Electronic Report

WORMS EYE

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Our Ref: Rainford Avenue/M20 1BR/2019
Date: 2 March 2023

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PROPOSED HOUSING DEVELOPMENT
RAINFORD AVENUE, MANCHESTER, M20 1BR
REMEDIATION STRATEGY

INTRODUCTION

A residential development is proposed. Following an intrusive report (2/3/23) instructions were to prepare a remediation strategy.

SITE LOCATION

The site is an irregular shape, about 25 by 25m, located to the southeast of Rainford Avenue in Manchester and at OS Grid Reference 384093, 393530. The site has part of the road leading to Backford Walk at the southwest, bitmac parking spaces at the centre, and lawn/landscaping at the north, northeast and southeast. The southeast is part of the garden to the adjacent house and had no access.

This site is in a residential area, with houses on all sides, sloping down to the west.

PROPOSED DEVELOPMENT

It is proposed to build a pair of semi-detached houses (two units) with garden to the rear (northeast), landscaping to the front (southwest), and associated driveways and an access road further southwest.

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INTRUSIVE INVESTIGATION

Worms Eye carried out intrusive investigations between 2019 and 2023. The salient points were:

Ground Conditions

Six boreholes and four dynamic probes were drilled in 2019, supplemented by four trial holes in 2023.

The following approximates to a section looking northeast through the boreholes.

Findings	BH1/Pr A (m)	BH2/Pr B (m)	BH5 (m)	BH6 (m)	BH3/Pr C (m)	BH4/Pr D (m)
Topsoil/Made ground	0.0 – 0.2	0.0 – 0.5	-	0.0 – 0.35	0.0 – 0.2	0.0 – 0.6
Made ground	0.2 – 1.3	0.5 – 1.1	0.0 – 1.2	-	0.2 – 1.1	-
Clay	1.3 – 2.5	1.1 -2.4	1.2 – 1.7	0.35 – 2.4	1.1 – 1.9	0.6 – 2.3
Sand	2.2 – 2.5+	2.4 – 2.6+	1.7 = 2.0+	2.4 – 2.6+	1.9 – 2.3+	2.3 – 2.7+
Water	0.8	0.3	Damp only	Damp only	2.3	0.3

THA had topsoil to 0.28m overlying sand to 0.58m where made ground (clay with brick and gravel) was seen. This was underlain by a black sandy silt (possibly former topsoil) from 0.85m to the base of the trial hole at 1.15m deep.

THB had topsoil (with brick and gravel) to 0.95m deep with a large concrete piece from 0.22 to 0.35m. Sandy, gravelly, clay was seen between 0.95m and the base of the trial hole at 1.15m deep.

THC had topsoil (with brick and gravel) to 0.3m and topsoil to 0.52m where sandy clay was seen, continuing to the base of the trial hole at 0.65m deep.

THD had topsoil (with brick and glass pieces) to 0.56m and gravelly clay between 0.56m and 0.65m where the trial holes was stopped.

Contamination

Tests show slightly raised lead in BH6 at 0.2m, towards the centre of the garden to the rear (northeast) of the houses. The risks from lead pose a risk to householders arising from direct contact, and it is considered there is a risk to householders in that area, where direct contact or potential direct contact, may occur. Remedial works are required, centred on BH6, to gardens, paths, patios and other non-permanent hard-surfaced areas. Current tests suggest this is unlikely to be widespread.

The risks posed by lead in BH6 and PAHs in THA do not pose a risk from inhalation of vapours. Therefore, it is considered that these can remain below the proposed houses, and permanent driveways, with no risks to householders.

Water Soluble Sulphate levels are low and sulphate resistant concrete is not required.

Intrusive Report Re-Cap Continued

The tests results suggest high specification, barrier, water pipes are required.

Levels of volatile hydrocarbons are very low and there is no risk from hydrocarbon vapours.

Controlled Waters

Regarding risks to controlled waters, bearing in mind the following:

- The site is underlain by a Principal aquifer.
- The nearest water course is Platt Brook, 295 metres north.
- The levels of contaminants, although slightly raised in places, are generally not excessive.
- Clay underlying the site will be an aquitard.
- There are no nearby abstraction points or source protection zones.

It is considered there are no risks to controlled waters and no significant pathway will arise.

Landfill Gas/Ground Gas

Tests show low levels, corresponding to a gas situation 1/Green classification. This shows no risk to the development and no special precautions are required. Although testing is from 2019, it was precautionary and a reassessment of the potential risk shows no credible on or off-site landfill or ground gas sources. Therefore, it is considered that the findings remain valid and there is no gas risk.

CONCEPTUAL MODEL

Source	Receptors	Pathway	Complete Pollutant Linkage
Asbestos (none detected)	End-users	Inhalation	No
	Off-site	Migration off-site	No
Inorganic contaminants (raised lead in BH6)	Householders	Direct contact, ingestion, from home grown vegetables, ingestion and inhalation of dust	Yes – BH6
	Groundwater	Leaching towards	No
	River/stream	Leaching towards	No
Sulphate (low)	Building fabric	Concrete directly in contact with soil	No
Hydrocarbons (below thresholds)	Householders	Direct contact, ingestion, from home grown vegetables, ingestion and inhalation of dust	No
	Service pipes	Seeping into drinking water pipes	Yes – THA
	Groundwater	Migrating towards	No
	River/stream	Migrating towards	No
Hydrocarbon vapours (low)	Householders	Inhalation of vapours indoors and outdoors	No
Landfill gas (low)	End-users inside)	Seeping into buildings, explosion, asphyxiation	No
Radon	End-users inside)	Seeping into buildings	No

End of Intrusive Report Re-Cap

REMEDIATION STRATEGY

Construction Workers

Site workers should be made aware of the hazards of working with contaminated soils, and appropriate procedures and PPE adopted to ensure the health and safety of the site operative. All site personnel should be briefed on the discovery strategy in the watching brief and what actions they must take in the event that further evidence of contamination is identified or suspected.

Normal precautions for an urban renewal type project are required. These would include the use of gloves and the provision of washing facilities to avoid ingestion of contaminants.

Watching Brief

A watching brief for unexpected contaminants should be maintained. If unexpected contaminants (e.g. asbestos, oily material, unusual smells) are seen, especially during excavations, work should cease and the consultant be notified and the site inspected.

We suggest taking regular photographs (daily or more frequent) of excavations to include in the validation report.

Garden/Landscaped Areas

Contamination by lead was found at 0.2m in BH6. Bearing in mind only one borehole has a raised level at shallow depth, the most suitable solution would be to remove the source by excavating the contaminated material and disposing off-site as follows:

- Excavate contaminated soils to a minimum 600mm below finished ground level, below gardens, paths, patios and other non-permanent hard-surfaced areas for 3m on all sides around BH6 (stopping if this reaches the site boundary or house footprint).
- Test sides of excavation for lead.
- If levels remain high, widen excavation and re-test.
- Dispose excavated soils off-site.
- Backfill with clean, imported soils, comprising (bottom up):
    - Geotextile (or similar) warning barrier
    - 450mm sub-soil (gardens) or 550mm sub-soil (non-garden areas)
    - 150mm topsoil (gardens)

Excavated Soils

Test results have been compared with hazardous waste thresholds and a Hazwaste report is enclosed. This suggests that excavated soil would not be classed as hazardous waste. Disposal of soil is now a complex matter and the analysis should be submitted to the receiving site for confirmation of its status.

Imported Soils

All soils (e.g. topsoil, bulk fill hardcore) and similar materials imported on-site to be proved to be uncontaminated. Imported material will require testing as follows:

- Greenfield soils – minimum of 3 tests or 1 test per 50m^3 (whichever is greater). Testing to include arsenic, cadmium, chromium (total), chromium VI, copper, mercury, nickel, lead, selenium, zinc, PAH (16 USEPA speciation), asbestos, TPHs (speciated), boron, cyanide, thiocyanate, sulphide, sulphur, sulphate, pH, Som.
- Brownfield/screened/manufactured soils – minimum of 3 tests or 1 test per 50m^3 (whichever is greater). Testing to include arsenic, cadmium, chromium (total), chromium VI, copper, mercury, nickel, lead, selenium, zinc, PAH (16 USEPA speciation) asbestos, TPHs (speciated), boron, cyanide, thiocyanate, sulphide, sulphur, sulphate, pH, Som.

Soil Screen Values

Tests carried out on the imported material, either by the supplier or the consultant, to be screed against residential values, based on 1% SOM. If these are exceeded, site specific value may be derived, subject to them being appropriate.

Service Pipes

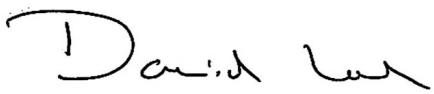
To avoid hydrocarbons seeping into drinking water pipes, high specification coated barrier pipes to Water Company approval (e.g. Protectaline) are required.

Validation

A validation report will be required on completion, this will require but not necessarily be limited to:

- Tickets from waste removal contractor and receiving landfill.
- Photographs of excavation to confirm depth.
- Test results from sides of excavation.
- Contamination test results for tests on imported soils.
- Photographs to confirm thickness of imported soil types.
- Document (receipt, delivery notes) to show soil types and sources.
- Certificate/invoice from suppler to confirm appropriate water pipes have been used.

Yours faithfully
on behalf of Worms Eye Ltd



David Lord
BSc (Hons)
FGS, MIEnvSc, AIEMA

PROPOSED HOUSING DEVELOPMENT

RAINFORD AVENUE, MANCHESTER, M20 1BR

List of Appendices – Remediation Strategy

List of Acronyms

Existing site plan - showing area requiring remedial works

Proposed site plan - showing area requiring remedial works

Borehole Logs

Trial Hole Logs

Contamination Test Results - Soil

Hazwaste Report

United Utilities Risk Assessment

CONTAMINATION TEST UNITS

Conversion factor	Name	Symbol	Numerical Value	Alternative description	Commonly used for:
	per cent	%	1 in 100 (10^2)		total sulphur, hazardous waste
% x10	parts per thousand	‰	1 in 1000 (10^3)	g/l (grams per litre)	water soluble sulphate test
‰ x 1,000	parts per million	ppm	1 in 1,000,000 (10^6)	mg/kg (milligrams per kilogram)	most soil tests
				mg/l (milligrams per litre)	water tests
ppm x 1,000	parts per billion	ppb	1 in 1,000,000,000 (10^9)	µg/kg (micrograms per kilogram)	PAH soil tests
				µg/l (micrograms per litre)	water/leachate tests
ppb x 1,000	parts per trillion	ppt	1 in 1,000,000,000,000 (10^{12})	ng/kg (nanograms per kilogram)	PAH soil tests
				ng/l (nanograms per litre)	water/leachate tests

ABBREVIATIONS

Chemical	BAP	Benzo(a)pyrene
	BTEX	Benzene, toluene, ethylbenzene, xylene
	DAHA	Dibenzo(ah)anthracene
	MTBE	Methyl tertiaryt-butyl ether (additive to petrol)
	EPH	Extractable petroleum hydrocarbons (formerly diesel range organics – DRO)
	NFD	No fibres detected (asbestos test)
	PAH	Polycyclic aromatic hydrocarbons
	PCB	Polychlorinated biphenyls
	PCE	Perchloroethylene or tetrachloroethylene
	PID	Photo ionisation detector (screen for VOC)
	PRO/GRO	Petrol range organics/gasoline range organics
	SVOC	Semi-volatile organic compounds
	TCE	Trichloroethylene
	TPH	Total petroleum hydrocarbons
	VOC	Volatile organic compounds
Other	AGS	Association of Geotechnical Specialists
	BGS	British Geological Survey
	BRE	Building Research Establishment
	CBR	California Bearing Ratio
	CIEH	Chartered Institute of Environmental Health
	CIRIA	Construction Industry Research and Information Association
	CLEA	Contaminated Land Exposure Assessment (Environment Agency/DEFRA)
	CLR 8	Contaminated Land Research Report 8 (Environment Agency/DEFRA)
	DWQ	Drinking water quality
	EA	Environment Agency
	EQS	Environmental quality standards (for rivers etc.)
	ICRCL	Inter-departmental Commission for the Reclamation of Contaminated Land
	LQM	Land Quality Management Ltd (Land and Environmental Consultancy).
	NHBC	National House Builders Council
	SGV	Soil Guideline Values
	SPT	Standard penetration test

TPHWG	TPH Working Group

1. This report should be considered in relation to the objectives agreed between Worms Eye and the Client, outlined in the introduction.

2. For the work, reliance has been placed on publicly available data, obtained from the sources identified in the report. The information is not exhaustive and further information may be available from other sources. When using the information it has been assumed it is correct, and no attempt has been made to verify the information.

3. This report has been produced in accordance with current UK policy and guidelines, for land and groundwater contamination, enforced by the Local Authority and the Environment Agency.

4. During the site walkover, reasonable effort was made to obtain an overview of the site. However, no attempt was made to enter areas that are unsafe, a risk to health and safety, locked, barricaded, overgrown, or areas not made accessible.

5. Access, the presence of services and activities on the site, limited locations where sampling could be carried out and the techniques that could be used.

6. Assessments are based on available information at the time of writing and are ultimately for the decision of the regulatory authorities.

7. The conclusions and recommendations provide an overview and guidance only and should not be specifically relied upon without considering the context of the report in full.

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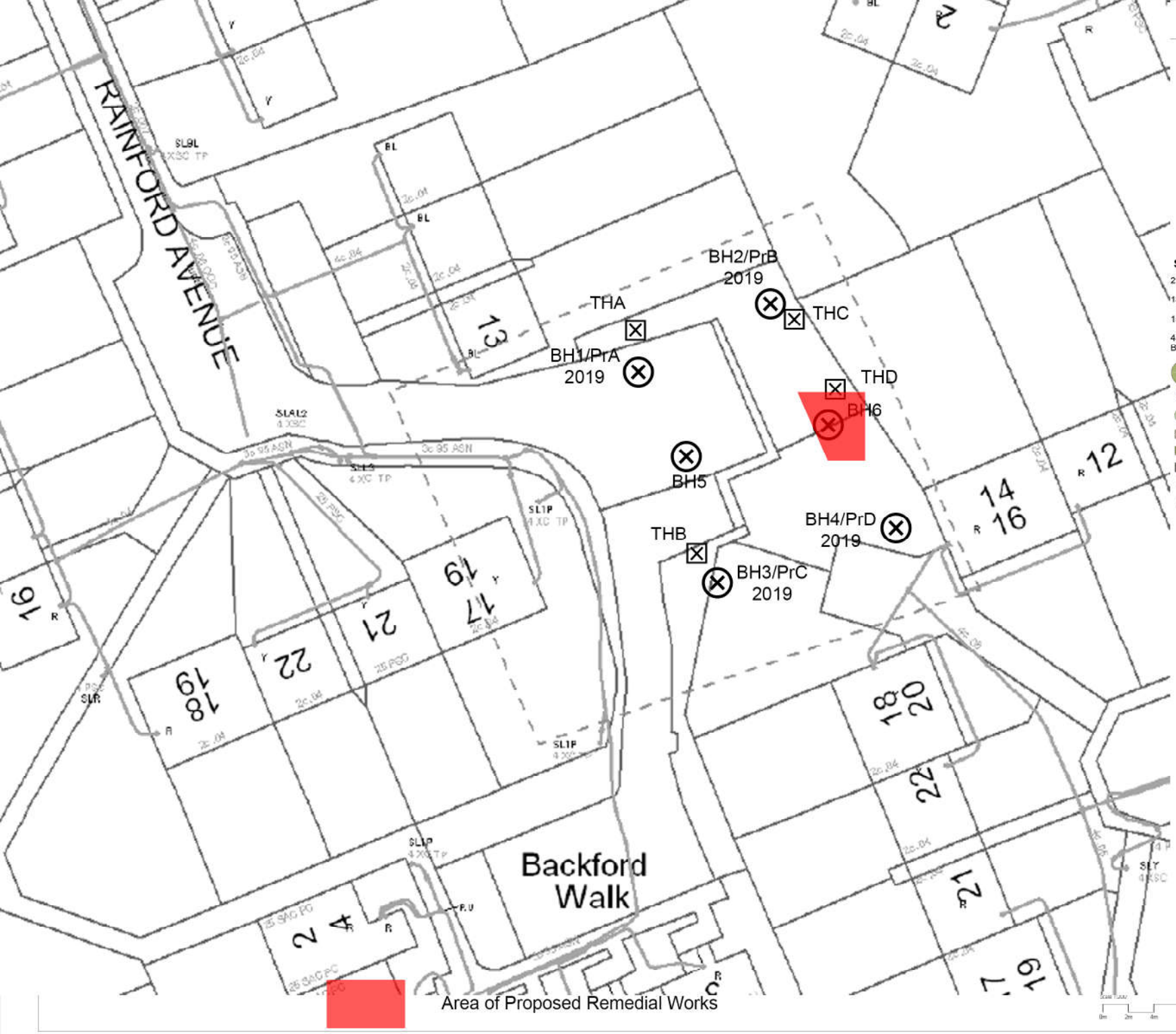
9. New information, revised practices, or changes in legislation, may necessitate the re-interpretation of the report, in whole or in part.



