

Environmental
Geotechnical
Specialists

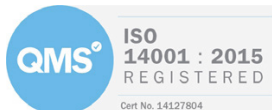


PHASE 4 VALIDATION REPORT

job number	C5257/26/E/9384	date	14.05.26
site address	Land off Olney Street Slaithwaite Huddersfield HD7 5EG		
written by	R. Palmer	checked by	I. Sakoor
issued by	R. Palmer		



Please consider the environment before printing this report.



Environmental
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Rogers Geotechnical Services Ltd
Unit 1 Manorcroft Works, Commercial Road, Skelmanthorpe, Huddersfield, HD8 9DT
01484 604 354 www.rogersgeotech.co.uk Company No: 5130864

<ENVIRONMENTAL><GEOTECHNICAL>

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Phase 4: Validation Report of Remediation

Location: **Land off Olney Street**
Slaithwaite, Huddersfield, West Yorkshire HD7 5EG

For: Paul Coletta

Report No. C5257/26/E/9384

Report date: May 2026

For and on behalf of **Rogers Geotechnical Services Ltd**

Rob Palmer MSc FGS ACIEH
Engineering Director

Imran Sakoor BEng FGS
Geo-environmental Engineer

1. Introduction

The land associated with land off Olney Street has been developed by the construction of two residential properties with associated car parking and gardens.

In order to fully discharge a planning condition relating to land contamination, a verification report has been produced to demonstrate that a suitable cover system will be installed in the soft landscaped areas.

In accordance with your instructions we have undertaken testing of the imported material to validate that this is now suitable, and confirm that the pathway for contamination is broken. The following describes the work undertaken, presents the data obtained and discusses the findings in association with the proposed development.

2. Review of the Proposed Remediation Strategy

2.1 Summary of Contamination Risks

A Phase 2 Geo-environmental investigation was undertaken by Rogers Geotechnical Services in July 2025 (ref C5257/25/E/8069). This report recorded a nominal thickness of topsoil overlying the natural weathered fraction of the rock. The topsoil was recorded to contain lead contamination.

2.2 Remediation Strategy

As part of the part of a planning consent the below remediation strategy/scheme has been produced and agreed with Kirklees Council. The general layout of the site can be found within Appendix 1. In addition, the following should also be noted.

- In view of the presence of contamination and residential end use of the site, it is considered that the garden areas will require some remediation. At this site, the remediation will comprise the removal of all topsoil from the proposed garden areas leaving the uncontaminated natural material beneath. Following this, a provision of topsoil shall be made that is a suitable growing medium for plants.

2.3 Source of Material

For cover and containment systems, verification will normally depend upon the provision of defensible measurements, observations and records. The following table provides information in regards to the source and characteristics of the material used within the remediation process.

Table 1: Validation Sampling and Testing			
Type of Material	Source of Material	Volume of imported Material	No. Samples Required
Topsoil	Thomas Crompton Lanside Quarry Kirkheaton	15m ³	6

It should be appreciated that any fill should be subjected to validation testing to assess its suitability. Depending on the origin and nature of the material, not all fill will require the sampling frequency and testing indicated, although this should be in agreement with any regulatory bodies (such as the Local Authority).

3. Limitations

The recommendations made and opinions expressed in this report are based on the ground conditions revealed by the site works, together with an assessment of the site and of the laboratory test results. Whilst opinions may be expressed relating to sub-soil conditions in parts of the site not investigated, for example between investigatory positions, these are for guidance only and no liability can be accepted for their accuracy.

This report has been prepared in accordance with our understanding of current best practice. However, new information or legislation, or changes to best practice may necessitate revision of the report after the date of issue.

4. Site Visits

An initial site visit was completed on the 24th April 2026, whereby an RGS engineer observed a site scrape to ensure a sufficient thickness of topsoil material was excavated and removed from site. This was in order to remove the contamination and expose the underlying natural soil which was deemed to be clean. Appendix 2 of this report contains the photographs taken at the time of the fieldworks. Appendix 3 contains the waste transfer notes.

Thereafter, a second visit was completed on the 28th April 2026 when the client had imported and laid topsoil in the soft landscaped area. Representative samples of topsoil were collected and forward on to the laboratory for chemical testing.

5. Laboratory Testing - Environmental

A suite of testing was conducted on samples from across the site and the following regime was undertaken.

Brownfield Soil Suite

- Standard metals/metalloids As, Cd, Cr, CrVI, Cu, Hg, Ni, Pb, Se, V, Zn
- Free CN-, PAH (16 USEPA), TPH (CWG banded)
- Asbestos
- pH, total/soluble SO₄²⁻, Organic content (Soil Organic Matter)

This testing was undertaken by i2 Analytical and the results of all of the chemical testing are presented in Appendix 4 of this report.

6. Discussion of Ground Conditions - Environmental

On the basis that the site comprises houses and the topsoil at the site has been used to provide clean cover in the garden and soft landscaping areas of the properties, the site can be classified as residential with plant uptake.

The results of the chemical testing undertaken on soil samples obtained during this investigation have been compared to the ATRISK soil screening values (SSVs) as compiled by WS Atkins plc. These values have been derived in such a way as to adhere to the principles within the revised CLEA model and include the most current release of the SGVs. A list of subscribers is provided within the website¹ and these include many local authorities.

