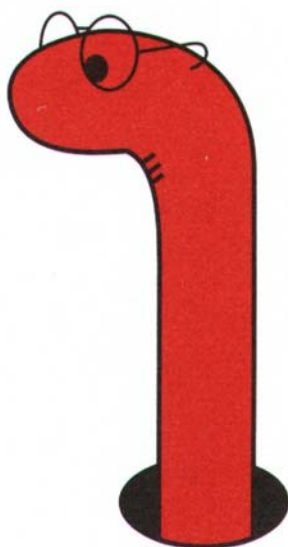


Electronic Report



WORMS EYE

**52 Bank Parade
Burnley
BB11 1TS
Phone
01282 414649 / 458410
Fax 01282 721916**

Our Ref: Vale Street/M11 4NR/2020
Date: 30 June 2020

Akmal Mahmood
Your New Home – Manchester Ltd
295 Manchester Road
Audenshaw
M34 5GR

Akmal.mahmood@outlook.com

PROPOSED HOUSE, VALE STREET, MANCHESTER, M11 4NR
SITE INVESTIGATION REPORT

INTRODUCTION

A residential development is proposed. Instructions were to carry out boreholes and tests to investigate potential geotechnical and soil contamination issues.

SITE LOCATION

The site is a rectangular plot, about 22 by 24 metres, located to the west of Vale Street in Manchester and at OS Grid reference 388212, 398847. The site is a vacant plot, although the location and layout suggests it is likely to have previously been occupied by housing.

PROPOSED DEVELOPMENT

It is proposed to build one pair of semi-detached houses, with associated gardens and drives.

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GEOLOGY OF SITE

The geology map indicates that the underlying solid rocks are Collyhurst Sandstone.

Surface drift is shown as glacial till (boulder clay) of unknown thickness.

GROUND INVESTIGATIONS

A series of three boreholes and three trial holes were carried out. Details are given on the location plan and trial hole logs enclosed with this report.

Trial holes

Trial holes 1, 2 and 3 were excavated to 0.25m to collect samples for testing. These all showed made ground (sandy topsoil with brick and gravel) to 0.25m.

Boreholes

Borehole 1 was drilled on the northeast of the site and showed variable conditions to borehole 2 and 3 which were drilled on the southwest.

Borehole 1 encountered made ground (topsoil with brick, gravel, ash, clinker and clay) to 1.1m with probable made ground to 1.2m. This was underlain by high strength clay before sand and gravel was seen before 5.6m and the base of the borehole at 5.8m deep.

Borehole 2 and 3 both encountered made ground (topsoil with brick, gravel, ash, clinker, glass, coal and clay) at ground level which extended to their base at 5.6m and 7.0m respectively.

The following approximates to a section looking north.

Findings	BH3 (m)	BH2 (m)	BH1 (m)
Made ground	0.0 – 7.0+	0.0 – 5.0+	0.0 – 1.2
Clay	-	-	1.2 – 5.6
Sand and gravel	-	-	5.6+
Water	>6.1	Dry	Dry

CONTAMINATION TESTING

Three samples were tested for a range of common contaminants. The results are included in table form with this report. Abbreviations and acronyms for chemical compounds are given after the appendix list.

CONTAMINATION COMPARISONS - INITIAL SCREENING

The maximum contamination values have been compared with residential C4Ls and soil guideline values provided by CLEA. Where these are not available, values are based on the LQM/CIEH S4ULS. In accordance with guidance provided by the AGS, threshold values from other sources have been used for screening purposes. This information has been brought together on the Comparison Table included with this report.

Asbestos

No asbestos fibres were detected/

Inorganics (metals etc.)

Levels of inorganic contaminants were below thresholds except lead which exceeds the threshold in all three samples at 0.25m.

Sulphate

Water soluble sulphate lead exceed the BRE action level for buried concrete in trial hole 3 at 0.25m.

Hydrocarbons

Levels of phenols are low, as are levels of PAHs in trial hole 1 and TPHs in trial holes 2 and 3.

Aromatic TPHs >C10 exceed their respective threshold, in trial hole 2 at 0.25m.

Levels of Benzo(a)pyrene, benzo(b)fluoranthene and dibenzo(ah)anthracene exceed residential thresholds in trial hole 2 and 3 at 0.25m.

DISCUSSION

Contamination

Contamination tests show raised levels of lead across the site with elevated PAHs on the southwest of the site (trial holes 2 and 3) and TPHs in trial hole 2 at the south corner. These pose a risk to householders arising from direct contact with surface soils and remedial works are required in below gardens, landscaping and non-permanent surfaces (path, patios, etc).

The contaminants seen at raised levels can remain below hard-surfacing (house, drive) with no risk and CLEA calculations for elevated TPHs are enclosed to demonstrate this.

Water Soluble Sulphate levels are raised and sulphate resistant concrete to class DS2 is required.

Levels of volatile hydrocarbons are below the thresholds and there is no risk from hydrocarbon vapours.

Landfill Gas/Ground Gas

It is beyond the remit of this report to consider landfill/ground gas levels. However, there is over 6m of made ground on-site which presumably extends beyond the site boundary. Whilst this appears largely inert beneath the site, the nature of this is not known beyond the site boundary and, therefore, it is considered to have potential to generate ground gases and two options are considered.

The first option would be to install a series of gas monitoring points around the site and test for ground gases over a period of three months.

An alternative, subject to approval from the Local Authority, would be to incorporate gas protection measures into the construction.

Foundations

The boreholes all show made ground at shallow depth which is not suitable for traditional strip footings.

Although clay was seen in borehole 1 at the northeast, the made ground extends to over 6m on the southwest of the site. This suggests, between the northeast and southwest of the site there is the edge of a filled feature, possibly a brick/clay pit from historical maps. A raft spanning this would have potential for differential settlement between the two areas, and a raft is not considered suitable.

A piled foundation is considered to be the most suitable option. However, there is insufficient details at this strength to determine a depth for piling.

CONCEPTUAL MODEL

Source	Receptors	Pathway	Complete Pollutant Linkage
Asbestos (none)	Construction workers	Inhalation	No
	End-users	Inhalation	No
Inorganic contaminants (raised levels)	Construction workers	Short-term direct contact, inhalation of dust, ingestion	Yes
	Householders	Direct contact, ingestion, from home grown vegetables, inhalation of dust	Yes
Sulphate (raised)	Building fabric	Concrete directly in contact with soil	Yes
Hydrocarbons (raised PAHs/TPHs)	Construction workers	Short-term direct contact, inhalation of dust, ingestion	Yes
	Householders	Direct contact, ingestion, from home grown vegetables, inhalation of dust	Yes
Hydrocarbon vapours (very low)	Construction workers	Short-term inhalation	No
	Householders	Inhalation of vapours indoors and outdoors	No
Landfill/ground gas	End-users - in buildings	Seeping into buildings, explosion, asphyxiation	Probable

BREAKING PATHWAYS

Construction Workers

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.

Garden/Landscaped Areas

Contamination by lead, PAHs and TPHs was found to be present in the made ground and one method would be to remove the source by excavating the contaminated material below gardens, paths, patios, and disposing off site:

- Excavate made ground to 0.6m and dispose off-site.
- Backfill with imported soils comprising (bottom up):
 - Geotextile warning barrier
 - 450mm sub-soil
 - 180mm topsoil

Another method is to use a cover layer. This would require a minimum 600mm layer of clean, imported, soils comprising (bottom up):

- Geotextile warning barrier
- 450mm sub-soil
- 180mm topsoil

Sulphate

Sulphate-resisting cement (Class DS2) will be required for buried concrete.

Landfill/Ground Gases

Deep made ground was seen on-site, this extends beyond the site boundary and is considered to have potential for generation of ground gases and two options are considered.

One option is a period of gas monitoring:

- Install 3 gas monitoring points around the site, especially targeting the west of the site.
- Test for methane, carbon dioxide, oxygen and gas outflow on 6 occasions over 3 months.

Alternatively, subject to Local Authority approval, it is considered that the following would be suitable for the anticipated level of risk:

- Ventilation of confined spaces within building.
- A suspended ground floor with ventilated underfloor void >150 mm.
- A low-permeability gas membrane (see membranes below).
- Minimum penetration of ground slab by services.
- Also gas precautions should continue across the cavity.

The following membrane (or equivalent) is suggested:

- Visqueen gas barrier (blue with foil layer - resists methane, carbon dioxide and radon).

Each membrane should be used with the appropriate matching cavity tray (or cavity membrane), DPC and service duct 'top hat'. Joints to be lapped and sealed.

Validation of gas membrane will require:

- Details of who carried out installation.
- Details of who carried out verification and inspection regime.
- Details of non-conformances and how they were rectified (if any).
- A signed statement confirming that the gas protection measures were installed as agreed, the membrane was free from tears and punctures, lapped and sealed as agreed at joints around services. This to be included in the Verification Report.

Imported Soils

All soils (e.g. topsoil, bulk fill hardcore) and similar materials imported on-site to be proved to be uncontaminated, to be screened against residential values, based on 1% SOM.

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.
- 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.
- Independent inspection of gas membrane and report.

This report is usually a collaboration between the contractor, who will collect the above documentation and Worms Eye, who can assist in preparing the Validation Report

OPINION

Contaminated Soils

Test results show raised levels of lead, PAHs and TPHs which pose a risk to householders in garden areas. Remedial works are required and the most suitable options are considered to be:

- Excavated made ground to 600mm in garden and non-permanent hard surfaces areas (paths, patios), removed from site and backfill with clean, imported, soils.
- Create a 600mm cover layer across the site using clean, imported, soils.

Sulphate resistant concrete to class DS2 is required.

There are no risks from hydrocarbon vapours.

Landfill/Ground Gas

There is deep made ground on-site and the following are considered:

- Install gas monitoring points and carry out monitoring over 3 months.
- Incorporate gas protection measures into the construction, subject to Local Authority approval.

