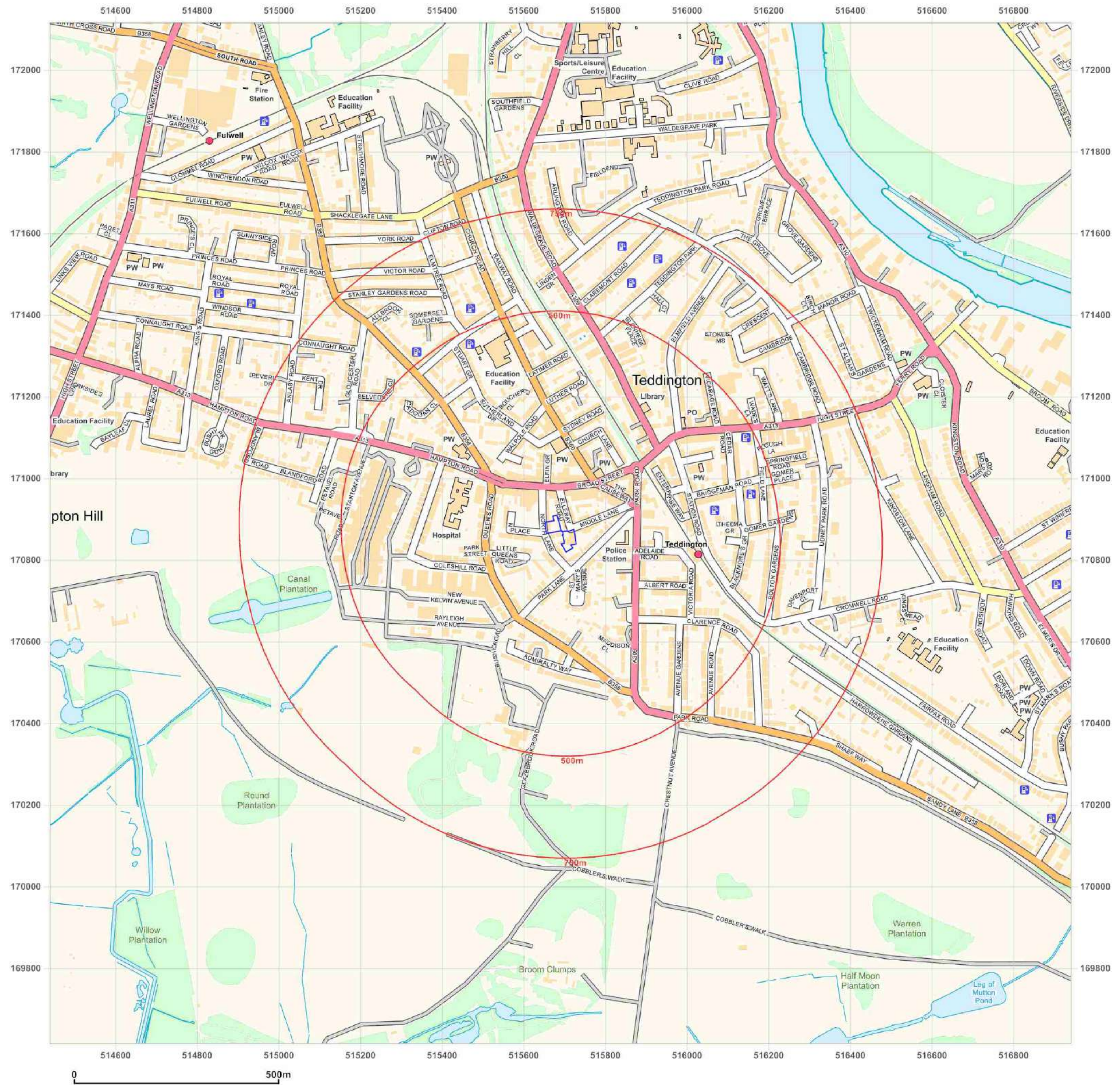

Specialists in the investigation & reclamation of brownfield sites

Site Details:

Elleray Hall & North Lane
Depot/East Car Park,
Teddington, TW11, TW11

Client Ref: P3152JJ2114-1
Report Ref: HMD-377-7235246
Grid Ref: 515689, 170865

Map Name: National Grid

Map date: **2020**

Scale: 1:10,000

Printed at: 1:10,000

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2020

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 09 November 2020

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf

APPENDIX 4 – QUALITATIVE RISK ASSESSMENT METHODOLOGY

QUALITATIVE RISK ASSESSMENT METHODOLOGY

The following Contaminated Land Risk Assessment methodology is based on CIRIA C552 (2001) *Contaminated Land Risk Assessment – A Guide to Good Practice*, in order to quantify potential risk via **risk estimation** and **risk evaluation**, which can be adopted at the Phase I stage. This will then determine an overall risk category which can be used to identify likely actions. This methodology uses qualitative descriptors and therefore is a qualitative approach.

The methodology requires the classification of:

- the magnitude of the **consequence** (severity) of a risk occurring, and
- the magnitude of the **probability** (likelihood) of a risk occurring.

The potential consequences of contamination risks occurring at this site are classified in accordance with Table A4.1 below, which is adapted from the CIRIA guidance.

Table A4.1: Classification of Consequence

Classification	Definition of Consequence
Severe	• Short-term (acute) risks to human health. • Short-term risk of pollution of sensitive water resource or ecosystem. • Catastrophic damage to crops/buildings/property/infrastructure, including off-site soils.
Medium	• Medium/long-term (chronic) risks to human health. • Medium/long-term risk of pollution of sensitive water resource or ecosystem. • Significant damage to crops/buildings/property/infrastructure (on or off-site). • Contamination of off-site soils.
Mild	• Easily preventable, permanent health effects on humans. • Pollution of non-sensitive water resources. • Localised damage to crops/buildings/property/infrastructure (on or off-site).
Minor	• Easily preventable, non-permanent health effects on humans, or no effects. • Minor, low-level and localised contamination of on-site soils. • Easily repairable damage to crops/buildings/property/infrastructure.