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Site Plan Key

- 2100mm High Concrete Post & Panel Fence
- 1800mm High Concrete Post & Panel Fence
- 1500mm High Concrete Post & Panel Fence
- 450mm High Brick Wall with 450mm High Black Metal Railings
- Existing Tree
- New Tree
- Medium Height Shrubs
- Buff Paving (450x450 Paving)
- Grass
- Asphalt/ Tarmac
- (A) Timber Cycle Store (SBD Compliant)
- (B) Brick Bin Enclosure

Rev	Date	By	Remarks
P01	16.01.23	HR	First Issue.

Client: Southway Housing Trust

Project No. / Project Name: 22-043 / Southway Infill - Rainford Avenue

Drawing Name: Proposed Site Plan

Drawing Purpose: **INFORMATION**

Project	Origin	Vol/Sys	Level	Type	Role	Drg No.	Revision
RAI	TRI	Z1	00	DR	A	SK003	P01

Status	Scale @ A2	Drawn	Check	Date
S0	1 : 200	HR	HR	01/09/23

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Scale 1:200
0m 2m 4m 10m

Proposed Site Plan

1 : 200

Area of Proposed Remedial Works

WORMS EYE GEOTECHNICAL	Cannon House, 52 Bank Parade Burnley, Lancashire, BB11 1TS	**Site** Rainford Avenue, Manchester	**Borehole Number** **BH1**
Excavation Method Drive-in Window Sampler	**Dimensions**	**Ground Level (mOD)**	**Client**	**Job Number** M201BR
	Location Northwest corner	**Dates** 12/11/2019-13/11/2019	**Engineer** HH	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20) 0.20	Brown TOPSOIL		
			Water strike(1) at 0.80m.		(1.10) 1.30	Brown gravel, clay, sand and concrete pieces (MADE GROUND)		∇1
					(0.90) 2.20	Soft brown (low strength) sandy CLAY		
					(0.30) 2.50	Red (high strength) SAND		
						Complete at 2.50m		

Remarks
Borehole wet at 0.8m, see Probe A. Gas monitor fitted to 2.2m

Scale (approx)	**Logged By**
1:20	HH/JSH

Figure No.
M201BR.BH1

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WORMS EYE GEOTECHNICAL	Cannon House, 52 Bank Parade Burnley, Lancashire, BB11 1TS	Site Rainford Avenue, Manchester	Borehole Number **BH2**
Excavation Method Drive-in Window Sampler	**Dimensions**	**Ground Level (mOD)**	**Client**	**Job Number** M201BR
	Location Northwest corner	**Dates** 12/11/2019-13/11/2019	**Engineer** HH	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
						Brown TOPSOIL and gravel		
			Water strike(1) at 0.30m.		(0.50)			∇1
					0.50	Brown clay, sand and brick fragments (MADE GROUND)		
					(0.60)			
					1.10	Firn brown/grey (medium strength) CLAY		
			PEN 60kN/m2		(0.60)			
			PEN 70kN/m2					
					1.70	Stiff brown/grey (high strength) CLAY with rare gravel		
			PEN 100kN/m2		(0.30)			
					2.00	Soft to firm brown (medium strength) sandy CLAY		
			PEN 50kN/m2		(0.40)			
					2.40	Red (high strength) SAND		
					(0.20)			
					2.60	Complete at 2.60m		

Remarks
Borehole wet at 0.3m, see Probe B. Gas monitor fitted to 2.1m

Scale (approx)	Logged By
1:20	HH/JSH

Figure No.
M201BR.BH2

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WORMS EYE GEOTECHNICAL	Cannon House, 52 Bank Parade Burnley, Lancashire, BB11 1TS	Site Rainford Avenue, Manchester	Borehole Number **BH3**
Excavation Method Drive-in Window Sampler	**Dimensions**	**Ground Level (mOD)**	**Client**	**Job Number** M201BR
	Location Southwest corner	**Dates** 12/11/2019-13/11/2019	**Engineer** HH	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20)	Brown TOPSOIL and gravel		
					0.20	Brown sand, clay, soil and roots (MADE GROUND)		
					(0.50)			
					0.70	Brown soil with brick fragments (MADE GROUND)		
					(0.40)			
					1.10	Stiff brown (high strength) sandy CLAY		
					(0.80)			
			PEN 100kN/m2					
					1.90 (0.10)	Red (medium strength) SAND		
					2.00	Red (high strength) SAND		
					(0.30)			
			Water strike(1) at 2.30m.		2.30			∇1
						Complete at 2.30m		

Remarks
Borehole wet at 2.3m, see Probe C. Gas monitor fitted to 2.0m

Scale (approx)	Logged By
1:20	HH/JSH

Figure No.
M201BR.BH3

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WORMS EYE GEOTECHNICAL	Cannon House, 52 Bank Parade Burnley, Lancashire, BB11 1TS	Site Rainford Avenue, Manchester	Borehole Number **BH4**
Excavation Method Drive-in Window Sampler	**Dimensions**	**Ground Level (mOD)**	**Client**	**Job Number** M201BR
	Location Southeast corner	**Dates** 12/11/2019-13/11/2019	**Engineer** HH	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
						Brown TOPSOIL with sand, gravel and roots		
			Water strike(1) at 0.30m.		(0.60)			∇1
					0.60	Stiff brown/grey (high strength) sandy CLAY		
			PEN 100kN/m2		(0.60)			
					1.20	Stiff brown/grey (high strength) gravelly CLAY		
			PEN 130kN/m2		(1.10)			
					2.30	Red (high strength) SAND		
					(0.40)			
					2.70	Complete at 2.70m		

Remarks
Borehole wet at 0.3m, see Probe D. Gas monitor fitted to 2.3m

Scale (approx)	Logged By
1:20	HH/JSH

Figure No.
M201BR.BH4

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WORMS EYE GEOTECHNICAL	Cannon House, 52 Bank Parade Burnley, Lancashire, BB11 1TS	Site Rainford Avenue, Manchester	Borehole Number **BH5**

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
Drive-in Window Sampler				M201BR
	Location Towards centre of site	**Dates** 12/11/2019-13/11/2019	**Engineer** HH	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.12) 0.12	TARMAC		
					(0.58) 0.70	Brown hardcore and gravel (MADE GROUND)		
					(0.50) 1.20	Dark brown, sand, clay and cinders (MADE GROUND)		
			PEN 100kN/m2		(0.50) 1.70	Stiff brown/grey (high strength) gravelly CLAY		
					(0.30) 2.00	Red (high strength) SAND		
						Complete at 2.00m		

Remarks	Scale (approx)	Logged By
Borehole damp	1:20	HH/JSH
	Figure No. M201BR.BH5	

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WORMS EYE GEOTECHNICAL	Cannon House, 52 Bank Parade Burnley, Lancashire, BB11 1TS	Site Rainford Avenue, Manchester	Borehole Number **BH6**

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
Drive-in Window Sampler				M201BR
	Location Centre east side	**Dates** 12/11/2019-13/11/2019	**Engineer** HH	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.35)	Brown TOPSOIL with gravel, sand and clay		
					0.35			
					(0.65)	Firm brown/grey (medium strength) sandy CLAY with rare gravel		
			PEN 70kN/m2					
					1.00	Stiff brown/grey (high strength) sandy CLAY with rare gravel		
			PEN 100kN/m2		(1.40)			
					2.40	Red (high strength) SAND		
					(0.20)			
					2.60	Complete at 2.60m		

Remarks
Borehole damp

Scale (approx)	Logged By
1:20	HH/JSH

Figure No.
M201BR.BH6

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PO Box 1157
COLNE, BB9 4HS

Site	Trial Pit Number
Rainford Avenue, Manchester	THA

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
Trial Pit				M20 1BR
	Location	**Dates**	**Project Contractor**	**Sheet**
	Northwest corner	08/02/2023	Worms Eye Ltd.	1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.28)	Topsoil with occasional gravel and stone.		
					0.28 (0.22)	MADE GROUND - Dark grey and brown clay with brick and gravel.		
					0.50 (0.08)	Orangish brown sand with occasional gravel.		
					0.58 (0.57)	Black sandy silt with occasional gravel, possible former topsoil.		
					1.15	Complete at 1.15m		

Remarks

Scale (approx)	Logged By	Figure No.
1:10	EW	M20 1BR.THA

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Site	Trial Pit Number
Rainford Avenue, Manchester	THB

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
Trial Pit				M20 1BR

Location	Dates	Project Contractor	Sheet
Southwest corner	08/02/2023	Worms Eye Ltd.	1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.95)	Black sandy topsoil with gravel and bric pieces, large concrete piece 0.22m to 0.35m on west site. Large roots to 0.2m, fine roots in topsoil below concrete.		
					0.95 (0.20)	Light brown, slightly sandy, very gravelly clay.		
					1.15	Complete at 1.15m		

Remarks

Scale (approx)	Logged By	Figure No.
1:10	EW	M20 1BR.THB

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Site	Trial Pit Number
Rainford Avenue, Manchester	THC

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
Trial Pit				M20 1BR

Location	Dates	Project Contractor	Sheet
Northeast corner	08/02/2023	Worms Eye Ltd.	1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.52)	Topsoil with brick pieces and gravel to 0.52m, roots to 0.3m and no brick below that.		
					0.52 (0.13)	Light brown, very sandy clay.		
					0.65	Complete at 0.65m		

Remarks

Scale (approx)	Logged By	Figure No.
1:10	EW	M20 1BR.THC

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COLNE, BB9 4HS

Site	Trial Pit Number
Rainford Avenue, Manchester	THD

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
Trial Pit				M20 1BR

Location	Dates	Project Contractor	Sheet
Northeast middle	08/02/2023	Worms Eye Ltd.	1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.56)	MADE GROUND - Topsoil with brick, glass and roots.		
					0.56 (0.09)	Light brown, slightly gravelly clay.		
					0.65	Complete at 0.65m		

Remarks

Scale (approx)	Logged By	Figure No.
1:10	EW	M20 1BR.THD

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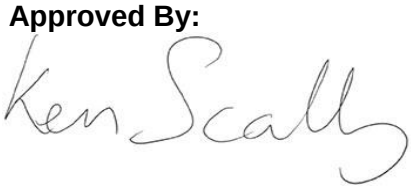
Final Report

Report No.:	19-39508-1		
Initial Date of Issue:	12-Dec-2019		
Client	Worms Eye Ltd		
Client Address:	52 Bank Parade Burnley Lancashire BB11 1TS		
Contact(s):	Stuart Hartley David Lord		
Project	Rainford Avenue, Manchester, M20 1 BR		
Quotation No.:	Q19-18671	**Date Received:**	25-Nov-2019
Order No.:		**Date Instructed:**	26-Nov-2019
No. of Samples:	7		
Turnaround (Wkdays):	5	**Results Due:**	02-Dec-2019
Date Approved:	12-Dec-2019		

Approved By:



Details: Ken Scally, Technical Director

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Results - Soil

Project: Rainford Avenue, Manchester, M20 1 BR

Client: Worms Eye Ltd				**Chemtest Job No.:**	19-39508	19-39508	19-39508	19-39508	19-39508	19-39508	19-39508
Quotation No.: Q19-18671				**Chemtest Sample ID.:**	932434	932435	932436	932437	932438	932439	932440
				Client Sample ID.:	BH1	BH2	BH3	BH4	BH6	BH1	BH3
				Sample Location:	BH	BH	BH	BH	BH	BH	BH
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m) ($):	0.30	0.20	0.30	0.30	0.20	0.90	0.90
				Date Sampled ($):	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019
				Asbestos Lab:	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY		
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
ACM Type	U	2192		N/A	-	-	-	-	-		
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected		
ACM Detection Stage	U	2192		N/A	-	-	-	-	-		
Moisture	N	2030	%	0.020	14	16	13	12	11	16	15
Soil Colour	N	2040		N/A	Brown,	Brown,	Brown,	Brown,	Brown,	Brown,	Brown,
Other Material	N	2040		N/A	Stones,	Stones,	Stones,	Stones,	Stones,	Stones,	Stones,
Soil Texture	N	2040		N/A	Clay,	Clay,	Clay,	Clay,	Clay,	Clay,	Clay,
pH	M	2010		4.0	8.4	8.0	8.0	8.4	8.2	8.2	8.0
Electrical Conductivity (2:1)	N	2020	µS/cm	1.0						230	210
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.35	0.037	0.024	0.013	0.019		
Redox Potential	N	2150	mV	N/A						200	180
Sulphur (Elemental)	M	2180	mg/kg	1.0	2.4	4.5	1.1	< 1.0	3.3		
Cyanide (Free)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		
Thiocyanate	M	2300	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0		
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	2.8	2.7	1.1	1.8	6.0		
Sulphate (Total)	M	2430	mg/kg	100	1700	810	480	880	730		
Arsenic	M	2450	mg/kg	1.0	13	13	11	16	14		
Cadmium	M	2450	mg/kg	0.10	0.36	1.5	0.23	1.8	2.5		
Chromium	M	2450	mg/kg	1.0	11	20	14	16	15		
Copper	M	2450	mg/kg	0.50	18	66	26	25	19		
Mercury	M	2450	mg/kg	0.10	0.13	0.22	0.18	0.13	0.22		
Nickel	M	2450	mg/kg	0.50	12	19	13	17	14		
Lead	M	2450	mg/kg	0.50	63	200	68	70	240		
Selenium	M	2450	mg/kg	0.20	< 0.20	0.43	0.30	< 0.20	< 0.20		
Zinc	M	2450	mg/kg	0.50	50	240	46	140	300		
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		
Organic Matter	M	2625	%	0.40	1.7	5.3	2.4	4.1	1.9		
Total Organic Carbon	M	2625	%	0.20	0.97	3.1	1.4	2.4	1.1		
Aliphatic TPH >C5-C6	N	2680	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Aliphatic TPH >C6-C8	N	2680	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Aliphatic TPH >C8-C10	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	5.1	9.2	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	2.7	< 0.10	11
Aliphatic TPH >C21-C35	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	210	350	< 0.10	300
Aliphatic TPH >C35-C44	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