Foundations

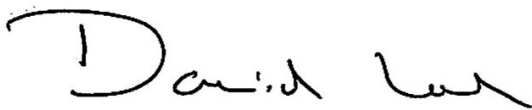
Ground conditions are poor and not considered suitable for strip or raft foundations.

A piled solution is considered most appropriate, however, there is insufficient data at present to determine likely pile depth and the following is suggested:

- Series of probes around the site to determine the rock level, and likely pile depths.

Yours faithfully

on behalf of Worms Eye Ltd

A handwritten signature in black ink, appearing to read 'David Lord', with a stylized, cursive script.

David Lord

BSc (Hons)

FGS, MIEEnvSc, AIEEMA

PROPOSED HOUSE, VALE STREET, MANCHESTER, M11 4NR

List of Appendices – Site Investigation Report

List of Acronyms

Existing site plan - showing borehole and trial hole locations

Proposed site plan

Borehole Logs

Trial Hole Logs

Contamination Test Results - Soil

Contamination Comparison Table - Soil

Hazwaste Report

CLEA Calculation Sheet

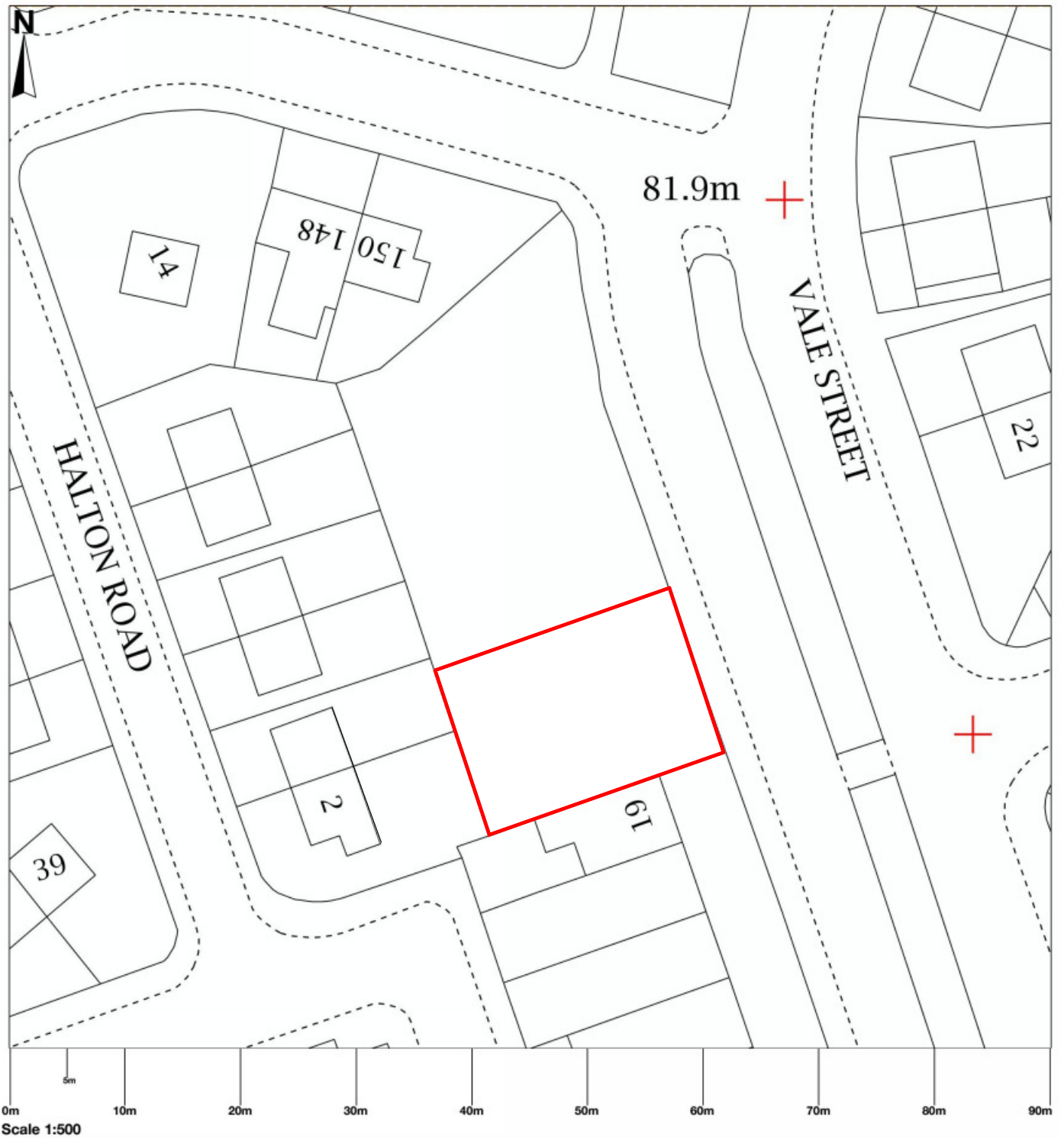
CONTAMINATION TEST UNITS

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

<u>Chemical</u>	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
<u>Other</u>	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

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.
8. Worms Eye cannot be held responsible for any use of the report or its contents for any purpose other than that for which it was prepared. The copyright of this report, and other plans or documents prepared by Worms Eye, is owned by them, and no such plans or documents may be reproduced, published or adapted without written consent. Complete copies may be made and distributed by the client, as expected, in dealing with matters related to its commission. Should the client pass copies of the report to other parties for information, the whole report should be copied, but no professional liability, or warranties, shall be extended to other parties by Worms Eye, without their written agreement.
9. New information, revised practices, or changes in legislation, may necessitate the re-interpretation of the report, in whole or in part.