A comparison of the results of the testing, together with the data given above, can be found within Appendix 4.

Concentrations of chromium, mercury, cyanide (free) and petroleum hydrocarbons (aromatic C5 to C35 and aromatic C5 to C35) were below the detection limits for the tests. Detectable levels of all other contaminants were recorded, but these fell below the associated Atrisk Soil Screening Values. In addition, the asbestos screen found no asbestos detected.

It should be appreciated that the soil screening values for PAHs and TPHs (where appropriate) represents vapour saturation limits. The inhalation of vapour pathway contributes less than 10% of total exposure, which is unlikely to significantly affect the combined assessment criterion². In view of this, the ATRISK soil SSVs notes that the users may wish to consider using a combined assessment criterion if free product is not observed, the values for which are also provided on the summary of contamination analysis. It is therefore considered that the criteria for no free product should be adopted for the PAHs and TPHs at this site. The results of the contaminants found to exceed these screening values are tabulated below:

¹ <http://www.atrisksoil.co.uk/pages/general/subscribers.asp>

² Ref: ATRISK soil, SSVs derived using CLEA v1.071 for 6% SOM, Residential with home grown produce land use, 23.06.17.

Table 2: Summary of Contamination Analyses

Location	Depth (m)	Contaminants found to be exceeding SSVs (Residential with Plant Uptake)
SP01	0	None
SP02	0	None
SP03	0	None
SP04	0	None
SP05	0	None
SP06	0	None

On the basis of the above the material tested may be considered as uncontaminated and suitable for the site end-use.

7. Discussion of Ground Conditions – Validation Requirements

7.1 Validation of Clean Cover

Further to the photographic records, the excavations have proven that sufficient material has been removed from the proposed landscaped areas. Indeed, the underlying natural soils were suitably exposed, with the contaminated material taken away from site by Thomas Crompton.

It is concluded that the imported material being placed as a capping at the site is clean and comprises topsoil. This material will prove suitable as a growing medium and is compliant with BS3883 (2007) and is free from obvious contamination (i.e. visual or olfactory evidence) and unsuitable material (i.e. whole bricks, brick ties, timber or glass).

As a consequence, it is apparent that the measures explained in the remediation statement have been implemented within the garden and soft landscaped areas at the rear of the site. As a consequence, it is considered that the risk to garden plants, end-users from dermal contact with the soil and end-users and neighbours from the inhalation of dust, ingestion of soil or dust and the ingestion of contaminated fruit and vegetables is mitigated and may be considered as low.

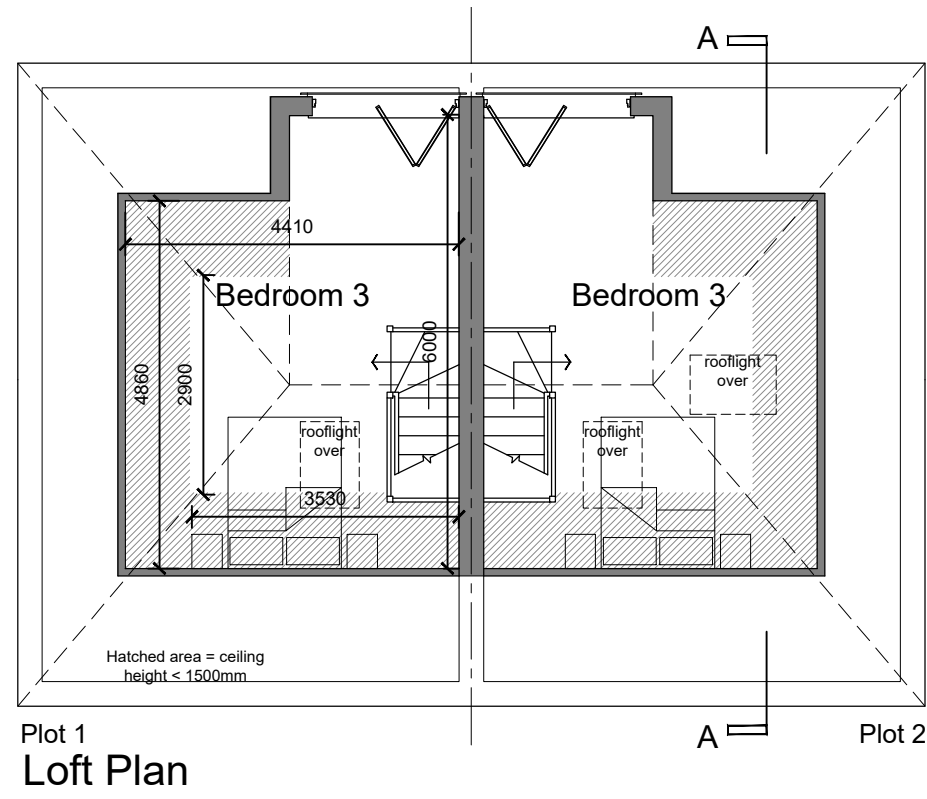
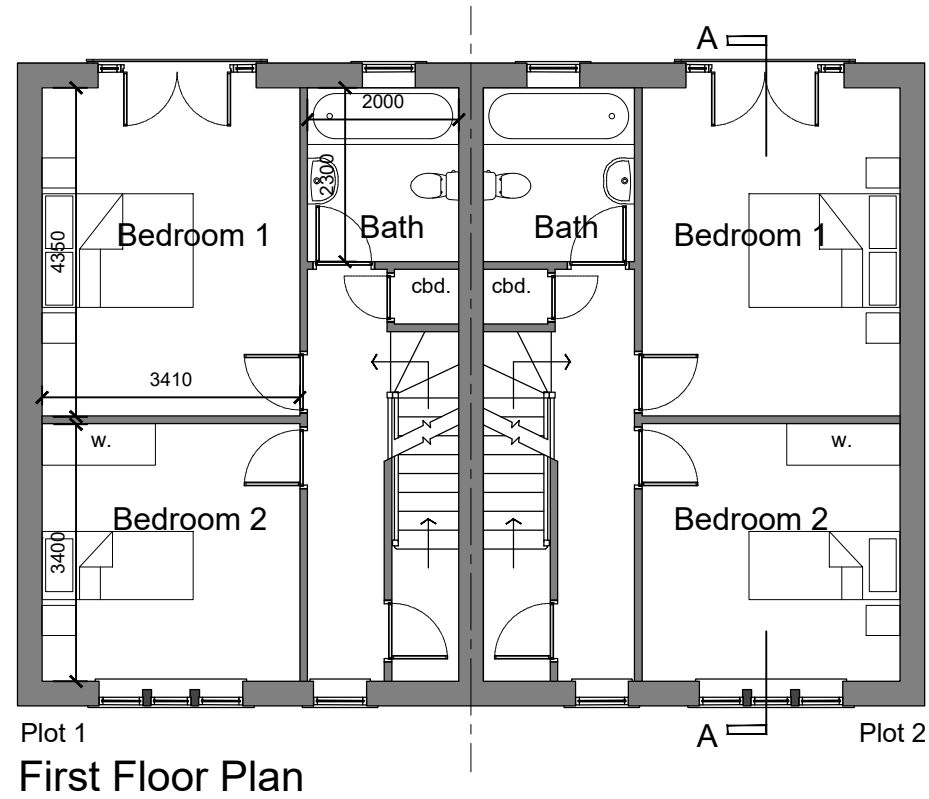
It is considered that the end users will be protected from ingestion or dermal contact with contaminated soil. No further action is required.