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Results - Soil

Project: Rainford Avenue, Manchester, M20 1 BR

Client: Worms Eye Ltd				**Chemtest Job No.:**	19-39508	19-39508	19-39508	19-39508	19-39508	19-39508	19-39508
Quotation No.: Q19-18671				**Chemtest Sample ID.:**	932434	932435	932436	932437	932438	932439	932440
				Client Sample ID.:	BH1	BH2	BH3	BH4	BH6	BH1	BH3
				Sample Location:	BH	BH	BH	BH	BH	BH	BH
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m) ($):	0.30	0.20	0.30	0.30	0.20	0.90	0.90
				Date Sampled ($):	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019
				Asbestos Lab:	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY		
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
Total Aliphatic Hydrocarbons	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	220	360	< 1.0	310
Aromatic TPH >C5-C7	N	2680	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Aromatic TPH >C7-C8	N	2680	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Aromatic TPH >C8-C10	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	16	2.0	< 0.10	< 0.10
Aromatic TPH >C16-C21	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	9.1	16	< 0.10	15
Aromatic TPH >C21-C35	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	120	100	< 0.10	110
Aromatic TPH >C35-C44	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aromatic Hydrocarbons	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	140	120	< 1.0	120
Total Petroleum Hydrocarbons	N	2680	mg/kg	2.0	< 2.0	< 2.0	< 2.0	360	480	< 2.0	440
Naphthalene	M	2700	mg/kg	0.10	0.21	0.26	< 0.10	< 0.10	0.16		
Acenaphthylene	M	2700	mg/kg	0.10	0.10	< 0.10	< 0.10	< 0.10	< 0.10		
Acenaphthene	M	2700	mg/kg	0.10	0.39	0.38	< 0.10	< 0.10	0.59		
Fluorene	M	2700	mg/kg	0.10	0.31	0.29	< 0.10	< 0.10	< 0.10		
Phenanthrene	M	2700	mg/kg	0.10	3.3	3.0	0.79	0.79	1.2		
Anthracene	M	2700	mg/kg	0.10	0.77	0.88	0.25	0.25	0.30		
Fluoranthene	M	2700	mg/kg	0.10	4.0	5.5	1.6	1.6	2.4		
Pyrene	M	2700	mg/kg	0.10	4.2	5.6	1.7	1.7	2.7		
Benzo[a]anthracene	M	2700	mg/kg	0.10	1.8	2.8	0.78	0.78	1.3		
Chrysene	M	2700	mg/kg	0.10	2.5	3.8	1.2	1.2	2.1		
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	2.2	3.3	1.0	1.0	2.0		
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	0.73	1.3	0.33	0.33	0.72		
Benzo[a]pyrene	M	2700	mg/kg	0.10	1.5	2.9	1.4	1.4	2.0		
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	1.1	1.8	0.55	0.55	1.3		
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	0.20	0.52	< 0.10	< 0.10	0.29		
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	1.1	2.0	0.62	0.62	1.2		
Total Of 16 PAH's	M	2700	mg/kg	2.0	24	34	10	10	18		
Dichlorodifluoromethane	N	2760	µg/kg	0.20						< 0.20	< 0.20
Chloromethane	N	2760	µg/kg	0.20						< 0.20	< 0.20
Vinyl Chloride	N	2760	µg/kg	0.20						< 0.20	< 0.20
Bromomethane	N	2760	µg/kg	0.20						< 0.20	< 0.20
Chloroethane	N	2760	µg/kg	0.20						< 0.20	< 0.20
Trichlorofluoromethane	N	2760	µg/kg	0.20						< 0.20	< 0.20
1,1-Dichloroethene	N	2760	µg/kg	0.20						< 0.20	< 0.20
Trans 1,2-Dichloroethene	N	2760	µg/kg	0.20						< 0.20	< 0.20
1,1-Dichloroethane	N	2760	µg/kg	0.20						< 0.20	< 0.20
cis 1,2-Dichloroethene	N	2760	µg/kg	0.20						< 0.20	< 0.20

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Results - Soil

Project: Rainford Avenue, Manchester, M20 1 BR

Client: Worms Eye Ltd				**Chemtest Job No.:**	19-39508	19-39508	19-39508	19-39508	19-39508	19-39508	19-39508
Quotation No.: Q19-18671				**Chemtest Sample ID.:**	932434	932435	932436	932437	932438	932439	932440
				Client Sample ID.:	BH1	BH2	BH3	BH4	BH6	BH1	BH3
				Sample Location:	BH	BH	BH	BH	BH	BH	BH
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m) ($):	0.30	0.20	0.30	0.30	0.20	0.90	0.90
				Date Sampled ($):	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019
				Asbestos Lab:	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY		
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
Bromochloromethane	N	2760	µg/kg	0.50						< 0.50	< 0.50
Trichloromethane	N	2760	µg/kg	0.20						< 0.20	< 0.20
1,1,1-Trichloroethane	N	2760	µg/kg	0.20						< 0.20	< 0.20
Tetrachloromethane	N	2760	µg/kg	0.20						< 0.20	< 0.20
1,1-Dichloropropene	N	2760	µg/kg	0.20						< 0.20	< 0.20
Benzene	N	2760	µg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
1,2-Dichloroethane	N	2760	µg/kg	0.20						< 0.20	< 0.20
Trichloroethene	N	2760	µg/kg	0.20						< 0.20	< 0.20
1,2-Dichloropropane	N	2760	µg/kg	0.20						< 0.20	< 0.20
Dibromomethane	N	2760	µg/kg	0.20						< 0.20	< 0.20
Bromodichloromethane	N	2760	µg/kg	0.20						< 0.20	< 0.20
cis-1,3-Dichloropropene	N	2760	µg/kg	0.20						< 0.20	< 0.20
Toluene	N	2760	µg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Trans-1,3-Dichloropropene	N	2760	µg/kg	0.20						< 0.20	< 0.20
1,1,2-Trichloroethane	N	2760	µg/kg	0.20						< 0.20	< 0.20
Tetrachloroethene	N	2760	µg/kg	0.20						< 0.20	< 0.20
1,3-Dichloropropane	N	2760	µg/kg	0.20						< 0.20	< 0.20
Dibromochloromethane	N	2760	µg/kg	0.20						< 0.20	< 0.20
1,2-Dibromoethane	N	2760	µg/kg	0.20						< 0.20	< 0.20
Chlorobenzene	N	2760	µg/kg	0.20						< 0.20	< 0.20
1,1,1,2-Tetrachloroethane	N	2760	µg/kg	0.20						< 0.20	< 0.20
Ethylbenzene	N	2760	µg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
m & p-Xylene	N	2760	µg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
o-Xylene	N	2760	µg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Styrene	N	2760	µg/kg	0.20						< 0.20	< 0.20
Tribromomethane	N	2760	µg/kg	0.20						< 0.20	< 0.20
Isopropylbenzene	N	2760	µg/kg	0.20						< 0.20	< 0.20
Bromobenzene	N	2760	µg/kg	0.20						< 0.20	< 0.20
1,2,3-Trichloropropane	N	2760	µg/kg	0.20						< 0.20	< 0.20
2-Chlorotoluene	N	2760	µg/kg	0.20						< 0.20	< 0.20
1,3,5-Trimethylbenzene	N	2760	µg/kg	0.20						< 0.20	< 0.20
4-Chlorotoluene	N	2760	µg/kg	0.20						< 0.20	< 0.20
Tert-Butylbenzene	N	2760	µg/kg	0.20						< 0.20	< 0.20
1,2,4-Trimethylbenzene	N	2760	µg/kg	0.20						< 0.20	< 0.20
Sec-Butylbenzene	N	2760	µg/kg	0.20						< 0.20	< 0.20
1,3-Dichlorobenzene	N	2760	µg/kg	0.20						< 0.20	< 0.20
4-Isopropyltoluene	N	2760	µg/kg	0.20						< 0.20	< 0.20
1,4-Dichlorobenzene	N	2760	µg/kg	0.20						< 0.20	< 0.20

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Results - Soil

Project: Rainford Avenue, Manchester, M20 1 BR

Client: Worms Eye Ltd				**Chemtest Job No.:**	19-39508	19-39508	19-39508	19-39508	19-39508	19-39508	19-39508
Quotation No.: Q19-18671				**Chemtest Sample ID.:**	932434	932435	932436	932437	932438	932439	932440
				Client Sample ID.:	BH1	BH2	BH3	BH4	BH6	BH1	BH3
				Sample Location:	BH	BH	BH	BH	BH	BH	BH
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m) ($):	0.30	0.20	0.30	0.30	0.20	0.90	0.90
				Date Sampled ($):	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019
				Asbestos Lab:	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY		
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
N-Butylbenzene	N	2760	µg/kg	0.20						< 0.20	< 0.20
1,2-Dichlorobenzene	N	2760	µg/kg	0.20						< 0.20	< 0.20
1,2-Dibromo-3-Chloropropane	N	2760	µg/kg	0.20						< 0.20	< 0.20
1,2,4-Trichlorobenzene	N	2760	µg/kg	0.20						< 0.20	< 0.20
Hexachlorobutadiene	N	2760	µg/kg	0.20						< 0.20	< 0.20
1,2,3-Trichlorobenzene	N	2760	µg/kg	0.20						< 0.20	< 0.20
Carbon Disulphide	N	2760	µg/kg	0.20						< 0.20	< 0.20
Methyl Tert-Butyl Ether	N	2760	µg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Aldehydes	N	2780	mg/kg	0.10						< 0.10	< 0.10
Amines	N	2780	mg/kg	10.00						< 10	< 10
Ethers	N	2780	mg/kg	0.010						< 0.010	< 0.010
Ketones	N	2780	mg/kg	0.10						< 0.10	< 0.10
N-Nitrosodimethylamine	N	2790	mg/kg	0.050						< 0.050	< 0.050
Phenol	N	2790	mg/kg	0.050						< 0.050	< 0.050
2-Chlorophenol	N	2790	mg/kg	0.050						< 0.050	< 0.050
Bis-(2-Chloroethyl)Ether	N	2790	mg/kg	0.050						< 0.050	< 0.050
1,3-Dichlorobenzene	N	2790	mg/kg	0.050						< 0.050	< 0.050
1,4-Dichlorobenzene	N	2790	mg/kg	0.050						< 0.050	< 0.050
1,2-Dichlorobenzene	N	2790	mg/kg	0.050						< 0.050	< 0.050
2-Methylphenol	N	2790	mg/kg	0.050						< 0.050	< 0.050
Bis(2-Chloroisopropyl)Ether	N	2790	mg/kg	0.050						< 0.050	< 0.050
Hexachloroethane	N	2790	mg/kg	0.050						< 0.050	< 0.050
N-Nitrosodi-n-propylamine	N	2790	mg/kg	0.050						< 0.050	< 0.050
4-Methylphenol	N	2790	mg/kg	0.050						< 0.050	< 0.050
Nitrobenzene	N	2790	mg/kg	0.050						< 0.050	< 0.050
Isophorone	N	2790	mg/kg	0.050						< 0.050	< 0.050
2-Nitrophenol	N	2790	mg/kg	0.050						< 0.050	< 0.050
2,4-Dimethylphenol	N	2790	mg/kg	0.050						< 0.050	< 0.050
Bis(2-Chloroethoxy)Methane	N	2790	mg/kg	0.050						< 0.050	< 0.050
2,4-Dichlorophenol	N	2790	mg/kg	0.050						< 0.050	< 0.050
1,2,4-Trichlorobenzene	N	2790	mg/kg	0.050						< 0.050	< 0.050
Naphthalene	N	2790	mg/kg	0.050						< 0.050	< 0.050
4-Chloroaniline	N	2790	mg/kg	0.050						< 0.050	< 0.050
Hexachlorobutadiene	N	2790	mg/kg	0.050						< 0.050	< 0.050
4-Chloro-3-Methylphenol	N	2790	mg/kg	0.050						< 0.050	< 0.050
2-Methylnaphthalene	N	2790	mg/kg	0.050						< 0.050	0.11
Hexachlorocyclopentadiene	N	2790	mg/kg	0.050						< 0.050	< 0.050
2,4,6-Trichlorophenol	N	2790	mg/kg	0.050						< 0.050	< 0.050

Chemtest
The right chemistry to deliver results

Results - Soil

Project: Rainford Avenue, Manchester, M20 1 BR

Client: Worms Eye Ltd				**Chemtest Job No.:**	19-39508	19-39508	19-39508	19-39508	19-39508	19-39508	19-39508
Quotation No.: Q19-18671				**Chemtest Sample ID.:**	932434	932435	932436	932437	932438	932439	932440
				Client Sample ID.:	BH1	BH2	BH3	BH4	BH6	BH1	BH3
				Sample Location:	BH	BH	BH	BH	BH	BH	BH
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m) ($):	0.30	0.20	0.30	0.30	0.20	0.90	0.90
				Date Sampled ($):	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019
				Asbestos Lab:	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY		
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
2,4,5-Trichlorophenol	N	2790	mg/kg	0.050						< 0.050	< 0.050
2-Chloronaphthalene	N	2790	mg/kg	0.050						< 0.050	< 0.050
2-Nitroaniline	N	2790	mg/kg	0.050						< 0.050	< 0.050
Acenaphthylene	N	2790	mg/kg	0.050						< 0.050	< 0.050
Dimethylphthalate	N	2790	mg/kg	0.050						< 0.050	< 0.050
2,6-Dinitrotoluene	N	2790	mg/kg	0.050						< 0.050	< 0.050
Acenaphthene	N	2790	mg/kg	0.050						< 0.050	0.47
Dibenzofuran	N	2790	mg/kg	0.050						< 0.050	0.12
4-Chlorophenylphenylether	N	2790	mg/kg	0.050						< 0.050	< 0.050
2,4-Dinitrotoluene	N	2790	mg/kg	0.050						< 0.050	< 0.050
Fluorene	N	2790	mg/kg	0.050						< 0.050	0.19
Diethyl Phthalate	N	2790	mg/kg	0.050						< 0.050	< 0.050
4-Nitroaniline	N	2790	mg/kg	0.050						< 0.050	< 0.050
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.050						< 0.050	< 0.050
Azobenzene	N	2790	mg/kg	0.050						< 0.050	< 0.050
4-Bromophenylphenyl Ether	N	2790	mg/kg	0.050						< 0.050	< 0.050
Hexachlorobenzene	N	2790	mg/kg	0.050						< 0.050	< 0.050
Pentachlorophenol	N	2790	mg/kg	0.050						< 0.050	< 0.050
Phenanthrene	N	2790	mg/kg	0.050						< 0.050	2.5
Anthracene	N	2790	mg/kg	0.050						< 0.050	0.51
Carbazole	N	2790	mg/kg	0.050						< 0.050	0.12
Di-N-Butyl Phthalate	N	2790	mg/kg	0.050						< 0.050	< 0.050
Fluoranthene	N	2790	mg/kg	0.050						0.083	3.5
Pyrene	N	2790	mg/kg	0.050						0.095	3.5
Butylbenzyl Phthalate	N	2790	mg/kg	0.050						< 0.050	< 0.050
Benzo[a]anthracene	N	2790	mg/kg	0.050						< 0.050	1.9
Chrysene	N	2790	mg/kg	0.050						< 0.050	2.1
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.050						0.23	0.28
Di-N-Octyl Phthalate	N	2790	mg/kg	0.050						< 0.050	< 0.050
Benzo[b]fluoranthene	N	2790	mg/kg	0.050						< 0.050	2.7
Benzo[k]fluoranthene	N	2790	mg/kg	0.050						< 0.050	0.90
Benzo[a]pyrene	N	2790	mg/kg	0.050						< 0.050	2.1
Indeno(1,2,3-c,d)Pyrene	N	2790	mg/kg	0.050						< 0.050	1.1
Dibenz(a,h)Anthracene	N	2790	mg/kg	0.050						< 0.050	0.32
Benzo[g,h,i]perylene	N	2790	mg/kg	0.050						< 0.050	1.3
Resorcinol	M	2920	mg/kg	0.050						< 0.050	< 0.050
Phenol	M	2920	mg/kg	0.050						< 0.050	< 0.050
Cresols	M	2920	mg/kg	0.050						< 0.050	< 0.050

