

Confidential

Contamination Technical Note

347 Waterloo Road, Manchester

Manchester City Council

MC/CHO/240025/17-2/R002

11 Oct 24

Document History

Issue	Date	Comment	Author	Chk'd	Apr'd
01	11/10/2024	Initial Issue	CHO	RHG	RHG



Contents

1. Introduction 3

1.1 Commission..... 3

1.2 Background..... 3

1.3 Previous Investigation Reports 3

1.4 Limitations..... 3

2. Site Investigation 4

2.1 Site Description..... 4

2.2 Scope of Works 4

2.3 Ground Conditions 4

2.4 Laboratory Testing 4

3. Revised Contamination Assessment 6

3.1 Human Health Risk Assessment Methodology 6

3.2 Revised Generic Quantitative Risk Assessment..... 6

3.3 Conclusions 7

3.4 Conceptual Site Model..... 8

4. Waste..... 11

4.1 Waste Classification..... 11

4.2 Waste Acceptance Criteria 11

4.3 Waste Management and Treatment 12

5. Remedial Recommendations 14

5.1 Soil Remediation 14

5.2 Unexpected Contamination 16

Appendix A – Drawings 17

Appendix B – Exploratory Hole Records..... 18

Appendix C - Contamination Laboratory Reports..... 19

Appendix D – Assessment Criteria (Residential with Consumption of Homegrown Produce) 20

Appendix E – Waste Classification..... 21

1. Introduction

1.1 Commission

Pick Everard have been instructed by Manchester City Council (the Client) to undertake a further assessment of the contamination risks posed onsite from elevated levels of contamination identified within the first Geotechnical Investigation (phase one) at 347 Waterloo Rd, Cheetham Hill, Manchester M8 9DU (the Site).

1.2 Background

Pick Everard undertook a Geotechnical Site investigation in March 2024 to support the construction of a new retaining wall. The initial intrusive investigation comprised 1 no. windowless sampler borehole (WSI01) and 4 no. hand pits (HPI01 – HPI04) which identified Made Ground that consisted of clayey sands, silts and topsoil to a maximum depth of 0.83mbgl.

Suspected ACM was identified within HPI01 during the investigation works, and environmental testing was undertaken primarily for waste classification purposes. Exceedances of human health assessment criteria for several Polycyclic Aromatic Hydrocarbon (PAH) compounds were reported, and further sampling and delineation was recommended. The ACM was identified at 0.45m below ground level (bgl), and confirmed to be chrysotile cement.

1.3 Previous Investigation Reports

The following previous investigation reports have been reviewed in order to produce this assessment:

- Report ref. R001CHO-240025-4-0 Geotechnical Investigation Report dated April 2024.

This report should be read in conjunction with the above report.

1.4 Limitations

This report has been prepared for Manchester City Council only and should not be relied upon by any third party without the written permission of Pick Everard. This report should be read in its entirety, including all associated drawings and appendices. Pick Everard cannot be held responsible for any misinterpretation's arising from the use of extracts of this report taken out of context. The findings and opinions conveyed are based on information obtained from a variety of sources as detailed within this document and which Pick Everard believes are reliable. All reasonable care and skill have been applied in examining the information obtained, nevertheless Pick Everard cannot and does not guarantee the authenticity or reliability of the information it has relied upon from external sources.

2. Site Investigation

2.1 Site Description

The site is rectangular in shape and is located off 347 Waterloo Rd, Cheetham Hill, Manchester, M8 9DU. The site is centred on National Grid Ref 383942, 400967. The site comprises the rear garden of the residence 347 Waterloo Road. The majority of the site is laid to grass with a path of flagstones noted in the south. The south and west of the site is currently bounded by an existing wall. The fall observed from the gate to the rear of the property was approximately 500mm.

2.2 Scope of Works

Pick Everard attended Site on 14th August 2024 to undertake additional intrusive investigation works comprising the following:

- 6no. hand dug trial pits (HDP201 – HDP206) to a maximum depth of 1.00mbgl; and
- Laboratory contamination testing of soil samples.

The locations of exploratory holes are shown on the ground investigation location plan, included as Drawing PE-SK-C-0004 within Appendix A. Fieldworks were undertaken in accordance with BS5930:2015. Exploratory Hole Logs are presented in Appendix B.

2.3 Ground Conditions

Made ground was identified in all locations to a maximum depth of 1.00m bgl. Made Ground deposits were generally found to consist of brown, clayey sands with brick, concrete, charcoal and chalk.

Blue brick footings were encountered within HDP202, HDP204 and HDP205 at 0.60mbgl. An unknown obstruction, likely to be cobbles/hard digging was encountered within HDP206 at 0.70mbgl.

2.4 Laboratory Testing

Laboratory contamination testing was undertaken on 5no. soil samples taken from depths of between 0.30m and 0.80m bgl, within the Made Ground deposits. The soil samples were screened for the following determinants:

- Moisture Content;
- pH;
- Asbestos in soils;
- Heavy Metals (As, Cd, Cr, CrVI, Cu, Hg, Ni, Pb, Se, Zn);

- Water soluble boron;
- Cyanide (total and free);
- Polycyclic Aromatic Hydrocarbons (PAH, EPA 16);
- TPH Split CWG; and
- Organic matter.

Laboratory results are presented within Appendix C.

3. Revised Contamination Assessment

3.1 Human Health Risk Assessment Methodology

As part of the Generic Quantitative Risk Assessment (GQRA) soil concentrations from both phases of investigation have been screened against Pick Everard Tier 1 Soil Screening Values (TSVs), adopted from the Suitable 4 Use Levels (S4ULs) published by the LQM/CIEH. Where no published screening values are available Pick Everard have derived their own values using the Contaminated Land Exposure Assessment (CLEA) 1.07 model in accordance with the CLEA framework. All parameters used within the TSVs are the CLEA 1.07 defaults or LQM/CIEH values. Additionally, Soil Organic Matter (SOM) has been altered to include SOMs of 1% and 2.5% along with the default of 6% to better reflect the range of SOM content commonly found within shallow soils on Brownfield sites. This matches the LQM/CIEH approach to SOM. All soil concentrations below TSVs are considered to pose a minimal risk to human health.

In March 2014 DEFRA together with Contaminated Land: In Real Environments (CL:AIRE) published Category 4 Screening Levels (C4SLs) for arsenic, benzene, benzo(a)pyrene, cadmium, chromium VI and lead for soil using the CLEA Model. The C4SLs are considered suitable by DEFRA for use for Part 2A decisions and planning i.e. change of use. Where concentrations of the above determinants exceed the TSVs they have also been screened against C4SLs. Contaminant concentrations below C4SLs are considered to pose an acceptably low risk to human health.

Risks from land contamination in the UK are assessed on the 'suitability for use' principle, whereby pollutant linkages are considered with regard to the intended end use of the site, and the specific exposure pathways and receptors associated with that use. Due to the sites residential use the risk assessment has been carried out based on a 'Residential with Consumption of Homegrown Produce' land use scenario. In selecting the most appropriate screening values for this site, a Soil Organic Matter (SOM) of 6.0% has been used for samples collected from the Made Ground, based upon average results of laboratory SOM testing. A copy of the assessment criteria is included in Appendix D.

3.2 Revised Generic Quantitative Risk Assessment

The results of the laboratory analysis confirm that concentrations of heavy metals and PAH compounds exceed Pick Everard's TSV's protective of human health receptors. The exceedances are presented in Table 1, below.

Determinant	TSV	HPI02 0.20m	HDP201 0.70m	HDP202 0.30m	HDP206 0.30m	HDP203 0.80m	HDP205 0.30m
Arsenic	37	14	41	30	18	16	17
Lead	200	130	3200	1200	200	400	880
Benzo(a)Anthracene	13	2.7	2.9	9.6	15	5.0	26

Determinant	TSV	HPI02 0.20m	HDP201 0.70m	HDP202 0.30m	HDP206 0.30m	HDP203 0.80m	HDP205 0.30m
Benzo(b)fluoranthene	3.7	2.8	3.7	11	16	5.6	28
Benzo(a)Pyrene	3.0	2.7	3.2	9.5	14	5.2	24
Di-benzo(a,h)anthracene	0.30	0.33	0.42	1.3	1.9	0.71	3.3

Table 1- Summary of TSV Exceedances (mg/kg)

3.3 Conclusions

3.3.1 Heavy Metals

Elevated concentrations of Arsenic and Lead have been identified in soil samples across the site that exceed the relevant TSV. Given the make up of the Made Ground beneath the site and the spread of the samples, it is likely that this is related to inclusions within the soil, rather than any specific 'hotspot' that can be targeted. Further assessment in the form of a Detailed Quantitative Risk Assessment (DQRA) and bioavailability testing may allow for Site Specific Assessment Criteria (SSAC) to be derived that are less conservative than the current TSV's based on the specific oral bioavailability of lead and arsenic. While this may be successful for Arsenic it is considered, given the high concentrations of lead within several of the samples, that a DQRA is unlikely to significantly reduce the identified risk to human health receptors. Accordingly, remedial measures will be necessary (see Section 5 below).

3.3.2 PAHs

Elevated concentrations of benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene and dibenzo(ah)anthracene have been recorded in soil samples across the site, at concentrations that indicate a risk to human health receptors. Concentrations of benzo(a)pyrene (BaP) are sufficiently elevated that, even using BaP as a 'marker compound' for wider PAH contamination and comparing against the Category 4 Screening Level for BaP of 5.0mg/kg, a risk remains. Given the make-up of the Made Ground it is likely that the PAH contamination is widespread, and unrelated to any specific site-based activities (i.e. burning in a specific part of the site). Accordingly, a 'hotspot' protocol is considered insufficient, and remedial works should encompass the entire garden (see Section 5 below).

3.3.3 Asbestos

A fragment of Chrysotile cement was identified in soil sampled from HPI01 at 0.45m bgl. Asbestos testing was subsequently undertaken in the remaining samples, and during the subsequent GI. Asbestos fibres were not noted in any of the other soil samples obtained from site, and no specific fragments of potential ACM were noted during the subsequent GI. Accordingly, the risk from asbestos is likely to be low, although the advice of a competent asbestos should be consulted for confirmation.

3.4 Conceptual Site Model

Based on a review of the information in the sections above, Pick Everard have identified the following potential contaminant sources, pathways and receptors:

3.4.1 Identified Sources

Source No.	Name	Description	Contaminants of Concern
S1	Heavy metal and PAH contamination within the Made Ground.	Testing has confirmed elevated concentrations of Arsenic, Lead and PAH compounds within the Made Ground beneath the site.	- Heavy metals - PAH's
S2	Asbestos Fragments	A single asbestos fragment has been identified within the Made Ground. Further testing has not identified fibres within the soils.	Asbestos

Table 2 – Identified Contaminant Sources

3.4.2 Identified Pathways

Pathway No.	Name	Description
P1	Dermal contact with soils and/or dust	End users can come into dermal contact with contaminants.
P2	Accidental ingestion of soil	End users may accidentally ingest soils while occupying the site.
P3	Inhalation of gases, vapours or dusts	Gases, vapours and dusts may migrate through indoor and outdoor air spaces and be inhaled by the end users.
P4	Consumption of Soil and Dust on Homegrown Produce / consumption of Contaminated Homegrown Produce	Homegrown produce may absorb contamination via the root system or come into contact with contaminated soils. The produce and/or soils may then be ingested by end users.
P5	Lateral soil Migration	Lateral migration of mobile contaminants in a plume through unsaturated soils.

Table 3 – Identified Pathways

3.4.3 Identified Receptors

Receptor No.	Name	Description
R1	Future Site Users	The site is the rear garden of a residential property.
R2	Construction/Maintenance Workers	This includes construction workers during the construction of the retaining wall, and potential long-term maintenance workers.
R3	Neighbouring Residents/Third Party Property	The site is surrounded by residential developments.

Table 4- Receptors Considered in this CSM

3.4.4 Conceptual Site Model

The conceptual site model based on the Source Pathway Receptor Linkages is presented below. It should be noted that an assessment of any risk other than human health is beyond the scope of this investigation.

Source	Pathway	Receptor	Risk	Comments
S1 – Heavy Metals and PAH compounds within the Made Ground	P1 - dermal contact	R1 – Future Site Users	Moderate	The results of the GQRA confirm that the risk to residential users is moderate, with the principal risk drivers being the presence of elevated heavy metal and PAH concentrations. Accordingly, remedial works will be necessary to reduce this to a low risk.
	P2 – ingestion			
	P3 – inhalation			
	P4 – Homegrown Produce			
	P1 – dermal contact	R2 – Construction	Low/Moderate	Elevated heavy metal and PAH concentrations may pose a risk to construction workers. This should be managed via the use of PPE and good hygiene procedures while onsite.
	P2 - ingestion			
	P3 - inhalation			
S2 – Asbestos in Made Ground	P5- Soil Migration	R3 - Neighbours	Low	The identified contaminants are not generally considered significantly mobile. Accordingly, the risk to third party property is considered to be low.
	P3 - inhalation	R1 - site user	Low/Moderate	The presence of an asbestos fragment within the Made Ground poses a potential risk to future users and construction workers. While this is likely a low risk, the advice of a competent asbestos consultant should be sought for confirmation.
	P3 - inhalation	R2 - construction		
	P3 - inhalation	R3 - neighbours	Low	Asbestos is not significantly mobile within the ground, and fibres have not been recorded. Accordingly, the risk to third party property is likely low, but the advice of a competent asbestos consultant should be sought as confirmation.

