



GeoAssist Limited

Civil, Environmental & Geotechnical

Client:

Renaker Build Ltd
1st Floor, NQ Building
47 Bengal Street
Ancoats
Manchester
M4 6BB

Contractor:

Verification and Validation Report Addendum

Trinity Island Plot D, Manchester, Sitewide Earthworks & Building D2 Soils Verification Addendum

December 2025

Site Ref: 6100/VTI V1.00 VRTD2A

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Verification and Validation Report Addendum

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Client:

Renaker Build Ltd
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47 Bengal Street
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M4 6BB

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Verification and Validation Report

1. Introduction

This report addendum has been produced in order to provide additional Information to verify the efficacy of the minor remediation measures (imported landscaping soils) covering areas of Phase I of the development that were not complete at the time of the original verification and validation report issued in September 2025 and as detailed within the WSP Phase II environmental Assessment Report referenced 70082598-11833(4) and dated October 2021. The measures detailed in the WSP Phase II report were submitted under planning permission numbers 132429/FO/2021 for the erection of four towers ranging from 39, 48, 55 and 60 storeys to form a mixed use development comprising 1950 residential apartments (Use Class C3a) and commercial uses (Use Classes E and Sui Generis: Drinking Establishment) (361 sqm) within the podium level together with public realm, car and cycle parking, access arrangements and highway works, and other associated works.

The report presents the validation of soils imported to site as part of the landscaping scheme for building D2 (Plot D Phase I) as demarked by the red line on the plan in Appendix A1 and A3 to this report. Note that the red line has been adjusted in appendix A1 and A3 from the plan submitted in the original verification & validation report to reflect the divide demarked by hording between the active construction site of building D1 and the completed development of building D2. The evidence provided will demonstrate that the soft landscaping on plot D2 is suitable for the intended use. A Plan of the soft landscaping areas forms Appendix A3.

The approximate grid reference for the centre of the site is 382700, 397750 and the total area of the site is approximately 9,000m². The area of the site is outlined with a red line on the site plan in Appendix A1.

2. Verification

2.1 Volumes of Imported Soils.

At present only the final landscaping of the scheme for building Phase I (plot D2) (outlined in blue in appendix A1) has been undertaken as construction and fit out is ongoing in other areas. Approximately 1200m³ of topsoil has been imported for the Landscaping and planters within the areas highlighted in Magenta (Appendix A3) in the vicinity of building D2.

The soils were cleared for import based on the supplier declared certification (Appendix C1). Soils as imported were then sampled and tested. The Soils as imported were found to conform with the generic assessment criteria for residential without homegrown produce land use at 1% Soil Organic Matter. Photographic evidence along with a plan of the soils sampling locations are presented in appendix A2 and A3 to this report. The Soils laboratory analytical results form appendix A4, the soils risk assessment forms appendix A5 to this report and the trial pit logs form appendix A6.

2.2 Chemical & Physical Testing to Confirm Compliance with Objectives

Other than the afore mentioned soil testing certification for confirmation that the soils are low risk no additional chemical or physical test results were required to be undertaken.

2.3 Ongoing Monitoring

There is no ongoing monitoring programme associated with any remedial measures for this site.

3. Final Site Conditions

Evidence provided herein demonstrates that suitable growth medium has been imported for the final landscaping scheme. Insitu testing of imported soils has demonstrated that the soils are suitable for incorporation into the development and that they do not pose a significant risk to site end users by means of substances within. The site has been developed in accordance with the planning requirements for contaminated land. A further report will follow as the second stage of Phase 2 of the development is completed and staged applications are made for partial discharge of conditions.

The developer and all contractors employed by the developer were required to monitor for, and report any, evidence of contamination found during construction. None was encountered or reported.

The evidence presented herein demonstrates that all reasonably practicable steps as set out in the Remediation Plan have been taken to ensure the site is fit for residential purposes and the risk to the occupiers from ground contamination is low to negligible in all reasonably foreseeable circumstances.