Vale Street
Location Plan

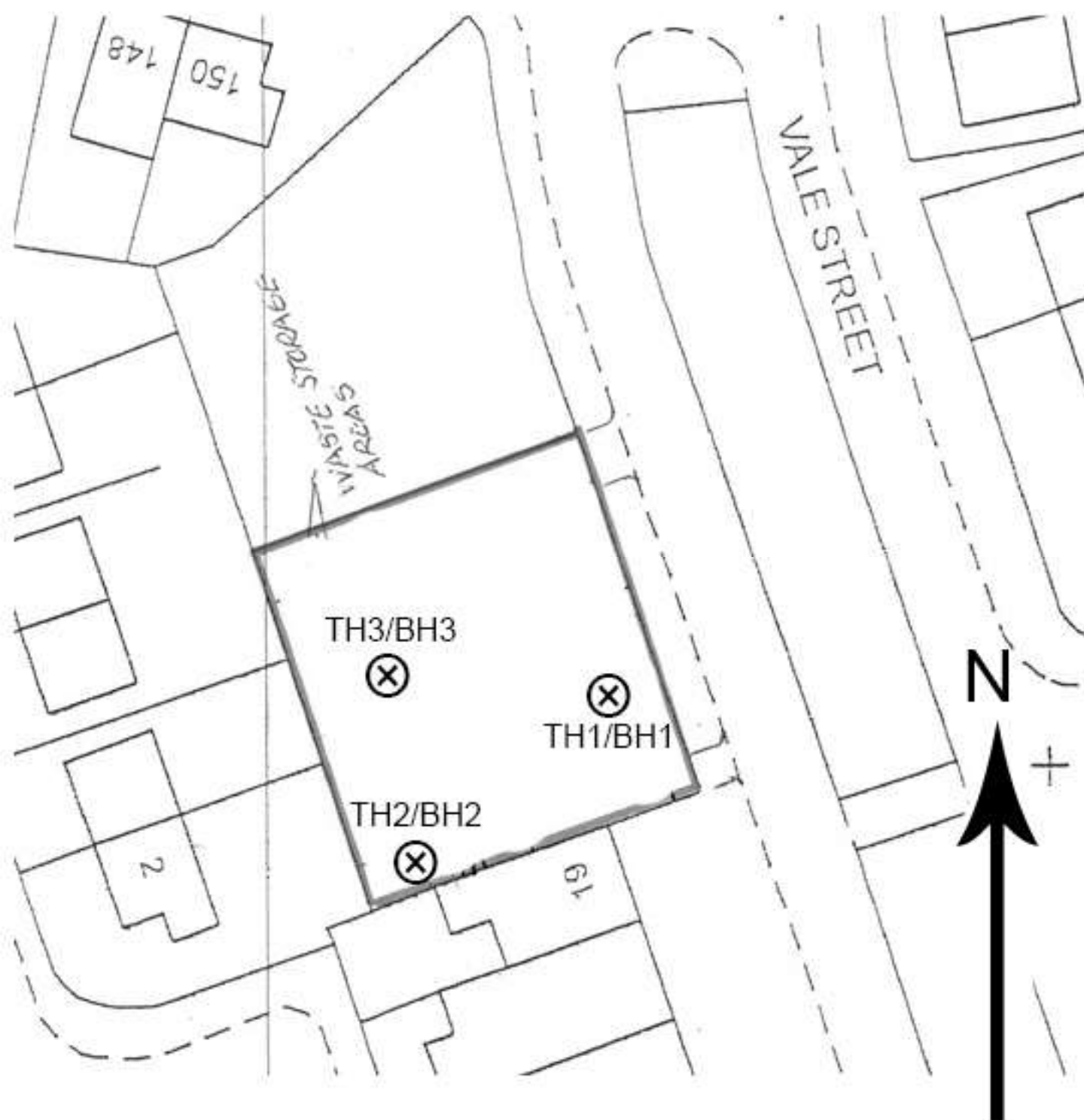
Rev. A

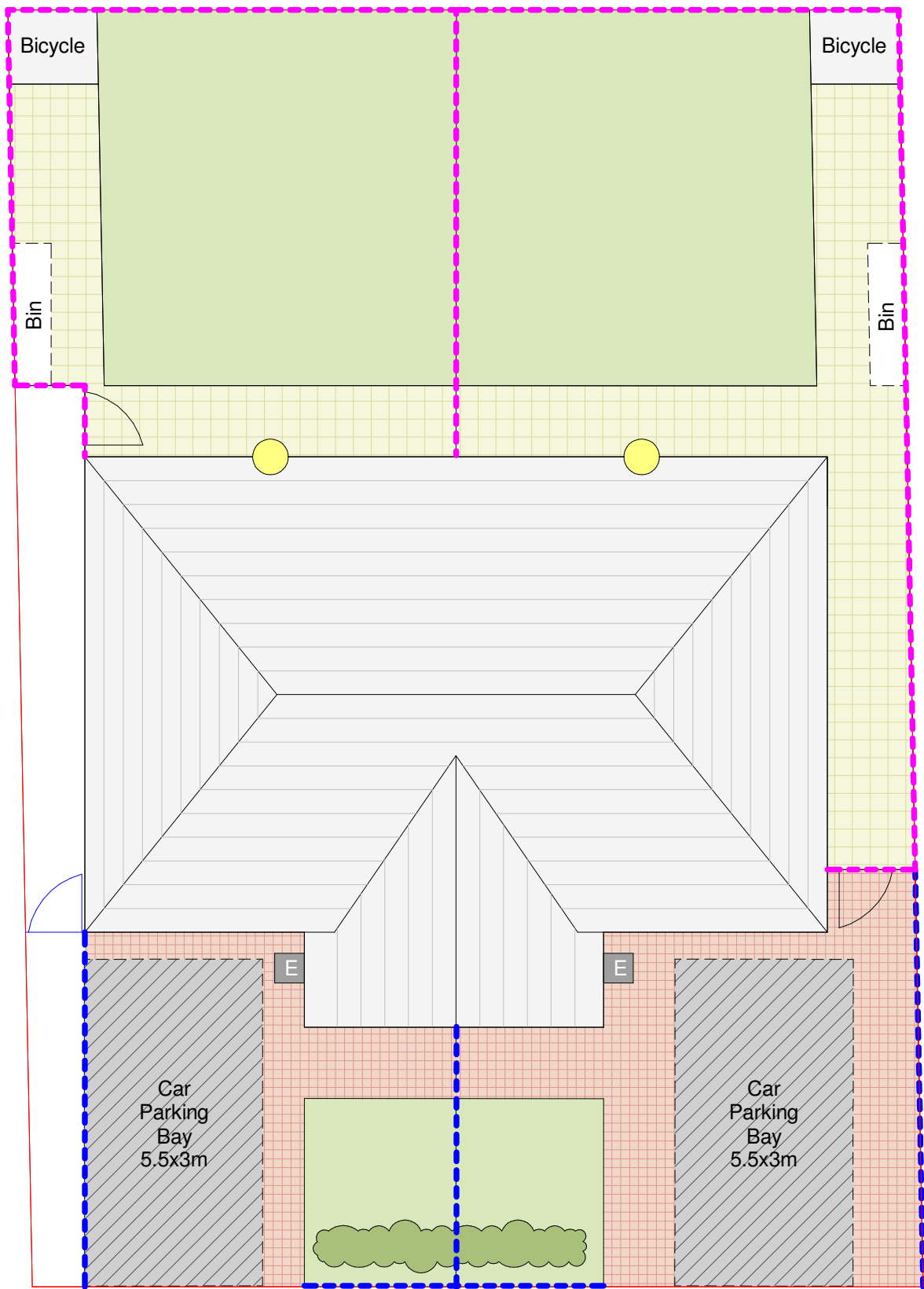
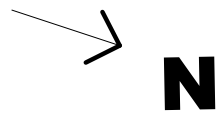
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16.06.2020

Vale Street, Manchester, M11 4NR
Location Plan
No to Scale

⊗ Trial Hole/Borehole Location





Boundary Treatment:



1m brick wall with iron railing

Grassed Lawn With Block Paving Kerb Edging

Marshall Block Paving - Red Buff

Driveway - Tarmacaden

Paving Flags - Golden Buff



6 Ft Close Board Fencing With Concrete Posts Ensuring Secure By Design For Rear Gardens

Shrubs

Electric Vehicle Charging Point

Bin Storage (4Nr) - 2400 x 600mm

Secure By Design:

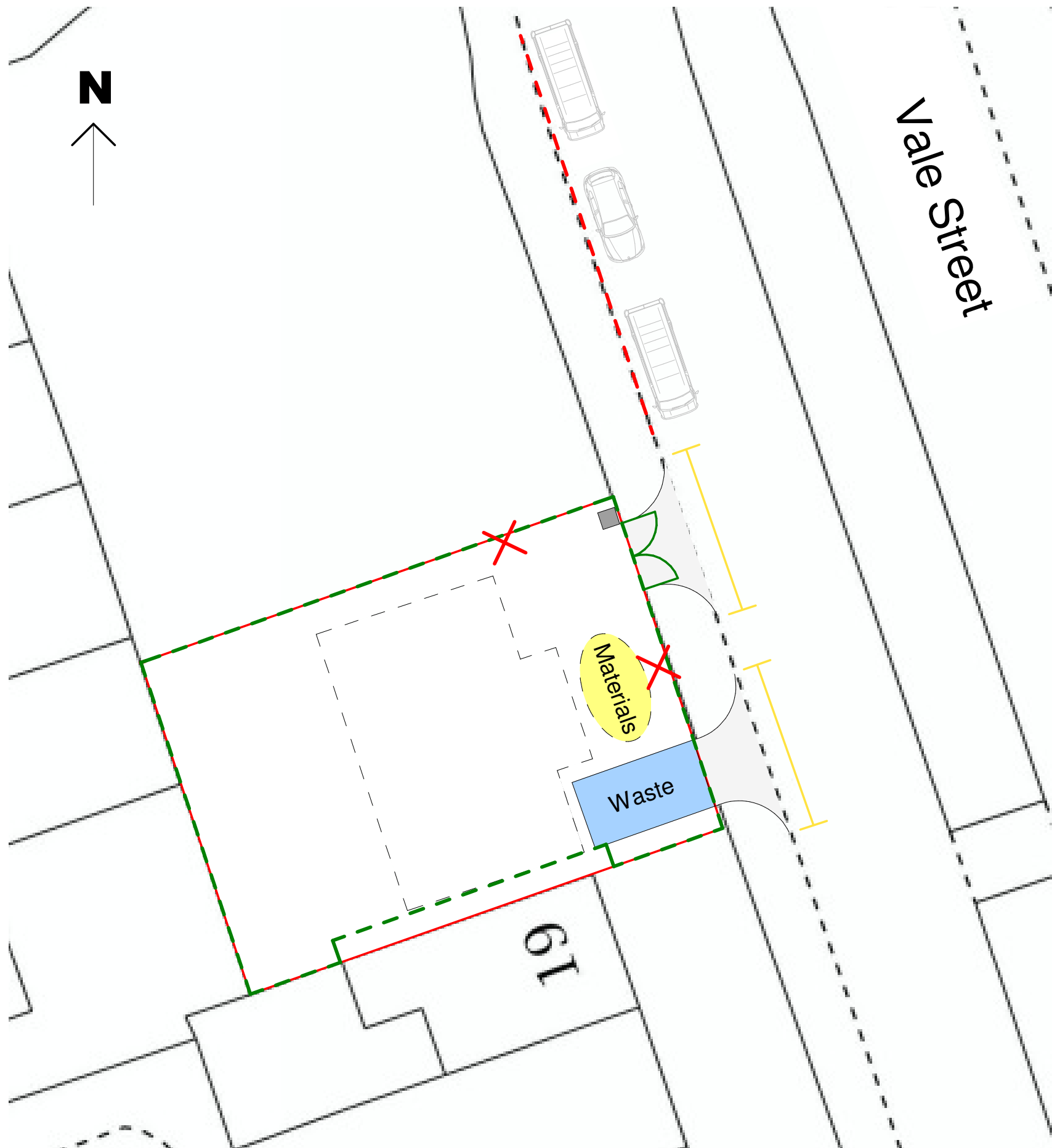
Secured Gate Allowing Access For Only The Flat Above Nr 19 And 21 Vale St

Motion Sensor Rear Garden Security Light To Be Inserted

Bicycle Sheds To Have A Secured Lock

Secured 6ft Timber Gates To Access Rear Gardens

N



Construction Environmental Management Plan :

Waste

Waste Recycle Skip (one parking bay)

Wheel Washing Facility With Hose Pipe

Materials

Materials Storage

Site Safety And Contact Number For Emergency Positioned On Two Elevations

3 x On-Street Parking Vehicles Bays (Allowed For 18m Which Would Suffice 2 x Vans & 1 x Car For Contractors)

Harris fencing With Netting

Opening Gate - Site Access For Deliveries Include A Lorry Coming Onto Footpath

Secure By Design:

Revised Dropped Curbs To Be Completed Allowing For Safe Access Of Vehicles

H Bar To Be Installed In Front Of The Driveways

Additional Notes:

Hours of Operation
Monday - Friday (8am till 5pm)
Saturday (9am till 1pm)
Sunday & Bank Holidays (Closed)

The site is a small development of two dwellings. Local tradesman are to be hired and as such a compound set-up and welfare facilities is not required. A mini digger will be delivered on site by a trailer and no large plant will intrude on the existing accessway. It is worth noting that the development is not on the main highway of Vale St but a secondary highway used for access to the adjacent stores & shops. There is already dropped curbs outside the development to allow access for deliveries. There will be minimal materials on site for storage as regular deliveries are available from building merchants in the vicinity. Deliveries will be organised so that no more than 1 lorry is at site at any given time. We also envisage minimal wastage in the early phases of development due to no there being no demolition.

