



**LAKE FARM COUNTRY PARK BMX TRACK,
DAWLEY ROAD, HAYES, UB3 1EJ
PHASE II CONTAMINATION AND
GEOTECHNICAL ASSESSMENT
LONDON BOROUGH OF HILLINGDON
26TH NOVEMBER 2025
LS8892**

Site:	LAKE FARM COUNTRY PARK BMX TRACK, DAWLEY ROAD, HAYES, UB3 1EJ	
Title:	PHASE II CONTAMINATION AND GEOTECHNICAL ASSESSMENT	
Project:	PROPOSED BMX TRACK	
Client:	LONDON BOROUGH OF HILLINGDON	
Date:	26TH NOVEMBER 2025	
Reference:	LS8892	
Version:	A – final for issue	
Prepared By:	<i>Alex Lintern</i>	ALEX LINTERN B.Sc. (Hons) <u>Geo-Environmental Engineer</u>
Checked By:	<i>Jocelyn Middleton</i>	JOCELYN MIDDLETON MGeol FGS <u>Principal Geo-Environmental Consultant</u>
Checked By:	<i>Jake Trangmar</i>	JAKE TRANGMAR B.Sc. (Hons) <u>Senior Environmental Scientist</u>
Review & Authorised By:	<i>Mike Rose</i>	MICHAEL ROSE M.Sc., B.Sc., FGS, AIEMA <u>Principal Geo-Environmental Consultant</u>

Land Science are Geotechnical Engineering and Contaminated Land specialists for construction, regulation, property ownership, and due diligence. By understanding our client’s needs and appreciating the role that ground issues play within a wider context, we provide a reliable service and first-class expertise tailored to specific requirements. For more information on how we can benefit your project, please visit www.landscience.co.uk



CONTENTS

1.0	EXECUTIVE SUMMARY	4
2.0	INTRODUCTION	5
3.0	SUMMARY OF PREVIOUS REPORT (LS8691)	7
4.0	INTRUSIVE INVESTIGATION.....	9
5.0	GROUND CONDITIONS.....	11
6.0	FIELD TESTING.....	13
7.0	GEOTECHNICAL LABORATORY TESTING.....	14
8.0	GEOTECHNICAL DISCUSSION	17
9.0	GEOTECHNICAL ASSESSMENT.....	19
10.0	CONTAMINATION LABORATORY TESTING.....	23
11.0	HUMAN HEALTH SCREENING.....	24
12.0	ENVIRONMENTAL SCREENING.....	26
13.0	CONTROLLED WATERS SCREENING	27
14.0	TIER 1 CONTAMINATION ASSESSMENT	28
15.0	PRELIMINARY WASTE ASSESSMENT	30
	REFERENCES	32
	REPORT CONDITIONS	33
	GLOSSARY OF TERMS	34

FIGURES

FIGURE 1:	Site Location Plan
FIGURE 2:	Existing Layout / Investigation Layout
FIGURE 3:	Proposed Layout / Investigation Layout

APPENDICES

APPENDIX A:	Photographs
APPENDIX B:	Field Logs and Testing
APPENDIX C:	Geotechnical Laboratory Testing
APPENDIX D:	Contamination Laboratory Testing

1.0 EXECUTIVE SUMMARY

This summary is a brief precis of the main findings and conclusions of the investigation. For detailed information, the reader is referred to the main report.

The area under investigation comprised a BMX and Skate Park with ancillary storage buildings. The proposed development was understood to comprise the installation of a new lighting system at the track. The intrusive investigation included six shallow boreholes.

Strata	Base Depth range	Summary
Topsoil	0.15-0.25mbgl	Dark brown slightly gravelly very sandy CLAY with flint and rare brick and chalk fragments.
Lynch Hill Gravel	0.80-3.00mbgl	Dark orange locally pale grey gravelly SAND to gravelly very sandy silty CLAY with flint with rare chalk fragments. WS04 recorded a seam of black peat between 2.50 and 2.60mbgl.

Groundwater was not encountered during the shallow investigation to a depth of 3.00mbgl.

Based on the ground and groundwater conditions encountered, it is considered that mass footing embedded into the Lynch Hill Gravel Member would be appropriate for the proposed development. However, if significant lateral forces are anticipated, mini piles socketed in the dense gravels should be considered.

The formation should be treated as being medium volume change potential. Shallow foundations should be suitably reinforced, and cohesive materials will soften when exposed to water.

Excavations are generally likely to remain stable which granular will be unstable. Excavations below the water table may become highly unstable.

Pavements may be formed on Lynch Hill Gravel. A CBR value of 3% is recommended, which is classified as being frost susceptible.

Buried structural concrete may be designed to DS-1 and AC-1 in accordance with BS8500. However, if founding in the London Clay Formation at depth then Land Science recommends a minimum DS-2 and AC-1s specification for London Clay, given the prevalence of sulphate bearing minerals and heightened risk to concrete.

Water supply pipe work will not require protection from aggressive soil contaminants.

No issues with respect to ground gases have been identified.

No Radon Protection Measures (RPM) are required for new dwellings and extensions at this location.

Soil testing has not identified elevated levels of contamination. Requirements for remediation have not been identified.

Chemical results on Topsoil and Lynch Hill Gravel corresponded to an Inert waste classification.

No immediate requirements for further ground investigation have been identified. This report should be submitted to relevant authorities etc. in good time for consideration and approval.

2.0 INTRODUCTION

2.1 General

Land Science was instructed to undertake a Phase II Contamination and Geotechnical Assessment in relation to the proposed redevelopment at Lake Farm Country Park BMX Track, Dawley Road, Hayes UB3 1EJ. The location is shown on Figure 1, which is centred at grid reference TQ 08892 80419.

2.2 Client

The Client for this appointment was London Borough of Hillingdon. This report may only be used by this named client and their project team for the purposes set out and subject to the report conditions. It was understood that the Client already owned the property, and that this investigation was not a pre-purchase appraisal.

2.3 Area Under Investigation

The area under investigation comprised a BMX and Skate Park with ancillary storage buildings. The layout is indicated on Figure 2. The area was approximately 2.15 hectares.

2.4 Proposed Development

The proposed development was understood to comprise the installation of a new lighting system at the track. Figure 3 illustrates the layout of the proposed redevelopment. The findings of this report may not be valid if the proposed development is altered.

2.5 Previous Investigations

The following previous investigations relevant to the site were made available:

- Phase I Geo-Environmental Assessment (“Desk Study”), by Land Science, ref. LS8691, dated 17th September 2025

The phase II ground investigation has been carried out in accordance with the recommendations of the previous report, and all reports must be read in conjunction with each other.

2.6 Scope of Work

The work carried out is described in detail in the following sections but in summary included:

- An intrusive investigation comprising dynamic sampler boreholes,
- Preliminary geotechnical testing of selected soil samples in the field and laboratory.
- Preliminary chemical testing of selected soil samples in the field and laboratory.

The fieldwork was conducted on 16th October 2025, under the supervision of Land Science.

2.7 Geotechnical Objectives

An interpretive Ground Investigation Report (GIR) was required in order to provide an assessment of ground conditions with respect to proposed foundations, pavements, concrete specification and excavations.

2.8 Geo-Environmental Objectives

A phase II intrusive investigation was required, to provide a generic quantitative risk assessment (GQRA).

The reports were required to assess risks associated with end users, the proposed redevelopment, adjacent land uses, and the wider environment, in the context of the planning regime.

2.9 Standards

Where practicable, the investigation was undertaken in accordance with the following primary standards and guidance:

- Land Contamination Risk Management (LCRM) Environment Agency June 2025.
- BS10175:2011+A2:2017, Investigation of Potentially Contaminated Sites.
- National Planning Policy Framework, December 2024.
- Building Regulations Approved Document C: Site preparation and resistance to contaminants and moisture, HM Government, September 2013.
- NHBC Standards Chapter 4.1: Land Quality - Managing Ground Conditions, 2024.
- BS 5930:2015+A1:2020 Code of Practice for Site Investigations.
- BS 1377-1:2016 Methods of test for soils for civil engineering purposes - General requirements and sample preparation.
- BS 1377-2:2022 Methods of test for soils for Civil Engineering Purposes-Classification tests and determination of geotechnical properties.
- BS 8004:2015+A1:2020 Code of Practice for Foundations.
- BS EN 1997-2:2024. Eurocode 7: Geotechnical Design –Ground Properties

Other technical sources have been cited in respect of specific aspects of the investigation, as referenced throughout the text.

3.0 SUMMARY OF PREVIOUS REPORT (LS8691)

3.1 General

In summary, the area under investigation comprised two BMX tracks and a skateboard park. Three storage containers and a smaller structure (possible WC) were noted between both structures. The rest of the site was covered with grass. Further description can be found in the report. No changes were noted between the site walkover and the intrusive investigation.

3.2 SPR Linkages and Risk Ratings

The source-pathway-receptor linkages identified for the site are summarised below:

Soils	Pathways	Rating	Receptor	Rating	Overall Rating
Very low	Dermal contact with soil and soil-borne dust	Very high	End Users	Moderate	Low
Very low	Ingestion of soil and soil-borne dust	Very high	End Users	Moderate	Low
Very low	Inhalation of soil-borne dust	Very high	End Users	Moderate	Low
Very low	Consumption of homegrown produce	Unlikely	End Users	Moderate	Unlikely
Very low	Inhalation of soil-borne dust	Moderate	Adjacent Land	Low	Low
Very low	Plant uptake, phytotoxic effects	High	Planting	Low	Low
Very low	Chemical attack	High	Concrete	Moderate	Low
Very low	Chemical attack	High	Pipework	Unlikely	Unlikely
Very low	Leaching-out, migration to water table	High	Groundwater	Very Low	Low
Very low	Leaching-out, migration to water bodies	High	Surface Water	Unlikely	Unlikely

Ground water	Pathways	Rating	Receptor	Rating	Overall Rating
Unlikely	Direct contact	Unlikely	End Users	Moderate	Unlikely
Unlikely	Direct contact	Unlikely	Adjacent Land	Low	Unlikely
Unlikely	Plant uptake, phytotoxic effects	Very Low	Planting	Low	Unlikely
Unlikely	Chemical attack	Very high	Concrete	Moderate	Unlikely
Unlikely	Chemical attack	Moderate	Pipework	Unlikely	Unlikely
Unlikely	Migration to Controlled Water receptor	Low	Groundwater	Very Low	Unlikely
Unlikely	Lateral migration to water bodies	Moderate	Surface Water	Unlikely	Unlikely

Vapours	Pathways	Rating	Receptor	Rating	Overall Rating
Unlikely	Inhalation, ignition	High	End Users	Moderate	Unlikely
Unlikely	Inhalation, ignition	High	Adjacent Land	Low	Unlikely
Unlikely	Root asphyxiation, phytotoxic effects	High	Planting	Low	Unlikely
Unlikely	Not a significant hazard	-	Concrete	Moderate	Unlikely
Unlikely	Chemical attack	High	Pipework	Unlikely	Unlikely
Unlikely	Not a significant hazard	-	Groundwater	Very Low	Unlikely
Unlikely	Not a significant hazard	-	Surface Water	Unlikely	Unlikely

Ground Gasses	Pathways	Rating	Receptor	Rating	Overall Rating
Unlikely	Inhalation, ignition	Unlikely	End Users	Moderate	Unlikely
Unlikely	Inhalation, ignition	Unlikely	Adjacent Land	Low	Unlikely
Unlikely	Root asphyxiation, phytotoxic effects	Unlikely	Planting	Low	Unlikely
Unlikely	Not a significant hazard	-	Concrete	Moderate	Unlikely
Unlikely	Not a significant hazard	-	Pipework	Unlikely	Unlikely
Unlikely	Not a significant hazard	-	Groundwater	Very Low	Unlikely
Unlikely	Not a significant hazard	-	Surface Water	Unlikely	Unlikely

3.3 Summary Phase I Assessment

Overall, the level of risk ranged between Unlikely and Low. Consequently, a **Low** level of risk has been assigned to the site in respect of the proposed development. This is primarily due to the potential presence of Made Ground and the current / proposed continued use of the site as a public park.

It would be necessary to undertake basic ground investigation works, which may include;

- Shallow trial pits, to assess the composition and depth of any Made Ground and any field evidence of contamination into the underlying soils.
- Selected samples (including materials bearing field evidence of contamination) should be sent for laboratory analysis. The main analytical suite is identified below.
- Positions should be located in areas of concern; i.e. targeted to specific points of potential contamination such as the tanks, and in receptor sensitive locations such as in proposed landscaped areas, etc.
- Samples of any perched water should be collected for laboratory testing.

The analytical suite, based on the known site history and walkover survey, should include:

- General parameters: acidity (pH), fraction of organic carbon.
- Metals; arsenic, cadmium, chromium (total), lead, mercury, selenium, boron, copper, nickel and zinc.
- Non-metals: water soluble sulphate, sulphide, total cyanide.
- Visual asbestos screening of all Made Ground samples. Where possible asbestos fibres or ACMs are identified, these should be examined under a microscope to determine type and quantification tests should be carried out.

In addition, the requirement for Waste Acceptance Criteria (WAC) testing should be considered to categorise soils in terms of disposal. Or the proposed soil testing could be used within any assessment of potential reuse of excavated soils either on site or within the large park site.

If present any previous installed monitoring installations could possibly be utilised for future gas / groundwater monitoring purposes.

Further positions may be required, additional samples analysed or additional determinands added to the analysis, as appropriate, based on any field evidence of possible contamination encountered.

It would be prudent to confirm the scope of ground investigation works with the Local Authority and other stakeholders before carrying out these works.

4.0 INTRUSIVE INVESTIGATION

4.1 Investigation Rationale

Based on the findings of the conceptual site model and geotechnical objectives, the intrusive investigation was based on the following strategy:

- Dynamic sampler boreholes were used to minimise disruption to the site.
- The positions were located at the proposed lighting structures.

Position	Provisional Depth / Strata	Existing Location	Proposed Location	Testing, Installations etc.
WS01-WS06	3.00m (or refusal)	Around BMX track	Light structures	PID, SPT

4.2 Geotechnical Strategy

Geotechnical aspects were investigated based on the following strategy:

Area of Concern	Investigation	Position(s)
Shallow soil conditions	Shallow exploratory holes located in and around the proposed development footprint.	All
Mechanical parameters	SPT testing was conducted along the depth to determine shear strength parameters for the geotechnical design.	All
Shrinkable soils	Plasticity index and particle size testing was scheduled to determine the shrinkability and percentage passing 425µm sieve.	All
Sulphate	Representative samples from relevant depths were scheduled for analysis of pH value and water soluble Sulphate.	WS01, WS03 & WS04
Frost susceptibility	Samples were submitted for plasticity index (cohesive) or particle size distribution (granular) to determine frost susceptibility.	All
Groundwater	Observations on the occurrence of water and standing levels were to be made during the fieldwork.	All

4.3 Contamination Strategy

Geo-environmental aspects were investigated based on the following strategy:

Area of Concern	Investigation	Position(s)
Made Ground	Representative samples of soil were to be screened for a broad industry standard screening contaminants.	All
Waste classification	For preliminary waste classification, representative samples were to be screened for contaminants and full hazardous waste leachate testing performed.	WS03 & WS06

4.4 Dynamic (Windowless) Sampling (WS)

Dynamic Sampling entails 1m long hollow tubes with liners driven into the ground and retracted to obtain samples. The liners are split, logged, tested, and subsampled as required.

4.5 Standard Penetration Test (SPT)

The Standard Penetration Test involved driving a cone (SPT(C)) or split spoon sampler (SPT(S)) with a percussive hammer weight and recording the number of blows to penetrate six consecutive intervals of 75mm; the first two are discarded as 'seating blows', while the final four are added together to calculate an N-Value. The procedure is defined under numerous standards including BS5930:2015.

4.6 Soil Sampling

Soil samples were recovered from the exploratory holes during the ground investigation and stored/transported in containers appropriate for the laboratory testing undertaken. Sample types and depths are recorded on the relevant exploratory hole records.

4.7 PID Screening (PID)

Soil samples were screened for VOCs in headspace using a Photo Ionisation Detector (PID) broadly in accordance with the methodology set-out in CIRIA C682. Due to interference from humidity and other factors, Land Science adopts a method detection limit of 1.0ppm to avoid reporting false positive readings.

5.0 GROUND CONDITIONS

5.1 General

The expected ground conditions were anticipated to comprise Made Ground over Lynch Hill Gravel Member over London Clay to depth. However, the investigation did not encounter Made Ground and the positions were too shallow to encounter the London Clay. A thin capping of Topsoil was encountered at surface across the whole site.

A summary, of the encountered conditions is presented below.

Strata	Base Depth mbgl					
	WS01	WS02	WS03	WS04	WS05	WS06
Topsoil	0.15	0.25	0.25	0.20	0.20	0.20
Lynch Hill Gravel - Cohesive	-	1.00	3.00+	1.95	1.30+	0.80+
Lynch Hill Gravel - Granular	1.00+	1.30+	-	2.60+	-	-

The naming of geological strata is tentative and should be used as a guide. Interpolation between or below investigation points should be treated with caution. The description of soils and rocks was in accordance with BS5930. Topsoil can be distinguished from Made Ground, even though these may have been disturbed through human activity and may contain materials such as brick, pottery, or charcoal etc.

