed Site Investigation (Contamination) was completed by Douglas Partners (Ref: 84503.02.R.002.Rev0, dated 16 May 2022) (referred to as the DSI report) which concluded that the site (including the completed residential aged care facility in eastern portion of the site) can be made suitable for the proposed residential (aged care facility) development subject to implementation of the following recommendations:

1. Further investigation of the nature and extent of Total Recoverable Hydrocarbons (TRH) impacts in soil at borehole BH113 following demolition of the workshop under an unexpected finds protocol.
2. A supplementary round of groundwater sampling to confirm the presence (or otherwise) of TRH in groundwater (given low levels of TRH was detected in the groundwater samples).
3. Further waste classification assessment within the building footprints and the footprint of the temporary carpark.
4. Further waste classification assessment in the vicinity of BH109 to confirm the presence (or otherwise) of scheduled chemical waste.
5. Further information be sought on the source (site) of the material imported from a site where a dry cleaner was present.
6. Preparation of clearance certificate following demolition.
7. Preparation of an unexpected finds protocol.

As part of the development application (DA22/1171) process for the proposed seniors housing development in the western portion of the site, Penrith City Council (Council) issued a request for information (RFI) letter dated 30 January 2024.

Council stated that whilst some of these recommendations can be addressed as development of the site progresses, the recommendations relating to groundwater (2nd bullet point), and the source of the imported fill material (5th bullet point), would need to be resolved prior to determination. Furthermore, Council noted that additional site works have been carried out since the preparation of the DSI report, such as the demolition of the carpark located at 6 Troy Street, and these changes to site conditions are required to be addressed. In turn, Council requested an addendum to the DSI is to be submitted to Council for review, addressing the above noted recommendations and the current site condition.

2. OBJECTIVE AND SCOPE OF WORK

This addendum presents an additional assessment to assess if the following contamination issues raised by Council would present an unacceptable risk to human health or the environment for the proposed development:

- Presence of TRH in groundwater at low levels (2nd bullet point).
- Source of imported fill potentially impacted by a dry cleaner (5th bullet point).
- Change of site conditions following preparation of the DSI report.

An additional objective was to provide recommendations for further investigation, management or remediation if contamination was identified in the areas assessed such that the site could be made suitable for the proposed development.

This Addendum should be read in conjunction with the DSI report (Douglas Partners 2022).

3. PRESENCE OF TRH IN GROUNDWATER AT LOW LEVELS

Two shallow groundwater monitoring wells (BH100 and BH102) were previously sampled on 23 March 2022 by Douglas Partners and the DSI report identified low levels of TRH in the groundwater samples (and in the duplicate sample BD1, duplicate of BH100).

The summary of TRH results is reproduced in Table 1.

Table 1: Summary of TRH Results Extracted from DSI Report

			Field ID		BH100		BH102	
			LocCode		BH100		BH102	
			WebCode		BH100		BH102	
			Sampled Date/Time		23/03/2022		23/03/2022	
			ANZG (2018) Freshwater 95% LOSP Toxicant DGVs		ANZG (2018) Freshwater Unknown LOSP Toxicant DGVs		PFOS 95% LOP Fresh Water	
			PFOS 99% LOP Fresh Water		NEP M 2013 Table 2-4m		NEPM 2013 Table 1C GILs, Drinking Water	
Method_Type	ChemName	Units	EQL					
vTRH (C10-C40) in Water	C10-C16	mg/L	0.05				0.074	<0.1
	C16-C34	mg/L	0.1				0.32	<0.2
	C34-C40	mg/L	0.1				<0.1	<0.1
	F2-NAPHTHALENE	mg/L	0.05			1	0.074	<0.1
	C10 - C14	mg/L	0.05				0.071	<0.1
	C15 - C28	mg/L	0.1				0.24	<0.1
	C29-C36	mg/L	0.1				0.14	<0.1
	+C10 - C36 (Sum of total)	mg/L	0.05				0.45	<0.1
	C10 - C40 (Sum of total)	mg/L	0.05				0.39	<0.1
	Phenolics Total	mg/L	0.05				-	<0.05
vTRH(C6-C10)/BTEX in Water	Benzene	mg/L	0.001	0.95		0.8	0.001	<0.001
	Ethylbenzene	mg/L	0.001	0.98		NL	0.3	<0.001
	Naphthalene	mg/L	0.001	0.016		NL	<0.001	<0.001
	C6 - C9	mg/L	0.01				<0.01	<0.01
	Toluene	mg/L	0.001	0.18		NL	0.8	<0.001
	Xylene (m & p)	mg/L	0.002				<0.002	<0.002
	Xylene (o)	mg/L	0.001	0.35			<0.001	<0.001
	C6-C10 less BTEX (F3)	mg/L	0.01			1	<0.01	<0.01
	C6-C10	mg/L	0.01				<0.01	<0.01

Douglas Partners (2022) reported that TRH were detected well below the adopted health and ecological based criteria.