B	-	-	-	Management Plan Added	20.06.2020
A	-	-	-	First Issue	16.06.2020
Rev	Dwn	Chkd	App'd	Description	Date

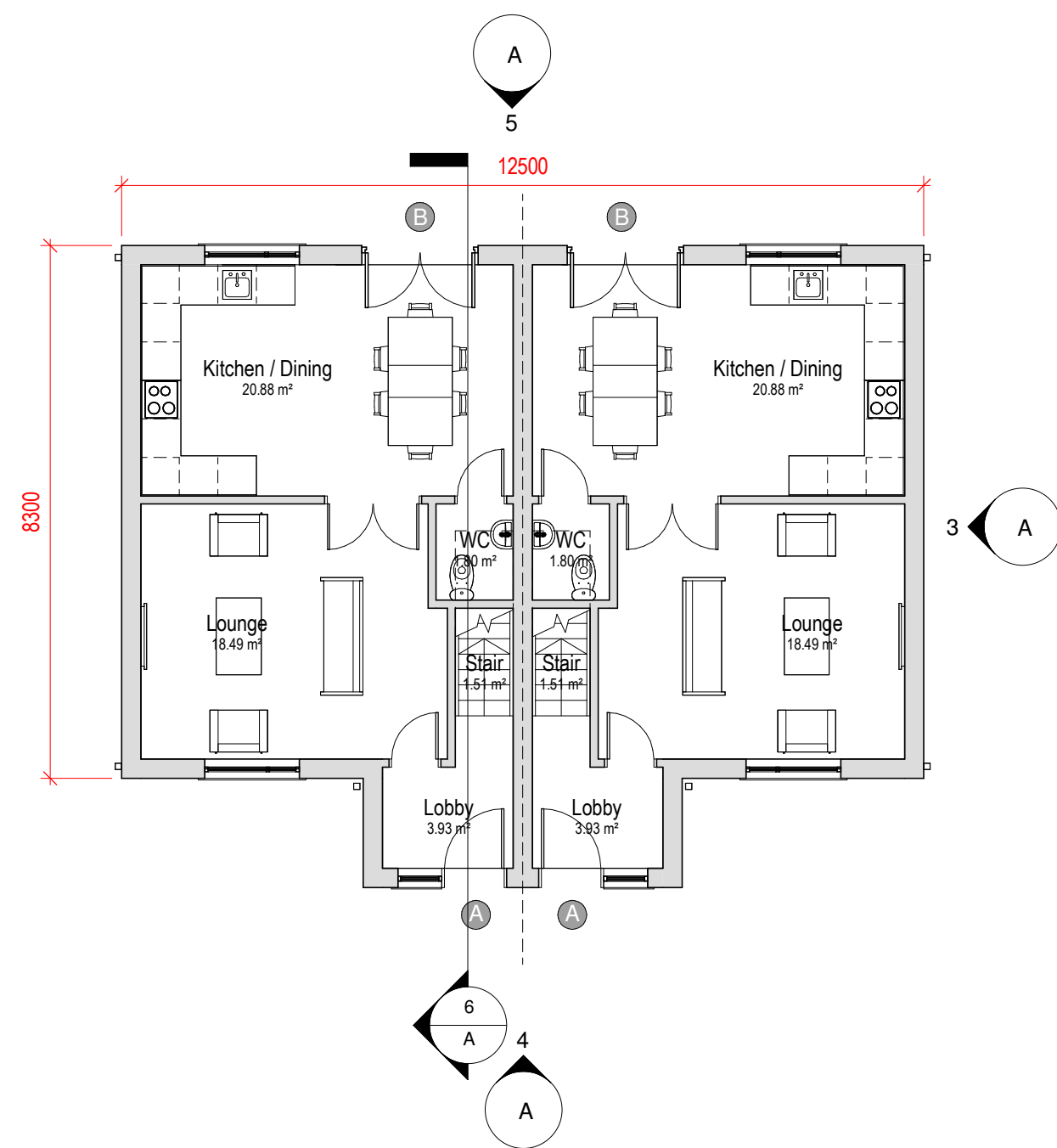
Project
Vale Street

Drawing
Proposed Site Plan

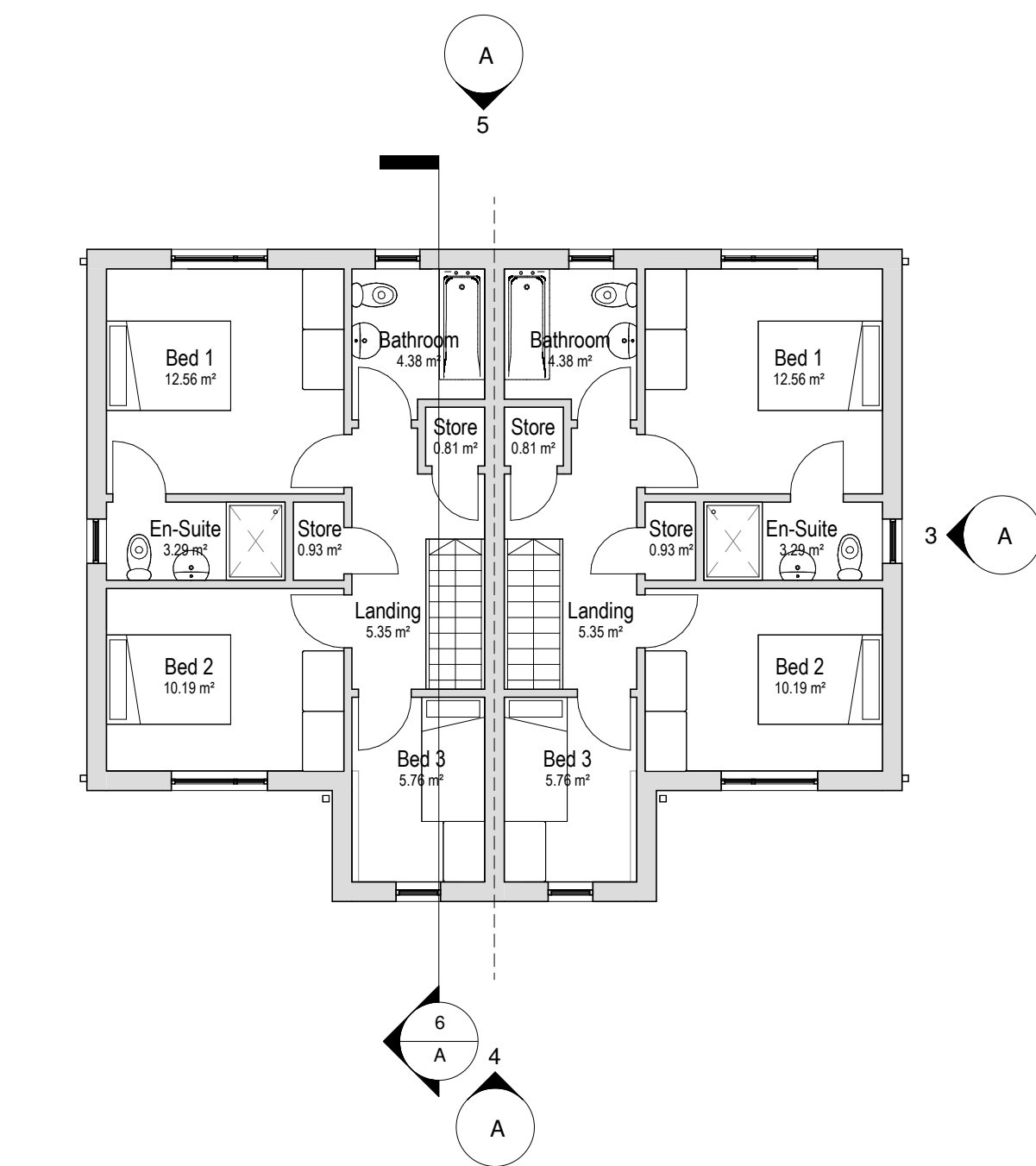
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Date
16.06.20