Table 5- Conceptual Site Model

3.4.4.1 Risk Classification

The significance of the potential source-pathway-receptor linkages identified above is based on the following criteria:

Risk	Description
Very High	Pollutant linkage is present, and risk is almost certain to occur in long term, or there is evidence of harm to the receptor. Acute risks to human health, catastrophic damage to buildings/property, major pollution of controlled waters. Further investigation and/or remediation is required.
High	Pollutant linkage may be present, and it is likely that the risk will occur over the long term. Chronic or acute risk to human health, pollution of sensitive controlled waters, significant effects on sensitive ecosystems or species, significant damage to buildings or structures. Further investigation and/or remediation is required.
Moderate	Pollutant linkage may be present, and it is possible that harm could arise to the designated receptor from an identified hazard. Chronic risk to human health, pollution of sensitive controlled waters, significant effects on sensitive ecosystems or species, significant damage to buildings or structures. Further investigation and/or remediation is required.
Low/Moderate	Pollutant linkage may be present, and there is a possibility of the risk occurring, although there is no certainty that it will do so. Pollution of non-sensitive waters, minor damage to buildings or structures. Further investigation and/or remediation may be required.
Low	Pollutant linkage unlikely to be present, or risk of harm is minor. There may be a requirement for protective equipment during site works to mitigate health effects, damage to non-sensitive ecosystems or species. Investigation or remediation unlikely to be necessary.
Very Low	Pollutant linkage is not present or may be present but the circumstances under which harm would occur are improbable. Investigation or remediation unlikely to be necessary.

Table 6 – Risk Classification

4. Waste

Any material which the developer intends to discard as part of the construction works would be classed as waste and must be appropriately handled and managed in accordance with current waste legislation. The developer should be aware of, and utilise, the waste hierarchy where possible. Where material cannot be retained onsite, and disposal is the only option the waste must be classified (in accordance with EA technical guidance note WM3) and subsequent Waste Acceptance Criteria testing would be required by the receiving waste facility prior to disposal. To support this, Pick Everard have provided a preliminary assessment of the likely classification of the waste soils onsite below.

4.1 Waste Classification

Seven samples of Made Ground have been assessed against the European Waste Catalogue using the 'HazWasteOnlineTM' software. This assesses the data against the threshold concentrations applicable to potential hazardous properties in order to assess classification. The classification certificates are presented in Appendix E. In summary:

- Two samples were classified as 'Hazardous' soil and stone EWC Code 17 05 03*, HDP201 from 0.70m bgl and HDP202 from 0.30m bgl, due to elevated heavy metal concentrations;
- The remaining samples were classified as 'non-hazardous' soil and stone, EWC Code 17 05 04.

In addition to the above, uncontaminated natural soil are generally classified as 17 05 04- non-hazardous soil and stone without the need for additional testing.

4.2 Waste Acceptance Criteria

A single WAC sample was obtained from site during the first GI, from HPI02 at 0.20m bgl. The sample passed the 'Inert' waste acceptance criteria thresholds. In addition it should be noted that uncontaminated, natural soil and stone (17 05 04) can generally be classified as inert without the need for further WAC testing.

4.2.1 Landfill Disposal Summary

On the basis of the above it is considered that:

- A significant proportion of the Made Ground beneath the site is likely to be classified as Hazardous Waste (EWC Code 17 05 03*), although the WAC testing to date suggests this may be suitable for disposal to a Stable Non-Reactive Hazardous cell;
- The majority of the Made Ground would be classified as non-hazardous soil and stone (EWC Code 17 05 04), and may also be suitable for disposal as inert waste;
- Natural soil and stone can be disposed of as inert waste.

Given the variable chemical composition of the soils tested this assessment should be considered as preliminary only, and additional testing (classification and WAC) should be undertaken on stockpiles prior to disposal. Additional testing may also be required by the receiving landfill depending on the volume of material proposed for disposal. It should also be noted that soils that fail the requirements for hazardous WAC cannot be disposed of to landfill without further treatment to bring them under the threshold concentrations (see below).

4.3 Waste Management and Treatment

Waste generated from the site that are destined for landfill must undergo pre-treatment to reduce to volume or hazardous nature of the waste, facilitate handling, or enhance recovery. Treatment may comprise thermal, chemical, biological or physical processes, including sorting, which changes the characteristics of the waste. Exemptions to the regulations exist where treatment is not technically feasible, or where feasible treatment techniques would not reduce the hazardous nature of the or volume of the material going to landfill.

In order to reduce the volume of material sent for disposal (and ultimately cost), consideration should also be given to the potential donation of surplus natural soil arisings to nearby developments utilising the CL:AIRE register of materials, or reuse on site as part of the development works.

Reuse of remediated, excavated or imported soils may require a Materials Management Plan and declaration under the CL:AIRE 'Definition of Waste Code of Practice' (DoW:CoP), a registered waste exemption and/or an environmental permit.

4.3.1 Stockpiling and Handling of Materials

Natural soils should be stockpiled separately from Made Ground. Suspected contaminated/hazardous materials should also be stockpiled separately (on a bunded, impermeable membrane or concrete hardstanding to prevent run-off) for subsequent analysis and, if necessary, off-site treatment/disposal. All stockpiles should be numbered and tracked with an appropriate source location and destination detailed recorded. Any proposed remedial works will require agreement with the regulators prior to implementation.

Given the preliminary nature of the above classification works, the significant amount of material being sent for disposal, and the variable chemical composition of the Made Ground it is recommended that stockpiles are tested for classification and WAC prior to disposal.

4.3.2 Asbestos Monitoring

Appropriate precautionary methods should be adopted when handling the materials. Soils should be kept damp to minimise the potential for dust generation and visual vigilance maintained for suspect materials. Stockpiles may also need to be managed in accordance with the Control of Asbestos Regulations 2012 (CAR:SOIL). Appropriate

precautionary methods should be adopted when handling Made Ground materials. These are likely to include (but not limited to):

- Covering and dampening of potentially contaminated soils;
- Monitoring of fibres released to air;
- 'Picking' of fragments by a competent professional.

The advice of a competent asbestos consultant should be sought to support the management of potentially asbestos contaminated soils.

A Site Waste Management Plan (SWMP) should be produced by the main contractor, as best practice, prior to the commencement of the project. The SWMP should describe the volumes and types of waste that are likely to be produced during a project, and should set out the actions for recycling, re-use, and disposal for each waste stream.

5. Remedial Recommendations

5.1 Soil Remediation

The results of the GQRA have confirmed that concentrations of heavy metals and PAH compounds pose a risk to human health receptors. Additionally, fragments of ACM have been identified within the Made Ground.

It is understood that significant construction works are proposed on site, related to the repair/replacement of the existing retaining wall. It is therefore recommended that any remedial works be tied into this construction phase, to reduce the disruption to the residents of the property and reduce costs to the client.

Given the nature of the contamination identified, and the thickness of the Made Ground reported (>1.00m) it is considered that source excavation is impractical as a remedial method. Accordingly, a remedial capping layer will be needed to break the contaminant source-pathway-receptor linkage. The capping layer should be installed in areas of soft landscaping in the rear garden. Where hard standing is present (for example beneath patios etc...), this is considered sufficient to break the contaminant linkage.

A 'simple cover system' is proposed, calculated in general accordance with BRE465. Based on the recorded concentrations a 600mm cover system be installed to protect human health receptors. Accordingly, it is recommended that Made Ground be removed to 0.60m bgl and a minimum thickness of 600mm be installed where Made Ground remains in-situ, to break the contaminant pathway. The capping layer should comprise a minimum of 450mm of clean imported subsoil, and 150mm of clean imported topsoil. Where natural soils are encountered during excavation works for the repair of the retaining wall (i.e. from the foundation excavation) this may be used in place of imported subsoil, subject to testing confirming suitability for use.

In considering the cover system calculation, Pick Everard have determined that the principal driver for the cover system thickness is the elevated lead concentrations, closely followed by elevated concentrations of dibenzo(ah)anthracene and benzo(a)pyrene. Accordingly, the use of bioavailability testing and derivation of SSAC's is unlikely to significantly alter the recommended cover layer thickness.

It is recommended that the local authority EHO be contacted to confirm their acceptance of the proposed remedial strategy, as the regulatory body responsible for human health risk.

5.1.1 Asbestos

Given that only a single fragment of asbestos was encountered during the GI, bound as cement (the lowest risk form) it is considered that the asbestos risk is likely to be low, and that the proposed cover system should provide sufficient protection to the residents of the property. The advice of a competent asbestos consultant should be sought however to confirm this assessment.

During excavation works it is recommended that measures to minimise any release of airborne dust should be adopted, including damping-down in dry conditions and minimisation of drop heights from excavator buckets. Advice must be sought from a competent asbestos consultant. It is also recommended that earth movements are supervised by personnel trained in the identification of asbestos-containing materials. In the event that any more significant accumulation of suspect ACM is identified, excavations should be halted, and the material made safe by covering, pending testing of the material and development of a safe means of handling. Should ACMs other than bound materials such as asbestos cement be present, excavation works may be subject to the licensing requirements of the Control of Asbestos Regulations.

5.1.2 Imported Materials

Any imported materials to be used on site should be validated to confirm that contaminant concentrations do not exceed the relevant assessment criteria for the site. The proposed chemical validation rates are shown in the table below, however this should be approved by the local authority EHO prior to confirming the testing regime.

Source and Validation Rate	Chemical Analysis Suite		
	Pick Everard Suite 2	Asbestos ID	TPH CWG
Greenfield/Manufactured Soils 1 per 250m ³ (min 3)	X	X	
Brownfield/Screened Soils 1 per 100m ³ (min 6)	X	X	X

Table 7 – Proposed Validation Schedule

Any proposal to reuse Made ground (or contaminated) site won or imported soils will require a Materials Management Plan and declaration under the CL:AIRE 'Definition of Waste Code of Practice' (DoW:CoP), a registered waste exemption, or an environmental permit.

5.1.3 Validation

A suitably qualified and competent Geo-Environmental Engineer should complete the following:

- Confirmation of details of material source site;
- Obtain chemical testing certificates or undertake testing as appropriate for materials prior to importation on to site for comparison to remediation criteria (Appendix A), at a rate of one sample per 250m³ (minimum of three samples per source) to be tested at a UKAS and MCERTS accredited laboratory. The testing frequency should be agreed with the Local Planning Authority;
- Comparison of chemical testing results to adopted criteria (Appendix A);
- Retain tickets from material deliveries to site by the Contractor;

- Verification of installation depth into landscaped areas (1 location per 50m² or discrete area of soft landscaping) and assessment of quality of the materials used (free from visual or olfactory evidence of contamination, invasive weeds and deleterious materials and visually observed to be a suitable growing medium) with appropriate photographic evidence; and
- Production of an independent Verification Report to be submitted to the Local Planning Authority.

5.2 Unexpected Contamination

For the duration of the redevelopment, a watching brief will need to be maintained for any previously unidentified soil and/or groundwater contamination. Particular attention should be paid to Made Ground exposed beneath the site.

In the event that previously unidentified contamination is encountered, a suitably qualified Environmental Consultant shall be informed immediately, and the Contaminated Land Officer/Environmental Services at the local authority will also be informed of mitigation proposals for the area of concern.