The probability of contamination risks occurring at this site will be classified in accordance with Table A4.2 below which is also adapted from the CIRIA guidance. Note that for each category, it is assumed that a pollution linkage exists. Where a pollution linkage does not exist, the likelihood is zero, as is the risk.

Table A4.2: Classification of Probability

Classification	Definition of Probability
High Likelihood	Circumstances are such that an event appears very likely in the short-term or almost inevitable in the long-term; or there is already evidence that such an event has occurred.
Likely	Circumstances are such that such an event is not inevitable, but is possible in the short-term and is likely over the long-term.
Low Likelihood	Circumstances are such that it is by no means certain that an event would occur even over a longer period, and it is less likely in the short-term.
Unlikely	Circumstances are such that it is improbable that an event would occur even in the very long-term.

For each possible pollution linkage (source-pathway-receptor) identified, the potential risk can be evaluated, as presented in Table A3.3. Based upon this, CIRIA C552 presents definitions of the risk categories, together with the investigatory and remedial actions that are likely to be necessary in each case, as in Table A3.4. These risk categories apply to each possible pollutant linkage, and not simply to each hazard/source of contamination or sensitive receptor.

Table A4.3: Overall Contamination Risk Matrix

		Consequence			
		Severe	**Medium**	**Mild**	**Minor**
Probability	**High likelihood**	Very high risk	High risk	Moderate risk	Low risk
	Likely	High risk	Moderate risk	Moderate risk	Low risk
	Low likelihood	Moderate risk	Moderate risk	Low risk	Very low risk
	Unlikely	Low risk	Low risk	Very low risk	Very low risk

Table A4.4: Definition of Risk Categories and Likely Actions Required

Risk Category	Definition and likely actions required
Very high	• Severe harm to a defined receptor is very likely, or has already occurred. • The risk is likely to result in a substantial liability. • Urgent investigation (if not already undertaken) is likely to be required. • Urgent remediation is likely to be required.
High	• Harm to a defined receptor is likely. • The risk, if realised, may result in a substantial liability. • Urgent investigation (if not already undertaken) is likely to be required. • Remediation is likely to be required in the long term, possibly sooner.
Moderate	• Harm to a defined receptor is possible, but severe harm is unlikely. • Investigation is likely to be required to clarify the level of potential liability and risk. • Some remediation may be required in the longer term
Low	• Harm to a defined receptor is possible, but is likely to be mild at worst. • Liabilities could theoretically arise, but are unlikely. • Further investigation is not required at this stage • Remediation is unlikely to be required.
Very low	• Harm to a defined receptor is unlikely, and would be minor at worst. • No liabilities are likely to arise. • Further investigation is not required at this stage • Remediation is very unlikely to be required.

APPENDIX 5 – BGS BOREHOLE RECORDS

TQ17SE 181
1583 7049

MAY GURNEY (TECHNICAL SERVICES) Ltd., NORWICH

LOCATION: The Causeway, Teddington, Middlesex.

JOB No. 41413 BORE HOLE No. 1 Sheet 1

COMMENCED: 16.12.78 COMPLETED: 16.12.78 DIAMETER: 150mm

GROUND WATER struck at.....m. below ground level. Standing at 3.20 m. below ground level

DESCRIPTION	LEGEND	DEPTH METRES	O.D. LEVEL	SAMPLE/ TEST	DEPTH METRES	REMARKS
GROUND LEVEL		0.00		J_1	0.20	
Dark grey-brown, clay, sand, gravel, glass etc - FILL.				B_1	0.20-0.60	
		0.60		J_2	0.70	
VERY DENSE, brown, clayey, fine to coarse SAND and GRAVEL.				B_2	0.70-1.20	
		1.20		SPT	1.00	N=67
				SPT	1.50	65 BLOWS FOR 225mm
				B_3	1.20-3.00	
DENSE, brown, fine to coarse SAND and fine to coarse GRAVEL.						
				B_4	3.00-4.00	
				SPT	3.00	N=31
		4.00		J_3	4.10	
FIRM, brown, silty, CLAY				J_4	4.40	
		4.40		U_1	4.50	20 BLOWS
				J_5	4.95	
FIRM to STIFF, grey-brown, fissured, silty CLAY				J_6	5.00	
				U_2	6.00	30 BLOWS
100mm layer of clay stone at 5.00M				J_7	6.50	
				B_5	8.00	
CONTINUED		9.00				

WATER ADDED TO ASSIST BORING

KEY: B = Bulk sample: J = Jar sample: U = 100mm undisturbed sample.

MAY GURNEY (TECHNICAL SERVICES) Ltd., NORWICH

LOCATION: The Causeway, Teddington, Middlesex.

JOB No. 41413 BORE HOLE No. 1 Sheet 2

COMMENCED: 16.12.78 COMPLETED: 16.12.78 DIAMETER: 150mm

GROUND WATER struck at.....m. below ground level. Standing at 3.20 m. below ground level

DESCRIPTION	LEGEND	DEPTH METRES	O.D. LEVEL	SAMPLE/ TEST	DEPTH METRES	REMARKS
CONTINUED		9.00				
FIRM to STIFF, grey-brown fissured, silty CLAY				U_3	9.50	38 BLOWS
				J_8	10.00	
END OF BOREHOLE		10.00				

WATER ADDED TO ASSIST BORING

KEY: B = Bulk sample; J = Jar sample; U = 100mm undisturbed sample.