Results - Soil

Project: Rainford Avenue, Manchester, M20 1 BR

Client: Worms Eye Ltd			**Chemtest Job No.:**		19-39508	19-39508	19-39508	19-39508	19-39508	19-39508	19-39508
Quotation No.: Q19-18671			**Chemtest Sample ID.:**		932434	932435	932436	932437	932438	932439	932440
			Client Sample ID.:		BH1	BH2	BH3	BH4	BH6	BH1	BH3
			Sample Location:		BH	BH	BH	BH	BH	BH	BH
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m) ($):		0.30	0.20	0.30	0.30	0.20	0.90	0.90
			Date Sampled ($):		21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019	21-Nov-2019
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY		
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
Xylenols	M	2920	mg/kg	0.050						< 0.050	< 0.050
1-Naphthol	N	2920	mg/kg	0.050						< 0.050	< 0.050
Trimethylphenols	M	2920	mg/kg	0.050						< 0.050	< 0.050
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30	1.5	< 0.30	< 0.30	< 0.30	< 0.30
SVOC TIC	N	2790	mg/kg	N/A						None Detected	None Detected
VOC TIC	N	2760	µg/kg	N/A						None Detected	None Detected

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2020	Electrical Conductivity	Electrical conductivity (EC) of aqueous extract or calcium sulphate solution for topsoil	Measurement of the electrical resistance of a 2:1 water/soil extract.
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2150	Redox Potential	Redox Potential	Meter
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2780	Glycols, Aldehydes, Amines, Ethers and Ketones	Glycols, Aldehydes, Amines, Ethers and Ketones	GCMS detection
2790	Semi-Volatile Organic Compounds (SVOCs) in Soils by GC-MS	Semi-volatile organic compounds(cf. USEPA Method 8270)	Acetone/Hexane extraction / GC-MS

Test Methods

SOP	Title	Parameters included	Method summary
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Chemtest
The right chemistry to deliver results

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
$	This information has been supplied by the client and can affect the integrity of test data.

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis
The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols
For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

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

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Analytical Report Number : 23-16752

Project / Site name:	Rainford Avenue, Manchester	**Samples received on:**	10/02/2023
Your job number:	M20 1BR	**Samples instructed on/ Analysis started on:**	10/02/2023
Your order number:		**Analysis completed by:**	22/02/2023
Report Issue Number:	1	**Report issued on:**	22/02/2023
Samples Analysed:	2 soil samples		

Signed:

Dominika Warjan
Junior Reporting Specialist
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

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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.

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number: 23-16752
Project / Site name: Rainford Avenue, Manchester

Lab Sample Number				2580048	2580049
Sample Reference				THA	THB
Sample Number				None Supplied	None Supplied
Depth (m)				0.90	0.90
Date Sampled				08/02/2023	08/02/2023
Time Taken				1230	1230
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	14	14
Total mass of sample received	kg	0.001	NONE	0.8	0.8

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7	7.1
Electrical Conductivity	µS/cm	10	ISO 17025	50	75
Redox Potential	mV	-800	NONE	214.4	209.5

Phenols by HPLC

Catechol	mg/kg	0.1	MCERTS	< 0.10	< 0.10
Resorcinol	mg/kg	0.1	MCERTS	< 0.10	< 0.10
Cresols (o-, m-, p-)	mg/kg	0.3	MCERTS	< 0.30	< 0.30
Total Naphthols (sum of 1- and 2- Naphthol)	mg/kg	0.2	MCERTS	< 0.20	< 0.20
2-Isopropylphenol	mg/kg	0.1	MCERTS	< 0.10	< 0.10
Phenol	mg/kg	0.1	MCERTS	< 0.10	< 0.10
Trimethylphenol (2,3,5-)	mg/kg	0.1	MCERTS	< 0.10	< 0.10
Total Xylenols and Ethylphenols	mg/kg	0.3	MCERTS	< 0.30	< 0.30

Total Phenols

Total Phenols (HPLC)	mg/kg	1.3	MCERTS	< 1.3	< 1.3

Monoaromatics & Oxygenates

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

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC10 $_{HS_1D_AL}$	mg/kg	1	NONE	< 1.0	< 1.0
TPH-CWG - Aromatic >EC5 - EC10 $_{HS_1D_AR}$	mg/kg	1	NONE	< 1.0	< 1.0
TPH Aliphatic (C10 - C16) $_{EH_CU_1D_AL}$	mg/kg	10	NONE	< 10	< 10
TPH Aliphatic (C16 - C40) $_{EH_CU_1D_AL}$	mg/kg	10	NONE	19	11
TPH Aromatic (C10 - C16) $_{EH_CU_1D_AR}$	mg/kg	10	NONE	29	< 10
TPH Aromatic (C16 - C40) $_{EH_CU_1D_AR}$	mg/kg	10	NONE	720	86

Chlorinated Solvents

Total Chlorinated Solvents	µg/kg	100	NONE	< 100	< 100

VOCs

Chloromethane	µg/kg	5	ISO 17025	< 5.0	< 5.0
Chloroethane	µg/kg	5	NONE	< 5.0	< 5.0
Bromomethane	µg/kg	5	ISO 17025	< 5.0	< 5.0
Vinyl Chloride	µg/kg	5	NONE	< 5.0	< 5.0
Trichlorofluoromethane	µg/kg	5	NONE	< 5.0	< 5.0
1,1-Dichloroethene	µg/kg	5	NONE	< 5.0	< 5.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	NONE	< 5.0	< 5.0
Cis-1,2-dichloroethene	µg/kg	5	ISO 17025	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0

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Analytical Report Number: 23-16752
Project / Site name: Rainford Avenue, Manchester

Lab Sample Number				2580048	2580049
Sample Reference				THA	THB
Sample Number				None Supplied	None Supplied
Depth (m)				0.90	0.90
Date Sampled				08/02/2023	08/02/2023
Time Taken				1230	1230
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
1,1-Dichloroethane	µg/kg	5	ISO 17025	< 5.0	< 5.0
2,2-Dichloropropane	µg/kg	5	ISO 17025	< 5.0	< 5.0
Trichloromethane	µg/kg	5	ISO 17025	< 5.0	< 5.0
1,1,1-Trichloroethane	µg/kg	5	ISO 17025	< 5.0	< 5.0
1,2-Dichloroethane	µg/kg	5	ISO 17025	< 5.0	< 5.0
1,1-Dichloropropene	µg/kg	5	ISO 17025	< 5.0	< 5.0
Trans-1,2-dichloroethene	µg/kg	5	NONE	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0
Tetrachloromethane	µg/kg	5	NONE	< 5.0	< 5.0
1,2-Dichloropropane	µg/kg	5	ISO 17025	< 5.0	< 5.0
Trichloroethene	µg/kg	5	ISO 17025	< 5.0	< 5.0
Dibromomethane	µg/kg	5	ISO 17025	< 5.0	< 5.0
Bromodichloromethane	µg/kg	5	ISO 17025	< 5.0	< 5.0
Cis-1,3-dichloropropene	µg/kg	5	ISO 17025	< 5.0	< 5.0
Trans-1,3-dichloropropene	µg/kg	5	NONE	< 5.0*	< 5.0*
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0
1,1,2-Trichloroethane	µg/kg	5	ISO 17025	< 5.0	< 5.0
1,3-Dichloropropane	µg/kg	5	ISO 17025	< 5.0	< 5.0
Dibromochloromethane	µg/kg	5	ISO 17025	< 5.0	< 5.0
Tetrachloroethene	µg/kg	5	NONE	< 5.0	< 5.0
1,2-Dibromoethane	µg/kg	5	ISO 17025	< 5.0	< 5.0
Chlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0
1,1,1,2-Tetrachloroethane	µg/kg	5	ISO 17025	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0
Styrene	µg/kg	5	ISO 17025	< 5.0	< 5.0
Tribromomethane	µg/kg	5	NONE	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0
1,1,2,2-Tetrachloroethane	µg/kg	5	ISO 17025	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0
Bromobenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0
n-Propylbenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0
2-Chlorotoluene	µg/kg	5	ISO 17025	< 5.0	< 5.0
4-Chlorotoluene	µg/kg	5	ISO 17025	< 5.0	< 5.0
1,3,5-Trimethylbenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0
tert-Butylbenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0
1,2,4-Trimethylbenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0
sec-Butylbenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0
1,3-Dichlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0
p-Isopropyltoluene	µg/kg	5	ISO 17025	< 5.0	< 5.0
1,2-Dichlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0
1,4-Dichlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0
Butylbenzene	µg/kg	5	NONE	< 5.0	< 5.0
1,2-Dibromo-3-chloropropane	µg/kg	5	ISO 17025	< 5.0	< 5.0
1,2,4-Trichlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0
Hexachlorobutadiene	µg/kg	5	NONE	< 5.0	< 5.0
1,2,3-Trichlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0

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Analytical Report Number: 23-16752
Project / Site name: Rainford Avenue, Manchester

Lab Sample Number				2580048	2580049
Sample Reference				THA	THB
Sample Number				None Supplied	None Supplied
Depth (m)				0.90	0.90
Date Sampled				08/02/2023	08/02/2023
Time Taken				1230	1230
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
VOCs TICs					
VOCs TICs Compound Name		N/A	NONE	ND	ND
SVOCs					
Aniline	mg/kg	0.1	NONE	< 0.1	1
Phenol	mg/kg	0.2	ISO 17025	< 0.2	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Hexachloroethane	mg/kg	0.05	ISO 17025	< 0.05	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	< 0.2
Isophorone	mg/kg	0.2	MCERTS	< 0.2	< 0.2
2-Nitrophenol	mg/kg	0.3	NONE	< 0.3	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	1.6	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	NONE	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	NONE	< 0.2	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	2.8	0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	NONE	< 0.1	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	1.3	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	14	0.3
2,4-Dinitrotoluene	mg/kg	0.2	NONE	< 0.2	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	3.9	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2
4-Nitroaniline	mg/kg	0.2	NONE	< 0.2	< 0.2
Fluorene	mg/kg	0.05	MCERTS	9.3	0.17
Azobenzene	mg/kg	0.3	NONE	< 0.3	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	99	2.1
Anthracene	mg/kg	0.05	MCERTS	22	0.51
Carbazole	mg/kg	0.3	MCERTS	4.5	< 0.3
Dibutyl phthalate	mg/kg	0.2	NONE	< 0.2	< 0.2
Anthraquinone	mg/kg	0.3	NONE	9.1	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	120	4
Pyrene	mg/kg	0.05	MCERTS	110	4
Butyl benzyl phthalate	mg/kg	0.3	NONE	< 0.3	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	55	2.1
Chrysene	mg/kg	0.05	MCERTS	49	2
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	55	-
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	23	-
Benzo(b)fluoranthene & Benzo(k)fluoranthene	mg/kg	0.1	ISO 17025	-	3.14

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Analytical Report Number: 23-16752
Project / Site name: Rainford Avenue, Manchester

Lab Sample Number				2580048	2580049
Sample Reference				THA	THB
Sample Number				None Supplied	None Supplied
Depth (m)				0.90	0.90
Date Sampled				08/02/2023	08/02/2023
Time Taken				1230	1230
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Benzo(a)pyrene	mg/kg	0.05	MCERTS	51	2
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	23	1.1
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	6.3	0.23
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	27	1.2

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	3,4:8,9-Dibenzopyrene	Naphthalene, substituted
SVOC % Match	%	N/A	NONE	99	96
SVOCs TICs Compound Name		N/A	NONE	Naphthalene, substitute	Chrysene, 2-methyl-
SVOC % Match	%	N/A	NONE	98	95
SVOCs TICs Compound Name		N/A	NONE	Triphenylene	Benzo[e]pyrene
SVOC % Match	%	N/A	NONE	98	95
SVOCs TICs Compound Name		N/A	NONE	Benzo[e]pyrene	ND
SVOC % Match	%	N/A	NONE	98	ND
SVOCs TICs Compound Name		N/A	NONE	3,4:9,10-Dibenzopyrene	ND
SVOC % Match	%	N/A	NONE	98	ND
SVOCs TICs Compound Name		N/A	NONE	Phenanthrene, substitute	ND
SVOC % Match	%	N/A	NONE	97	ND
SVOCs TICs Compound Name		N/A	NONE	Pyrene, substitute	ND
SVOC % Match	%	N/A	NONE	97	ND
SVOCs TICs Compound Name		N/A	NONE	Benz[a]anthracene, substitute	ND
SVOC % Match	%	N/A	NONE	97	ND
SVOCs TICs Compound Name		N/A	NONE	Anthracene, substitute	ND
SVOC % Match	%	N/A	NONE	96	ND
SVOCs TICs Compound Name		N/A	NONE	Benzo[b]triphenylene	ND
SVOC % Match	%	N/A	NONE	96	ND

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

*Data reported unaccredited due to quality control parameter failure associated with this result; other checks applied prior to reporting the data have been accepted. The result should be considered as being deviating and therefore may be unreliable.

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number : 23-16752
Project / Site name: Rainford Avenue, Manchester

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2580048	THA	None Supplied	0.9	Brown loam and sand with gravel.
2580049	THB	None Supplied	0.9	Brown loam and sand with gravel and vegetation.

Analytical Report Number : 23-16752
Project / Site name: Rainford Avenue, Manchester

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
Phenols, speciated, in soil, by HPLC	Determination of speciated phenols by HPLC.	In house method based on Blue Book Method.	L030-PL	W	MCERTS
Electrical conductivity of soil	Determination of electrical conductivity in soil by electrometric measurement.	In-house method	L031-PL	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Redox Potential of soil	Determination of redox potential in soil by electrometric measurement.	In house method.	L084-PL	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.	L019-UK/PL	D	NONE
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	NONE
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Tentatively identified compounds (VOC) in soil	Determination of volatile organic compounds total ion count in soil by headspace GC-MS followed by a full library scan.	In-house method based on USEPA8260	L073-PL	W	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS

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Analytical Report Number : 23-16752
Project / Site name: Rainford Avenue, Manchester

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
Total Chlorinated Solvents in soil	Determination of chlorinated solvents in soil by headspace GC-MS.	In-house method based on USEPA8260	L017-UK	W	NONE
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	NONE

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 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

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Analytical Report Number : 23-16749

Project / Site name:	Rainford Avenue, Manchester	**Samples received on:**	10/02/2023
Your job number:	M20 1BR	**Samples instructed on/ Analysis started on:**	10/02/2023
Your order number:		**Analysis completed by:**	20/02/2023
Report Issue Number:	1	**Report issued on:**	20/02/2023
Samples Analysed:	4 soil samples		

Signed:

Dominika Warjan
Junior Reporting Specialist
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

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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.