8. References

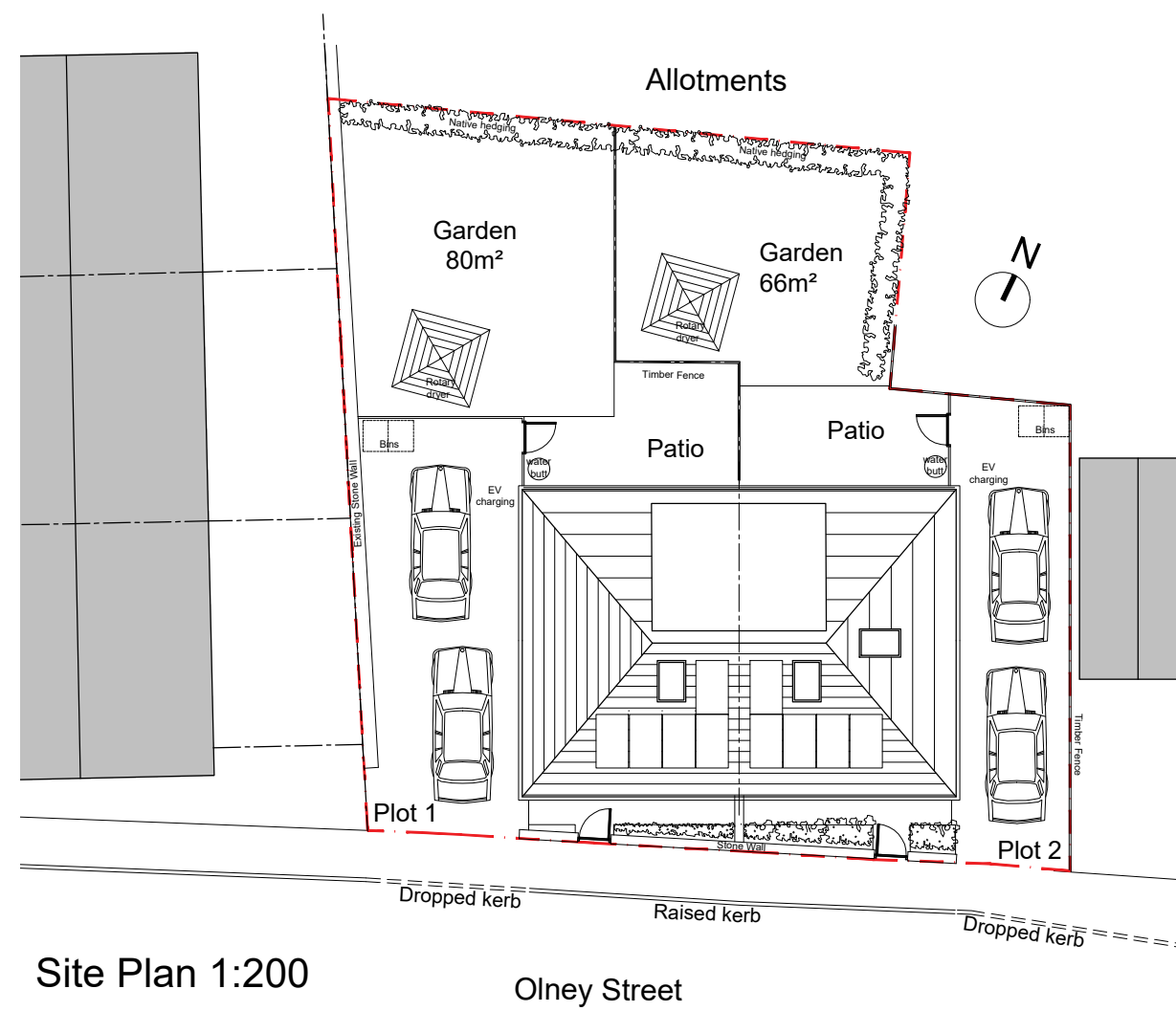
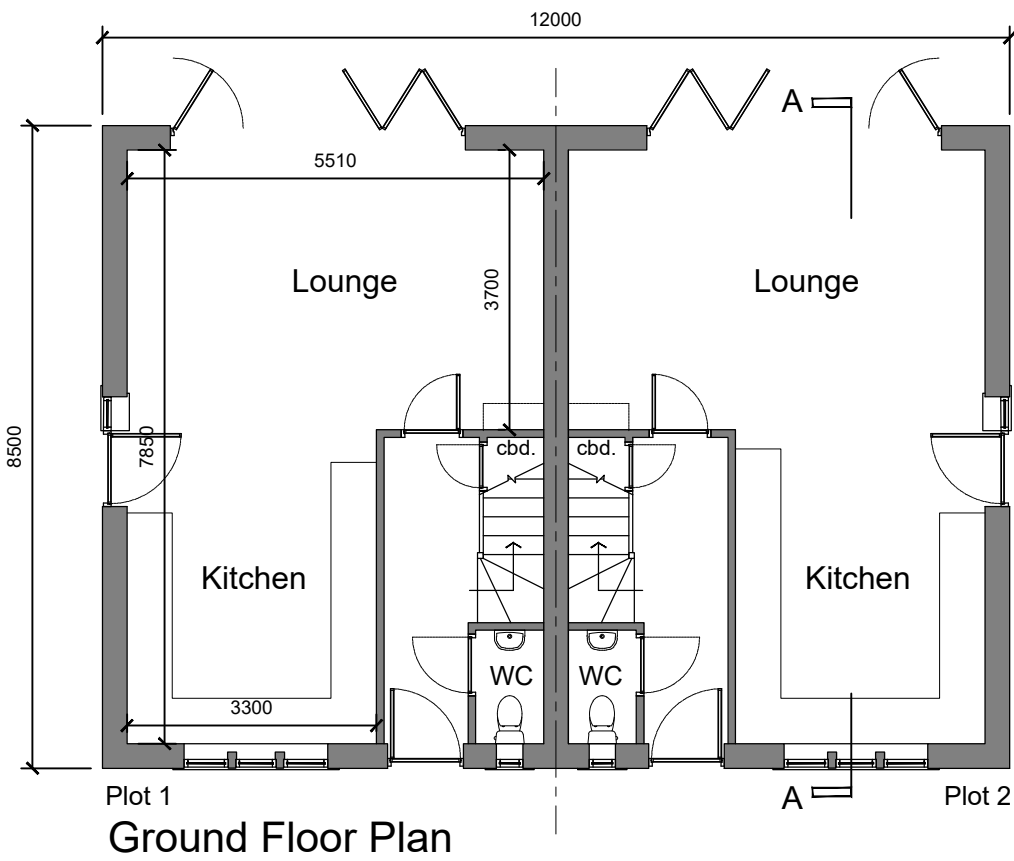
- Department for Environment, Food and Rural Affairs and the Environment Agency (2009) DEFRA Science Report – Final SC050021/SR2, *Human Health toxicological assessment of contaminants in soil*. Environment Agency, Bristol.
- Department for Environment, Food and Rural Affairs and the Environment Agency (2009) DEFRA Science Report – SC050021/SR3, *Updated technical background to the CLEA model*. Environment Agency, Bristol.
- WS Atkins plc, 2011, Soil Screening Values, Derived using CLEA v1.04 and January 2009 Guidance: SSVs derived using CLEA v1.04 for 6% SOM, Residential with home grown produce land use.
- YALPAG *Technical Guidance for Developers, Landowners and Consultants – Verification Requirements for Cover Systems V3.3* Appendix 1a, October 2016.