Matthew Benson BSc

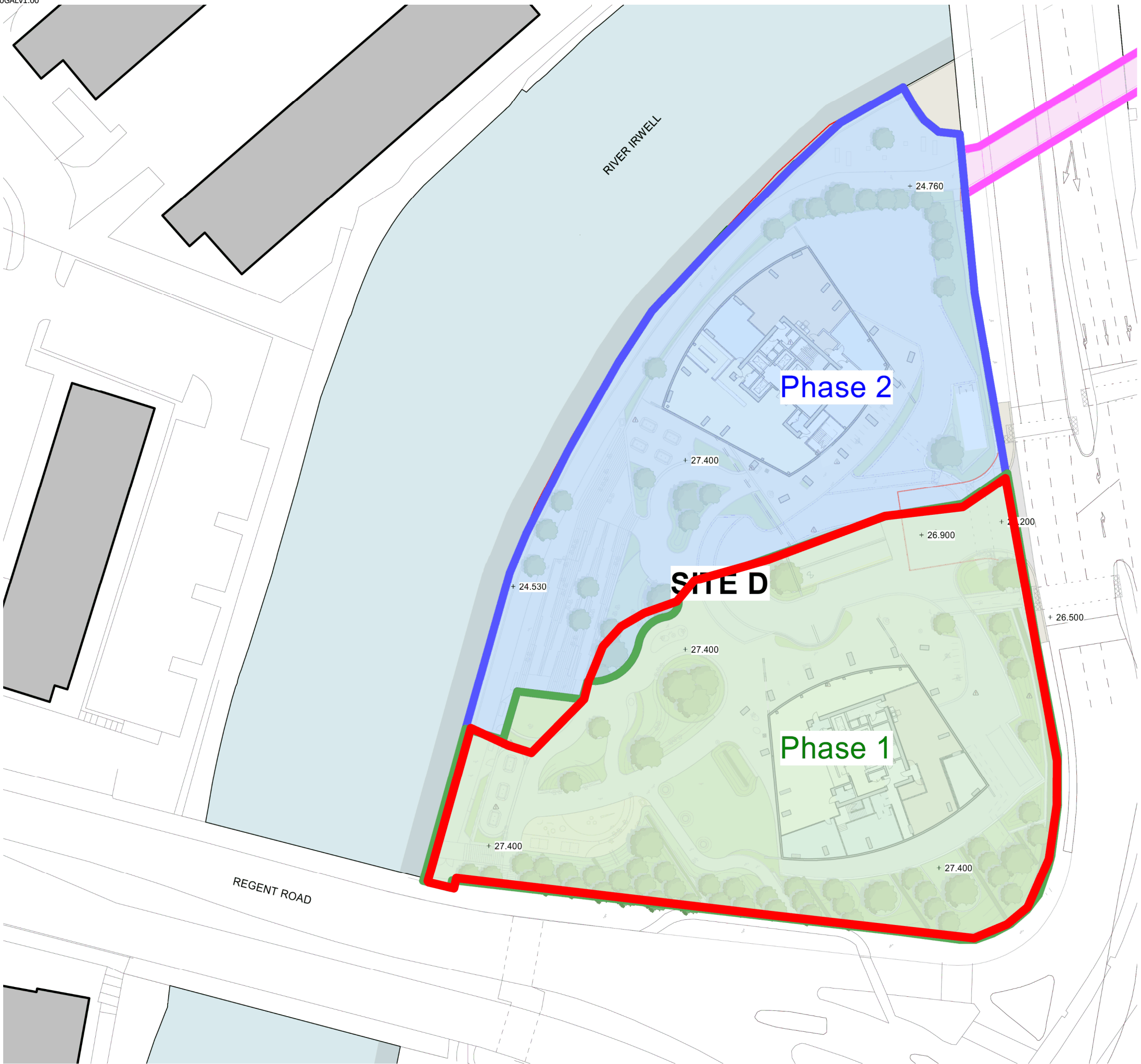
Geotechnical/Environmental Engineer



Mark Richardson MSc CEng MICE

Technical Director

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A1 Site Plan

Site Name	Trinity Island Plot D
Location	Manchester
GeoAssist Ref	6100VTI
Client	Renaker Build Ltd
	1st Floor, NQ Building 47 Bengal Street Ancoats Manchester M4 6BB
Planning Consultant	
NGR (centre of site)	,
Production Date	10/12/2025
Survey Method	
Surveyor	Others
Status	Final v1.00
Base Survey	OSGB36

Do not scale



A2 Photographs

Site Name	Trinity Island Plot D
Location	Manchester
GeoAssist Ref	6100VTI
Client	Renaker Build Ltd
	1st Floor, NQ Building 47 Bengal Street Ancoats Manchester M4 6BB
Planning Consultant	
NGR (centre of site)	,
Production Date	10/12/2025
Survey Method	
Surveyor	Others
Status	Final v1.00
Base Survey	OSGB36