5.2 Topsoil

Topsoil was encountered in all positions, and the full thickness was proved in all to depths of between 0.15 and 0.25mbgl. In summary, the Topsoil comprised dark brown slightly gravelly very sandy CLAY with flint and rare brick and chalk fragments.

5.3 Lynch Hill Gravel

The Lynch Hill Gravel was encountered in all positions and the boreholes were terminated in this stratum at depths of between 0.80+ and 3.00mbgl+. In summary, the Lynch Hill Gravel comprised initially a yellow, dark orange, brown gravelly very sandy silty CLAY with flint and rare chalk fragments and was considered to be primarily cohesive. The stratum graded into a dark orange locally pale grey gravelly SAND with flint with rare chalk fragments and was granular. WS04 recorded a seam of black peat between 2.50 and 2.60mbgl.

5.4 Roots and Rootlets

Occurrences of roots and rootlets were noted as follows:

Position	Roots	Rootlets
WS01	None	0.0-0.15m: occasional rootlets
WS02 to WS05		None
WS06		0.0-0.20m: occasional rootlets

5.5 Field Evidence of Contamination

No evidence of possible soil contamination (such as staining, malodours, or brightly coloured soils) was identified in the field.

5.6 Groundwater

Groundwater was not encountered during excavation of any of the investigative positions.

The level of water in a borehole can be affected by the drilling process and speed of infiltration; short-term rest levels should be used with caution.

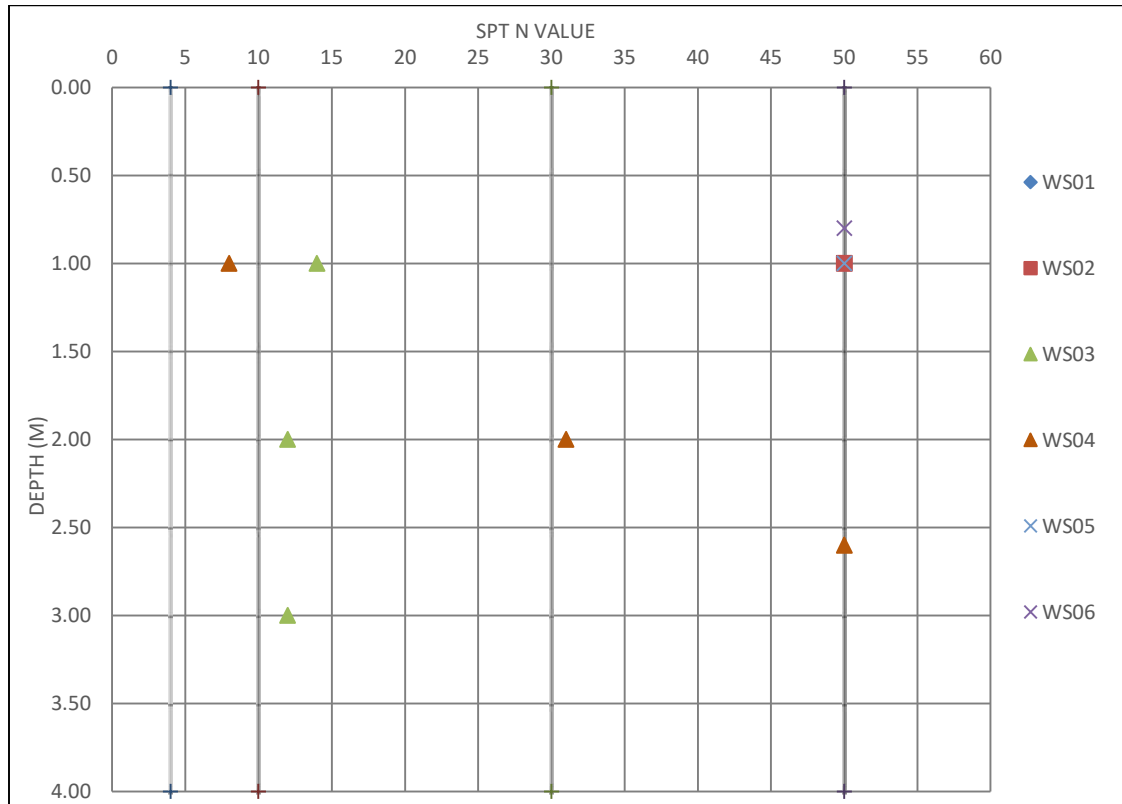
5.7 Stability and Casing

The excavations were noted to be stable throughout and no casing was used.

6.0 FIELD TESTING

6.1 Standard Penetration Test (SPT)

The SPT results are summarised below:



Note: gridlines shown are approximate and indicative only

Strata	Base Depth Range	Results (SPT 'N')	Notes
Lynch Hill Gravel - Cohesive	1.00-3.00mbgl	8-14	Firm
Lynch Hill Gravel - Granular	1.00-2.60mbgl	31-50	Dense

Generally, the granular material recorded dense with increasing depth and the cohesive materials recorded lower results suggesting firm clay at WS03 and WS04. It should be noted that WS06 refused a 0.80mbgl with an N value of 50+. It was considered this was on granular material however no observations were recorded below this depth due to the refusal.

6.2 PID Screening (PID)

None of the samples exhibited VOCs above the detection limit.

The purpose of the screening was to identify samples which may be impacted by organic contaminants (such as VOCs, SVOCs, petroleum hydrocarbons, diesel, etc.) and to assist in prioritising samples for laboratory analysis.

7.0 GEOTECHNICAL LABORATORY TESTING

7.1 Geotechnical Laboratory Testing

Samples were selected for geotechnical testing, based on the following rationale:

- For general classification purposes, representative cohesive natural samples of soil were analysed for 1pt Atterberg Limit (Plasticity Index) tests (PI). Moisture content (MC) determinations were carried out in association with the Atterberg limit tests.
- For general classification purposes, representative samples of granular soils were selected for Particle Size Distribution by wet sieving (PSD).
- To determine the required concrete specification to resist chemical attack, samples were tested for pH and water soluble sulphate (pH/SO₄).

A summary of the testing scheduled is given below:

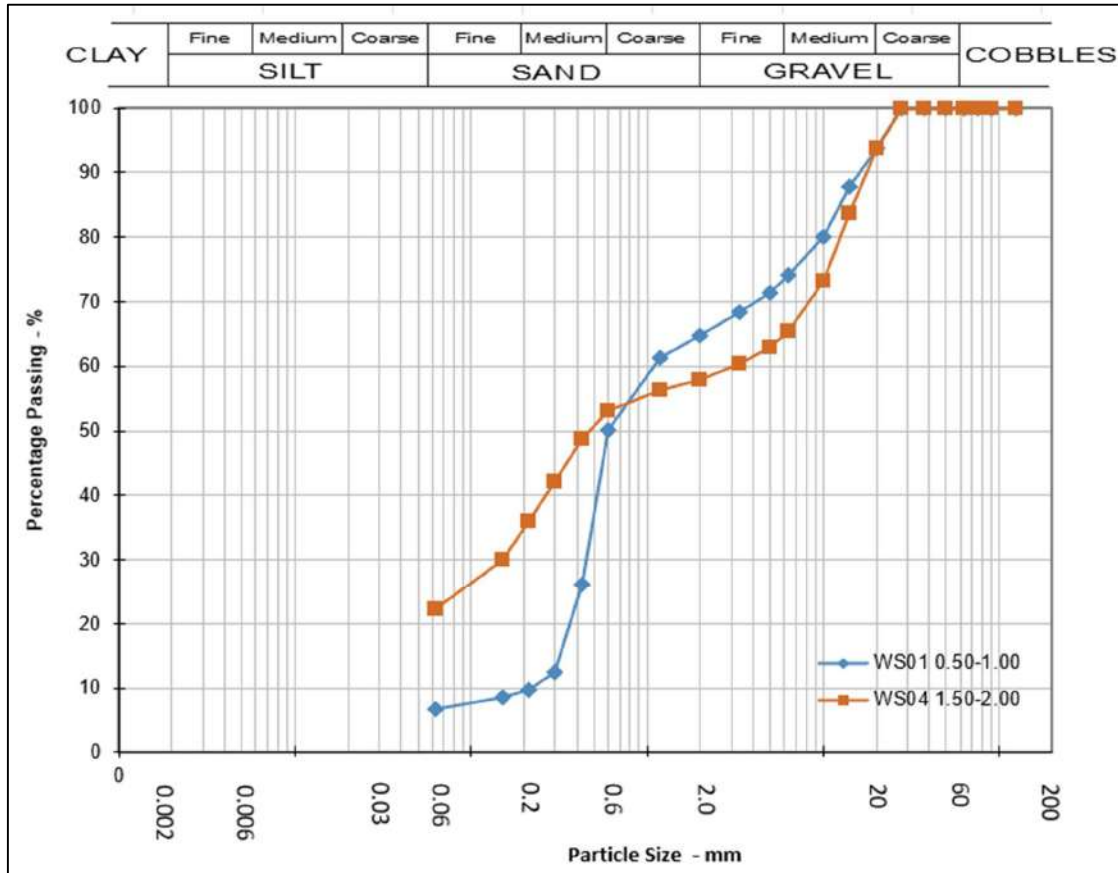
Sample	Strata	Test				
		MC	PI	PSD	pH/SO ₄	
WS01 0.10m	Topsoil				X*	
WS01 0.50m	Lynch Hill Gravel - Granular	X		X		
WS01 0.75m					X	
WS01 1.00m		X				
WS02 0.50m	Lynch Hill Gravel - Cohesive				X*	
WS02 0.75m		X	X			
WS02 1.00m		X	X			
WS03 0.50m					X	
WS03 1.00m		X	X			
WS03 1.50m					X*	
WS03 2.00m		X	X			
WS03 2.50m		X				
WS03 3.00m		X	X			
WS04 0.20m		Topsoil				X
WS04 0.50m		Lynch Hill Gravel - Cohesive	X			
WS04 1.00m					X*	
WS04 1.50m	X			X		
WS04 2.00m	Lynch Hill Gravel - Granular	X				
WS04 2.50m		X				
WS05 0.20m	Topsoil				X*	
WS05 0.50m	Lynch Hill Gravel - Cohesive	X	X			
WS05 1.00m	Lynch Hill Gravel - Granular	X	X			
WS06 0.50m	Lynch Hill Gravel - Cohesive				X*	
WS06 0.80m		X	X			

*scheduled as part of the geo-environmental testing, also providing pH and water soluble sulphate.
The results are discussed in the relevant sections.

7.2 Particle Size Distribution

The results of the particle size distribution analysis are summarised below.

Strata	No. of Tests	% Clay/Silt	% Sand	% Gravel	% Cobbles
Lynch Hill Gravel	2	6.70-22.3	35.7-58.0	35.3-42.0	0.0



7.3 Plasticity Indexes (Atterberg Limits)

The results of the Atterberg limit tests are summarised below.

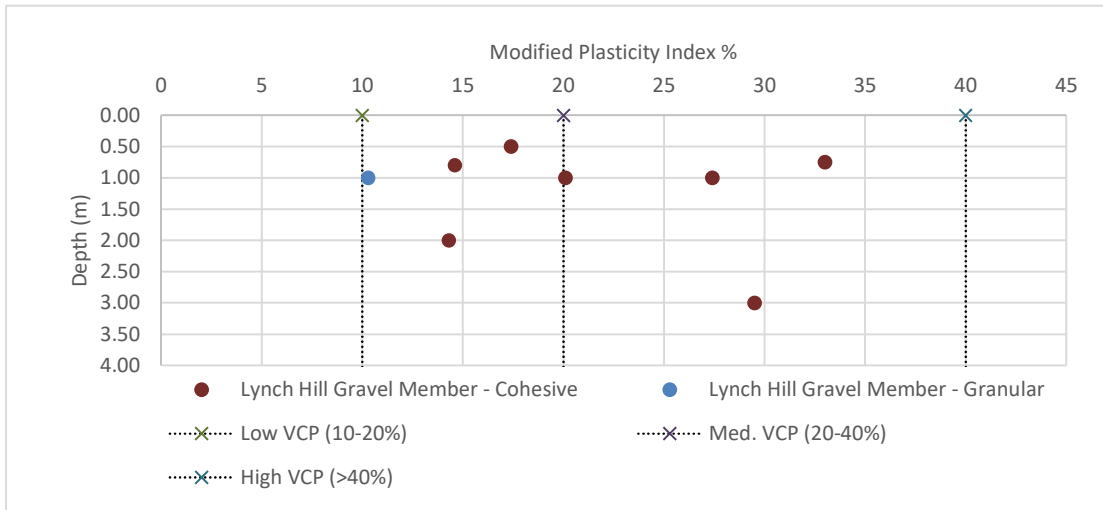
Strata	No. of Tests	Plasticity Index %		
		Minimum	Maximum	Average
Lynch Hill Gravel Member - Cohesive	7	16.5	37.5	26.7
Lynch Hill Gravel Member - Granular	1	14.2	14.2	14.2

A modified plasticity index (PI') was calculated following the NHBC methodology, to account for any non-shrinkable percentage not passing the 425µm sieve:

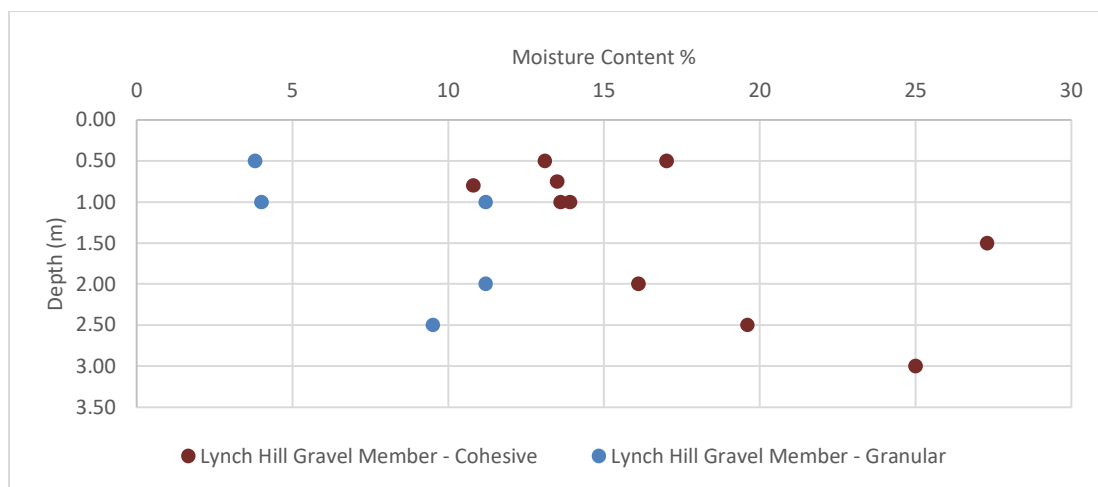
Strata	No. of Tests	Modified Plasticity Index %		
		Minimum	Maximum	Average
Lynch Hill Gravel Member - Cohesive	7	14.3	33.0	22.3
Lynch Hill Gravel Member - Granular	1	10.3	10.3	10.3

7.4 Water Content

The results of the water content (or *moisture content*) tests are summarised below.



Strata	No. of Tests	Moisture Content %		
		Minimum	Maximum	Average
Lynch Hill Gravel Member - Cohesive	10	10.8	27.3	17.0
Lynch Hill Gravel Member - Granular	5	3.8	11.2	7.9



7.5 pH and Sulphate

The results of the pH and water-soluble sulphate tests are summarised on the following table.

Strata	No. of Tests	Water Soluble Sulphate (SO ₄ g/l)	pH (value)
Topsoil	3	<0.02	7.18-7.48
Lynch Hill Gravel - Cohesive	5	<0.02-0.05	7.65-8.11
Lynch Hill Gravel - Granular	1	<0.02	7.97

8.0 GEOTECHNICAL DISCUSSION

8.1 General

The proposed development was understood to comprise the installation of six 15m tall lighting masts at the track. The investigation proved a thin capping of Topsoil between 0.15 and 0.25m in thickness over the Lynch Hill Gravel to a maximum depth of between 0.80 and 3.00m. The latter varied between cohesive and granular with most positions refusing in the granular sands.

A discussion of the geotechnical parameters based on this understanding can be found below.

The geotechnical assessment of the soil's mechanical properties was carried out by evaluating its consistency and density, which was determined through the *in-situ* testing, visual identification, laboratory testing, historical data from the British Geological Survey and the British standards.

8.2 Lynch Hill Gravel

Below the surface of topsoil, Lynch Hill Gravel Member was encountered to depths of between 0.80mbgl+ and 3.00mbgl+. The Lynch Hill Gravel Member varied with generally a cohesive layer over mainly granular material with the exception of WS01 which was noted to be granular to depth (1.00mbgl+) and WS03 which was noted to be more cohesive to depth (3.00mbgl+). Due to this variance, the materials will be assessed separately.

