

Your Ref:

Our Ref: CRM.1265.037.GE.L.003

Date: 23rd August 2024

Email: Richard.Reece@enzygo.com

Shriya Gohil
Bellway Homes
19 Imperial Way,
Reading,
RG2 0TD

By Email: Shriya.Gohil@bellway.co.uk

Dear Shriya,

RE: Carters' 97a – 117 Caversham Road, Reading, RG1 8AH – Hotspot Validation

Background

Enzygo Geo Environmental Limited (Enzygo) undertook a Phase I and subsequent Phase II ground investigation for a proposed development at the above-named site. The site investigation encountered elevated levels of Polycyclic Aromatic Hydrocarbon (PAH), Lead and Asbestos within the Made Ground.

As the site is being redeveloped for residential use, Enzygo Geo Environmental Ltd produced a Remedial Method Statement (RMS) CRM.1265.037.GE.R.002.B.RMS, outlining the requirements to mitigate the risk to the end user. This RMS was submitted to Reading Borough Council and was accepted.

Section 3.37 of the RMS outlined the actions to take in the event of discovering unforeseen contamination. During the site development works, an excavation encountered localised contamination, outside the areas previously investigated. Inline with the agreed RMS, Bellway Homes Limited requested that Enzygo attend site to inspect and sample the contamination encountered for Waste Acceptance Criteria (WAC) Testing, ahead of removal from site.

Site Visit

On 11th June 2024 Enzygo undertook a site visit to inspect the excavation containing the identified contamination. The sides of the excavation appeared to consist of Made Ground materials, indicating that the area had previously been infilled with demolition materials, or possibly due to the history of the site use, was an infilled mechanic's inspection pit.

In the southwestern corner of the excavation, a small pocket of black fluid was present, and the engineer noted that the fluid was oily in texture, with a strong diesel like odour.

The materials within the walls of excavation were noted to be black in areas and have a diesel like odour, and an oily sheen was present on the rainwater that had accumulated within the base of the excavation, presumed to be surface run off from the walls of the excavation and the pocket of black fluid.

Materials from the excavation were stockpiled on site, adjacent to the excavation, on plastic sheeting to reduce the risk of cross contamination to surrounding materials.

Soil samples HS-WAC1 were collected for Waste Acceptance Criteria (WAC) Testing, to classify the materials for disposal. Samples of the black fluid were collected with samples from the rainwater that had accumulated on top of the clay base of the excavation to submit for chemical analysis, to assist in identifying the fluid.

Photos of the excavation are included in Appendix A, and a location plan showing the area of the excavation is shown in Appendix B.

Samples were collected in appropriate containers provided by the analytical laboratory. Samples were stored in cool boxes prior to dispatch to the laboratory for analysis. All samples were collected using appropriate sampling equipment that is cleaned at each sampling location.

Soil samples were sent to the laboratories of I2 who are UKAS and MCERTS accredited. Samples were tested for the CLEA metal suite, pH, sulphate, cyanide, phenols, speciated Polycyclic Aromatic Hydrocarbons (PAH), organic carbon, Speciated Total Petroleum Hydrocarbon (TPH CWG) and asbestos screen, and Two Stage WAC Testing. Liquid samples were tested for TPH CWG and PAH.

Interpretation of Chemical Results

Results from the laboratory testing show the material within the excavation had high levels of high-end Petroleum Hydrocarbons (C10-C44) indicating the presence of diesel range organics. The results of the liquid testing are not accredited due to the sample being a concentrated oil matrix and should be interpreted with caution. Based on the engineer's description, and the laboratories determination of concentrated oil matrix, it is considered that the black fluid encountered was diesel and heavy oil.

Results of the Two Stage WAC Testing show the materials are classified as Hazardous Waste due to TOC and Loss on Ignition, however the final determination is to be made by the receiving landfill. All test results are included in Appendix C.

As the Made Ground materials tested from the side of the excavation are saturated with the fluid, indicating the ability of absorption, and given the minimal amount of accumulated rainwater, it is not considered necessary to dewater the area before further excavation of the materials continues.

Disposal of Stockpiled Materials

As excavation continued, the previously identified fluid was noted to be saturating into the loosened excavated materials, confirming dewatering was not required. Contaminated materials were excavated and stockpiled on plastic sheeting, before being removed by a licensed waste removal contractor. Waste transfer tickets are included in Appendix D.

Verification of Excavation

Following the completion of the excavation, Enzygo attended site on 19th July 2024 to inspect the area, and collect samples from the sides and base of the excavation to ascertain if the contamination had been removed.

The excavation was noted to be 1.20m in depth to achieve the required level for the adjacent drainage catchment chamber and associated drainage connection. Composite samples were collected from the faces of the excavation (HS1-HS4), and base of the excavation (HS5) to be submitted for chemical testing. The location of the samples retrieved are shown on the attached drawing.

Samples were collected in appropriate containers provided by the analytical laboratory. Samples were stored in cool boxes prior to dispatch to the laboratory for analysis. All samples were collected using appropriate sampling equipment that is cleaned at each sampling location.

Chemical Results

Samples were sent to the laboratories of 12 who are UKAS and MCERTS accredited. Given samples previously tested only showed elevated levels of high end Petroleum Hydrocarbons, samples were tested for Speciated Polycyclic Aromatic Hydrocarbons (PAH), Petroleum Hydrocarbon, total PAH and VOCs.