Appendix A – Drawings



LEGEND

- Hand Dug Pits
- Window Sample Location

Site Boundary

- Site Boundary

Drawing Title: Exploratory Hole Location Plan

Project Name: Waterloo Road, Manchester

Project ID: 240025

Client: MCC

Drawing No: PE-SK-C-0001

Drawn By: RHG

Checked By: RHG

Date: 11/10/2024

Rev No: 01

Scale: 1:75

Contains OS data © Crown copyright and database right (2024)

PICK
EVERARD

Appendix B – Exploratory Hole Records

Project Title: 347 Waterloo road, Cheetham, Manchester M8 9DU				Status: FINAL		Location ID HDP201		 Card Geotechnics Limited, 6 Oak Spinney Park, Ratby Lane Leicester LE3 3AW www.cgl-uk.com				
Client: Pick Everard				Location Type: Trial pit/trench								
Method and Plant Used		Groundwater										
From (m)	To (m)	Type	Plant Used							Strike (m)	Time (min)	Rose To
0.00	1.00	TP	Hand excavated									
				Final Depth: 1.00 m								
				Orientation: 0°		Inclination: 90°						
				Date Start: 14/08/2024		Date End: 14/08/2024		Sheet 1 of 1				
Samples & Tests				Water Level (m)	Legend	Strata Depth (m)	Level (m)	Strata Description		Inst/ Backfill (m)	Depth (m)	
Sample Depth (m)	Type/ Ref	Tests/Results										
0.30	ES 1							MADE GROUND: Brown and dark brown gravelly slightly clayey fine to coarse SAND with moderate cobble content. Gravel is subangular to subrounded fine to coarse brick concrete and quartzite. Cobbles are subangular brick.				
0.70	ES 2					0.60		MADE GROUND: Black brown slightly gravelly clayey fine to medium SAND. Gravel is subangular to subrounded fine to coarse brick, chalk and charcoal.				
						1.00		EOH at 1.00m - Reached target depth.			1	
												2
												3
												4
												5

Notes:

1. Trial hole location taken from Pick Everard's EHLP.

2. Trial hole CAT scanned for services by a trained and competent CGL engineer.

3. Hand excavated form ground level to completed depth.

4. Backfilled with arisings on completion.

Soakaway Tests				Scale: 1:25	
Test No.	Date	Duration (hh:mm)	Infiltration Rate	Logged By:	TAC
				Checked By:	PB
				Approved By:	PB
Pit Details				Section ID:	
Stability		Shoring	Length (m)	Width (m)	CGL Reference CGK01060
Good		None	0.30	0.30	

Project Title: 347 Waterloo road, Cheetham, Manchester M8 9DU							Status: FINAL		Location ID HDP202		 Card Geotechnics Limited, 6 Oak Spinney Park, Ratby Lane Leicester LE3 3AW www.cgl-uk.com		
Client: Pick Everard							Location Type: Trial pit/trench						
Method and Plant Used				Groundwater									
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To							
0.00	0.60	TP	Hand excavated										
							Final Depth: 0.60 m				Sheet 1 of 1		
							Orientation: 0° Inclination: 90°						
							Date Start: 14/08/2024 Date End: 14/08/2024						
Samples & Tests				Water Level (m)	Legend	Strata Depth (m)	Level (m)	Strata Description				Inst/ Backfill	Depth (m)
Sample Depth (m)	Type/ Ref	Tests/Results											
0.30	ES 1					0.60 0.60		MADE GROUND: Brown and dark brown gravelly slightly clayey fine to coarse SAND with moderate cobble content. Gravel is subangular to subrounded fine to coarse brick concrete and quartzite. Cobbles are subangular brick.					
								MADE GROUND: Blue brick footing. EOH at 0.60m - Terminated due to obstruction.					
													1
													2
													3
													4
													5

Notes: 1. Trial hole location taken from Pick Everard's EHLP. 2. Trial hole CAT scanned for services by a trained and competent CGL engineer. 3. Hand excavated form ground level to completed depth. 4. Backfilled with arisings on completion.	Soakaway Tests				Scale: 1:25	
	Test No.	Date	Duration (hh:mm)	Infiltration Rate	Logged By: TAC	
					Checked By: PB	
					Approved By: PB	
	Pit Details				Section ID:	
	Stability Good		Shoring None	Length (m) 0.30	Width (m) 0.30	CGL Reference CGK01060

Project Title: 347 Waterloo road, Cheetham, Manchester M8 9DU							Status: FINAL		Location ID HDP203		 Card Geotechnics Limited, 6 Oak Spinney Park, Ratby Lane Leicester LE3 3AW www.cgl-uk.com		
Client: Pick Everard							Location Type: Trial pit/trench						
Method and Plant Used				Groundwater									
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To							
0.00	1.00	TP	Hand excavated										
							Final Depth: 1.00 m				Sheet 1 of 1		
							Orientation: 0° Inclination: 90°						
							Date Start: 14/08/2024 Date End: 14/08/2024						
Samples & Tests				Water Level (m)	Legend	Strata Depth (m)	Level (m)	Strata Description				Inst/ Backfill	Depth (m)
Sample Depth (m)	Type/ Ref	Tests/Results											
0.30	ES 1							MADE GROUND: Brown and dark brown gravelly slightly clayey fine to coarse SAND with moderate cobble content. Gravel is subangular to subrounded fine to coarse brick concrete and quartzite. Cobbles are subangular brick.					
0.80	ES 2					0.70		MADE GROUND: Yellow brown fine SAND with low cobble content. Cobbles are subangular teracotta.					
						1.00		EOH at 1.00m - Reached target depth.					1
													2
													3
													4
													5

Notes:

1. Trial hole location taken from Pick Everard's EHLP.

2. Trial hole CAT scanned for services by a trained and competent CGL engineer.

3. Hand excavated form ground level to completed depth.

4. Backfilled with arisings on completion.

Soakaway Tests				Scale: 1:25	
Test No.	Date	Duration (hh:mm)	Infiltration Rate	Logged By:	TAC
				Checked By:	PB
				Approved By:	PB
Pit Details				Section ID:	
Stability		Shoring	Length (m)	Width (m)	CGL Reference CGK01060
Good		None	0.30	0.30	

[illegible]

Project Title: 347 Waterloo road, Cheetham, Manchester M8 9DU							Status: FINAL		Location ID HDP205		 Card Geotechnics Limited, 6 Oak Spinney Park, Ratby Lane Leicester LE3 3AW www.cgl-uk.com		
Client: Pick Everard							Location Type: Trial pit/trench						
Method and Plant Used				Groundwater									
From (m)	To (m)	Type	Plant Used	Strike (m)	Time (min)	Rose To							
0.00	0.60	TP	Hand excavated										
							Final Depth: 0.60 m				Sheet 1 of 1		
							Orientation: 0° Inclination: 90°						
							Date Start: 14/08/2024 Date End: 14/08/2024						
Samples & Tests				Water Level (m)	Legend	Strata Depth (m)	Level (m)	Strata Description				Inst/ Backfill	Depth (m)
Sample Depth (m)	Type/ Ref	Tests/Results											
0.30	ES 1							MADE GROUND: Brown and dark brown gravelly slightly clayey fine to coarse SAND with moderate cobble content. Gravel is subangular to subrounded fine to coarse brick concrete and quartzite. Cobbles are subangular brick.					
						0.60	0.60						
								MADE GROUND: Blue brick footing.					
								EOH at 0.60m - Terminated due to obstruction.					
													1
													2
													3
													4
													5

Notes: 1. Trial hole location taken from Pick Everard's EHLP. 2. Trial hole CAT scanned for services by a trained and competent CGL engineer. 3. Hand excavated form ground level to completed depth. 4. Backfilled with arisings on completion.	Soakaway Tests				Scale: 1:25	
	Test No.	Date	Duration (hh:mm)	Infiltration Rate	Logged By: TAC	
					Checked By: PB	
					Approved By: PB	
	Pit Details				Section ID:	
	Stability Good		Shoring None	Length (m) 0.30	Width (m) 0.30	CGL Reference CGK01060

[illegible]

Appendix C - Contamination Laboratory Reports

Pick Everard
Halford House
Charles Street
Leicester
Leicestershire
LE1 1HA

t: 0116 2234400

e: jakeBhangal@pickeverard.co.uk

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

t: 01923 225404

f: 01923 237404

e: reception@i2analytical.com

Analytical Report Number : 24-008070

Project / Site name:	347 Waterloo Road	Samples received on:	11/03/2024
Your job number:	240025	Samples instructed on/ Analysis started on:	11/03/2024
Your order number:	105789	Analysis completed by:	15/03/2024
Report Issue Number:	1	Report issued on:	18/03/2024
Samples Analysed:	2 soil samples - 1 bulk sample		



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: 24-008070
Project / Site name: 347 Waterloo Road
Your Order No: 105789

Lab Sample Number				140448	140449
Sample Reference				HP102	WS101
Sample Number				2	2
Depth (m)				0.20	0.50
Date Sampled				07/03/2024	07/03/2024
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	12	8.4
Total mass of sample received	kg	0.1	NONE	0.4	0.8

Asbestos

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

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.4	8.5
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	39	6.2
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	19.2	3.12
Organic Matter (automated)	%	0.1	MCERTS	1.6	0.3

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.2	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.25	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.29	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.34	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	4.2	< 0.05
Anthracene	mg/kg	0.05	MCERTS	1	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	6.1	< 0.05
Pyrene	mg/kg	0.05	MCERTS	5.9	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	2.7	< 0.05
Chrysene	mg/kg	0.05	MCERTS	3.1	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	2.8	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	1.4	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.7	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.3	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.33	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.5	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	34.1	< 0.80
-----------------------------	-------	-----	-----------	------	--------

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	14	3.4
Boron (water soluble)	mg/kg	0.2	MCERTS	0.2	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.6	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	1.9	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	24	4.7
Copper (aqua regia extractable)	mg/kg	1	MCERTS	54	10
Lead (aqua regia extractable)	mg/kg	1	MCERTS	130	6.7
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.7	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	14	6
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	100	22



Analytical Report Number: 24-008070
Project / Site name: 347 Waterloo Road
Your Order No: 105789

Lab Sample Number				140448	140449
Sample Reference				HP102	WS101
Sample Number				2	2
Depth (m)				0.20	0.50
Date Sampled				07/03/2024	07/03/2024
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection
				Accreditation Status	

Petroleum Hydrocarbons

Petroleum Range Organics (C6 - C10) HS_ID_TOTAL	mg/kg	1	NONE	< 1.0	< 1.0
TPH (C10 - C25) EH_CU_ID_TOTAL	mg/kg	10	MCERTS	22	< 10
TPH (C25 - C40) EH_CU_ID_TOTAL	mg/kg	10	MCERTS	11	< 10

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



4041



Analytical Report Number: 24-008070
Project / Site name: 347 Waterloo Road
Your Order No: 105789

Lab Sample Number				140447
Sample Reference				HP101
Sample Number				3
Depth (m)				0.45
Date Sampled				07/03/2024
Time Taken				None Supplied
Analytical Parameter (Bulk Analysis)		Units	Limit of detection	Accreditation Status

Asbestos

Asbestos in bulks	Type	N/A	ISO 17025	Detected
Asbestos Analyst ID	N/A	N/A	N/A	WEM
Actinolite detected	Type	N/A	ISO 17025	Not-detected
Amosite detected	Type	N/A	ISO 17025	Not-detected
Anthophyllite detected	Type	N/A	ISO 17025	Not-detected
Chrysotile detected	Type	N/A	ISO 17025	Detected
Crocidolite detected	Type	N/A	ISO 17025	Not-detected
Tremolite detected	Type	N/A	ISO 17025	Not-detected

Asbestos Containing Material Types Detected (ACM)	Type	N/A	ISO 17025	Asbestos Cement
---	------	-----	-----------	-----------------

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 24-008070
Project / Site name: 347 Waterloo 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 *
140448	HP102	2	0.2	Brown loam and sand with gravel and vegetation
140449	WS101	2	0.5	Brown sand with gravel

Analytical Report Number : 24-008070
Project / Site name: 347 Waterloo 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 Bults	Asbestos Identification in bulk material with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	W	ISO 17025
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
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
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES	In-house method based on Second Site Properties version 3	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Speciated EPA-16 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/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
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	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099	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 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.

Analytical Report Number : 24-008070
Project / Site name: 347 Waterloo 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
----------------------	-------------------------------	-----------------------------	---------------	--------------------	----------------------

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



Card Geotechnics Limited
6 Oak Spinney Park
Ratby Lane
Leicester
LE3 3AW

7 - 11 Harding Street
Leicester
LE1 4DH

Analytical Test Report: L24/07700/CGL - 24-48913

Your Project Reference:	347 Waterloo Road		
Your Order Number:	CGK01060	Samples Received / Instructed:	20/08/2024 / 21/08/2024
Report Issue Number:	1	Sample Tested:	21/08 to 02/09/2024
Samples Analysed:	8 samples	Report issued:	02/09/2024

Signed

James Gane
Analytical Services Manager
CTS Group

Notes:

General

Please refer to Methodologies page for details pertaining to the analytical methods undertaken.

Samples will be retained for 14 days after issue of this report with the exception of the asbestos test portion which is held for 6 months unless otherwise requested.

Moisture Content was determined in accordance with CTS method statement MS - CL - Sample Prep, oven dried at <30°C.

Moisture Content is reported as a percentage of the dry mass of soil, this calculation is in accordance with BS1377, Part 2, 1990, Clause 3.2

Stone Content was determined in accordance with CTS method statement MS - CL - Sample Prep and refers to the percentage of stones retained on a 10mm BS test sieve.

Where specification limits are included these are for guidance only. Where a measured value has been highlighted this is not implying acceptance or failure and certainty of measurement values have not been taken into account.

Uncertainty of measurement values are available on request.

Samples were supplied by customer, results apply to the samples as received.