8.3 Lynch Hill Gravel - Cohesive

Cohesive Lynch Hill Gravel Member was noted in all positions except WS01 and generally comprised a yellow, dark orange, brown gravelly very sandy silty CLAY with flint and rare chalk fragments.

In-situ SPT tests indicated 'N' values ranging between N=8 and N=14 (firm). Atterberg testing on the cohesive material gave a modified plasticity indices ranging between 14% and 33% and varied throughout the strata. A bulk unit weight of 18kN/m³ is typical for cohesive material.

Within the clay CIRIA Report R143 indicates that an undrained shear strength can be determined from the recorded SPT value(s) (N) and the Stroud Correlation Factor (f_1) using the following equation:

$$C_u = f_1 \times N_{55}$$

Using Figure 31 from CIRIA R143, and a plasticity index of 30%, an f_1 value of 5.0 can be applied to an SPT 'N' values of N=8 and N=14 to determine an undrained shear strength value (C_u) of between 40 and 70kN/m². A value of 55kN/m² will be adopted.

Effective stress parameters can be determined from correlations with modified plasticity index (I_p) in accordance with British Standards BS8002:2015, using the following equation:

$$\text{Angle of shearing resistance} = (42^\circ - 12.5\text{Log}(I_p))$$

For a plasticity index of 30%, this equates to an effective shearing resistance of 23.5°. It is recommended effective stress parameters can be determined from available published data. It is recommended that a conservative maximum cohesion of 1.0kN/m² is also applied for design of drained conditions.

8.4 Lynch Hill Gravel – Granular

Granular portions of the Lynch Hill Gravel member were noted entirely in WS01 with this position refusing at 1.00mbgl, and within WS02, WS04, and WS05 at depths between 1.30mbgl+ and 2.60mbgl. WS06 encountered early refusal at 0.80mbgl and it is considered that this was on granular material. The Lynch Hill Gravel Member – Granular comprised a dark orange locally pale grey gravelly SAND with flint with rare chalk fragments.

In-situ SPT tests indicated 'N' values ranging between N=31 and N=50 (dense) and generally increased with depth. PSD testing on the material indicated a clayey/silty, gravelly, SAND. A bulk unit weight of 19 to 21kN/m³ is typical for granular material.

Based on table 1 within BS8002:2015, an angle of friction of 35° has been estimated based on rounded mater, moderate grading, and SPT values. It is recommended that a conservative maximum cohesion of 0kN/m² is also applied for design of drained conditions.

8.5 Recommended Geotechnical Parameters

The recommended geotechnical parameters for design are specified below. These have been determined from both in-situ and laboratory testing.

Strata	Bulk Unit Weight (kN/m ³)	Undrained Shear Strength (kN/m ²)	Angle of Friction (°)	Cohesion (kN/m ²)
Lunch Hill Gravel – Cohesive 1.00-3.00mbgl	18	60	23.5	1
Lunch Hill Gravel – Granular 1.00-3.00mbgl	19	-	35	0

9.0 GEOTECHNICAL ASSESSMENT

9.1 General

The proposed development was understood to comprise the installation of a new lighting system at the track. Figure 3 illustrates the layout of the proposed redevelopment.

The investigation proved a thin capping of Topsoil between 0.15 and 0.25m in thickness over the Lynch Hill Gravel to a maximum depth of between 0.80 and 3.00m. The latter varied between cohesive and granular with most positions refusing in the granular sands.

Groundwater was not encountered within the boreholes. It should be noted that the maximum depth of investigation was 0.80-3.00mbgl and water may occur below this depth.

Groundwater levels may vary seasonally. Water may also become perched upon cohesive strata or around features such as foundations, and may also occur from leaking drains and water mains etc.

It is noted that the BGS designate the site at risk from groundwater flooding to occur at surface.

Groundwater at or close to formation levels may be problematic for foundation construction and may influence the allowable bearing capacity.

Cohesive soils were identified, which are susceptible to heave and shrinkage through changes in moisture content, such as seasonally or trees.

Based on the ground and groundwater conditions encountered, it is considered that mass footing embedded into the Lynch Hill Gravel Member would be appropriate for the proposed development. However, if significant lateral forces are anticipated, mini piles socketed in the dense gravels should be considered.

The final foundation scheme will depend on other constraints and should be evolved in consultation with the design team.

9.2 Volume Change Potential

Although not strictly applicable to this form of development, reference may be given to the NHBC standards or similar guidance for designing and constructing foundations in the zone of influence of trees and hedgerows that currently exist, are to be planted, or have recently been felled.

Strata	Modified PI'	Shrinkability classification
Lynch Hill Gravel Member - Cohesive	20-40%	Medium volume change potential
Lynch Hill Gravel Member - Granular	10-20%	Low volume change potential

Foundations may be constructed on granular soils overlying shrinkable soils where there is sufficient depth of granular soil in accordance with NHBC clause 4.2.9. Consistent soil conditions should be confirmed across each plot, and this approach should be agreed prior to construction.

Specifications for heave precautions are summarised below. In addition to the depths marked *, localised deepening of foundations will be required in the influence of trees; it will be necessary to evaluate tree species and height in relation to the proposed building footprints.

Volume Change Potential		Low	Medium
Minimum depth for traditional foundations outside zone of influence of trees (m) *		0.75m	0.90m
No tree planting zone required for minimum depth foundations above (m)		0.2 x mature tree height	0.5 x mature tree height
Minimum depth for traditional foundations but allowing for restricted new planting (m) *		1.00m	1.25m
Minimum void dimension	Against side of traditional foundations (>1.50m) and ground beams etc.	0mm	25mm
	Beneath ground beam and suspended in-situ concrete ground floors etc.	50mm	100mm
	Beneath suspended precast concrete or timber floors etc.	200mm	250mm
Minimum allowance for potential ground movement for new drains		50mm	100mm

All foundations should extend below any major root zones or desiccated soil encountered, and trenches should be carefully inspected accordingly.

9.3 Traditional Shallow Foundations

The following recommendations are made where traditional foundations are to be used.

The primary design assessment for shallow foundations is maximum net allowable bearing pressure, which takes into account a tolerable degree of settlement, and is dependent not only on soil conditions but also the foundation dimensions, ground levels, sloping ground, and the symmetry of loading, amongst others.

All traditional shallow foundations should be taken through any Made Ground, soft or loose zones, disturbed soils, major root zones, or desiccated materials and taken wholly into or onto the Firm sandy CLAY or gravelly SAND of the Lynch Hill Gravel Member.

Maximum net allowable bearing pressures have been calculated for a selection of example foundation dimensions as shown below. The calculations assume a level ground surface and broadly symmetrical loading. The values are rounded down in accordance with convention. Settlement is estimated to be within 25mm tolerance.

Depth (mbgl)	1.00m x 1.00m	1.50m x 1.50m	2.00m x 2.00m
1.00	110kN/m ²	80kN/m ²	60kN/m ²
1.25			
1.50			

The vertical pressure due to the structure's weight must be adjusted to include the increases in stress produced by overturning effects arising from lateral loading.

In general terms, settlement will be broadly proportional to loading. Under no circumstances should a safe bearing pressure be exceeded (at which point there is a risk of shear failure). Foundations should be subject to sensibly uniform loading, to minimise differential settlement.

Given the variability in engineering characteristics of the Lynch Hill Gravel Member at the anticipated formation level, it is recommended that all foundations are lightly reinforced to account for potential differential settlements.

The Lynch Hill Gravel Member - Cohesive will soften rapidly when exposed to free water. The final 50mm of any foundation trench should not be excavated until immediately before concreting, unless blinded or otherwise protected immediately after excavation.

The shallow foundations are recommended if adequate dimensions (base, length and embedment) are proved to resist the overturning and sliding provoked by the lateral earth pressures. A detailed analysis in accordance with current British Standards, should be conducted during detailed design to confirm suitability of proposed foundations.

9.4 Piled Foundations

Considering the potential lateral forces, mini piles bored into the dense gravels may be considered. However, the full extent of the Lynch Hill Gravel Member is unknown and further investigation may be required if piles are to extend deeper than the investigated depths.

The construction of piled foundations is a specialist job and the advice of a reputable contractor should be sought prior to finalising the design.

9.5 Excavations

The risks arising from excavation works should be properly assessed and appropriate safety precautions should be adopted. Reference may be made to various guidance including, BS6031:2009 and CIRIA C97.

The likelihood of excavation instability through different strata has been assessed as summarised below. It should be noted that all open unsupported excavations have the potential to collapse.

Strata	Stability
Topsoil	Generally unstable. May be battered back to a safe angle. Deeper excavations may require trench support.
Lynch Hill Gravel Member - Cohesive	Generally stable in the short to medium term.
Lynch Hill Gravel Member - Granular	Marginally stable in the short term. Spalling and collapse should be expected, particularly in long or deep excavations which are left open for prolonged periods.

Excavations which are to remain open for prolonged periods will require trench support.

Water seepages may be encountered at shallow depth, particularly during wetter climatic conditions. Any battered slope should be regularly inspected for signs of potential instability, and sufficient working space should be allowed at the base.

It is considered that normal-rated plant and machinery will be sufficient for undertaking excavations.

Care should be taken so as not to undermine existing structures, services, or adjacent property.

Adjacent excavations should generally be tackled in order of depth with the deepest first. Vehicles and spoil heaps etc. should not surcharge excavations, and edge protection and fencing should be used as appropriate. Frozen materials should generally not be used as backfill.

9.6 Pavements

The design of pavements will depend on the performance requirements and specification, as well as the ground conditions and finished levels etc. The suitability of shallow soils encountered as a formation level for pavements is summarised as follows:

Strata	Base Depth Range	Suitability
Topsoil	0.15-0.25mbgl	Not suitable for trafficable pavements. All topsoil should be removed and replaced.
Made Ground	None encountered	Only suitable for pavements with low performance requirements. CBR values for these materials will not reflect the possible settlements that may occur. The materials will be frost susceptible so a minimum pavement thickness of 450mm will be required. The formation should be subject to a suitable programme of treatment and the sub-bases appropriately engineered.
Lynch Hill Gravel	0.80+ to 3.00+ mbgl	These materials are generally a suitable formation level. The formation may be frost susceptible and a minimum pavement of 450mm should be considered. TRRL 1132 suggests a CBR of around 3%, assuming average construction conditions and a low water table. Cohesive formations will degrade rapidly if exposed to standing water and should be protected.

The formation level should be carefully inspected, and any soft or loose zones should be removed and replaced with engineering fill, well-compacted in layers to a suitable specification. Consideration might be given to installing geotextiles. All engineering fill should be granular and non-frost susceptible (i.e. <10% fine material passing 425µm sieve).

9.7 Building Materials

All sub surface concrete should be designed and specified in accordance with BS8500-1:2015+A1:2016. The results of the sulphate and pH analyses fell into Class DS-1 and an ACEC class AC-1 is appropriate.

Buried plastics used for potable water supplies should not require any special specification in order to resist chemical contamination. However, pipework should not be laid where there is evidence of hydrocarbons.

10.0 CONTAMINATION LABORATORY TESTING

10.1 Scheduled Testing

Samples were selected for geochemical (contamination) analysis, based on the following rationale:

- Soils may contain a wide range of contaminants. Selected samples from both the Topsoil and natural Lynch Hill Gravel between depths of 0.10m and 1.50mbgl were tested for a routine screening suite (S1) and were screened for asbestos.
- Speciated Total Petroleum Hydrocarbon (TPH7) testing was also carried out on three samples including the Topsoil and Lynch Hill Gravel between depths of 0.20m and 1.50mbgl.
- Waste classification testing on two samples was included in the scope of works, to provide a preliminary assessment for waste handling. In the absence of any areas to specifically target, representative samples of the Lynch Hill Gravel at opposite ends of the site were selected for testing.

The scope and extent of testing was considered appropriate and in accordance with the Conceptual Site Model and preliminary risk assessment.

Sample	Strata	S1	Asbestos	TPH7	S3
WS01 0.10m	Topsoil	X	X		
WS02 0.50m	Lynch Hill	X	X		
WS03 1.50m	Gravel	X	X	X	X
WS04 1.00m		X	X		
WS05 0.20m	Topsoil	X	X	X	
WS06 0.50m	Lynch Hill Gravel	X	X	X	X

The relevant screening suites are defined below. Where duplicate analysis exists between suites, each test is performed only once:

Suite	Definition
S1 (soil)	Screening suite: pH, fraction of organic carbon, metals and non-metals, water soluble sulphate, sulphide, total cyanide, total phenols, speciated PAH's.
Asbestos	Asbestos screen: Laboratory screening for fibres and Asbestos Containing Materials (ACM); identification where identified. Using polarising light and dispersion staining as described in HSG 248, HSE Contract Research Report No 83/1996 and in Davies et al, 1996.
TPH7	Speciated TPH: Total petroleum hydrocarbons CWG banding incl. aliphatic and aromatic split plus BTEX and MTBE.
S3	Waste Acceptance Criteria (WAC): Total Organic Carbon (TOC), Loss on Ignition (LoI), BTEX, speciated PCB's, mineral oil (EC10 – EC40), pH, acid neutralisation capacity, speciated PAH's, 10:1 leachable metals and non-metals.

The results are discussed in the relevant sections.

11.0 HUMAN HEALTH SCREENING

11.1 Screening Values

As the basis of a generic tier 1 screening assessment, the results have been compared directly against published standards for human health.

Several different partly overlapping schemes are currently in use in the UK, based on the Environment Agency's CLEA Model but with differing toxicological parameters. For this report, these schemes have and have been applied in the following hierarchy:

- Suitable For Use levels (S4UL) published by LQM in association with the CIEH.
- Category 4 Screening Levels (C4SL) published by the DEFRA and CL:AIRE.

Whilst other standards exist, such as the LQM Generic Assessment Criterion and the Environment Agency's Soil Guideline Values, these are deemed superseded by the above documents.

No screening values have been published for BMX track and skatepark land use. Therefore, the soil chemical analysis results have been compared against respective screening values for public open space near residential properties (i.e. where frequent exposure may occur for instance children playing in communal spaces), deemed to be the next reasonably conservative screening values appropriate for the end use.

For contaminants where the respective screening value is dependent on Soil Organic Matter (SOM), the corresponding value for 6.00% was used (the arithmetic mean SOM value for the soil was 8.07%).

Where no standard exists, the contaminant is either not considered a priority in terms of human health (at least in the scenario being considered), or no screening value has been published.

11.2 Screening Results

None of the results exceeded the screening criteria.

11.3 Speciated TPH

The risks from TPH's are assessed differently from other contaminants. The ratio of an individual group of carbon bands to the respective GAC is calculated (a hazard quotient) and these are totalled to derive a sample specific hazard index. A hazard index exceeding 1.0 suggests a potential significant risk to human health in the exposure scenario considered. The calculated hazard indexes are summarised below.

Sample	Total TPH	Hazard Index	Notes
WS03 1.50m	<10mg/kg	0.01	No potential significant risk to human health
WS05 0.20m	<10mg/kg	0.01	
WS06 0.50m	<10mg/kg	0.01	

11.4 Asbestos

There are no published screening values for asbestos in soil, however from the nine samples tested asbestos was not detected.

11.5 Polychlorinated Biphenyls (PCBs)

Two soil samples were tested within the waste criteria tests which included PCB testing.

There are no published screening values for PCBs in soil, however, from the two samples screened for PCBs, neither of the results exceeded their respective detection limits.

12.0 ENVIRONMENTAL SCREENING

12.1 Soft Landscaping

A number of documents include guidance on screening levels of phytotoxic contaminants within soils, including:

- BS3882:2015 "Specification for topsoil and requirements for use" (although stipulated as not to be used in contaminated land risk assessment).
- ICRC in publication 70/90 1990 'Notes on the Restoration and Aftercare of Metalliferous Mining Sites for Pasture and Grazing' (although indirectly withdrawn) (where marked *).
- Code of Practice for Agricultural Use of Sewage Sludge (England and Wales 1996) for arable use (as opposed to grazing) and relating to priority phytotoxic elements only.

The results of the chemical analysis for determinands known to pose a potential phytotoxic risk to plant growth are summarised on the following table, together with the respective adopted screening values for plant growth. The results of the chemical analysis were evaluated singularly without the use of statistical tools.

Element	Phytotoxicity Value (mg/kg)			Arable (grassland)	Results Exceeding Screening Value
	pH <6.0	pH 6.0-7.0	pH >7.0	pH >5.2	
Zinc	200	200	300	300 (300)	None
Copper	100	135	200	200 (330)	
Nickel	60	75	110	110 (180)	
Cadmium	50*			3.0 (3.0)	
Arsenic	1,000*			50 (50)	

12.2 Structural Concrete

Recommendations with respect to sulphate and buried concrete are made in section 9.7. It is noted that no onerous precautions in this respect are warranted.