Laboratory results show significantly lower levels of high-end Petroleum Hydrocarbons, indicating the contamination has been removed from the area. A Double Ratio Plot was used to identify the remaining PAH levels within the chemical testing results, which showed the source to be Coal Derived, which is considered to be related to Ash present within the Made Ground. Chemical results are shown in Appendix E.

Conclusion

Given the history of the site being vehicle maintenance garages, it is considered that the contamination identified is likely to be an historical spill from a waste oil/fuel storage container. This is indicative of the assessment made by the engineer and the chemical test results.

The excavation is to be infilled with clean engineering fill, then capped with hard standing for the proposed carparking area as shown on the site layout plan.

It is considered that though slightly elevated levels of Coal Derived PAH are present, there is no risk posed due to the Ash like materials being non migratory and the area being encapsulated with hard standing. The drainage piping within the area is for surface water discharge, not potable water, therefore it is considered that barrier pipe is not required.

Based on the site inspections undertaken, chemical testing and information provided, it is considered that the contamination has been reduced to an acceptable level and poses no risk to the end user, the environment, or future maintenance workers.

We hope that we have correctly interpreted your requirements.

Yours sincerely,

For and on behalf of Enzygo



Rich Reece

Environmental Consultant

Enzygo Geoenvironmental Ltd















Verification









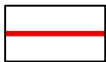
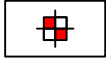








Key

-  Site Boundary
-  Hand Pits (HP)
-  Domestic Gardens
-  Communal Gardens
-  Approximate Location of Tank
To be confirmed on site
-  Approximate Location of Interceptor
To be confirmed on site
-  Area of Unforseen Contamination



enzygo
environmental consultants

Samuel House, 5 Fox Valley Way, Stocksbridge, Sheffield, S36 2AA

CLIENT:
Bellway Homes

SCALE:
1:400@A3

PROJECT REF:
CRM.1265.037

DRAWN:
LW

CHECKED:
RR

DATE:
August 2024

PROJECT:
Caversham Road, Reading

TITLE:
Unforseen Contamination Plan

FIGURE NO:
CRM.1265.037.GE.D.004

Enzygo Geoenvironmental Ltd
The Byre
Woodend Lane
Cromhall
Gloucestershire
GL12 8AA

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

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

e: richard.reece@enzygo.com

Analytical Report Number : 24-024658

Project / Site name:	Caversham Road	Samples received on:	12/06/2024
Your job number:	CRM.1265.037	Samples instructed on/ Analysis started on:	12/06/2024
Your order number:	CRM.1265.037	Analysis completed by:	21/06/2024
Report Issue Number:	1	Report issued on:	24/06/2024
Samples Analysed:	1 soil sample - 1 water sample		



Signed:

Adam Fenwick
Technical Reviewer
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

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

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: 24-024658
Project / Site name: Caversham Road
Your Order No: CRM.1265.037

Lab Sample Number	225153			
Sample Reference	HS WAC1			
Sample Number	soil			
Depth (m)	None Supplied			
Date Sampled	11/06/2024			
Time Taken	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	68
Total mass of sample received	kg	0.1	NONE	1.3

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	WEM

General Inorganics

pH (L005B)	pH Units	N/A	MCERTS	6.7
Organic Matter	%	0.1	MCERTS	33
Total Organic Carbon (TOC) – Manual	%	0.1	MCERTS	19

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.1
Acenaphthylene	mg/kg	0.05	MCERTS	0.24
Acenaphthene	mg/kg	0.05	MCERTS	0.13
Fluorene	mg/kg	0.05	MCERTS	0.33
Phenanthrene	mg/kg	0.05	MCERTS	0.87
Anthracene	mg/kg	0.05	MCERTS	0.43
Fluoranthene	mg/kg	0.05	MCERTS	3.6
Pyrene	mg/kg	0.05	MCERTS	4.1
Benzo(a)anthracene	mg/kg	0.05	MCERTS	2.8
Chrysene	mg/kg	0.05	MCERTS	3.2
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	2.7
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	1.1
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.5
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.5
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.6

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	25.3
-----------------------------	-------	-----	-----------	------

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	9.9
Boron (water soluble)	mg/kg	0.2	MCERTS	48
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.6
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	13
Copper (aqua regia extractable)	mg/kg	1	MCERTS	31
Lead (aqua regia extractable)	mg/kg	1	MCERTS	170
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	13
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	94

Analytical Report Number: 24-024658
 Project / Site name: Caversham Road
 Your Order No: CRM.1265.037

Lab Sample Number				225153
Sample Reference				HS WAC1
Sample Number				soil
Depth (m)				None Supplied
Date Sampled				11/06/2024
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)				
	Units	Limit of detection	Accreditation Status	
Petroleum Hydrocarbons				
TPH (>EC5 - EC7) HS_ID_TOTAL	mg/kg	0.5	NONE	<0.5 ^{8&+}
TPH (>EC7 - EC8) HS_ID_TOTAL	mg/kg	0.5	NONE	1.1 ^{8&+}
TPH (>EC8 - EC10) HS_ID_TOTAL	mg/kg	5	NONE	42 ^{8&+}
TPH (>EC10 - EC12) EH_CU_ID_TOTAL	mg/kg	2	MCERTS	30 ^{\$\$}
TPH (>EC12 - EC16) EH_CU_ID_TOTAL	mg/kg	4	MCERTS	640 ^{\$\$}
TPH (>EC16 - EC21) EH_CU_ID_TOTAL	mg/kg	10	MCERTS	2200 ^{\$\$}
TPH (>EC21 - EC35) EH_CU_ID_TOTAL	mg/kg	10	MCERTS	21000 ^{\$\$}
TPH (>EC35 - EC44) EH_CU_ID_TOTAL	mg/kg	10	NONE	9900 ^{\$\$}
TPH Total >EC5 - EC44 EH_CU+HS_ID_TOTAL	mg/kg	10	NONE	60000 ^{\$\$}

