



Date: 27th January 2025
Reference: 12-729-V1

LANDSCAPING VALIDATION LETTER THOMPSON / BENDIX STREET

Project Name:	Thompson Street
Project Number:	12-729
Client:	GMI Construction Ltd
Date:	27-01-2025
Project Manager:	A. Smith
E3P Engineer & Qualifications:	Sam Juhasz – Qualified Engineer
Plots:	Landscaped Areas – 5 No. Locations

OVERVIEW

An E3P engineer visited the above site to validate the thickness of the cover system placed within the landscaped areas at five locations (POS1-POS5) at the site on 9th January 2025.

Five hand excavated trial pits were advanced, with the resulting strata detailed at the rear of this letter.

All trial pits were completed to highlight the required cover system of at least 300mm, comprising imported subsoil underlying at least 150mm of topsoil.

E3P can confirm that our independent validation demonstrates that all landscaped areas have been installed with >300mm of chemically suitable subsoil and topsoil as per the Remediation Strategy.





TOPSOIL

No suitable sources of topsoil were available.

Topsoil was imported via Tyrone Stone Ltd, 144 Nangreave Rd, Heaviley, Stockport SK2 6DG.

Approximately 85m³ of topsoil was imported to the site.

E3P attended site on 9th January 2025 to collect three samples of topsoil (TS101-TS103) for chemical analysis (Laboratory Ref: 25-00501).

The results confirmed that the material was chemically suitable for use within the cover system.

SUBSOIL

No suitable sources of topsoil were available.

Subsoil was imported via Tyrone Stone Ltd, 144 Nangreave Rd, Heaviley, Stockport SK2 6DG.

Approximately 46m³ of subsoil was imported to the site.

E3P attended site on 9th January 2025 to collect three samples of topsoil (SS101-SS103) for chemical analysis (Laboratory Ref: 25-00501).

The results confirmed that the material was chemically suitable for use within the cover system.

CHEMICAL ANALYSIS

TOPSOIL/SUBSOIL	SOURCE	LAB REFERENCE	SAMPLE REFERENCE	PASS/FAIL
Topsoil	Import	25-00501	TS101 – TS103	Pass
Subsoil	Import		SS101 – SS103	Pass

The POS cover system validation details and photographs are enclosed overleaf.





POS (Public Open Space) Cover System Validation

Complete

Score	30 / 30 (100%)	Flagged items	0	Actions	0
Site Name	Thompson Street				
Location	51 Oldham Road Manchester England M4 5FS United Kingdom (53.48632127517261, - 2.230238858612468)				
Project Number	12729				
Developer	GMI Construction Group PLC				
Project Manager	Alex Smith				
Conducted By	Sam Juhasz				
Date of visit	9 Jan 2025 10:50 AM GMT				
<u>Subsoil/Topsoil Material Source (If the site manager can't supply you with detail of where the soil is sourced STOP THE INSPECTION and call the PM)</u>					
Where has the Subsoil been sourced	Tyrone Stone Ltd				
Where has the Topsoil been sourced	Tyrone Stone Ltd				





Plot Validation 1		6 / 6 (100%)
What Three Words location		POS1 - ///unable.cars.prove
Is Location Ready	Yes	
Installation Standard	Pass	
Depth of Cover System Materials (record the depth and support with Photo down the hole)		500
 Photo 1		
Depth of Topsoil (mm)		500
Depth of Subsoil (mm)		0
Depth of Cover System at Ground Level (Photo)		☒
 Photo 2		
Depth of Cover System in Relation to Plot (Ensure the whole plot can be seen in the photo)		☒
 Photo 3  Photo 4  Photo 5		
Soil suitable (Must be free from Brick, concrete, wood, plastics, glass, metal and anything none natural) if identified contact PM and take photos.		Yes
Geotextile membrane present		N/A





Plot Validation 2

6 / 6 (100%)

What Three Words location

POS2 - ///scare.hats.found

Is Location Ready

Yes

Installation Standard

Pass

Depth of Cover System Materials (record the depth and support with Photo down the hole)

600



Photo 6

Depth of Topsoil (mm)

600

Depth of Subsoil (mm)

0

Depth of Cover System at Ground Level (Photo)



Photo 7

Depth of Cover System in Relation to Plot (Ensure the whole plot can be seen in the photo)

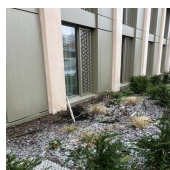


Photo 8

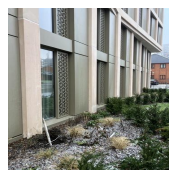


Photo 9

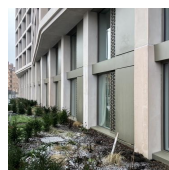


Photo 10

Soil suitable (Must be free from Brick, concrete, wood, plastics, glass, metal and anything none natural) if identified contact PM and take photos.