Asbestos

Please note: Where further analysis is required samples identified as containing asbestos are screened and tested on an as received basis. No correction is made for moisture content and these results are not covered by our accreditation

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation

Deviating Samples

On receipt samples are compared against our sample holding and handling protocols, where any deviations have been noted these are reported on our deviating sample page (if present)

Accreditation Key

UKAS = UKAS Accreditation, MCERTS = MCERTS Accreditation, u = Unaccredited, subUKAS - Subcontracted to a laboratory UKAS accredited for this test, subMCERTS - Subcontracted to a laboratory MCERTS accredited for this test

MCERTS Accreditation only covers the SAND, CLAY and LOAM matrices

Date of Issue: 27.08.2024

Issued by: J. Gane

Issue No: 4

Rev No: 12

L24/07700/CGL - 24-48913

Project Reference - 347 Waterloo Road

Analytical Test Results - Solid

Lab Reference			391419	391420	391421	391422	391423
Client Sample ID			ES2	ES1	ES1	ES2	ES1
Client Sample Location			HDP201	HDP202	HDP206	HDP203	HDP205
Client Sample Type			ES	ES	ES	ES	ES
Client Sample Number			2	1	1	2	1
Depth - Top (m)			0.70	0.30	0.30	0.80	0.30
Depth - Bottom (m)			0.70	0.30	0.30	0.80	0.30
Date of Sampling			14/08/2024	15/08/2024	16/08/2024	17/08/2024	18/08/2024
Time of Sampling			-	-	-	-	-
Sample Matrix			Clay	Sand	Sand	Sand	Sand
Determinant	Units	Accreditation					
Antimony	(mg/kg)	u	5.1	7.9	< 3.5	< 3.5	6.9
Arsenic	(mg/kg)	MCERTS	41	30	18	16	17
Barium	(mg/kg)	MCERTS	1400	1200	370	420	880
Beryllium	(mg/kg)	MCERTS	1.3	1.1	0.8	0.9	0.6
Boron (w/s)	(mg/kg)	u	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
Cadmium	(mg/kg)	MCERTS	3.1	2.3	1.5	2.0	3.9
Chromium (III)	(mg/kg)	u	20	18	16	9.5	16
Chromium (Total)	(mg/kg)	UKAS	21	19	17	11	17
Copper	(mg/kg)	MCERTS	190	92	91	73	71
Lead	(mg/kg)	MCERTS	3200	1200	200	400	880
Mercury	(mg/kg)	UKAS	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
Nickel	(mg/kg)	MCERTS	30	25	20	22	21
Selenium	(mg/kg)	u	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
Vanadium	(mg/kg)	UKAS	45	43	28	26	29
Zinc	(mg/kg)	MCERTS	680	420	220	380	690
Total Phenols	(mg/kg)	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Cyanide (Total)	(mg/kg)	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chromium (Hexavalent)	(mg/kg)	u	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Sulphate (Acid Soluble)	(%)	u	0.08	0.08	0.06	0.04	0.17
pH	pH Units	MCERTS	7.9	8.1	8.1	8.2	8.1
Acenaphthene	(mg/kg)	MCERTS	0.23	0.83	1.2	0.53	2.4
Acenaphthylene	(mg/kg)	UKAS	0.29	2.0	4.3	1.1	4.1
Anthracene	(mg/kg)	UKAS	0.81	4.6	8.4	2.1	12
Benzo (a) anthracene	(mg/kg)	MCERTS	2.9	9.6	15	5.0	26
Benzo (a) pyrene	(mg/kg)	MCERTS	3.2	9.5	14	5.2	24
Benzo (b) fluoranthene	(mg/kg)	MCERTS	3.7	11	16	5.6	28
Benzo (g, h, i) perylene	(mg/kg)	MCERTS	2.2	5.4	7.6	2.9	14
Benzo (k) fluoranthene	(mg/kg)	MCERTS	1.3	3.9	5.7	2.0	9.9
Chrysene	(mg/kg)	MCERTS	2.9	8.9	15	4.6	24
Dibenzo (a,h) anthracene	(mg/kg)	MCERTS	0.42	1.3	1.9	0.71	3.3
Fluoranthene	(mg/kg)	MCERTS	5.9	25	43	11	63
Fluorene	(mg/kg)	MCERTS	0.22	1.4	4.1	0.65	3.9
Indeno (1, 2, 3,-cd) pyrene	(mg/kg)	MCERTS	1.9	4.8	6.8	2.6	13
Naphthalene	(mg/kg)	MCERTS	0.14	< 0.20	0.81	< 0.20	0.48
Phenanthrene	(mg/kg)	MCERTS	3.0	18	46	8.1	41
Pyrene	(mg/kg)	MCERTS	6.4	22	39	10	57
Total PAH (Sum of USEPA 16)	(mg/kg)	UKAS	36	130	230	63	330
Coronene	(mg/kg)	u	0.46	1.2	1.7	0.63	2.6
PAH Content (PAH17)	(mg/kg)	u	36	130	230	64	330
SOM (via TOC)	(%)	UKAS	9.7	8.8	6.5	6.0	7.4
Asbestos	-	UKAS	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

L24/07700/CGL - 24-48913

Project Reference - 347 Waterloo Road

Analytical Test Results - VPH / EPH

Lab Reference			391419	391420	391421	391422	391423
Client Sample ID			ES2	ES1	ES1	ES2	ES1
Client Sample Location			HDP201	HDP202	HDP206	HDP203	HDP205
Client Sample Type			ES	ES	ES	ES	ES
Client Sample Number			2	1	1	2	1
Depth - Top (m)			0.70	0.30	0.30	0.80	0.30
Depth - Bottom (m)			0.70	0.30	0.30	0.80	0.30
Date of Sampling			14/08/2024	15/08/2024	16/08/2024	17/08/2024	18/08/2024
Time of Sampling			-	-	-	-	-
Sample Matrix			Clay	Sand	Sand	Sand	Sand
Determinant	Units	Accreditation					
Benzene	(mg/kg)	MCERTS	0.03	0.03	0.05	< 0.01	0.01
Toluene	(mg/kg)	MCERTS	0.06	0.01	0.03	< 0.01	< 0.01
Ethylbenzene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
m&p Xylene	(mg/kg)	MCERTS	0.02	< 0.02	< 0.02	< 0.02	< 0.02
o-Xylene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
MTBE	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic >C ₅ to C ₆ [HS_MS_1D_AL]	(mg/kg)	MCERTS	< 0.06	< 0.06	0.24	< 0.06	< 0.06
Aliphatic >C ₆ to C ₈ [HS_MS_1D_AL]	(mg/kg)	MCERTS	< 0.06	0.15	0.19	< 0.06	0.67
Aliphatic >C ₈ to C ₁₀ [HS_MS_1D_AL]	(mg/kg)	MCERTS	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Aliphatic >C ₁₀ to C ₁₂ [EH_2D_AL]	(mg/kg)	u	1.5	1.4	1.4	1.9	1.1
Aliphatic >C ₁₂ to C ₁₆ [EH_2D_AL]	(mg/kg)	u	4.3	3.6	3.6	5.7	2.5
Aliphatic >C ₁₆ to C ₂₁ [EH_2D_AL]	(mg/kg)	u	6.1	5.2	4.6	8.8	3.7
Aliphatic >C ₂₁ to C ₃₅ [EH_2D_AL]	(mg/kg)	u	11	13	4.5	27	14
Aliphatic >C ₃₅ to C ₄₄ [EH_2D_AL]	(mg/kg)	u	< 5.0	< 5.0	< 5.0	5.5	< 5.0
Aromatic >C ₅ to C ₇ [HS_MS_1D_AR]	(mg/kg)	MCERTS	0.03	0.03	0.05	< 0.01	0.01
Aromatic >C ₇ to C ₈ [HS_MS_1D_AR]	(mg/kg)	MCERTS	0.06	0.01	0.03	< 0.01	< 0.01
Aromatic >C ₈ to C ₁₀ [HS_MS_1D_AR]	(mg/kg)	MCERTS	0.09	< 0.06	< 0.06	< 0.06	< 0.06
Aromatic >C ₁₀ to C ₁₂ [EH_2D_AR]	(mg/kg)	u	< 1.0	< 1.0	1.2	1.3	< 1.0
Aromatic >C ₁₂ to C ₁₆ [EH_2D_AR]	(mg/kg)	u	12	12	17	14	1.9
Aromatic >C ₁₆ to C ₂₁ [EH_2D_AR]	(mg/kg)	u	76	58	100	76	4.0
Aromatic >C ₂₁ to C ₃₅ [EH_2D_AR]	(mg/kg)	u	170	120	220	190	20
Aromatic >C ₃₅ to C ₄₄ [EH_2D_AR]	(mg/kg)	u	21	18	27	27	5.9
Total >C ₅ to C ₃₅ [EH_2D+HS_1D_Total]	(mg/kg)	u	280	220	360	320	47

L24/07700/CGL - 24-48913**Project Reference - 347 Waterloo Road****Soils - No Testing Scheduled**

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Status
391424	-	HDP201	ES	-	No Testing Scheduled
391425	-	HDP204	ES	-	No Testing Scheduled
391426	-	HDP203	ES	-	No Testing Scheduled



4161



L24/07700/CGL - 24-48913

Project Reference - 347 Waterloo Road

Sample Descriptions

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Description	Moisture Content (%)	Stone Content (%)	Passing 2mm test sieve (%)
391419	ES2	HDP201	ES	2	Made Ground- grey slightly gravelly slightly sandy silty clay with occasional brick fragments	14	37	100
391420	ES1	HDP202	ES	1	Made Ground- brown gravelly silty sand with occasional brick fragments	14	20	100
391421	ES1	HDP206	ES	1	Made Ground- brown gravelly silty sand with occasional brick fragments	16	28	100
391422	ES2	HDP203	ES	2	Brown slightly gravelly silty sand	9.8	26	100
391423	ES1	HDP205	ES	1	Made Ground- brown gravelly silty sand with occasional brick fragments	12	24	100



7 - 11 Harding Street
Leicester
LE1 4DH

L24/07700/CGL - 24-48913

Project Reference - 347 Waterloo Road

Sample Comments

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Comments
391419	ES2	HDP201	ES	2	VPH/BTEX - Sample taken from container with headspace.
391420	ES1	HDP202	ES	1	PAHAR 1:10 dilution VPH/BTEX - Sample taken from container with headspace.
391421	ES1	HDP206	ES	1	PAHAR 1:10 dilution
391422	ES2	HDP203	ES	2	PAHAR 1:10 dilution VPH/BTEX - Sample taken from container with headspace.
391423	ES1	HDP205	ES	1	PAHAR: 1;10 dilution - dark coloured extract.

L24/07700/CGL - 24-48913

Project Reference - 347 Waterloo Road

Analysis Methodologies

Test Code	Test Name / Reference	Sample condition for analysis	Sample Preparation	Test Details
SKALARCNS	MS - CL - Cyanide by Skalar	As received	Passing 10mm test sieve	Determination of cyanide (total / free / complex) in soil using a Skalar segmented flow analyser
SKALARHCS	MS - CL - Hexavalent Chromium by Skalar	As received	Passing 10mm test sieve	Determination of hexavalent chromium in soil using Skalar segmented flow analyser
ICPMETS	MS - CL - ICP Metals	Air dried	Passing 10mm test sieve	Determination of metals in soils via ICP
PHS	MS - CL - pH in Soils	As received	Passing 10mm test sieve	Determination of pH in soils using a pH probe (using a 1:3 soil to water extraction)
PAHASRDS	MS - CL - PAH (As Received)	As received	Passing 10mm test sieve	Determination of Polyaromatic hydrocarbons in soil via GC-MS
SKALARPHS	MS - CL - Phenols by Skalar	As received	Passing 10mm test sieve	Determination of total phenols in soil using Skalar segmented flow analyser
ASSO4S	MS - CL - Acid Soluble Sulphate	Oven Dried	Passing 2mm test sieve	Determination of total sulphate in soils by acid extraction followed by ICP analysis
TOCS	MS - CL - TOC Eltra	Air Dried	Passing 10mm test sieve	Determination of Total Organic Carbon in soils
GCXGCS	MS - CL - TPH & EPH by GCXGC	As received	Passing 10mm test sieve	Determination of TPH and EPH in soils via GCxGC-FID
CWGS	Calculation from VPH-S and EPH-S	As received	Passing 10mm test sieve	Determination of TPH CWG (Volatile Petroleum Hydrocarbons and Extractable Petroleum Hydrocarbons) in soils via Headspace-GC-MS and GC-GC-FID respectively
VPHS	MS - CL - VPH	As received	Passing 10mm test sieve	Determination of VPH in soils via Headspace-GC-MS
WSBORONS	MS - CL - WS Boron	Air dried	Passing 10mm test sieve	Determination of Water soluble Boron in soils via ICP
ASB	MS - AS - Asbestos	-	-	Fibre identification is in accordance with in house documented methods which are based on the procedure documented in the HSE Document HSG 248 "Asbestos: The analysts guide for sampling, analysis and clearance procedures"
HOLD	No Testing Scheduled	-	-	No Testing Scheduled
SAMPLEPREP	MS - CL - Sample Preparation	-	-	Preparation of samples (including determination of moisture content) to allow for subsequent analysis

L24/07700/CGL - 24-48913

Project Reference - 347 Waterloo Road

Sample Deviations

Deviations are listed below against each sample and associated test method, where deviation(s) are noted it means data may not be representative of the sample at the time of sampling and it is possible that results provided may be compromised.