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

Analytical Report Number: 24-024658
Project / Site name: Caversham Road

Your Order No: CRM.1265.037

Lab Sample Number				225154
Sample Reference				HS WAC1
Sample Number				water
Depth (m)				None Supplied
Date Sampled				11/06/2024
Time Taken				None Supplied
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status	

Speciated PAHs

Naphthalene	[wt/wt]	N/A	NONE	0.07
Acenaphthylene	[wt/wt]	N/A	NONE	0.00
Acenaphthene	[wt/wt]	N/A	NONE	0
Fluorene	[wt/wt]	N/A	NONE	0.01
Phenanthrene	[wt/wt]	N/A	NONE	0
Anthracene	[wt/wt]	N/A	NONE	0
Fluoranthene	[wt/wt]	N/A	NONE	0
Pyrene	[wt/wt]	N/A	NONE	0
Benzo(a)anthracene	[wt/wt]	N/A	NONE	0
Chrysene	[wt/wt]	N/A	NONE	U/S ^{*U/S}
Benzo(b)fluoranthene	[wt/wt]	N/A	NONE	U/S ^{*U/S}
Benzo(k)fluoranthene	[wt/wt]	N/A	NONE	U/S ^{*U/S}
Benzo(a)pyrene	[wt/wt]	N/A	NONE	U/S ^{*U/S}
Indeno(1,2,3-cd)pyrene	[wt/wt]	N/A	NONE	U/S ^{*U/S}
Dibenz(a,h)anthracene	[wt/wt]	N/A	NONE	U/S ^{*U/S}
Benzo(ghi)perylene	[wt/wt]	N/A	NONE	U/S ^{*U/S}

Total PAH

Total EPA-16 PAHs	[wt/wt]	N/A	NONE	U/S ^{*U/S}
-------------------	---------	-----	------	---------------------

Petroleum Hydrocarbons

TPH - Aliphatic >EC5 - EC6 _{HS_ID_AL}	µg/l	10	ISO 17025	<10.0 ^{&&+}
TPH - Aliphatic >EC6 - EC8 _{HS_ID_AL}	µg/l	10	ISO 17025	<10.0 ^{&&+}
TPH - Aliphatic >EC8 - EC10 _{HS_ID_AL}	µg/l	10	ISO 17025	<10.0 ^{&&+}
TPH - Aliphatic >EC10 - EC12 _{EH_ID_AL_MS}	µg/l	10	NONE	U/S ^{*U/S}
TPH - Aliphatic >EC12 - EC16 _{EH_ID_AL_MS}	µg/l	10	NONE	U/S ^{*U/S}
TPH - Aliphatic >EC16 - EC21 _{EH_ID_AL_MS}	µg/l	10	NONE	U/S ^{*U/S}
TPH - Aliphatic >EC21 - EC35 _{EH_ID_AL_MS}	µg/l	10	NONE	U/S ^{*U/S}
TPH - Aliphatic >EC5 - EC35 _{HS+EH_ID_AL_MS}	µg/l	10	NONE	U/S ^{*U/S}

TPH - Aromatic >EC5 - EC7 _{HS_ID_AR}	µg/l	10	ISO 17025	<10.0 ^{&&+}
TPH - Aromatic >EC7 - EC8 _{HS_ID_AR}	µg/l	10	ISO 17025	<10.0 ^{&&+}
TPH - Aromatic >EC8 - EC10 _{HS_ID_AR}	µg/l	10	ISO 17025	<10.0 ^{&&+}
TPH - Aromatic >EC10 - EC12 _{EH_ID_AR_MS}	µg/l	10	NONE	U/S ^{*U/S}
TPH - Aromatic >EC12 - EC16 _{EH_ID_AR_MS}	µg/l	10	NONE	U/S ^{*U/S}
TPH - Aromatic >EC16 - EC21 _{EH_ID_AR_MS}	µg/l	10	NONE	U/S ^{*U/S}
TPH - Aromatic >EC21 - EC35 _{EH_ID_AR_MS}	µg/l	10	NONE	U/S ^{*U/S}
TPH - Aromatic >EC5 - EC35 _{HS+EH_ID_AR_MS}	µg/l	10	NONE	U/S ^{*U/S}

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/l	30	NONE	<30.0 ⁺
Benzene	µg/l	30	NONE	<30.0 ⁺
Toluene	µg/l	30	NONE	<30.0 ⁺
Ethylbenzene	µg/l	30	NONE	<30.0 ⁺
p & m-xylene	µg/l	30	NONE	<30.0 ⁺
o-xylene	µg/l	30	NONE	<30.0 ⁺

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

Analytical Report Number : 24-024658

Project / Site name: Caversham Road

* 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 *
225153	HS WAC1	soil	None Supplied	Brown loam with peat and vegetation