12.3 Potable Water Supplies

The risk of chemical attack on water supply pipework has been assessed following the general principles set out in the joint Water UK/HBF (Home Builders Federation) *Contaminated Land Assessment Guidance* dated January 2014. A summary of the main chemical criteria is reproduced below.

Test Group (in mg/kg)	Poly-ethylene (PE)	Polyvinyl Chloride (PVC)	Metal or Barrier pipe	Results Exceeding
Mineral oil EC11-20	10	No limit	No limit	None
Mineral oil EC21-40	500	No limit	No limit	

Redox potential and conductivity should be checked where metal pipework is to be installed. aluminium barrier pipework is acceptable under all conditions. No pipework should be laid where there is evidence of petrol, diesel etc.

13.0 CONTROLLED WATERS SCREENING

The relevant analytical results have been compared directly against the standard set out in the water framework directive for surface waters, and the current UK potable water supply regulations.

13.1 Soil Leachate Screening

In comparison to the adopted surface water standards, the following determinands exceeded the respective thresholds:

Determinand	EQS	Units	WS03 1.50m	WS06 0.50m
Copper	0.001	mg/l	0.0013	0.0037

In comparison to the adopted drinking water standards, none were found to exceed the respective standards.

14.0 TIER 1 CONTAMINATION ASSESSMENT

14.1 End Users

The preliminary conceptual site model identified end users to comprise public open space near residential properties.

None of the chemical results exceeded human health screening values. In the absence of a source, no source-pathway-receptor linkage can exist. On this basis, no requirements for remediation or further testing have been identified.

14.2 Adjacent Land Users

The site has not been identified as a risk of ongoing pollution to neighbouring land. However, measures should always be taken to prevent and control any dust, run-off and mud etc. generated during groundworks, as part of good site management.

14.3 Soft Landscaping

None of the potentially phytotoxic metals tested exceeded the respective screening values.

14.4 Concrete Specification

The chemical results and ground conditions have been appraised as part of the geotechnical report and reference should be made to section 9.7. No issues relating to man-made (contamination) sources have been identified.

14.5 Potable Water Supplies

It was understood that no new water mains were to be laid.

14.6 Ground Water Protection

The preliminary conceptual site model identified possible source-pathway-receptor linkages with respect to groundwater. The site overlies a principal aquifer but outside a SPZ. However, contamination may be mobilised through the infiltration and percolation of water downwards through the soil column and into the water table. This may then in turn migrate with the water table and impact directly on abstraction points.

None of the soil-leachate results exceeded the drinking water standards, which suggests there is no significant risk of impact on groundwater quality.

14.7 Surface Water Protection

No surface water bodies were identified in the local area, and therefore no source-pathway-receptor linkages exist in this regard.

14.8 Conclusions

On the basis that no contamination risks were identified, no remediation was necessary.

However, as always, any Made Ground, shallow soils which have been disturbed, or those showing field evidence of possible contamination such as staining, should be treated as suspect, handled with appropriate care, and relevant advice sought from a qualified professional.

A copy of this report should be submitted to the relevant authorities for approval in good time prior to commencement for their consideration and approval, as they may have further requirements.

15.0 PRELIMINARY WASTE ASSESSMENT

15.1 Non-Waste

Soils may potentially be handled as non-waste and re-used on site (or on other sites) in accordance with various protocols such as those published by the EA or CL:AIRE. Typical requirements include:

- That the re-use of material will not endanger human health, cause nuisance, or harm the wider environment (controlled waters, ecosystems, etc.)
- That there is a clear environmental benefit from the activity, and that the waste is being used as a substitute for non-waste material.
- The materials are suitable for use without further treatment.
- The holder is certain that the materials will be used in a safe manner.
- Only the necessary quantities of materials are being used.
- A Waste Recovery Plan (EA) or Materials Management Plan [MMP] (CL:AIRE) are produced and followed, and audited in a Verification Plan.

It may also be possible to treat materials under an environmental permit, standard rules permit, or U1 exemption, subject to strict limits.

The Topsoil and Lynch Hill Gravel are both considered to be potentially suitable for re-use on site. The chemical analysis suggests these materials may be suitable for use in soft landscaped areas (subject to landscaping specifications), or under hardstandings such as roads or slabs (subject to geotechnical considerations).

15.2 Waste Disposal

Where materials are not re-used they must be handled as waste, and must be sent to a licenced waste management facility. Waste soil is classified for disposal purposes as follows:

Step 1: Does the material contain dangerous substances in various proportions that exceed the thresholds for hazardous waste under the Waste Framework Directive?

- If yes, the material is hazardous
- If not, the material is non-hazardous

Step 2: Does the waste acceptance testing allow the materials to be sub classified as follows:

- If hazardous, does the soil meet the requirements for Stable Non-Reactive Hazardous Waste (SNRHW)?
- If non-hazardous, does the soil meet the requirements for inert waste?

A material is therefore either hazardous or non-hazardous waste; hazardous may only be sub-classified as SNRHW and non-hazardous waste may only be sub-classified as inert.

The results of the soils analysis have been interpreted as follows:

Soil	Step 1: Hazardous Waste	Step 2: Waste Acceptance	Asbestos etc.	Waste Designation
Topsoil – WS01 0.10m, WS05 0.20m	Non-hazardous	WAC testing not carried out.	None	Non-hazardous*
Lynch Hill Gravel – WS02 0.50m, WS04 1.00m				
Lynch Hill Gravel – WS03 1.50m, WS06 0.50m		WAC testing carried out. Materials acceptable as Inert waste		Inert

Whilst the samples marked * were classified as non-hazardous, WAC testing was not carried out and therefore the materials could not be sub-classified as Inert. However, based on the WAC testing on other samples, it is likely these would in fact also qualify as Inert. Further WAC testing may represent a potential saving on disposal costs.

With reference to the current List of Wastes (formerly European Waste Catalogue), waste soils and stone derived from construction and demolition sites may be disposed of under either of the following codes as appropriate:

Waste	Code	Description
Hazardous	17 05 03*	soil and stones containing dangerous substances
Non-Hazardous	17 05 04	soil and stones other than those mentioned in 17 05 03

(Note, the asterisk is a Mirror Entry, as defined in the List of Wastes, conferring the relationship with the non-hazardous code 17-05-04).

REFERENCES

A number of technical references have been referred to in the preparation of this document, including:

- Smith, I. (2014) Smith's Elements of Soil Mechanics. Chichester. Wiley Blackwell. 9th edition.
- BRE Design Guide 365. Soakaway design ("DG365").
- Radon: Guidance on protective measures for new buildings, BRE Report BR 211, 2023 6th edition.
- The Environment Agency's approach to groundwater protection. February 2018 Version 1.2.
- Water UK and the Home Builders Federation; Contaminated Lane Assessment Guidance, dated January 2014.
- Concrete – Complementary British Standard to BS EN 206; Part 1: Method of specifying and guidance for the specifier BS8500-1:2015+A1:2016, dated August 2016.
- Revised EU Waste Framework Directive 2008 2008/98/EC [transposed into English law under The Waste (England and Wales) Regulations 2011].
- European Community (EC) Directive 1999/31/EC [transposed into English law under the Landfill (England and Wales) Regulations 2002].
- Defining Waste Recovery - Permanent Deposit of Waste on Land, EPR13 v1.0, EA 2010.
- The definition of waste: Development Industry Code of Practice, v2, CL:AIRE 2011.
- Guidance on the classification and assessment of waste Technical Guidance WM3 ("WM3") EA publication (1st edition v1.2GB) dated 2021.

REPORT CONDITIONS

The Client

This report may only be used by the client named in section 1 and their appointed project team for the purpose of design, obtaining planning, building regulations approval, and in connection with finance. This report must not be used by any other persons or for other purposes without express written agreement of Land Science.

General

Land Science takes all reasonable professional care in the preparation of this report, using current standards and industry practice. However, the evaluation of ground conditions depends on an interpretation and extrapolation of the conditions revealed by a limited data set. The level of risk is related to the extent of investigation and no site is ever free of risk. The client should understand their risks and liabilities. We accept no liability whatsoever in respect of:

- The scope, extent or design of an investigation.
- Any conditions not directly revealed by the investigation.
- Published standards or methodologies used or adopted in this report.
- The opinion of any other party including any regulator, authority or stakeholder.
- Any dispute, claim or consequential loss arising from any findings of this report.
- Third party information and data.

This report relates solely to ground-related matters as set out in the objectives and makes no representation on other matters such as ecology, arboriculture, invasive plant species, the condition of buildings and structures, hazardous building materials such as insulation or asbestos, the locations of boundaries, unexploded ordnance, and or planning constraints etc. Further reports should be commissioned in this respect as appropriate.

Regulators and Approvals

This (and any other) report should be submitted to relevant authorities for their own assessments and to provide their approval or comments accordingly. This should be in good time before commencing on site in case additional work is to be carried out.

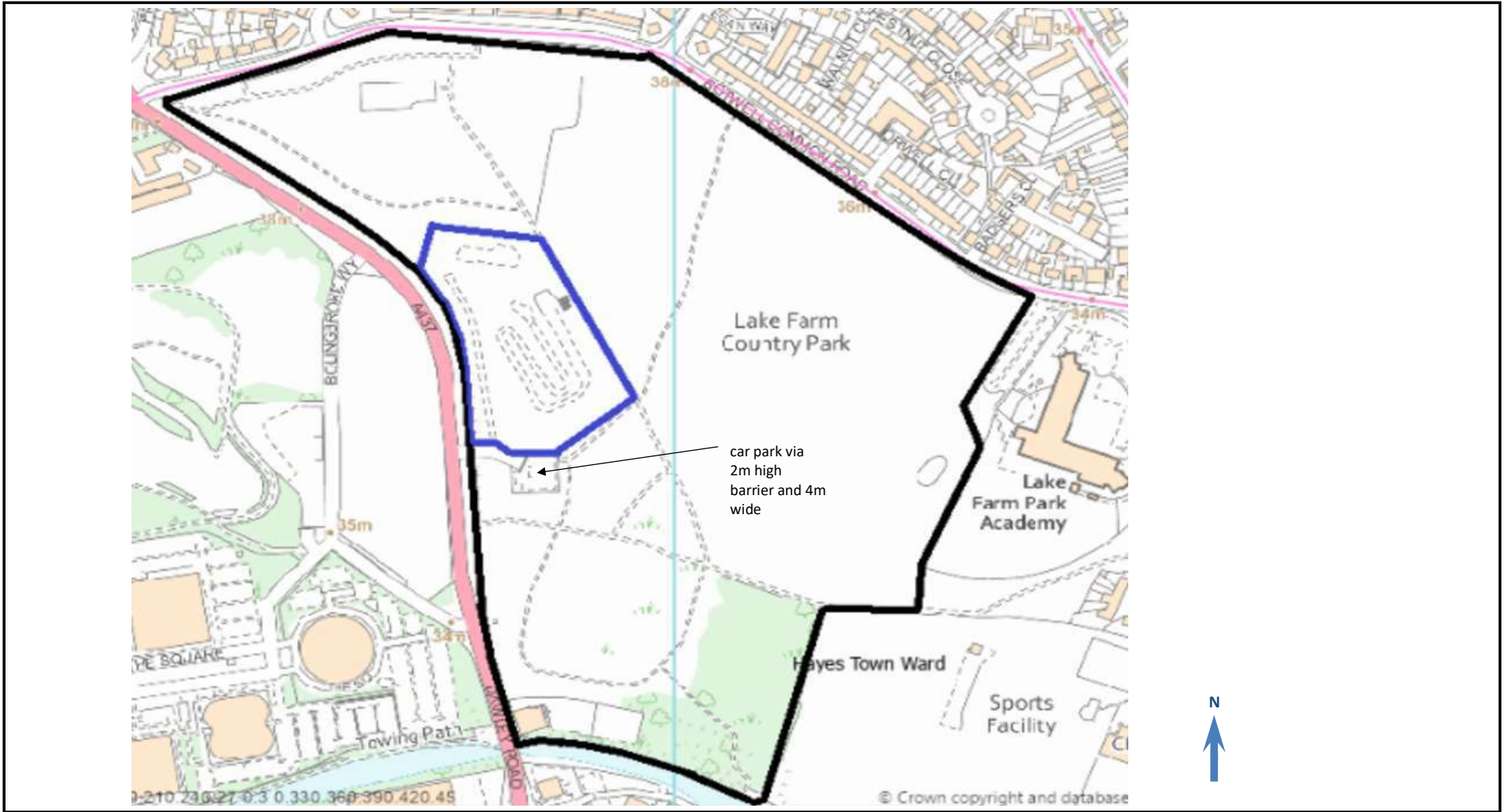
Standards, technical guidance and regulatory positions change over time and may therefore affect the findings and recommendations made in this report; this should be verified by the client prior to any critical project milestones. Where this information is used in design, the designer should verify that the information is appropriate and has been used correctly.

Variations with Time

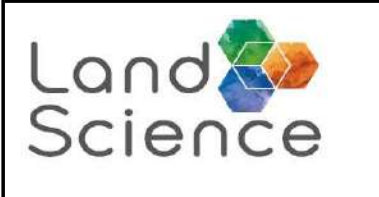
The report relates to conditions revealed at the time of the investigation and any monitoring visits. Some parameters may vary over time or seasonally; groundwater levels, ground gas compositions, or concentrations of contaminants are particularly variable in this respect. Further monitoring or verification should be considered as appropriate.

GLOSSARY OF TERMS

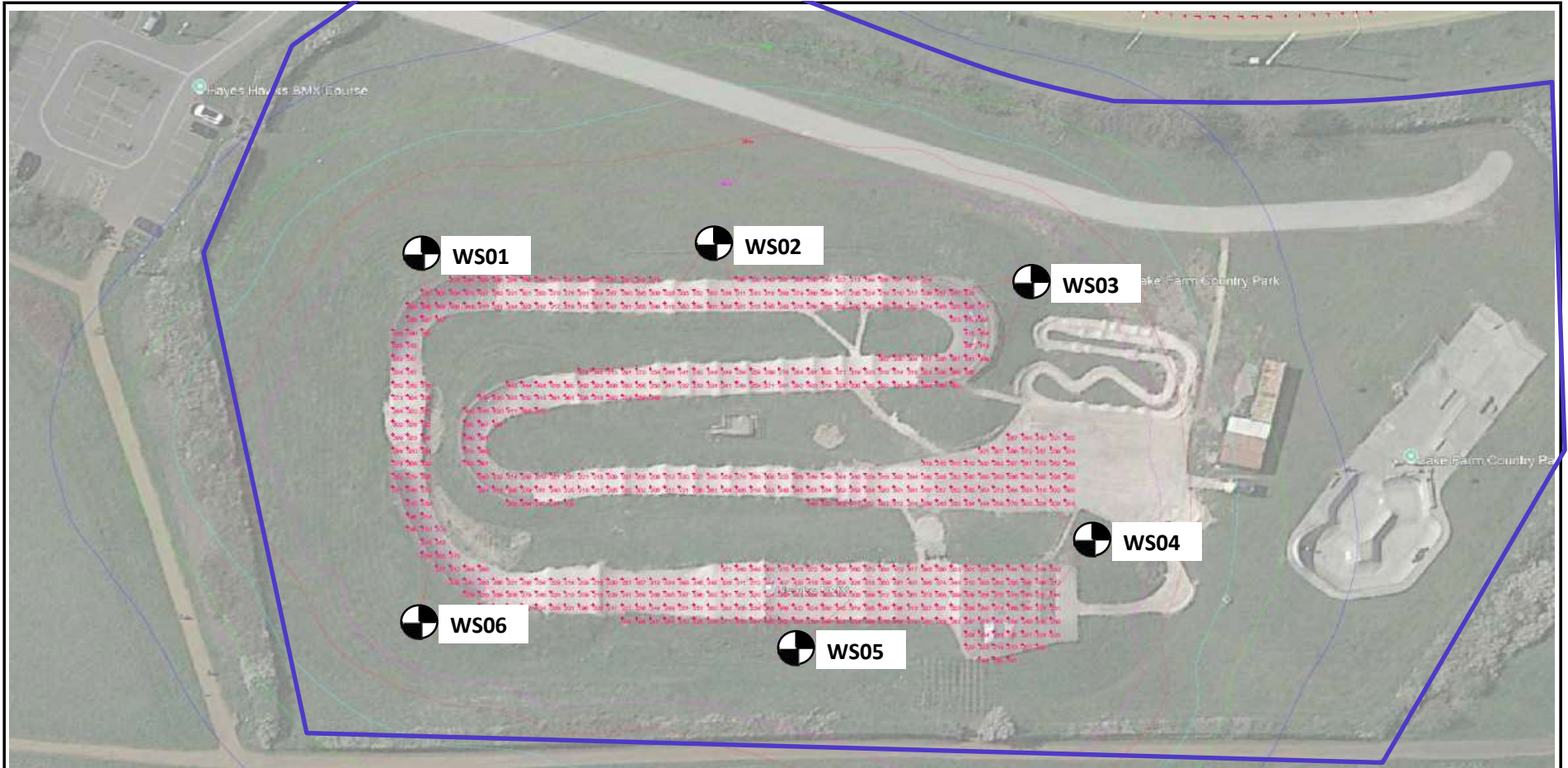
ACM	Asbestos Containing Material
BGS	British Geological Survey
BRE	Building Research Establishment
BS	British Standard
C4SL	Category 4 Screening Level
CBR	California Bearing Ratio
CDM	Construction Design and Management regulations
CIRIA	Construction Industry Research and Information Association
CL:AIRE	Contaminated Land: Applications in Real Environments
CLEA	Contaminated Land Exposure Assessment model
CSM	Conceptual Site Model
EA	Environment Agency
EQS	Environmental Quality Standards
FOC	Fraction of Organic Carbon
GAC	Generic Assessment Criterion
GQRA	Generic Quantitative Risk Assessment
mbgl	Meters Below Ground Level
NHBC	National House Building Council
mOD	Metres above Ordnance Datum
PAH's	Polycyclic Aromatic Hydrocarbons
PHE	Public Health England
PID	Photo-Ionisation Detector
PQRA	Preliminary Quantitative Risk Assessment
PSD	Particle Size Distribution Test
RMS	Remediation Method Statement
S4UL	Suitable for Use Level
SOM	Soil Organic Matter
SPZ	Source Protection Zone
SPT	Standard Penetration Test
SSSI	Sites of Special Scientific Interest
ST-WEL	Short Term Workplace Exposure Limit
SVOC's	Semi-Volatile Organic Compounds
TPH	Total Petroleum Hydrocarbons
TRRL / TRL	Transport Road Research Laboratory
TWA-WEL	Time Weighted Average Workplace Exposure Limit
UK HBF	United Kingdom House Building Federation
VOC's	Volatile Organic Compounds
WAC	Waste Acceptance Criteria