Douglas Partners (2022) considered that the TRH detections may be a cross contamination from surface water ponding following a heavy rainfall event. The wells were installed within shallow natural soil (described as silty sand, silty clay, and gravelly sand) less than 4m below ground.

Whilst Douglas Partner (2022) recommended a supplementary round of groundwater monitoring to be carried out, Coffey considers that such additional round is not warranted, for the following reasons:

- The TRH concentrations were well below the health and ecological based criteria adopted in the DSI.
- The TRH at such low concentrations would likely be attributed to surface runoff and/or naturally occurring organic matters, not likely a petroleum point source from the site.

- The TRH, at such low concentrations, do not present an unacceptable risk to the relevant health and ecological receptors identified in the DSI report.
- No widespread TRH impacts were identified in the soil samples with TRH mostly not detected in the soil samples, with the exception of a marginal exceedance of ecological criteria in surface soil at BH113 located adjacent to the workshop. Douglas Partners (2022) concluded that remediation is not considered to be warranted. Coffey concurs with this conclusion by Douglas Partners. Coffey considers unlikely that such localised TRH impact at BH113 at low concentrations would give rise to unacceptable groundwater impacts.
- No phase separated hydrocarbons or sheen were observed in the groundwater wells.
- No point source of hydrocarbon contamination (e.g., an underground storage tank) has been identified.

Given the above, Coffey considers that there is no technical merit or basis to trigger further investigation or remediation with respect to the low-level TRH detections in groundwater.

4. SOURCE OF IMPORTED FILL POTENTIALLY IMPACTED BY A DRY CLEANER

As part of the review of previous reports, Douglas Partners (2022) was provided with a Waste Classification Certificate prepared by EI Australia (2021). It was Douglas Partners' understanding that the material described in the certificate is the material which was imported to the site to form the subgrade of the car park in the central eastern portion of the site. Coffey understands from Midson Group that the imported material for the subgrade has also extended to the landscaping area to the south and west of the car park. The approximate extent of the imported material is shown in Figure 1 below¹.