Analytical Report Number : 24-024658
Project / Site name: Caversham Road

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (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
pH at 20°C in soil	Determination of pH in soil by addition of water followed by electrometric measurement	In-house method	L005B	W	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
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
Total organic carbon 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
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
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 with carbon banding by GC-MS in water	Determination of total petroleum hydrocarbons in water by GC-MS/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L070B	W	NONE
BTEX and/or Volatile organic compounds in water	Determination of volatile organic compounds in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA 8260	L073B	W	NONE
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L076B/L088	D/W	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	W	MCERTS
Total petroleum hydrocarbons by GC-MS HS in water	Determination of total petroleum hydrocarbons in water by GC-MS HS	In-house method	L088B	W	ISO 17025
Speciated PAHs and/or Semi-volatile organic compounds in water	Determination of semi-volatile organic compounds (including PAH) in leachate by extraction in dichloromethane followed by GC-MS	In-house method based on USEPA 8270	L102B	W	NONE
Asbestos Quant if Screen/ID positive	In-house method	In-house method		D	NONE

Analytical Report Number : 24-024658
Project / Site name: Caversham Road

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (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 types if id possible	In-house method	In-house method		D	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 30°C.

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.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

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

The result for sum should be interpreted with caution

&&+ - Sample required dilution above the concentration range for the procedure due to matrix effect/ analyte concentration. The method limit of detection has been raised in line with the dilution. The result should be considered deviating and should be interpreted with caution. The result is not accredited.

\$\$ - Result was reported from high dilution. The result should be interpreted with caution.

*U/S - Unsuitable for analysis due to sample matrix.

+ - Sample required dilution above the concentration range for the procedure due to matrix effect/ analyte concentration. The method limit of detection has been raised in line with the dilution. The result should be considered deviating and should be interpreted with caution. The result is not accredited.

Enzygo Geoenvironmental Ltd
The Byre
Woodend Lane
Cromhall
Gloucestershire
GL12 8AA

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

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

e: richard.reece@enzygo.com

Analytical Report Number : 24-027597

Project / Site name:	Caversham Road	Samples received on:	12.06.2024
Your job number:	CRM.1265.037	Samples instructed on/ Analysis started on:	27.06.2024
Your order number:	CRM.1265.037	Analysis completed by:	05.07.2024
Report Issue Number:	1	Report issued on:	05.07.2024
Samples Analysed:	1 soil sample - 1 2stage sample		

Signed:



Rafał Szczepańczyk
Technical Reviewer
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

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

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: 24-027597
Project / Site name: Caversham Road
Your Order No: CRM.1265.037

Lab Sample Number				240541
Sample Reference				HS WAC1
Sample Number				soil
Depth (m)				None Supplied
Date Sampled				11/06/2024
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	33
Total mass of sample received	kg	0.1	NONE	1.5

General Inorganics

pH (L005B)	pH Units	N/A	MCERTS	6.5
Total Organic Carbon (TOC) – Manual	%	0.1	MCERTS	9.9
Loss on Ignition @ 450°C	%	0.2	MCERTS	21
Acid Neutralisation Capacity	mmol/kg	-9999	NONE	-2.9

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	1.6
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	1.2
Phenanthrene	mg/kg	0.05	MCERTS	2.1
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	9.7
Pyrene	mg/kg	0.05	MCERTS	9.1
Benzo(a)anthracene	mg/kg	0.05	MCERTS	4.9
Chrysene	mg/kg	0.05	MCERTS	4.7
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	7
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	3
Benzo(a)pyrene	mg/kg	0.05	MCERTS	6
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	4
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	4.8
Coronene	mg/kg	0.05	NONE	2

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	58.1
Total WAC-17 PAHs	mg/kg	0.85	NONE	60.1

Petroleum Hydrocarbons

Mineral Oil (EC10 - EC40) EH_CU_1D_AL	mg/kg	10	NONE	5800
---------------------------------------	-------	----	------	------

VOCs

Benzene	µg/kg	5	MCERTS	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0

Total BTEX	µg/kg	5	MCERTS	< 5.0
------------	-------	---	--------	-------

Analytical Report Number: 24-027597
 Project / Site name: Caversham Road
 Your Order No: CRM.1265.037

Lab Sample Number				240541
Sample Reference				HS WAC1
Sample Number				soil
Depth (m)				None Supplied
Date Sampled				11/06/2024
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

PCBs by GC-MS

PCB Congener 28	mg/kg	0.001	MCERTS	< 0.001
PCB Congener 52	mg/kg	0.001	MCERTS	< 0.001
PCB Congener 101	mg/kg	0.001	MCERTS	< 0.001
PCB Congener 118	mg/kg	0.001	MCERTS	< 0.001
PCB Congener 138	mg/kg	0.001	MCERTS	< 0.001
PCB Congener 153	mg/kg	0.001	MCERTS	< 0.001
PCB Congener 180	mg/kg	0.001	MCERTS	< 0.001
Total PCBs	mg/kg	0.007	MCERTS	< 0.007