	TITLE: Site Location Plan	REF: LS8892	PREPARED: JM
	PROJECT: Lake Farm Country Park BMX Track, Dawley Road, Hayes UB3 1EJ	FIGURE: 1	CHECKED: MR
	CLIENT: London Borough of Hillingdon	DATE: 14/10/2025	VERSION: V1




TITLE:	Existing Site Layout	REF:	LS8892	PREPARED:	JM
PROJECT:	Lake Farm Country Park BMX Track, Dawley Road, Hayes UB3 1EJ	FIGURE:	2	CHECKED:	MR
CLIENT:	London Borough of Hillingdon	DATE:	14/10/2025	VERSION	V1



W3W:

WS01: ///fingernails.expect.silk
 WS02: ///vital.works.damage
 WS03: ///shape.wicked.expect
 WS04: ///opens.wiser.move
 WS05: ///arts.quit.metals
 WS06: ///paper.every.factories



	TITLE: Proposed Site Layout	REF: LS8892	PREPARED: JM
	PROJECT: Lake Farm Country Park BMX Track, Hayes UB3 1EJ	FIGURE: 3	CHECKED: MR
	CLIENT: London Borough of Hillingdon	DATE: 14/10/2025	VERSION: V1

APPENDIX A





TITLE:	Site Photographs	REF:	LS8892	PREPARED:	JM
PROJECT:	Lake Farm Country Park BMX Track, Hayes UB3 1EJ	SHEET:	1	CHECKED:	MR
CLIENT:	London Borough of Hillingdon	DATE:	21/10/2025	VERSION	V1



TITLE:	Site Photographs	REF:	LS8892	PREPARED:	JM
PROJECT:	Lake Farm Country Park BMX Track, Hayes UB3 1EJ	SHEET:	2	CHECKED:	MR
CLIENT:	London Borough of Hillingdon	DATE:	21/10/2025	VERSION	V1





APPENDIX B

Excavation Method Drive-in Windowless Sampler	Dimensions	Ground Level (mOD)	Client London Borough of Hillingdon	Job Number LS8892
	Location W3W: ///fingernails.expect.silk	Dates 16/10/2025	Engineer Land Science	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.10	D				(0.15)	Very dark brown slightly gravelly very sandy CLAY. Sand is fine to medium. Gravel is medium subangular flint, with occasional rootlets (TOPSOIL)		
0.25	D				0.15	Very dense dark orange gravelly SAND. Sand is fine to coarse. Gravel is fine to medium rounded to angular flint (LYNCH HILL GRAVEL)		
0.50	D				(0.85)			
0.75	D							
1.00-1.25 1.00	SPT 50/100 D		6,17/23,,27		1.00	Terminated at 1.00m		







Remarks GROUNDWATER: None encountered. CASING: None used. BACKFILL: Arisings and bentonite pellets. INSTALLATION: No installation. STABILITY: Generally stable. NOTES: Terminated at 1.00mbgl due to SPT refusal.	Scale (approx)	Logged By
	1:25	JM
	Figure No. LS8892.WS01	

Excavation Method Drive-in Windowless Sampler	Dimensions		Ground Level (mOD)	Client London Borough of Hillingdon	Job Number LS8892
	Location W3W: ///vital.works.damage		Dates 16/10/2025	Engineer Land Science	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.25	D				0.25	Very dark brown very sandy CLAY. Sand is fine to medium, with rare medium subangular brick and chalk fragments. (TOPSOIL)		
0.50	D				(0.75)	Dark orange mottled pale brown gravelly very sandy CLAY. Sand is fine to medium. Gravel is fine subangular to subrounded flint. (LYNCH HILL GRAVEL)		
0.75	D							
1.00-1.32 1.00	SPT 50/170 D		5,9/11,26,13		1.00 (0.30) 1.30	Very dense dark orange gravelly SAND. Sand is fine to coarse. Gravel is fine to medium rounded to angular flint. (LYNCH HILL GRAVEL)		
						Terminated at 1.30m		


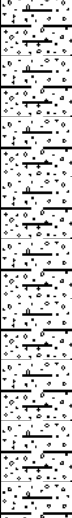
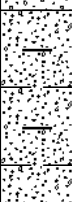

Remarks GROUNDWATER: None encountered. CASING: None used. BACKFILL: Arisings and bentonite pellets. INSTALLATION: No installation. STABILITY: Generally stable. NOTES: Terminated at 1.30mbgl due to SPT refusal.	Scale (approx) 1:25	Logged By JM
	Figure No. LS8892.WS02	

Excavation Method Drive-in Windowless Sampler	Dimensions	Ground Level (mOD)	Client London Borough of Hillingdon	Job Number LS8892
	Location W3W: ///shape.wicked.expect	Dates 16/10/2025	Engineer Land Science	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.25	D				0.25	Very dark brown gravelly very sandy CLAY. Sand is fine to medium. Gravel is medium subangular flint with rare chalk and brick fragments. (TOPSOIL)		
0.50	D				(0.65)	Yellow-brown mottled dark orange-brown gravelly very sandy silty CLAY. Sand is fine. Gravel is fine to medium subangular flint with rare chalk fragments. (LYNCH HILL GRAVEL)		
1.00-1.45 1.00	SPT N=14 D		3,3/3,4,3,4		0.90	Firm yellow-brown gravelly very sandy CLAY. Sand is coarse. Gravel is fine to medium subangular flint. (LYNCH HILL GRAVEL)		
1.50	D				(0.90)			
2.00-2.45 2.00	SPT N=12 D		3,3/3,3,3,3		1.80	Firm dark orange-brown-grey gravelly slightly sandy CLAY. Sand is fine to medium. Gravel is fine to medium subangular flint. (LYNCH HILL GRAVEL)		
2.50	D				(1.20)			
3.00-3.45 3.00	SPT N=12 D		2,2/3,2,3,4		3.00	Complete at 3.00m		



Remarks GROUNDWATER: None encountered. CASING: None used. BACKFILL: Arisings and bentonite pellets. INSTALLATION: No installation. STABILITY: Generally stable. NOTES: Completed at target depth of 3.00mbgl.	Scale (approx)	Logged By
	1:25	JM
	Figure No. LS8892.WS03	

Excavation Method Drive-in Windowless Sampler	Dimensions		Ground Level (mOD)	Client London Borough of Hillingdon	Job Number LS8892
	Location W3W: ///opens.wiser.move		Dates 16/10/2025	Engineer Land Science	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D				(0.20) 0.20	Desiccated very dark brown gravelly very sandy CLAY. Sand is fine to medium. Gravel is medium subangular flint with chalk fragments. (TOPSOIL)		
0.50	D					Soft yellow-brown gravelly very sandy CLAY. Sand is coarse. Gravel is fine to medium subangular to angular flint. (LYNCH HILL GRAVEL)		
1.00-1.45 1.00	SPT N=8 D		2,2/2,2,2,2		(1.75)			
1.50	D							
2.00-2.45 2.00	SPT N=31 D		2,2/3,5,9,14		1.95 (0.65)	Dense becoming very dense yellow-brown mottled black clayey SAND. Sand is fine to coarse. Gravel is fine to medium subangular to angular flint. (LYNCH HILL GRAVEL)		
2.50	D				2.60	Seam of black peat.		
2.60-2.98	SPT 50/230		7,10/16,16,18			Terminated at 2.60m		




Remarks GROUNDWATER: None encountered. CASING: None used. BACKFILL: Arisings and bentonite pellets. INSTALLATION: No installation. STABILITY: Generally stable. NOTES: Terminated at 2.60mbgl due to SPT refusal.	Scale (approx)	Logged By
	1:25	JM
	Figure No. LS8892.WS04	

Excavation Method Drive-in Windowless Sampler	Dimensions		Ground Level (mOD)	Client London Borough of Hillingdon	Job Number LS8892
	Location W3W: ///arts.quit.metals		Dates 16/10/2025	Engineer Land Science	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D				0.20	Very dark brown gravelly very sandy CLAY. Sand is fine to medium. Gravel is medium subangular to angular flint with rare chalk, brick and coal fragments. (TOPSOIL)		
0.50	D				(1.10)	Dark orange-brown mottled pale grey gravelly very sandy CLAY. Sand is coarse. Gravel is fine to coarse subangular flint. (LYNCH HILL GRAVEL)		
1.00-1.38 1.00	SPT 55/230 D		5,9/13,15,27		1.30	Terminated at 1.30m		

Remarks GROUNDWATER: None encountered. CASING: None used. BACKFILL: Arisings and bentonite pellets. INSTALLATION: No installation. STABILITY: Generally stable. NOTES: Terminated at 1.30mbgl due to SPT refusal.	Scale (approx)	Logged By
	1:25	JM
	Figure No. LS8892.WS05	

Excavation Method Drive-in Windowless Sampler	Dimensions	Ground Level (mOD)	Client London Borough of Hillingdon	Job Number LS8892
	Location WS06: ///paper.every.factories	Dates 16/10/2025	Engineer Land Science	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20-0.80	D				(0.20) 0.20	Very dark brown very sandy CLAY. Sand is fine to medium. Gravel is medium subangular flint, with rare brick and charcoal fragments and occasional rootlets. (TOPSOIL)		
0.50-0.50	D				(0.30) 0.50	Desiccated brown gravelly sandy silty CLAY. Sand is fine. Gravel is fine subangular to subrounded flint and rare rootlets. (LYNCH HILL GRAVEL)		
0.80-1.11 0.80-0.25	SPT 50/160 D		9,14/14,28,8		(0.30) 0.80	Stiff to very stiff dark orange mottled pale brown gravelly very sandy CLAY. Sand is fine to medium. Gravel is fine subangular to subrounded flint. (LYNCH HILL GRAVEL)		
						Terminated at 0.80m		

Remarks GROUNDWATER: None encountered. CASING: None used. BACKFILL: Arisings and bentonite pellets. INSTALLATION: No installation. STABILITY: Generally stable. NOTES: Terminated at 0.80mbgl due to SPT refusal.	Scale (approx)	Logged By
	1:25	JM
Figure No. LS8892.WS06		

APPENDIX C



SML
GEOTECHNICAL

SUMMARY OF PARTICLE SIZE DISTRIBUTION ANALYSIS

Site Name:		Samples Received:	
Reference:	LS8892	Reported:	

Sample Data		Sample Description																									
Position	WS01	Red gravelly SAND																									
Sample Ref	-																										
Depth	0.50-1.00																										
Sieve Analysis		<table border="1" style="width:100%; text-align:center; font-size:small;"> <tr> <td></td> <td>Fine</td> <td>Medium</td> <td>Coarse</td> <td>Fine</td> <td>Medium</td> <td>Coarse</td> <td>Fine</td> <td>Medium</td> <td>Coarse</td> <td></td> </tr> <tr> <td>CLAY</td> <td colspan="3">SILT</td> <td colspan="3">SAND</td> <td colspan="3">GRAVEL</td> <td>COBBLES</td> </tr> </table>					Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse		CLAY	SILT			SAND			GRAVEL			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse																		
CLAY	SILT			SAND			GRAVEL			COBBLES																	
mm	%																										
125																											
90																											
75	100.0																										
63	100.0																										
50	100.0																										
37.5	100.0																										
28	100.0																										
20	93.8																										
14	87.7																										
10	79.9																										
6.3	74.2																										
5.0	71.4																										
3.35	68.4																										
2.0	64.7																										
1.18	61.4																										
0.60	50.1					Sample Proportions		Grading Analysis																			
0.425	26.1					Cobbles	0.0	D100	28																		
0.30	12.5	Gravel	35.3	D60	1.2																						
0.212	9.7	Sand	58.0	D10	0.22																						
0.150	8.6	Silt & Clay	6.7	Uniformity Coeff.	5.5																						
0.063	6.7																										
0.020																											
0.006																											
0.002																											



SML
GEOTECHNICAL

SUMMARY OF PARTICLE SIZE DISTRIBUTION ANALYSIS

Site Name:		Samples Received:	
Reference:	LS8892	Reported:	

Sample Data		Sample Description																									
Position	WS04	Yellow silty very sandy GRAVEL																									
Sample Ref	-																										
Depth	1.50-2.00																										
Sieve Analysis																											
mm	%	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%; text-align:center;">CLAY</td> <td style="width:10%; text-align:center;">Fine</td> <td style="width:10%; text-align:center;">Medium</td> <td style="width:10%; text-align:center;">Coarse</td> <td style="width:10%; text-align:center;">Fine</td> <td style="width:10%; text-align:center;">Medium</td> <td style="width:10%; text-align:center;">Coarse</td> <td style="width:10%; text-align:center;">Fine</td> <td style="width:10%; text-align:center;">Medium</td> <td style="width:10%; text-align:center;">Coarse</td> <td style="width:10%; text-align:center;">COBBLES</td> </tr> <tr> <td colspan="11" style="text-align:center;">SILT SAND GRAVEL</td> </tr> </table>				CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	SILT SAND GRAVEL										
CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES																	
SILT SAND GRAVEL																											
125																											
90																											
75	100.0																										
63	100.0																										
50	100.0																										
37.5	100.0																										
28	100.0																										
20	93.7																										
14	83.7																										
10	73.1																										
6.3	65.3																										
5.0	62.8																										
3.35	60.3																										
2.0	58.0																										
1.18	56.3																										
0.60	53.2																										
0.425	48.7																										
0.30	42.2																										
0.212	36.1					Sample Proportions		Grading Analysis																			
0.150	30.1	Cobbles	0.0	D100	28																						
0.063	22.3	Gravel	42.0	D60	3.3																						
0.020		Sand	35.7	D10	-																						
0.006		Silt & Clay	22.3	Uniformity Coeff.	#VALUE!																						
0.002		-		-																							

APPENDIX D



SML Laboratories Ltd
Unit E1, Rosebury Business Park
Brampton Road
Eastbourne BN22 9BN
Tel: 01323 302280
Email: cs@sml-laboratories.co.uk

Analytical Report: 25-000214

Customer: Land Science
Address: Unit 10, Albert Drive, Burgess Hill, RH15 9TN
Name: Jocelyn Middleton
Project: BMX Track, Hayes, UB3 1EJ
Customer ref: LS8892
Quote ref: -
Sampling date: 16/10/2025
Samples received: 29/10/2025
Instructions received: 29/10/2025
Report issued: 11/11/2025
Report issue number: 2

Issue 2 - Amendment Note

Sample depth corrected for WAC sample 2240 (WAC 2)
This report supercedes Issue 1

Report Approved By

A handwritten signature in black ink, appearing to read 'Graham Knight', is written over a horizontal line.