A3 Landscape Plan

Site Name	Trinity Island Plot D
Location	Manchester
GeoAssist Ref	6100VTI
Client	Renaker Build Ltd
	1st Floor, NQ Building 47 Bengal Street Ancoats Manchester M4 6BB
Planning Consultant	
NGR (centre of site)	,
Production Date	10/12/2025
Survey Method	
Surveyor	Others
Status	Final v1.00
Base Survey	OSGB36

Do not scale

Point ID	Easting	Northing	Elevation
TP10	382738.4	397713.2	-
TP11	382733.7	397727.7	-
TP12	382730.8	397737.6	-
TP13	382728.3	397750.4	-
TP14	382671.6	397740.4	-





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Analytical Report Number : 25-064300

Project / Site name:	Trinity Islands Plot D Manchester	Samples received on:	27/11/2025
Your job number:	6100 VTI	Samples instructed on/ Analysis started on:	27/11/2025
Your order number:	2251126	Analysis completed by:	08/12/2025
Report Issue Number:	1	Report issued on:	08/12/2025
Samples Analysed:	6 soil samples		

Signed:

Anna Goc
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting
air	- once the analysis is complete

Excel copies of reports are only valid when accompanied by this PDF certificate.

Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 25-064300
Project / Site name: Trinity Islands Plot D Manchester
Your Order No: 2251126

Lab Sample Number	764038	764039	764040	764041	764042
Sample Reference	TP10	TP11	TP12	TP13	TP13
Sample Number	C1	C1	C1	C1	C2
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.20	0.20	0.20	0.20	0.50
Date Sampled	26/11/2025	26/11/2025	26/11/2025	26/11/2025	26/11/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	16	17	18	19	17
Total mass of sample received	kg	0.1	NONE	1	1	0.9	0.9	0.9

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	-
Asbestos Analyst ID	N/A	N/A	N/A	JSW	JSW	JSW	JSW	-
Analysis completed	N/A	N/A	N/A	08/12/2025	08/12/2025	08/12/2025	08/12/2025	-

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.1	8	8.2	8.6	8.6
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	1.6	2.4
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	1.6	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	0.172	0.104	0.053	0.055	0.067
Sulphide	mg/kg	1	MCERTS	7.2	4	< 1.0	12	4.8
Total Sulphur	mg/kg	50	MCERTS	780	530	500	500	540
Total Sulphur	%	0.005	MCERTS	0.078	0.053	0.05	0.05	0.054

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.06	0.1	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.05	0.08	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.12	0.21	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.1	0.17	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	1.2	2	0.06	0.07	0.13
Anthracene	mg/kg	0.05	MCERTS	0.3	0.59	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	2.9	4.1	0.17	0.18	0.37
Pyrene	mg/kg	0.05	MCERTS	2.9	3.9	0.14	0.16	0.34
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.5	2	0.13	0.11	0.23
Chrysene	mg/kg	0.05	MCERTS	1.7	1.8	0.12	0.12	0.25
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	2.1	2.5	0.18	0.17	0.29
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	1.1	0.84	< 0.05	0.05	0.14
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.9	2.1	< 0.05	0.11	0.24
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.1	1.1	0.1	0.07	0.15
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.21	0.25	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.2	1.2	0.11	< 0.05	0.2

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	18.4	22.9	1.01	1.05	2.33
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Analytical Report Number: 25-064300

Project / Site name: Trinity Islands Plot D Manchester

Your Order No: 2251126

Lab Sample Number	764038	764039	764040	764041	764042
Sample Reference	TP10	TP11	TP12	TP13	TP13
Sample Number	C1	C1	C1	C1	C2
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.20	0.20	0.20	0.20	0.50
Date Sampled	26/11/2025	26/11/2025	26/11/2025	26/11/2025	26/11/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12	9.5	6.5	5.3	5.3
Barium (aqua regia extractable)	mg/kg	1	MCERTS	150	150	42	72	49
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.67	0.57	0.38	0.34	0.4
Boron (water soluble)	mg/kg	0.2	MCERTS	1.5	0.5	1.8	1.5	2.1
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	0.3	< 0.2	0.2	0.2
Chromium (hexavalent) Low Level	mg/kg	1.2	NONE	< 1.2	< 1.2	< 1.2	< 1.2	1.3
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	16	14	11	12	18
Copper (aqua regia extractable)	mg/kg	1	MCERTS	40	35	19	19	18
Lead (aqua regia extractable)	mg/kg	1	MCERTS	84	77	22	25	30
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	14	14	9.2	9.4	10
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	21	17	14	13	22
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	95	85	56	66	75