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



4041



Environmental Science

i2 Analytical

7 Woodshots Meadow
Croxley Green Business Park
Watford, WD18 8YS

Telephone: 01923 225404

Fax: 01923 237404

email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Results

Report No:	24-027597						
Location	Caversham Road						
Lab Reference (Sample Number)	240541						
Sampling Date	11.06.2024						
Sample ID	HS WAC1 soil						
Depth (m)							
Solid Waste Analysis							
TOC (%)**	9.9				3%	5%	6%
Loss on Ignition (%) **	21				--	--	10%
BTEX (µg/kg)**	< 5.0				6000	--	--
Sum of PCBs (mg/kg)**	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_ID_CU_AL	5800				500	--	--
Total PAH (WAC-17) (mg/kg)	60.1				100	--	--
pH (units)**	6.5				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	-2.9				--	To be evaluated	To be evaluated
Eluate Analysis	2:1	8:1		Cumulative 10:1	Limit values for compliance leaching test		
(BS EN 12457 - 3 preparation utilising end over end leaching procedure)	mg/l	mg/l		mg/kg	using BS EN 12457-3 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0027	0.0082		0.074	0.5	2	25
Barium *	0.092	0.094		0.93	20	100	300
Cadmium *	< 0.00010	< 0.00010		< 0.0010	0.04	1	5
Chromium *	< 0.00060	0.00077		0.0072	0.5	10	70
Copper *	0.024	0.023		0.23	2	50	100
Mercury *	< 0.00070	< 0.0007		< 0.0070	0.01	0.2	2
Molybdenum *	0.0027	0.0031		0.030	0.5	10	30
Nickel *	0.0034	0.0015		0.018	0.4	10	40
Lead *	0.0088	0.011		0.10	0.5	10	50
Antimony *	< 0.0020	< 0.0020		< 0.020	0.06	0.7	5
Selenium *	< 0.0050	< 0.0050		< 0.050	0.1	0.5	7
Zinc *	0.060	0.026		0.31	4	50	200
Chloride *	13	12		120	800	15000	25000
Fluoride*	0.24	0.28		2.7	10	150	500
Sulphate *	530	140		2000	1000	20000	50000
TDS*	660	350		3900	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.16	< 0.13		< 0.50	1	-	-
DOC	52.7	43		447	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.5						
Dry Matter (%)	67						
Moisture (%)	33						
Stage 1							
Volume Eluate L2 (litres)	0.264						
Filtered Eluate VE1 (litres)	0.25						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.				* = UKAS accredited (liquid eluate analysis only)			
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation				** = MCERTS accredited			

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Analytical Report Number : 24-027597

Project / Site name: Caversham Road

* 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 *
240541	HS WAC1	soil	None Supplied	Brown loam with peat and vegetation

Analytical Report Number : 24-027597

Project / Site name: Caversham Road

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
pH at 20°C in soil	Determination of pH in soil by addition of water followed by electrometric measurement	In-house method	L005B	W	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
Total organic carbon 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
PCB's By GC-MS in soil	Determination of PCB by extraction with hexane followed by GC-MS	In-house method based on USEPA 8082	L027B	D	MCERTS
TDS in WAC leachate (BS EN 12457-3 Prep)	Determination of total dissolved solids in leachate by electrometric measurement	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L031B	W	ISO 17025
Fluoride in WAC leachate (BS EN 12457-3 Prep)	Determination of fluoride in leachate by 1:1 ratio with a buffer solution followed by Ion Selective Electrode	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L033B	W	ISO 17025
DOC in WAC leachate (BS EN 12457-3 Prep)	Determination of dissolved organic carbon in leachate by TOC/DOC NDIR analyser	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L037B	W	NONE
Metals in WAC leachate (BS EN 12457-3 Prep)	Determination of metals in leachate by acidification followed by ICP-OES	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed	L039B	W	ISO 17025
Sulphate in WAC leachate (BS EN 12457-3 Prep)	Determination of sulphate in leachate by acidification followed by ICP-OES	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed	L039B	W	ISO 17025
Preparation WAC leachate		In-house method	L043B	W	NONE
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe	In-house method based on Guidance on Sampling and Testing of Wastes to Meet Landfill Waste Acceptance	L046B	W	NONE
Loss on ignition of soil @ 450°C	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	In-house method	L047	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
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L076B/L088	D/W	NONE

Analytical Report Number : 24-027597

Project / Site name: Caversham Road

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Phenol Index in WAC leachate (BS EN 12457-3 Prep)	Determination of monohydric phenols in leachate by continuous flow analyser	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	ISO 17025
Chloride in WAC leachate (BS EN 12457-3 Prep)	Determination of Chloride colorimetrically by discrete analyser	In-house based on MEWAM Method ISBN 0117516260	L082B	W	ISO 17025

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 30°C.

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.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

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

The result for sum should be interpreted with caution

Analytical Report Number : 24-027597

Project / Site name: Caversham Road

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis. Please note that the associated result(s) may be unreliable and should be interpreted with care.