Observations on receipt

A - No date of sampling provided

C - Received in inappropriate container

H - Contains headspace

T - Temperature on receipt exceeds storage temperature

R - Sample(s) received with less than 96 hours for testing to commence/complete, any result formally classed as deviating will be marked with an X against the applicable test (i.e. RX)

Observations whilst in laboratory

X - Exceeds sampling to extraction or analysis timescales

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Test	Deviations
391419	ES2	HDP201	ES	2	MS - CL - pH in Soils	RX
391419	ES2	HDP201	ES	2	MS - CL - VPH	RX
391420	ES1	HDP202	ES	1	MS - CL - pH in Soils	R
391420	ES1	HDP202	ES	1	MS - CL - VPH	RX
391421	ES1	HDP206	ES	1	MS - CL - pH in Soils	R
391421	ES1	HDP206	ES	1	MS - CL - VPH	RX
391422	ES2	HDP203	ES	2	MS - CL - pH in Soils	R
391422	ES2	HDP203	ES	2	MS - CL - VPH	RX
391423	ES1	HDP205	ES	1	MS - CL - VPH	X



L24/07700/CGL - 24-48913

Project Reference - 347 Waterloo Road

HWOL TPH Acronym Index

Acronym	Description
HS	Headspace Analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
Total	Aliphatics and Aromatics
AL	Aliphatics Only
AR	Aromatics Only
2D	GC-GC - Double Coil Gas Chromatography
#1	EH_Total but with humics mathmatically subtracted
#2	EH_Total but with fatty acids mathmatically subtracted
_	Operator - underscore to separate acronyms (except for +)
+	Operator to indicate cumlative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry

Appendix D – Assessment Criteria (Residential with Consumption of Homegrown Produce)

	SOIL - TIER ONE HUMAN HEALTH SCREENING VALUES		
Status	End Use	Issue No	Issue Date
DRAFT	Residential With Plant Uptake	I	04/07/16

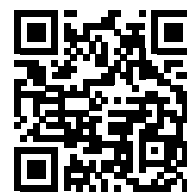
Determinand	Units	SOIL ORGANIC MATTER			SOURCE
		1%	2.5%	6%	
pH		<5, >9			
Asbestos	%	Presence			
HEAVY METALS/METALLOIDS					
Arsenic	mg/kg	37			C4SL & CIEH/LQM S4UL
Cadmium*	mg/kg	11			CIEH/LQM S4ULs
Chromium (III)	mg/kg	910			CIEH/LQM S4ULs
Chromium (VI) *	mg/kg	6			CIEH/LQM S4ULs
Lead	mg/kg	200			C4SL
Mercury (Elemental)	mg/kg	1.2			CIEH/LQM S4ULs
Mercury (Inorganic)	mg/kg	40			CIEH/LQM S4ULs
Mercury (Methyl)	mg/kg	11			CIEH/LQM S4ULs
Nickel	mg/kg	130			CIEH/LQM S4ULs
Selenium	mg/kg	250			CIEH/LQM S4ULs
Berylium	mg/kg	1.7			CIEH/LQM S4ULs
Boron	mg/kg	290			CIEH/LQM S4ULs
Vanadium	mg/kg	410			CIEH/LQM S4ULs
Copper	mg/kg	2,400			CIEH/LQM S4ULs
Zinc	mg/kg	3,700			CIEH/LQM S4ULs
GENERAL INORGANICS					
Easily Liberatable Cyanide (free)	mg/kg	36			Acute effects infant 1 dose 3g soil
US EPA PRIORITY PAHs					
Acenaphthene	mg/kg	210	510	1100	CIEH/LQM S4ULs
Acenaphthylene	mg/kg	170	420	920	CIEH/LQM S4ULs
Anthracene	mg/kg	2,400	5,400	11000	CIEH/LQM S4ULs
Benzo(a)Anthracene	mg/kg	7.2	11	13	CIEH/LQM S4ULs
Benzo(b)fluoranthene	mg/kg	2.6	3.3	3.7	CIEH/LQM S4ULs
Benzo(k)fluoranthene	mg/kg	77	93	100	CIEH/LQM S4ULs
Benzo(g,h,i)perylene	mg/kg	320	340	350	CIEH/LQM S4ULs
Benzo(a)Pyrene*	mg/kg	2.2	2.7	3.0	CIEH/LQM S4ULs
Chrysene	mg/kg	15	22	27	CIEH/LQM S4ULs
Di-benzo(a,h)anthracene	mg/kg	0.24	0.28	0.30	CIEH/LQM S4ULs
Fluoranthene	mg/kg	280	560	890	CIEH/LQM S4ULs
Fluorene	mg/kg	170	400	860	CIEH/LQM S4ULs
Indeno(1,2,3-cd)pyrene	mg/kg	27	36	41	CIEH/LQM S4ULs
Naphthalene	mg/kg	2.3	5.6	13	CIEH/LQM S4ULs
Phenanthrene	mg/kg	95	220	440	CIEH/LQM S4ULs
Pyrene	mg/kg	620	1200	2000	CIEH/LQM S4ULs
Coal Tar (Bap as surrogate marker)	mg/kg	0.79	0.98	1.1	CIEH/LQM S4ULs
Chlorinated Solvents					
1,2-Dichloroethane (1,2 DCA)	mg/kg	0.0071	0.011	0.019	CIEH/LQM S4ULs
1,1,1-Trichloroethane (1,1,1 TCA)	mg/kg	8.8	18	39	CIEH/LQM S4ULs
1,1,1,2-Tetrachloroethane (1,1,1,2 PCA)	mg/kg	1.2	2.8	6.40	CIEH/LQM S4ULs
1,1,2,2-Tetrachloroethane (1,1,2,2 PCA)	mg/kg	1.6	3.4	7.5	CIEH/LQM S4ULs
Tetrachloroethene (PCE)	mg/kg	0.18	0.39	0.90	CIEH/LQM S4ULs
Tetrachloromethane (Carbon Tetrachloride)	mg/kg	0.026	0.056	0.13	CIEH/LQM S4ULs
Trichloroethene (TCE)	mg/kg	0.016	0.034	0.075	CIEH/LQM S4ULs
Trichloromethane (Chloroform)	mg/kg	0.91	1.7	3.4	CIEH/LQM S4ULs
Vinyl Chloride (VC)	mg/kg	0.00064	0.00087	0.0014	CIEH/LQM S4ULs
Phenolics					
Phenol	mg/kg	120	200	380	CIEH/LQM S4ULs
TPH					
TPH Aliphatic >C5-6	mg/kg	42	78	160	CIEH/LQM S4ULs
TPH Aliphatic >C6-8	mg/kg	100	230	530	CIEH/LQM S4ULs
TPH Aliphatic >C8-10	mg/kg	27	65	150	CIEH/LQM S4ULs
TPH Aliphatic >C10-12	mg/kg	130 (48) ^{vap}	330 (118) ^{vap}	770 (283) ^{vap}	CIEH/LQM S4ULs
TPH Aliphatic >C12-16	mg/kg	1,100 (24) ^{sol}	2,400 (59) ^{sol}	4,400 (142) ^{sol}	CIEH/LQM S4ULs
TPH Aliphatic >C16-35	mg/kg	65,000 (8.48) ^{sol}	92,000 (21) ^{sol}	110,000	CIEH/LQM S4ULs
TPH Aliphatic >C35-44	mg/kg	65,000 (8.48) ^{sol}	92,000 (21) ^{sol}	110,000	CIEH/LQM S4ULs
TPH Aromatic >EC5-7 (Benzene)*	mg/kg	70	140	300	CIEH/LQM S4ULs
TPH Aromatic >EC7-8	mg/kg	130	290	660	CIEH/LQM S4ULs
TPH Aromatic >EC8-10	mg/kg	34	83	190	CIEH/LQM S4ULs
TPH Aromatic >EC10-12	mg/kg	74	180	380	CIEH/LQM S4ULs
TPH Aromatic >EC12-16	mg/kg	140	330	660	CIEH/LQM S4ULs
TPH Aromatic >EC16-21	mg/kg	260	540	930	CIEH/LQM S4ULs
TPH Aromatic >EC21-35	mg/kg	1,100	1,500	1,700	CIEH/LQM S4ULs
TPH Aromatic >EC35-44	mg/kg	1,100	1,500	1,700	CIEH/LQM S4ULs
TPH Aliphatic & Aromatic >EC44-70	mg/kg	1,600	1,800	1,900	CIEH/LQM S4ULs
Total TPH	mg/kg	No Sum	No Sum	No Sum	
BTEX					
Benzene*	mg/kg	0.087	0.17	0.37	CIEH/LQM S4ULs
Toluene	mg/kg	130	290	660	CIEH/LQM S4ULs
Ethylbenzene	mg/kg	47	110	260	CIEH/LQM S4ULs
m-Xylene	mg/kg	59	140	320	CIEH/LQM S4ULs
o-Xylene	mg/kg	60	140	330	CIEH/LQM S4ULs
p-Xylene	mg/kg	56	130	310	CIEH/LQM S4ULs
Xylenes (mixed isomers)	mg/kg	56	130	310	CIEH/LQM S4ULs

Appendix E – Waste Classification

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

- understand the origin of the waste
- select the correct List of Waste code(s)
- confirm that the list of determinands, results and sampling plan are fit for purpose
- select and justify the chosen metal species (Appendix B)
- correctly apply moisture correction and other available corrections
- add the meta data for their user-defined substances (Appendix A)
- check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)



THMJQ-SVEMS-221WZ

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

347 Waterloo Road

Description/Comments

Preliminary waste classification on soils obtained during SI

Project

240025

Site

347 Waterloo Road

Classified by

Name:

Ross Goodband

Date:

21 Mar 2024 14:46 GMT

Telephone:

Company:

Pick Everard

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification:

CERTIFIED

Course

Hazardous Waste Classification

Most recent 3 year Refresher

Date

18 Sep 2019

02 Aug 2022

Next 3 year Refresher due by Aug 2025

Purpose of classification

2 - Material Characterisation

Address of the waste

347 Waterloo Road

Post Code N/A

SIC for the process giving rise to the waste

42990 Construction of other civil engineering projects n.e.c.

Description of industry/producer giving rise to the waste

Construction of retaining wall

Description of the specific process, sub-process and/or activity that created the waste

Waste soils during foundation excavation

Description of the waste

Made Ground and topsoil

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	HP102	0.2	Non Hazardous		3
2	WS101	0.5	Non Hazardous		5

Related documents

#	Name	Description
1	ESPO Leicester	waste stream template used to create this Job

Report

Created by: Ross Goodband

Created date: 21 Mar 2024 14:46 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	7
Appendix B: Rationale for selection of metal species	8
Appendix C: Version	8