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 25-064300

Project / Site name: Trinity Islands Plot D Manchester

Your Order No: 2251126

Lab Sample Number	764043			
Sample Reference	TP14			
Sample Number	C1			
Water Matrix	N/A			
Depth (m)	0.20			
Date Sampled	26/11/2025			
Time Taken	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status	

Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	24
Total mass of sample received	kg	0.1	NONE	1.1

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	JSW
Analysis completed	N/A	N/A	N/A	08/12/2025

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.9
Total Cyanide	mg/kg	1	MCERTS	< 1.0
Free Cyanide	mg/kg	1	MCERTS	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	0.043
Sulphide	mg/kg	1	MCERTS	< 1.0
Total Sulphur	mg/kg	50	MCERTS	500
Total Sulphur	%	0.005	MCERTS	0.05

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.1
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.21
Pyrene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.12
Chrysene	mg/kg	0.05	MCERTS	0.13
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.17
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.09
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.09
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.11

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	1.02
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Analytical Report Number: 25-064300

Project / Site name: Trinity Islands Plot D Manchester

Your Order No: 2251126

Lab Sample Number	764043			
Sample Reference	TP14			
Sample Number	C1			
Water Matrix	N/A			
Depth (m)	0.20			
Date Sampled	26/11/2025			
Time Taken	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status	

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.3
Barium (aqua regia extractable)	mg/kg	1	MCERTS	58
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.44
Boron (water soluble)	mg/kg	0.2	MCERTS	1.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (hexavalent) Low Level	mg/kg	1.2	NONE	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	13
Copper (aqua regia extractable)	mg/kg	1	MCERTS	20
Lead (aqua regia extractable)	mg/kg	1	MCERTS	26
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	15
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	15
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	62

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 25-064300

Project / Site name: Trinity Islands Plot D Manchester

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
764038	TP10	C1	0.2	Brown clay and sand with gravel and vegetation
764039	TP11	C1	0.2	Brown clay and sand with gravel and vegetation
764040	TP12	C1	0.2	Brown loam and sand with gravel and vegetation
764041	TP13	C1	0.2	Brown loam and sand with gravel and vegetation
764042	TP13	C2	0.5	Brown loam and sand with gravel and vegetation
764043	TP14	C1	0.2	Brown clay and sand with gravel and vegetation

Analytical Report Number : 25-064300

Project / Site name: Trinity Islands Plot D Manchester

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode	In-house method	L010-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES	In-house method based on Second Site Properties version 3	L038B	D	MCERTS
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES	In-house method	L038B	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
Hexavalent chromium in soil (low level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphénylcarbazide followed by colorimetry	In-house method	L080-PL	W	NONE
Free cyanide in soil	Determination of free cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS

Analytical Report Number : 25-064300

Project / Site name: Trinity Islands Plot D Manchester

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution

Soils Risk Assessment

Site Reference: 6100 VTI
Project Site: Trinity Island Plot D
Project Location: Manchester
Client: Renaker Build Ltd