Key: a - No sampling date b - Incorrect container c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
HS WAC1	soil	S	240541	bc	BTEX and/or Volatile organic compounds in soil	L073B	bc
HS WAC1	soil	S	240541	bc	Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	L076B/L088	c

HAZARDOUS WASTE (ENGLAND AND WALES) REGULATIONS 2005-Consignment Note CARRIER'S COPY

A1. Consignment Note Code: BUXTED/P0002

Sheet 1 of 3

A NOTIFICATION DETAILS

2. The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile): C/o Bellway TV, Caversham Road, Reading, RG1 8AR

3. The waste will be taken to (name, address and postcode): KELTBRAV ENVIRONMENTAL, Plaistow Wharf, St Vincent Ferrer Lane, West Silvertown, London, E16 2AB - REP: 24-027597

4. The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile): Buxted Construction, Lower Lowlands Farm Shepherds Hill, Uckfield TN22 4PX

B DESCRIPTION OF THE WASTE

1. The Process giving rise to the waste(s) was: EXCAVATION

2. The SIC for the process giving rise to the waste: 43.12

WASTE DETAILS (where more than one waste type is collected all of the information, in all 12 columns below, must be completed for each EWC identified) (use additional sheets if necessary, detail consignment note code from A1 on each additional sheet and produce a copy of each additional sheet for each copy of this consignment note)

3. The waste(s) is: Please provide information in all 12 columns for each List of Waste (EWC) code

List of Wastes (EWC) Code (6 digits)	(1) Full Written Description	(2) Quantity (kg)	The Chemical/Biological components of the waste and their concentrations are		(5) Physical Form (gas, liquid, solid, powder, sludge, or mixed)	(6) Hazard Codes(s)
			(3) Component	(4) Concentration (% or mg/kg)		
17 05 03*	SUBSOIL & STONES C/W HYDROCARBONS	~20,000	TOTAL PETROLEUM HYDROCARBONS SOIL & STONES	>1000mg/kg <1% BALANCE	SOLID	HP7, HP11

(7) Container type, N° & size	(8) Packing Group(s)	(9) UN identification N°(s)	(10) Proper Shipping Name	(11) UN Class(es)	(12) Tunnel Code	(13) Special Handling Requirements
8 X WHEEL TIPPER	N/A	N/A	N/A	N/A	N/A	WEAR APPROPRIATE PPE

C CARRIER'S CERTIFICATE (If more than one carrier is used, please attach schedule for subsequent carriers.)

If a schedule of carriers is attached tick here: ☐

I certify that I today collected the consignment and that the details in A2, A4, B3(1), B3(2), B3(5) and B3(7) are correct and I have been advised of any specific handling requirements

MANOR ENV, MANOR GROVE, FIFIELD, SLB 2PQ

1. Name: TONY CAMM

On behalf of (company)(name, address, postcode, telephone, e-mail, facsimile):

CB DU 212772

2. Carrier registration N° / reason for exemption:

3. Vehicle Registration N° (or mode of transport if not road):

Y070 CTU

Signature:

Date: 15/7/24

Time on Site:

Time off Site: 9.00 AM

D CONSIGNOR'S CERTIFICATE

I certify that the information in A B and C above are correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labeled correctly and the carrier has been advised of any special handling requirements.

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

1. Name: Volentin

Bellway TV, Caversham Rd, Reading

On behalf of (company)(name, address, postcode, telephone, e-mail, facsimile):

Signature:

Date: 15/7/24

at 9.00 AM

hrs

E CONSIGNEE'S CERTIFICATE (where more than one waste type is collected all of the information given below must be completed for each EWC identified)

Individual List of Wastes EWC code(s) received (6 digits)	Quantity of each EWC code received (kg)	EWC code accepted / rejected	Waste Management operation (R or D code)
17 05 03	17.80	yes	D5

I received this waste at the

1. address given in A4 on:

at

hrs

2. Vehicle registration N° (or mode of transport if not road):

3. Where waste is rejected, please provide details:

I certify that the waste management licence/permit/authorised exemption N°(s): described in B at the address given in A4.

authorises the management of the waste

1. Name: Valenza

On behalf of (company)(name, address, postcode, telephone, e-mail, facsimile):

Signature:

Date: 15/07/24

at 11:26

Keltbray Environmental Ltd
Plaistow Wharf, Dock Road
Off North Woolwich Road
West Silvertown E16 2AB
Permit No. EPR/CP3035QG

PLEASE COMPLETE IN BLOCK CAPITALS AND BLACK INK

HAZARDOUS WASTE (ENGLAND AND WALES) REGULATIONS 2005-Consignment Note CARRIER'S COPY

A1. Consignment Note Code: BUXTED/P0001

Sheet 1 of 3

A NOTIFICATION DETAILS

2. The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile): C/o Bellway TV, Caversham Road, Reading, RG1 8AR

3. The waste will be taken to (name, address and postcode): KELTBRAV ENVIRONMENTAL, Plaistow Wharf, St Vincent Ferrer Lane, West Silvertown, London, E16 2AB - REP: 24-027597

4. The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile): Buxted Construction, Lower Lowlands Farm Shepherds Hill, Uckfield TN22 4PX

B DESCRIPTION OF THE WASTE

1. The Process giving rise to the waste(s) was: EXCAVATION

2. The SIC for the process giving rise to the waste: 43.12

WASTE DETAILS (where more than one waste type is collected all of the information, in all 12 columns below, must be completed for each EWC identified) (use additional sheets if necessary, detail consignment note code from A1 on each additional sheet and produce a copy of each additional sheet for each copy of this consignment note)

3. The waste(s) is: Please provide information in all 12 columns for each List of Waste (EWC) code

List of Wastes (EWC) Code (6 digits)	(1) Full Written Description	(2) Quantity (kg)	The Chemical/Biological components of the waste and their concentrations are		(5) Physical Form (gas, liquid, solid, powder, sludge, or mixed)	(6) Hazard Codes(s)
			(3) Component	(4) Concentration (% or mg/kg)		
17 05 03*	SUBSOIL & STONES C/W HYDROCARBONS	~20,000	TOTAL PETROLEUM HYDROCARBONS SOIL & STONES	>1000mg/kg <1% BALANCE	SOLID	HP7, HP11

(7) Container type, N° & size	(8) Packing Group(s)	(9) UN identification N°(s)	(10) Proper Shipping Name	(11) UN Class(es)	(12) Tunnel Code	(13) Special Handling Requirements
8 X WHEEL TIPPER	N/A	N/A	N/A	N/A	N/A	WEAR APPROPRIATE PPE

C CARRIER'S CERTIFICATE (If more than one carrier is used, please attach schedule for subsequent carriers.)