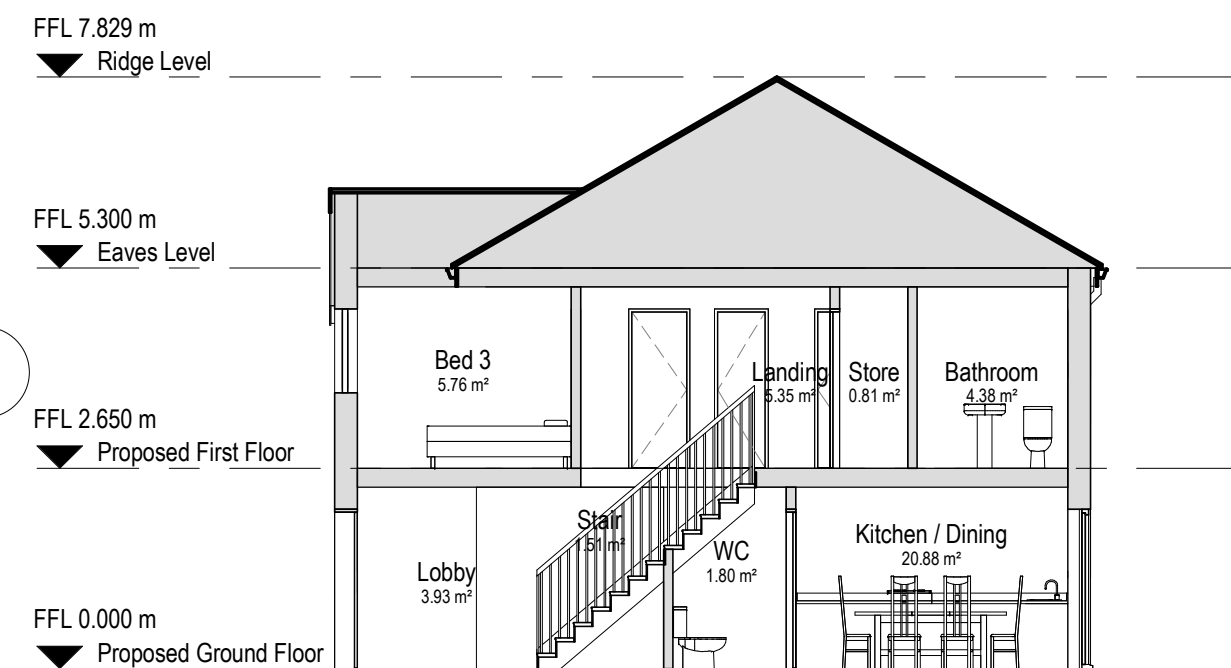
BS1192 Compliant
revision
B



1 Proposed Ground Floor
1 : 100

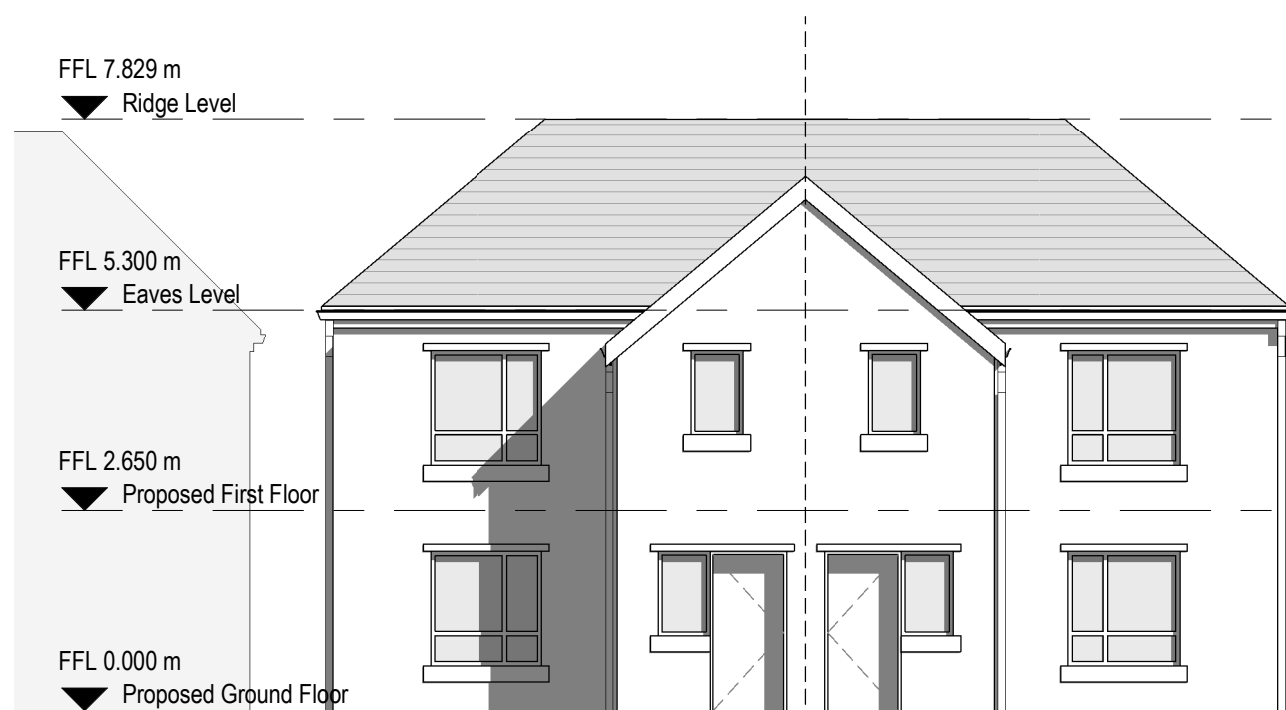


2 Proposed First Floor
1 : 100



6 Section
1 : 100

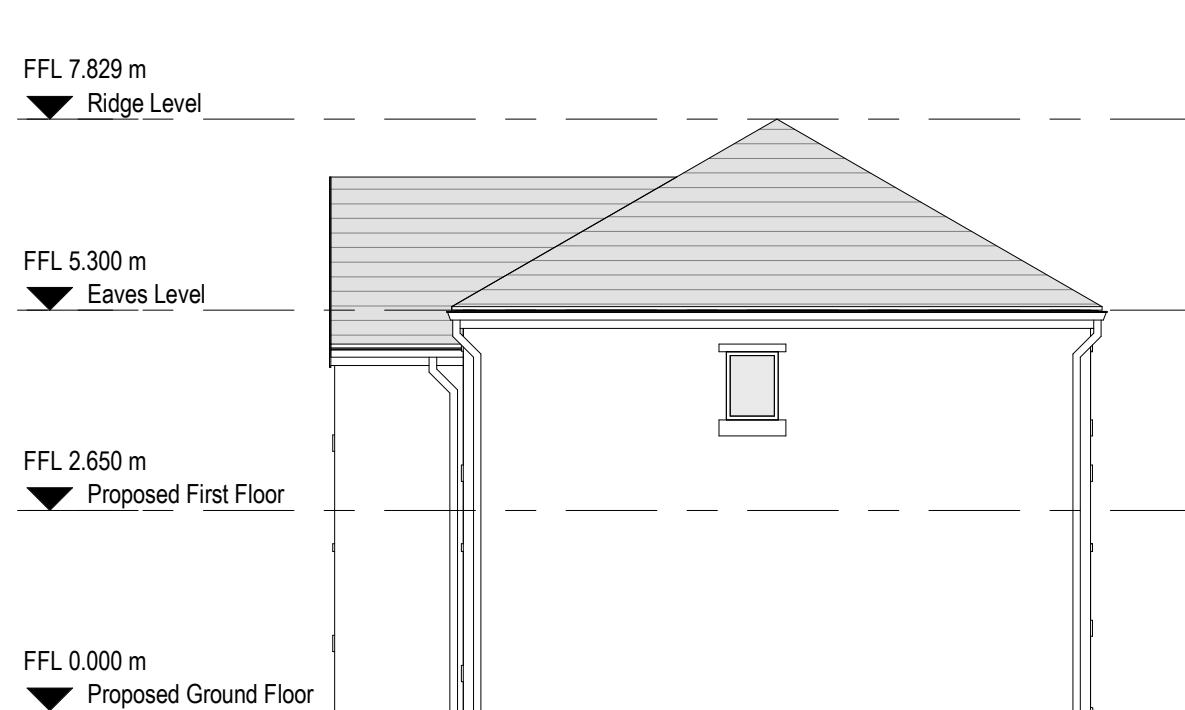
- Notes:
- A Front door to be compliant with SBD BS3261 or PAS 3621:2011 this will include the following:
 - Laminated glass
 - Spy Holes/Door viewer to comply with DHF TS002:2009
 - Security Chain which is to comply with DHF TS 003:2012
 - Composite door – Strength/security to comply with PAS24 2016
 - B The rear patio doors are to also comply with BS7412 PAS 24 for material and BS 8529 for a secure mechanism. Safety glass will be installed for the rear patio doors.



4 Proposed Front Elevation
1 : 100



5 Proposed Rear Elevation
1 : 100



3 Proposed Side Elevation
1 : 100

Rev	B	-	-	-	Notes Added	20.06.2020
	A	-	-	-	First Issue	15.06.2020
Rev	Dwn	Chkd	App'd	Description	Date	

Project
Vale Street

Drawing
Proposed General Arrangement
Drawings

Scale @ A2
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Date
16.06.2020

BS1192 Compliant
revision
B

Drilling Apparatus: Auto-Trip Standard Penetration Test Drop Hammer

Borehole Diameter: Started at 115mm, reduced to 70mm by 5.8m deep.

Scheme: Vale Street, Manchester, M11 4NR.

Date: 19/06/20

Worms Eye Ltd

Geotechnical Services

52 Bank Parade, Burnley

Lancashire, BB11 1TS

Telephone: 01282 414 649

Email: info@wormseye.co.uk

Drillers Borehole Log No. 1 (Located towards front of site)

Depth (m)	Description	Shear Strength (kNm ⁻²)	Symbol
0.0	MADE GROUND- gravelly topsoil		
	MADE GROUND- sandy, gravelly, topsoil with brick fragments		
0.5	MADE GROUND- black ash & clinker, brown clay, gravel, brick fragments & rare inclusions of coal		
	MADE GROUND- soft, brown, sandy, silty clay		
1.0	MADE GROUND- soft, dark grey/black, sandy, very clayey silt		
	Probable MADE GROUND- soft to firm, mid grey, sandy, silty clay		
1.5	Stiff, mid brown & grey mottled, slightly sandy, slightly gravelly CLAY with rare fragments of coal (the gravel was fine to medium in sized & sub-angular to sub-rounded)	98	
2.0		130+	
2.5			
3.0		130+	
3.5			
4.0		130+	
4.5			
5.0	Stiff, mid brown, sandy, gravelly CLAY with some thin lenses of brown sand	92	
Continued Overleaf			

Log Continued

Borehole Log No. 1

Depth (m)	Description	Shear Strength (kNm ⁻²)	Symbol
5.0	As before Stiff, mid brown, sandy, gravelly CLAY with some thin lenses of brown sand		
5.5			
	Brown SAND & GRAVEL		
6.0	Almost Refusal Borehole dry during drilling		
6.5	<u>Samples Recovered</u> 0.35 to 0.5m 0.6 to 0.7m 0.8 to 1.0m 1.2 to 1.4m 1.8 to 2.1m 2.4 to 2.8m		
7.0			
7.5			
8.0			
8.5			
9.0			
9.5			
10.0			
	Ground water levels are subject to seasonal variations & should not be taken as constant		

Drilling Apparatus: Auto-Trip Standard Penetration Test Drop Hammer

Borehole Diameter: Started at 115mm, reduced to 70mm by 5.6m deep.

Scheme: Vale Street, Manchester, M11 4NR.