Graham Knight – Laboratory Operations Manger

Sample Summary

Analytical Report: 25-000214 issue 2

SML No.	Client's Ref	Depth (m)	Date Sampled	Date Scheduled	Description	Deviations
2232	WS01	0.10	16/10/2025	29/10/25	Silt Loam	-
2233	WS01	0.75	16/10/2025	29/10/25	Loamy Sand, Predominantly Stones	-
2234	WS02	0.50	16/10/2025	29/10/25	Clay	-
2235	WS03	0.50	16/10/2025	29/10/25	Silty Clay	-
2236	WS03	1.50	16/10/2025	29/10/25	Silty Clay	-
2237	WS04	0.20	16/10/2025	29/10/25	Silty Clay	-
2238	WS04	1.00	16/10/2025	29/10/25	Clay	-
2239	WS05	0.20	16/10/2025	29/10/25	Silty Clay	-
2240	WS06	0.50	16/10/2025	29/10/25	Silty Clay	-

Analytical Report: 25-000214 issue 2

SML Ref	2232	2233	2234	2235	2236
Customer Ref	-	-	-	-	-
Sample ID	-	-	-	-	-
Sample Type	Soil	Soil	Soil	Soil	Soil
Sample Location	WS01	WS01	WS02	WS03	WS03
Sample Depth (m)	0.10	0.75	0.50	0.50	1.50
Sampling Date	16/10/2025	16/10/2025	16/10/2025	16/10/2025	16/10/2025

Determinant	Codes	Units	LOD
-------------	-------	-------	-----

Soil preparation parameters

Moisture Content	N	%	0.1	6.84	2.26	22.8	31.9	10.8
Material removed	N	%	0.1	9.10	70.1	1.40	2.10	40.7
Description of inert material removed	N	N/A	N/A	Stones	Stones	Stones	Stones	Stones

Metals

Beryllium	N	mg/kg	0.5	0.89	-	1.14	-	0.87
Vanadium	N	mg/kg	1	31.1	-	53.6	-	60.6
Chromium	N	mg/kg	1	84.2	-	29.6	-	29.4
Nickel	N	mg/kg	1	30.0	-	36.5	-	37.8
Copper	N	mg/kg	1	114	-	21.0	-	20.7
Zinc	N	mg/kg	1	247	-	57.9	-	61.7
Arsenic	N	mg/kg	1	17.0	-	16.8	-	14.2
Selenium	N	mg/kg	1	1.40	-	<1.0	-	<1.0
Cadmium	N	mg/kg	0.5	5.62	-	<0.5	-	<0.5
Barium	N	mg/kg	1	256	-	80.8	-	80.8
Mercury	N	mg/kg	0.5	1.91	-	<0.5	-	<0.5
Lead	N	mg/kg	1	293	-	32.5	-	25.8

Inorganics

Total Cyanide	N	mg/kg	1	1.37	-	<1.0	-	<1.0
Hexavalent Chromium	N	mg/kg	5	<5.0	-	<5.0	-	<5.0
Fraction Organic Carbon	N	%	0.005	0.240	-	<0.005	-	0.005
Sulphide	N	mg/kg	2	<2.0	-	<2.0	-	<2.0
Water Soluble Boron	N	mg/kg	0.02	0.68	-	1.09	-	0.75

Miscellaneous

pH	N	pH Units	0.01	7.33	7.97	7.88	7.82	8.11
Water Soluble Sulphate (2:1)	N	mg/kg	40	<40.0	<40.0	<40.0	<40.0	93.1
Water Soluble Sulphate (2:1)	N	g/l	0.02	<0.02	<0.02	<0.02	<0.02	0.05
Water Soluble Sulphate (2:1)	N	mg/l	20	<20.0	<20.0	<20.0	<20.0	46.6

Analytical Report: 25-000214 issue 2

SML Ref	2237	2238	2239	2240
Customer Ref	-	-	-	-
Sample ID	-	-	-	-
Sample Type	Soil	Soil	Soil	Soil
Sample Location	WS04	WS04	WS05	WS06
Sample Depth (m)	0.20	1.00	0.20	0.50
Sampling Date	16/10/2025	16/10/2025	16/10/2025	16/10/2025

Determinant	Codes	Units	LOD
-------------	-------	-------	-----

Soil preparation parameters

Moisture Content	N	%	0.1	23.7	12.0	8.00	5.0
Material removed	N	%	0.1	<0.1	13.5	9.20	15.3
Description of inert material removed	N	N/A	N/A	N/A	Stones	Stones	Stones

Metals

Beryllium	N	mg/kg	0.5	-	0.76	0.84	1.01
Vanadium	N	mg/kg	1	-	40.5	34.0	29.2
Chromium	N	mg/kg	1	-	25.9	54.5	47.9
Nickel	N	mg/kg	1	-	16.8	22.0	22.5
Copper	N	mg/kg	1	-	12.6	63.2	70.1
Zinc	N	mg/kg	1	-	39.9	171	130
Arsenic	N	mg/kg	1	-	14.3	13.8	17.9
Selenium	N	mg/kg	1	-	<1.0	1.02	<1.0
Cadmium	N	mg/kg	0.5	-	<0.5	<0.5	<0.5
Barium	N	mg/kg	1	-	74.3	184	159
Mercury	N	mg/kg	0.5	-	<0.5	0.68	0.67
Lead	N	mg/kg	1	-	19.3	153	211

Inorganics

Total Cyanide	N	mg/kg	1	-	<1.0	2.34	<1.0
Hexavalent Chromium	N	mg/kg	5	-	<5.0	<5.0	<5.0
Fraction Organic Carbon	N	%	0.005	-	<0.005	0.013	0.013
Sulphide	N	mg/kg	2	-	<2.0	<2.0	<2.0
Water Soluble Boron	N	mg/kg	0.02	-	0.80	0.87	1.10

Miscellaneous

pH	N	pH Units	0.01	7.48	7.69	7.18	7.65
Water Soluble Sulphate (2:1)	N	mg/kg	40	<40.0	<40.0	<40.0	<40.0
Water Soluble Sulphate (2:1)	N	g/l	0.02	<0.02	<0.02	<0.02	<0.02
Water Soluble Sulphate (2:1)	N	mg/l	20	<20.0	<20.0	<20.0	<20.0

Analytical Report: 25-000214 issue 2

SML Ref	2232	2233	2234	2235	2236
Customer Ref	-	-	-	-	-
Sample ID	-	-	-	-	-
Sample Type	Soil	Soil	Soil	Soil	Soil
Sample Location	WS01	WS01	WS02	WS03	WS03
Sample Depth (m)	0.10	0.75	0.50	0.50	1.50
Sampling Date	16/10/2025	16/10/2025	16/10/2025	16/10/2025	16/10/2025

Determinant	Codes	Units	LOD
-------------	-------	-------	-----

Phenols

Determinant	Codes	Units	LOD	2232	2233	2234	2235	2236
Phenol	N	mg/kg	1	<1.0	-	<1.0	-	<1.0
M,P-Cresol	N	mg/kg	1	<1.0	-	<1.0	-	<1.0
O-Cresol	N	mg/kg	1	<1.0	-	<1.0	-	<1.0
3,4-Dimethylphenol	N	mg/kg	1	<1.0	-	<1.0	-	<1.0
2,3-Dimethylphenol	N	mg/kg	1	<1.0	-	<1.0	-	<1.0
Napthol	N	mg/kg	1	<1.0	-	<1.0	-	<1.0
2,3,5-Trimethylphenol	N	mg/kg	1	<1.0	-	<1.0	-	<1.0
Total Monohydric Phenols	N	mg/kg	7	<7.0	-	<7.0	-	<7.0

Polyaromatic Hydrocarbons

Determinant	Codes	Units	LOD	2232	2233	2234	2235	2236
Napthalene	N	mg/kg	0.02	<0.02	-	<0.02	-	<0.02
Acenaphthylene	N	mg/kg	0.02	<0.02	-	<0.02	-	0.08
Acenaphthene	N	mg/kg	0.02	0.46	-	<0.02	-	0.09
Fluorene	N	mg/kg	0.02	<0.02	-	<0.02	-	0.09
Phenanthrene	N	mg/kg	0.02	0.53	-	<0.02	-	0.09
Anthracene	N	mg/kg	0.02	0.52	-	<0.02	-	0.08
Fluoranthene	N	mg/kg	0.02	1.06	-	<0.02	-	0.08
Pyrene	N	mg/kg	0.02	0.93	-	<0.02	-	0.08
Benzo(a)anthracene	N	mg/kg	0.02	0.41	-	<0.02	-	0.08
Chrysene	N	mg/kg	0.02	1.31	-	<0.02	-	0.08
Benzo(b)fluoranthene	N	mg/kg	0.02	0.67	-	<0.02	-	0.08
Benzo(k)fluoranthene	N	mg/kg	0.02	0.35	-	<0.02	-	0.09
Benzo(a)pyrene	N	mg/kg	0.02	1.18	-	<0.02	-	0.11
Indeno(1,2,3-cd)pyrene	N	mg/kg	0.02	0.75	-	<0.02	-	<0.02
Dibenzo(a,h)anthracene	N	mg/kg	0.02	<0.02	-	<0.02	-	0.33
Benzo[g,h,i]perylene	N	mg/kg	0.02	0.95	-	<0.02	-	0.14
Coronene	N	mg/kg	0.02	<0.02	-	<0.02	-	<0.02
Total PAH(17)	N	mg/kg	0.34	9.12	-	<0.34	-	1.49

Analytical Report: 25-000214 issue 2

SML Ref	2237	2238	2239	2240
Customer Ref	-	-	-	-
Sample ID	-	-	-	-
Sample Type	Soil	Soil	Soil	Soil
Sample Location	WS04	WS04	WS05	WS06
Sample Depth (m)	0.20	1.00	0.20	0.50
Sampling Date	16/10/2025	16/10/2025	16/10/2025	16/10/2025

Determinant	Codes	Units	LOD
-------------	-------	-------	-----

Phenols

Determinant	Codes	Units	LOD	2237	2238	2239	2240
Phenol	N	mg/kg	1	-	<1.0	<1.0	<1.0
M,P-Cresol	N	mg/kg	1	-	<1.0	<1.0	<1.0
O-Cresol	N	mg/kg	1	-	<1.0	<1.0	<1.0
3,4-Dimethylphenol	N	mg/kg	1	-	<1.0	<1.0	<1.0
2,3-Dimethylphenol	N	mg/kg	1	-	<1.0	<1.0	<1.0
Napthol	N	mg/kg	1	-	<1.0	<1.0	<1.0
2,3,5-Trimethylphenol	N	mg/kg	1	-	<1.0	<1.0	<1.0
Total Monohydric Phenols	N	mg/kg	7	-	<7.0	<7.0	<7.0

Polyaromatic Hydrocarbons

Determinant	Codes	Units	LOD	2237	2238	2239	2240
Napthalene	N	mg/kg	0.02	-	<0.02	<0.02	<0.02
Acenaphthylene	N	mg/kg	0.02	-	<0.02	0.04	<0.02
Acenaphthene	N	mg/kg	0.02	-	0.03	<0.02	<0.02
Fluorene	N	mg/kg	0.02	-	<0.02	<0.02	<0.02
Phenanthrene	N	mg/kg	0.02	-	0.03	0.34	0.04
Anthracene	N	mg/kg	0.02	-	0.03	<0.02	<0.02
Fluoranthene	N	mg/kg	0.02	-	0.03	0.63	0.06
Pyrene	N	mg/kg	0.02	-	0.03	0.53	0.05
Benzo(a)anthracene	N	mg/kg	0.02	-	0.03	0.28	0.03
Chrysene	N	mg/kg	0.02	-	0.03	0.40	0.04
Benzo(b)fluoranthene	N	mg/kg	0.02	-	0.03	0.49	0.05
Benzo(k)fluoranthene	N	mg/kg	0.02	-	0.03	0.25	<0.02
Benzo(a)pyrene	N	mg/kg	0.02	-	<0.02	0.30	<0.02
Indeno(1,2,3-cd)pyrene	N	mg/kg	0.02	-	<0.02	0.72	<0.02
Dibenzo(a,h)anthracene	N	mg/kg	0.02	-	<0.02	0.19	<0.02
Benzo[g,h,i]perylene	N	mg/kg	0.02	-	<0.02	0.35	<0.02
Coronene	N	mg/kg	0.02	-	<0.02	<0.02	<0.02
Total PAH(17)	N	mg/kg	0.34	-	<0.34	4.51	<0.34

Analytical Report: 25-000214 issue 2

SML Ref	2232	2233	2234	2235	2236
Customer Ref	-	-	-	-	-
Sample ID	-	-	-	-	-
Sample Type	Soil	Soil	Soil	Soil	Soil
Sample Location	WS01	WS01	WS02	WS03	WS03
Sample Depth (m)	0.10	0.75	0.50	0.50	1.50
Sampling Date	16/10/2025	16/10/2025	16/10/2025	16/10/2025	16/10/2025

Determinant	Codes	Units	LOD
-------------	-------	-------	-----

TPH CWG

TPH CWG - Aliphatic (>C5 - C7)	N	mg/kg	0.05	-	-	-	-	<0.05
TPH CWG - Aliphatic (C7 - C8)	N	mg/kg	0.05	-	-	-	-	<0.05
TPH CWG - Aliphatic (C8 - C10)	N	mg/kg	0.05	-	-	-	-	0.08
TPH CWG - Aliphatic (C10 - C12)	N	mg/kg	2	-	-	-	-	<2.0
TPH CWG - Aliphatic (C12 - C16)	N	mg/kg	2	-	-	-	-	<2.0
TPH CWG - Aliphatic (C16 - C21)	N	mg/kg	10	-	-	-	-	<10
TPH CWG - Aliphatic (C21 - C35)	N	mg/kg	10	-	-	-	-	<10
TPH CWG - Aliphatic (C35 - C40)	N	mg/kg	10	-	-	-	-	<10
TPH CWG - Aromatic (>C5 - C7)	N	mg/kg	0.05	-	-	-	-	<0.05
TPH CWG - Aromatic (C7 - C8)	N	mg/kg	0.05	-	-	-	-	<0.05
TPH CWG - Aromatic (C8 - C10)	N	mg/kg	0.05	-	-	-	-	0.36
TPH CWG - Aromatic (C10 - C12)	N	mg/kg	2	-	-	-	-	<2.0
TPH CWG - Aromatic (C12 - C16)	N	mg/kg	2	-	-	-	-	<2.0
TPH CWG - Aromatic (C16 - C21)	N	mg/kg	10	-	-	-	-	<10
TPH CWG - Aromatic (C21 - C35)	N	mg/kg	10	-	-	-	-	<10
TPH CWG - Aromatic (C35 - C40)	N	mg/kg	10	-	-	-	-	<10
TPH CWG Total - Aliphatic (>C5-C40)	N	mg/kg	10	-	-	-	-	<10
TPH CWG Total - Aromatic (>C5-C40)	N	mg/kg	10	-	-	-	-	<10

VOC

Benzene	N	ug/kg	0.01	-	-	-	-	<0.01
Toluene	N	ug/kg	0.01	-	-	-	-	<0.01
Ethylbenzene	N	ug/kg	0.01	-	-	-	-	<0.01
m&p Xylene	N	ug/kg	0.02	-	-	-	-	<0.02
o-Xylene	N	ug/kg	0.01	-	-	-	-	<0.01
MTBE	N	ug/kg	0.01	-	-	-	-	<0.01
Total BTEX	N	ug/kg	0.07	-	-	-	-	<0.07

TPH

Total TPH (C10 - C40)	N	ug/kg	1	49.0	<1.0	<1.0	<1.0	-
-----------------------	---	-------	---	------	------	------	------	---

Analytical Report: 25-000214 issue 2

SML Ref	2237	2238	2239	2240
Customer Ref	-	-	-	-
Sample ID	-	-	-	-
Sample Type	Soil	Soil	Soil	Soil
Sample Location	WS04	WS04	WS05	WS06
Sample Depth (m)	0.20	1.00	0.20	0.50
Sampling Date	16/10/2025	16/10/2025	16/10/2025	16/10/2025

Determinant	Codes	Units	LOD
-------------	-------	-------	-----

TPH CWG

TPH CWG - Aliphatic (>C5 - C7)	N	mg/kg	0.05	-	-	<0.05	<0.05
TPH CWG - Aliphatic (C7 - C8)	N	mg/kg	0.05	-	-	<0.05	<0.05
TPH CWG - Aliphatic (C8 - C10)	N	mg/kg	0.05	-	-	<0.02	<0.02
TPH CWG - Aliphatic (C10 - C12)	N	mg/kg	2	-	-	<2.0	<2.0
TPH CWG - Aliphatic (C12 - C16)	N	mg/kg	2	-	-	<2.0	<2.0
TPH CWG - Aliphatic (C16 - C21)	N	mg/kg	10	-	-	<10	<10
TPH CWG - Aliphatic (C21 - C35)	N	mg.kg	10	-	-	<10	<10
TPH CWG - Aliphatic (C35 - C40)	N	mg.kg	10	-	-	<10	<10
TPH CWG - Aromatic (>C5 - C7)	N	mg/kg	0.05	-	-	<0.05	<0.05
TPH CWG - Aromatic (C7 - C8)	N	mg/kg	0.05	-	-	<0.05	<0.05
TPH CWG - Aromatic (C8 - C10)	N	mg/kg	0.05	-	-	0.38	0.52
TPH CWG - Aromatic (C10 - C12)	N	mg/kg	2	-	-	<2.0	<2.0
TPH CWG - Aromatic (C12 - C16)	N	mg/kg	2	-	-	<2.0	<2.0
TPH CWG - Aromatic (C16 - C21)	N	mg/kg	10	-	-	<10	<10
TPH CWG - Aromatic (C21 - C35)	N	mg/kg	10	-	-	<10	<10
TPH CWG - Aromatic (C35 - C40)	N	mg/kg	10	-	-	<10	<10
TPH CWG Total - Aliphatic (>C5-C40)	N	mg/kg	10	-	-	<10	<10
TPH CWG Total - Aromatic (>C5-C40)	N	mg/kg	10	-	-	<10	<10