If a schedule of carriers is attached tick here: ☐

I certify that I today collected the consignment and that the details in A2, A4, B3(1), B3(2), B3(5) and B3(7) are correct and I have been advised of any specific handling requirements

1. Name: Mark Grimmett

MANOR ENV, MANOR CRAGE, FIFIELD SLG 2PQ

On behalf of (company)(name, address, postcode, telephone, e-mail, facsimile):

2. Carrier registration N° / reason for exemption:

3. Vehicle Registration N° (or mode of transport if not road): Y070 C14

Signature:

Date: 15/7/24

Time on Site:

Time off Site:

D CONSIGNOR'S CERTIFICATE

I certify that the information in A B and C above are correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labeled correctly and the carrier has been advised of any special handling requirements.

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

1. Name: Volentin

BELLWAY TV, CAVERSHAM RD, READING RG1 8AR

On behalf of (company)(name, address, postcode, telephone, e-mail, facsimile):

Signature:

Date: 15/7/24 at

hrs

E CONSIGNEE'S CERTIFICATE (where more than one waste type is collected all of the information given below must be completed for each EWC identified)

Individual List of Wastes EWC code(s) received (6 digits)	Quantity of each EWC code received (kg)	EWC code accepted / rejected	Waste Management operation (R or D code)
17 05 03	1838	Yes	25

I received this waste at the

1. address given in A4 on:

at

hrs

2. Vehicle registration N° (or mode of transport if not road):

3. Where waste is rejected, please provide details:

I certify that the waste management licence/permit/authorised exemption N°(s):
described in B at the address given in A4.

authorises the management of the waste

1. Name:

On behalf of (company)(name, address, postcode, telephone, e-mail, facsimile):

Signature:

Date: 15/07/24 at 11:28

PLEASE COMPLETE IN BLOCK CAPITALS AND BLACK INK

Keltbray Environmental Ltd
Plaistow Wharf, Dock Road
Off North Woolwich Road
West Silvertown E16 2AB
Permit No. EPR/CP3035QC

HAZARDOUS WASTE (ENGLAND AND WALES) REGULATIONS 2005-Consignment Note **CARRIER'S COPY**

A1. Consignment Note Code: BUXTED/P0003

Sheet 1 of 3

A NOTIFICATION DETAILS

2. The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile): C/o Bellway TV, Caversham Road, Reading, RG1 8AR

3. The waste will be taken to (name, address and postcode): KELTBRAV ENVIRONMENTAL, Plaistow Wharf, St Vincent Ferrer Lane, West Silvertown, London, E16 2AB - REP: 24-027597

4. The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile): Buxted Construction, Lower Lowlands Farm Shepherds Hill, Uckfield TN22 4PX

B DESCRIPTION OF THE WASTE

1. The Process giving rise to the waste(s) was: EXCAVATION

2. The SIC for the process giving rise to the waste: 43.12

WASTE DETAILS (where more than one waste type is collected all of the information, in all 12 columns below, must be completed for each EWC identified) (use additional sheets if necessary, detail consignment note code from A1 on each additional sheet and produce a copy of each additional sheet for each copy of this consignment note)

3. The waste(s) is: Please provide information in all 12 columns for each List of Waste (EWC) code

List of Wastes (EWC) Code (6 digits)	(1) Full Written Description	(2) Quantity (kg)	The Chemical/Biological components of the waste and their concentrations are		(5) Physical Form (gas, liquid, solid, powder, sludge, or mixed)	(6) Hazard Codes(s)
			(3) Component	(4) Concentration (% or mg/kg)		
17 05 03*	SUBSOIL & STONES C/W HYDROCARBONS	~20,000	TOTAL PETROLEUM HYDROCARBONS SOIL & STONES	>1000mg/kg <1% BALANCE	SOLID	HP7, HP11

(7) Container type, N° & size	(8) Packing Group(s)	(9) UN identification N°(s)	(10) Proper Shipping Name	(11) UN Class(es)	(12) Tunnel Code	(13) Special Handling Requirements
8 X WHEEL TIPPER	N/A	N/A	N/A	N/A	N/A	WEAR APPROPRIATE PPE

C CARRIER'S CERTIFICATE (If more than one carrier is used, please attach schedule for subsequent carriers.)

If a schedule of carriers is attached tick here: ☐

I certify that I today collected the consignment and that the details in A2, A4, B3(1), B3(2), B3(5) and B3(7) are correct and I have been advised of any specific handling requirements

MANOR ENV. MANOR GLOVE, H.F.L.D.