Residential No																		
i2 Reference	HGP	TP2	TP2	TP3	TP3	TP4	TP4	TP5	TP5	TP6	TP6	TP7	TP7	TP8	TP8	TP9	TP9	TP10
Customer Sample Ref:	C4SL / S4UL	0.2	0.4	0.2	0.5	0.2	0.5	0.2	0.5	0.2	0.5	0.2	0.5	0.2	0.5	0.2	0.5	0.2
	SOM 1% GAC	08/09/2025	08/09/2025	08/09/2025	08/09/2025	08/09/2025	08/09/2025	08/09/2025	08/09/2025	08/09/2025	08/09/2025	08/09/2025	08/09/2025	08/09/2025	08/09/2025	08/09/2025	08/09/2025	26/11/2025
Determinand																		
Arsenic	40	2.2	3.1	2.7	2.6	2.9	3.3	3.8	4.4	2.9	2.6	3.4	3.3	4.8	6	4.6	4.1	12
Boron (water-soluble)	11000	0.2	1	0.8	1	1	1.3	0.9	1.9	1.6	1.3	1.5	1.8	1.7	1.8	1.1	1.3	1.5
Cadmium	150	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4
Chromium*	910	6.7	8.4	7.4	6.9	7.3	9.8	9.1	9.1	8.8	11	9.4	9.9	7.3	9.1	7.3	7.6	16
Chromium VI	21	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Copper	7100	14	15	14	11	13	14	18	20	16	13	14	16	13	16	20	13	40
Cyanide(Total)	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cyanide(free)**	34	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Lead	310	14	69	13	12	13	15	19	20	16	13	18	17	18	22	17	18	84
Mercury [†]	56	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Nickel	180	6	7.2	6.4	6.1	6.9	8.1	8.9	8.5	7.3	8.8	8.4	8.7	6.1	8.3	6.5	6.7	14
pH	-	8.5	8.6	7.6	8.8	8.5	8.4	8.2	8.4	8.5	8.5	8.4	8.3	8.2	7.8	8.4	8.4	8.1
Phenols(Mono)	1200	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Selenium	430	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SO4(Total)	-	0.041	0.039	0.028	0.045	0.055	0.037	0.046	0.048	0.046	0.047	0.047	0.043	0.053	0.05	0.047	0.047	0.172
Sulphide	-	1	3.8	1.8	1.7	1	1	1.8	2.2	1.3	1.4	1	1.7	1.6	1	1.6	1.8	7.2
Sulphur(Free)	-	260	350	330	300	310	350	410	470	360	290	440	340	400	420	390	320	780
Thiocyanate	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	95
Zinc	4000	30	40	32	27	31	36	44	63	38	31	39	40	41	53	45	39	95
Acenaphthene	3000	0.05	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.15	0.05	0.05	0.05	0.05	0.12
Acenaphthylene	2900	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Anthracene	31000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.27	0.05	0.05	0.05	0.05	0.3
Benzo(a)Anthracene	11	0.07	0.18	0.05	0.05	0.18	0.08	0.11	0.13	0.23	0.1	0.36	0.56	0.14	0.11	0.09	0.1	1.5
Benzo(a)Pyrene SM	3.2	0.05	0.13	0.05	0.05	0.16	0.05	0.09	0.11	0.21	0.05	0.38	0.53	0.13	0.1	0.08	0.09	1.9
Benzo(b)Fluoranthene	3.9	0.05	0.17	0.05	0.05	0.2	0.05	0.15	0.17	0.26	0.05	0.47	0.68	0.22	0.13	0.11	0.1	2.1
Benzo(ghi)Perylene	360	0.05	0.08	0.05	0.05	0.09	0.05	0.05	0.05	0.12	0.05	0.3	0.33	0.11	0.08	0.05	0.05	1.2
Benzo(k)Fluoranthene	110	0.05	0.09	0.05	0.05	0.11	0.05	0.05	0.05	0.11	0.05	0.23	0.25	0.05	0.06	0.05	0.07	1.1
Chrysene	30	0.07	0.21	0.05	0.05	0.21	0.09	0.14	0.14	0.25	0.11	0.43	0.61	0.14	0.1	0.09	0.08	1.7
Dibenzo(ah)Anthracene	0.31	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.08	0.05	0.05	0.05	0.05	0.21
Fluoranthene	1500	0.14	0.43	0.09	0.1	0.27	0.13	0.17	0.17	0.3	0.12	0.55	1.1	0.23	0.22	0.16	0.21	2.9
Fluorene	2800	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.13	0.05	0.05	0.05	0.05	0.1
Indeno(123-cd)Pyrene	45	0.05	0.08	0.05	0.05	0.09	0.05	0.05	0.06	0.11	0.05	0.2	0.27	0.09	0.07	0.05	0.05	1.1
Naphthalene	15	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.18	0.33	0.2	0.06
Phenanthrene	1300	0.08	0.33	0.05	0.05	0.06	0.05	0.08	0.09	0.08	0.05	0.18	1.1	0.15	0.19	0.11	0.18	1.2
Pyrene	3700	0.14	0.4	0.07	0.09	0.24	0.14	0.16	0.16	0.29	0.14	0.62	1.1	0.2	0.19	0.14	0.18	2.9
PAH(total)	500	0.8	2.27	0.8	0.8	1.59	0.8	0.9	1.04	1.96	0.8	3.78	7.16	1.41	1.44	1.1	1.27	18.4
Asbestos	Not-detected	Not-detected	-	Not-detected	-	Not-detected	-	Not-detected	-	Not-detected	-	Not-detected	-	Not-detected	-	Not-detected	-	Not-detected
SOM [†]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0

All Units mg/kg unless otherwise stated

Where no SOM is reported 1% SOM Criteria are used. For individual samples SOM value is used to adjust the assessment criteria accordingly that that sample.