Appendix 1

Site Plan



- NOTES
- **Do not scale from this drawing.**
 - This drawing is copyright.
 - All dimensions to be checked on site prior to the order or manufacture of any goods.
- Revisions:
- A: Red line boundary adjusted June '25
 - B: Roof hipped and internal layout adjusted to suit. Aug '25



Appendix 2

Site Photographs



24.04.26 Stockpile of contaminated material to be removed from site.



24.04.26 Photo showing excavated material in stockpile behind cleared area.



24.04.26 Demonstration of exposed subsoil.



24.04.26 Further exposure of underlying subsoil.



Rogers Geotechnical Services Ltd

Manorcroft Works Commercial Road,
Skelmanthorpe, Huddersfield HD8 9DS

Job No:

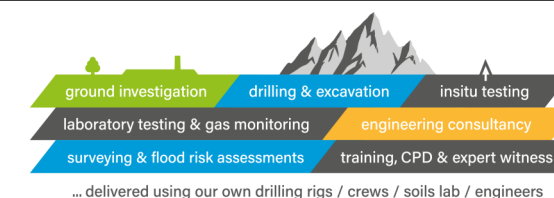
C5257/26/E/9384

Site:

Olney St

Client:

Paul Coletta





28.04.26 Stockpile of topsoil brought on to site (front of image). Placed already in the background.



Rogers Geotechnical Services Ltd

Manorcroft Works Commercial Road,
Skelmanthorpe, Huddersfield HD8 9DS

Job No:

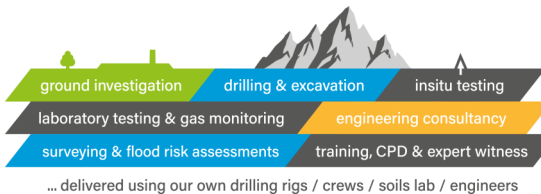
C5257/26/E/9384

Site:

Olney St

Client:

Paul Coletta



Appendix 3

Waste Transfer Notes

THOMAS CROMPTON

GROUP OF COMPANIES

DUTY OF CARE: CONTROLLED WASTE TRANSFER NOTE

Ticket No:

200722

Thomas Crompton Demolition Ltd - Thomas Crompton House - Neville Road - Bradford - BD4 8TU
Tel: 01274 726777 Fax: 01274 726333 Email: info@thomascrompton.co.uk SIC 4511

SECTION 1 - DESCRIPTION OF WASTE

Description of Waste:	Soul e Stones Non-haz		
Physical Form:	Solid	YES	
Container Type & Quantity:	Tipper		
Type of Pre-Treatment (if applicable)?			
EWG Code:	17	05	04

SECTION 2 - WASTE SOURCE/PRODUCER

Company Name:	PAUL COLETTA-RUTH STYNES
Site Address:	ONLY ST HUDDERSFIELD HD7 5EG.
Signed for Contractor:	

SECTION 3 - COLLECTION/TRANSPORT

Company Name:			
Company Address:	THOMAS CROMPTON GROUP Neville Road, Bradford. BD4 8TU tele: 01274 726777 Vat No: 141642241		
Transport Type:	TIPPER	Registration:	MT 24 GPF.
Waste Carriers Licence Number:	CBDU 201413	Date of Expiry:	28/10/26
Collected:		Time:	2:30
Signed for Carrier:		Print:	chris Smith.

SECTION 4 - RECEIVER/TRANSFER/DISPOSAL FACILITY

Company Name:	Thomas Crompton (Laneside)					
Site Address:	Bell String lane HDS					
Licence/Permit/Exemption No:	EPR/FP3603BU					
Weights:	Gross:	Various	Tare:		Nett:	20T
Received:		-26	Time:	3.38pm.		
Signed for Receiver:			Print:	M. CROMPTON		

By signing, I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

THOMAS CROMPTON

GROUP OF COMPANIES

DUTY OF CARE: CONTROLLED WASTE TRANSFER NOTE

Ticket No:

200721

Thomas Crompton Demolition Ltd - Thomas Crompton House - Neville Road - Bradford - BD4 8TU
Tel: 01274 726777 Fax: 01274 726333 Email: info@thomascrompton.co.uk SIC 4511

SECTION 1 - DESCRIPTION OF WASTE

Description of Waste:	Soils & Stones Non haz		
Physical Form:	Solid	YES	
Container Type & Quantity:	tipper		
Type of Pre-Treatment (if applicable)?	N/A		
EWG Code:	17	05	04

SECTION 2 - WASTE SOURCE/PRODUCER

Company Name:	PAUL COLETTA - RUTH STYNES
Site Address:	ONLEY ST. HUDDERSFIELD HD7 5EG
Signed for Contractor:	

SECTION 3 - COLLECTION/TRANSPORT

Company Name:			
Company Address:	THOMAS CROMPTON GROUP Neville Road, Bradford, BD4 8TU tele: 01274 726777 Vat No: 141642241		
Transport Type:	TIPPER	Registration:	MT24 GPF
Waste Carriers Licence Number:	CBDU201413	Date of Expiry:	28 OCT 26
Collected:		Time:	10-30
Signed for Carrier:		Print:	Chris Smith

SECTION 4 - RECEIVER/TRANSFER/DISPOSAL FACILITY

Company Name:	Thomas Crompton (laneside)					
Site Address:	Bellstring lane Huddersfield HD5					
Licence/Permit/Exemption No:	EPR/FP3603DU					
Weights:	Gross:	Various	Tare:		Nett:	20T
Received:		26	Time:	11-20		
Signed for Receiver:			Print:	M. CROMPTON		

By signing, I confirm that I have full

knowledge of the waste hierarchy as required by

Regulation 12 of the Waste (England and Wales) Regulations 2011.