Classification of sample: HP102

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
HP102	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m		
Moisture content:		
12%		
(dry weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 12% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	• pH		PH		8.4	pH		8.4	pH	8.4 pH		
2	arsenic { arsenic trioxide }				14	mg/kg	1.32	16.504	mg/kg	0.00165 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	boron { boric acid; [1] boric acid; [2] }				0.2	mg/kg	5.719	1.021	mg/kg	0.000102 %	✓	
	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]									
4	cadmium { cadmium carbonate }			1	0.6	mg/kg	1.534	0.822	mg/kg	0.0000536 %	✓	
	048-012-00-5	208-168-9	513-78-0									
5	copper { tetracopper hexahydroxide sulphate; [1] tetracopper hexahydroxide sulphate hydrate [2] }				54	mg/kg	1.779	85.791	mg/kg	0.00858 %	✓	
	029-018-00-7	215-582-3 [1] 215-582-3 [2]	1333-22-8 [1] 12527-76-3 [2]									
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				24	mg/kg	1.462	31.319	mg/kg	0.00313 %	✓	
		215-160-9	1308-38-9									
7	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				1.9	mg/kg	2.27	3.851	mg/kg	0.000385 %	✓	
	024-017-00-8											
8	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	130	mg/kg		116.071	mg/kg	0.0116 %	✓	
	082-001-00-6											
9	mercury { mercury dichloride }				0.7	mg/kg	1.353	0.846	mg/kg	0.0000846 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
10	nickel { nickel(II) carbonate }				14	mg/kg	2.022	25.28	mg/kg	0.00253 %	✓	
	028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]	8333-67-3 [1] 16337-84-1 [2] 65405-96-1 [3] 12607-70-4 [4]									
11	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
	034-002-00-8											
12	zinc { trizinc bis(orthophosphate) }				100	mg/kg	1.968	175.75	mg/kg	0.0176 %	✓	
	030-011-00-6	231-944-3	7779-90-0									
13	acenaphthene				0.29	mg/kg		0.259	mg/kg	0.0000259 %	✓	
		201-469-6	83-32-9									
14	acenaphthylene				0.25	mg/kg		0.223	mg/kg	0.0000223 %	✓	
		205-917-1	208-96-8									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
15	anthracene	204-371-1	120-12-7		1 mg/kg		0.893 mg/kg	0.0000893 %	✓	
16	benz[a]anthracene	200-280-6	56-55-3		2.7 mg/kg		2.411 mg/kg	0.000241 %	✓	
17	benzo[a]pyrene; benzo[def]chrysene	200-028-5	50-32-8		2.7 mg/kg		2.411 mg/kg	0.000241 %	✓	
18	benzo[b]fluoranthene	205-911-9	205-99-2		2.8 mg/kg		2.5 mg/kg	0.00025 %	✓	
19	benzo[ghi]perylene	205-883-8	191-24-2		1.5 mg/kg		1.339 mg/kg	0.000134 %	✓	
20	benzo[k]fluoranthene	205-916-6	207-08-9		1.4 mg/kg		1.25 mg/kg	0.000125 %	✓	
21	chrysene	205-923-4	218-01-9		3.1 mg/kg		2.768 mg/kg	0.000277 %	✓	
22	dibenz[a,h]anthracene	200-181-8	53-70-3		0.33 mg/kg		0.295 mg/kg	0.0000295 %	✓	
23	fluoranthene	205-912-4	206-44-0		6.1 mg/kg		5.446 mg/kg	0.000545 %	✓	
24	fluorene	201-695-5	86-73-7		0.34 mg/kg		0.304 mg/kg	0.0000304 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		1.3 mg/kg		1.161 mg/kg	0.000116 %	✓	
26	naphthalene	202-049-5	91-20-3		0.2 mg/kg		0.179 mg/kg	0.0000179 %	✓	
27	phenanthrene	201-581-5	85-01-8		4.2 mg/kg		3.75 mg/kg	0.000375 %	✓	
28	pyrene	204-927-3	129-00-0		5.9 mg/kg		5.268 mg/kg	0.000527 %	✓	
29	TPH (C6 to C40) petroleum group		TPH		33 mg/kg		29.464 mg/kg	0.00295 %	✓	
30	asbestos	650-013-00-6	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<		<	<		ND
Total:								0.0518 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
•	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and ≤ 75°C"

Force this Hazardous property to non hazardous because Soil is a free draining solid with no evidence of free phase hydrocarbons reported on site.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00295%)

Classification of sample: WS101

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:	
WS101	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.5 m		
Moisture content:		
8.4% (dry weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 8.4% Dry Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	• pH				8.5	pH		8.5	pH	8.5 pH		
2	arsenic { arsenic trioxide }				3.4	mg/kg	1.32	4.141	mg/kg	0.000414 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	boron { boric acid; [1] boric acid; [2] }				<0.2	mg/kg	5.719	<1.144	mg/kg	<0.000114 %		<LOD
	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]									
4	cadmium { cadmium carbonate }			1	<0.2	mg/kg	1.534	<0.307	mg/kg	<0.00002 %		<LOD
	048-012-00-5	208-168-9	513-78-0									
5	copper { tetracopper hexahydroxide sulphate; [1] tetracopper hexahydroxide sulphate hydrate [2] }				10	mg/kg	1.779	16.415	mg/kg	0.00164 %	✓	
	029-018-00-7	215-582-3 [1] 215-582-3 [2]	1333-22-8 [1] 12527-76-3 [2]									
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				4.7	mg/kg	1.462	6.337	mg/kg	0.000634 %	✓	
		215-160-9	1308-38-9									
7	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1.8	mg/kg	2.27	<4.086	mg/kg	<0.000409 %		<LOD
	024-017-00-8											
8	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	6.7	mg/kg		6.181	mg/kg	0.000618 %	✓	
	082-001-00-6											
9	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
10	nickel { nickel(II) carbonate }				6	mg/kg	2.022	11.194	mg/kg	0.00112 %	✓	
	028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]	8333-67-3 [1] 16337-84-1 [2] 65405-96-1 [3] 12607-70-4 [4]									
11	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
	034-002-00-8											
12	zinc { zinc bis(orthophosphate) }				22	mg/kg	1.968	39.949	mg/kg	0.00399 %	✓	
	030-011-00-6	231-944-3	7779-90-0									
13	acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9									
14	acenaphthylene				<			<		<		ND
		205-917-1	208-96-8									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
15	anthracene	204-371-1	120-12-7		<		<	<		ND
16	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	<		<	<		ND
17	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<		<	<		ND
18	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	<		<	<		ND
19	benzo[ghi]perylene	205-883-8	191-24-2		<		<	<		ND
20	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<		<	<		ND
21	chrysene	601-048-00-0	205-923-4	218-01-9	<		<	<		ND
22	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<		<	<		ND
23	fluoranthene	205-912-4	206-44-0		<		<	<		ND
24	fluorene	201-695-5	86-73-7		<		<	<		ND
25	indeno[123-cd]pyrene	205-893-2	193-39-5		<		<	<		ND
26	naphthalene	601-052-00-2	202-049-5	91-20-3	<		<	<		ND
27	phenanthrene	201-581-5	85-01-8		<		<	<		ND
28	pyrene	204-927-3	129-00-0		<		<	<		ND
29	TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
30	asbestos	650-013-00-6	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		<		<	<		ND
Total:								0.0102 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
■	Determinand defined or amended by HazWasteOnline (see Appendix A)
■	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non GB MCL determinands

• pH (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

• chromium(III) oxide (worst case) (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806>
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• lead compounds with the exception of those specified elsewhere in this Annex (worst case)

GB MCL index number: 082-001-00-6
Description/Comments: Worst Case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers lead compounds from smelting industries, flue dust and similar to be Carcinogenic category 1A
Additional Hazard Statement(s): Carc. 1A; H350
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html (worst case lead compounds). Review date 29/09/2015

• acenaphthene (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Aquatic Chronic 2; H411

• acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H330 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315

• anthracene (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• benzo[ghi]perylene (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• fluoranthene (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• fluorene (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• indeno[123-cd]pyrene (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2; H351

■ **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 2; H351 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Skin Irrit. 2; H315

■ **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 21 Aug 2015

Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

■ **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , STOT RE 2; H373 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 2; H361d , Aquatic Chronic 2; H411

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Most likely worst case compound

boron {boric acid; [1] boric acid; [2]}

Most likely worst case compound

cadmium {cadmium carbonate}

Most likely worst case compound

copper {tetracopper hexahydroxide sulphate; [1] tetracopper hexahydroxide sulphate hydrate [2]}

Most likely worst case compound

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Most likely worst case compound

chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Most likely worst case compound

lead {lead compounds with the exception of those specified elsewhere in this Annex (worst case)}

Most likely worst case compound

mercury {mercury dichloride}

Most likely worst case compound

nickel {nickel(II) carbonate}

Most likely worst case compound

selenium {selenium compounds with the exception of cadmium sulposelenide and those specified elsewhere in this Annex}

Most likely worst case compound

zinc {trizinc bis(orthophosphate)}

Most likely worst case compound

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021

HazWasteOnline Classification Engine Version: 2024.80.5988.11077 (20 Mar 2024)

HazWasteOnline Database: 2024.80.5988.11077 (20 Mar 2024)

This classification utilises the following guidance and legislation:

WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021

CLP Regulation - Regulation 1272/2008/EC of 16 December 2008

1st ATP - Regulation 790/2009/EC of 10 August 2009

2nd ATP - Regulation 286/2011/EC of 10 March 2011

3rd ATP - Regulation 618/2012/EU of 10 July 2012

4th ATP - Regulation 487/2013/EU of 8 May 2013

Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013

5th ATP - Regulation 944/2013/EU of 2 October 2013

6th ATP - Regulation 605/2014/EU of 5 June 2014

WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014

Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014

7th ATP - Regulation 2015/1221/EU of 24 July 2015

8th ATP - Regulation (EU) 2016/918 of 19 May 2016

9th ATP - Regulation (EU) 2016/1179 of 19 July 2016

10th ATP - Regulation (EU) 2017/776 of 4 May 2017

HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017

13th ATP - Regulation (EU) 2018/1480 of 4 October 2018

14th ATP - Regulation (EU) 2020/217 of 4 October 2019

15th ATP - Regulation (EU) 2020/1182 of 19 May 2020

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit)

Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020

The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK:

2020 No. 1540 of 16th December 2020

GB MCL List - version 1.1 of 09 June 2021

GB MCL List v2.0 - version 2.0 of 20th October 2023

GB MCL List v4.0 - version 4.0 of 2nd March 2024



Pick Everard
Halford House
Charles Street
Leicester
Leicestershire
LE1 1HA

t: 0116 2234400

e: jakeBhangal@pickeverard.co.uk

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

t: 01923 225404

f: 01923 237404

e: reception@i2analytical.com

Analytical Report Number : 24-008071

Project / Site name:	347 Waterloo Road	Samples received on:	11/03/2024
Your job number:	240025	Samples instructed on/ Analysis started on:	11/03/2024
Your order number:	105789	Analysis completed by:	18/03/2024
Report Issue Number:	1	Report issued on:	18/03/2024
Samples Analysed:	10:1 WAC sample		

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.



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:	24-008071						
					Client: PICKEVERARD		
Location	347 Waterloo Road						
Lab Reference (Sample Number)	140450				Landfill Waste Acceptance Criteria		
					Limits		
Sampling Date	07/03/2024				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	HP102 2						
Depth (m)	0.20						
Solid Waste Analysis							
TOC (%)**	0.9				3%	5%	6%
Loss on Ignition (%) **	2.6				--	--	10%
BTEX (µg/kg) **	< 5.0				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH, ID, CU, AL	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	34.6				100	--	--
pH (units)**	7.9				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	11				--	To be evaluated	To be evaluated
Eluate Analysis		10:1		10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)					using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
	mg/l			mg/kg			
Arsenic *	0.00506			0.0506	0.5	2	25
Barium *	0.0310			0.310	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	0.0051			0.051	0.5	10	70
Copper *	0.019			0.19	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.00119			0.0119	0.5	10	30
Nickel *	0.0024			0.024	0.4	10	40
Lead *	0.014			0.14	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.022			0.22	4	50	200
Chloride *	0.71			7.1	800	15000	25000
Fluoride*	0.37			3.7	10	150	500
Sulphate *	1.4			14	1000	20000	50000
TDS*	35			350	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	8.90			89.0	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	0.7						
Dry Matter (%)	88						
Moisture (%)	12						
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					** = MCFRTS 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 : 24-008071
Project / Site name: 347 Waterloo 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 *
140450	HP102	2	0.2	Brown loam and sand with gravel and vegetation

Analytical Report Number : 24-008071
Project / Site name: 347 Waterloo 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
Total organic carbon (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
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
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
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by electrometric measurement	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L031B	W	ISO 17025
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1 ratio with a buffer solution followed by Ion Selective Electrode	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination	L033B	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved organic carbon in leachate by TOC/DOC NDIR Analyser	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037B	W	NONE
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025
Sample Preparation		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 EPA-16 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
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	ISO 17025

Analytical Report Number : 24-008071
Project / Site name: 347 Waterloo 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
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser	In-house based on MEWAM Method ISBN 0117516260	L082B	W	ISO 17025
WAC Leachate 10:1		In-house method	L043B	W	NONE

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

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

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

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

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

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 - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

- understand the origin of the waste
- select the correct List of Waste code(s)
- confirm that the list of determinands, results and sampling plan are fit for purpose
- select and justify the chosen metal species (Appendix B)
- correctly apply moisture correction and other available corrections
- add the meta data for their user-defined substances (Appendix A)
- check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)



V3LXL-5NY9Y-J51RR

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

347 Waterloo Road[1]

Description/Comments

Preliminary waste classification on soils obtained during GI

Project

240025

Site

347 Waterloo Road

Classified by

Name:

Ross Goodband

Date:

11 Oct 2024 15:36 GMT

Telephone:

0345 045 0050

Company:

Pick Everard

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification:

CERTIFIED

Course

Hazardous Waste Classification

Most recent 3 year Refresher

Date

18 Sep 2019

02 Aug 2022

Next 3 year Refresher due by Aug 2025

Purpose of classification

2 - Material Characterisation

Address of the waste

347 Waterloo Road, Manchester

Post Code M8 9DU

SIC for the process giving rise to the waste

43290 Other construction installation

Description of industry/producer giving rise to the waste

Construction/repair of retaining wall at domestic property

Description of the specific process, sub-process and/or activity that created the waste

Waste created during soil excavation

Description of the waste

Made Ground

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	HDP201	0.70	Hazardous	HP 7, HP 10, HP 14	3
2	HDP202	0.30	Hazardous	HP 7	6
3	HDP206	0.30	Non Hazardous		9
4	HDP203	0.80	Non Hazardous		11
5	HDP205	0.30	Non Hazardous		13

Related documents

#	Name	Description
1	Waterloo Road	waste stream template used to create this Job

Report

Created by: Ross Goodband

Created date: 11 Oct 2024 15:36 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	15
Appendix B: Rationale for selection of metal species	16
Appendix C: Version	16

Classification of sample: HDP201

 **Hazardous Waste**
 Classified as **17 05 03 ***
 in the List of Waste

Sample details

Sample name:	LoW Code:
HDP201	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.70 m	Entry:
	17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1A; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

lead compounds with the exception of those specified elsewhere in this Annex (worst case): (Note 1 conc.: 0.32%)

HP 10: Toxic for reproduction "waste which has adverse effects on sexual function and fertility in adult males and females, as well as developmental toxicity in the offspring"

Hazard Statements hit:

Repr. 1A; H360Df "May damage the unborn child. Suspected of damaging fertility."