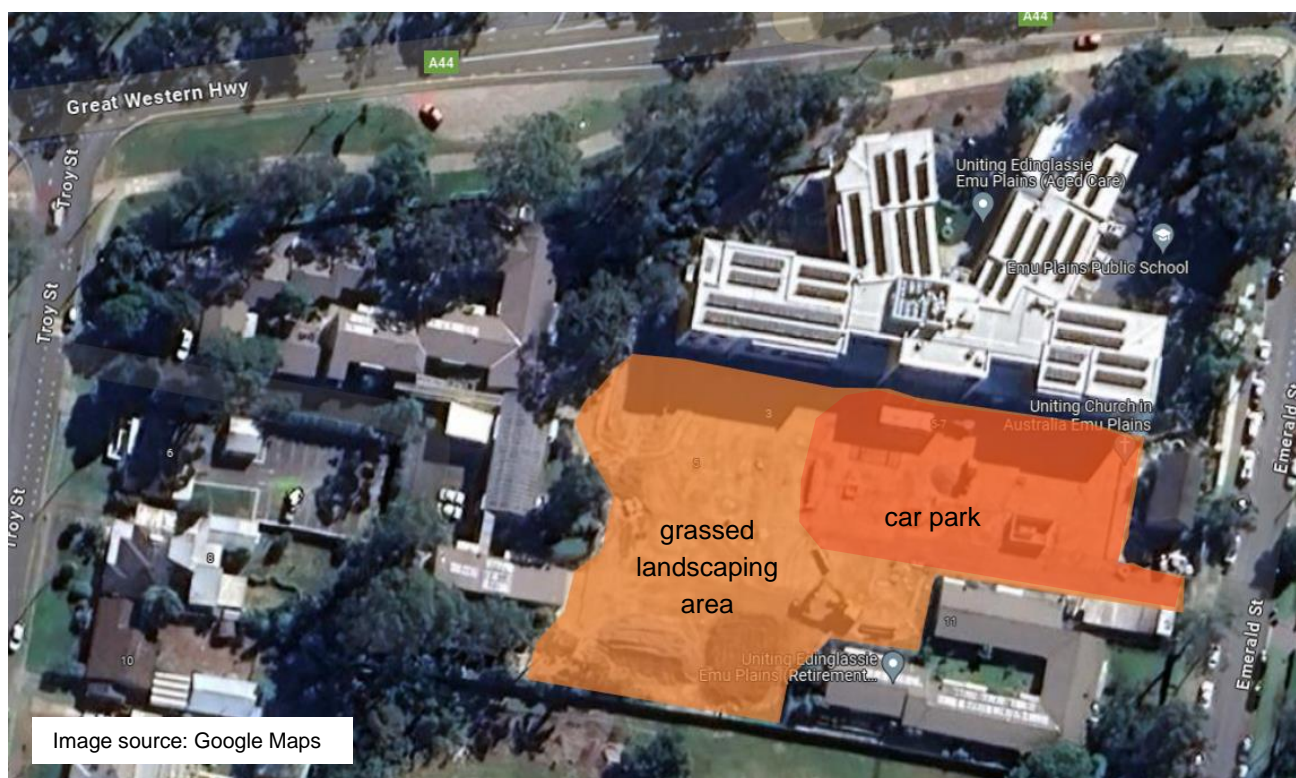


Figure 1: Approximate Extent of Imported Fill (information provided by Midson Group)

¹ The footprint of the car park has been revised since completion of the DSI

Based on EI Australia (2021), Douglas Partners (2022) understood that the source site of the imported fill for the car park subgrade was located at 219-223 Maroubra Road, Maroubra. A dry cleaner operated at that premise until 1988. Douglas Partners (2022) reported that EI Australia collected eight (8) samples and the samples were analysed for heavy metals, PAH, BTEX, TRH, OCP, OPP and PCB. In addition, twelve (12) samples were analysed for asbestos. Based on the results, EI Australia (2021) concluded that the assessed material could be classified as virgin excavated natural material (VENM) for reuse offsite. However, Douglas Partners considered VOC was a chemical of potential concern due to potential dry cleaning solvent use. However, Douglas Partners (2022) reported that VOC was not selected for analysis by EI Australia. Douglas Partners (2022) considered that the absence of VOC analysis represents a data gap and further assessment of the material fill should be undertaken.

Coffey was subsequently provided with a copy of the Waste Classification Certificate prepared by EI Australia (2021). Based on Coffey's review of the certificate, Coffey understands that fill had been removed with natural sands and sandstone bedrock exposed for sampling by EI Australia. Whilst VOC was not analysed, nine primary samples were analysed for TRH and they were reported below laboratory's limits of detection (LOR). This indicates significant concentrations of VOC would not likely to be present and the samples were not likely to have been impacted by dry clearing solvents.

On behalf of Uniting, Midson Group made a request to Randwick City Council to access additional contamination reports associated with the source site in Maroubra. A number of additional reports were subsequently obtained and provided to Coffey for review. These included the Detailed Site Investigation report prepared by EI Australia (2019) for 219-223 Maroubra Road, Maroubra. The EI Australia (2019) investigation comprised groundwater sampling from three (3) shallow groundwater monitoring wells (generally screening between 5m and 9m below ground level). The groundwater samples were analysed for VOC along with TRH. Both VOC and TRH were detected below laboratory's limits of reporting (LOR).

On the basis of the above, Coffey considers that the subject material was not likely to have been impacted by dry clearing solvents. Therefore, no additional investigation or remediation would be warranted with respect to the subject imported fill.

5. CHANGE OF SITE CONDITIONS FOLLOWING PREPARATION OF THE DSI REPORT

Midson Group has advised that the following activities have been completed for the wider site since the preparation of the DSI report (Douglas Partners, 2022):

- The carpark on the eastern side of the site (servicing the residential aged care facility) was completed.
- Landscaping between the new residential aged care facility carpark and the existing independent living units was completed (grassed).
- The 6 Troy Street temporary carpark has been removed and grassed.

These work areas are shown in Figure 2 below.

