

GEO-ENVIRONMENTAL AUDIT

PHASE 4 Validation

**28 War Office Road
Bamford
Rochdale
OL11 5HH**

Author: Daniel Slattery
Client: Tiberius Properties NW Ltd.
Reference: rep-tjba-JM-28 war office rd-Phs4ENV validation-210126.docx

Revision	Date	Reason
0	Jan 2026	Original to obtain final discharge of environmental planning conditions.

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1. PHASE 4 – VALIDATION.

1.1. Introduction.

T. J. Booth Associates have been employed to provide a validation report for the development of an end terrace dwelling.

Planning permission was obtained under application No: 25/00556/FUL, for the "Erection of 1 No. semi-detached residential dwelling – Retrospective".

The site formerly comprised an older end terrace which was demolished c2010-2015.

As part of the above planning permission, a Phase 1 & 2 Environmental Audit was authored by T J Booth Associates in October 2020, refer to separate report ref: rep-tjba-JM-28 war office rd-phs 1&2 env-rev0.

This report provides a desk-based study & intrusive ground investigation (where necessary) based on current UK guidance for environmental investigation within the construction industry. Principal to the assessment is the potential for contamination pollutant linkages via the Land Contamination Risk Management (LCRM) source-pathway-receptor methodology. Assessment of potential pollution linkages is primarily undertaken in strict accordance with BS 5930:2015, BS 10175:2011+A2:2017, CIRIA C665, and BS 8485:2015+A1:2019 et al.

1.2. Proposed Development.

The proposal is for a replacement dwelling of masonry construction over 4 floors.

Originally there was to be a small soft landscaped garden area to the front of the site, (nominally 24sqm), and a yard & parking/access driveway to the rear.

The as built dwelling now has parking to the front of the property, and soft landscaping to the rear.

The rear of the site is at lower level. The front of the site is at road level, adjacent to the highway/pavement. The front and rear of the site are physically separated by the former and proposed building and are considered to be separate with regard to site soil and risk.

1.3. Phase 1 & 2 Geoenvironmental Audit.

1.3.1. Brief Site History.

The site was originally occupied by a methodist chapel c1950s, and the terraced dwellings were in place by c1930s.

There has been no significant contaminative use of the site historically, but due to being predeveloped, sampling was advised due to minor made ground.

The front and the rear of the site is considered to be separate for the purposes of contamination – the rear of the site at lower level and physically separated from the front, and with a lower risk of potential contamination. The front of the site is directly adjacent to the highway/pavement, and the potential for contamination was considered greater due to closer proximity to traffic, but also made ground associated with the highway and pavement buildup in the location historically.

1.3.2. Conceptual Model.

14. CONCEPTUAL MODEL

CURRENT SOURCE/S	ORIGINAL ASSOCIATED USAGE	CONTAMINANT TYPE	PATHWAY	RECEPTOR	POLLUTION LINKAGE	CONSEQUENCE	PROBABILITY	RISK
Site surface /sub soil.	Brownfield site – past development & infilling.	Chemical contamination.	Direct ingestion, aerial dermal contact, drinking water. Contact with potential hazards.	Site construction operatives & future occupants. Site buildings.	PRESENT – Potential for made ground to comprise shallow ground contamination which is likely to persist.	Medium.	Likely.	Moderate risk.

1.3.3. Site Investigations and Remedial Measures.

Site investigation comprise soil sampling of upper soils/made ground as encountered.

Two soil samples were taken as part of the original assessment (S1-2). S1 was taken to the small front garden area, and S2 to the lower rear garden area, refer to site plan excerpt below:



Soil sample S1 of the upper front side adjacent to the road proved to be mildly contaminated with lead, and was proposed to require remediation in this area.

Sample S2 of the lower rear garden area was free from contamination above residential threshold values. No remedial measures were considered to be necessary in this area. Much of the area was garden area previously, and apart from minor landscaping, removal of trees, and creation of a new patio area, the proposed garden required only minor reprofiling/re-seeding.

1.4. Validation.

A validation walkover was undertaken on the 23.01.2026. The site was complete.

The as-built site layout now comprised the driveway to the front area adjacent to the highway. Due to this the pollutant linkage with regards to minor lead contamination in this area, is now considered to be mitigated by pathway removal owing to the introduction of a permanent hardstanding.