Appendix 4

Laboratory Testing & Contamination Analyses

Rogers Geotechnical Services Ltd
Unit 1 Manorcroft Works
Commercial Road
Skelmanthorpe
HD8 9DT

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t:

t: 01923 225404

e: harry.letch@rogersgeotech.co.uk

f: 01923 237404

e: info-i2analytical@normecgroup.com

Analytical Report Number : 26-022408

Project / Site name:	Olney Street Slaithwaite	Samples received on:	28/04/2026
Your job number:	C5257/26/E/9384	Samples instructed on/ Analysis started on:	28/04/2026
Your order number:		Analysis completed by:	07/05/2026
Report Issue Number:	1	Report issued on:	07/05/2026
Samples Analysed:	6 soil samples		

Signed:

Rachel Chappell
Key Account Manager
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: 26-022408
Project / Site name: Olney Street Slaitthwaite

Lab Sample Number	903432	903433	903434	903435	903436
Sample Reference	SP01	SP02	SP03	SP04	SP05
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.00	0.00	0.00	0.00	0.00
Date Sampled	28/04/2026	28/04/2026	28/04/2026	28/04/2026	28/04/2026
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Mass of stone >10mm	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	29	30	28	27	29
Total mass of sample received	kg	0.1	NONE	0.7	0.7	0.8	0.7	0.7

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	WIK	WIK	WIK	WIK	WIK
Analysis completed	N/A	N/A	N/A	06/05/2026	06/05/2026	06/05/2026	06/05/2026	06/05/2026

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7	7.1	7.1	7.3	7
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	390	280	250	220	240
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	197	140	124	109	120
Organic Matter	%	0.1	MCERTS	12	-	12	-	-
Organic Matter (automated)	%	0.1	MCERTS	-	12	-	12	12

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.13	0.12	0.54	0.21	0.22
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.16	0.22	0.27	0.35	0.29
Fluorene	mg/kg	0.05	MCERTS	0.11	0.16	0.2	0.21	0.28
Phenanthrene	mg/kg	0.05	MCERTS	1.1	1.9	1.7	2.2	2.3
Anthracene	mg/kg	0.05	MCERTS	0.24	0.44	0.33	0.41	0.44
Fluoranthene	mg/kg	0.05	MCERTS	1.7	2.8	2.5	3.1	2.9
Pyrene	mg/kg	0.05	MCERTS	1.5	2.5	2.3	2.7	2.7
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.83	1.3	1.2	1.4	1.3
Chrysene	mg/kg	0.05	MCERTS	0.92	1.4	1.3	1.6	1.4
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.93	1.5	1.4	1.6	1.5
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.46	0.59	< 0.05	0.73	0.59
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.79	1.2	0.89	0.90	1.3
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.35	0.55	0.56	0.32	0.58
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.15	0.15	0.17	0.11
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.10	0.63	0.6	0.24	0.10

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	9.32	15.4	13.9	16.0	12.8
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Analytical Report Number: 26-022408
Project / Site name: Olney Street Slaithwaite

Lab Sample Number	903432	903433	903434	903435	903436
Sample Reference	SP01	SP02	SP03	SP04	SP05
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.00	0.00	0.00	0.00	0.00
Date Sampled	28/04/2026	28/04/2026	28/04/2026	28/04/2026	28/04/2026
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	11	11	12	12	10
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.2	0.2	0.3	0.2	0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	U/S ^{*U/S g}	U/S ^{*U/S g}	U/S ^{*U/S g}	U/S ^{*U/S g}	U/S ^{*U/S g}
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	< 1.80	< 1.80	< 1.80	< 1.80	< 1.80
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	18	17	19	23	17
Copper (aqua regia extractable)	mg/kg	1	MCERTS	27	27	30	33	25
Lead (aqua regia extractable)	mg/kg	1	MCERTS	44	43	46	56	40
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	15	15	16	20	15
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	1.2	< 1.0	< 1.0	1.1
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	24	23	25	28	22
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	70	70	78	82	71

Petroleum Hydrocarbons

Petroleum Range Organics (EC6 - EC10) ^{HS_ID_TOTAL}	mg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH (EC10 - EC25) ^{EH_CU_ID_TOTAL}	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH (EC25 - EC40) ^{EH_CU_ID_TOTAL}	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10

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

Analytical Report Number: 26-022408
Project / Site name: Olney Street Slaitwaite

Lab Sample Number	903437			
Sample Reference	SP06			
Sample Number	None Supplied			
Water Matrix	N/A			
Depth (m)	0.00			
Date Sampled	28/04/2026			
Time Taken	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status	

Mass of stone >10mm	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	30
Total mass of sample received	kg	0.1	NONE	0.7

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	WIK
Analysis completed	N/A	N/A	N/A	06/05/2026

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.6
Free Cyanide	mg/kg	1	MCERTS	< 1.0
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	280
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	139
Organic Matter	%	0.1	MCERTS	13
Organic Matter (automated)	%	0.1	MCERTS	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.15
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.21
Fluorene	mg/kg	0.05	MCERTS	0.15
Phenanthrene	mg/kg	0.05	MCERTS	1.5
Anthracene	mg/kg	0.05	MCERTS	0.33
Fluoranthene	mg/kg	0.05	MCERTS	2.3
Pyrene	mg/kg	0.05	MCERTS	2.1
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.2
Chrysene	mg/kg	0.05	MCERTS	1.1
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	1.1
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.54
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.46
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.1
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.55