Because of determinand:

lead compounds with the exception of those specified elsewhere in this Annex (worst case): (Note 1 conc.: 0.32%)

HP 14: Ecotoxic "waste which presents or may present immediate or delayed risks for one or more sectors of the environment"

Hazard Statements hit:

Aquatic Chronic 1; H410 "Very toxic to aquatic life with long lasting effects."

Because of determinands:

lead compounds with the exception of those specified elsewhere in this Annex (worst case): (Note 1 conc.: 0.32%)
 trizinc bis(orthophosphate): (compound conc.: 0.134%)

Determinands

Moisture content: **0% No Moisture Correction applied (MC)**

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH				7.9 pH		7.9 pH	7.9 pH		
2	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	5.1 mg/kg	1.197	6.105 mg/kg	0.000611 %		
3	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	41 mg/kg	1.32	54.133 mg/kg	0.00541 %		
4	barium { barium diboron tetraoxide }	056-005-00-3	237-222-4	13701-59-2	1400 mg/kg	1.623	2272.861 mg/kg	0.227 %		
5	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9	1.3 mg/kg	2.775	3.608 mg/kg	0.000361 %		
6	boron { boric acid; [1] boric acid; [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]	<2.5 mg/kg	5.719	<14.298 mg/kg	<0.00143 %		<LOD
7	cadmium { cadmium fluoride }	048-006-00-2	232-222-0	7790-79-6	3.1 mg/kg	1.338	4.148 mg/kg	0.000415 %		

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
8	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }	215-160-9	1308-38-9		20 mg/kg	1.462	29.231 mg/kg	0.00292 %			
9	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8			<1 mg/kg	2.27	<2.27 mg/kg	<0.000227 %			<LOD
10	copper { tetracopper hexahydroxide sulphate; [1] tetracopper hexahydroxide sulphate hydrate [2] }	029-018-00-7	215-582-3 [1] 215-582-3 [2]		190 mg/kg	1.779	338.079 mg/kg	0.0338 %			
11	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6		1	3200 mg/kg		3200 mg/kg	0.32 %			
12	mercury { mercury dichloride }	080-010-00-X	231-299-8		<2.5 mg/kg	1.353	<3.384 mg/kg	<0.000338 %			<LOD
13	nickel { nickel(II) carbonate }	028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]		30 mg/kg	2.022	60.672 mg/kg	0.00607 %			
14	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8			<8 mg/kg	1.405	<11.24 mg/kg	<0.00112 %			<LOD
15	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8		45 mg/kg	1.785	80.333 mg/kg	0.00803 %			
16	zinc { trizinc bis(orthophosphate) }	030-011-00-6	231-944-3		680 mg/kg	1.968	1338.509 mg/kg	0.134 %			
17	acenaphthene	201-469-6	83-32-9		0.23 mg/kg		0.23 mg/kg	0.000023 %			
18	acenaphthylene	205-917-1	208-96-8		0.29 mg/kg		0.29 mg/kg	0.000029 %			
19	anthracene	204-371-1	120-12-7		0.81 mg/kg		0.81 mg/kg	0.000081 %			
20	benz[a]anthracene	601-033-00-9	200-280-6		2.9 mg/kg		2.9 mg/kg	0.00029 %			
21	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		3.2 mg/kg		3.2 mg/kg	0.00032 %			
22	benzo[b]fluoranthene	601-034-00-4	205-911-9		3.7 mg/kg		3.7 mg/kg	0.00037 %			
23	benzo[ghi]perylene	205-883-8	191-24-2		2.2 mg/kg		2.2 mg/kg	0.00022 %			
24	benzo[k]fluoranthene	601-036-00-5	205-916-6		1.3 mg/kg		1.3 mg/kg	0.00013 %			
25	chrysene	601-048-00-0	205-923-4		2.9 mg/kg		2.9 mg/kg	0.00029 %			
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8		0.42 mg/kg		0.42 mg/kg	0.000042 %			
27	fluoranthene	205-912-4	206-44-0		5.9 mg/kg		5.9 mg/kg	0.00059 %			
28	fluorene	201-695-5	86-73-7		0.22 mg/kg		0.22 mg/kg	0.000022 %			
29	indeno[123-cd]pyrene	205-893-2	193-39-5		1.9 mg/kg		1.9 mg/kg	0.00019 %			
30	naphthalene	601-052-00-2	202-049-5		0.14 mg/kg		0.14 mg/kg	0.000014 %			
31	phenanthrene	201-581-5	85-01-8		3 mg/kg		3 mg/kg	0.0003 %			
32	pyrene	204-927-3	129-00-0		6.4 mg/kg		6.4 mg/kg	0.00064 %			
33	TPH (C6 to C40) petroleum group		TPH		280 mg/kg		280 mg/kg	0.028 %			
Total:									0.773 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 500 mg/kg (0.05%)
because: Soil sample is free draining solid with no evidence of free phase hydrocarbons within the soil.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.028%)

Classification of sample: HDP202

 **Hazardous Waste**
Classified as **17 05 03 ***
in the List of Waste

Sample details

Sample name:	LoW Code:
HDP202	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.30 m	Entry:
	17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1A; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

lead compounds with the exception of those specified elsewhere in this Annex (worst case): (Note 1 conc.: 0.12%)

Determinands

Moisture content: **0% No Moisture Correction applied (MC)**

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	pH				8.1 pH		8.1	pH	8.1 pH		
2	antimony { antimony trioxide }				7.9 mg/kg	1.197	9.457	mg/kg	0.000946 %		
	051-005-00-X	215-175-0	1309-64-4								
3	arsenic { arsenic trioxide }				30 mg/kg	1.32	39.61	mg/kg	0.00396 %		
	033-003-00-0	215-481-4	1327-53-3								
4	barium { barium diboron tetraoxide }				1200 mg/kg	1.623	1948.167	mg/kg	0.195 %		
	056-005-00-3	237-222-4	13701-59-2								
5	beryllium { beryllium oxide }				1.1 mg/kg	2.775	3.053	mg/kg	0.000305 %		
	004-003-00-8	215-133-1	1304-56-9								
6	boron { boric acid; [1] boric acid; [2] }				<2.5 mg/kg	5.719	<14.298	mg/kg	<0.00143 %		<LOD
	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]								
7	cadmium { cadmium fluoride }				2.3 mg/kg	1.338	3.077	mg/kg	0.000308 %		
	048-006-00-2	232-222-0	7790-79-6								
8	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				18 mg/kg	1.462	26.308	mg/kg	0.00263 %		
		215-160-9	1308-38-9								
9	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1 mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<LOD
	024-017-00-8										
10	copper { tetracopper hexahydroxide sulphate; [1] tetracopper hexahydroxide sulphate hydrate [2] }				92 mg/kg	1.779	163.701	mg/kg	0.0164 %		
	029-018-00-7	215-582-3 [1] 215-582-3 [2]	1333-22-8 [1] 12527-76-3 [2]								
11	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	1200 mg/kg		1200	mg/kg	0.12 %		
	082-001-00-6										
12	mercury { mercury dichloride }				<2.5 mg/kg	1.353	<3.384	mg/kg	<0.000338 %		<LOD
	080-010-00-X	231-299-8	7487-94-7								
13	nickel { nickel(II) carbonate }				25 mg/kg	2.022	50.56	mg/kg	0.00506 %		
	028-010-00-0	222-068-2 [1] 240-408-8 [2]	3333-67-3 [1] 16337-84-1 [2]								

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
		265-748-4 [3] 235-715-9 [4]	65405-96-1 [3] 12607-70-4 [4]								
14	 selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<8 mg/kg	1.405	<11.24 mg/kg	<0.00112 %			<LOD
	034-002-00-8										
15	 vanadium { divanadium pentaoxide; vanadium pentoxide }				43 mg/kg	1.785	76.763 mg/kg	0.00768 %			
	023-001-00-8	215-239-8	1314-62-1								
16	 zinc { trizinc bis(orthophosphate) }				420 mg/kg	1.968	826.726 mg/kg	0.0827 %			
	030-011-00-6	231-944-3	7779-90-0								
17	 acenaphthene				0.83 mg/kg		0.83 mg/kg	0.000083 %			
		201-469-6	83-32-9								
18	 acenaphthylene				2 mg/kg		2 mg/kg	0.0002 %			
		205-917-1	208-96-8								
19	 anthracene				4.6 mg/kg		4.6 mg/kg	0.00046 %			
		204-371-1	120-12-7								
20	benz[a]anthracene				9.6 mg/kg		9.6 mg/kg	0.00096 %			
	601-033-00-9	200-280-6	56-55-3								
21	benzo[a]pyrene; benzo[def]chrysene				9.5 mg/kg		9.5 mg/kg	0.00095 %			
	601-032-00-3	200-028-5	50-32-8								
22	benzo[b]fluoranthene				11 mg/kg		11 mg/kg	0.0011 %			
	601-034-00-4	205-911-9	205-99-2								
23	 benzo[ghi]perylene				5.4 mg/kg		5.4 mg/kg	0.00054 %			
		205-883-8	191-24-2								
24	benzo[k]fluoranthene				3.9 mg/kg		3.9 mg/kg	0.00039 %			
	601-036-00-5	205-916-6	207-08-9								
25	chrysene				8.9 mg/kg		8.9 mg/kg	0.00089 %			
	601-048-00-0	205-923-4	218-01-9								
26	dibenz[a,h]anthracene				1.3 mg/kg		1.3 mg/kg	0.00013 %			
	601-041-00-2	200-181-8	53-70-3								
27	 fluoranthene				25 mg/kg		25 mg/kg	0.0025 %			
		205-912-4	206-44-0								
28	 fluorene				1.4 mg/kg		1.4 mg/kg	0.00014 %			
		201-695-5	86-73-7								
29	 indeno[123-cd]pyrene				4.8 mg/kg		4.8 mg/kg	0.00048 %			
		205-893-2	193-39-5								
30	naphthalene				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
31	 phenanthrene				18 mg/kg		18 mg/kg	0.0018 %			
		201-581-5	85-01-8								
32	 pyrene				22 mg/kg		22 mg/kg	0.0022 %			
		204-927-3	129-00-0								
33	 TPH (C6 to C40) petroleum group				220 mg/kg		220 mg/kg	0.022 %			
			TPH								
Total:									0.473 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 500 mg/kg (0.05%) because: Soil sample is free draining solid with no evidence of free phase hydrocarbons within the soil.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.022%)

Classification of sample: HDP206

 **Non Hazardous Waste**
 Classified as **17 05 04**
 in the List of Waste

Sample details

Sample name:	LoW Code:
HDP206	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.30 m	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	pH				8.1	pH		8.1	pH	8.1 pH		
2	antimony { antimony trioxide }				<3.5	mg/kg	1.197	<4.19	mg/kg	<0.000419 %		<LOD
	051-005-00-X	215-175-0	1309-64-4									
3	arsenic { arsenic trioxide }				18	mg/kg	1.32	23.766	mg/kg	0.00238 %		
	033-003-00-0	215-481-4	1327-53-3									
4	barium { barium diboron tetraoxide }				370	mg/kg	1.623	600.685	mg/kg	0.0601 %		
	056-005-00-3	237-222-4	13701-59-2									
5	beryllium { beryllium oxide }				0.8	mg/kg	2.775	2.22	mg/kg	0.000222 %		
	004-003-00-8	215-133-1	1304-56-9									
6	boron { boric acid; [1] boric acid; [2] }				<2.5	mg/kg	5.719	<14.298	mg/kg	<0.00143 %		<LOD
	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]									
7	cadmium { cadmium fluoride }				1.5	mg/kg	1.338	2.007	mg/kg	0.000201 %		
	048-006-00-2	232-222-0	7790-79-6									
8	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				16	mg/kg	1.462	23.385	mg/kg	0.00234 %		
		215-160-9	1308-38-9									
9	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<LOD
	024-017-00-8											
10	copper { tetracopper hexahydroxide sulphate; [1] tetracopper hexahydroxide sulphate hydrate [2] }				91	mg/kg	1.779	161.922	mg/kg	0.0162 %		
	029-018-00-7	215-582-3 [1] 215-582-3 [2]	1333-22-8 [1] 12527-76-3 [2]									
11	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	200	mg/kg		200	mg/kg	0.02 %		
	082-001-00-6											
12	mercury { mercury dichloride }				<2.5	mg/kg	1.353	<3.384	mg/kg	<0.000338 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
13	nickel { nickel(II) carbonate }				20	mg/kg	2.022	40.448	mg/kg	0.00404 %		
	028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]	3333-67-3 [1] 16337-84-1 [2] 65405-96-1 [3] 12607-70-4 [4]									
14	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<8	mg/kg	1.405	<11.24	mg/kg	<0.00112 %		<LOD
	034-002-00-8											

Total:	0.216 %	
--------	---------	--

ulate the compound concentration

as oil, diesel and light heating oils

old of: 500 mg/kg (0.05%)

il.