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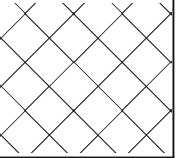
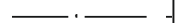
Email: info@wormseye.co.uk

Drillers Borehole Log No. 2 (Located towards rear left corner of site)

Depth (m)	Description	Shear Strength (kNm ⁻²)	Symbol
0.0	MADE GROUND- topsoil over a thin layer of concrete		
0.5	MADE GROUND- brown clay, ash & clinker, gravel, brick, fragments of coal & with occasional roots & very rare fragments of glass		
1.0	MADE GROUND- black ash & clinker with rare brick fragments, sand, a small piece of leather at 1.4m deep & with roots at 2.0m deep		
1.5			
2.0			
2.5	MADE GROUND- black & brown ash & clinker with rare fragments of brick & coal		
3.0			
3.5			
4.0			
4.5			
5.0	Probable MADE GROUND- soft, light grey & brown mottled, sandy, silty clay		
Continued Overleaf			

Log Continued

Borehole Log No. 2

Depth (m)	Description	Shear Strength (kNm ⁻²)	Symbol
5.0	As before Probable MADE GROUND- soft, light grey & brown mottled, sandy, silty clay		
5.5	Firm, brown & grey mottled, sandy CLAY with a thin brown sand lense (Possible Made Ground)		
	End of Bore Borehole dry during drilling		
6.0			
6.5	<u>Samples Recovered</u> 0.35 to 0.5m 0.6 to 0.75m 1.2 to 1.5m 1.6 to 2.0m 2.3 to 2.6m		
7.0			
7.5			
8.0			
8.5			
9.0			
9.5			
10.0			
	Ground water levels are subject to seasonal variations & should not be taken as constant		

Drilling Apparatus: Auto-Trip Standard Penetration Test Drop Hammer

Borehole Diameter: Started at 115mm, reduced to 65mm by 7.0m deep.

Scheme: Vale Street, Manchester, M11 4NR.

Date: 19/06/20

Worms Eye Ltd

Geotechnical Services

52 Bank Parade, Burnley

Lancashire, BB11 1TS

Telephone: 01282 414 649

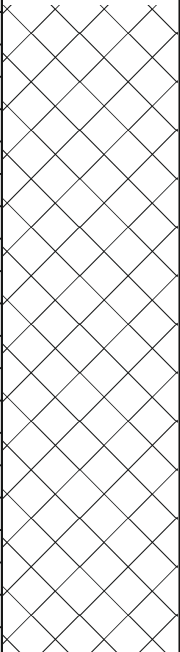
Email: info@wormseye.co.uk

Drillers Borehole Log No. 3 (Located towards rear right corner of site)

Depth (m)	Description	Shear Strength (kNm ⁻²)	Symbol
0.0	MADE GROUND- sandy topsoil with brick		
0.5	MADE GROUND- topsoil, ash & clinker & brick		
1.0	MADE GROUND- black ash & clinker with rare brick fragments		
1.5	MADE GROUND- fine brown ash		
2.0	MADE GROUND- light grey sand & fine ash		
2.5	MADE GROUND- black & brown ash & clinker with rare fragments of brick & coal & with pieces of concrete rubble visible up to 2.6m deep		
3.0			
3.5			
4.0	MADE GROUND- black & brown ash & clinker with some inclusions of brown clay & with rare fragments of brick & coal		
4.5			
5.0			
Continued Overleaf			

Log Continued

Borehole Log No. 3

Depth (m)	Description	Shear Strength (kNm ⁻²)	Symbol
5.0	As before MADE GROUND- black & brown ash & clinker with some inclusions of brown clay & with rare fragments of brick & coal		
5.5			
6.0			
6.5			
7.0	End of Bore		
7.5	GROUND WATER: Borehole became wet from 6.1 metres deep below existing ground level.		
8.0	<u>Samples Recovered</u> 0.3 to 0.5m 0.7 to 0.8m 0.9 to 1.2m 1.6 to 2.0m 2.0 to 2.5m		
8.5			
9.0			
9.5			
10.0	Ground water levels are subject to seasonal variations & should not be taken as constant		

VALE STREET, MANCHESTER, M11 4NR

Trial Holes : 15.06.2020

Trial Hole 1

Depth (m)	Findings
0 – 0.25	Brown sandy soil with roots, brick, stone, gravel, ash, concrete and glass (MADE GROUND).

Trial hole dry

Trial Hole 2

Depth (m)	Findings
0 – 0.25	Brown sandy soil with roots, brick, stone, gravel, ash, concrete and glass (MADE GROUND).

Trial hole dry

Trial Hole 3

Depth (m)	Findings
0 – 0.25	Brown sandy soil with roots, brick, stone, gravel, ash, concrete and glass (MADE GROUND).

Trial hole dry



2183



Final Report

Report No.:	20-15201-1		
Initial Date of Issue:	23-Jun-2020		
Client	Worms Eye Ltd		
Client Address:	52 Bank Parade Burnley Lancashire BB11 1TS		
Contact(s):	Stuart Hartley		
Project	Vale Street, Machester, M11 4NR		
Quotation No.:	Q19-18671	Date Received:	17-Jun-2020
Order No.:	15/6/DL1	Date Instructed:	17-Jun-2020
No. of Samples:	3		
Turnaround (Wkdays):	5	Results Due:	23-Jun-2020
Date Approved:	23-Jun-2020		
Approved By:			
Details:	Glynn Harvey, Technical Manager		

Client: Worms Eye Ltd	Chemtest Job No.:				20-15201	20-15201	20-15201
Quotation No.: Q19-18671	Chemtest Sample ID.:				1018099	1018100	1018101
	Client Sample ID.:				BH1/TH1	BH2/TH2	BH2/TH2
	Sample Location:				TH1	TH2	TH3
	Sample Type:				SOIL	SOIL	SOIL
	Top Depth (m):				0.25	0.25	0.25
	Date Sampled:				15-Jun-2020	15-Jun-2020	15-Jun-2020
	Asbestos Lab:				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
ACM Detection Stage	U	2192		N/A	-	-	-
Moisture	N	2030	%	0.020	7.9	9.1	7.1
Soil Colour	N	2040		N/A	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand
pH	M	2010		4.0	8.1	8.3	9.7
Sulphate (2:1 Water Soluble) as SO ₄	M	2120	g/l	0.010	0.099	0.28	0.58
Sulphur (Elemental)	M	2180	mg/kg	1.0	31	95	42
Cyanide (Free)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Cyanide (Total)	M	2300	mg/kg	0.50	1.0	2.2	1.7
Thiocyanate	M	2300	mg/kg	5.0	< 5.0	< 5.0	< 5.0
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	15	11	8.0
Sulphate (Total)	M	2430	mg/kg	100	2500	2900	3900
Arsenic	M	2450	mg/kg	1.0	14	16	19
Cadmium	M	2450	mg/kg	0.10	0.59	< 0.10	0.72
Chromium	M	2450	mg/kg	1.0	22	23	23
Copper	M	2450	mg/kg	0.50	46	72	79
Mercury	M	2450	mg/kg	0.10	0.38	0.50	0.41
Nickel	M	2450	mg/kg	0.50	26	26	21
Lead	M	2450	mg/kg	0.50	200	1000	290
Selenium	M	2450	mg/kg	0.20	< 0.20	0.21	< 0.20
Zinc	M	2450	mg/kg	0.50	170	270	210
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Organic Matter	M	2625	%	0.40	5.5	6.2	3.1
Total Organic Carbon	M	2625	%	0.20	3.2	3.6	1.8
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	8.7	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	6.8	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	7.2	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	190	210	160
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	15	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	190	250	160
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0

Client: Worms Eye Ltd	Chemtest Job No.:				20-15201	20-15201	20-15201
Quotation No.: Q19-18671	Chemtest Sample ID.:				1018099	1018100	1018101
	Client Sample ID.:				BH1/TH1	BH2/TH2	BH2/TH2
	Sample Location:				TH1	TH2	TH3
	Sample Type:				SOIL	SOIL	SOIL
	Top Depth (m):				0.25	0.25	0.25
	Date Sampled:				15-Jun-2020	15-Jun-2020	15-Jun-2020
	Asbestos Lab:				COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD			
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	240	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	440	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	15	890	24
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	390	2600	450
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	110	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	400	4300	480
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	590	4500	630
Naphthalene	M	2700	mg/kg	0.10	0.91	1.8	2.3
Acenaphthylene	M	2700	mg/kg	0.10	0.46	0.75	1.1
Acenaphthene	M	2700	mg/kg	0.10	0.44	1.1	1.4
Fluorene	M	2700	mg/kg	0.10	0.68	1.1	1.7
Phenanthrene	M	2700	mg/kg	0.10	2.2	5.8	10
Anthracene	M	2700	mg/kg	0.10	0.48	1.4	2.7
Fluoranthene	M	2700	mg/kg	0.10	3.0	7.0	11
Pyrene	M	2700	mg/kg	0.10	3.1	7.6	11
Benzo[a]anthracene	M	2700	mg/kg	0.10	1.7	3.5	5.2
Chrysene	M	2700	mg/kg	0.10	1.7	4.0	5.0
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	2.3	4.3	4.7
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	1.1	1.9	2.5
Benzo[a]pyrene	M	2700	mg/kg	0.10	1.7	3.1	4.4
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	1.2	2.1	2.8
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	0.24	0.51	0.66
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	1.6	2.3	2.9
Total Of 16 PAH's	M	2700	mg/kg	2.0	23	48	69
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
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
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	Alkaline 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.
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.