VOC

Benzene	N	ug/kg	0.01	-	-	<0.01	<0.01
Toluene	N	ug/kg	0.01	-	-	<0.01	<0.01
Ethylbenzene	N	ug/kg	0.01	-	-	<0.01	<0.01
m&p Xylene	N	ug/kg	0.02	-	-	<0.02	<0.02
o-Xylene	N	ug/kg	0.01	-	-	<0.01	<0.01
MTBE	N	ug/kg	0.01	-	-	<0.01	<0.01
Total BTEX	N	ug/kg	0.07	-	-	<0.07	<0.07

TPH

Total TPH (C10 - C40)	N	ug/kg	1	-	<1.0	-	-
-----------------------	---	-------	---	---	------	---	---

Analytical Report: 25-000214 issue 2

WAC Analysis

SML Ref:		2236			Landfill WAC Limits*		
Sample Date:		16/10/2025			Inert Waste Landfill	Stable non- Reactive Hazardous Waste in non- Hazardous Landfill	Hazardous Waste Landfill
Sample ID:		WS03					
Depth (m):		1.50					
Site:		BMX Track, Hayes, UB3 1EJ					
Determinand		Code	Units				
Total Organic Carbon	N	%		0.50	3	5	6
Loss on Ignition	N	%		2.74	-	-	10
Total BTEX	N	mg/kg		<0.07	6	-	-
Total PCB (7 congeners)	N	mg/kg		<0.28	1	-	-
TPH Total WAC (EH_CU_1D_Total)	N	mg/kg		<10.0	500	-	-
pH	N	Units		8.11	-	>6	-
Acid Neutralisation Capacity	N	mol/kg		0.05	-	-	-
Eluate Analysis			10:1	10:1	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg		
			mg/l	Mg/kg			
Arsenic	N	<0.0005		<0.005	0.5	2	25
Barium	N	0.0086		0.086	20	100	300
Cadmium	N	<0.0005		<0.005	0.04	1	5
Chromium	N	<0.0005		<0.005	0.5	10	70
Copper	N	0.0013		0.013	2	50	100
Mercury	N	<0.0001		<0.001	0.01	0.2	2
Molybdenum	N	<0.0005		<0.005	0.5	10	30
Nickel	N	<0.0005		<0.005	0.4	10	40
Lead	N	<0.0005		<0.005	0.5	10	50
Antimony	N	<0.001		<0.01	0.06	0.7	5
Selenium	N	0.001		0.01	0.1	0.5	7
Zinc	N	0.0006		0.006	4	50	200
Chloride	N	4.02		40.2	800	15000	25000
Fluoride	N	<0.5		<5.0	10	150	500
Sulphate	N	5.67		56.7	1000	20000	50000
Total Dissolved Solids	N	76.9		769	4000	60000	100000
Phenol Index	N	<0.1		<1.0	1	-	25
Dissolved Organic Carbon	N	5.85		58.5	500	800	1000

Results are expressed on a dry weight basis, after correction for moisture content where applicable.

*Stated limits are for guidance only, and not for conformity assessment.

Analytical Report: 25-000214 issue 2

WAC Analysis

SML Ref:		2240			Landfill WAC Limits*		
Sample Date:		16/10/2025			Inert Waste Landfill	Stable non- Reactive Hazardous Waste in non- Hazardous Landfill	Hazardous Waste Landfill
Sample ID:		WS06					
Depth (m):		0.50					
Site:		BMX Track, Hayes, UB3 1EJ					
Determinand		Code	Units				
Total Organic Carbon	N	%		1.30	3	5	6
Loss on Ignition	N	%		4.52	-	-	10
Total BTEX	N	mg/kg		<0.07	6	-	-
Total PCB (7 congeners)	N	mg/kg		<0.28	1	-	-
TPH Total WAC (EH_CU_1D_Total)	N	mg/kg		<10.0	500	-	-
pH	N	Units		7.65	-	>6	-
Acid Neutralisation Capacity	N	mol/kg		0.05	-	-	-
Eluate Analysis			10:1	10:1	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg		
			mg/l	Mg/kg			
Arsenic	N	<0.0005		<0.005	0.5	2	25
Barium	N	0.004		0.04	20	100	300
Cadmium	N	<0.0005		<0.005	0.04	1	5
Chromium	N	<0.0005		<0.005	0.5	10	70
Copper	N	0.0037		0.037	2	50	100
Mercury	N	<0.0001		<0.001	0.01	0.2	2
Molybdenum	N	0.0079		0.079	0.5	10	30
Nickel	N	0.0008		0.008	0.4	10	40
Lead	N	<0.0005		<0.005	0.5	10	50
Antimony	N	<0.001		<0.001	0.06	0.7	5
Selenium	N	<0.001		<0.01	0.1	0.5	7
Zinc	N	0.0009		0.009	4	50	200
Chloride	N	5.19		51.9	800	15000	25000
Fluoride	N	0.54		5.40	10	150	500
Sulphate	N	2.21		22.1	1000	20000	50000
Total Dissolved Solids	N	39.0		390	4000	60000	100000
Phenol Index	N	<0.1		<1.0	1	-	25
Dissolved Organic Carbon	N	12.40		124	500	800	1000

Results are expressed on a dry weight basis, after correction for moisture content where applicable.

*Stated limits are for guidance only, and not for conformity assessment.

Analytical Report: 25-000214 issue 2

Asbestos Screening

SML Sample Reference	Client Reference	Depth (m)	Sample Matrix Description	Asbestos Identification	Gravimetric Analysis Total %	Gravimetric Analysis by ACM Type %	Free fibre Analysis %	Total Asbestos %
2232	WS01	0.10	Soil	NAD	N/T	N/T	N/T	N/T
2233	WS01	0.75	Soil	NAD	N/T	N/T	N/T	N/T
2234	WS02	0.50	Soil	NAD	N/T	N/T	N/T	N/T
2235	WS03	0.50	Soil	NAD	N/T	N/T	N/T	N/T
2236	WS03	1.50	Soil	NAD	N/T	N/T	N/T	N/T
2237	WS04	0.20	Soil	NAD	N/T	N/T	N/T	N/T
2238	WS04	1.00	Soil	NAD	N/T	N/T	N/T	N/T
2239	WS05	0.20	Soil	NAD	N/T	N/T	N/T	N/T
2240	WS06	0.50	Soil	NAD	N/T	N/T	N/T	N/T

NAD - No Asbestos Detected

N/T - Not tested

Analytical Report: 25-000214 issue 2

Method Summary

Soil					
Parameter	Codes	Undertaken On	Date Tested	Method Number	Technique
pH value	N	Air dried sample	04/11/25	105	Electrometric
Water Soluble Sulphate	N	Air dried sample	04/11/25	130	Ion Chromatography
Total Cyanide	N	As submitted sample	31/10/25	137	Colorimetric
Phenols	N	As submitted sample	31/10/25	111	HPLC
Asbestos ID	SU	Subcontracted	04/11/25	Subcontracted	Microscopy
Loss On Ignition	N	Air dried sample	04/11/25	115	Gravimetric
Acid Neutralisation Capacity	N	Air dried sample	04/11/25	150	Electrometric
Hexavalent Chromium	N	As submitted sample	31/10/25	103	Colorimetric
Total (of 16) PAH	N	As submitted sample	31/10/25 & 10/11/25	116	GC-MS
Total BTEX	N	As submitted sample	31/10/25	134	GC-MS
Sulphide	N	As submitted sample	06/11/25	117	Discrete Analyser
TOC	N	Air dried sample	06/11/25	139	Titration
TPH CWG	N	As submitted sample	31/10/25	128	GC-FID
Water Soluble Boron	N	Air dried sample	06/11/25	136	Discrete Analyser
Total Metals	N	Air dried sample	05/11/25	148	GC-FID
PCB 7 Congeners	N	Air dried sample	31/10/25	110	GC-MS
Mineral Oil (EH_CU_1D-Total)	N	As submitted sample	31/10/25	128	GC-FID

Leachate					
Parameter	Codes	Undertaken On	Date Tested	Method Number	Technique
Anions	N	10:1 WAC leachate	07/11/2025	152	Ion Chromatography
Dissolved Metals	N	10:1 WAC leachate	07/11/2025	149	ICP-MS
Phenols	N	10:1 WAC leachate	07/11/2025	111	HPLC
Electrical Conductivity	N	10:1 WAC leachate	07/11/2025	118	Probe
DOC	N	10:1 WAC leachate	07/11/2025	101	TOC Analyser
TDS	N	10:1 WAC leachate	07/11/2025	In-House	Calculation

Analytical Report: 25-000214 issue 2

Key

Symbol	Description
U	Hold UKAS accreditation
M	Hold MCERTS accreditation
N	Not accredited
NS	Sample matrix not UKAS accredited
NM	Sample matrix not MCERTS accredited
SU	Subcontracted to a UKAS accredited laboratory
SM	Subcontracted to an MCERTS accredited laboratory
IS	Insufficient sample
US	Unsuitable sample
NT	Not tested
NAD	No asbestos detected
<	Less than
>	Greater than

Soil samples are expressed on an air dried <30°C basis and are **not** corrected for inert material removed.

LOD refers to limit of detection, except in the case of pH where it refers to limit of discrimination.

Waste Classification Report

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

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



TXSXC-9HL2E-ZF2ZU

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

Report is invalid if pages are removed.

Job name

LS8892

Description/Comments

Project

LS8892

Site

Lake Farm Country Park BMX Track, Hayes UB3 1EJ

Classified by

Name: **Jos Middleton**
Date: **12 Nov 2025 11:14 GMT**
Telephone: **01444 712 870**
Company: **SML Laboratories**
Unit 10, 19 Albert Drive
Burgess Hill
RH15 9TN.

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

Hazardous Waste Classification

Date

-

Purpose of classification

2 - Material Characterisation

Address of the waste

Lake Farm Country Park BMX Track, Hayes

Post Code UB3 1EJ

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Installation of lighting system at BMX track

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

Waste from excavations for lighting masks

Description of the waste

Topsoil: dark brown slightly gravelly very sandy CLAY with flint and rare brick and chalk fragments. Weald Clay Formation: dark orange locally pale grey gravelly SAND to gravelly very sandy silty CLAY with flint with rare chalk fragments. Locally with peat.

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WS01	0.10	Non Hazardous		3
2	WS01[2]	0.75	Non Hazardous		5
3	WS02	0.50	Non Hazardous		6
4	WS03	0.50	Non Hazardous		8
5	WS03[2]	1.50	Non Hazardous		9
6	WS04	0.20	Non Hazardous		11
7	WS04[2]	1.00	Non Hazardous		12
8	WS05	0.20	Non Hazardous		14
9	WS06	0.50	Non Hazardous		16

Related documents

#	Name	Description
1	Land Science Template WM3 v1.2GB	waste stream template used to create this Job

Report

Created by: Jos Middleton

Created date: 12 Nov 2025 11:14 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	18
Appendix B: Rationale for selection of metal species	19
Appendix C: Version	20

Classification of sample: WS01

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

Sample details

Sample name:	LoW Code:	
WS01	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.10 m		
Moisture content:		
6.84%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 6.84% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH				7.33 pH		7.33 pH	7.33 pH		
2	phenol	604-001-00-2	203-632-7		<7 mg/kg		<7 mg/kg	<0.0007 %		<LOD
3	naphthalene	601-052-00-2	202-049-5		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
4	acenaphthylene		205-917-1		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
5	acenaphthene		201-469-6		0.46 mg/kg		0.46 mg/kg	0.000046 %		
6	fluorene		201-695-5		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
7	phenanthrene		201-581-5		0.53 mg/kg		0.53 mg/kg	0.000053 %		
8	anthracene		204-371-1		0.52 mg/kg		0.52 mg/kg	0.000052 %		
9	fluoranthene		205-912-4		1.06 mg/kg		1.06 mg/kg	0.000106 %		
10	pyrene		204-927-3		0.93 mg/kg		0.93 mg/kg	0.000093 %		
11	benzo[a]anthracene	601-033-00-9	200-280-6		0.41 mg/kg		0.41 mg/kg	0.000041 %		
12	chrysene	601-048-00-0	205-923-4		1.31 mg/kg		1.31 mg/kg	0.000131 %		
13	benzo[b]fluoranthene	601-034-00-4	205-911-9		0.67 mg/kg		0.67 mg/kg	0.000067 %		
14	benzo[k]fluoranthene	601-036-00-5	205-916-6		0.35 mg/kg		0.35 mg/kg	0.000035 %		
15	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		1.18 mg/kg		1.18 mg/kg	0.000118 %		
16	indeno[123-cd]pyrene		205-893-2		0.75 mg/kg		0.75 mg/kg	0.000075 %		
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD

#	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							
18	benzo[ghi]perylene	205-883-8	191-24-2		0.95 mg/kg		0.95 mg/kg	0.000095 %		
19	coronene	205-881-7	191-07-1		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
20	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	17 mg/kg	1.32	22.446 mg/kg	0.00224 %		
21	barium { barium oxide }	215-127-9	1304-28-5		256 mg/kg	1.117	285.825 mg/kg	0.0286 %		
22	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9	0.89 mg/kg	2.775	2.47 mg/kg	0.000247 %		
23	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2	0.68 mg/kg	3.22	2.19 mg/kg	0.000219 %		
24	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	5.62 mg/kg	1.142	6.42 mg/kg	0.000642 %		
25	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<5 mg/kg	1.923	<9.616 mg/kg	<0.000962 %		<LOD
26	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	114 mg/kg	1.126	128.351 mg/kg	0.0128 %		
27	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	293 mg/kg	1.56	457.026 mg/kg	0.0293 %	
28	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	1.91 mg/kg	1.353	2.585 mg/kg	0.000259 %		
29	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	30 mg/kg	2.976	89.288 mg/kg	0.00893 %		
30	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8			1.4 mg/kg	1.405	1.967 mg/kg	0.000197 %		
31	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1	31.1 mg/kg	1.785	55.519 mg/kg	0.00555 %		
32	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9	247 mg/kg	2.774	685.214 mg/kg	0.0685 %		
33	TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
Total:								0.158 %		

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
	Newer version of determinand available
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS01[2]

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

Sample details

Sample name:	LoW Code:	
WS01[2]	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.75 m		
Moisture content:		
2.26%		
(no correction)		

Hazard properties

None identified

Determinands


Moisture content: 2.26% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	• pH				7.97 pH		7.97 pH	7.97 pH		
2	• TPH (C6 to C40) petroleum group				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
Total:								0%		

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

Classification of sample: WS02

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

Sample details

Sample name:	LoW Code:
WS02	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.50 m	
Moisture content:	
22.8%	
(no correction)	

Hazard properties

None identified







Determinands

Moisture content: 22.8% 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		7.88 pH		7.88 pH	7.88 pH		
2	phenol	604-001-00-2	203-632-7	108-95-2	<7 mg/kg		<7 mg/kg	<0.0007 %		<LOD
3	naphthalene	601-052-00-2	202-049-5	91-20-3	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
4	• acenaphthylene		205-917-1	208-96-8	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
5	• acenaphthene		201-469-6	83-32-9	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
6	• fluorene		201-695-5	86-73-7	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
7	• phenanthrene		201-581-5	85-01-8	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
8	• anthracene		204-371-1	120-12-7	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
9	• fluoranthene		205-912-4	206-44-0	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
10	• pyrene		204-927-3	129-00-0	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
11	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
12	chrysene	601-048-00-0	205-923-4	218-01-9	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
13	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
14	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
15	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
16	• indeno[123-cd]pyrene		205-893-2	193-39-5	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD

#	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							
18	benzo[ghi]perylene	205-883-8	191-24-2		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
19	coronene	205-881-7	191-07-1		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
20	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	16.8 mg/kg	1.32	22.181 mg/kg	0.00222 %		
21	barium { barium oxide }	215-127-9	1304-28-5		80.8 mg/kg	1.117	90.214 mg/kg	0.00902 %		
22	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9	1.14 mg/kg	2.775	3.164 mg/kg	0.000316 %		
23	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2	1.09 mg/kg	3.22	3.51 mg/kg	0.000351 %		
24	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
25	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<5 mg/kg	1.923	<9.616 mg/kg	<0.000962 %		<LOD
26	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	21 mg/kg	1.126	23.644 mg/kg	0.00236 %		
27	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	32.5 mg/kg	1.56	50.694 mg/kg	0.00325 %		
28	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 %		<LOD
29	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	36.5 mg/kg	2.976	108.634 mg/kg	0.0109 %		
30	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
31	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1	53.6 mg/kg	1.785	95.686 mg/kg	0.00957 %		
32	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9	57.9 mg/kg	2.774	160.623 mg/kg	0.0161 %		
33	TPH (C6 to C40) petroleum group			TPH	<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
Total:								0.054 %		