Yes

Geotextile membrane present

N/A





Plot Validation 3		6 / 6 (100%)
What Three Words location		POS3 - ///early.drops.survey
Is Location Ready	Yes	
Installation Standard	Pass	
Depth of Cover System Materials (record the depth and support with Photo down the hole)		600
 Photo 11		
Depth of Topsoil (mm)		600
Depth of Subsoil (mm)		0
Depth of Cover System at Ground Level (Photo)		☒
 Photo 12		
Depth of Cover System in Relation to Plot (Ensure the whole plot can be seen in the photo)		☒
  Photo 13 Photo 14		
Soil suitable (Must be free from Brick, concrete, wood, plastics, glass, metal and anything none natural) if identified contact PM and take photos.		Yes
Geotextile membrane present		N/A





Plot Validation 4

6 / 6 (100%)

What Three Words location

POS4 - ///names.visits.extend

Is Location Ready

Yes

Installation Standard

Pass

Depth of Cover System Materials (record the depth and support with Photo down the hole)

400

Depth of Topsoil (mm)

150

Depth of Subsoil (mm)

250

Depth of Cover System at Ground Level (Photo)



Photo 15

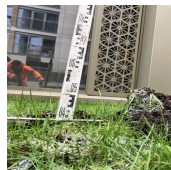


Photo 16

Depth of Cover System in Relation to Plot (Ensure the whole plot can be seen in the photo)



Photo 17



Photo 18

Soil suitable (Must be free from Brick, concrete, wood, plastics, glass, metal and anything none natural) if identified contact PM and take photos.

Yes

Geotextile membrane present

N/A





Plot Validation 5		6 / 6 (100%)
What Three Words location		POS5
Is Location Ready	Yes	
Installation Standard	Pass	
Depth of Cover System Materials (record the depth and support with Photo down the hole)		350
 Photo 19		
Depth of Topsoil (mm)		150
Depth of Subsoil (mm)		200
Depth of Cover System at Ground Level (Photo)		☐
 Photo 20		
Depth of Cover System in Relation to Plot (Ensure the whole plot can be seen in the photo)		☐
   Photo 21 Photo 22 Photo 23		
Soil suitable (Must be free from Brick, concrete, wood, plastics, glass, metal and anything none natural) if identified contact PM and take photos.		Yes
Geotextile membrane present	N/A	





Site Manager or Representative

Name

Gary Miller

Signature

9 Jan 2025 11:55 AM GMT





Media Summary



Photo 1



Photo 2



Photo 3



Photo 4





Photo 5



Photo 6



Photo 7



Photo 8





Photo 9



Photo 10



Photo 11



Photo 12





Photo 13



Photo 14



Photo 15



Photo 16





Photo 17



Photo 18



Photo 19



Photo 20





Photo 21



Photo 22



Photo 23





Final Report

Report No.: 25-00501-1

Initial Date of Issue: 16-Jan-2025

Re-Issue Details:

Client E3P

Client Address: Taylor Road
Trafford Park
Urmston
Manchester
M41 7JQ

Contact(s): asmith@e3p.co.uk

Project Thompson Street, Manchester

Quotation No.: **Date Received:** 10-Jan-2025

Order No.: 010366 **Date Instructed:** 10-Jan-2025

No. of Samples: 6

Turnaround (Wkdays): 5 **Results Due:** 16-Jan-2025

Date Approved: 16-Jan-2025

Approved By:

Details: David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: Thompson Street, Manchester