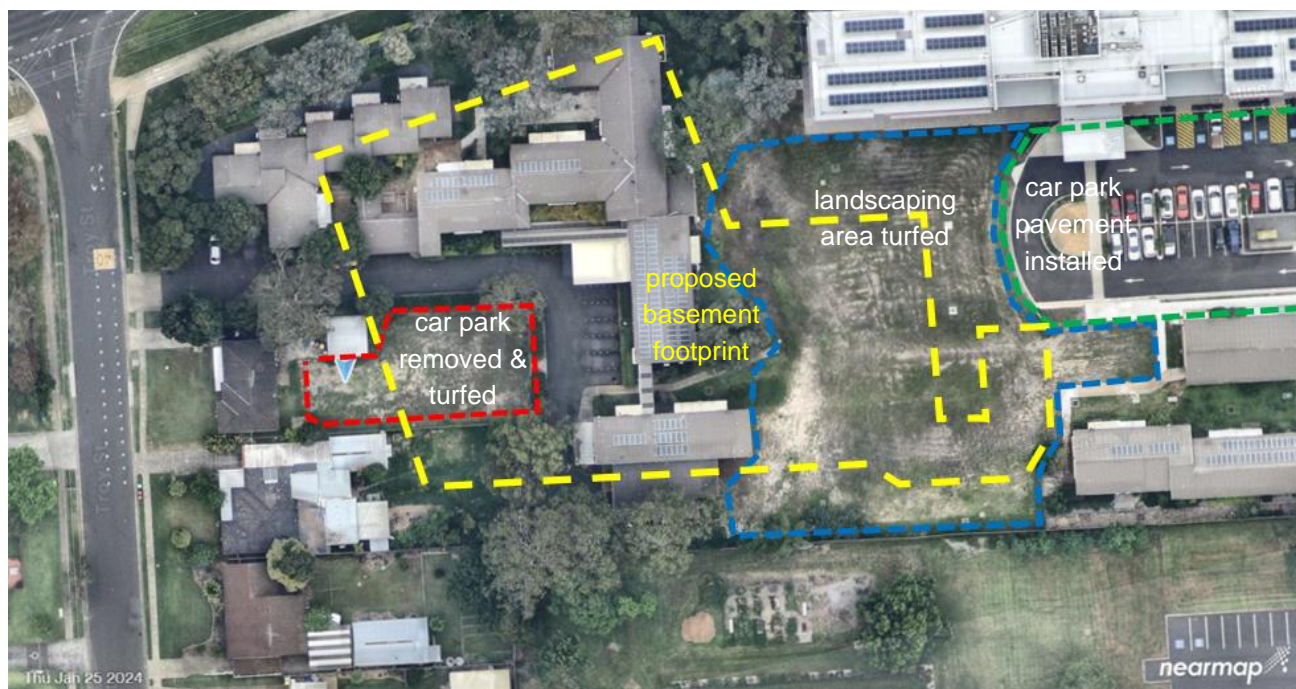


Figure 2: Activities completed Since the Preparation of the DSI (information provided by Midson Group)

These works were completed under a separate development consent for the development of the residential aged care facility:

- Coffey understands that the carpark on the eastern side (green outline) generally comprised pavement installation and the landscaping area (blue outline) generally comprised turf installation. Earthwork activities² following completion of the DSI were relatively minor and superficial, generally to facilitate the installations of pavement and turf.
- Coffey understands that the rear of 6 Troy Street (red outline) was used as a temporary car park (as reported in the DSI report) during the development of the residential aged care facility, approved under a separate development consent. Midson Group advised that the temporary car park has since been removed and turfed, as a condition of the development consent.

Coffey considers the above pavement and turf installation activities, completed as part of a separate development consent, are of low material risk with respect to contamination. The pavement area is located outside the proposed seniors housing (independent living units) development. Therefore, further investigation of the pavement area is not warranted for the proposed seniors housing development.

The proposed seniors housing development will include a basement car park. The proposed basement excavation (yellow outline) will cover a large portion of the landscaping area (blue outline) and most of the rear of 6 Troy Street (red outline). Therefore, most of the subject areas will need to be excavated regardless of contamination status, as part of the basement construction.

² Most subgrade fill was imported (refer to Section 5) prior to completion of the DSI (Douglas Partners 2022). The imported fill was encountered in borehole BH105 in the DSI by Douglas Partners. The imported fill was described by Douglas Partners (2022) as gravelly sand and ripped sandstone gravel, consistent with the VENM described in the Waste Classification Certificate by EI Australia (2021).