*Criteria Assumes Chromium IIISM = Surrogate Marker Approach Culp et al

**Criteria is derived considering acute effects on 1-2yo Female Receptor ingesting a single dose of 3g of soil

***Criteria is derived considering Total TPH (C10 to C35) is formed entirely of a 50:50 Aliphatic and Aromatic Split C8-C10 range

[†] GAC for inorganic mercury can normally be compared with chemical analysis for total mercury content because the equilibrium concentrations of elemental and methylmercury are likely to be very low

[‡] Criteria reported to zero decimal places

Basis of Assessment Criteria:	CLEA v1.071	EA 2005 WAC (Human Health Value)	C4SL
	LQM S4UL		AtRisk 06

Soils Risk Assessment

Site Reference:
Project Site:
Project Location:
Client:

i2 Reference	Residential No	TP11	TP12	TP13	TP13	TP14
	HGP					
Customer Sample Ref:	C4SL / S4UL	0.2	0.2	0.2	0.5	0.2
	SOM 1% GAC	26/11/2025	26/11/2025	26/11/2025	26/11/2025	26/11/2025
Determinand						
Arsenic	40	9.5	6.5	5.3	5.3	6.3
Boron (water-soluble)	11000	0.5	1.8	1.5	2.1	1.7
Cadmium	150	0.3	0.2	0.2	0.2	0.2
Chromium*	910	14	11	12	18	13
Chromium VI	21	1.2	1.2	1.2	1.3	1.2
Copper	7100	35	19	19	18	20
Cyanide(Total)	-	1	1	1.6	1	1
Cyanide(free)**	34	1	1	1.6	2.4	1
Lead	310	77	22	25	30	26
Mercury [†]	56	0.3	0.3	0.3	0.3	0.3
Nickel	180	14	9.2	9.4	10	15
pH	-	8	8.2	8.6	8.6	7.9
Phenols(Mono)	1200	1	1	1	1	1
Selenium	430	1	1	1	1	1
SO4(Total)	-	0.104	0.053	0.055	0.067	0.043
Sulphide	-	4	1	12	4.8	1
Sulphur(Free)	-	530	500	500	540	500
Thiocyanate	-	85	56	66	75	62
Zinc	4000	85	56	66	75	62
Acenaphthene	3000	0.21	0.05	0.05	0.05	0.05
Acenaphthylene	2900	0.08	0.05	0.05	0.05	0.05
Anthracene	31000	0.59	0.05	0.05	0.05	0.05
Benzo(a)Anthracene	11	2	0.13	0.11	0.23	0.12
Benzo(a)Pyrene SM	3.2	2.1	0.05	0.11	0.24	0.05
Benzo(b)Fluoranthene	3.9	2.5	0.18	0.17	0.29	0.17
Benzo(ghi)Perylene	360	1.2	0.11	0.05	0.2	0.11
Benzo(k)Fluoranthene	110	0.84	0.05	0.05	0.14	0.09
Chrysene	30	1.8	0.12	0.12	0.25	0.13
Dibenzo(ah)Anthracene	0.31	0.25	0.05	0.05	0.05	0.05
Fluoranthene	1500	4.1	0.17	0.18	0.37	0.21
Fluorene	2800	0.17	0.05	0.05	0.05	0.05
Indeno(123-cd)Pyrene	45	1.1	0.1	0.07	0.15	0.09
Naphthalene	15	0.1	0.05	0.05	0.05	0.05
Phenanthrene	1300	2	0.06	0.07	0.13	0.1
Pyrene	3700	3.9	0.14	0.16	0.34	0.05
PAH(total)	500	22.9	1.01	1.05	2.33	1.02
Asbestos	Not-detected	Not-detected	Not-detected	Not-detected	-	Not-detected
SOM [‡]	-	0	0	0	0	0