The rear garden and patio were complete. A small trial hole was excavated and soils appeared much as in the original investigation, just having been reprofiled and seeded. No imported soil was noted and thus no import sampling was considered to be required. Considering no contamination was identified in this area originally, no further sampling was considered to be necessary.

1.5. Final Conclusion & Recommendations.

Minor contaminated area to the front is now considered to be mitigated by the introduction of permanent hardstanding.

Rear of the site is considered clean/inert, and suitable for the proposed end use.

No further work is considered necessary.

This report should be issued to the LPA to obtain final discharge of any relevant environmental conditions.



Signed.....



D.S. Slattery BSc (Hons).

T J Booth Associates.

Authorised...

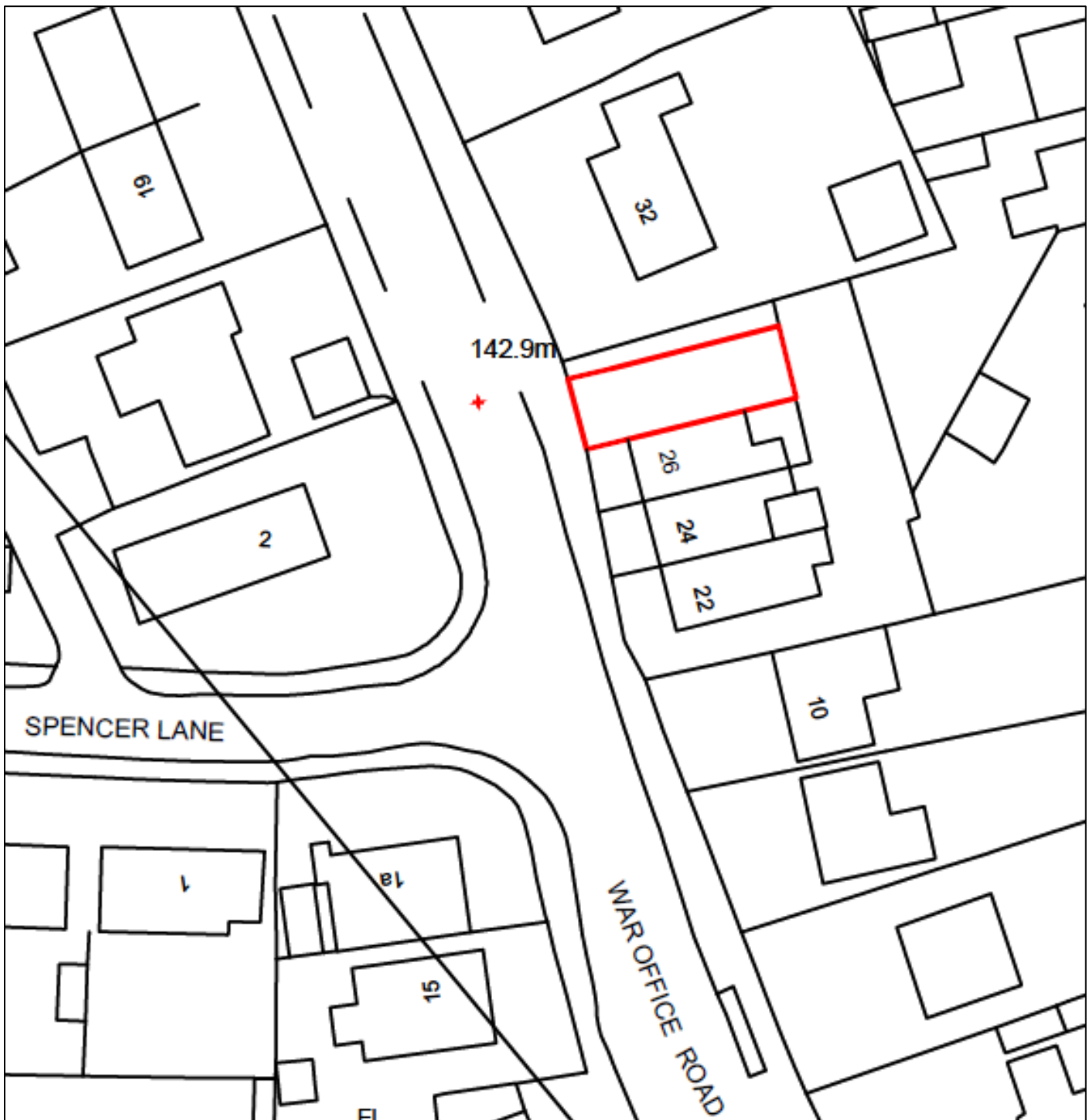


T J Booth BSc (Hons), C. Eng. C. Env. MICE.