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
	Newer version of determinand available
	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS03

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

Sample details

Sample name:	LoW Code:	
WS03	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.50 m		
Moisture content:		
31.9%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 31.9% 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		7.82 pH		7.82 pH	7.82 pH		
2	● TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
Total:								0%		

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

Classification of sample: WS03[2]

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

Sample details

Sample name:	LoW Code:	
WS03[2]	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
1.50 m		
Moisture content:		
10.8%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 10.8% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH				8.11 pH		8.11 pH	8.11 pH		
2	phenol	604-001-00-2	203-632-7		<7 mg/kg		<7 mg/kg	<0.0007 %		<LOD
3	naphthalene	601-052-00-2	202-049-5		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
4	acenaphthylene		205-917-1		0.08 mg/kg		0.08 mg/kg	0.000008 %		
5	acenaphthene		201-469-6		0.09 mg/kg		0.09 mg/kg	0.000009 %		
6	fluorene		201-695-5		0.09 mg/kg		0.09 mg/kg	0.000009 %		
7	phenanthrene		201-581-5		0.09 mg/kg		0.09 mg/kg	0.000009 %		
8	anthracene		204-371-1		0.08 mg/kg		0.08 mg/kg	0.000008 %		
9	fluoranthene		205-912-4		0.08 mg/kg		0.08 mg/kg	0.000008 %		
10	pyrene		204-927-3		0.08 mg/kg		0.08 mg/kg	0.000008 %		
11	benzo[a]anthracene	601-033-00-9	200-280-6		0.08 mg/kg		0.08 mg/kg	0.000008 %		
12	chrysene	601-048-00-0	205-923-4		0.08 mg/kg		0.08 mg/kg	0.000008 %		
13	benzo[b]fluoranthene	601-034-00-4	205-911-9		0.08 mg/kg		0.08 mg/kg	0.000008 %		
14	benzo[k]fluoranthene	601-036-00-5	205-916-6		0.09 mg/kg		0.09 mg/kg	0.000009 %		
15	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		0.11 mg/kg		0.11 mg/kg	0.000011 %		
16	indeno[123-cd]pyrene		205-893-2		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8		0.33 mg/kg		0.33 mg/kg	0.000033 %		

#	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							
18	benzo[ghi]perylene	205-883-8	191-24-2		0.14 mg/kg		0.14 mg/kg	0.000014 %		
19	coronene	205-881-7	191-07-1		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
20	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	14.2 mg/kg	1.32	18.749 mg/kg	0.00187 %		
21	barium { barium oxide }	215-127-9	1304-28-5		80.8 mg/kg	1.117	90.214 mg/kg	0.00902 %		
22	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9	0.87 mg/kg	2.775	2.415 mg/kg	0.000241 %		
23	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2	0.75 mg/kg	3.22	2.415 mg/kg	0.000241 %		
24	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
25	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<5 mg/kg	1.923	<9.616 mg/kg	<0.000962 %		<LOD
26	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	20.7 mg/kg	1.126	23.306 mg/kg	0.00233 %		
27	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	25.8 mg/kg	1.56	40.243 mg/kg	0.00258 %	
28	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 %		<LOD
29	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	37.8 mg/kg	2.976	112.503 mg/kg	0.0113 %		
30	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
31	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1	60.6 mg/kg	1.785	108.182 mg/kg	0.0108 %		
32	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9	61.7 mg/kg	2.774	171.165 mg/kg	0.0171 %		
33	benzene	601-020-00-8	200-753-7	71-43-2	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
34	toluene	601-021-00-3	203-625-9	108-88-3	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
35	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
36	o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
37	TPH (C6 to C40) petroleum group			TPH	<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
38	polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3	<0.28 mg/kg		<0.28 mg/kg	<0.000028 %		<LOD
Total:								0.0556 %		

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
- Newer version of determinand available
- <LOD Below limit of detection
- CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: WS04

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

Sample details

Sample name:	LoW Code:	
WS04	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.20 m		
Moisture content:		
23.7%		
(no correction)		

Hazard properties

None identified

Determinands


Moisture content: 23.7% 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		7.48 pH		7.48 pH	7.48 pH		
2	• TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
Total:								0%		

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

Classification of sample: WS04[2]

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

Sample details

Sample name:	LoW Code:	
WS04[2]	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
1.00 m		
Moisture content:		
12%		
(no correction)		

Hazard properties

None identified







Determinands

Moisture content: **12% 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		7.69 pH		7.69 pH	7.69 pH		
2	● phenol	604-001-00-2	203-632-7	108-95-2	<7 mg/kg		<7 mg/kg	<0.0007 %		<LOD
3	● naphthalene	601-052-00-2	202-049-5	91-20-3	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
4	● acenaphthylene		205-917-1	208-96-8	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
5	● acenaphthene		201-469-6	83-32-9	0.03 mg/kg		0.03 mg/kg	0.000003 %		
6	● fluorene		201-695-5	86-73-7	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
7	● phenanthrene		201-581-5	85-01-8	0.03 mg/kg		0.03 mg/kg	0.000003 %		
8	● anthracene		204-371-1	120-12-7	0.03 mg/kg		0.03 mg/kg	0.000003 %		
9	● fluoranthene		205-912-4	206-44-0	0.03 mg/kg		0.03 mg/kg	0.000003 %		
10	● pyrene		204-927-3	129-00-0	0.03 mg/kg		0.03 mg/kg	0.000003 %		
11	● benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	0.03 mg/kg		0.03 mg/kg	0.000003 %		
12	● chrysene	601-048-00-0	205-923-4	218-01-9	0.03 mg/kg		0.03 mg/kg	0.000003 %		
13	● benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	0.03 mg/kg		0.03 mg/kg	0.000003 %		
14	● benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.03 mg/kg		0.03 mg/kg	0.000003 %		
15	● benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
16	● indeno[123-cd]pyrene		205-893-2	193-39-5	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
17	● dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD

#	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							
18	benzo[ghi]perylene	205-883-8	191-24-2		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
19	coronene	205-881-7	191-07-1		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
20	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	14.3 mg/kg	1.32	18.881 mg/kg	0.00189 %		
21	barium { barium oxide }	215-127-9	1304-28-5		74.3 mg/kg	1.117	82.956 mg/kg	0.0083 %		
22	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9	0.76 mg/kg	2.775	2.109 mg/kg	0.000211 %		
23	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2	0.8 mg/kg	3.22	2.576 mg/kg	0.000258 %		
24	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
25	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<5 mg/kg	1.923	<9.616 mg/kg	<0.000962 %		<LOD
26	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	12.6 mg/kg	1.126	14.186 mg/kg	0.00142 %		
27	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	19.3 mg/kg	1.56	30.104 mg/kg	0.00193 %		
28	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 %		<LOD
29	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	16.8 mg/kg	2.976	50.001 mg/kg	0.005 %		
30	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
31	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1	40.5 mg/kg	1.785	72.3 mg/kg	0.00723 %		
32	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9	39.9 mg/kg	2.774	110.688 mg/kg	0.0111 %		
33	TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
Total:								0.0373 %		

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
	Newer version of determinand available
	<LOD Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS05

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

Sample details

Sample name:	LoW Code:	
WS05	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.20 m		
Moisture content:		
8%		
(no correction)		

Hazard properties

None identified

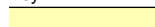




Determinands

Moisture content: 8% 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		7.18 pH		7.18 pH	7.18 pH		
2	● phenol	604-001-00-2	203-632-7	108-95-2	<7 mg/kg		<7 mg/kg	<0.0007 %		<LOD
3	● naphthalene	601-052-00-2	202-049-5	91-20-3	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
4	● acenaphthylene		205-917-1	208-96-8	0.04 mg/kg		0.04 mg/kg	0.000004 %		
5	● acenaphthene		201-469-6	83-32-9	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
6	● fluorene		201-695-5	86-73-7	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
7	● phenanthrene		201-581-5	85-01-8	0.34 mg/kg		0.34 mg/kg	0.000034 %		
8	● anthracene		204-371-1	120-12-7	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
9	● fluoranthene		205-912-4	206-44-0	0.63 mg/kg		0.63 mg/kg	0.000063 %		
10	● pyrene		204-927-3	129-00-0	0.53 mg/kg		0.53 mg/kg	0.000053 %		
11	● benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	0.28 mg/kg		0.28 mg/kg	0.000028 %		
12	● chrysene	601-048-00-0	205-923-4	218-01-9	0.4 mg/kg		0.4 mg/kg	0.00004 %		
13	● benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	0.49 mg/kg		0.49 mg/kg	0.000049 %		
14	● benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.25 mg/kg		0.25 mg/kg	0.000025 %		
15	● benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	0.3 mg/kg		0.3 mg/kg	0.00003 %		
16	● indeno[123-cd]pyrene		205-893-2	193-39-5	0.72 mg/kg		0.72 mg/kg	0.000072 %		
17	● dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.19 mg/kg		0.19 mg/kg	0.000019 %		

#	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							
18	benzo[ghi]perylene	205-883-8	191-24-2		0.35 mg/kg		0.35 mg/kg	0.000035 %		
19	coronene	205-881-7	191-07-1		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
20	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	13.8 mg/kg	1.32	18.22 mg/kg	0.00182 %		
21	barium { barium oxide }	215-127-9	1304-28-5		184 mg/kg	1.117	205.437 mg/kg	0.0205 %		
22	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9	0.84 mg/kg	2.775	2.331 mg/kg	0.000233 %		
23	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2	0.87 mg/kg	3.22	2.801 mg/kg	0.00028 %		
24	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
25	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<5 mg/kg	1.923	<9.616 mg/kg	<0.000962 %		<LOD
26	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	63.2 mg/kg	1.126	71.156 mg/kg	0.00712 %		
27	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	153 mg/kg	1.56	238.652 mg/kg	0.0153 %		
28	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	0.68 mg/kg	1.353	0.92 mg/kg	0.000092 %		
29	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	22 mg/kg	2.976	65.478 mg/kg	0.00655 %		
30	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8			1.02 mg/kg	1.405	1.433 mg/kg	0.000143 %		
31	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1	34 mg/kg	1.785	60.696 mg/kg	0.00607 %		
32	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9	171 mg/kg	2.774	474.379 mg/kg	0.0474 %		
33	benzene	601-020-00-8	200-753-7	71-43-2	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
34	toluene	601-021-00-3	203-625-9	108-88-3	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
35	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
36	o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
37	TPH (C6 to C40) petroleum group			TPH	<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
Total:								0.106 %		

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
	Newer version of determinand available
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS06

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

Sample details

Sample name:	LoW Code:	
WS06	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.50 m		
Moisture content:		
5%		
(no correction)		

Hazard properties

None identified

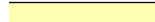




Determinands

Moisture content: 5% 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		7.65 pH		7.65 pH	7.65 pH		
2	● phenol	604-001-00-2	203-632-7	108-95-2	<7 mg/kg		<7 mg/kg	<0.0007 %		<LOD
3	● naphthalene	601-052-00-2	202-049-5	91-20-3	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
4	● acenaphthylene		205-917-1	208-96-8	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
5	● acenaphthene		201-469-6	83-32-9	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
6	● fluorene		201-695-5	86-73-7	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
7	● phenanthrene		201-581-5	85-01-8	0.04 mg/kg		0.04 mg/kg	0.000004 %		
8	● anthracene		204-371-1	120-12-7	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
9	● fluoranthene		205-912-4	206-44-0	0.06 mg/kg		0.06 mg/kg	0.000006 %		
10	● pyrene		204-927-3	129-00-0	0.05 mg/kg		0.05 mg/kg	0.000005 %		
11	● benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	0.03 mg/kg		0.03 mg/kg	0.000003 %		
12	● chrysene	601-048-00-0	205-923-4	218-01-9	0.04 mg/kg		0.04 mg/kg	0.000004 %		
13	● benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	0.05 mg/kg		0.05 mg/kg	0.000005 %		
14	● benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
15	● benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
16	● indeno[123-cd]pyrene		205-893-2	193-39-5	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
17	● dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD

#	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							
18	benzo[ghi]perylene	205-883-8	191-24-2		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
19	coronene	205-881-7	191-07-1		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
20	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	17.9 mg/kg	1.32	23.634 mg/kg	0.00236 %		
21	barium { barium oxide }	215-127-9	1304-28-5		159 mg/kg	1.117	177.524 mg/kg	0.0178 %		
22	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9	1.01 mg/kg	2.775	2.803 mg/kg	0.00028 %		
23	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2	1.1 mg/kg	3.22	3.542 mg/kg	0.000354 %		
24	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.5 mg/kg	1.142	<0.571 mg/kg	<0.0000571 %		<LOD
25	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<5 mg/kg	1.923	<9.616 mg/kg	<0.000962 %		<LOD
26	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	70.1 mg/kg	1.126	78.925 mg/kg	0.00789 %		
27	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	211 mg/kg	1.56	329.121 mg/kg	0.0211 %		
28	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	0.67 mg/kg	1.353	0.907 mg/kg	0.0000907 %		
29	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	22.5 mg/kg	2.976	66.966 mg/kg	0.0067 %		
30	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
31	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1	29.2 mg/kg	1.785	52.127 mg/kg	0.00521 %		
32	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9	130 mg/kg	2.774	360.639 mg/kg	0.0361 %		
33	benzene	601-020-00-8	200-753-7	71-43-2	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
34	toluene	601-021-00-3	203-625-9	108-88-3	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
35	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
36	o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	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]	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
37	TPH (C6 to C40) petroleum group			TPH	<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
38	polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3	<0.28 mg/kg		<0.28 mg/kg	<0.000028 %		<LOD
Total:								0.0978 %		

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
	Newer version of determinand available
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non GB MCL determinands

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

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

- **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

- **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

- **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

- **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

- **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

- **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

- **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

- **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

- **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

• **coronene** (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from C&L Inventory Database; no entries in Registered Substances or Pesticides Properties databases; SDS: Sigma Aldrich, 1907/2006 compliant, dated 2012 - no entries; IARC – Group 3, not carcinogenic.

Data source: <http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=17010&HarmOnly=no?fc=true&lang=en>

Data source date: 16 Jun 2014

Hazard Statements: STOT SE 2; H371

• **barium oxide** (EC Number: 215-127-9, CAS Number: 1304-28-5)

Description/Comments: Data from ECHA's C&L Inventory Database, Sigma Aldrich SDS dated 6/2/20

Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/88825>

Data source date: 02 Apr 2020

Hazard Statements: Acute Tox. 3; H301, Skin Corr. 1B; H314, Eye Dam. 1; H318, Acute Tox. 1; H332

divanadium pentaoxide; vanadium pentoxide (EC Number: 215-239-8, CAS Number: 1314-62-1)

GB MCL index number: 023-001-00-8

Description/Comments: Hazard statements H301, H330, H350 added by HazWasteOnline due to ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be Carc. 1B; H350. The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List]. Substance has therefore been self-classified.

Additional Hazard Statement(s): Carc. 1B; H350, Acute Tox. 3; H301, Acute Tox. 2; H330

Reason for additional Hazards Statement(s):

20 Sep 2022 - Carc. 1B; H350 hazard statement sourced from: ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be Carc. 1B; H350. The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List].

Substance has therefore been self-classified.

28 Sep 2022 - Acute Tox. 3; H301 hazard statement sourced from: ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be "Acute tox 3; H301". The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List].

Substance has therefore been self-classified.

28 Sep 2022 - Acute Tox. 2; H330 hazard statement sourced from: ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be "Acute tox 2; H330". The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List].

Substance has therefore been self-classified.

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

Description/Comments: Unknown Oil

Hazard statements taken from WM3 1st Edition 2015

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

• **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

• **polychlorobiphenyls; PCB** (EC Number: 215-648-1, CAS Number: 1336-36-3)

GB MCL index number: 602-039-00-4

Description/Comments: Worst Case: IARC considers PCB Group 1; Carcinogenic to humans;

POP specific threshold from ATP1 (Regulation 756/2010/EU) to POPs Regulation (Regulation 850/2004/EC). Where applicable, the calculation method laid down in European standards EN 12766-1 and EN 12766-2 shall be applied.

Additional Hazard Statement(s): Carc. 1A; H350

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds (edit as required)

barium {barium oxide}

No chromium 6

beryllium {beryllium oxide}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: most common (non alloy) form, used in ceramics (edit as required)

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

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

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

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

Harmonised group entry used as most reasonable case. Pigment cadmium sulphoselenide not likely to be present in this soil. No evidence for the other CLP entries: sodium selenite, nickel II selenite and nickel selenide, to be present in this soil. (edit as required)

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
 HazWasteOnline Classification Engine Version: 2025.315.6855.12400 (11 Nov 2025)
 HazWasteOnline Database: 2025.315.6855.12400 (11 Nov 2025)

This classification utilises the following guidance and legislation:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

2020 No. 1540 of 16th December 2020

GB MCL List - version 1.1 of 09 June 2021

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

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

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

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

GB MCL List v6.0 - version 6.0 of 15th February 2025

GB MCL List v7.0 - version 7.0 of 23rd September 2025