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"

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

VALE STREET, MANCHESTER, M11 4NR

Comparison of Contamination Test Results with Various Thresholds

RESIDENTIAL WITH HOMEGROWN VEGETABLES

Hydrocarbons at 2.5% SOM

Contaminant	Max Value	Threshold	Pass/ Fail	SSAC	Pass/ Fail	Failed Samples
HEAVY METALS						
- Arsenic	19	37*	✓			
- Cadmium	0.72	11*	✓			
- Chromium III	23	910*	✓			
- Chromium VI	<0.50	6*	✓			
- Copper	79	2400*	✓			
- Lead	1000	200▲	X			TH1 – 0.25, TH2 – 0.25m, TH3 – 0.25m
- Inorganic Mercury	0.50	40*	✓			
- Methyl Mercury	0.50	11*	✓			
- Nickel	26	180*	✓			
- Selenium	0.21	350#	✓			
- Zinc	270	3700*	✓			
OTHER INORGANICS						
- Asbestos	N.D.					
- Cyanide (total)	2.2	20 (D)	✓			
- pH range	8.1 – 9.7					
- Sulphate (g/l)	0.58	0.5 (B)	X			TH3 – 0.25m
- Sulphide	8.0 – 15	250 (E)	✓			
- Thiocyanate	<5.0					
-TOC range (%)	1.8 – 3.6					
-SOM Range	3.1 – 6.2					

All units mg/kg (parts per million/ppm) unless shown otherwise

Metals & inorganic values derived using 6% SOM (soil organic mater)

Sources

- Soil Guideline Values ▲ - C4SL

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(D) – Dutch (B) - BRE – Building Research Establishment (E) - EA Disposal Threshold 2002

® - CLEA 1.06 Software

SSAC – Site Specific Assessment Criteria (derived with CLEA 1.06 software)

VALE STREET, MANCHESTER, M11 4NR

Comparison of Contamination Test Results with Various Thresholds

RESIDENTIAL WITH HOMEGROWN VEGETABLES

Hydrocarbons at 2.5% SOM

Contaminant	Max Value	Threshold	Pass/Fail	SSAC	Pass/Fail	Failed Samples
PAHs						
- Acenaphthene	1.4	510*	✓			
- Acenaphthylene	1.1	420*	✓			
- Anthracene	2.7	5400*	✓			
- Benz(a)anthracene	5.2	11*	✓			
- Benzo(a)pyrene (BAP)*	4.4	2.7*	X			TH2 – 0.25m, TH3 – 0.25m
- Benzo(b)fluoranthene	4.7	3.3*	X			TH2 – 0.25m, TH3 – 0.25m
- Benzo(ghi)perylene	2.9	340*	✓			
- Benzo(k)fluoranthene	2.5	93*	✓			
- Chrysene	5.0	22*	✓			
- Dibenzo(ah)anthracene (DBA)	0.66	0.28*	X			TH2 – 0.25m, TH3 – 0.25m
- Fluoranthene	11	560*	✓			
- Fluorene	1.7	400*	✓			
- Indene (123-cd) pyrene	2.8	36*	✓			
- Naphthalene	2.3	5.6*	✓			
- Phenanthrene	10	220*	✓			
- Pyrene	11	1200*	✓			
OTHER COMPOUNDS						
Phenols	<0.30	550*	✓			
PID (VOC screen) ppm						
MTBE						
Pesticides - OCP/OPP		2 (D)				
PCBs		4 (D)				
Phthalates		60 (D)				

All units mg/kg (parts per million/ppm) unless shown otherwise

Hydrocarbon values derived using 2.5% SOM

BAP is a marker for genotoxic PAHs

Sources

- Soil Guideline Values ▲ - C4SL

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VALE STREET, MANCHESTER, M11 4NR

Comparison of Contamination Test Results with Various Thresholds

RESIDENTIAL WITH HOMEGROWN VEGETABLES

Hydrocarbons at 2.5% SOM

Contaminant	Max Value	Threshold	Pass/Fail	SSAC	Pass/Fail	Failed Samples
BTEX COMPOUNDS						
- Benzene	<0.001	0.17*	✓			
- Toluene	<0.001	290*	✓			
- Ethyl-benzene	<0.001	110*	✓			
- Xylene - O	<0.001	140*	✓			
- M/P	<0.001	130*	✓			
TPHs						
<u>Aliphatics</u>						
C ₅ – C ₆	<1.0	78*	✓			
C ₆ – C ₈	<1.0	230*	✓			
C ₈ – C ₁₀	<1.0	65*	✓			
C ₁₀ – C ₁₂	8.7	330 (118 vap)*	✓			
C ₁₂ – C ₁₆	6.8	2400 (59 sol)*	✓			
C ₁₆ – C ₃₅	210	92000 (21 sol)*	✓			
<u>Aromatics</u>						
C ₅ – C ₇	<1.0	140*	✓			
C ₇ – C ₈	<1.0	290*	✓			
C ₈ – C ₁₀	<1.0	83*	✓			
C ₁₀ – C ₁₂	240	180*	X			TH2 – 0.25m
C ₁₂ – C ₁₆	440	330*	X			TH2 – 0.25m
C ₁₆ – C ₂₁	890	540*	X			TH2 – 0.25m
C ₂₁ – C ₃₅	2600	1500*	X			TH2 – 0.25m
TPH Sum	4500	1,000 (H)	X			TH2 – 0.25m

All units mg/kg (parts per million/ppm) unless shown otherwise

Hydrocarbon values derived using 2.5% SOM

Vap – vapour saturation limit Soil – solubility saturation limit

Sources

- Soil Guideline Values ▲ - C4SL

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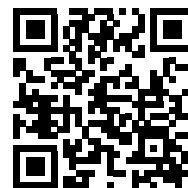
(D) – Dutch (B) - BRE – Building Research Establishment (E) - EA Disposal Threshold 2002

(H) – Hazardous Waste

® - CLEA 1.06 Software

SSAC – Site Specific Assessment Criteria (derived with CLEA 1.06 software)

Waste Classification Report



TGSRF-UKC3M-7E6W5

Job name

Vale Street, Manchester, M11 4NR

Description/Comments

Project

Vale Street, Manchester, M11 4NR

Site

Vale Street, Manchester, M11 4NR

Related Documents

#	Name	Description
None		

Waste Stream Template

Worms Eye v3

Classified by

Name:	Company:	HazWasteOnline™ Training Record:	
Emma Lord	Worms Eye Limited	Course	Date
Date:	52 Bank Parade	Hazardous Waste Classification	-
23 Jun 2020 13:47 GMT	Burnley	Advanced Hazardous Waste Classification	-
Telephone:	BB11 1TS		
01282 414649			

Report

Created by: Emma Lord
Created date: 23 Jun 2020 13:47 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	TH1	0.25	Non Hazardous		2
2	TH2	0.25	Hazardous	HP 3(i), HP 7, HP 11	5
3	TH3	0.25	Non Hazardous		8

Appendices	Page
Appendix A: Classifier defined and non CLP determinands	11
Appendix B: Rationale for selection of metal species	12
Appendix C: Version	13

Classification of sample: TH1

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

Sample details

Sample Name:	LoW Code:
TH1	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.25 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
7.9%	
(no correction)	

Hazard properties

None identified

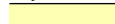
Determinands

Moisture content: 7.9% 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	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 }			1	0.59 mg/kg	1.285	0.758 mg/kg	0.000059 %
	048-010-00-4	215-147-8	1306-23-6					
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				22 mg/kg	1.462	32.154 mg/kg	0.00322 %
		215-160-9	1308-38-9					
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %
	024-001-00-0	215-607-8	1333-82-0					<LOD
5	copper { dicopper oxide; copper (I) oxide }				46 mg/kg	1.126	51.791 mg/kg	0.00518 %
	029-002-00-X	215-270-7	1317-39-1					
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 }				1 mg/kg	1.884	1.884 mg/kg	0.000188 %
	006-007-00-5							
7	lead { lead chromate }			1	200 mg/kg	1.56	311.963 mg/kg	0.02 %
	082-004-00-2	231-846-0	7758-97-6					
8	mercury { mercury dichloride }				0.38 mg/kg	1.353	0.514 mg/kg	0.0000514 %
	080-010-00-X	231-299-8	7487-94-7					
9	nickel { nickel dihydroxide }				26 mg/kg	1.579	41.067 mg/kg	0.00411 %
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]					
10	pH				8.1 pH		8.1 pH	
11	phenol				<0.3 mg/kg		<0.3 mg/kg	<0.00003 %
	604-001-00-2	203-632-7	108-95-2					<LOD
12	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<0.2 mg/kg	2.554	<0.511 mg/kg	<0.0000511 %
	034-002-00-8							<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 }				170 mg/kg	1.245	211.601 mg/kg	0.0212 %		
	030-013-00-7	215-222-5	1314-13-2							
14	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
15	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
16	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
17	xylene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<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				590 mg/kg		590 mg/kg	0.059 %		
			TPH							
19	acenaphthene				0.44 mg/kg		0.44 mg/kg	0.000044 %		
		201-469-6	83-32-9							
20	acenaphthylene				0.46 mg/kg		0.46 mg/kg	0.000046 %		
		205-917-1	208-96-8							
21	anthracene				0.48 mg/kg		0.48 mg/kg	0.000048 %		
		204-371-1	120-12-7							
22	benzo[a]anthracene				1.7 mg/kg		1.7 mg/kg	0.00017 %		
	601-033-00-9	200-280-6	56-55-3							
23	benzo[a]pyrene; benzo[def]chrysene				1.7 mg/kg		1.7 mg/kg	0.00017 %		
	601-032-00-3	200-028-5	50-32-8							
24	benzo[b]fluoranthene				2.3 mg/kg		2.3 mg/kg	0.00023 %		
	601-034-00-4	205-911-9	205-99-2							
25	benzo[k]fluoranthene				1.1 mg/kg		1.1 mg/kg	0.00011 %		
	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				1.7 mg/kg		1.7 mg/kg	0.00017 %		
	601-048-00-0	205-923-4	218-01-9							
28	dibenz[a,h]anthracene				0.24 mg/kg		0.24 mg/kg	0.000024 %		
	601-041-00-2	200-181-8	53-70-3							
29	fluoranthene				3 mg/kg		3 mg/kg	0.0003 %		
		205-912-4	206-44-0							
30	fluorene				0.68 mg/kg		0.68 mg/kg	0.000068 %		
		201-695-5	86-73-7							
31	indeno[123-cd]pyrene				1.2 mg/kg		1.2 mg/kg	0.00012 %		
		205-893-2	193-39-5							
32	naphthalene				0.91 mg/kg		0.91 mg/kg	0.000091 %		
	601-052-00-2	202-049-5	91-20-3							
33	phenanthrene				2.2 mg/kg		2.2 mg/kg	0.00022 %		
		201-581-5	85-01-8							
34	pyrene				3.1 mg/kg		3.1 mg/kg	0.00031 %		
		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:								0.117 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because Low level