T J Booth Associates.

2. APPENDIX A: FIGURES.

2.1. Location Plan.



2.2. Site Investigation Plan.



2.3. Chemtest Ltd Soil Testing Certificates (S1-S2).



eurofins | **Chemtest**
 Eurofins Chemtest Ltd
 Depot Road
 Newmarket
 CB8 0AL
 Tel: 01638 606070
 Email: info@chemtest.com

Final Report

Report No.:	20-31467-1		
Initial Date of Issue:	24-Nov-2020		
Client	TJ Booth Associates		
Client Address:	20a Eastgate Street Rochdale Lancs OL16 1DH		
Contact(s):	Daniel Slattery		
Project	McLean 28 WAr Office Road, Bamford		
Quotation No.:	Q19-18321	Date Received:	18-Nov-2020
Order No.:		Date Instructed:	18-Nov-2020
No. of Samples:	2		
Turnaround (Wkdays):	10	Results Due:	01-Dec-2020
Date Approved:	24-Nov-2020		
Approved By:			
Details:	Glynn Harvey, Technical Manager		

Results - Soil**Project: McLean 28 War Office Road, Bamford**

Client: TJ Booth Associates	Chemtest Job No.:		20-31467	20-31467
Quotation No.: Q19-18321	Chemtest Sample ID.:		1099174	1099175
Order No.:	Client Sample Ref.:		S1	S2
	Client Sample ID.:		1	2
	Sample Type:		SOIL	SOIL
	Top Depth (m):		0.30	0.30
	Date Sampled:		16-Nov-2020	16-Nov-2020
	Asbestos Lab:		COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD
ACM Type	U	2192		N/A
Asbestos Identification	U	2192		N/A
ACM Detection Stage	U	2192		N/A
Moisture	N	2030	%	0.020
pH	U	2010		4.0
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40
Sulphur (Elemental)	U	2180	mg/kg	1.0
Cyanide (Total)	U	2300	mg/kg	0.50
Thiocyanate	U	2300	mg/kg	5.0
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50
Sulphate (Total)	U	2430	mg/kg	100
Arsenic	U	2450	mg/kg	1.0
Cadmium	U	2450	mg/kg	0.10
Chromium	U	2450	mg/kg	1.0
Copper	U	2450	mg/kg	0.50
Mercury	U	2450	mg/kg	0.10
Nickel	U	2450	mg/kg	0.50
Lead	U	2450	mg/kg	0.50
Selenium	U	2450	mg/kg	0.20
Zinc	U	2450	mg/kg	0.50
Chromium (Hexavalent)	N	2490	mg/kg	0.50
Organic Matter	U	2625	%	0.40
Naphthalene	U	2700	mg/kg	0.10
Acenaphthylene	U	2700	mg/kg	0.10
Acenaphthene	U	2700	mg/kg	0.10
Fluorene	U	2700	mg/kg	0.10
Phenanthrene	U	2700	mg/kg	0.10
Anthracene	U	2700	mg/kg	0.10
Fluoranthene	U	2700	mg/kg	0.10
Pyrene	U	2700	mg/kg	0.10
Benzo[a]anthracene	U	2700	mg/kg	0.10
Chrysene	U	2700	mg/kg	0.10
Benzo[b]fluoranthene	U	2700	mg/kg	0.10
Benzo[k]fluoranthene	U	2700	mg/kg	0.10
Benzo[a]pyrene	U	2700	mg/kg	0.10
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10
Dibenzo[a,h]Anthracene	U	2700	mg/kg	0.10

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Order No.:	Client Sample Ref.:				S1	S2
	Client Sample ID.:				1	2
	Sample Type:				SOIL	SOIL
	Top Depth (m):				0.30	0.30
	Date Sampled:				16-Nov-2020	16-Nov-2020
	Asbestos Lab:				COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD		
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10	< 0.10	< 0.10
Total Of 16 PAH's	U	2700	mg/kg	2.0	< 2.0	< 2.0
Total Phenols	U	2920	mg/kg	0.30	< 0.30	< 0.30

3. APPENDIX B: PHOTOS.