Client: E3P		Chemtest Job No.:				25-00501	25-00501	25-00501	25-00501	25-00501	25-00501
Quotation No.:		Chemtest Sample ID.:				1915527	1915528	1915529	1915530	1915531	1915532
Order No.: 010366		Client Sample Ref.:				1	2	3	4	5	6
		Client Sample ID.:				TS101	TS102	TS103	SS101	SS102	SS103
		Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				0.15	0.20	0.30	0.30	0.20	0.30
		Date Sampled:				09-Jan-2025	09-Jan-2025	09-Jan-2025	09-Jan-2025	09-Jan-2025	09-Jan-2025
		Time Sampled:				12:00	12:00	12:00	12:00	12:00	12:00
		Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD						
ACM Type		U	2192		N/A	-	-	-	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	21	20	21	13	14	14
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Roots and Stones	Roots	Stones	Stones	Stones	Stones
Soil Texture		N	2040		N/A	Clay	Clay	Clay	Sand	Sand	Sand
pH at 20C		M	2010		4.0	8.4	8.1	8.2	9.0	8.5	8.6
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.033	0.016	0.014	0.027	0.047	0.039
Total Sulphur		U	2175	%	0.010	0.050	0.040	0.040	0.14	0.020	0.020
Cyanide (Total)		M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	3.0	4.0	3.9	3.2	4.1	2.1
Sulphate (Total)		U	2430	%	0.010	0.20	0.092	0.11	0.098	0.055	0.055
Arsenic		M	2455	mg/kg	0.5	26	12	14	5.5	5.9	6.2
Cadmium		M	2455	mg/kg	0.10	0.71	0.32	0.37	0.22	0.17	0.21
Chromium		M	2455	mg/kg	0.5	36	20	24	11	12	13
Copper		M	2455	mg/kg	0.50	88	44	50	16	20	20
Mercury		M	2455	mg/kg	0.05	0.40	0.28	0.35	0.07	0.11	0.12
Nickel		M	2455	mg/kg	0.50	36	18	23	11	12	12
Lead		M	2455	mg/kg	0.50	160	110	120	47	65	110
Selenium		M	2455	mg/kg	0.25	0.99	0.43	0.70	< 0.25	< 0.25	0.29
Zinc		M	2455	mg/kg	0.50	210	95	120	41	53	53
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Organic Matter		M	2625	%	0.40	5.8	19	7.2	1.1	1.2	2.3
Total Organic Carbon		M	2625	%	0.20	3.4	11	4.2	0.63	0.68	1.3
TPH >C6-C8	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH >C8-C10	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH >C10-C12	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH >C12-C16	EH_1D_Total	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH >C16-C21	EH_1D_Total	N	2670	mg/kg	1.0	19	16	9.7	5.7	8.8	5.4
TPH >C21-C25	EH_1D_Total	N	2670	mg/kg	1.0	18	13	9.2	7.0	4.2	2.8
TPH >C25-C35	EH_1D_Total	N	2670	mg/kg	1.0	52	30	54	25	< 1.0	< 1.0
TPH >C35-C40	EH_1D_Total	N	2670	mg/kg	1.0	8.6	4.6	6.7	< 1.0	< 1.0	< 1.0
Total TPH >C6-C40	EH_1D_Total	U	2670	mg/kg	10	98	65	79	38	13	< 10
Naphthalene		M	2800	mg/kg	0.10	0.14	0.14	0.11	< 0.10	< 0.10	0.11
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: Thompson Street, Manchester

Client: E3P		Chemtest Job No.:	25-00501	25-00501	25-00501	25-00501	25-00501	25-00501
Quotation No.:		Chemtest Sample ID.:	1915527	1915528	1915529	1915530	1915531	1915532
Order No.: 010366		Client Sample Ref.:	1	2	3	4	5	6
		Client Sample ID.:	TS101	TS102	TS103	SS101	SS102	SS103
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):	0.15	0.20	0.30	0.30	0.20	0.30
		Date Sampled:	09-Jan-2025	09-Jan-2025	09-Jan-2025	09-Jan-2025	09-Jan-2025	09-Jan-2025
		Time Sampled:	12:00	12:00	12:00	12:00	12:00	12:00
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD			
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	0.18	0.15
Fluorene		M	2800	mg/kg	0.10	< 0.10	0.16	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	1.2	1.2	0.87
Anthracene		M	2800	mg/kg	0.10	0.35	0.34	0.21
Fluoranthene		M	2800	mg/kg	0.10	2.9	2.3	1.9
Pyrene		M	2800	mg/kg	0.10	2.5	2.1	1.8
Benzo[a]anthracene		M	2800	mg/kg	0.10	1.2	1.0	0.85
Chrysene		M	2800	mg/kg	0.10	1.1	1.2	0.86
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	1.7	1.4	1.4
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	0.59	0.45	0.44
Benzo[a]pyrene		M	2800	mg/kg	0.10	1.5	1.1	1.2
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	0.88	0.81	0.74
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	0.18	0.17	0.13
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	0.79	0.77	0.59
Total Of 16 PAH's		N	2800	mg/kg	2.0	15	13	11
Total Phenols		M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazine.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.

Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

Uncertainty of measurement for the determinands tested are available upon request .

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory .

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

NEW_ASF Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL

DURHAM Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

A - Date of sampling not supplied

B - Sample age exceeds stability time (sampling to extraction)

C - Sample not received in appropriate containers

D - Broken Container

E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

Report Information

DW - Drinking Water
GW - Ground Water
LE - Land Leachate
NA - Not Applicable
PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com