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Analytical Report Number: 23-16749
Project / Site name: Rainford Avenue, Manchester

Lab Sample Number				2580031	2580032	2580033	2580034
Sample Reference				THA	THB	THC	THD
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.25	0.25	0.25	0.25
Date Sampled				08/02/2023	08/02/2023	08/02/2023	08/02/2023
Time Taken				1230	1230	1230	1230
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Stone Content	%	0.1	NONE	< 0.1	< 0.1	34	< 0.1
Moisture Content	%	0.01	NONE	17	9.6	14	14
Total mass of sample received	kg	0.001	NONE	0.8	0.8	0.8	0.8

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

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.9	10.5	7.3	7.7
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Thiocyanate as SCN	mg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0
Total Sulphate as SO4	%	0.005	MCERTS	0.033	0.067	0.029	0.04
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	5.8	64	22	9.8
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0029	0.032	0.011	0.0049
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	2.9	31.9	11.2	4.9
Sulphide	mg/kg	1	MCERTS	1.9	2	2.3	4.6
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	2.5	1.6	1.7	2.8

Total Phenols

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

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.05	0.09	< 0.05	0.07
Acenaphthene	mg/kg	0.05	MCERTS	0.33	0.2	0.07	0.11
Fluorene	mg/kg	0.05	MCERTS	0.24	0.2	0.05	0.11
Phenanthrene	mg/kg	0.05	MCERTS	2.6	2	0.65	1.4
Anthracene	mg/kg	0.05	MCERTS	0.59	0.4	0.12	0.36
Fluoranthene	mg/kg	0.05	MCERTS	4.7	2.8	1.1	4
Pyrene	mg/kg	0.05	MCERTS	4.7	2.8	0.95	3.6
Benzo(a)anthracene	mg/kg	0.05	MCERTS	2.4	1.4	0.49	2
Chrysene	mg/kg	0.05	MCERTS	2.2	1.3	0.59	1.9
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	3	2.2	0.49	2.9
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.76	2.1	0.19	0.55
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.3	1.4	0.33	2.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.3	0.68	< 0.05	1.1
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.07	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.6	0.84	< 0.05	1.2

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	26.5	18.3	5	21.4

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Analytical Report Number: 23-16749
Project / Site name: Rainford Avenue, Manchester

Lab Sample Number				2580031	2580032	2580033	2580034
Sample Reference				THA	THB	THC	THD
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.25	0.25	0.25	0.25
Date Sampled				08/02/2023	08/02/2023	08/02/2023	08/02/2023
Time Taken				1230	1230	1230	1230
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Heavy Metals / Metalloids							
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8	8.7	12	14
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.6	0.4	0.7	0.9
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	9.8	12	22	14
Copper (aqua regia extractable)	mg/kg	1	MCERTS	31	25	34	40
Lead (aqua regia extractable)	mg/kg	1	MCERTS	62	51	63	110
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	12	9.6	17	14
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	86	48	100	140
Monoaromatics & Oxygenates							
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0
Petroleum Hydrocarbons							
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH_CU_1D_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	1.5	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	6.4	3.9	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	28	11	< 10	12
TPH-CWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	60	< 10	< 10	29
TPH-CWG - Aromatic (EC5 - EC35) $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	96	24	16	42

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

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number : 23-16749
Project / Site name: Rainford Avenue, Manchester

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2580031	THA	None Supplied	0.25	Brown clay and sand with gravel.
2580032	THB	None Supplied	0.25	Brown loam and sand with vegetation.
2580033	THC	None Supplied	0.25	Brown clay and loam with stones and vegetation.
2580034	THD	None Supplied	0.25	Brown loam and sand with gravel and vegetation.

Analytical Report Number : 23-16749
Project / Site name: Rainford Avenue, Manchester

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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
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	A001-PL	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Thiocyanate in soil	Determination of thiocyanate in soil by extraction in water followed by acidification followed by addition of ferric nitrate followed by discrete analyser (spectrophotometer).	In-house method	L082-PL	D	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.	L019-UK/PL	D	NONE
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 (Skalar)	L080-PL	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.	In house method.	L009-PL	D	MCERTS
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	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-PL	W	MCERTS
Total Sulphate in soil as %	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS

Analytical Report Number : 23-16749
Project / Site name: Rainford Avenue, Manchester

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
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

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

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Analytical Report Number : 23-16763

Project / Site name:	Rainford Avenue, Manchester	**Samples received on:**	10/02/2023
Your job number:	M20 1BR	**Samples instructed on/ Analysis started on:**	10/02/2023
Your order number:		**Analysis completed by:**	20/02/2023
Report Issue Number:	1	**Report issued on:**	20/02/2023
Samples Analysed:	2 10:1 WAC samples		

Signed:

Dominika Warjan
Junior Reporting Specialist
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.

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report relate only to the sample(s) submitted for testing.

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Waste Acceptance Criteria Analytical Results

Report No:	**23-16763**						
					Client:	**WORMSEYE**	
Location	**Rainford Avenue, Manchester**						
Lab Reference (Sample Number)	2580115 / 2580116				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	08/02/2023				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	THB						
Depth (m)	0.25						
Solid Waste Analysis							
TOC (%)**	1.6				3%	5%	6%
Loss on Ignition (%) **	3.9				--	--	10%
BTEX (µg/kg) **	< 5.0				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	18.1				100	--	--
pH (units)**	8.2				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	4.9				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg			
Arsenic *	0.0045			0.0402	0.5	2	25
Barium *	0.0137			0.123	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0015			0.013	0.5	10	70
Copper *	0.013			0.12	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0008			0.0076	0.5	10	30
Nickel *	0.0022			0.020	0.4	10	40
Lead *	< 0.0010			< 0.010	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 *	0.0082			0.073	4	50	200
Chloride *	< 0.15			< 1.5	800	15000	25000
Fluoride*	0.70			6.3	10	150	500
Sulphate *	2.1			19	1000	20000	50000
TDS*	47			420	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	19.3			173	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	0.80						
Dry Matter (%)	90						
Moisture (%)	9.6						

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 discrepencies with current legislation

** = MCERTS accredited

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

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The results included within the report are representative of the samples submitted for analysis.

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Waste Acceptance Criteria Analytical Results

Report No:	**23-16763**						
					Client:	**WORMSEYE**	
Location	**Rainford Avenue, Manchester**						
Lab Reference (Sample Number)	2580117 / 2580118				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	08/02/2023				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	THC						
Depth (m)	0.25						
Solid Waste Analysis							
TOC (%)**	1.7				3%	5%	6%
Loss on Ignition (%) **	4.5				--	--	10%
BTEX (µg/kg) **	< 5.0				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	4.99				100	--	--
pH (units)**	7.4				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	2.0				--	To be evaluated	To be evaluated
Eluate Analysis (BS EN 12457 - 2 preparation utilising end over end leaching procedure)	10:1 mg/l			10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	< 0.0010			< 0.0100	0.5	2	25
Barium *	0.0244			0.198	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	< 0.0004			< 0.0040	0.5	10	70
Copper *	0.0015			0.012	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	< 0.0004			< 0.0040	0.5	10	30
Nickel *	0.0008			0.0064	0.4	10	40
Lead *	0.0011			< 0.010	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 *	0.0021			0.017	4	50	200
Chloride *	0.63			5.1	800	15000	25000
Fluoride*	0.36			2.9	10	150	500
Sulphate *	1.3			11	1000	20000	50000
TDS*	52			430	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	19.8			161	500	800	1000
Leach Test Information							
Stone Content (%)	34						
Sample Mass (kg)	0.80						
Dry Matter (%)	86						
Moisture (%)	14						

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 discrepencies with current legislation ** = MCERTS accredited

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

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The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number : 23-16763
Project / Site name: Rainford Avenue, Manchester

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2580115	THB	None Supplied	0.25	Brown loam and sand with vegetation.
2580117	THC	None Supplied	0.25	Brown clay and loam with stones and vegetation.

Analytical Report Number : 23-16763
Project / Site name: Rainford Avenue, Manchester

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
BS EN 12457-2 (10:1) Leachate Prep	10:1 (as recieved, moisture adjusted) end over end extraction with water for 24 hours. Eluate filtered prior to analysis.	In-house method based on BSEN12457-2.	L043-PL	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 an Sampling and Testing of Wastes to Meet Landfill Waste Acceptance""	L046-PL	W	NONE
Loss on ignition of soil @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace.	In house method.	L047-PL	D	MCERTS
Mineral Oil (Soil) C10 - C40	Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L076-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Speciated WAC-17 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270.	L064-PL	D	MCERTS
PCB's By GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	MCERTS
pH at 20oC in soil	Determination of pH in soil by addition of water followed by electrometric measurement.	In house method.	L005-PL	W	MCERTS
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.	L019-UK/PL	D	NONE
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
BTEX in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Total BTEX in soil (Poland)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073-PL	W	MCERTS
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""	L039-PL	W	ISO 17025
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260.	L082-PL	W	ISO 17025
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio 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-PL	W	ISO 17025
Sulphate 10:1 WAC	Determination of sulphate in leachate by ICP-OES	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by EC probe using a factor of 0.6.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L031	W	ISO 17025

Analytical Report Number : 23-16763
Project / Site name: Rainford Avenue, Manchester

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
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-PL	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved inorganic carbon in leachate by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	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

WORMS EYE LIMITED

HazWasteOnline™

Waste Classification Report

5N5QF-9AKYT-R4VLM

Job name

Rainford Avenue, Manchester, M20 1BR

Description/Comments

Project

Rainford Avenue, Manchester, M20 1BR

Site

Rainford Avenue, Manchester, M20 1BR

Related Documents

#	Name	Description
None		

Waste Stream Template

Worms Eye v3

Classified by

Name:
Emma Lord
Date:
16 Dec 2019 14:25 GMT
Telephone:
01282 414649

Company:
Worms Eye Limited
52 Bank Parade
Burnley
BB11 1TS

Report

Created by: Emma Lord
Created date: 16 Dec 2019 14:25 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	BH1	0.30	Non Hazardous		2
2	BH2	0.20	Non Hazardous		5
3	BH3	0.30	Non Hazardous		8
4	BH4	0.30	Non Hazardous		11
5	BH6	0.20	Non Hazardous		14
6	BH1 0.90	0.90	Non Hazardous		17
7	BH3 0.90	0.90	Non Hazardous		18

Appendices	Page
Appendix A: Classifier defined and non CLP determinands	20
Appendix B: Rationale for selection of metal species	21
Appendix C: Version	22

Classification of sample: BH1

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

Sample details

Sample Name:
BH1
Sample Depth:
0.30 m
Moisture content:
14%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 14% No Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		13	mg/kg	1.32	17.164	mg/kg	0.00172 %		
2		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.36	mg/kg	1.285	0.463	mg/kg	0.000036 %		
3		chromium in chromium(III) compounds { chromium(III) oxide }		215-160-9	1308-38-9		11	mg/kg	1.462	16.077	mg/kg	0.00161 %		
4		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		**<LOD**
5		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		18	mg/kg	1.126	20.266	mg/kg	0.00203 %		
6		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		**<LOD**
7		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	63	mg/kg	1.56	98.268	mg/kg	0.0063 %		
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.13	mg/kg	1.353	0.176	mg/kg	0.0000176 %		
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		12	mg/kg	1.579	18.954	mg/kg	0.0019 %		
10		pH			PH		8.4	pH		8.4	pH	8.4 pH		
11		phenol	604-001-00-2	203-632-7	108-95-2		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		**<LOD**
12		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<0.2	mg/kg	2.554	<0.511	mg/kg	<0.0000511 %		**<LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
13		zinc { zinc oxide }				50	mg/kg	1.245	62.236	mg/kg	0.00622 %		
		030-013-00-7	215-222-5	1314-13-2									
14		benzene				<0.0002	mg/kg		<0.0002	mg/kg	<0.00000002 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.0002	mg/kg		<0.0002	mg/kg	<0.00000002 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.0002	mg/kg		<0.0002	mg/kg	<0.00000002 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.0004	mg/kg		<0.0004	mg/kg	<0.00000004 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		TPH (C6 to C40) petroleum group				<2	mg/kg		<2	mg/kg	<0.0002 %		**<LOD**
				TPH									
19		acenaphthene				0.39	mg/kg		0.39	mg/kg	0.000039 %		
			201-469-6	83-32-9									
20		acenaphthylene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
			205-917-1	208-96-8									
21		anthracene				0.77	mg/kg		0.77	mg/kg	0.000077 %		
			204-371-1	120-12-7									
22		benzo[a]anthracene				1.8	mg/kg		1.8	mg/kg	0.00018 %		
		601-033-00-9	200-280-6	56-55-3									
23		benzo[a]pyrene; benzo[def]chrysene				1.5	mg/kg		1.5	mg/kg	0.00015 %		
		601-032-00-3	200-028-5	50-32-8									
24		benzo[b]fluoranthene				2.2	mg/kg		2.2	mg/kg	0.00022 %		
		601-034-00-4	205-911-9	205-99-2									
25		benzo[k]fluoranthene				0.73	mg/kg		0.73	mg/kg	0.000073 %		
		601-036-00-5	205-916-6	207-08-9									
26		benzo[ghi]perylene				1.1	mg/kg		1.1	mg/kg	0.00011 %		
			205-883-8	191-24-2									
27		chrysene				2.5	mg/kg		2.5	mg/kg	0.00025 %		
		601-048-00-0	205-923-4	218-01-9									
28		dibenz[a,h]anthracene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
		601-041-00-2	200-181-8	53-70-3									
29		fluoranthene				4	mg/kg		4	mg/kg	0.0004 %		
			205-912-4	206-44-0									
30		fluorene				0.31	mg/kg		0.31	mg/kg	0.000031 %		
			201-695-5	86-73-7									
31		indeno[123-cd]pyrene				1.1	mg/kg		1.1	mg/kg	0.00011 %		
			205-893-2	193-39-5									
32		naphthalene				0.21	mg/kg		0.21	mg/kg	0.000021 %		
		601-052-00-2	202-049-5	91-20-3									
33		phenanthrene				3.3	mg/kg		3.3	mg/kg	0.00033 %		
			201-581-5	85-01-8									
34		pyrene				4.2	mg/kg		4.2	mg/kg	0.00042 %		
			204-927-3	129-00-0									
35		asbestos				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		**<LOD**
		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									
										Total:	0.0227 %		

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 Deteminand - 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