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	12.9
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Analytical Report Number: 26-022408

Project / Site name: Olney Street Slaithwaite

Lab Sample Number	903437			
Sample Reference	SP06			
Sample Number	None Supplied			
Water Matrix	N/A			
Depth (m)	0.00			
Date Sampled	28/04/2026			
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	11
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	U/S ^{U/S 9}
Chromium (hexavalent) by IC	mg/kg	1.8	NONE	< 1.80
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	17
Copper (aqua regia extractable)	mg/kg	1	MCERTS	28
Lead (aqua regia extractable)	mg/kg	1	MCERTS	52
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	22
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	70

Petroleum Hydrocarbons

Petroleum Range Organics (EC6 - EC10) _{HS_ID_TOTAL}	mg/kg	1	ISO 17025	< 1.0
TPH (EC10 - EC25) _{EH_CU_ID_TOTAL}	mg/kg	10	MCERTS	< 10
TPH (EC25 - EC40) _{EH_CU_ID_TOTAL}	mg/kg	10	MCERTS	< 10

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

Analytical Report Number : 26-022408

Project / Site name: Olney Street Slaithwaite

* 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 *
903432	SP01	None Supplied	0	Brown loam and clay with fibrous material and vegetation
903433	SP02	None Supplied	0	Brown loam and clay with vegetation
903434	SP03	None Supplied	0	Brown loam and clay with gravel and vegetation
903435	SP04	None Supplied	0	Brown loam and clay with gravel and vegetation
903436	SP05	None Supplied	0	Brown loam and clay with gravel and vegetation
903437	SP06	None Supplied	0	Brown loam and clay with gravel and vegetation

Analytical Report Number : 26-022408

Project / Site name: Olney Street Slaitwaite

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
Moisture Content (Wet Weight)	Moisture content (% wet weight), determined gravimetrically (up to 30°C)	In-house-procedure based on BS EN 12880:2000	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
Organic matter in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L023B	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Hexavalent chromium in soil by Ion Chromatography	Determination of hexavalent chromium in alkaline soil extract by use of ion chromatography with spectrophotometric detection	In-house method	L130B	W	NONE
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
Total petroleum hydrocarbons by GC-FID in soil	Determination of total petroleum hydrocarbons in soil by GC-FID	In-house method	L076B	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080-PL	W	MCERTS
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
Total petroleum hydrocarbons by HS-GC-MS in soil	Determination of total petroleum hydrocarbons in soil by HS-GC-MS	In-house method	L129-PL	W	ISO 17025
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
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE

Analytical Report Number : 26-022408

Project / Site name: Olney Street Slaithwaite

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
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS

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

*U/S g- Unsuitable for analysis due to high colour intensity.