Classification of sample: HDP203


Non Hazardous Waste
 Classified as **17 05 04**
 in the List of Waste

Sample details

Sample name:	LoW Code:
HDP203	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.80 m	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	pH		PH		8.2	pH		8.2	pH	8.2 pH		
2	antimony { antimony trioxide }				<3.5	mg/kg	1.197	<4.19	mg/kg	<0.000419 %		<LOD
	051-005-00-X	215-175-0	1309-64-4									
3	arsenic { arsenic trioxide }				16	mg/kg	1.32	21.125	mg/kg	0.00211 %		
	033-003-00-0	215-481-4	1327-53-3									
4	barium { barium diboron tetraoxide }				420	mg/kg	1.623	681.858	mg/kg	0.0682 %		
	056-005-00-3	237-222-4	13701-59-2									
5	beryllium { beryllium oxide }				0.9	mg/kg	2.775	2.498	mg/kg	0.00025 %		
	004-003-00-8	215-133-1	1304-56-9									
6	boron { boric acid; [1] boric acid; [2] }				<2.5	mg/kg	5.719	<14.298	mg/kg	<0.00143 %		<LOD
	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]									
7	cadmium { cadmium fluoride }				2	mg/kg	1.338	2.676	mg/kg	0.000268 %		
	048-006-00-2	232-222-0	7790-79-6									
8	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				9.5	mg/kg	1.462	13.885	mg/kg	0.00139 %		
		215-160-9	1308-38-9									
9	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<LOD
	024-017-00-8											
10	copper { tetracopper hexahydroxide sulphate; [1] tetracopper hexahydroxide sulphate hydrate [2] }				73	mg/kg	1.779	129.893	mg/kg	0.013 %		
	029-018-00-7	215-582-3 [1] 215-582-3 [2]	1333-22-8 [1] 12527-76-3 [2]									
11	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	400	mg/kg		400	mg/kg	0.04 %		
	082-001-00-6											
12	mercury { mercury dichloride }				<2.5	mg/kg	1.353	<3.384	mg/kg	<0.000338 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
13	nickel { nickel(II) carbonate }				22	mg/kg	2.022	44.493	mg/kg	0.00445 %		
	028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]	3333-67-3 [1] 16337-84-1 [2] 65405-96-1 [3] 12607-70-4 [4]									
14	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<8	mg/kg	1.405	<11.24	mg/kg	<0.00112 %		<LOD
	034-002-00-8											

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
15	vanadium { divanadium pentaoxide; vanadium pentoxide }				26 mg/kg	1.785	46.415 mg/kg	0.00464 %			
	023-001-00-8	215-239-8	1314-62-1								
16	zinc { trizinc bis(orthophosphate) }				380 mg/kg	1.968	747.99 mg/kg	0.0748 %			
	030-011-00-6	231-944-3	7779-90-0								
17	acenaphthene				0.53 mg/kg		0.53 mg/kg	0.000053 %			
		201-469-6	83-32-9								
18	acenaphthylene				1.1 mg/kg		1.1 mg/kg	0.00011 %			
		205-917-1	208-96-8								
19	anthracene				2.1 mg/kg		2.1 mg/kg	0.00021 %			
		204-371-1	120-12-7								
20	benz[a]anthracene				5 mg/kg		5 mg/kg	0.0005 %			
	601-033-00-9	200-280-6	56-55-3								
21	benzo[a]pyrene; benzo[def]chrysene				5.2 mg/kg		5.2 mg/kg	0.00052 %			
	601-032-00-3	200-028-5	50-32-8								
22	benzo[b]fluoranthene				5.6 mg/kg		5.6 mg/kg	0.00056 %			
	601-034-00-4	205-911-9	205-99-2								
23	benzo[ghi]perylene				2.9 mg/kg		2.9 mg/kg	0.00029 %			
		205-883-8	191-24-2								
24	benzo[k]fluoranthene				2 mg/kg		2 mg/kg	0.0002 %			
	601-036-00-5	205-916-6	207-08-9								
25	chrysene				4.6 mg/kg		4.6 mg/kg	0.00046 %			
	601-048-00-0	205-923-4	218-01-9								
26	dibenz[a,h]anthracene				0.71 mg/kg		0.71 mg/kg	0.000071 %			
	601-041-00-2	200-181-8	53-70-3								
27	fluoranthene				11 mg/kg		11 mg/kg	0.0011 %			
		205-912-4	206-44-0								
28	fluorene				0.65 mg/kg		0.65 mg/kg	0.000065 %			
		201-695-5	86-73-7								
29	indeno[123-cd]pyrene				2.6 mg/kg		2.6 mg/kg	0.00026 %			
		205-893-2	193-39-5								
30	naphthalene				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %			<LOD
	601-052-00-2	202-049-5	91-20-3								
31	phenanthrene				8.1 mg/kg		8.1 mg/kg	0.00081 %			
		201-581-5	85-01-8								
32	pyrene				10 mg/kg		10 mg/kg	0.001 %			
		204-927-3	129-00-0								
33	TPH (C6 to C40) petroleum group				320 mg/kg		320 mg/kg	0.032 %			
			TPH								
Total:									0.251 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and ≤ 75°C"

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 500 mg/kg (0.05%)

because: Soil sample is free draining solid with no evidence of free phase hydrocarbons within the soil.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.032%)

Classification of sample: HDP205


Non Hazardous Waste
 Classified as **17 05 04**
 in the List of Waste

Sample details

Sample name:	LoW Code:
HDP205	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.30 m	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	pH				8.1	pH		8.1	pH	8.1 pH		
2	antimony { antimony trioxide }				6.9	mg/kg	1.197	8.26	mg/kg	0.000826 %		
	051-005-00-X	215-175-0	1309-64-4									
3	arsenic { arsenic trioxide }				17	mg/kg	1.32	22.446	mg/kg	0.00224 %		
	033-003-00-0	215-481-4	1327-53-3									
4	barium { barium diboron tetraoxide }				880	mg/kg	1.623	1428.656	mg/kg	0.143 %		
	056-005-00-3	237-222-4	13701-59-2									
5	beryllium { beryllium oxide }				0.6	mg/kg	2.775	1.665	mg/kg	0.000167 %		
	004-003-00-8	215-133-1	1304-56-9									
6	boron { boric acid; [1] boric acid; [2] }				<2.5	mg/kg	5.719	<14.298	mg/kg	<0.00143 %		<LOD
	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]									
7	cadmium { cadmium fluoride }				3.9	mg/kg	1.338	5.218	mg/kg	0.000522 %		
	048-006-00-2	232-222-0	7790-79-6									
8	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				16	mg/kg	1.462	23.385	mg/kg	0.00234 %		
		215-160-9	1308-38-9									
9	chromium in chromium(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<LOD
	024-017-00-8											
10	copper { tetracopper hexahydroxide sulphate; [1] tetracopper hexahydroxide sulphate hydrate [2] }				71	mg/kg	1.779	126.335	mg/kg	0.0126 %		
	029-018-00-7	215-582-3 [1] 215-582-3 [2]	1333-22-8 [1] 12527-76-3 [2]									
11	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	880	mg/kg		880	mg/kg	0.088 %		
	082-001-00-6											
12	mercury { mercury dichloride }				<2.5	mg/kg	1.353	<3.384	mg/kg	<0.000338 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
13	nickel { nickel(II) carbonate }				21	mg/kg	2.022	42.471	mg/kg	0.00425 %		
	028-010-00-0	222-068-2 [1] 240-408-8 [2] 265-748-4 [3] 235-715-9 [4]	3333-67-3 [1] 16337-84-1 [2] 65405-96-1 [3] 12607-70-4 [4]									
14	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<8	mg/kg	1.405	<11.24	mg/kg	<0.00112 %		<LOD
	034-002-00-8											

Total:	0.435 %	
--------	---------	--

ulate the compound concentration

as oil, diesel and light heating oils

old of: 500 mg/kg (0.05%)

il.

Appendix A: Classifier defined and non GB MCL determinands

• pH (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

• chromium(III) oxide (worst case) (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806>
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• lead compounds with the exception of those specified elsewhere in this Annex (worst case)

GB MCL index number: 082-001-00-6
Description/Comments: Worst Case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers lead compounds from smelting industries, flue dust and similar to be Carcinogenic category 1A
Additional Hazard Statement(s): Carc. 1A; H350
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html (worst case lead compounds). Review date 29/09/2015

• acenaphthene (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Aquatic Chronic 2; H411

• acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H330 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315

• anthracene (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• benzo[ghi]perylene (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• fluoranthene (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• fluorene (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• indeno[123-cd]pyrene (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2; H351

■ **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Acute Tox. 4; H302, Eye Irrit. 2; H319, STOT SE 3; H335, Carc. 2; H351, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Skin Irrit. 2; H315

■ **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 21 Aug 2015

Hazard Statements: Skin Irrit. 2; H315, Eye Irrit. 2; H319, STOT SE 3; H335, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

■ **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: Flam. Liq. 3; H226, Asp. Tox. 1; H304, STOT RE 2; H373, Muta. 1B; H340, Carc. 1B; H350, Repr. 2; H361d, Aquatic Chronic 2; H411

Appendix B: Rationale for selection of metal species

antimony {antimony trioxide}

Most likely worst case compound

arsenic {arsenic trioxide}

Most likely worst case compound

barium {barium diboron tetraoxide}

Most likely worst case compound

beryllium {beryllium oxide}

Most likely worst case compound

boron {boric acid; [1] boric acid; [2]}

Most likely worst case compound

cadmium {cadmium fluoride}

Most likely worst case compound

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Most likely worst case compound

chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Most likely worst case compound

copper {tetracopper hexahydroxide sulphate; [1] tetracopper hexahydroxide sulphate hydrate [2]}

Most likely worst case compound

lead {lead compounds with the exception of those specified elsewhere in this Annex (worst case)}

Most likely worst case compound

mercury {mercury dichloride}

Most likely worst case compound

nickel {nickel(II) carbonate}

Most likely worst case compound

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Most likely worst case compound

vanadium {divanadium pentaoxide; vanadium pentoxide}

Most likely worst case compound

zinc {trizinc bis(orthophosphate)}

Most likely worst case compound

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021

HazWasteOnline Classification Engine Version: 2024.281.6280.11501 (07 Oct 2024)

HazWasteOnline Database: 2024.281.6280.11501 (07 Oct 2024)

This classification utilises the following guidance and legislation:

WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021

CLP Regulation - Regulation 1272/2008/EC of 16 December 2008

1st ATP - Regulation 790/2009/EC of 10 August 2009

2nd ATP - Regulation 286/2011/EC of 10 March 2011

3rd ATP - Regulation 618/2012/EU of 10 July 2012

4th ATP - Regulation 487/2013/EU of 8 May 2013

Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013

5th ATP - Regulation 944/2013/EU of 2 October 2013

6th ATP - Regulation 605/2014/EU of 5 June 2014

WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014

Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014

7th ATP - Regulation 2015/1221/EU of 24 July 2015

8th ATP - Regulation (EU) 2016/918 of 19 May 2016

9th ATP - Regulation (EU) 2016/1179 of 19 July 2016

10th ATP - Regulation (EU) 2017/776 of 4 May 2017

HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017

13th ATP - Regulation (EU) 2018/1480 of 4 October 2018

14th ATP - Regulation (EU) 2020/217 of 4 October 2019

15th ATP - Regulation (EU) 2020/1182 of 19 May 2020

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit)

Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020

The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020

GB MCL List - version 1.1 of 09 June 2021

GB MCL List v2.0 - version 2.0 of 20th October 2023

GB MCL List v3.0 - version 3.0 of 11th January 2024

GB MCL List v4.0 - version 4.0 of 2nd March 2024

GB MCL List v5.0 - version 5.0 of 26th June 2024



Deliver better together.

The information contained in this document is likely to be confidential and may be legally privileged. The dissemination, distribution, copying or disclosure of this message, or its contents, is strictly prohibited unless authorised by Pick Everard.