Classification of sample: BH2

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

Sample details

Sample Name:
BH2
Sample Depth:
0.20 m
Moisture content:
16%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 16% No Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		13	mg/kg	1.32	17.164	mg/kg	0.00172 %		
2		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	1.5	mg/kg	1.285	1.928	mg/kg	0.00015 %		
3		chromium in chromium(III) compounds { chromium(III) oxide }		215-160-9	1308-38-9		20	mg/kg	1.462	29.231	mg/kg	0.00292 %		
4		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		**<LOD**
5		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		66	mg/kg	1.126	74.309	mg/kg	0.00743 %		
6		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		**<LOD**
7		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	200	mg/kg	1.56	311.963	mg/kg	0.02 %		
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.22	mg/kg	1.353	0.298	mg/kg	0.0000298 %		
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		19	mg/kg	1.579	30.01	mg/kg	0.003 %		
10		pH			PH		8	pH		8	pH	8pH		
11		phenol	604-001-00-2	203-632-7	108-95-2		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		**<LOD**
12		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				0.43	mg/kg	2.554	1.098	mg/kg	0.00011 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
13		zinc { zinc oxide }				240	mg/kg	1.245	298.731	mg/kg	0.0299 %		
		030-013-00-7	215-222-5	1314-13-2									
14		benzene				<0.0002	mg/kg		<0.0002	mg/kg	<0.00000002 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.0002	mg/kg		<0.0002	mg/kg	<0.00000002 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.0002	mg/kg		<0.0002	mg/kg	<0.00000002 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.0004	mg/kg		<0.0004	mg/kg	<0.00000004 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		TPH (C6 to C40) petroleum group				<2	mg/kg		<2	mg/kg	<0.0002 %		<LOD
				TPH									
19		acenaphthene				0.38	mg/kg		0.38	mg/kg	0.000038 %		
			201-469-6	83-32-9									
20		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
21		anthracene				0.88	mg/kg		0.88	mg/kg	0.000088 %		
			204-371-1	120-12-7									
22		benzo[a]anthracene				2.8	mg/kg		2.8	mg/kg	0.00028 %		
		601-033-00-9	200-280-6	56-55-3									
23		benzo[a]pyrene; benzo[def]chrysene				2.9	mg/kg		2.9	mg/kg	0.00029 %		
		601-032-00-3	200-028-5	50-32-8									
24		benzo[b]fluoranthene				3.3	mg/kg		3.3	mg/kg	0.00033 %		
		601-034-00-4	205-911-9	205-99-2									
25		benzo[k]fluoranthene				1.3	mg/kg		1.3	mg/kg	0.00013 %		
		601-036-00-5	205-916-6	207-08-9									
26		benzo[ghi]perylene				2	mg/kg		2	mg/kg	0.0002 %		
			205-883-8	191-24-2									
27		chrysene				3.8	mg/kg		3.8	mg/kg	0.00038 %		
		601-048-00-0	205-923-4	218-01-9									
28		dibenz[a,h]anthracene				0.52	mg/kg		0.52	mg/kg	0.000052 %		
		601-041-00-2	200-181-8	53-70-3									
29		fluoranthene				5.5	mg/kg		5.5	mg/kg	0.00055 %		
			205-912-4	206-44-0									
30		fluorene				0.29	mg/kg		0.29	mg/kg	0.000029 %		
			201-695-5	86-73-7									
31		indeno[123-cd]pyrene				1.8	mg/kg		1.8	mg/kg	0.00018 %		
			205-893-2	193-39-5									
32		naphthalene				0.26	mg/kg		0.26	mg/kg	0.000026 %		
		601-052-00-2	202-049-5	91-20-3									
33		phenanthrene				3	mg/kg		3	mg/kg	0.0003 %		
			201-581-5	85-01-8									
34		pyrene				5.6	mg/kg		5.6	mg/kg	0.00056 %		
			204-927-3	129-00-0									
35		asbestos				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		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									
										Total:	0.0691 %		

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 Deteminand - 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

Classification of sample: BH3

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

Sample details

Sample Name:
BH3
Sample Depth:
0.30 m
Moisture content:
13%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 13% No Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		11	mg/kg	1.32	14.524	mg/kg	0.00145 %		
2		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.23	mg/kg	1.285	0.296	mg/kg	0.000023 %		
3		chromium in chromium(III) compounds { chromium(III) oxide }		215-160-9	1308-38-9		14	mg/kg	1.462	20.462	mg/kg	0.00205 %		
4		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		**<LOD**
5		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		26	mg/kg	1.126	29.273	mg/kg	0.00293 %		
6		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		**<LOD**
7		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	68	mg/kg	1.56	106.067	mg/kg	0.0068 %		
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.18	mg/kg	1.353	0.244	mg/kg	0.0000244 %		
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		13	mg/kg	1.579	20.533	mg/kg	0.00205 %		
10		pH			PH		8	pH		8	pH	8pH		
11		phenol	604-001-00-2	203-632-7	108-95-2		1.5	mg/kg		1.5	mg/kg	0.00015 %		
12		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				0.3	mg/kg	2.554	0.766	mg/kg	0.0000766 %		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
13		zinc { zinc oxide }				46	mg/kg	1.245	57.257	mg/kg	0.00573 %		
		030-013-00-7	215-222-5	1314-13-2									
14		benzene				<0.0002	mg/kg		<0.0002	mg/kg	<0.00000002 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.0002	mg/kg		<0.0002	mg/kg	<0.00000002 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.0002	mg/kg		<0.0002	mg/kg	<0.00000002 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.0004	mg/kg		<0.0004	mg/kg	<0.00000004 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		TPH (C6 to C40) petroleum group				<2	mg/kg		<2	mg/kg	<0.0002 %		**<LOD**
				TPH									
19		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			201-469-6	83-32-9									
20		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			205-917-1	208-96-8									
21		anthracene				0.25	mg/kg		0.25	mg/kg	0.000025 %		
			204-371-1	120-12-7									
22		benzo[a]anthracene				0.78	mg/kg		0.78	mg/kg	0.000078 %		
		601-033-00-9	200-280-6	56-55-3									
23		benzo[a]pyrene; benzo[def]chrysene				1.4	mg/kg		1.4	mg/kg	0.00014 %		
		601-032-00-3	200-028-5	50-32-8									
24		benzo[b]fluoranthene				1	mg/kg		1	mg/kg	0.0001 %		
		601-034-00-4	205-911-9	205-99-2									
25		benzo[k]fluoranthene				0.33	mg/kg		0.33	mg/kg	0.000033 %		
		601-036-00-5	205-916-6	207-08-9									
26		benzo[ghi]perylene				0.62	mg/kg		0.62	mg/kg	0.000062 %		
			205-883-8	191-24-2									
27		chrysene				1.2	mg/kg		1.2	mg/kg	0.00012 %		
		601-048-00-0	205-923-4	218-01-9									
28		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
29		fluoranthene				1.6	mg/kg		1.6	mg/kg	0.00016 %		
			205-912-4	206-44-0									
30		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			201-695-5	86-73-7									
31		indeno[123-cd]pyrene				0.55	mg/kg		0.55	mg/kg	0.000055 %		
			205-893-2	193-39-5									
32		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
33		phenanthrene				0.79	mg/kg		0.79	mg/kg	0.000079 %		
			201-581-5	85-01-8									
34		pyrene				1.7	mg/kg		1.7	mg/kg	0.00017 %		
			204-927-3	129-00-0									
35		asbestos				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		**<LOD**
		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									
										Total:	0.0227 %		

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 Deteminand - 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

Classification of sample: BH4

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

Sample details

Sample Name:
BH4
Sample Depth:
0.30 m
Moisture content:
12%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 12% No Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		16	mg/kg	1.32	21.125	mg/kg	0.00211 %		
2		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	1.8	mg/kg	1.285	2.313	mg/kg	0.00018 %		
3		chromium in chromium(III) compounds { chromium(III) oxide }		215-160-9	1308-38-9		16	mg/kg	1.462	23.385	mg/kg	0.00234 %		
4		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		**<LOD**
5		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		25	mg/kg	1.126	28.147	mg/kg	0.00281 %		
6		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		**<LOD**
7		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	70	mg/kg	1.56	109.187	mg/kg	0.007 %		
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.13	mg/kg	1.353	0.176	mg/kg	0.0000176 %		
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		17	mg/kg	1.579	26.851	mg/kg	0.00269 %		
10		pH			PH		8.4	pH		8.4	pH	8.4 pH		
11		phenol	604-001-00-2	203-632-7	108-95-2		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		**<LOD**
12		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<0.2	mg/kg	2.554	<0.511	mg/kg	<0.0000511 %		**<LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
13		zinc { zinc oxide }				140	mg/kg	1.245	174.26	mg/kg	0.0174 %		
		030-013-00-7	215-222-5	1314-13-2									
14		benzene				<0.0002	mg/kg		<0.0002	mg/kg	<0.00000002 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.0002	mg/kg		<0.0002	mg/kg	<0.00000002 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.0002	mg/kg		<0.0002	mg/kg	<0.00000002 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.0004	mg/kg		<0.0004	mg/kg	<0.00000004 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		TPH (C6 to C40) petroleum group				360	mg/kg		360	mg/kg	0.036 %		
				TPH									
19		acenaphthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9									
20		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8									
21		anthracene				0.25	mg/kg		0.25	mg/kg	0.000025 %		
			204-371-1	120-12-7									
22		benzo[a]anthracene				0.78	mg/kg		0.78	mg/kg	0.000078 %		
		601-033-00-9	200-280-6	56-55-3									
23		benzo[a]pyrene; benzo[def]chrysene				1.4	mg/kg		1.4	mg/kg	0.00014 %		
		601-032-00-3	200-028-5	50-32-8									
24		benzo[b]fluoranthene				1	mg/kg		1	mg/kg	0.0001 %		
		601-034-00-4	205-911-9	205-99-2									
25		benzo[k]fluoranthene				0.33	mg/kg		0.33	mg/kg	0.000033 %		
		601-036-00-5	205-916-6	207-08-9									
26		benzo[ghi]perylene				0.62	mg/kg		0.62	mg/kg	0.000062 %		
			205-883-8	191-24-2									
27		chrysene				1.2	mg/kg		1.2	mg/kg	0.00012 %		
		601-048-00-0	205-923-4	218-01-9									
28		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
29		fluoranthene				1.6	mg/kg		1.6	mg/kg	0.00016 %		
			205-912-4	206-44-0									
30		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7									
31		indeno[123-cd]pyrene				0.55	mg/kg		0.55	mg/kg	0.000055 %		
			205-893-2	193-39-5									
32		naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
33		phenanthrene				0.79	mg/kg		0.79	mg/kg	0.000079 %		
			201-581-5	85-01-8									
34		pyrene				1.7	mg/kg		1.7	mg/kg	0.00017 %		
			204-927-3	129-00-0									
35		asbestos				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		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									
										Total:	0.0719 %		

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 Deteminand - 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 Low level

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.036%)

Classification of sample: BH6

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

Sample details

Sample Name:
BH6
Sample Depth:
0.20 m
Moisture content:
11%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 11% No Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		14	mg/kg	1.32	18.485	mg/kg	0.00185 %		
2		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	2.5	mg/kg	1.285	3.213	mg/kg	0.00025 %		
3		chromium in chromium(III) compounds { chromium(III) oxide }		215-160-9	1308-38-9		15	mg/kg	1.462	21.923	mg/kg	0.00219 %		
4		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		**<LOD**
5		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		19	mg/kg	1.126	21.392	mg/kg	0.00214 %		
6		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		**<LOD**
7		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	240	mg/kg	1.56	374.356	mg/kg	0.024 %		
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.22	mg/kg	1.353	0.298	mg/kg	0.0000298 %		
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		14	mg/kg	1.579	22.113	mg/kg	0.00221 %		
10		pH			PH		8.2	pH		8.2	pH	8.2 pH		
11		phenol	604-001-00-2	203-632-7	108-95-2		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		**<LOD**
12		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<0.2	mg/kg	2.554	<0.511	mg/kg	<0.0000511 %		**<LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
13		zinc { zinc oxide }				300	mg/kg	1.245	373.414	mg/kg	0.0373 %		
		030-013-00-7	215-222-5	1314-13-2									
14		benzene				<0.0002	mg/kg		<0.0002	mg/kg	<0.00000002 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.0002	mg/kg		<0.0002	mg/kg	<0.00000002 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<0.0002	mg/kg		<0.0002	mg/kg	<0.00000002 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.0004	mg/kg		<0.0004	mg/kg	<0.00000004 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18		TPH (C6 to C40) petroleum group				480	mg/kg		480	mg/kg	0.048 %		
				TPH									
19		acenaphthene				0.59	mg/kg		0.59	mg/kg	0.000059 %		
			201-469-6	83-32-9									
20		acenaphthylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			205-917-1	208-96-8									
21		anthracene				0.3	mg/kg		0.3	mg/kg	0.00003 %		
			204-371-1	120-12-7									
22		benzo[a]anthracene				1.3	mg/kg		1.3	mg/kg	0.00013 %		
		601-033-00-9	200-280-6	56-55-3									
23		benzo[a]pyrene; benzo[def]chrysene				2	mg/kg		2	mg/kg	0.0002 %		
		601-032-00-3	200-028-5	50-32-8									
24		benzo[b]fluoranthene				2	mg/kg		2	mg/kg	0.0002 %		
		601-034-00-4	205-911-9	205-99-2									
25		benzo[k]fluoranthene				0.72	mg/kg		0.72	mg/kg	0.000072 %		
		601-036-00-5	205-916-6	207-08-9									
26		benzo[ghi]perylene				1.2	mg/kg		1.2	mg/kg	0.00012 %		
			205-883-8	191-24-2									
27		chrysene				2.1	mg/kg		2.1	mg/kg	0.00021 %		
		601-048-00-0	205-923-4	218-01-9									
28		dibenz[a,h]anthracene				0.29	mg/kg		0.29	mg/kg	0.000029 %		
		601-041-00-2	200-181-8	53-70-3									
29		fluoranthene				2.4	mg/kg		2.4	mg/kg	0.00024 %		
			205-912-4	206-44-0									
30		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			201-695-5	86-73-7									
31		indeno[123-cd]pyrene				1.3	mg/kg		1.3	mg/kg	0.00013 %		
			205-893-2	193-39-5									
32		naphthalene				0.16	mg/kg		0.16	mg/kg	0.000016 %		
		601-052-00-2	202-049-5	91-20-3									
33		phenanthrene				1.2	mg/kg		1.2	mg/kg	0.00012 %		
			201-581-5	85-01-8									
34		pyrene				2.7	mg/kg		2.7	mg/kg	0.00027 %		
			204-927-3	129-00-0									
35		asbestos				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		**<LOD**
		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									
										Total:	0.12 %		

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 Deteminand - 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 Low level

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.048%)

Classification of sample: BH1 0.90

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

Sample details

Sample Name:
BH1 0.90
Sample Depth:
0.90 m
Moisture content:
16%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 16% No Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
1	•	pH				8.2 pH		8.2 pH	8.2 pH		
				PH							
2		phenol				<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2							
3		benzene				<0.0002 mg/kg		<0.0002 mg/kg	<0.00000002 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2							
4		toluene				<0.0002 mg/kg		<0.0002 mg/kg	<0.00000002 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3							
5	•	ethylbenzene				<0.0002 mg/kg		<0.0002 mg/kg	<0.00000002 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4							
6		xylene				<0.0004 mg/kg		<0.0004 mg/kg	<0.00000004 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
7	•	TPH (C6 to C40) petroleum group				<2 mg/kg		<2 mg/kg	<0.0002 %		**<LOD**
				TPH							
								Total:	0.00023 %		

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)
<LOD	Below limit of detection
ND	Not detected

Classification of sample: BH3 0.90

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

Sample details

Sample Name:
BH3 0.90
Sample Depth:
0.90 m
Moisture content:
15%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 15% No Moisture Correction applied (MC)