1. Name: *TONY CANN*

On behalf of (company)(name, address, postcode, telephone, e-mail, facsimile):

2. Carrier registration N° / reason for exemption:

3. Vehicle Registration N° (or mode of transport if not road):

Signature: *[Signature]*

Date: *23/7/24*

Time on Site: *3.30* Time off Site:

D CONSIGNOR'S CERTIFICATE

I certify that the information in A B and C above are correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labeled correctly and the carrier has been advised of any special handling requirements.

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

Bellway TV c/o Buxted, Caversham Rd, Reading RG1 8AR

1. Name: *Udenlin*

On behalf of (company)(name, address, postcode, telephone, e-mail, facsimile):

Signature: *[Signature]*

Date: *23/7/24*

at *3.30*

hrs

E CONSIGNEE'S CERTIFICATE (where more than one waste type is collected all of the information given below must be completed for each EWC identified)

Individual List of Wastes EWC code(s) received (6 digits)	Quantity of each EWC code received (kg)	EWC code accepted / rejected	Waste Management operation (R or D code)
<i>170503</i>	<i>1870</i>	<i>yes</i>	<i>RS</i>

I received this waste at the address given in A4 on: *24/7/24* at *7.30* hrs

2. Vehicle registration N° (or mode of transport if not road):

3. Where waste is rejected, please provide details:

4070CTU.

I certify that the waste management licence/permit/authorised exemption N°(s): described in B at the address given in A4.

authorises the management of the waste

1. Name: *Joan*

On behalf of (company)(name, address, postcode, telephone, e-mail, facsimile):

Signature: *[Signature]*

Date: *24/7/24*

at *7.30*

hrs

PLEASE COMPLETE IN BLOCK CAPITALS AND BLACK INK



Enzygo Geoenvironmental Ltd
The Byre
Woodend Lane
Cromhall
Gloucestershire
GL12 8AA

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

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

e:

richard.reece@enzygo.com

Analytical Report Number : 24-031860

Project / Site name:	Caversham Road	Samples received on:	22/07/2024
Your job number:	CRM 1265 037	Samples instructed on/ Analysis started on:	22/07/2024
Your order number:	CRM 1265 037	Analysis completed by:	29/07/2024
Report Issue Number:	1	Report issued on:	30/07/2024
Samples Analysed:	5 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

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

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: 24-031860

Project / Site name: Caversham Road

Your Order No: CRM 1265 037

Lab Sample Number				263354	263355	263356	263357	263358
Sample Reference				HS1	HS2	HS3	HS4	HS5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-1.20	0.00-1.20	0.00-1.20	0.00-1.20	1.20-1.20
Date Sampled				19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
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	29.2	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	11	11	9.6	12	16
Total mass of sample received	kg	0.1	NONE	0.8	0.9	0.8	0.9	0.8

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	0.15	0.12	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	0.3	0.22	0.35	0.11
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	0.19	< 0.05	0.14	0.07
Fluorene	mg/kg	0.05	MCERTS	< 0.05	0.27	0.06	0.28	0.12
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	3.2	2	3.6	1.5
Anthracene	mg/kg	0.05	MCERTS	< 0.05	1	0.47	1.1	0.49
Fluoranthene	mg/kg	0.05	MCERTS	0.11	9.3	4.1	9.4	5
Pyrene	mg/kg	0.05	MCERTS	0.09	8.4	3.4	8.5	5.2
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	5.4	< 0.05	5.8	3.2
Chrysene	mg/kg	0.05	MCERTS	< 0.05	5.2	2	5.5	2.8
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	8.3	2.7	6.6	3.2
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	2.8	0.99	2.7	1.5
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.05	6.3	2	5.2	2.6
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	3.7	1.2	3.3	1.6
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.9	0.28	0.7	0.4
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	3.8	1.4	3.2	1.5

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	59.2	20.9	56.3	29.3
-----------------------------	-------	-----	-----------	--------	------	------	------	------

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0	4.2	2.2	< 2.0	8.9
TPHCWG - Aliphatic >EC16 - EC21 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	9.4	< 8.0	< 8.0	26
TPHCWG - Aliphatic >EC21 - EC35 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	58	71	75	170
TPHCWG - Aliphatic >EC5 - EC35 EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10	72	73	75	200

TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.02	MCERTS	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	< 2.0	4.2	< 2.0	4.2	3.1
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	23	12	27	21
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	90	40	93	71
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10	120	52	120	95

Analytical Report Number: 24-031860

Project / Site name: Caversham Road

Your Order No: CRM 1265 037

Lab Sample Number				263354	263355	263356	263357	263358
Sample Reference				HS1	HS2	HS3	HS4	HS5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-1.20	0.00-1.20	0.00-1.20	0.00-1.20	1.20-1.20
Date Sampled				19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Test Limit of detection	Test Accreditation Status		

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

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



Analytical Report Number : 24-031860

Project / Site name: Caversham Road

* 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 *
263354	HS1	None Supplied	0.00-1.20	Brown sandy clay with gravel and vegetation
263355	HS2	None Supplied	0.00-1.20	Brown loam with gravel and vegetation
263356	HS3	None Supplied	0.00-1.20	Brown loam with stones
263357	HS4	None Supplied	0.00-1.20	Brown loam with gravel
263358	HS5	None Supplied	1.20-1.20	Brown loam and sand with gravel

Analytical Report Number : 24-031860

Project / Site name: Caversham Road

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	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 30°C.

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.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

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

The result for sum should be interpreted with caution