Coffey considers that there will be sufficient safeguard with respect to managing potential contamination risks associated with minor works that have been completed after the DSI at the landscaping area (blue outline) and rear of 6 Troy Street (red outline), for the following reasons:

- The completed pavement and turf installation works, completed as part of a separate development consent, are of low material risk with respect to contamination.
- Most of the subject areas will need to be waste classified and excavated regardless, as part of the basement construction.
- Potential contamination, if present in an unlikely case, could be managed under an unexpected finds protocol (UFP), which has already been recommended in the DSI report by Douglas Partners (2022).

6. CONCLUSIONS

Based on the above, Coffey has not identified unacceptable contamination risks with respect to the following contamination issues raised by Council for the proposed seniors housing development:

- Presence of TRH in groundwater at low levels.
- Source of imported fill potentially impacted by dry cleaner operations.
- Change of site conditions following preparation of the DSI report.

Coffey considers the above issues would not render the site unsuitable for the proposed development, subject to implementation of an unexpected finds protocol and appropriate waste management practices.

This addendum should be read in conjunction with the DSI report (Douglas Partners 2022).

7. LIMITATIONS

This report should be read in conjunction with the DSI report (Douglas Partners 2022). Subject to finding of this addendum, Coffey has assumed the data and information provided to Coffey, including the DSI report, are accurate and reliable.

Whilst Coffey considers the approach and findings presented in this addendum be reasonable and technically acceptable, acceptance by Council (or not) will be outside Coffey's control. It is also important to note that the addendum does address all outstanding contamination issues as these issues are expected to be addressed following the consent determination (eg. during the construction stage).

8. REFERENCE

Douglas Partners (2022) Report on Detailed Site Investigation (Contamination), Proposed Aged Care Facility, Edinglassie Village, 1-3 Emerald Street and 6-8 Troy Street, Emu Plains, Ref: 84503.02.R.002.Rev0, dated 16 May 2022.

EI Australia (2021) Waste Classification Certificate, 219-223 Maroubra Rd, Maroubra NSW, Ref: E24358.E05, dated 11 September 2021.

EI Australia (2019) Detailed Site Investigation, 219-223 Maroubra Rd, Maroubra NSW, Ref: E24358.E02_Rev0, dated 29 November 2019.

APPENDIX A: IMPORTANT INFORMATION SHEET

IMPORTANT INFORMATION ABOUT YOUR TETRA TECH COFFEY ENVIRONMENTAL REPORT

Introduction

This report has been prepared by Tetra Tech Coffey for you, as Tetra Tech Coffey's client, in accordance with our agreed purpose, scope, schedule and budget.

The report has been prepared using accepted procedures and practices of the consulting profession at the time it was prepared, and the opinions, recommendations and conclusions set out in the report are made in accordance with generally accepted principles and practices of that profession.

The report is based on information gained from environmental conditions (including assessment of some or all of soil, groundwater, vapour and surface water) and supplemented by reported data of the local area and professional experience. Assessment has been scoped with consideration to industry standards, regulations, guidelines and your specific requirements, including budget and timing. The characterisation of site conditions is an interpretation of information collected during assessment, in accordance with industry practice.

This interpretation is not a complete description of all material on or in the vicinity of the site, due to the inherent variation in spatial and temporal patterns of contaminant presence and impact in the natural environment. Tetra Tech Coffey may have also relied on data and other information provided by you and other qualified individuals in preparing this report. Tetra Tech Coffey has not verified the accuracy or completeness of such data or information except as otherwise stated in the report. For these reasons the report must be regarded as interpretative, in accordance with industry standards and practice, rather than being a definitive record.

Your report has been written for a specific purpose

Your report has been developed for a specific purpose as agreed by us and applies only to the site or area investigated. Unless otherwise stated in the report, this report cannot be applied to an adjacent site or area, nor can it be used when the nature of the specific purpose changes from that which we agreed.

For each purpose, a tailored approach to the assessment of potential soil and groundwater contamination is required. In most cases, a key objective is to identify, and if possible quantify, risks that both recognised and potential contamination pose in the context of the agreed purpose. Such risks may be financial (for example, clean up costs or constraints on site use) and/or physical (for example, potential health risks to users of the site or the general public).

Limitations of the Report

The work was conducted, and the report has been prepared, in response to an agreed purpose and scope, within time and budgetary constraints, and in reliance on certain data and information made available to Tetra Tech Coffey.