All Units mg/kg unless otherwise stated

Where no SOM is reported 1% SOM Criteria are used. For individual s

*Criteria Assumes Chromium III SM = Surrogate Marker

**Criteria is derived considering acute effects on 1-2yo Female Rece

***Criteria is derived considering Total TPH (C10 to C35) is formed e

[†] GAC for inorganic mercury can normally be compared with chemica

[‡] Criteria reported to zero decimal places

Basis of Assessment Criteria: CLEA v1.071

GeoAssist Limited		Exploratory Hole Record Sheet				Ref: TP10	
Consultant: 0		Project: Trinity Island Plot D				Sheet: 1	
		Location: Manchester					
Client: Renaker Build Ltd		Equipment: Hand Excavation Methods				Ground Level: m.AOD	
						Co-ordinates: Easting: 382738.4(m) Northing: 397713.2(m)	
		Dates: 26/11/2025 to 26/11/2025					
Drilling Foreman: M Walton		Depth (Thick) (m)	Reduced Level (mAOD)	Strata Legend/ Standpipe Backfill	Samples/Tests		Field Records
Engineer/Geologist: M Benson					Depth (m) from to	Sample Type/No	
STRATUM DESCRIPTION							
0 Wood Chip - MADE GROUND		0.05					
Dark brown sandy TOPSOIL black membrane at base		(0.40)			0.20	C1	
		0.45					
0.5 Light grey sandy gravel - MADE GROUND		0.60			0.45	C2	
Exploratory Hole complete at 0.60m							26/12/2025: On completion of trial pit at 0.60m. Standing water level Nil. Exploratory hole backfilled and reinstated.
-1							
-1.5							
-2							
-2.5							
-3							
-3.5							
-4							
-4.5							
-5							
Remarks:						Logged: M Benson	
The groundwater conditions entered on the exploratory hole logs are those observed at the time of the drilling operations and the water level may not have reached equilibrium with the surrounding water level prior to the record being taken. Standing groundwater levels will be subject to seasonal variation or changes in local drainage conditions and could be higher at certain times of the year particularly after periods of heavy rainfall.						Date: 26/11/2025	
						Checked: M Richardson	
						Date: 26/11/2025	
						Site Ref: 6100/VTI	
						Scale 1:25	

GeoAssist Limited		Exploratory Hole Record Sheet				Ref: TP11		
Consultant: 0		Project: Trinity Island Plot D				Sheet: 1		
		Location: Manchester						
Client: Renaker Build Ltd		Equipment: Hand Excavation Methods				Ground Level: m.AOD		
						Co-ordinates: Easting: 382733.7(m) Northing: 397727.7(m)		
		Dates: 26/11/2025 to 26/11/2025						
Drilling Foreman: M Walton		STRATUM DESCRIPTION	Depth (Thick) (m)	Reduced Level (mAOD)	Strata Legend/ Standpipe Backfill	Samples/Tests		Field Records
Engineer/Geologist: M Benson						Depth (m) from to	Sample Type/No	
0 Wood Chip - MADE GROUND		0.05						26/12/2025: On completion of trial pit at 0.40m. Standing water level Nil. Exploratory hole backfilled and reinstated.
Dark brown sandy TOPSOIL		0.25			0.20	C1		
Light grey sandy gravel - MADE GROUND		0.40			0.35	C2		
-0.5 Exploratory Hole complete at 0.40m								
-1								
-1.5								
-2								
-2.5								
-3								
-3.5								
-4								
-4.5								
-5								
Remarks:							Logged: M Benson	
The groundwater conditions entered on the exploratory hole logs are those observed at the time of the drilling operations and the water level may not have reached equilibrium with the surrounding water level prior to the record being taken. Standing groundwater levels will be subject to seasonal variation or changes in local drainage conditions and could be higher at certain times of the year particularly after periods of heavy rainfall.							Date: 26/11/2025	
							Checked: M Richardson	
							Date: 26/11/2025	
							Site Ref: 6100/VTI	
							Scale 1:25	