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	•	pH			PH		8	pH		8	pH	8pH		
2		phenol	604-001-00-2	203-632-7	108-95-2		<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		**<LOD**
3		benzene	601-020-00-8	200-753-7	71-43-2		<0.0002	mg/kg		<0.0002	mg/kg	<0.00000002 %		**<LOD**
4		toluene	601-021-00-3	203-625-9	108-88-3		<0.0002	mg/kg		<0.0002	mg/kg	<0.00000002 %		**<LOD**
5	•	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.0002	mg/kg		<0.0002	mg/kg	<0.00000002 %		**<LOD**
6		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.0004	mg/kg		<0.0004	mg/kg	<0.00000004 %		**<LOD**
7	•	TPH (C6 to C40) petroleum group			TPH		440	mg/kg		440	mg/kg	0.044 %		
											Total:	0.044 %		

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)
<LOD	Below limit of detection
ND	Not detected

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 Low level

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.044%)

Appendix A: Classifier defined and non CLP determinands

- **pH** (CAS Number: PH)

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

- **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

CLP index number: 601-023-00-4
Description/Comments:
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s)/Risk Phrase(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

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

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

Conversion factor: 1.462
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: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Repr. 1B H360FD , Skin Sens. 1 H317 , Resp. Sens. 1 H334 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 4 H302 , Acute Tox. 4 H332

- **salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex**

CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s)/Risk Phrase(s):
14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

- **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: Aquatic Chronic 2 H411 , Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319

- **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: Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 1 H310 , Acute Tox. 1 H330 , Acute Tox. 4 H302

- **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: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Sens. 1 H317 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319

- **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 Chronic 1 H410 , Aquatic Acute 1 H400

- **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: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Acute Tox. 4 H302

- **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 Chronic 1 H410 , Aquatic Acute 1 H400

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

- **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: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Skin Irrit. 2 H315

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Worst case species based on hazard statements

cadmium {cadmium sulfide}

Worst case species based on hazard statements

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

Worst case species based on hazard statements

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case species based on hazard statements

copper {dicopper oxide; copper (I) oxide}

Most likely common species

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Worst case species

lead {lead chromate}

Worst case species based on hazard statements

mercury {mercury dichloride}

Worst case species based on hazard statements

nickel {nickel dihydroxide}

Worst case species based on hazard statements

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

Worst case species based on hazard statements

zinc {zinc oxide}

Suspected

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2019.344.4102.8212 (10 Dec 2019)
HazWasteOnline Database: 2019.344.4102.8212 (10 Dec 2019)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
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 Wastes 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
POPs Regulation 2004 - Regulation 850/2004/EC of 29 April 2004
1st ATP to POPs Regulation - Regulation 756/2010/EU of 24 August 2010
2nd ATP to POPs Regulation - Regulation 757/2010/EU of 24 August 2010

WORMS EYE LIMITED

HazWasteOnline™

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:

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

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

NZIEM-268XE-RGIZG

Job name

Rainford Avenue, Manchester, M20 1BR[2]

Description/Comments

Project

Rainford Avenue, Manchester, M20 1BR

Site

Rainford Avenue, Manchester, M20 1BR

Classified by

Name:
Emma Whitaker
Date:
24 Feb 2023 10:54 GMT
Telephone:
01282 414649

Company:
Worms Eye Ltd
1st Floor Block C, The Wharf
Manchester Road
Burnley
BB11 1JG

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:	-
Course	**Date**
Hazardous Waste Classification	-

Purpose of classification

2 - Material Characterisation

Address of the waste

Rainford Avenue, Manchester **Post Code** M20 1BR

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Redevelopment of site.

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

Removal of excavated soils.

Description of the waste

Excavated made ground and topsoil.

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	THA	0.25	Non Hazardous		3
2	THB	0.25	Non Hazardous		6
3	THC	0.25	Non Hazardous		9
4	THD	0.25	Non Hazardous		12
5	THA - 0.90m	0.90	Non Hazardous		15
6	THB - 0.90m	0.90	Non Hazardous		17

Related documents

#	Name	Description
1	Worms Eye v3	waste stream template used to create this Job

Report

Created by: Emma Whitaker

Created date: 24 Feb 2023 10:54 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	19
Appendix B: Rationale for selection of metal species	20
Appendix C: Version	20

Classification of sample: THA

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

Sample details

Sample name:
THA
Sample Depth:
0.25 m
Moisture content:
17%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 17% No Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		8	mg/kg	1.32	10.563	mg/kg	0.00106 %		
2		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.6	mg/kg	1.285	0.771	mg/kg	0.00006 %		
3		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		9.8	mg/kg	1.462	14.323	mg/kg	0.00143 %		
4		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1.8	mg/kg	1.923	<3.462	mg/kg	<0.000346 %		**<LOD**
5		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		31	mg/kg	1.126	34.903	mg/kg	0.00349 %		
6		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
7		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	62	mg/kg	1.56	96.709	mg/kg	0.0062 %		
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		12	mg/kg	1.579	18.954	mg/kg	0.0019 %		
10		pH			PH		7.9	pH		7.9	pH	7.9 pH		
11		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
12		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		**<LOD**
13		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		86	mg/kg	1.245	107.045	mg/kg	0.0107 %		

#		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									
14		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
16	•	ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18	•	TPH (C6 to C40) petroleum group				106	mg/kg		106	mg/kg	0.0106 %		
				TPH									
19	•	acenaphthene				0.33	mg/kg		0.33	mg/kg	0.000033 %		
			201-469-6	83-32-9									
20	•	acenaphthylene				0.05	mg/kg		0.05	mg/kg	0.000005 %		
			205-917-1	208-96-8									
21	•	anthracene				0.59	mg/kg		0.59	mg/kg	0.000059 %		
			204-371-1	120-12-7									
22		benzo[a]anthracene				2.4	mg/kg		2.4	mg/kg	0.00024 %		
		601-033-00-9	200-280-6	56-55-3									
23		benzo[a]pyrene; benzo[def]chrysene				2.3	mg/kg		2.3	mg/kg	0.00023 %		
		601-032-00-3	200-028-5	50-32-8									
24		benzo[b]fluoranthene				3	mg/kg		3	mg/kg	0.0003 %		
		601-034-00-4	205-911-9	205-99-2									
25		benzo[k]fluoranthene				0.76	mg/kg		0.76	mg/kg	0.000076 %		
		601-036-00-5	205-916-6	207-08-9									
26	•	benzo[ghi]perylene				1.6	mg/kg		1.6	mg/kg	0.00016 %		
			205-883-8	191-24-2									
27		chrysene				2.2	mg/kg		2.2	mg/kg	0.00022 %		
		601-048-00-0	205-923-4	218-01-9									
28		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
29	•	fluoranthene				4.7	mg/kg		4.7	mg/kg	0.00047 %		
			205-912-4	206-44-0									
30	•	fluorene				0.24	mg/kg		0.24	mg/kg	0.000024 %		
			201-695-5	86-73-7									
31	•	indeno[123-cd]pyrene				1.3	mg/kg		1.3	mg/kg	0.00013 %		
			205-893-2	193-39-5									
32		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
33	•	phenanthrene				2.6	mg/kg		2.6	mg/kg	0.00026 %		
			201-581-5	85-01-8									
34	•	pyrene				4.7	mg/kg		4.7	mg/kg	0.00047 %		
			204-927-3	129-00-0									
35		asbestos				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		**<LOD**
		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									
										Total:	0.0389 %		

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 Deteminand - 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 Low level, below threshold.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0106%)

Classification of sample: THB

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

Sample details

Sample name:
THB
Sample Depth:
0.25 m
Moisture content:
9.6%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 9.6% No Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		8.7	mg/kg	1.32	11.487	mg/kg	0.00115 %		
2		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.4	mg/kg	1.285	0.514	mg/kg	0.00004 %		
3		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12	mg/kg	1.462	17.539	mg/kg	0.00175 %		
4		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1.8	mg/kg	1.923	<3.462	mg/kg	<0.000346 %		**<LOD**
5		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		25	mg/kg	1.126	28.147	mg/kg	0.00281 %		
6		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
7		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	51	mg/kg	1.56	79.551	mg/kg	0.0051 %		
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		9.6	mg/kg	1.579	15.163	mg/kg	0.00152 %		
10		pH			PH		10.5	pH		10.5	pH	10.5 pH		
11		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
12		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		**<LOD**
13		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		48	mg/kg	1.245	59.746	mg/kg	0.00597 %		

#		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									
14		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
16	•	ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18	•	TPH (C6 to C40) petroleum group				34	mg/kg		34	mg/kg	0.0034 %		
				TPH									
19	•	acenaphthene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
			201-469-6	83-32-9									
20	•	acenaphthylene				0.09	mg/kg		0.09	mg/kg	0.000009 %		
			205-917-1	208-96-8									
21	•	anthracene				0.4	mg/kg		0.4	mg/kg	0.00004 %		
			204-371-1	120-12-7									
22		benzo[a]anthracene				1.4	mg/kg		1.4	mg/kg	0.00014 %		
		601-033-00-9	200-280-6	56-55-3									
23		benzo[a]pyrene; benzo[def]chrysene				1.4	mg/kg		1.4	mg/kg	0.00014 %		
		601-032-00-3	200-028-5	50-32-8									
24		benzo[b]fluoranthene				2.2	mg/kg		2.2	mg/kg	0.00022 %		
		601-034-00-4	205-911-9	205-99-2									
25		benzo[k]fluoranthene				2.1	mg/kg		2.1	mg/kg	0.00021 %		
		601-036-00-5	205-916-6	207-08-9									
26	•	benzo[ghi]perylene				0.84	mg/kg		0.84	mg/kg	0.000084 %		
			205-883-8	191-24-2									
27		chrysene				1.3	mg/kg		1.3	mg/kg	0.00013 %		
		601-048-00-0	205-923-4	218-01-9									
28		dibenz[a,h]anthracene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
		601-041-00-2	200-181-8	53-70-3									
29	•	fluoranthene				2.8	mg/kg		2.8	mg/kg	0.00028 %		
			205-912-4	206-44-0									
30	•	fluorene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
			201-695-5	86-73-7									
31	•	indeno[123-cd]pyrene				0.68	mg/kg		0.68	mg/kg	0.000068 %		
			205-893-2	193-39-5									
32		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
33	•	phenanthrene				2	mg/kg		2	mg/kg	0.0002 %		
			201-581-5	85-01-8									
34	•	pyrene				2.8	mg/kg		2.8	mg/kg	0.00028 %		
			204-927-3	129-00-0									
35		asbestos				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		**<LOD**
		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									
										Total:	0.0244 %		

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 Deteminand - 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 Low level, below threshold.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0034%)

Classification of sample: THC

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

Sample details

Sample name:
THC
Sample Depth:
0.25 m
Moisture content:
14%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 14% No Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		12	mg/kg	1.32	15.844	mg/kg	0.00158 %		
2		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.7	mg/kg	1.285	0.9	mg/kg	0.00007 %		
3		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		22	mg/kg	1.462	32.154	mg/kg	0.00322 %		
4		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1.8	mg/kg	1.923	<3.462	mg/kg	<0.000346 %		**<LOD**
5		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		34	mg/kg	1.126	38.28	mg/kg	0.00383 %		
6		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
7		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	63	mg/kg	1.56	98.268	mg/kg	0.0063 %		
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		17	mg/kg	1.579	26.851	mg/kg	0.00269 %		
10		pH			PH		7.3	pH		7.3	pH	7.3 pH		
11		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
12		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		**<LOD**
13		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		100	mg/kg	1.245	124.471	mg/kg	0.0124 %		

#		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									
14		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
16	•	ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18	•	TPH (C6 to C40) petroleum group				26	mg/kg		26	mg/kg	0.0026 %		
				TPH									
19	•	acenaphthene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
			201-469-6	83-32-9									
20	•	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
			205-917-1	208-96-8									
21	•	anthracene				0.12	mg/kg		0.12	mg/kg	0.000012 %		
			204-371-1	120-12-7									
22		benzo[a]anthracene				0.49	mg/kg		0.49	mg/kg	0.000049 %		
		601-033-00-9	200-280-6	56-55-3									
23		benzo[a]pyrene; benzo[def]chrysene				0.33	mg/kg		0.33	mg/kg	0.000033 %		
		601-032-00-3	200-028-5	50-32-8									
24		benzo[b]fluoranthene				0.49	mg/kg		0.49	mg/kg	0.000049 %		
		601-034-00-4	205-911-9	205-99-2									
25		benzo[k]fluoranthene				0.19	mg/kg		0.19	mg/kg	0.000019 %		
		601-036-00-5	205-916-6	207-08-9									
26	•	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
			205-883-8	191-24-2									
27		chrysene				0.59	mg/kg		0.59	mg/kg	0.000059 %		
		601-048-00-0	205-923-4	218-01-9									
28		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
29	•	fluoranthene				1.1	mg/kg		1.1	mg/kg	0.00011 %		
			205-912-4	206-44-0									
30	•	fluorene				0.05	mg/kg		0.05	mg/kg	0.000005 %		
			201-695-5	86-73-7									
31	•	indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
			205-893-2	193-39-5									
32		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
33	•	phenanthrene				0.65	mg/kg		0.65	mg/kg	0.000065 %		
			201-581-5	85-01-8									
34	•	pyrene				0.95	mg/kg		0.95	mg/kg	0.000095 %		
			204-927-3	129-00-0									
35		asbestos				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		**<LOD**
		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									
										Total:	0.0341 %		

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 Deteminand - 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 Low level, below threshold.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0026%)

Classification of sample: THD

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

Sample details

Sample name:
THD
Sample Depth:
0.25 m
Moisture content:
14%
(no correction)

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

Hazard properties

None identified

Determinands

Moisture content: 14% No Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		14	mg/kg	1.32	18.485	mg/kg	0.00185 %		
2		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.9	mg/kg	1.285	1.157	mg/kg	0.00009 %		
3		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14	mg/kg	1.462	20.462	mg/kg	0.00205 %		
4		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1.8	mg/kg	1.923	<3.462	mg/kg	<0.000346 %		**<LOD**
5		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		40	mg/kg	1.126	45.036	mg/kg	0.0045 %		
6		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
7		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	110	mg/kg	1.56	171.58	mg/kg	0.011 %		
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		14	mg/kg	1.579	22.113	mg/kg	0.00221 %		
10		pH			PH		7.7	pH		7.7	pH	7.7 pH		
11		phenol	604-001-00-2	203-632-7	108-95-2		<1	mg/kg		<1	mg/kg	<0.0001 %		**<LOD**
12		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		**<LOD**
13		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		140	mg/kg	1.245	174.26	mg/kg	0.0174 %		