Rogers Geotechnical Services: Soil Screening Values Comparison Sheet



Rogers Geotechnical Services Ltd: Soil Screening Value (SSV) Comparison Sheet															
Job Number	C5257/26/E/9384			A = WS Atkins PLC, Atrisk Soil Screening Values. A+ = Values updated June 2017. A* = Atrisk's SSV is lower than I2's detectable limit for this compound. B = health criterion values, which are available from toxicological reviews published in the C4SL project methodology report. C = Category 4 Screening Levels (C4SLs) based on 6% soil organic matter. D = Value provided is based on Methyl Mercury. Should elemental mercury be observed or a source be known then a limit of 102 should be used. KEY Exceeds SSV Exceeds 2017, Below 2015 Below limit of detection (LOD) 											
Job Name	Olney St														
Date	14.05.26			Sample Location	SP01	SP02	SP03	SP04	SP05	SP06					
Client	Paul Coletta			Depth Top	0	0	0	0	0	0					
				Depth Base											
Determinand	Units	Ref	LOD	Residential With Plant Uptake 6%											
				Atrisk 2015 (No Free Product)	Atrisk 2017										
Cadmium	mg/kg	C	0.2		22.1	0.2	0.2	0.3	0.2	0.2	0.2				
Chromium (Hexavalent)	mg/kg	B/C	1.8	20.5	3.62	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8				
Copper	mg/kg	A+	1.0		4790	27	27	30	33	25	28				
Mercury	mg/kg	A/D	0.3		15.8	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3				
Nickel	mg/kg	A+	1.0		136	15	15	16	20	15	15				
Lead	mg/kg	C	1.0		200	44	43	46	56	40	52				
Zinc	mg/kg	A+	1.0		20300	70	70	78	82	71	70				
Vanadium	mg/kg	A+	1.0		138	24	23	25	28	22	22				
Arsenic	mg/kg	C	1.0		37	11	11	12	12	10	11				
Selenium	mg/kg	A	1.0		375	< 1.0	1.2	< 1.0	< 1.0	1.1	< 1.0				
Cyanide (Free)	mg/kg	A	1.0		34	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
Naphthalene	mg/kg	A+	0.05		12.2	0.13	0.12	0.54	0.21	0.22	0.15				
Acenaphthylene	mg/kg		0.05			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05				
Acenaphthene	mg/kg	A+	0.05		2760	0.16	0.22	0.27	0.35	0.29	0.21				
Fluorene	mg/kg	A+	0.05		2610	0.11	0.16	0.2	0.21	0.28	0.15				
Phenanthrene	mg/kg		0.05			1.1	1.9	1.7	2.2	2.3	1.5				
Anthracene	mg/kg	A+	0.05		26200	0.24	0.44	0.33	0.41	0.44	0.33				
Fluoranthene	mg/kg	A+	0.05		2980	1.7	2.8	2.5	3.1	2.9	2.3				
Pyrene	mg/kg	A+	0.05		2120	1.5	2.5	2.3	2.7	2.7	2.1				
Benzo[a]anthracene	mg/kg	A	0.05		8.54	0.83	1.3	1.2	1.4	1.3	1.2				
Chrysene	mg/kg	A	0.05	927	2.64	0.92	1.4	1.3	1.6	1.4	1.1				
Benzo[b]fluoranthene	mg/kg	A	0.05	9.86	7.29	0.93	1.5	1.4	1.6	1.5	1.1				
Benzo[k]fluoranthene	mg/kg	A	0.05	100	4.12	0.46	0.59	< 0.05	0.73	0.59	0.54				
Benzo[a]pyrene	mg/kg	B/C	0.05	5	0.998	0.79	1.2	0.81	0.9	1.3	1				
Indeno(1,2,3-c,d)Pyrene	mg/kg	A*	0.05	9.75	0.368	0.35	0.55	0.56	0.32	0.58	0.46				
Dibenz(a,h)Anthracene	mg/kg	A	0.05	4.95	2.05	< 0.05	0.15	0.15	0.17	0.11	0.1				
Benzo[g,h,i]perylene	mg/kg	A	0.05	103	0.112	0.1	0.63	0.6	0.24	0.1	0.55				
Total Of 16 PAH's	mg/kg		0.8			9.32	15.46	13.86	16.14	16.01	12.79				