The analyses, evaluations, opinions and conclusions presented in this report are based on that purpose and scope, requirements, data or information, and they could change if such requirements or data are inaccurate or incomplete.

This report is valid as of the date of preparation. The condition of the site (including subsurface conditions) and extent or nature of contamination or other environmental hazards can change over time, as a result of either natural processes or human influence. Tetra Tech Coffey should be kept apprised of any such events and should be consulted for further investigations if any changes are noted, particularly during construction activities where excavations often reveal subsurface conditions.

In addition, advancements in professional practice regarding contaminated land and changes in applicable statutes and/or guidelines may affect the validity of this report. Consequently, the currency of conclusions and recommendations in this report should be verified if you propose to use this report more than 6 months after its date of issue.

The report does not include the evaluation or assessment of potential geotechnical engineering constraints of the site.

Interpretation of factual data

Environmental site assessments identify actual conditions only at those points where samples are taken and on the date collected. Data derived from indirect field measurements, and sometimes other reports on the site, are interpreted by geologists, engineers or scientists to provide an opinion about overall site conditions, their likely impact with respect to the report purpose and recommended actions.

Variations in soil and groundwater conditions may occur between test or sample locations and actual conditions may differ from those inferred to exist. No environmental assessment program, no matter how comprehensive, can reveal all subsurface details and anomalies. Similarly, no professional, no matter how well qualified, can reveal what is hidden by earth, rock or changed through time.

The actual interface between different materials may be far more gradual or abrupt than assumed based on the facts obtained. Nothing can be done to change the actual site conditions which exist, but steps can be taken to reduce the impact of unexpected conditions.

For this reason, parties involved with land acquisition, management and/or redevelopment should retain the services of a suitably qualified and experienced environmental consultant through the development and use of the site to identify variances, conduct additional tests if required, and recommend solutions to unexpected conditions or other unrecognised features encountered on site. Tetra Tech Coffey would be pleased to assist with any investigation or advice in such circumstances.

Recommendations in this report

This report assumes, in accordance with industry practice, that the site conditions recognised through discrete sampling are representative of actual conditions throughout the investigation area. Recommendations are based on the resulting interpretation.

Should further data be obtained that differs from the data on which the report recommendations are based (such as through excavation or other additional assessment), then the recommendations would need to be reviewed and may need to be revised.

Report for benefit of client

Unless otherwise agreed between us, the report has been prepared for your benefit and no other party. Other parties should not rely upon the report or the accuracy or completeness of any recommendation and should make their own enquiries and obtain independent advice in relation to such matters.

Tetra Tech Coffey assumes no responsibility and will not be liable to any other person or organisation for, or in relation to, any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report.

To avoid misuse of the information presented in your report, we recommend that Tetra Tech Coffey be consulted before the report is provided to another party who may not be familiar with the background and the purpose of the report. In particular, an environmental disclosure report for a property vendor may not be suitable for satisfying the needs of that property's purchaser. This report should not be applied for any purpose other than that stated in the report.

Interpretation by other professionals

Costly problems can occur when other professionals develop their plans based on misinterpretations of a report. To help avoid misinterpretations, a suitably qualified and experienced environmental consultant should be retained to explain the implications of the report to other professionals referring to the report and then review plans and specifications produced to see how other professionals have incorporated the report findings.

Given Tetra Tech Coffey prepared the report and has familiarity with the site, Tetra Tech Coffey is well placed to provide such assistance. If another party is engaged to interpret the recommendations of the report, there is a risk that the contents of the report may be misinterpreted and Tetra Tech Coffey disowns any responsibility for such misinterpretation.

Data should not be separated from the report

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way. Logs, figures, laboratory data, drawings, etc. are customarily included in our reports and are developed by scientists or engineers based on their interpretation of field logs, field testing and laboratory evaluation of samples. This information should not under any circumstances be redrawn for inclusion in other documents or separated from the report in any way.

This report should be reproduced in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties.

Responsibility

Environmental reporting relies on interpretation of factual information using professional judgement and opinion and has a level of uncertainty attached to it, which is much less exact than other design disciplines. This has often resulted in claims being lodged against consultants, which are unfounded. As noted earlier, the recommendations and findings set out in this report should only be regarded as interpretive and should not be taken as accurate and complete information about all environmental media at all depths and locations across the site.