#		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									
14		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
15		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
16	•	ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
18	•	TPH (C6 to C40) petroleum group				52	mg/kg		52	mg/kg	0.0052 %		
				TPH									
19	•	acenaphthene				0.11	mg/kg		0.11	mg/kg	0.000011 %		
			201-469-6	83-32-9									
20	•	acenaphthylene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
			205-917-1	208-96-8									
21	•	anthracene				0.36	mg/kg		0.36	mg/kg	0.000036 %		
			204-371-1	120-12-7									
22		benzo[a]anthracene				2	mg/kg		2	mg/kg	0.0002 %		
		601-033-00-9	200-280-6	56-55-3									
23		benzo[a]pyrene; benzo[def]chrysene				2.1	mg/kg		2.1	mg/kg	0.00021 %		
		601-032-00-3	200-028-5	50-32-8									
24		benzo[b]fluoranthene				2.9	mg/kg		2.9	mg/kg	0.00029 %		
		601-034-00-4	205-911-9	205-99-2									
25		benzo[k]fluoranthene				0.55	mg/kg		0.55	mg/kg	0.000055 %		
		601-036-00-5	205-916-6	207-08-9									
26	•	benzo[ghi]perylene				1.2	mg/kg		1.2	mg/kg	0.00012 %		
			205-883-8	191-24-2									
27		chrysene				1.9	mg/kg		1.9	mg/kg	0.00019 %		
		601-048-00-0	205-923-4	218-01-9									
28		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
29	•	fluoranthene				4	mg/kg		4	mg/kg	0.0004 %		
			205-912-4	206-44-0									
30	•	fluorene				0.11	mg/kg		0.11	mg/kg	0.000011 %		
			201-695-5	86-73-7									
31	•	indeno[123-cd]pyrene				1.1	mg/kg		1.1	mg/kg	0.00011 %		
			205-893-2	193-39-5									
32		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
33	•	phenanthrene				1.4	mg/kg		1.4	mg/kg	0.00014 %		
			201-581-5	85-01-8									
34	•	pyrene				3.6	mg/kg		3.6	mg/kg	0.00036 %		
			204-927-3	129-00-0									
35		asbestos				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		**<LOD**
		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									
										Total:	0.0473 %		

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 Deteminand - 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 Low level, below threshold.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0052%)

Classification of sample: THA - 0.90m

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

Sample details

Sample name:		LoW Code:	
THA - 0.90m		Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:			
0.90 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		7	pH		7	pH	7pH		
2		phenol	203-632-7	108-95-2		<1.3	mg/kg		<1.3	mg/kg	<0.00013 %		**<LOD**
		604-001-00-2											
3		benzene	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-020-00-8											
4		toluene	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-021-00-3											
5		ethylbenzene	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-023-00-4											
6		xylene	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-022-00-9											
7		TPH (C6 to C40) petroleum group		TPH		780	mg/kg		780	mg/kg	0.078 %		
8		acenaphthene	201-469-6	83-32-9		14	mg/kg		14	mg/kg	0.0014 %		
9		acenaphthylene	205-917-1	208-96-8		1.3	mg/kg		1.3	mg/kg	0.00013 %		
10		anthracene	204-371-1	120-12-7		22	mg/kg		22	mg/kg	0.0022 %		
11		benzo[a]anthracene	200-280-6	56-55-3		55	mg/kg		55	mg/kg	0.0055 %		
		601-033-00-9											
12		benzo[a]pyrene; benzo[def]chrysene	200-028-5	50-32-8		51	mg/kg		51	mg/kg	0.0051 %		
		601-032-00-3											
13		benzo[b]fluoranthene	205-911-9	205-99-2		55	mg/kg		55	mg/kg	0.0055 %		
		601-034-00-4											
14		benzo[k]fluoranthene	205-916-6	207-08-9		23	mg/kg		23	mg/kg	0.0023 %		
		601-036-00-5											
15		benzo[ghi]perylene	205-883-8	191-24-2		27	mg/kg		27	mg/kg	0.0027 %		
16		chrysene	205-923-4	218-01-9		49	mg/kg		49	mg/kg	0.0049 %		
		601-048-00-0											

#		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									
17		dibenz[a,h]anthracene				6.3	mg/kg		6.3	mg/kg	0.00063 %		
		601-041-00-2	200-181-8	53-70-3									
18	•	fluoranthene				120	mg/kg		120	mg/kg	0.012 %		
			205-912-4	206-44-0									
19	•	fluorene				9.3	mg/kg		9.3	mg/kg	0.00093 %		
			201-695-5	86-73-7									
20	•	indeno[123-cd]pyrene				23	mg/kg		23	mg/kg	0.0023 %		
			205-893-2	193-39-5									
21		naphthalene				1.6	mg/kg		1.6	mg/kg	0.00016 %		
		601-052-00-2	202-049-5	91-20-3									
22	•	phenanthrene				99	mg/kg		99	mg/kg	0.0099 %		
			201-581-5	85-01-8									
23	•	pyrene				110	mg/kg		110	mg/kg	0.011 %		
			204-927-3	129-00-0									
										Total:	0.145 %		

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)
<LOD	Below limit of detection
ND	Not detected

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 Low level, below threshold.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.078%)

Classification of sample: THB - 0.90m

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

Sample details

Sample name:		LoW Code:	
THB - 0.90m		Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:			
0.90 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		7.1	pH		7.1	pH	7.1 pH		
2		phenol				<1.3	mg/kg		<1.3	mg/kg	<0.00013 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
3		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-020-00-8	200-753-7	71-43-2									
4		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-021-00-3	203-625-9	108-88-3									
5		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		**<LOD**
		601-023-00-4	202-849-4	100-41-4									
6		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
7		TPH (C6 to C40) petroleum group		TPH		119	mg/kg		119	mg/kg	0.0119 %		
8		acenaphthene	201-469-6	83-32-9		0.03	mg/kg		0.03	mg/kg	0.000003 %		
9		acenaphthylene	205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
10		anthracene	204-371-1	120-12-7		0.51	mg/kg		0.51	mg/kg	0.000051 %		
11		benzo[a]anthracene				2.1	mg/kg		2.1	mg/kg	0.00021 %		
		601-033-00-9	200-280-6	56-55-3									
12		benzo[a]pyrene; benzo[def]chrysene				2	mg/kg		2	mg/kg	0.0002 %		
		601-032-00-3	200-028-5	50-32-8									
13		benzo[ghi]perylene	205-883-8	191-24-2		1.2	mg/kg		1.2	mg/kg	0.00012 %		
14		chrysene				2	mg/kg		2	mg/kg	0.0002 %		
		601-048-00-0	205-923-4	218-01-9									
15		dibenz[a,h]anthracene				0.23	mg/kg		0.23	mg/kg	0.000023 %		
		601-041-00-2	200-181-8	53-70-3									
16		fluoranthene	205-912-4	206-44-0		4	mg/kg		4	mg/kg	0.0004 %		

#		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									
17	•	fluorene				0.17	mg/kg		0.17	mg/kg	0.000017 %		
			201-695-5	86-73-7									
18	•	indeno[123-cd]pyrene				1.1	mg/kg		1.1	mg/kg	0.00011 %		
			205-893-2	193-39-5									
19		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
20	•	phenanthrene				2.1	mg/kg		2.1	mg/kg	0.00021 %		
			201-581-5	85-01-8									
21	•	pyrene				4	mg/kg		4	mg/kg	0.0004 %		
			204-927-3	129-00-0									
										Total:	0.014 %		

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)
<LOD	Below limit of detection
ND	Not detected

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 Low level, below threshold.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0119%)

Appendix A: Classifier defined and non GB MCL determinands

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

salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex

GB MCL index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
20 Nov 2021 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

pH (CAS Number: PH)

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

ethylbenzene (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4
Description/Comments:
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

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

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

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Worst case species based on hazard statements

cadmium {cadmium sulfide}

Worst case species based on hazard statements

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

Worst case species based on hazard statements

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case species based on hazard statements

copper {dicopper oxide; copper (I) oxide}

Most likely common species

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Worst case species

lead {lead chromate}

Worst case species based on hazard statements

mercury {mercury dichloride}

Worst case species based on hazard statements

nickel {nickel dihydroxide}

Worst case species based on hazard statements

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

Worst case species based on hazard statements

zinc {zinc oxide}

Suspected

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2023.51.5529.10230 (20 Feb 2023)
HazWasteOnline Database: 2023.51.5529.10230 (20 Feb 2023)

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

Risk assessment for water pipes (RA)

United Utilities
Water for the North West

The risk assessment for water pipes will help you choose appropriate materials for your development. We are happy to deal with a risk assessment for water pipes in advance of any formal application for a new water supply.

If you need any help completing the form please call us on **0345 072 6067.**

Section 1: Development details	
Development name *(if it has one)*	RAINFORD AVENUE
Development address	RAINFORD AVENUE, MANCHESTER, M20 1BR
OS Grid reference *(mid point)*	384093, 393530
Developer's name	Southway Housing Trust
UUW reference number *(for UU use only)*	

Please provide details below of the current and historical use of the site and adjacent sites.
If your supporting information has details of the current and historical site use, please reference below the relevant sections of your report.

The site is surrounded by a residential area. There have been no nearby industrial, or other, land uses which are likely to affect the site, and no pollution incidents on or close to the site.

The site was undeveloped until the surrounding area was developed for housing, with part of a house present at the northwest of the site. Demolition rubble, potentially contaminated, may be present from when the house was demolished and made ground may have been introduced prior to construction of the road and landscaping. These would not be expected to contain high levels of contaminants, but low levels may be present (exceeding stringent residential thresholds).

Section 2: Preliminary risk assessment	
Has your desk study and site walkover identified any land potentially affected by contamination?	☑ Yes ☐ No

If the site is potentially affected by contamination but you have not completed any intrusive site investigation please provide details below of the rationale behind the intended pipe selection.
If your supporting information has details of the rationale behind the intended pipe selection, please reference below the relevant sections of your report.

N/A

Section 3: Intrusive site investigation

Have you completed any intrusive site investigation?	☑ Yes ☐ No
Have you completed any none intrusive site investigation?	☑ Yes ☐ No
Date(s) when the site investigation(s) undertaken	15 12 2019 31 01 2023 02 03 2023
At what level has groundwater been encountered?	0.3->2.3 metres below ground level or ☐ Not encountered

Table 1 (Pipeline Selection Risk Assessment Summary (PSRAS)) below classifies testing required where the preliminary risk assessment has identified land potentially affected by contamination. Please provide details below of any test groups which have not been tested and the rationale for not testing.

If your supporting information has details of the rationale behind not testing any particular test groups, please reference below the relevant sections of your report.

N/A

If the intrusive site investigation has identified concentrations above the PE threshold (see PSRAS) and your intended pipe selection is PE. Please provide details below of the rationale behind the intended pipe selection.

If your supporting information has details of the rationale behind the intended pipe selection, please reference below the relevant sections of your report.

N/A

Section 4: Site remediation

Please provide details below of any site remediation (which may include a change in site levels) already completed.

If your supporting information has details of the site remediation already completed, please reference below the relevant sections of your report.

No remedial works have been completed.

Has the PSRAS (Table 1) been completed using appropriate data after remediation?	☐ Yes ☑ No ☐ N/A

Please provide details below of any proposed site remediation and an analysis of whether this will affect your intended pipe selection.

If your supporting information has details of any proposed site remediation and whether this will affect your intended pipe selection, please reference below the relevant sections of your report.

Test results show raised levels of lead in BH6 at 0.2. The levels suggest a risk to householders, requiring localised remedial works. The remedial works will comprises excavating to a minimum 600mm below finished ground level, below gardens, paths, patios for 3m on all sides around BH6 (stopping if this reaches the site boundary or house footprint). Disposing excavated soils off-site and backfill with clean, imported soils, comprising (bottom up):

- o Geotextile (or similar) warning barrier
- o 450mm sub-soil (gardens) or 550mm sub-soil (non-garden areas)
- o 150mm topsoil (gardens)

Section 5: Final use of site

Please provide details below of any chemicals (including fuel) to be stored on site and any other future contamination risks which may affect your intended pipe selection.

If your supporting information has details of potential contamination risks which may affect your intended pipe selection, please reference below the relevant sections of your report.

There are no proposals to store chemicals on site.

What water pipe materials are intended to be used on site?	☐ PE ☑ PE Barrier Pipe Type A ☐ PE Barrier Pipe Type B Other *(please specify):* x

Section 6: Additional information

Please use the section below to provide any additional details to support your intended pipe selection.

N/A

Section 7: Risk assessor

Name and relevant qualifications of person directing the risk assessment for water pipes	Graham Cannon, BSc, MICE, FGS, CEnv, CEng
Name and address of risk assessor's company	Worms Eye Ltd, PO Box 1157, Colne, BB9 4HS
Date risk assessment performed	0 3 0 3 2 0 2 3

Section 8: Declaration

I confirm I have completed this form and provided supporting information in accordance with 'UKWIR Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites' and UUW's Supplementary Guidance. I also confirm that if any further site investigation is needed and carried out, I will be required to submit an additional Risk Assessment for Water Pipes with the relevant supporting information.
I understand that failure to supply any of the required information may delay my application being processed.

Name	Graham Cannon	Company	Worms Eye Ltd
Telephone	01282 414649	Date	0 3 0 3 2 0 2 3

Please email the completed form and supporting information to **DeveloperServicesWater@uuplc.co.uk** or post to us at United Utilities Water, Developer Services, Second floor Grasmere House, Lingley Mere, Warrington WA5 3LP.

United Utilities
Water for the North West

About us

United Utilities is the North West's water company. We keep the taps flowing and toilets flushing for seven million customers every day. From Crewe to Carlisle, we work hard behind the scenes to help your life flow smoothly.

United Utilities Water Limited, Haweswater House, Lingley Mere Business Park, Lingley Green Avenue, Warrington WA5 3LP.
Registered in England and Wales. Registered Number 2366678.

Table 1 - Pipe selection risk assessment summary (PSRAS)

1. Testing must be undertaken on the materials within which the pipes are to be laid, whether that be existing ground materials, remediated materials or imported capping materials. Please use the appropriate testing data to complete Table 1 below.

2. If more than one pipe selection is being made, for example, for pipes in different areas of a large site, a completed PSRAS is required for each selection.

What materials have been tested to populate Table 1 below? ☑ Existing ground materials ☐ Remediated materials ☐ Imported capping materials

All concentrations in mg/kg

Test Group	Testing Required?	PE threshold	Metal Pipes/ Barrier Pipe	Laboratory Detection Limit	Testing UKAS accredited Y/N	Maximum concentration at proposed pipeline depth *See Note [2]*	Maximum site concentration *See Note [3]*	Locations and depths where concentrations exceed proposed pipeline threshold
Total VOCs	Where Preliminary Risk Assessment (PRA) has identified land potentially affected by contamination	0.5	Pass	0.1	Y	<0.1	<0.1	
Total BTEX & MTBE		0.1	Pass	0.005	Y	20.2	20.2	THA @ 0.9m
Total SVOCs (excluding PAHs and those substances marked with an *)		2	Pass	0.005	Y	<0.005	<0.005	
EC5-EC10 aliphatic and aromatic hydrocarbons		2	Pass	1	Y	<1	<0.001	
EC10-EC16 aliphatic and aromatic hydrocarbons		10	Pass	10	Y	29	29	THA @ 0.9m, BH4 @ 0.3m
EC16-EC40 aliphatic and aromatic hydrocarbons		500	Pass	10	Y	720	720	THA @ 0.9m
Phenols* (from SVOC analysis)		2	Pass	1.3	Y	<1.3	1.5	
Cresols and chlorinated phenols* (from SVOC analysis)		2	Pass	0.3	Y	<0.3	<0.3	
Ethers*	Only where identified	0.5	Pass					
Nitrobenzene*		0.5	Pass					
Ketones*		0.5	Pass					
Aldehydes*		0.5	Pass					
Amines		Fail	Pass					
Corrosive	Conductivity, Redox and pH	Pass	*See Note [1]*					

Note [1] Threshold: For wrapped steel, corrosive if pH<7 and conductivity > 400µS/cm. For wrapped ductile iron corrosive if pH<5, Eh not neutral and conductivity > 400µS/cm. For copper, corrosive if pH<5 or >8 and Eh positive.

Note [2] Water pipes are normally laid at 0.75-1.35m below finished ground level.

Note [3] Also state if liquid free product is present in soil or groundwater.