Aliphatic TPH >C5-C6	mg/kg	A+	1.0		369	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
Aliphatic TPH >C6-C8	mg/kg	A+	1.0	1240	768	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
Aliphatic TPH >C8-C10	mg/kg	A+	1.0		204	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
Aliphatic TPH >C10-C12	mg/kg	A+	10	1180	297	< 10	< 10	< 10	< 10	< 10	< 10				
Aliphatic TPH >C12-C16	mg/kg	A+	10	4130	125	< 10	< 10	< 10	< 10	< 10	< 10				
Aliphatic TPH >C16-C21	mg/kg	A+	10		210100	< 10	< 10	< 10	< 10	< 10	< 10				
Aliphatic TPH >C21-C35	mg/kg	A+	10		210100	< 10	< 10	< 10	< 10	< 10	< 10				
Aliphatic TPH >C35-C44	mg/kg		10.0												
Total Aliphatic Hydrocarbons	mg/kg		10.0												
Aromatic TPH >C5-C7	mg/kg	A+	1.0		0.871	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
Aromatic TPH >C7-C8	mg/kg	A+	1.0		780	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
Aromatic TPH >C8-C10	mg/kg	A+	1.0		232	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
Aromatic TPH >C10-C12	mg/kg	A+	10		468	< 10	< 10	< 10	< 10	< 10	< 10				



Rogers Geotechnical Services: Soil Screening Values Comparison Sheet



Rogers Geotechnical Services Ltd: Soil Screening Value (SSV) Comparison Sheet													
Job Number	C5257/26/E/9384			A = WS Atkins PLC, Atrisk Soil Screening Values. A+ = Values updated June 2017. A* = Atrisk's SSV is lower than i2's detectable limit for this compound. B = health criterion values, which are available from toxicological reviews published in the C4SL project methodology report. C = Category 4 Screening Levels (C4SLs) based on 6% soil organic matter. D = Value provided is based on Methyl Mercury. Should elemental mercury be observed or a source be known then a limit of 102 should be used.									
Job Name	Olney St			KEY Exceeds SSV Exceeds 2017, Below 2015 Below limit of detection (LOD) 									
Date	14.05.26			Sample Location	SP01	SP02	SP03	SP04	SP05	SP06			
Client	Paul Coletta			Depth Top	0	0	0	0	0	0			
				Depth Base									
Determinand	Units	Ref	LOD	Residential With Plant Uptake 6%									
Aromatic TPH >C12-C16	mg/kg	A+	10	830	830	< 10	< 10	< 10	< 10	< 10	< 10		
Aromatic TPH >C16-C21	mg/kg	A+	10		1040	< 10	< 10	< 10	< 10	< 10	< 10		
Aromatic TPH >C21-C35	mg/kg	A+	10.0		1710	< 10	< 10	< 10	< 10	< 10	< 10		
Aromatic TPH >C35-C44	mg/kg		10.0										
Total Aromatic Hydrocarbons	mg/kg		10.0										
Total Petroleum Hydrocarbons	mg/kg		10.0										
pH			N/A			7	7.1	7.1	7.3	7	7.6		
Sulphate (2:1 Water Soluble) as SO4	mg/l		1.25			197	140	124	109	120	139		
ACM Type			N/A										
Asbestos Identification	%					Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected		
ACM Detection Stage			N/A										
Moisture	%		0.01										
Soil Colour			N/A										
Other Material			N/A										
Soil Texture			N/A										
Sulphate (Total)	%		0.005										
Organic Matter	%		0.1			12.00	12.00	12.00	12.00	12.00	13.00		