GeoAssist Limited		Exploratory Hole Record Sheet				Ref: TP12		
Consultant: 0		Project: Trinity Island Plot D				Sheet: 1		
		Location: Manchester						
Client: Renaker Build Ltd		Equipment: Hand Excavation Methods				Ground Level: m.AOD		
						Co-ordinates: Easting: 382730.8(m) Northing: 397737.6(m)		
		Dates: 26/11/2025 to 26/11/2025						
Drilling Foreman: M Walton		STRATUM DESCRIPTION	Depth (Thick) (m)	Reduced Level (mAOD)	Strata Legend/ Standpipe Backfill	Samples/Tests		Field Records
Engineer/Geologist: M Benson						Depth (m) from to	Sample Type/No	
0		Wood Chip - MADE GROUND	0.05					
		Dark brown sandy TOPSOIL black membrane at base				0.20	C1	
-0.5			(0.65)					
						0.50	C2	
		Light grey sandy gravel - MADE GROUND	0.70					
			0.90					
-1		Exploratory Hole complete at 0.90m						
-1.5								
-2								
-2.5								
-3								
-3.5								
-4								
-4.5								
-5								
Remarks:								
The groundwater conditions entered on the exploratory hole logs are those observed at the time of the drilling operations and the water level may not have reached equilibrium with the surrounding water level prior to the record being taken. Standing groundwater levels will be subject to seasonal variation or changes in local drainage conditions and could be higher at certain times of the year particularly after periods of heavy rainfall.								Logged: M Benson Date: 26/11/2025 Checked: M Richardson Date: 26/11/2025 Site Ref: 6100/VTI Scale 1:25

GeoAssist Limited		Exploratory Hole Record Sheet				Ref: TP13	
Consultant: 0		Project: Trinity Island Plot D				Sheet: 1	
		Location: Manchester					
Client: Renaker Build Ltd		Equipment: Hand Excavation Methods				Ground Level: m.AOD	
						Co-ordinates: Easting: 382728.3(m) Northing: 397750.4(m)	
		Dates: 26/11/2025 to 26/11/2025					
Drilling Foreman: M Walton		Depth (Thick) (m)	Reduced Level (mAOD)	Strata Legend/ Standpipe Backfill	Samples/Tests		Field Records
Engineer/Geologist: M Benson					Depth (m) from to	Sample Type/No	
STRATUM DESCRIPTION							
0 Wood Chip - MADE GROUND		0.05					
Dark brown sandy TOPSOIL					0.20	C1	
-0.5		(0.95)			0.50	C2	
-1		1.00					
Exploratory Hole complete at 1.00m							26/12/2025: On completion of trial pit at 1.00m. Standing water level Nil. Exploratory hole backfilled and reinstated.
-1.5							
-2							
-2.5							
-3							
-3.5							
-4							
-4.5							
-5							
Remarks:						Logged: M Benson	
The groundwater conditions entered on the exploratory hole logs are those observed at the time of the drilling operations and the water level may not have reached equilibrium with the surrounding water level prior to the record being taken. Standing groundwater levels will be subject to seasonal variation or changes in local drainage conditions and could be higher at certain times of the year particularly after periods of heavy rainfall.						Date: 26/11/2025	
						Checked: M Richardson	
						Date: 26/11/2025	
						Site Ref: 6100/VTI	
						Scale 1:25	

GeoAssist Limited	Exploratory Hole Record Sheet						Ref: TP14
	Project: Trinity Island Plot D						Sheet: 1
	Location: Manchester						
	Equipment: Hand Excavation Methods						
Consultant: 0	Ground Level: m.AOD						
Client: Renaker Build Ltd	Co-ordinates: Easting: 382671.6(m) Northing: 397740.4(m)						
	Dates: 26/11/2025 to 26/11/2025						
Drilling Foreman: M Walton		Depth (Thick) (m)	Reduced Level (mAOD)	Strata Legend/ Standpipe Backfill	Samples/Tests		Field Records
Engineer/Geologist: M Benson					Depth (m) from to	Sample Type/No	
STRATUM DESCRIPTION							
0 Grass over dark brown sandy TOPSOIL black membrane at base							26/12/2025: On completion of trial pit at 0.35m. Standing water level Nil. Exploratory hole backfilled and reinstated.
		0.25			0.20	C1	
Light grey sandy gravel - MADE GROUND		0.35			0.30	C2	
-0.5 Exploratory Hole complete at 0.35m							
-1							
-1.5							
-2							
-2.5							
-3							
-3.5							
-4							
-4.5							
-5							
Remarks:							
The groundwater conditions entered on the exploratory hole logs are those observed at the time of the drilling operations and the water level may not have reached equilibrium with the surrounding water level prior to the record being taken.							Logged: M Benson Date: 26/11/2025 Checked: M Richardson Date: 26/11/2025 Site Ref: 6100/VTI Scale 1:25
Standing groundwater levels will be subject to seasonal variation or changes in local drainage conditions and could be higher at certain times of the year particularly after periods of heavy rainfall.							