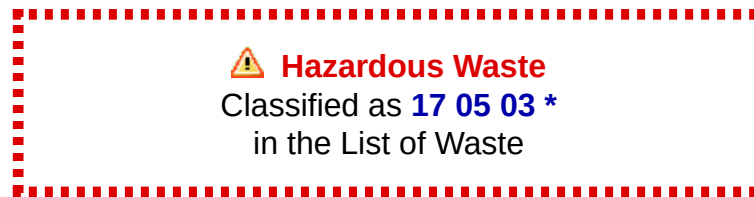
Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.059%)

Classification of sample: TH2



Sample details

Sample Name:	LoW Code:	
TH2	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 03 * (Soil and stones containing hazardous substances)
0.25 m		
Moisture content:		
9.1%		
(no correction)		

Hazard properties

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 hazardous because High level, above threshold

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.45%)

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

Hazard Statements hit:

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

Because of determinands:

lead chromate: (Note 1 conc.: 0.1%)

TPH (C6 to C40) petroleum group: (conc.: 0.45%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.45%)

Determinands

Moisture content: 9.1% 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	arsenic { arsenic trioxide }				16 mg/kg	1.32	21.125 mg/kg	0.00211 %		
	033-003-00-0	215-481-4	1327-53-3							
2	cadmium { cadmium sulfide }			1	<0.1 mg/kg	1.285	<0.129 mg/kg	<0.00001 %		<LOD
	048-010-00-4	215-147-8	1306-23-6							

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }	215-160-9	1308-38-9		23	mg/kg	1.462	33.616	mg/kg	0.00336 %		
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	72	mg/kg	1.126	81.064	mg/kg	0.00811 %		
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			2.2	mg/kg	1.884	4.145	mg/kg	0.000414 %		
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	1000	mg/kg	1.56	1559.815	mg/kg	0.1 %	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	0.5	mg/kg	1.353	0.677	mg/kg	0.0000677 %		
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	26	mg/kg	1.579	41.067	mg/kg	0.00411 %		
10	pH		PH		8.3	pH		8.3	pH	8.3 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			0.21	mg/kg	2.554	0.536	mg/kg	0.0000536 %		
13	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	270	mg/kg	1.245	336.073	mg/kg	0.0336 %		
14	benzene	601-020-00-8	200-753-7	71-43-2	<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
15	toluene	601-021-00-3	203-625-9	108-88-3	<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
16	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
17	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]	<0.002	mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
18	TPH (C6 to C40) petroleum group		TPH		4500	mg/kg		4500	mg/kg	0.45 %		
19	acenaphthene	201-469-6	83-32-9		1.1	mg/kg		1.1	mg/kg	0.00011 %		
20	acenaphthylene	205-917-1	208-96-8		0.75	mg/kg		0.75	mg/kg	0.000075 %		
21	anthracene	204-371-1	120-12-7		1.4	mg/kg		1.4	mg/kg	0.00014 %		
22	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	3.5	mg/kg		3.5	mg/kg	0.00035 %		
23	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	3.1	mg/kg		3.1	mg/kg	0.00031 %		
24	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	4.3	mg/kg		4.3	mg/kg	0.00043 %		
25	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	1.9	mg/kg		1.9	mg/kg	0.00019 %		
26	benzo[ghi]perylene	205-883-8	191-24-2		2.3	mg/kg		2.3	mg/kg	0.00023 %		
27	chrysene	601-048-00-0	205-923-4	218-01-9	4	mg/kg		4	mg/kg	0.0004 %		

WORMS EYE

LIMITED

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
28		dibenz[a,h]anthracene				0.51 mg/kg		0.51 mg/kg	0.000051 %		
		601-041-00-2	200-181-8	53-70-3							
29	■	fluoranthene				7 mg/kg		7 mg/kg	0.0007 %		
			205-912-4	206-44-0							
30	■	fluorene				1.1 mg/kg		1.1 mg/kg	0.00011 %		
			201-695-5	86-73-7							
31	■	indeno[123-cd]pyrene				2.1 mg/kg		2.1 mg/kg	0.00021 %		
			205-893-2	193-39-5							
32		naphthalene				1.8 mg/kg		1.8 mg/kg	0.00018 %		
		601-052-00-2	202-049-5	91-20-3							
33	■	phenanthrene				5.8 mg/kg		5.8 mg/kg	0.00058 %		
			201-581-5	85-01-8							
34	■	pyrene				7.6 mg/kg		7.6 mg/kg	0.00076 %		
			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:									0.607 %		

Key

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

Classification of sample: TH3

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

Sample details

Sample Name:	TH3	LoW Code:	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	0.25 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)	
Moisture content:	7.1% (no correction)			

Hazard properties

None identified

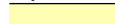
Determinands

Moisture content: 7.1% 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	arsenic { arsenic trioxide }				19	mg/kg	1.32	25.086	mg/kg	0.00251 %		
	033-003-00-0	215-481-4	1327-53-3									
2	cadmium { cadmium sulfide }			1	0.72	mg/kg	1.285	0.925	mg/kg	0.000072 %		
	048-010-00-4	215-147-8	1306-23-6									
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				23	mg/kg	1.462	33.616	mg/kg	0.00336 %		
		215-160-9	1308-38-9									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	copper { dicopper oxide; copper (I) oxide }				79	mg/kg	1.126	88.945	mg/kg	0.00889 %		
	029-002-00-X	215-270-7	1317-39-1									
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 }				1.7	mg/kg	1.884	3.203	mg/kg	0.00032 %		
	006-007-00-5											
7	lead { lead chromate }			1	290	mg/kg	1.56	452.346	mg/kg	0.029 %		
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.41	mg/kg	1.353	0.555	mg/kg	0.0000555 %		
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				21	mg/kg	1.579	33.169	mg/kg	0.00332 %		
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	pH				9.7	pH		9.7	pH	9.7 pH		
11	phenol				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
	604-001-00-2	203-632-7	108-95-2									
12	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<0.2	mg/kg	2.554	<0.511	mg/kg	<0.0000511 %		<LOD
	034-002-00-8											

#	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 }				210 mg/kg	1.245	261.39 mg/kg	0.0261 %			
	030-013-00-7	215-222-5	1314-13-2								
14	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	601-020-00-8	200-753-7	71-43-2								
15	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	601-021-00-3	203-625-9	108-88-3								
16	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	601-023-00-4	202-849-4	100-41-4								
17	xylene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %			<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				630 mg/kg		630 mg/kg	0.063 %			
			TPH								
19	acenaphthene				1.4 mg/kg		1.4 mg/kg	0.00014 %			
		201-469-6	83-32-9								
20	acenaphthylene				1.1 mg/kg		1.1 mg/kg	0.00011 %			
		205-917-1	208-96-8								
21	anthracene				2.7 mg/kg		2.7 mg/kg	0.00027 %			
		204-371-1	120-12-7								
22	benzo[a]anthracene				5.2 mg/kg		5.2 mg/kg	0.00052 %			
	601-033-00-9	200-280-6	56-55-3								
23	benzo[a]pyrene; benzo[def]chrysene				4.4 mg/kg		4.4 mg/kg	0.00044 %			
	601-032-00-3	200-028-5	50-32-8								
24	benzo[b]fluoranthene				4.7 mg/kg		4.7 mg/kg	0.00047 %			
	601-034-00-4	205-911-9	205-99-2								
25	benzo[k]fluoranthene				2.5 mg/kg		2.5 mg/kg	0.00025 %			
	601-036-00-5	205-916-6	207-08-9								
26	benzo[ghi]perylene				2.9 mg/kg		2.9 mg/kg	0.00029 %			
		205-883-8	191-24-2								
27	chrysene				5 mg/kg		5 mg/kg	0.0005 %			
	601-048-00-0	205-923-4	218-01-9								
28	dibenz[a,h]anthracene				0.66 mg/kg		0.66 mg/kg	0.000066 %			
	601-041-00-2	200-181-8	53-70-3								
29	fluoranthene				11 mg/kg		11 mg/kg	0.0011 %			
		205-912-4	206-44-0								
30	fluorene				1.7 mg/kg		1.7 mg/kg	0.00017 %			
		201-695-5	86-73-7								
31	indeno[123-cd]pyrene				2.8 mg/kg		2.8 mg/kg	0.00028 %			
		205-893-2	193-39-5								
32	naphthalene				2.3 mg/kg		2.3 mg/kg	0.00023 %			
	601-052-00-2	202-049-5	91-20-3								
33	phenanthrene				10 mg/kg		10 mg/kg	0.001 %			
		201-581-5	85-01-8								
34	pyrene				11 mg/kg		11 mg/kg	0.0011 %			
		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:									0.144 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because Low level

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.063%)

Appendix A: Classifier defined and non CLP determinands

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

Conversion factor: 1.462

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: 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):

14 Dec 2015 - 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)

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):

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

■ **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)}

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: 2020.170.4371.8576 (18 Jun 2020)

HazWasteOnline Database: 2020.170.4371.8576 (18 Jun 2020)

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

STEP 5: RESULTS

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Print Reports

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		Ratio of ADE to relevant Health Criteria Value			Soil Assessment Criteria		
		oral HCV	inhal HCV	Combined	oral HCV	inhal HCV	Combined
Number	Chemical	(dimensionless)	(dimensionless)	(dimensionless)	mg kg ⁻¹	mg kg ⁻¹	mg kg ⁻¹
1	Aromatic EC>10-12	0.00	1.00	1.00	NR	1.14E+03	1.14E+03
2	Aromatic EC>12-16	0.00	1.00	1.00	NR	1.19E+04	1.19E+04
3	Aromatic EC>16-21	1.00	NR	NR	1.35E+05	NR	NR
4	Aromatic EC>21-35	1.00	NR	NR	1.08E+07	NR	NR
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